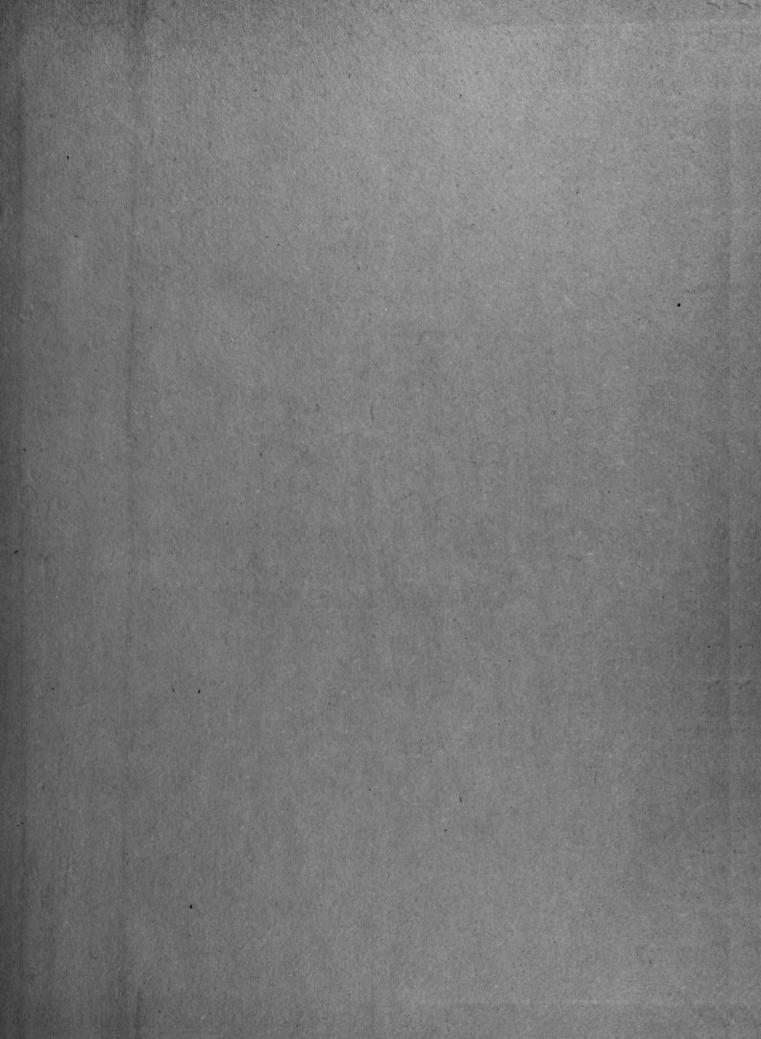




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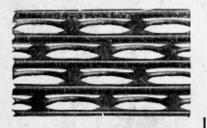
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SPECIFICATIONS FOR HOSPITAL

Plans are well under way by Architect Vernon Redding, Bird building, Hanseld, O., for the proposed \$100,000 emergency hospital for the City Hospital Association, Mansfield, but bids will not be asked for until April 1. The building will be of brick, reinforced concrete and stone with reinforced concrete floors, hollow tile or gypsum block partitions, fire doors, composition roofing, etc. The owners reserve the heating, plumbing, electric and ventilating work.

START PLANS FOR BANK BUILDING.

Architects F. F. Faris and E. B. Schmulbach building, Wheeling, W. Va., have started the design for the proposed \$50,000 bank building to be erected on Market street for the Security Trust Company, Wheeling. The structure will be 51x133 feet, onestory and basement and will have a stone and terra cotta or marble front with brick walls, reinforced concrete roof and floor construction. All details for the work have not been completed.

-FREMONT TEMPLE TO BE FIGURED

The Fremont, O., Masonic Temple Association and Architects Langdon & Hohly, Nicholson building, Toledo, O., are to take bids about February 10th on the building of a two-story brick, steel

frame and limestone trim building 60x100 fect which is estimated to cost about \$60,000. The steel work is not to be figured in the general contract. Epecifications include mosaic or tile floors fire doors, skylight, metal lath, face brick, reinforced concrete, composition roofing, etc. The heating is reserved by the owners.

CHAMBER OF COMMERCE BUILD-ING TO BE MODERN STRUCTURE.

The new building to be known as the "Chamber of Commerce" and to be constructed for the H. W. Oliver Estate, Pittsburgh, by the Thompson-Starrett Company will be of the most modern type. It will have a steel frame with the first four stories of limestone with the remaining twelve stories of brick and ornamental terra cotta. The roof and floor construction will be fireproof. Other specifications will call for hollow metal sash, cement finish floors, interior trim of birch, oak and pine, tile and marble entrances, copper store fronts, mechanical heating and ventilating system, lighting, plumbing, etc.

ASK BIDS SOON ON GARAGE.

Plans have been practically completed by Architects Rutan & Russell, Magee building, Pittsburgh and associate architect Richard Irvin, Union Trust building, Pittsburgh, for the three-story building to be constructed on Fifth avenue and Grant Boulevard for the Schenley Farms Company, Pittsburgh. The building will be used for safes room and service station and will measure 60x135 feet. It will have brick walls, ornamental terra cotta front, reinforced concrete floors, hollow tile partitions, reinforced concrete foundations, ornamental iron stairways, cement finish floors, composition roofing, steel rolling doors, Kalamein doors, etc. Separate bids will be taken on the heating work. About \$75,000 will be expended.

PLACING POST OFFICE CONTRACTS.

The awarding of sub-contracts for structing the post office building at Van Wert, O., is being done by the Charles W. Gindele Company, LaSalle street, Chicago, which has the general contract. The structural terra cotta will be furnished by A. S. Rosing, 111 W. Monroe street, Chicago: plastering, States Plastering Company, Chicago; mill work, R.

F. Taylor, Minneapolis; granite, Stone Mountain Granite Company, Stone Mountain, Ga.; cut stone, Ohio Cut Stone Company, Amherst, O.; roofing, F. O. Schoedinger, Columbus, O.; structural steel, John Eichleay, Jr., Company, Pittsburgh; ornamental iron work, Wire Iron & Wire Works, Milwaukee; heating, plumbing and sewerage, C. H. Maliney & Co., Gary, Ind.; painting, M. Suerth, Chicago. Work on the building is to be started at once.

CLEVELAND FACTORY TO BE ENLARGED.

The Parish & Bingham Company, Madison avenue, Cleveland, O., is having plans made by Architect Ernest Mc-George, Leader News building, Cleveland, for several buildings to be erected at an estimated cost of \$150,000. At present the main building will be increased by an addition 100x900 feet while a 16x50 toot addition will be built to the power house Later on the company will build a service station 80x220 feet, three stories and a steel storage building 54x87 feet, one-story. Preliminary estimates are being taken on the former work. Specifications include solid steel window sash, wood block flooring, cement tile and composition flooring, structural steel, brick work, electric lighting, plumbing, etc. The work under contemplation will cost about \$250,000.

ANNEX FOR CANTON SCHOOL.

A three-story annex is to be built to the Woodland school building for the Board of Education, Canton, O., plans for which have been completed by Architect W. S. Epperson, 105 N. Cleveland avenue, Canton. The structure will measure 100x105 feet and will contain eight class rooms, auditorium with stage, kindergarten, manual training and domestic science departments, library and locker rooms. Plans and specifications are to be approved by the school board before bids will be taken on the general contract. The walls of the building will be of brick and hollow tile with sandstone trimmings. Specifications call for concrete footings, steel reinforcing, cement, plain and ornamental plastering, metal window frames and sash, waterproofing, cement finish floors, rough texture face brick, enameled brick, structural steel, ornamental iron, tile wainscotings, maple flooring, wood doors and frames of white oak, composition roofing, marble and terrazzo work, etc.

Replaceable Sidewalk Light System of New Design

Vault light construction today is an important feature in connection with the building of large structures where basements are utilized for their full purpose. The last twenty years have brought out many types of vault and sidewalk lighe designs but it is within the past few years that the replaceable type has developed to such an extent that architects give due consideration to the lighting of basements when preparing specifications.

Many types of replaceable sidewalk lights possess excellent qualities, particureplacements are made from the outside. This is a distinct advantage over other forms of such lights in the case of train shed roofs and deep cellars and will result not only in the saving of time but in cost as well.

In the IDEAL system replacements do not disturb the concrete and it is only reasonable that the life of the slab will be much longer than it would be where many patches appear and as many different men have mixed all kinds of materials and no two mixtures alike.

Because of the smaller amount of



Fig. 1.-View Showing Link Construct ion.

larly strength and durability but other features have a tendency to dim the requisites of what a replaceable sidewalk light should actually possess, especially when it comes to giving real service and ease and practicability of replacing. Only receptly the "Ideal" vault light has come before the trade which bears marks of being one of the best replaceable lights yet devised. The product is made by the Ideal Replaceable Vault Light Company, Sheffield, Pa., which has made various tests to prove its claims. This system is novel in view of its metallic lense holders which are linked together with steel stampings as shown in figure No. 1; these links not only distributing any concentrated loads but acting as spacing bars and reinforce the slab in addition to the regular rod reinforcing.

The use of scaffolds for replacing broken lights become unnecessary as all glass in the IDEAL and its circular shape, a better temper is secured than is possible with other forms. This feature makes it possible to get a more homogenerous mass and further, the thin lens reduces the dead load on the slab allowing just that much additional live load.

It is a well known fact that expansion and contraction cause at least 95 per cent of the breaks in sidewalk and roof construction. This can be attributed to the failure in many systems to provide a cushion to take care of the additional volume and to take up the stress caused by expansion. To merely dip your glass will not provide for the expansion.

In the IDEAL a band of elastic waterproofing 1/8 inch thick extends around the whole light. To provide for such part of this cushion as might be forced out by expansion and worn away by the traffic on the slab in the case of a sidewalk, an additional or auxiliary cavity is filled with this elastic waterproofing. The shape of this cavity is such that the elastic cement remaining gradually drops

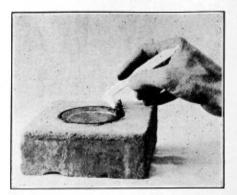


Fig. 2.-Extracting Old Cement.

to the lowest level, filling and sealing the space between the glass and the casting.

The waterproofing material not only makes a perfect seal guarding against leaks, but also acts as a cushion to take care of the expansion and contraction of the glass due to atmospheric changes.

The simplicity of construction makes it practically impossible to make a mistake. Certainly there is no way to avoid perfect alignment and the self-centering castings take care of the position of the glass and they are automatically centered. One could not even get the castings upside down, if they were, the links would not connect them, showing at once something is wrong. The casting and link arrangement not only makes the



Fig. 3.-Removing Broken Light.

assembling very simple but permits in addition changes in grade without breaking the slab. Further, this system is adapted to curved or conical surfaces requiring no skilled men, nor complicated templets.

Regarding the use of the Ideal system in case of fire it has been demonstrated that owing to the rings and links being tied together there is no possible chance for the slab to become cracked and drop through. Even if the concrete and glass were broken out, the slab would still maintain any ordinary load.

In the Ideal system the first step in making a replacement is to extract the



Fig. 4.-Placing of New Glass in Position

old cement with the hook end of an extracting tool, as shown in (Fig. 2.) then insert knob of extracting tool in groove of old glass and lift broken light out (Fig. 3.) clean thoroughly the waterproofing cavity and the seat so that new waterproofing will form a perfect seal drop new glass into place (Fig. 4.) and the shape of the opening makes the seat self centering, assuring the same alignment as when originally placed; place the water proofing, which can be done in any kind of weather. The whole operation takes only a fraction of the time necessary with other systems.

CLUB HOUSE FOR NEW KENSING-TON, Pa.

The Aluminum ompany of American, New Kensington, Pa., is to build a brick and cut stone club house to contain dormitory, reading, dining and billiard rooms, etc., from plans which are under way by Architects Janssen & Abbott, Century building, Pittsburgh. It is probable that a swimming pool and gymnasium will be built in the basement. No time has been set for taking bids on the general contract. Construction work will call for face brick, cut stone, structural steel, fireproof floor construction, skylight, tile baths, electric work, etc.

Politicians Not Satisfied

The usual office holder of a city or county position seems to be more or less skeptical at all times concerning the integrity of his fellow man. Their political life is such they cannot see beyond their own shadow, deep as it may be and when anything transpires in which they have had no opportunity to be consulted they immediately come to the belief that a "double cross system" has been Take for instance the Pittsworked. burgh City Hall-Court House officials who claim that the new building to be erected is certain to be a "botched" piece of work. What these fellows know about such work is as vague as Dr. Cook's claim to notoriety. The whole trouble seems based on the fact that the work did not come under their jurisdiction so that more money could have been spent on the structure.

As stated in these columns last week there has been a great saving of cost made by the award of contracts placed prior to January 1 last. The design of the building is one that was pronounced by men of architectural authority to be the best submitted. The awards of various contracts were made without the least shadow of suspicion and before prices began soaring upward. The question of having the top floor utilized for jail purposes was duly considered by the designers when the plans were formulated, but they were not thought feasible. It seems queer, to say the least, that men whose sole efforts in life appear to run in a dubious political channel should question the work of those who have complete knowledge of the art and science of building. If the new structure is to be a "botched" affairs it will only be after the political office holders get through with it. In the meantime the citizens of Pittsburgh need to keep the politicians from throwing sand in their eyes and blind them from seeing things in the right light.

BIDS FAR BELOW ESTIMATE.

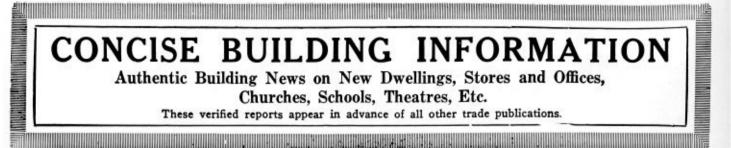
Bids were submitted on Monday last at Washington, D. C., for erecting the post office building at Ashland, Ky. The figures submitted were far less than the estimate placed on the work, the low bidder for limestone construction being furnished by R. P. Farnsworth & Co., Owensboro, Ky., at \$59,000 who also filed the lowest bid on sandstone, their figure calling for \$63,000. The following prices were submitted by various contractors:

Bidders	stone	Sandstone
R. P. Farnsworth & Co., Owensboro, Ky		\$63,000
ETTI AG DIIIII	59,346	
	61,600	63,100
	62,330	63,850
	62,608	63,817
	63,000	
Colonial Construction & Supply Co., Charlottesville, Va.	63,197	
1 A B A B	63,700	66.700
	63,800	
	() () () () () () () () () ()	65,050
	64,349	CE 262
	64,382	65,767
	64,796	69,000
	64,800	71,000
	65,545	70,335
	65,800	67,971
J. L. Crouse, Greensboro, N. C	66,967	69,500
	67,000	68,200
	67,272	
	68,297	
	69,440	72,000
	71,850	77,850

Architects Hiss & Weeks, 542 Fifth avenue, New York City, will take bids shortly on the heating and plumbing work for the new residence of B. F. Jones, Jr., Pittsburgh, which is under construction at Sewickley.

Architect A. W. Sherer, 136 S. Main street, Dayton, O., requests samples of building material in addition to catalogues.

Architect J. A. Lohman, Dornora, Pa., has taken his son, F. A. Lohman, into partnership and will hereafter conduct the business under the nam J. A. Lohman & Son. Mr. F. A. Lohman is a graduate of Carnegie Tech.



Pittsburgh.

Architect D. Simpson, Wabash building, is about ready for bids on the erection of a 2½-story brick residence on Eldridge avenue for Mrs. Disel to cost \$8,500.

I. E. Wood, Loretto street, Hazelwood, is taking bids on erecting a twostory brick and hollow tile double residence on Murray avenue near Lilac street to cost \$6,000. Plans by Architect W. E. Snaman, Empire building.

The T. J. Keenan Properties, Keenan, building, are taking bids on altering a six-story and basement store building on 938-40 Penn avenue from private plans.

Alfres Pizer, 905 Arch street, Northside, will build a two-story brick veneered residence on Brantwood Plan, Carrick, from private plans and will award separate contracts. Cost \$3,500.

Architect James N. Campbell, 708 Penn avenue, has awarded to W. B. Bennett. 742 N. Negley avenue, the contract for constructing a two-story store and apartment building at Forbes street and Murray avenue, for Lecrone & Sims, 1718 Murray avenue, to cost \$19,000. Contract for foundation work was let to Charles Springer of Hazelwood.

Architect R. J. Colwell, 7532 Rosslyn street, Swissvale, has plans nearing completion for a two-story brick and hollow tile duplex residence to be erected on Oberlin street for a party whose name is withheld. Building will be 22x64 and cost \$7,000.

The Allegheny Express Company, 501 Sandusky street, Northside, is taking separate bids on remodeling a two-story garage on Park Way, Northside, from plans drawn by Architect W. A. Thomas, 322 Park building.

M. S. Zortman, Arrott building, is taking bids on erecting a 2½-story brick and shingle residence on Piedmont avenue, Dormont, to cost \$8,000. Plans by Architect William E. Snaman, Empire building.

C. A. Baldwin, 214 Maripoe avenue, Northside, is low bidder on erecting a two-story brick and hollow tile double residence on Murray avenue near Lilac street for I. E. Wood, 766 Loretto street, Hazelwood. Cost \$6,000. Plans by Architect W. E. Snaman, Empire building. Architect David Goldner, Highland building, is drawing plans for a twostory stone and hollow tile lodge house to be erected on Three Degree Road, Wildwood, for A. M. Thompson, 724 Frick building.

Architect J. L. Beatty, Jackson building awarded to Cuthbert Brothers, Bessemer building, the contract for altering an office building on Metropolitan and Liverpool streets, for the McKinney Manufacturing Company, Northside. Cost \$8,600. Work consists of altering 1st floor into offices, including new partitions, tile linotile floors and alterations to heating, plumbing and lighting system.

Architects Carlisle & Sharrer, Jenkins Arcade building, are revising plans for a 1½-story bungalow to be erected on Davis avenue, Northside, for P. W. Schmidt, 832 North Lincoln avenue, Northside. Cost \$5,000.

Excavations have been started for a tow-story brick and reinforced concrete laboratory building to be constructed on Hamilton avenue for F. H. Speer, care Ferguson Tin Plate Company, Torrens street and Pennsylvania Railroad. Owner builds and awards separate contracts.

Architect W. E. Snaman, Empire building, is drawing plans for three 2½story brick vencered and hollow tile residences to be erected on the Northside for the Observatory Land Company. Cost \$5,000 each.

Plans are in progress for a 2½-story brick residence to be erected at Edgeworth for William Boyd, Jr., Vandergrift building, to cost \$10,000. Will probably take bids in about 3 weeks.

Contract will be awarded this week for the erection of a two-story brick residence on Valmont street between Aylesboro avenue and Northumberland street, for A. J. Loeffler, Frick building, to cost \$10,000. Plans by Architects Hutchins, Rowland & Conwell, 46 Conestoga building.

Bids are in and contract will be awarded this week for the erection of a 2½story brick and stucco residence on Valmont street between Aylesboro and Northumberland street, for L. J. Coyle, 1208 Peoples Bank building. Cost \$10,- 000. Plans by Architects Hutchins, Rowland & Conwell, 46 Conestoga building.

T. J. Williams, 5012 Liberty avenue, was awarded the contract for erecting Ten two-story and basement brick residences on Frankstown avenue and Gerrett street for Joseph S. Alexander, 6951 Frankstown avenue. Cost \$27,500. Plans were drawn by Architects R. M. Hood and Marion M. Steen, Fulton building.

C. E. Roth, president German Savings & Deposit Bank, South Side, contemplates building a \$50,000, residence on Beacon street, near Shady avenue. No plans have been adopted.

F. C. Irish, United States Realty Company Farmers Bank building has leased a building at 800 Penn avenue to Louis Grigger, 30 W. Twenty-sixth street, New York City, who will make alterations. Work will be started soon.

The contract will soon be awarded for erecting a store building on Island avenue, McKees Rocks, for John C. Quirk, 613 Island avenue. Plans came from Architect John H. Philips, McKees Rocks.

Bids are in and the contract will be awarded early next week for building a two-story brick veneer residence on Forward avenue, near Tilbury, for J. M. McClelland, care Logan-Gregg Company.

Bids close this week on the erection of a brick veneered and frame duplex residence on Melbourne street, near Greenfield avenue for Mrs. Francis Davis, care Bartons Hotel, 220 Eighth avenue, Homestead. Cost \$6,000. Plans by Architects Conwell, Rowland & Hutchins, Conestoga building.

Architect Paul Irwin, Renshaw building, awarded to B. A. Groah Construction Company, W. North avenue, Northside, the contract for altering a fivestory and basement store building on 319 Liberty avenue for Nielen & Co., 433 Liberty avenue. Cost \$60,000.

Architect Harry S. Bair, Vandergrift building, has completed plans for a 2½story stone residence to be erected on Fairfield Lane and Center avenue for Arthur K. Rabe, Thirty-third and Liberty streets. Cost \$25,000. Architect will be ready for bids in about two weeks

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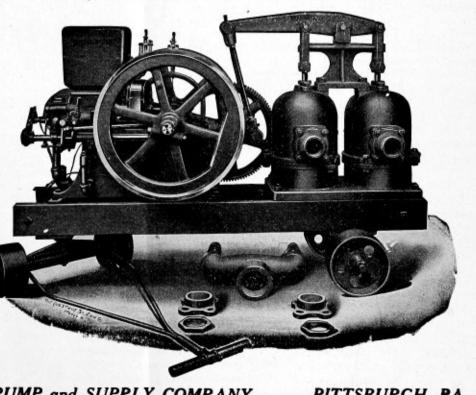
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WHO IS PLANNING • WHO IS BUILDING • WHO IS BUYING

Architect B. F. Kreider, 1119 Pitt street, Wilkinsburg, is taking new bids on erecting a brick veneered and hollow tile fireproof residence and garage on the Johnson Plan, Wilkinsburg for Newberry & Ferry, Cost \$15,000.

Apartments and Dwellings.

Ashtabula, O.—Architect C. V. Martin, Y. M. C. A. building, is preparing sketches for a two-story frame residence to be erected for Otto C. Loomis, Main street, to cost \$3,500.

The same architect is also preparing sketches for a two-story and basement frame residence to be erected for C. N. Royce, 38 Nathan street, to cost \$5,000.

Cincinnati, O. — Architects Tietig & Lee, Fourth National Bank building, awarded to James Griffith & Sons, E. Twelfth street, the contract for constructing a 2½-story pressed brick residence and garage on Beechwood Place, Ingalls Sub-Division, East Walnut Hills, for Miss Fannie B. and Caroline Lehmer, 322 Broadway. Cost \$40,000.

Cleveland, O.—Architect H. E. Shimmin, Wilbrand building, has completed plans and will take separate bids about February 1st on erecting a 2½-story and basement brick residence and garage at Cleveland Heights, for George M. North. Cost \$14,000.

Conneaut, **O.**—Architect John H. Newson, Williamson building, Cleveland, is preparing sketches for a two-story frame residence to be erected for Mrs. F: F. Smith, 435 Main street. Cost \$4,000.

New Kensington, Pa. — Architects Nichols Brothers, Fifth avenue, will soon take bids to close February 15th on erecting a two-story brick store and apartment on Sixth and Eleventh streets for Felix Galle, Sixth avenue. Cost \$5,-000.

Sandusky, O — Architects Walker & Weeks, 1900 Euclid building, Cleveland, are taking preliminary bids on remodeling a 2½-story and basement brick residence for W. H. Beitler to cost \$6,000. Contract was awarded without competition to John Feick.

Akron, O. — Bids are in for the erection of a terrace consisting of 8 houses on Adams street for 'C. R. Morgan, 31 Adams street and Sigmund Wachner, 923 E. Market street. Cost \$15,000. Plans by Architects Henry & Murphy, Second National Bank building.

Alliance, O. - Earl Cunin, E. Main

street, contemplates erecting a frame and shingle colonial residence on the Park Allotment to cost about \$5,000. Bids will be taken about March 1st.

Dr. G. L. King, 537 N. Market street, contemplates erecting a brick veneered duplex residence on S. Union street, to cost about \$6,000 and will probably take bids about March 15th.

Burgettstown, Pa.—T. O. Woodrow has started work on the erection of a two-story frame residence for George Clare to cost \$2,500. Mr. Woodrow will soon take sub bids on building a twostory frame residence for J. A. McCurg, to cost \$2,500. Work will be started about March 1st.

Cincinnati, O — Sketches are being submitted for a residence and garage to be erected on Avondale avenue, for Monte J. Goble, care Fifth-Third National Bank, to cost \$15,000. Details not decided.

Cleveland, O.—Architect A. Sharowsky, 2529 E. Fortieth street, has completed plans for two two-story brick and frame apartment buildings to be constructed on E. One Hundred and Twelfth street, near St. Clair avenue for Narosny & Kaufman, 2733 E. Fifty-first street. Cost \$12,000 each. Owners build.

Architects Meade & Hamilton, Garfield building, have completed plans and will award separate contracts for erectinfi a 2½-story and basement hollow tile and stucco residence and garage on E. One Hundred and Ninth street, Bratenahl, for Mrs. F. J. Dickman. Cost \$25,000.

Columbus, O.—Architect J. A. Jones, 509 Dispatch Annex building, is taking bids on erecting a two-story and basement brick residence on Linwood avenue and Newton street for I. Sidney Ambrose, 1192 E. Livingston avenue. Cost about \$4,500.

Architects Howell & Thomas, 151 E. Broad street, have plans in progress and will take bids about February 5th on erecting a two-story and basement cement plaster and metal lath and frame residence and garage in Sixteenth avenue for William E. Henderson, 238 W. Tenth avenue. Cost \$10,000.

Dayton, O —Architects Thies & Thies, Davies building, awarded to Charles Kreitzer, 1701 E. Xenia avenue, the contract for erecting a two-story and basement frame residence on Rockwood avenue, for Charles A. Studerbaker, 24 W. Marathon avenue. Cost \$4,000. Architect A. W. Scherer, 136 S. Main street, has plans in progress for a twostory and basement residence to be erected on Park Hill, Oakwood, for the Dayton Home Builders Company, to cost \$5,000. Same will be of brick and mastic wall board and stucco construction.

Architect Rollin Gebhart, 50 Callahan block, awarded to Joseph Zizert, 1529 N. Main street, the contract for erecting a two-story and basement frame residence on Oakwood Park Hill Plat for Edward Kohnle, 19 N. Forest avenue. Cost \$4,000.

Delaware, O.—The Williams Street M. E. Congregation, contemplates erecting a two-story and basement brick or frame parsonage to cost about \$5,000. Architect not selected and details not decided.

East Palestine, O.—Architects W. C. Owen & Co., Leader News building, Cleveland, have completed plans for a two-story brick apartment building to be constructed on Rebecca street for H. Lawrence, Market street. Cost. \$10,000. Owner builds and awards separate contracts.

Ellwood City, Pa. — Architect J. C. Dwyer has plans in progress for a twostory frame double residence to be erected on Lawrence avenue for Ralph D. Martini, to cost \$4,000. Architect builds and awards separate contracts.

Toledo, O. — Architects Bates & Gamble, Close building, have plans in progress for a two-story and basement brick or clapboard residence and garage, to be erected on Ottawa Hills, for E. H. Cady, care Guardian Trust & Savings Bank. Cost \$20,000.

A. M. Woolson, 2057 Parkwood avenue, contemplates crecting five twostory and basement fram residences on Ashland avenue, near Columbia street, to cost \$3,000 each. Plans will be drawn by Architect H. W. Wachter, 908 Nicholas building.

Warren, Pa. — Architects Freeburg & Fidler, Jamestown, N. Y., have plans in progress for a two-story brick veneered and frame residence, to be erected in Crescent Park, for M. R. Overturf, 101 Main street. Cost \$6,000.

Winding Gulf, W. Va. — Architect W. B. Smith, Huntington, has completed plans for five 2-story frame residences, to be erected for the Winding Gulf Collieries Company, to cost \$2,500 each. Owner builds and buys materials.

The same architect has plans nearly



NEWS FOR CONTRACTORS AND MATERIAL DEALERS

completed for a 1½-story frame bungalow, to be erected for the Winding Gulf Collieries Company, to cost \$4,000.

Alliance, O.-The Geiger Realty Company, 526 E. Main street, contemplates erecting 75 residences on the Geiger Allotment to cost about \$2,500 each. Carpenter contract will probably be awarded to C. C. Mummert, 56 W. Cambridge street. Owner buys materials.

Architect W. W. Matchett, 539 E. Main street, is taking bids on erecting a two-story brick, hollow tile and artificial stone apartment building on Market street for Rosco T. Sharer. Cost \$8,000.

Anchorage, Ky.—Architect Val P. Collins, 624 Paul Jones building, Louisville, Ky., has plans in progress for a two-story frame apartment building to be erected for the Presbyterian Congregation, to cost \$2,500.

Butler, Pa.—J. E. Pinner was awarded the contract for erecting a building for Herman Zuckerman to cost \$9,600. Plans by Architect George W. Kline. Contract for foundation was let to Angelo Grigilette.

Architect George W. Kline, Butler County National Bank building, will soon start plans for two two-story brick and hollow tile residences to be erected on Bluff and Federal streets for Z. P. Louffer, 248 W. Penn street. Cost \$4,000 each.

Dayton, O.—Architect A. W. Sherer, 136 S. Main street, has plans in progress for three two-story frame residences to be erected on Vernon Place, Dayton View, for the Dayton Home Builders Company. Cost \$4,000 each. Owner builds.

The same architect also has plans in progress for a two-story and basement brick residence to be erected on the Park Hill Plat, Oakwood, for the Dayton Home Builders Company. Cost \$5,-500. Owner builds.

Medina, O. — Architects Robinson & Miller, Leader building, Cleveland, have working drawings in progress and will be ready for bids about February 15th on the erection of a 2½-story and basement brick residence for David Knisly, Butler, Ind. Cost \$11,000.

Munhall, Pa.—Architect R. J. Colwell of Swissvale, awarded to J. W. Ruffner, 1638 Rose street, Swissvale, the contract for building a 2½-story brick veneered residence on Larkspur street for Andrew Mizoff, Second street, Rankin. Cost \$4,200.

Oakmont, Pa. - D. A. Crone, 2537

Oliver building, Pittsburgh, has completed plans for a court of six two-story brick residences to be erected on Delaware avenue to cost \$20,000. General contract has been awarded on a percentage basis to Reed Brothers.

Cincinnati, O. — The Leibold-Gott Building Company, 506 Gwynne building, received the contract for erecting a 21/2-story pressed brick residence and garage on Burton Lane for Thomas Hogan, Jr., 722 Hopkins avenue, to cost \$11,000.

Columbus, O.—Architect Morris Peterman, State and Lasalle streets, has revised plans in progress for a two-story and basement brick and frame colonial residence to be crected at Bexley for Mrs. Welsh. Cost \$6,000.

Huntington, W. Va.—Architects Meanor & Sweeney, R. & P. building, have been selected to prepare plans for a 2½story residence to be erected at Park Hill for L. A. Daniels, care Adelphia Hotel. Cost \$10,000. Same will have solid brick walls, probably stone or terra cotta trim.

South View, Pa — The Monongahela Saw & Planing Mill Company, of Monongahela, received the contract for building six one-story frame residences for the Pittsburgh Coal Company to cost \$36,000.

Youngstown, O.—Bids are in and contract will be awarded at once for the erection of a two-story brick, hollow tile and sandstone country residence on Boardman Road for M. J. Roche, 306 Dollar Bank building. Plans drawn by Architects Kling & Zenk, Davis block. Cost \$20,000.

Sewickley, Pa. — Architects Rutan & Russell, Magee building, Pittsburgh, are taking bids to close January 29th on the erection of a two-story brick double residence for Miss Lillian Willock, Pine street. Cost \$8,000.

Warren, O. — Architects Stanley & Scheibel, Wick building, Youngstown, have plans in progress for a brick, hollow tile and stone residence to be erected for Samuel Siddell to cost about \$12,000.

Geneva, O.—Architect M. C. Goddard, Main street, has sketches in progress for a 1½-story frame bungalow to be erected on Main street for Dr. A. E. Childs, Main street. Cost \$3,500.

The same architect is also preparing sketches for a 2½-story frame residence, 28x36, to be erected for Harold Smith, S. Broadway, to cost \$3,000.

Greensburg, Pa .-- C. J. Shoemaker is

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taking separate bids on erecting a fourstory brick and hollow tile and structural steel apartment building on E. Otterman street to cost \$15,000. Plans by Architect Edward J. Nelson.

Huntington, W. Va.—The Stroehman Vienna Baking Company, are taking bids on materials for the erection of a twostory brick residence on Seventh avenue to cost \$5,000. Will start work soon.

Architect E. N. Alger has plans in progress for a 2½-story and basement frame farm residence and garage to be erected on the Poplar Farm for John W. Ensign, 1320 Third avenue. Cost \$15,000.

The same architect has plans in progress for a 2½-story brick and hollow tile and stone residence and garage to be erected on Fifth avenue between Fifteenth and Sixteenth streets for C. W. Phellis, R. & P. building. Cost \$25,000. Bids will be taken on foundations about January 28 and on superstructure about February 15.

Architects W. W. Franklin & Son, 528 Walnut street, Cincinnati, O., have plans in progress for a 2½-story pressed brick duplex apartment building to be erected on Arrow and Orion avenues, for W. E. McHenry, Cost \$8,000.

New Kensington, Pa.—A. W. Smith, care American Sheet & Tin Plate Company, contemplates erecting a two-story brick veneered residence on the Parker Plan Lots to cost \$4,500. General contract will probably be awarded to D. L. Householer, 722 Seventh avenue.

Architect W. J. Laughlin, First National Bank building, has plans in progress for a two-story brick and shingle residence to be erected on Victoria and Locust streets for A. H. Prager to cost \$4,000. Owner builds and buys materials.

Oxford, O.—Architect Oliver Wiard, 27 W. Eighty-second street, New York City, will prepare plans for a frame and stucco residence to be erected for Mrs. Archer L. Young, care Prof. A. L. Young, Miami University. Cost \$5,000.

Painesville, O — Architect H. T. Jeffrey, Union building, Cleveland, has completed plans for a 1½-story frame bungalow and garage to be erected at Mentor Headlands for E. A. Keller, Hippodrome building, Cleveland. Cost \$2,500. Owner will take bids soon.

Shaker Heights, O.—Architects Meade & Hamilton, Garfield building, Cleveland, have completed preliminary plans for a 2½-story and basement brick residence and garage to be erected on South boule-



BUILDING PROJECTS AND WORK AWARDED

vard for Edward S. Rogers, 232 Superior avenue, Cleveland.

Springfield, O. — Architects Meade & Hamilton, 1002 Garfield building, Cleveland, have plans nearly completed for a two-story and basement hollow brick and garage to be erected on Forest Hills for L. E. Bauer, Burt and Sheridan avenues. Cost \$30,000. William Pitkin, Cutler building, Rochester, N. Y., is the landscape architect. Owner will take bids about February 10th.

Toledo, O.—Architect H. W. Wachter, 908 Nicholas building, will take bids about February 1st on constructing a 2½-story and basement limestone residence and garage on Ottawa Hills for Elmer H. Close, 513-15 Madison avenue. Cost \$50,-000. J. J. Watson, Madison avenue, is the landscape architect.

Columbus, O.--C. L. McEachen, 433 Columbus Savings & Trust building, will take separate bids soon for building a two-story frame bungalow to cost \$3,-000. Plans were made by Architect Frank Bryan.

Architect Morris Peterman, State street, will take bids about February 20th for erecting a two-story brick duplex residence on Wilson avenue for Mr. Wells. The cost is placed at \$6,-000.

Donora, Pa.—Walter S. Spragg, Prospect avenue, is having plans made by Architect C. C. Compton for a two-story brick and hollow tile residence to cost \$7,000. Owner will ask for bids about February 7th.

Shepard, O.-The M. E. Congregation Harry E. Schmidt, chairman of building committee will construct a twostory frame and cement plaster parsonage to cost \$4,000. Plans were made by Architect Morris Peterman, State and Lazelle streets, Columbus. Bids close about February 15th.

Cleveland, O. — Plans will soon be adopted by B. Borstein, 2639 E. Fortyfifth street, for constructing two twostory brick apartments on Linwood avenue to cost \$10,000 each. Architect M. Altschuld will likely design the work.

B. Benjamin, 2478 E. Sixty-third street received the contract to build a twostory frame apartment on E. One Hundred Twenty-fourth street for Sigmund Cohen, 2490 E. Sixty-third street. Cost \$10,000.

Donora, Pa.—The Allen Lumber Company, was low bidder for building a twostory frame and stucco residence for B. J. Spaulding. Cost \$6,000.

Architect C. C. Compton has plans for a two-story brick and hollow tile apartment and store building to be built for Davis Freedman, 750 McKean avenue. Cost \$5,000.

Marietta, O.—The Newport Contracting & Engineering Company, Newport News, Va., was low bidder for building a power houce at Dam No. 17, a few miles north of Marietta. The company was also low bidder to build a power house at Dam No. 16, above Bens Run, W. Va.

Business Buildings.

Toledo, O.—Architect H. W. Wachter, 908 Nicholas building, is taking bids on constructing a three-story and basement brick and terra cotta store and loft building on Superior and Jackson streets for the Fifty Associates Company to cost \$15,000,

The same architect has completed plans for a two-story and basement brick and steel saloon and apartment building to be erected on Lagrange and Hudson streets for L. A. Lachlap to cost \$7,000. Owner is taking bids.

Charles S. Turner, Maumee Road, has purchased a site on Monroe and Twentysecond streets on which he will erect a two or three-story brick store and apartment building. Architect will be selected in early Spring.

Wheeling, W. Va. — The General Baking Company, contemplates constructing a two or three-story brick fireproof bakery to cost \$50,000. Plans will be drawn by Architect F. F. Faris, 419 Schmulbach building.

Youngstown, O.—Architects Kling & Zenk, Davis block, are ready for bids on erecting a brick hardware store addition on Federal street for the Stambaugh & Thompson Hardware ompany, 114-118 W. Federal street. Cost \$30,000.

Architect G. A. Edelsvard, Mahoning Bank building, has plans in progress for a three-story brick, stone and steel fireproof store and apartment building to be constructed on Elm and Rayen avenues for Mark M. Gunlefinger, Henry W. Davis and Carl F. Dingledy. Cost about \$50,000.

Zanesville, O. — The Odd Fellows Lodge is taking bids to close January 31st on remodeling a three-story and basement brick store and lodge building on Main street near Third avenue, to cost \$20,000. Plans by Architect H. C. Meyer, 411 Peoples Bank building.

Akron, O. — Architect Graham King has plans in progress for a two-story brick and reinforced concrete freight station to be erected for the Erie Railroad Company, R. C. Falconer, Chief Engineer, 50 Church street. New York City.

Alliance, O.—The Sanitary Milk Company, contemplates erecting a three-story brick, concrete and steel fireproof milk depot to cost \$25,000. Will probably select engineer and architect soon.

Clarksburg, W. Va.—Architects C. D. Cooley Company, Century building, Pittsburgh, have been selected to prepare plans for a two-story brick bakery addition to be erected for the Sanitary Baking Company to cost \$35,000.

Cleveland, O. — Architects Hubbell & Benes, 201 Avenue building, have working drawings in progress for a twostory and basement brick and reinforced concrete telephone exchange to be constructed on Cedar and Edgewood Roads, Cleveland Heights, for the Cleveland Telephone Company. Cost \$50,000. Ready for bids about February 20th.

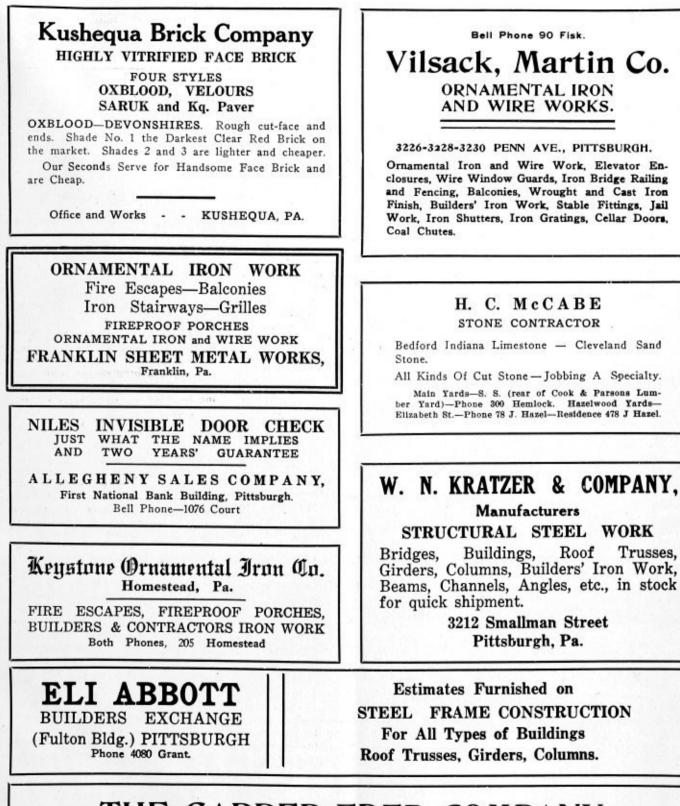
Architects Matzinger & Fugman, Lennox building, have plans in progress for a two-story brick and terra cotta store, office and apartment building to be constructed on Cedar Road, Cleveland Heights, for the Heights Company, 508 Williamson building. Cost \$60,000.

Coudersport, **Pa**. — Architect Glenn Rees, 912 Granite building, Rochester, N. Y., has plans in progress for a threestory brick store building to be erected for the Enterprise Print Company.

Dayton, O. — Architects Peters, Hermann & Brown, 1127 Reibold building, will have plans ready for bids about January 31st on constructing a three and four-story and basement reinforced concrete and tile fireproof creamery building on Canal and Fifth streets for the Dayton Pure Milk & Butter Company. Cost \$90,000.

Elyria, O. — Architects Walker & Weeks, 1900 Euclid building, Cleveland, have completed preliminary plans and are taking preliminary bids on erecting a one, six or ten-story brick and steel and reinforced concrete bank building on Middle avenue, for the Lorain County Savings & Trust Company, are taking estimates to ascertain comparative costs, etc.

Erie, Pa.—Architect H. Edsall Barr, Palace building, has plans in progress for a three-story and basement warehouse to be constructed on Ninteenth



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DESIGNS and ESTIMATES

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WHERE BUILDING MATERIALS ARE REQUIRED

and Peach streets for the Erie Wholesale Grocery Company. Cost \$404,000.

Marion, O. — Architect K. Lewis Ellis, Ackerman building, is taking bids to close about February 5th on crecting a twostory and basement brick store and apartment building on David street near Bellefontaine avenue, for the R. T. Lewis Company, 109 N. Main street. Cost \$6,000.

Martins Ferry, O. — The German National Bank will select an architect about February 1st to prepare plans for a one-story brick, stone or terra cotta bank building to cost \$40,000. Details not fully decided.

New Kensington, Pa.—Architect W. J. Laughlin has plans in progress for a twostory brick and steel store addition and alteration to be erected on 912 Fifth avenue for H. A. Klingensmith & Son, 912 Fifth avenue. Cost \$3,500. Owners build and award separate contracts.

Architects Nichols Brothers, Fifth avenue, are revising plans for five onestory brick, structural steel and stone stores to be erected on Fifth avenue and Tenth street for M. McDonough, to cost \$12,000. Owner will take bids soon to close February 15th.

Toledo, O.—Architect H. W. Wachter, 908 Nicholas building, is taking bids on erecting a three-story brick, steel and limestone store and apartment building on W. Central avenue for J. F. Troxel, 806 W. Central avenue. Cost \$10,000.

Ashtabula, O.—Plans are in progress for a two-story brick store and office building to be erected on Bridge street for Frank Petros, Bridge street, to cost \$8,000. James Laird, 97 Lake street is architect and contractor.

Cincinnati, O.—Architect B. C. De-Camp, Neave building, has plans in progress for a five-story and basement pressed brick and concrete store and apartment building to be constructed on George and Elm streets for the Cist Estate, 1710 First National Bank building.

Dayton, O.—Sketches are being submitted and architect will be selected about February 1st to prepare plans for a ten-story concrete and steel fireproof bank and office building to be constructed on N. Main street for the Dayton Savings & Trust Company.

Farrell, Pa.—Architect C. A. Matheny, 57 Spruce street, Sharon, has plans in progress for a two or three-story brick, hollow tile and stone store and apartment building to be constructed for

P. J. McGrath, 175 S. Irvin street, Sharon. Cost \$15,000.

London, O.—Architects Weber, Werner & Adkins of Cincinnati, have completed plans for a two or three-story brick, bank, store and apartment building to be erected on First and Main streets for Fred Bridgeman and J. C. Bridgeman, 'Cost \$5,000.

Akron, O. — Architects Robinson & Miller, Leader building, Cleveland, have plans in progress for a two-story brick store and apartment building to be erected on Arlington avenue for a party whose name is withheld. Cost \$18,000.

Columbus, O.-D. D. Livingston, 926 Studer avenue, is low bidder on erecting and three-story brick store building addition on corner of High and Russell streets for Mr. Moyer, care Architect Charles L. Inscho, 1209 Brunson building. Cost about \$11,000.

Donora, Pa.—Architect C. C. Compton awarded to the Webster Lumber Co., the contract for erecting a two-story frame store and apartment building on McKean avenue for R. Levine of Webster, Pa., to cost \$4,500.

J. C. Kenyon, Sixth street, is taking bids to close February 7th on the erection of a one-story brick and holow tile office building on McKean avenue, to cost \$2,000. Plans by Architect C. C. Compton, McKean avenue.

Zanesville, O.—Architect H. C. Meyer, 411 Peoples Bank building, awarded to A. A. Vinsel, 742 Fountain Square, the contract for erecting a thre-story and basement brick and limestone store building on 530 Main street for Charles Geis, 530 Main street. Contract for brick masonry let to Dunsweiler Brothers.

Toledo, O.—Architect Otto C. Darst, Brunson building, Columbus, has plans in progress and will take bids about February 1st on constructing a four-story and basement brick and limestone warehouse on Ontario street for the Central Ohio Paper Company. Cost \$35,000.

Canton, O.—Architect N. B. Peoples has plans in progress for a two-story brick and concrete warehouse to be constructed for the Timken Roller Bearing Company, to cost \$20,000. General contract was let to Melbourne Brothers.

Cincinnati, O. — The Leibold-Gott Building Company, 506 Gwynne building, received the contract for erecting a two-story reinforced concrete and brick auto sales building on Gilbert avenue for the Blevens Auto Sales Company, Hotel

Gibson. Cost \$12,000. \$12,000.

Columbus, O.—Bids are in for, constructing a five-story and basement brick and limestone and reinforced concrete office building and warhouse on Neilston and Fifth streets, for the Central Ohio Paper Company. Plans by Architect Otto C. Darst, 1109 Brunson building. Cost \$250,000.

Dayton, O.—Architects Pretzinger & Musselman, 1155 Reibold building, have been selected to prepare plans for a three-story and basement brick and terra cotta store and office building to be constructed on Ludlow street between Fourth and Fifth streets, est Side, for the Adam Schantz Estate, 701 Commercial building, Cost \$100,000.

Donora, Pa.—The Motz Lumber Company is low bidder on the erection of a two-story brick and hollow tile store and apartment building on McKean avenue for Dr. H. A. Naher, P. O. building. Cost \$12,000. Plans by Architect C. C. Compton, McKean avenue.

Youngstown, O. — Architect G. A. Edelsvard, Mahoning Bank building, has plans in progress for a three-story brick, stone store and apartment building to be constructed on Elm & Rayen avenues for Mark M. Gunlefinger, Henry W. Davis and Carl F. Dingleby. Cost \$50,000.

Religious.

Scottdale, Pa. — Architect Press C. Dowler, Arrott building, Pittsburgh, awarded to J. E. Meyers of Penn Station, the contract for constructing a onestory brick and stone church on Market and Stoner streets for the First United Brethren Congreation. Cost \$55,000.

Warren, Pa. — Architects Freeburg & Fidler, Jamestown, N. Y., have completed plans and are ready for bids on erecting a two-story brick and stone church addition on Penn avenue and Prospect street for the Grace Methodist Episcopal Congregation. Cost about \$20,000

Warren, O — Architects Crew, Lewis & Wickenhoefer, 200 Fifth avenue, New York City, are preparing plans for a twostory brick and stone church addition to be constructed on Mahoning avenue for the First Presbyterian Congregation Cost \$50,000.

Wellsburg, W. Va.—Sketches are being submitted and architect will be selected soon to prepare plans for a onestory and basement brick and stone and



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PLANS FOR VARIOUS KINDS OF STRUCTURES

limestone church to be constructed on Charles street for the Central Christian Congregation. Cost \$25,000.

Atwater, O. — Architect W. W. Matchett, Alliance, will soon start preliminary plans for remodeling a church for the Methodist Episcopal Congregation, to cost about \$2,500.

Columbiana, O. — Architects W. C. Owen & Co., of Cleveland, have plans in progress and will take bids about February 15, on erecting a one-story brick and stone church, on Pittsburgh street, for the Methodist Congregation, to cost \$25,000.

Delaware, O. — Architect Charles L. Inscho, of Columbus, has completed plans for a two-story and basement brick and stone church, to be erected on Franklin street, for the Zion Reformed Congregation. Cost \$20,000. May take bids about March 1.

Ebenezer, O. — Architects Schenck & Walker, of Dayton, have plans nearly completed and will be ready for bids about February 1, on erecting a onestory and basement field stone church, for the Ebenezer Methodist Episcopal Congregation, to cost \$20,000.

Huntington, W. Va. — The West Huntington Methodist Episcopal Congregation will select an architect about March 1, to prepare plans for a brick and stone church and Sunday school, to be erected on Jefferson avenue, to cost \$30,000.

Marion, O. — The Calvary Evangelical Congregation is receiving competitive sketches for a two-story and basement brick and stone church, to be constructed on Church and High streets, to cost \$40,000. Architect will probably be selected about February 15, and plans to be prepared in spring and bids taken in summer.

Marion, O. — Bids are in for the erection of a one-story and basement brick vencered church on Reed avenue, for the Church of the Brethren Congregation, to cost \$7,000. Plans by Architect J. Lewis Ellis, Ackerman building.

Sebring, O. — Architect W. W. Matchett, 539 E. Main street, Alliance, is preparing sketches for a one-story and basement brick and art stone church, to be erected for St. Mathew's Episcopal Congregation, to cost \$10,000.

Toledo, O. — Estimates will be received about February 1, on constructing a two-story stucco and brick or hollow tile church addition, Sunday school rooms and gymnasium on Monroe and Auburn avenues, for the Monroe Street Methodist Episcopal ongregation. Cost \$15,000. Plans by Architect H. W. Wachter, Nicholas building.

DuBois, Pa.—Architect W. H. Overdorf, Long and Brady streets, is taking bids on erecting a two-story stone church addition on W. Scribner and High streets for the First Presbyterian Congregation to cost \$9,000.

Girard, O. — The First Presbyterian, Congregation, contemplates erecting a one-story and basement brick, hollow tile and stone church on E. Main street to cost \$30,000. Plans by architect John H. Deeley, State street.

Huntington, W. Va.—Architect E. N. Alger has been selected to prepare plans for a one and two-story brick and stone or terra cotta church and parish house to be erected on Fifth avenue and Eleventh street for the Trinity Episcopal Congregation. Cost \$50,000.

Westerville, O.—The M. E. Congregation contemplates remodeling a onestory brick church or build a new building. Architect not selected.

Huntington, W. Va.—Architect R. L. Day, First National Bank building, has plans in progress for a two-story brick Sunday school to be erected on Fifth avenue and Twelfth street for the Christian Congregation, to cost \$3,000. Owner will take bids shortIy.

Johnstown, Pa.—The United Brethren Congregation, is taking bids to close February 7th on erecting a one-story and basement brick and hollow tile and stone church on Bedford street and Homestead avenue, Walnut Grove, to cost \$30,000. Plans by Architect W. S. Powell, 220 Ohio street.

Pine Grove, O.-St. Mary's Congregation contemplates erecting a one-story brick church to cost \$8,000. Building will contain auditorium, Sunday school room in rear, probably basement for kitchen and dining room purposes.

Educational.

Brook Park, O. — Architect William H. Nicklas, 1900 Euclid building, Cleveland, has completed plans for a twostory and basement brick and stone high and grade school building to be constructed for the Board of Education. Cost \$35,000.

Bryan, O.—Architect W. H. Nicklas of Cleveland, has plans in progress for a two-story and basement brick fireproof high school building to be constructed for the Board of Education to cost \$50,000.

Claysville, Pa.—Architect Charles W. Bates, National Bank building, Wheeling, W. Va., is drawing plans for a twostory and basement brick and reinforced concrete high school building to be constructed on Main street for the Board of Education. Cost \$15,000.

Cleveland, O. — Preliminary sketches are being prepared for a brick and terra cotta art school addition to be erected on Juniper Road and Magnolia Drive for the Cleveland School of Art. Cost \$30,000. Plans probably by Architects Hubbel & Benes, Avenue building.

Etna, Pa. — Architect George S. Rogers, 1004 Hartje building, Pittsburgh, is taking bids to close January 31st on altering a grade school building for the Board of Education to cost \$5,000.

Mineral Ridge, O.—The Weathersfield Township School Board contemplates erecting a brick grade school building addition to cost \$16,000. Architect not selected.

Tiffin, O.—The Board of Education contemplates constructing a two-story brick, steel and concrete high school building in the North End to cost \$100,-000. Architect not selected.

Highland, O.—Architect E. S. Matheny, 710 Harrison building, Columbus, has started plans for a two-story brick and limestone high and grade school building to be constructed for the Board of Education to cost \$20,000.

Canton, **O.**—Architect W. S. Epperson, 105 N. Cleveland avenue, has completed plans for a three-story brick, hollow tile or sandstone grade school building annex to be constructed on Woodland avenue for the Board of Education. Cost about \$70,000.

Cincinnati, O. — Architects Samuel Hannaford & Sons, Hulbert block, are preparing sketches for a three-story and basement pressed brick and limestone school building to be constructed on Gilbert, Hapsburg and Woodburn avenues, for the Board of Education. Cost \$175,000.

Architects Bausmith & Drainie, Girke building, are writing specifications for a one-story and basement frame addition to the Whittier School to be erected for the Board of Education to cost \$10,-000. Owners are ready for bids to close about February 29th.

Dayton, O .- Architects Dexter & Mc-Clure, Canby building, are drawing plans



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THE "LAST WORD" IN BUILDING NEWS

for a one-story and basement brick and concrete school addition to be erected for the Board of Education of the Village of Oakwood. Cost \$30,000.

Johnstown, Pa.—The Board of Education has selected J. E. Adams and George Wild as designing architects, and J. E. Lucas, Lincoln building, Advisory architect and superintendent of construction, for the Junior high school building to be constructed on Central avenue, to cost \$200,000. Building will contain 35 rooms, auditorium, gymnasium, manual training and domestic science depts.

Leroy, O.—Architects Briggs & Nelson of Cleveland, have preliminary sketches in progress for a two-story and basement brick school building to be erected for the Board of Education to cost \$30,000.

London, O.—The Board of Education of Jefferson Township, has selected Architects Howard & Merriam of Columbus, to prepare plans for a two-story and basement brick grade and high school building to cost \$38,000. Details not decided.

Madison, O.—The Madison Free Library Association contemplates erecting a one-story brick and stone Carnegie Library to cost \$10,000. Architect will be selected about March 1st.

Ravenna, O.—Architects W. C. Owen & Co., of Cleveland, have plans in progress for a two-story and basement brick and stone fireproof centralized school building to be erected for the Board of Education of Palmyra Township. Cost \$27,000. Will be ready for bids about February 8th.

Sulphur Grove, O.—The Board of Education of Wayne Township has selected Architects Schenck & Walker, 1005 Conover building, Dayton, to prepare plans for a two-story and basement brick and limestone grade school building to cost \$30,000.

Reading, O. -- Architects Garber & Woodward of Cincinnati, have plans in progress for a three-story and basement pressed brick, stone and terra cotta grade school building to be constructed on South street for the Board of Education. Cost \$60,000.

Swissvale, Pa.—The Board of Education contemplates constructing a twostory and basement brick and stone fireproof high school building to cost \$180,-000 and will probably vote on bond issue shortly.

Toledo, O. - William Gruenke, 975

Woodland avenue, is low bidder on erecting a two-story and basement addition to the Ironville School for the Board of Education. Plans by Architect Edward M. Gee. Cost \$40,000.

Architects Schriber & Beelman, 812 Second National Bank building, have plans in progress and will take bids about February 1st on erecting a twostory and basement brick and stone and reinforced concrete parochial school building on Buckeye and Erie streets, for the Evangelical Lutheran Congregation. Cost \$20,000.

State, County and Municipal.

Fremont, O. — The Ohio National Guard Armory Board contemplates crecting a two-story brick armory from plans drawn by Architect Carl I. Best, State House, Columbus, Cost \$25,000.

Midway, O.—The Board of Trustees of Range Township contemplates erecting a two-story brick township hall to cost \$7,000. Plans will probably be drawn by Architect J. Howard Hicks of Washington Court House.

Orient, O.—Architects Richards, Mz-Carty & Bulford of Columbus, have completed plans for a three-story and basement brick and reinforced concrete cottage to be erected on the Custodian Farm for the Board of Administration. Cost \$70,000.

Ridgway, Pa.—The Colonial Construction & Supply Company, of Charlottesville, Va., received the contract for constructing a two-story stone and brick fireproof post office building on Mill and South streets for the United States Government, to cost \$50,000.

Cincinnati, O.—Architect E. H. Dornette, Pickering building, has been selected to prepare plans for a pressed brick bath house addition to be erected on Bremen and Cutter streets for the City.

Clarksburg, W. Vt.—Engineer George W. Fuller, 170 Broadway, New York City, has preliminary plans in progress for a one-story brick and reinforced concrete pumping station to be constructed for the City to cost \$10,000.

Lebanon, O.—Architects Bausmith & Drainie, Gerke building, Cincinnati, are taking bids to close February 14th on erecting a one-story and basement pressed brick Soldiers and Sailors Memorial building on Main street and Broadway, for the Board of County Commissioners, to cost \$10,000. Owners are also taking bids. Martins Ferry, O.—The City will select an architect about February 15th to prepare plans for a two-story brick, stone or terra cotta city hall to cost \$65,000.

Pataskala, O.—Bids have been rejected and new bids will be taken about February 1st for the erection of a two-story and basement brick and limestone town hall for the Village. Plans by Architects Rusk & Sheets, Brunson building, Columbus.

Ashland, Ky. — H. P. Farnsworth & Co., or Owensboro, are low bidders on constructing a stone and brick post office building for the United States Government to cost \$100,000.

Cleveland, O.—Architect J. M. Miller, Leader building, has preliminary plans in progress for a two-story brick and stone engine house to be erected on Marlo avenue, East Cleveland, for the City of East Cleveland. Cost \$27,000.

Monongahela, Pa.—The Borough contemplates the grading, paving and curbing of Union street to cost \$6,000. Will mature about April 1st.

Sharon, Pa. — The Board of County Commissioners awarded to the Canton Bridge Company, of Canton, O., the contract for constructing a concrete bridge on State street over the Shenango river, to cost \$50,000.

Titusville, Pa.—The Westchester Engineering ompany, White Plains, N. Y., received the contract for constructing a two-story and basement brick and stone hreproof post office building on Walnut and Washington streets, for the United States Government, to cost \$54,470.

Theatres.

Dayton, O.—Architect R. E. Gebhart, Callahan block, has plans in progress and will be ready for bids about February 4th on erecting a one-story brick and reinforced concrete motion picture theatre addition on Jefferson street between Fourth and Fifth streets, for Charles J. Gross, S. Jefferson street. Cost \$10,-000.

Canton, O.—Architect Julius Namet, Buckeye Road, Cleveland, has completed plans for a one-story brick and steel motion picture theatre and dance hall to be erected for the Roumanian Society, to cost \$10,000.

Conneaut, O.—Architect J. L. Wilson of Ashtabula, will prepare plans for a one-story and basement reinforced concrete, brick and structural steel motion picture theatre to be constructed on Main sreet for H. L. Smith, Main street. Cost \$30,000.

Burgettstown, Pa.—George E. Thomassy is taking bids on erecting a two-story brick motion picture theatre, 25x90, from plans drawn by Architect John H. Phillips of McKees Rocks. Cost \$7,000.

Manufacturing.

Ashland, O.—Architect Vernon Redding, Bird building, Mansfield, is taking bids on ercting a three-story reinforced concrete, brick and steel factory addition gor Drs. Hess & Clark.

Columbus, O.—Architects Albert Kahn & Ernst Wilby, Detroit, Mich., have awarded to the R. H. Evans Construction Company, Columbus Saving & Trust building, the contract for constructing a four-story and basement brick, terra cotta assembly plant addition on Buckingham and Cleveland avenues for the Ford Motor Company, Highland Park, Mich. Cost \$100,000.

Delaware, O.—Plans have been started for a one-story brick factory to be erected on Sandusky street and Big Four Railroad, for the Sunray Stove Company, Union street.

Huntington, W. Va.—Architect Verus T. Ritter, First National Bank building, is taking bids on erecting a three-story brick factory addition on Twenty-Second street for the Empire Furniture Company. Cost \$10,000.

Kent, O.-The Akron Storage & Contracting Company, of Akron, received the contract for constructing a twostory brick and reinforced concrete factory building on Brady Lake Road for the Mason Tire & Rubber Company. Plans by Architects W. C. Owens & Co., Leader News building, Cleveland.

Toledo, O. — Architects Langdon & Hohly, 1442 Nicholas building, are taking bids on erecting a three-story brick, steel and reinforced concrete factory addition on 1645-47 Dorr street, for the Acklin Stamping Company. Cost \$9,000.

Cleveland, O.—Architect Ernest Mc-George, Leader News building, awarded to G. W. Feaga Company, Citizens building the contract for erecting a one-story brick and reinforced concrete factory building on E. One Hundred and Thirtyfirst street, for the Chandler Motor Company. Cost \$20,000.

Conneaut, O.—The Burke Machine & Tool Company, contemplates erecting a brick factory addition from private plans. Cost \$4,000.

Kent, O. — Architects W. C. Owens Company, Cleveland, awarded to the Akron Storage & Contracting Company, Akron, the contract for constructing a two-story brick and reinforced concrete factory building on Brady Lake Road for the Mason Tire & Rubber Company. Cost \$100,000.

Cleveland, O.—Architects Albert Kahn and Ernest Wilby of Detroit, Mich,. awarded to James H. Wells, Marshall building, the contract for constructing a two-story factory building on Taft avenue for the Briggs Manufacturing Company. Cost \$147,000.

Columbus, O.—Plans are in progress for a two-story and basement brick and limestone factory and office building addition to be erected on 162 E. Naghten street for the Lamnock Company, who will take bids about February 10th.

Ironton, O. — Architect D. H. Hutchison, Huntington, W. Va., has plans nearly completed for a two-story factory building addition to be erected on Front street for the Ironton Incandescent Light & Supply Company. Cost \$10,000. Owner builds and will take bids on materials about February 1st.

Society and Club Buildings.

Akron, O. — Architects Schenck & Mead, 105 W. Fortieth street, New York City, are preparing sketches for a home to be constructed for the Summer Home for the Aged to cost \$100,000. Building will contain administration, service and dining hall, two dormitories, six cottages, power house, hospital and chapel.

Alliance, O.—Architect W. W. Matchett is taking bids to close about March 5th on erecting a two-story brick sorority house for the Girls Sorority, to cost \$5,000.

Brookville, Pa.—Architects Harrington & Howard of DuBois, awarded to R. H. Richards & Brothers, the contract for constructing a three-story brick, hollow tile and terra cotta building on Main street for the Y. M. C A., to cost \$41,244. brary. Building includes gymnasium and library.

Cincinnati, O.—The Cincinnati Country Club contemplates rebuilding a 1½-story frame club house on Grandin Road to Cost \$1,000. Building to be used as storage for golf clubs, etc.

Architects Shattuck & Hussey, 19 S. LaSalle street, Chicago, have been selected to prepare plans for a two or three-story pressed brick and concrete club house to be constructed on corner of Vine and Daniel streets, for the N. Cincinnati Turn Verein.

Sistersville, W. Va. — Architect Edward Bates Franzheim, Schmulbach building, Wheeling, is taking bids on remodeling a residence into club rooms for the F. O. E. Lodge to cost \$5,000. Work consists of two room frame addition including slate roof, gas heating, plaster remodel, painting, papering and decorating entire building.

Youngstown, O .- Architects Stanley

& Scheibel, Wick building, have completed revised plans and will take bids about February 1st on erecting a fivestory and basement brick, hollow tile and terra cotta Y. W. C. A. building addition on 25 W. Rayen avenue for the Y. W. C. A. Cost \$35,000.

Hotels.

Buckeye Lake, O.—Architect Harry C. Holbrook, 414 Outlook building, Columbus, has plans in progress for a twostory frame hotel addition to be erected for a Company Organizing, care D. Fisher, Glass Hotel. Architect will take bids about February 15th.

Toledo, O. — Architect Thomas F. Huber, Spitzer building, awarded to H. J. Spieker Company, 409 Michigan street, the contract for constructing a concrete brick and terra cotta addition to the Niagara Hotel on Summit street near Madison avenue for George P. Waldorf, Second National Bank building. Cost \$225,000.

Madisonville, Ky. — Architect B. B. Davis, Louisville, Ky., has plans in progress for a three-story and basement brick and reinforced concrete fireproof hotel and sanitarium to be constructed at Dawson Springs for the Dawson Springs Hotel & Sanitarium Company. Cost \$350,000.

Hospitals.

Fremont, O.—Architect William Warren Sabin, New England building, Cleveland, has been selected to prepare plans for a two-story and basement brick, steel and stone memorial hospital to be constructed for the Hospital Asociation to cost \$100,000.

Huntington, W. Va.—Francis Hospital a brick, stone and terra cotta fireproof hospital building near Ritter Park to cost \$250,000. Sketches will be submitted about March 10th.,

Miscellaneous.

Erie, Pa.—The Trustees of St. Vincent's Hospital contemplate erecting a three-story brick fireproof laundry and power house addition on Sassafras street to cost \$10,000. Architect not selected.

Miamisburg, O.—Architect Gustave A. Niehaus, 25 Callahan building, Dayton, has plans in progress for a three-story and basement brick and steel garage to be erected for D. A. Stump, to cost \$15,000.

Alliance, O. — Alliance Gas & Power Company contemplates erecting a onestory brick and steel power plant addition from private plans. Will probably take bids in March.

Oakmont, Pa.-Architect D. A. Crone, Oliver building, Pitsburgh, has complet-

ed revised plans and is ready for bids on the erection of a one-story brick commercial garage on Allegheny avenue for Earl Clements, Logan Ferry and N. Texas street. Cost \$12,000.

Charleroi, Pa.—Bids close next Tuesday on constructing a two-story brick and frame storage garage for John Latchem, McKean avenue. The design came from Architect Joseph C. Brenton, Charleroi.

Liens Filed for Labor and Material Furnished.

ALLEGHENY COUNTY, PA.

H. Anderson vs. Joseph Stuparitz. Building in Penn Township. Two items, cost \$17.26 and \$113.74.

NO LIEN CONTRACTS.

George Hogg Company, vs. Henry R. Agreement made January 10th and filed January 19th, 1916, to erect and complete a two-story and attic brick dwelling on Farragut street, Eleventh Ward, Pittsburgh. Cost \$7,040.

Golden & Crick vs. Nicola Building Company. Agreement made January 19 and filed January 20, 1916, to erect and complete a three-story and basement garage building in Fourth Ward, Pittsburgh.

George Hogg Company, vs. Hanry R. Rea. Agreement made January 14th and filed January 12, 1916, to complete and construct an addition to a private residence at Sewickley, Pa., for \$25,681.

Edward Brady & Sons vs. Baltimore & Ohio Railroad Company. Agreement made June 18, 1915, and filed January 24, 1916, to remodel passenger station, etc.

GENERAL NEWS.

Lighting fixtures for the new high school building at Huntington, W. Va., will be purchased about April 1. The building is being constructed by Henry Persun, Huntington, at a cost of \$246,-000.

H. A. Lemmon & Co., Schmulbach building, Wheeling, W. Va., have lately secured the marble and tile work for the Masonic building, Wheeling, also the work for the Wheeling high school building.

H. M. Carr, 2582 Broad street, Columbus, will soon take bids on plastering, painting and marble and tile work. SUB-CONTRACTS PLACED FOR

LARGE REMODELING WORK IN CLEVELAND.

The store and loft building of the Euclid Twelfth Company, Euclid avenue,

near E. Ninth street, Cleveland, is to undergo costly alterations and additions, the plans for which have been completed by Architects George B. Post & Co., Schofield building, Cleveland. The present six-story building is to be remodeled and a six-story addition 45x180 feet built on the side. It is not known when the work will come up for bids as the plans must be approved by the owners. The material specifications will include hollow metal window frames, metal ceilings, skylights, fire doors, ventilators, etc. The estimated cost of the work is \$300,000.

CONSTRUCTION CONTRACTS AWARDED.

A slight increase is noted over last week in the amount of work placed during the past week. While there was not any one particular contract of large size placed the amount of work running from \$100,000 upwards has been greater, some of which have been the Niagara Hotel, Toledo, for \$225,000; new tire plant at Kent, O., at \$100,000; \$200,000 plant at Springfield, O., another plant at Columbus, O., to cost \$145,000 and one in Cleveland for \$150,000. Residence and apartment work shows some improvement, the figures for the past week being more than double those of the previous week. The following table compiled from Dodge Reports will show comparative figures for various construction awards:

Total work awarded for year to

- date\$6,434,500 Total work awarded for week
- ending Jan. 26 1,541,000 Total work awarded for week
- Ending Jan. 19. 1,433,500 Residence and apartment work
- Miscellaneous, Jan. 26. 760,000

DESIGNING NEW BUILDING FOR DAYTON.

The Dayton Pure Milk & Butter Company, E. Fifth street, Dayton, O., is having plans made by Architects Peters, Hermann & Brown, Reibold building, Davton, for a three or four-story reinforced concrete, tile and fireproof building 75x136 feet to cost about \$90,000. The building will contain office, store room. refrigerating rooms, storage rooms, etc. Plans will be ready for bids next week. Requirements will consist of tar and gravel or built-up roofing, solid steel sash and metal doors, sidewalk lights, cement finish floors, electric elevator, patent store fronts, patent plastering, steam heating system, plumbing fixtures, etc.

WHEELING SCHOOL.

J. R. Butts & Sons, Wheeling, W. Va., who will erect the Madison school building for the Board of Education, Wheeling, have placed the following sub-contracts: Ornamental iron, J. E. Moss Iron Works, Wheeling; plain and ornamental plastering, W. A. Stoetzer, wheeling; sheet metal work, General Manufacturing Company, Wheeling; roothng, Philip Carey Company, Wheeling; trim and carpenter work, H. L. Fair, Wheeling; painting, B. F. Higgms, Wheeling. Other work is now being awarded.

SHOULD UNDERSTAND NEW FORM OF CONTRACT.

Contractors throughout the country should promptly make themselves thoroughly familiar with the new Standard Contract Documents in order that they may fully protect their rights in working under them. These documents, including form of agreement, general conditions of the contract, bond, sub-contract and acceptance of sub-contractor's bid have been approved by The National Association of Builders Exchanges, The National Association of Master Plumbers and the National Association of Master Steam and Hot Water Fitters.

The endorsement of these documents was made, not upon the ground that they are perfect, but because they are well considered and well balanced, and because they embody a very substantial advance over any existing building contract forms, whether the old uniform contract, the first edition of the Standard Document of the Institute, or anw of the forms used by archiects in various cities in their practice.

The rights and responsibilities of the owner, the architect, the contractor, the sub-contractor and sureties are fixed with greater certainty and are sent out far more clearly and definitely than ever before. A positive effort has been made to settle as many question as possible in advance, and to fix the exact method by which ather questions are to be decided Very little is left to the interpretation or construction. In the interest of prompt work, the architect is given power to decide most questions in the first instance, but if his decision is unsatisfactory to anyone of the parties concerned, justice is obtained by introducing the general principal of arbitration. The present documents aim to keep the architect within his functions by providing, in article 10, for general arbitration of al! questions of disputed right. It is provided in article 45 in reference to arbitration, in part, that the general procedure shall conform to the laws so that the State in which the work lies and

wherever permitted by law the decision of the aribitrators may be filed in court to be carried into effect.

Another part of the contract which the contractor should give particular attention to is that regarding personal damages, as the contractor is, by article 19. placed under very strict obligations in regard to damages to persons and not only assumes the liability embodied by; law for damages by negligence, but obliges himself to save the owner harmless and indemnify him from all expense by reason of injury suffered by reason of any act or omission on the part of the contractor or sub-contractor on the employes of either. This article is comprehensive and rigid but the cause ultimately falls upon the owner, because the contractor must include his premiums in his bids.

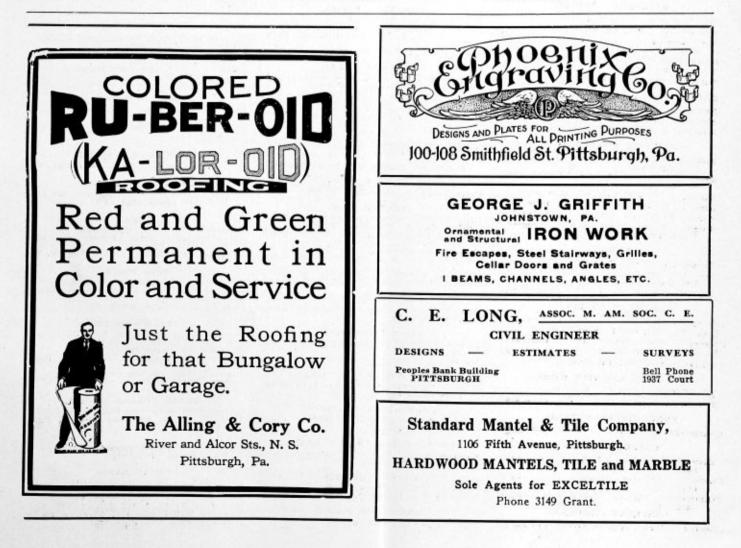
Liability insurance, as required by article 20, protects the contractor against the greater number of obligations here assumed, including claims under workmen's compensation acts. Contractors should secure every form which the liability companies issue in order to save themselves harmless under all condi-

tions. Among these are the Contractors Employers Liability Policy, insuring against damages suffered by the contractors' employes, the contractors public liability policy, insuring against damages suffered by persons not employed by the contractor, while at or about the work, and the contractors' contingent policy, insuring against damages suffered by persons not employed by the contractor while on the premises or upon the side-walk or other surrounding ways.

With regard to extras and changes, contractors are particularly warned to be careful, under article 24, to make claim for extension of time caused thereby, and have that claim adjusted when the change is secured. Unless this is done, the change must be executed within the original contract period. Changes are not to be made on the order of the architect, but only on the order of the owner, and this must be countersigned by the architect. Contractors must not make changes on the order of either owner or architect alone, but must have the signature of both.

ROOFING TILE MACHINE.

This is a device intended for persons handling building materials or conducting a large number of small inexpensive speculative building operations. It is a machine that any one can purchase to manufacture cement roofing tile. The product of these machines is said to be duroble and reduces the cast of roofing to levels that can hardly be conceived, according to the manufacturers. They make neat looking and light perfectly waterproof tile. These shingles are easy to lay, so that any one who is familiar with the roofing business can put up a nice roof. They can be cut in any desired shapes for valleys and hips and the most difficult places on a roof can be covered with them. Each is provided with four holes for nailing if desired, also one hole on the back for the purpose of wiring if desired. They are made in different colors, to lay a roof in varying patterns.



Classified Index of Advertisers, Arranged for Ready Reference

ARCHITECTURAL CASTINGS. Mahoning Foundry Co., Punxsutawney, Pa.

ARCHITECTURAL TERRA COTTA.

Scott A. White, Pittsburgh. Finnessy, Jas. E., Oliver Building, Pitts-burgh, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa.

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ART AND STAINED GLASS.

Hyde-Murphy Co., Ridgway, Pa. Marshall Art Glass Co., S. S., Box 139, Alle-

gheny. Twin City Art Glass Works, 110 Sandusky St., Pittsburgh.

ASPHALT SHINGLES.

Fintkote Mfg. Co., Wabash Bldg., Pittsburgh.

H. B. Morrow, Wabash Bldg., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING PAPER.

Sneger Brothers, Pittsburgh, Pa.

BANK AND OFFICE FIXTURES.

H. C. Bemis, Bradford, Pa.

Hyde-Murphy Co., Ridgway, Pa

Requarth Co., F. A., Dayton, Ohio. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

BRICK JOINT RAKER.

George Grundy, 905 Gerrett St., Pittsburgh.

BUILDERS' SUPPLIES.

Hall, Harry & Brother, Homestead, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

BRICK MANUFACTURERS AND DEALERS.

Kennedy, D. J. Co., Pittsburgh, Pa.

Kushequa Brick Co., Kushequa, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING CONTRACTORS.

Brednich, Jacob, 243 Lella St., Mt. Washing-ton, Pittsburgh.

Brown Brothers, Broadway and Lincoln Aves., Mt. Lebanon.

Kissell, D. C., 7410 Race St., Pittsburgh.
 Lash, D. H., 720 Grandview Ave., Pittsburgh.
 Rogers, Philip, 157 Moultrie St., Pittsburgh.
 Wiegand, J. W., Suburban Ave., Nineteenth Ward, Pittsburgh.

CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

CEMENT COATING.

Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

CERAMIC AND TILE WORK.

Erie Mantel & Tile Co., Erie, Pa. Pittsburgh Venetian Mosaic Co., Pittsburgh.

CONCRETE FOUNDATIONS.

Garber-Erder Co., Wabash Bldg., Pittsburgh.

CONCRETE MIXERS.

Easter-Emmons Co., 432 Diamond St., Pittsburgh.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitta-burgh, Pa.

burgh, Pa. CONCRETE HARDENER.

George C. Webb, Jenkins Arcade, Pittsburgh.

COMPOSITION FLOORS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh. Dalzell, J. Willis, House Building, Pitts-burgh, Pa.

CONTRACTORS' PUMPS.

Reineke-Wagner Pump & Supply Co., Pittsburgh

CONTRACTORS' EQUIPMENT.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-burgh, Pa.

CORNICE WORK.

Franklin Sheet Metal Works, Franklin, Pa.
General Mfg. Co., Wheeling, W. Va.
Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

DIRECTORY BOARDS.

J. Willis Dalzell, Pittsburgh, Pa.

DOOR CHECKS.

Allegheny Sales Company, First National Bank Building, Pittsburgh.

ELECTRICAL CONTRACTORS.

Carter Electric Co., Oliver Bldg., Pittsburgh. Loomis Electric Co., W. R., Wabash Building. Pittsburgh.

ELEVATORS AND DUMB WAITERS.

Marshall Brothers, South Twenty-first and Mary Sts., Pittsburgh.

ELEVATOR DOORS.

J. Willis Dalzell. Pittsburgh, Pa. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa. Watt Mfg. Co., Northside, Pittsburgh.

EXPANDED METAL.

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh, Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh, Pa.

FELT.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FIREPROOF DOORS AND PARTITIONS. Fireproof Materials Co., Pittsburgh, Pa. J. Willis Dalzell, Pittsburgh, Pa. General Mfg. Co., Wheeling, W. Va.

FIRE ESCAPES.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa. Keystone Ornamental ron Co., Homestead, Pa. Kratzer, W. N. & Co., Smallman St., Pitts-

Kratzer, W. N. & Co., Smailmau St., A. Burgh, Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

FLOOR HARDENER.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FLOOR SURFACING.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh. Wayvell, Chappell & Co., Chicago, Ill.

FLOOR AND WALL PAINTS. eral Waterproofing Co., Century Bldg., Pittsburgh, Pa. General

FOUNDATION CASTINGS.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FURNACES, STOVES AND RANGES. Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.

GYPSUM BLOCKS.

J. Willis Dalzell, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

HARDWOOD DOORS.

Hyde-Murphy Co., Ridgway, Pa.

HARDWOOD FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh.

HOUSE PUMPS. Reineke-Wagner Pump & Supply Co., Pittsburgh.

INTERIOR TRIM.

Dalzell, J. Willis, Pittsburgh, Pa. Herdman Sash, Door & Lumber Co., Zanes-ville, Obio. H. C. Bemis, Bradford, Pa. Hyde-Murphy Co., Ridgway, Pa. Orner Woodworking Co., DuBois, Pa. Requarth Co., F. A., Dayton, Obio.

INTERIOR MARBLE WORK.

Erie Marble & Tile Co., Erie, Pa. Pittsburgh Marble Co., Builders' Exchange, Pittsburgh, Pa. Standard Mantel & Tile Co., Pittsburgh. E. J. Walker, Pittsburgh, Pa.

INTERIOR MILL WORK.

Dalzell, J. Willis, Pittsburgh, Pa.
Herdman Sash, Door & Lumber Co., Zanes-ville, Obio.
Hyde-Murphy Cc., Ridgway, Pa.
Orner Woodworking Co., DuBois, Pa.
Requarth Co., F. A., Dayton, Obio.

IRON FENCING.

Keystone Ornamental Iron Company, Homestead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SHEET IRON ROOFING AND SIDING. William Patridis & Co., Curry Bldg., Pitts-burgh.

IRON STAIRWAYS

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Keystone Ornamental Iron Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

JOIST HANGERS.

Keystone Ornamental Iroa Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

LIGHT IRON FURRING.

J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

LIGHTING FIXTURES.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

LIME. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

MILL WORK. H. C. Bemis, Bradford, Pa. Herdman ash, Door & Lumber Co., Zanes-ville, O. Hyde-Murphy Co., Ridgway, Pa.

MANTELS AND TILES.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Hyde-Murphy Co., Ridgway, Pa. The Graf Company, 955 Liberty St., Pitta-burgh, Pa. Standard Mantel & Tile Co., Pittsburgh, Venango Mantel & Tile Co., Franklin, Pa.

METAL CELLAR DOORS.

Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

METAL LATH.

Bestwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh. Kennedy, D. J. Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

J. Willis Dalzell, Pittsburgh.

Company.

Classified Index of Advertisers, Continued

METAL LATH CONSTRUCTION.

J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

METAL SPINNING.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgb, Pa.

MORTAR COLORS.

Wheeling Wall Plaster Co., Wheling, W. Va. Kennedy, D. J. Co., Pittsburgh, Pa.

NON-STAINING CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

ORNAMENTAL IRON WORK.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa.

Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.

Keystone Ornamental Iron Co., Home-stead, Pa.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Moss Iron Works, J. E., Wheeling, W. Va. J. Willis Dalzell, Pittsburgh, Pa. Tyler Co., The W. S., Bessemer Bldg., Pitts-burgh.

Vilsack, Martin Co., Ltd., 3226-30 Penn Ave., Pittsburgh.

Watt Mfg. Co., Northside, Pittsburgh.

PARQUET FLOORS.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh

PITCH.

eral Waterproofing Co., Century Bldg., Pittsburgh, Pa. General

PLASTER BOARD.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va. McDade Company, Alex., The, 1121 Glen St., Wilkinsburg, Pa.

PRIVATE WATER SYSTEMS.

Dowie Water Well Co., Jenkins Arcade, Pitts-

burgh, Pa. Reineke-Wagner Pump & Supply Co., Pitts-burgh.

QUARRY TILE.

Kushequa Brick Co., Kushequa, Pa.

RAGGLE BLOCK.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

REINFORCING MATERIAL.

Fireproof Materials Co., 320 Liberty St., Pittsburgh.

Kennedy, D. J. & Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. New Kensington Fiber Plaster Co., New Kensington, Pa. Witherow Steel Co., Pittsburgh, Pa.

ROOFERS (TIN AND SLATE).

Blank, Herman, 5152 Coral St., E. E., Pitts-Blank, Herman, 5152 Coral St., E. E., Pittsburgh.
Belt, George P., 1915 Sedgwick St., N. S., Pittsburgh.
Hill Top Roofing Co., Bell Phone, 954-J Hill, Pittsburgh.
South Hills Hardware Co., West Liberty, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

ROOFERS (GRAVEL, SLATE AND TILE).

Hahn Brothers, Pittsburgh, Pa.
Hahn Brothers, Pittsburgh, Pa.
Limbach, Frank, 1724 Lowrle St., Northside, Pittsburgh.
Scott, A. White, Pittsburgh.
South Hills Hardware Co., West Liberty, Pittsburgh.
Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.
Wheeling Wall Plaster Co., Wheeling, W. Va.

ROOFING MATERIALS.

STRUCTURAL STEEL PAINTING.

William Patridis & Co., Curry Buld., Pitts-burgh.

SUSPENDED CEILINGS.

TERRAZZO WORK.

Pittsburgh Venetian Mosaic Co., Pittsburgh.

TILE (DECORATIVE).

TRUSSIT METAL.

VAULT LIGHTS.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

VENTILATORS. Dalzell Bros. Co., Youngstown, O. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WALL BOARD.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL LINING. Empire Flooring Co., Jenkins Arcade, Pitts-burgh.

WALL PLASTER.

New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL PLUGS. Allegheny Steel Band Co., Northside, Pitts-burgh. George C. Webb, Jenkins Arcade, Pittsburgh. Bostwick Steel Lath Co., Niles. O.

WALL TIES.

Allegheny Steel Band Co., Northside, Pitts-burgh. Bostwick Steel Lath Co., Niles, O. Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

WATERPROOFING.

Fireproof Materials Co., Pittsburgh, Pa. General Waterproofing Co., Century Bldg., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

WATER WELL PUMPS.

Reineke-Wagner Pump & Supply Co., Pitts-

WIRE FABRICS.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WIRE GUARDS.

Franklin Sheet Metal Works, Franklin, Pa.

Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa

Vilsack, Martin Co., Ltd., 3226-30 Fean Ave Pittsburgh.

Moss Iron Works, J. E., Wheeling, W. Va.

Co., Home-

Fireproof Materials Co., Pittsburgh.

Witherow Steel Co., Pittsburgh, Pa.

Keystone Ornamental Iron stead, Pa.

burgh.

Kennedy, D. J. & Co., Pittsburgh, Pa.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa. E. J. Walker, Pittsburgh, Pa.

Fireproof Materials Co., Pittsburgh.

J. C. Baxendell, Mt. Oliver, Pittsburgh,

Alling & Corey, Pittsburgh, Pa.

Hahn Brothers, Pittsburgh, Pa. Fintkote Mfg. Co., burgh. Wabash Bldg., Pitts-

Kennedy, D. J. Co., Pittsburgh, Pa.

- Saeger Brothers, Pittsburgh, Pa. H. B. Morrow, Wabash Bldg., Pittsburgh.
- Scott A. White, Pittsburgh.
- Hills Hardware Co., West Liberty, Soe th Pittsburgh.
- Wh, eling Wall Plaster Co., Wheeling, W. Va. SAFETY TREADS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh.

Fireproof Materials Co., Pittsburgh, Pa.

- Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SAND AND GRAVEL.

American Sand & Gravel Co., Erie, Pa.

- Erie Sand & Gravel Co., Erie, Pa.
- Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.
- Wheeling Wall Plaster Co., Wheeling, W. Va.
- SASH AND DOORS. Herdman Sash, Door & Lumber Co., Zanes-ville, O.
- Orner Woodworking Co., DuBois, Pa.

SASH WEIGHTS.

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SCAFFOLDING.

Independent Scaffold Co., Pittsburgh, Pa.

SEWER PIPE.

Kennedy, D. J. Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

SHEET METAL WORK.

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Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.

W.

H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

SIDEWALK LIGHTS.

Albert Grauer & Co., 216 E. Reliance St., Northside, Pittsburgh.

Kratzer & Co., W. N., Smallman St., Pitts-burgh, Pa.

Mullen Brothers Company, Fulton Building, Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

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- burgh. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa. W.

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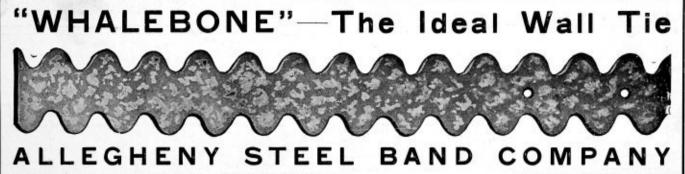
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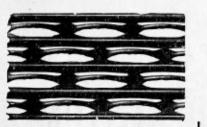
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Vol. 35 February 5, 1916. No. 2.

LARGE POWER PLANT BEING DESIGNED.

Preliminary plans are being made by W. V. State, engineer, Goodyear Tire & Rubber Company, Akron, O., for constructing a one-story brick, steel and reinforced concrete power house 105x160 feet to cost \$500,000 when completed and equipped. No definite specification details have been settled but requirements will be known about March 1.

SKETCHING NEW HOTEL FOR YOUNGSTOWN.

Architect G. A. Edelsvard, Mahoning Bank building, Youngstown, O., is making preliminary sketches for a ten-story hotel structure to cost about \$150,000, the work to call for structural steel frame, brick exterior, ornamental iron work, marble and tile work, hardwood finish, steam heating, electric lighting, etc., etc. Full details have not been decided.

HOTEL DESIGN SELECTED.

The Bond Hotel Company, Toledo, O., has adopted the plans of Architects Mills, Rhines, Bellman & Nordhoff, Ohio building, Toledo, for the proposed sixteen-story hotel building to be built on Madison and St. Clair avenues at a cost of \$2,000,000. The building will be 120x180 feet in size and will contain 10

store rooms and 600 guest rooms. Working drawings will be started at an early date.

ESTIMATES TO BE ASKED ON DORMITORY.

Architect Wilbur T. Mills, McCune building, Columbus, O., will ask bids about the 15th inst for constructing a dormitory at Kent, O., for the Board of Trustees of Kent State Normal School. The building will be 60x220 feet, two stories high and will be of brick, steel and reinforced concrete, oak and yellow pine floors and trim, etc. The work will cost about \$150,000.

HIGH SCHOOL FOR CLAIRTON.

The Board of Education, Clairton, Pa., G. W. Russell, president, contemplates the erection of a high school guilding to cost \$125,000 and will ask the citizens of that place to vote bonds to cover the work. A site will be selected the latter part of the month and decide on a designer. The building contemplated is to contain 18 class rooms, auditorium, gymnasium and science departments and will likely be of brick and reinforced concrete construction.

ESTIMATES ASKED FOR COURT HOUSE WORK.

Bids are to be taken until the 25th inst by the Board of Commissioners, Ebensburg, Pa., for erecting three wings to the present court house building. Two of these wings will be 53x53 feet and the third 75x75 feet, all of brick fireproof construction. Plans were made by Architect James Riley Gordon, 507 Fifth avenue, New York City. Various alterations are to be made to the existing building which will bring the cost of the work to \$150,000.

BANK BUILDING TO BE FIGURED

Bids are to be taken within a few days for constructing a two-story bank building for the Defiance Home Savings & Loan Association, Defiance, O., the design for which has been completed by Architect George B. Rheinfrank, Gardner building, Toledo. Alternate bids will be taken on stone and terra cotta exterior. The building will measure 44x52 fect and will have marble wainscotings, concrete foundations, composition roofing, etc.

About \$50,000 will be expended on the work.

SKETCHING HIGH SCHOOL BUILDING.

A high school building for the Board of Education, Tippecanoe City, O., is being planned by Architect F. L. Packard, Hayden building, Columbus, O., which will cost about \$80,000. The building will contain 12 class rooms, chemical and physical laboratories, study hall, offices, etc., and will be constructed of brick and reinforced concrete with limestone trimmings. Plans will soon be submited to the school officials for approval. The heating and plumbing will be awarded separately.

UNIONTOWN SCHOOL PLANS NEARLY READY.

Plans and specifications will soon be completed by Architect John H. Harmon, First National Bank building, Uniontown, Pa., for the new two-story brick and cut stone grade school building to be constructed for the Board of Education, Uniontown. The building will be 80x124 feet and will have concrete foundations, composition and asbestos roofing, reversible windows, marble toilets and partitions, ornamental iron stairways, mechanical steam heating system, metal lath partitions, ornamental plastering, skylights, gas and electric lighting, etc. No time has been set for taking bids.

HOTEL STRUCTURE FOR GREEN-VILLE, O.

A seven-story building 58x94 feet is to be built at Greenville, O., by Fred. Coppock and others of that place who have adopted the plans of Architect F. L. Packard, Hayden building, Columbus, 0 The building will be used principally for hotel purposes but the building will contain bank and office quarters. Construction work will be of brick and reinforced, concrete with terra cotta trim, tar and gravel roofing, ornamental plastering, marble and tile wainscotings, patent store fronts, hollow metal sash. fire doors, banking fixtures, plate and prism glass, etc. The banking quarters will be leased to the Second National Bank, Greenville. The heating, plumbing and electric work will be separate contracts.

New Type Tile and Concrete Floor

Wide, dome-shaped hollow tile are used as void-fillers in a new type of flatceiling, reinforced concrete floor recently placed on the market by a Boston concern. Details of this new floor system, on which patents have been applied for, are shown herewith. Its chief advantages are the use of wide concrete joints, allowing full development of the strength

16 foot span floor with a carrying capacity, including wood flooring and plaster, of 155 pounds per square foot or a safe imposed load of 128 pounds per square foot. For the same carrying capacity on a 20 foot span, tile 10 inches deep are used. The saving in dead-load weight in the floor system itself, as compared with a solid concrete floor of the same

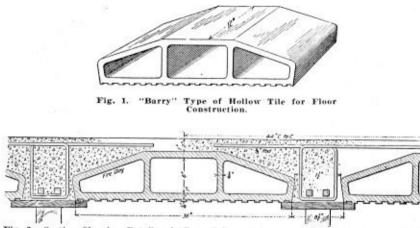


Fig. 2. Section Showing Details of "Barry" System of Concrete and Hollow-Tile Floor Construction

of the tension reinforcement, and a compression flange so shaped that severe shearing stresses are not concentrated in one plane, thus justifying full use of the compression flange in figuring the carrying capacity. The tile are of unusual size, 36 inches wide. They come in uniform lengths of 12 inches, but in two heights, 8 and 10 inches, the former for floors of 16 feet, and the later, of 20 foot span.

The cross-section shown is that for a

fecting a saving. A two by 12 inch plank is placed for each of the concrete joists, the adjoining tile on either side resting along the edges of the plank. There are no beam sides or slab forms to be provided. Simple posts on 44 inch centers support the 2 by 12's and are braced with light horizontals running at right angles to each other.

strength, is evident. The centering, ap-

parently, is very simple, thus further ef-

IN WINTER.

Mixing mortar by hand on the job for bricklaying in winter is usually accomplished by many difficulties. Sand is usually frozen and has to be dug out and thawed before it can be screened and used. The methods employed are, as a rule, very crude and there is no certainty that the frost is entirely driven out. These contained frost crystals often cause trouble later when warmer weather comes by bursting out the mortar between the bricks, or by causing expansion cracks in the masonry.

In addition to thawing the sand, it is necessary to take the chill off the water, as cement will not dissolve readily in ice cold water. If the cement is not

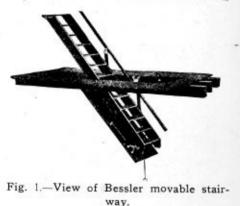
MAKING BRICK LAYING EASIER thoroughly dissolved it cannot coat all the sand particles and produces a mortar that is "poor," or "short," and one that does not have the maximum strength.

> In order to overcome these difficulties and to provide masons with a prepared or mill-mixed mortar that has many advantages, the Cleveland Builders' Supply Company, Cleveland, O., has developed a material composed of one part of Portland cement to three parts of sand with an addition of 10 per cent hydrated lime to the cement. The manufacturers state that the sand used is the famous Pelee island sand, that it is thoroughly dried and screened. Then the dried sand, cement and lime are mixed in specially constructed mixers, and according to formulae which have been worked out successfully after many practical tests.

THE BESSLER MOVABLE STAIRWAY.

A disappearing stairway, which provides a stairway leading to the attic or loft of a building and yet when not in use the stairway can be swung or pushed up out of the way leaving the ceiling in such shape as to give little or no indication of the presence of a stairway, is being made by the Bessler Movable Stairway Company, Akron, Ohio,

Briefly stated, the stairway is intended to replace the stationary type leading to attics, lofts or to any upper room where a stationary flight of stairs would occupy valuable floorspace in the room below. When in position for use the stairway slopes at an easy angle and is provided with a hand rail. When not wanted it is easily raised up on a panel by means of a powerful spring barrel, thence swung up into the ceiling. The spring barrel, in conjunction with a simple system of counterbalance, renders the operation exceedingly simple and easy. When the movable stairs are swung



up out of the way the space below is clear and there is nothing visible but a neat panel to match the rest of the woodwork in the room. When it is desired to use the stairs it is only necessary to give a slight pull on a chain to bring the stairway down, and a touch of the hand slides it into position on the floor.

The picture affords a good idea of the general arrangement and shows the stairway partially swung down. The statement is made that it has been specified and indorsed by some of the country's leading architects and that its use extends from the low cost cottage or bungalow to imposing dwellings, lofts, hospitals, schools and other public buildings.

Architects Frank, Wagner & Mitchell, formerly of New York City, have established headquarters at 405 Permanent Title building, Akron. O., and are desirous of having samples of building miterial and catalogues.

Economy in School Designing

In an address before the Chamber of Commerce, Johnstown, Pa., which was largely attended by architects and contractors of that vicinity, R. Clipston Sturgis, Boston, Mass, president of the American Institute of Architects, stated that the general custom of designing school buildings at the present time represents a crime on the architectural profession inasmuch as there is too much waste space in class rooms, laboratory equipment, steps, etc.

Mr. Sturgis stated that when the school problem in Boston was considered in a practical manner a study was made of the grade schools. The best building was picked out and then an investigation was made to ascertain whether any improvements could be made in the general design. Then each floor was studied for the purpose of finding whether it was possible to cut out any waste space. As a result a standard was obtained. A school building designed to house the lower grades should

BUILDING CODE SATISFACTORY.

New York's building code is being given the credit of being the best in the country. Several previous attempts to codify building construction were very costly, as well as of little use but the new code which went into effect early last month is of such a character that other large cities should model afterward.

One of the most radical changes noted in the new law was the placing of cinder concrete and terra cotta upon fair comparative basis—a result which had never before been possible of accomplishment.

Fire-resistive walls are required around stairways in buildings over 40 feet in height and fire escapes must be designed for 100 pound live load.

In the article on strength of materials the live floor loads are modified somewhat and the allowable working unit stresses made to conform more nearly to the usual standard practice, so that, on the whole, no radical change in the design will result. A concentrated load of 4000 pounds at the center of beams is specified as a possible alternative loading. The field of use for hollow tile partitions is extended. In the article on foundations a new provision is found in sections specifying allowable stresses for three classes of concrete piles.

Among the new general requirements is the regulation which forbids the use of any new building before a certificate of occupancy has been issued by the have nothing but classrooms. There was no need for wide corridors, offices for the teachers, etc.

Mr. Sturgis indicated in a general way how thorough the effort to bring about economy in building had been in his city. Spans were studied and fireproof construction gone over from top to bottom,

The same general formula was followed in planning for high schools and junior high's. The aim had been to combine related activities and economize on space. The tradition that required class rooms filled with desks in a high school was ridiculed. The high school scholars, he contended, were moving from one part of the building to another. What was needed was a central study room. The class rooms could be filled with chairs with arms upon which a tablet could be placed. Too little attention had been paid to the possibilities open in the way of keeping rooms in continuous use. He also advocated centralizing related schools activities.

superintendent of buildings, stating the nature of use or occupancy, the allowable floor loads, the number of persons per floor, and that all requirements in the code have been met. No change in occupancy of a building will be permitted without a new certificate from the superintendent. The regulation allowing the amount of the fine for violation to be fixed, within certain limits, by the superintendent of buildings may be criticised as tending to give the latter a power which he might use unjustly. A drastic revision makes it a misdemeanor to continue violation of a peremptory order issued by the superintendent because of danger to public health or safety.

JANUARY BUILDING GOOD.

Early reports from various cities throughout Western Pennsylvania, Ohio and West Virginia, show that a good increase in building operations is to be noted for the first month of the year in comparison with January of last year. Cleveland operations amounted to \$1,600,-895; Cincinnati, \$445,895; Toledo, \$560,-875; Columbus, \$223,415, while Charleston, W. Va., with one exception, showed the largest amount of work for several years. Last month's figures amounted to \$115,850. In July last the figures were \$117,870. Youngstown shows up well and Akron is expected to come in strong for many buildings for rubber manufacturing purposes have been contracted for, but work not actually begun. Canton's building operations amounted to \$71,-725, and Erie, Pa., reached \$116,171, an increase of nearly 75 per cent over the same month last year. Akron, O., reports building records to be \$288,434 for the past month.

It is confidently expected that the month of February will show exceptional building conditions, as much work is ready for estimates, while the amount of the contracts placed within the past few days in all sections of the districts mentioned have been very large.

INCREASE IN CONTRACTS AWARDED.

. The awarding of contracts during the past week has resulted in the best showing made so far this year, the figures showing a total of \$2,736,000. Several large sized contracts were placed, principally for two buildings at Akron, O., each for \$500,000, an office and warehouse at Columbus, O., to cost \$250,000, \$150,000 department store at Cincinnati; \$125,000 plant at Salem, O., and various other structures of lesser cost. Residenice work increased slightly during the past week as compared with previous weeks. The figures, complied from Dodge Reports, show the following Total work awarded for year

Miscellaneous work February 2 1,303,000 Contracts awarded during Jan-

uary 7,343,000

TAKE BIDS SOON ON DAYTON SCHOOL.

Bids are to be asked about the 10th inst for constructing a brick and reinforced concrete scholl building 96x210 feet for the Board of Education, Dayton, O. The plans of Architects Pretzinger & Musselman, Riebold building, call for a building to contain 16 class rooms, auditorium, swimming poel, science departments, etc., the cost of which is estimated at \$150,000. Specifications include tar and gravel or builtup roofing, face brick, reinforcing steel, ceent, steam heating system, plumbing work, electric work, interior trim, etc., etc.

An error was committed in these columns last week when the address of Architects J. & Lohman & Son was given as Donora, Pa. It should read Monessen, Pa. CONCISE BUILDING INFORMATION Authentic Building News on New Dwellings, Stores and Offices,

Churches, Schools, Theatres, Etc.

These verified reports appear in advance of all other trade publications.

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Pittsburgh.

Architect W. G. Wilkins, Westinghouse building, has plans in progress for a two-story brick armory to be erected on Emerson street for the State of Pennsylvania Armory Board. Cost \$60,000.

Plans for a one-story brick building to costain 10 store rooms and garage are being made by Architect William H. Cookman, Broad street, Philadelphia, for the Pennsylvania Railroad Company. The structure is to be erected at Eleventh and Liberty avenue and will measure 45x160 feet. Bids are to be asked for within a short time.

D. T. Riffle, Keenan building, received the contract to make alterations to the store building of Nielen & Co., 319 Liberty avenue. The work will cost \$60,-C00.

John H. Trimble & Brothers, 2022 Chateau street, were awarded the work of remodeling several residences on Center avenue and Devon street for Willis King, Third avenue and Ross street. Cost \$15,000.

Architect H. S. Estep, Empire building, will probably revise plans for the new building to be built on Grandview avenue, near Plymouth street, for the South Hills Republican Club. Former bids were excessive.

Plans are under way by Architect William A. Ullom, House building, for a chapel and mission building to be built for the New Covenant Mission, Maurice Ruben, superintendent, 333 Forty-second street. The work will cost about \$30,-000.

The John Eichleay, Jr., Company, South Twentieth street, received the contract to build the church building on Mission street, South Side, for the St. Josaphats' Roman Catholic Congregation.

Bids will close on the 15th inst for erecting five two-story brick and concrete residences on Washington street, Bellevue, for the George G. McDonald Company, 307 Fifth avenue. Estimated cost \$25,000,

Bids will be taken soon on the construction of a double duplex and single residence on Franklin street, Wilkinsburg, for D. Coll, 414 Franklin street. Plans came from Architect F. A. Park 5435 Kincaid street.

Plans will soon be started by Architect D. A. Crone, Oliver building, for a 2½-story brick veneer and pebble dash residence to be built on Wilkins and Fifth avenue for Lewis Davis, 700 Smithfield street. Bids will be taken by the architect in the early Spring.

Architect E. Lisotto, 8413 Deary street, will start plans soon for a two-story brick and hollow tile residence to be built on Loraine street for A. Mangari. Estimated cost \$5,000,

Frank W. Main, 315 Melwood street, contemplates building a brick veneer on tile residence on Parkman avenue, near Grant Boulevard. An architect will be selected about the 15th inst.

Architect W. E. Snaman, Empirebuilding, awarded to C. A. Baldwin, 214 Maripoe avenue, Northside, the contract for erecting a two-story brick and hollow tile double residence on Murray avenue near Lilac street for I. E. Wood, Loretto street, Hazelwood. Cost \$6,000.

The B. A. Groah Construction Company, W. North avenue, Northside, is low bidder on remodeling a two-story garage on Park Way, Northside, for the Allegheny Express Company, 501 Sandusky street, Northside. Plans by Architect W. A. Thomas, 322 Park building.

Architect E. Lisotto, 6413 Deary street, has plans about completed for a two-story brick double duplex residence to be erected on Westmoreland avenue for Antonio Lerrao. Cost \$6,000.

Plans are in progress for a two-story brick and hollow tile store and apartment building to be erected in Washington Road, Castle Shannon, for Allison & Co., First National Bank building, Castle Shannon. Cost \$4,000,

Architect W. N. Zortman, Bessemer building, awarded to Charles Siegwarth & Son, 121 Reifer street, the contract for erecting a two-story brick veneered residence on Forward avenue, for J. M. McClelland, Ohio and Sandusky streets, Northside. Cost \$4,500.

Architects Conwell, Rowland & Hutchins, Conestoga building, awarded to James Kensey, 3725 Orpwood avenue, the contract for erecting a brick veneered and frame duplex residence on Melbourne street, for Mrs. Francis Davis, 228 Eighth avenue, Homestead. Cost \$6,000.

Architect Rudolph Berg, Jr., Brownsville Road, Carrick, has completed plans for 10 one-story brick private garages, to be erected on Cornelius Way, for the Central Trust Company, 2034 Penn avenue. Cost \$6,000.

Architect James A. Wetmore, Washington, D. C., is taking bids to close February 17, on constructing a one-story brick and steel reinforced concrete boiler house addition at the Bureau of Mines, for the United States Government. Cost \$40,000.

Bids close on the 11th inst. for building a 2½-story brick veneer residence on Gerber avenue, Northside, for Edward B. Funk, 640 Preble avenue, Northside. Plans were made by Architect C. G. Mentel, Martin building, Northside.

Martin O'Hagan, 722 Adelaide street, received the contract to make alterations to a grade school building, for the Board of Education, Etna. The work will cost \$4,100. Plans were made by Architect George C. Rogers, Hartje building.

Apartments and Dwellings.

Akron, O. — Architects Harpster & Bliss, Nantucket building, have working drawings in progress for a 2½-story brick veneered residence and garage to be erected for Harry Williams, 94 E. Market street. Cost \$10,000.

The same architects are taking bids on erecting a two-story brick veneered residence and garage on Maple street for Walter Dickson, N. High street. 'Cost \$10,000.

Dayton, O. — W. A. Blum, S. Main street, is taking new bids on the erection of a two-story and basement frame and shingle residence on South avenue, Oakwood, to cost \$7,000. Plans by Architects Schenck & Williams, 591 Arcade building.

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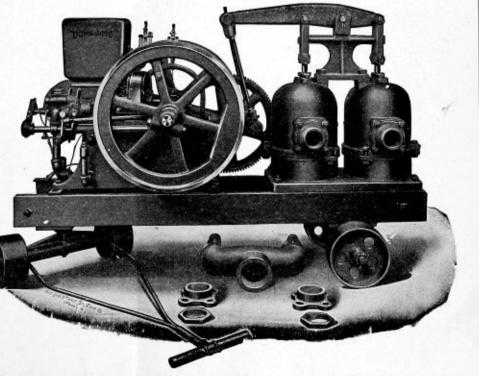
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WHO IS PLANNING • WHO IS BUILDING • WHO IS BUYING

Follansbee, W. Va .- Architect W. N. street from plans now being prepared Brown, Martins Ferry, is taking bids on the erection of a frame residence for R. L. Ulrich to cost \$4,500.

Johnstown, Fa .- The Merrill Corporation, care Joseph Reese, 703 Johnstown Trust building, will take separate bids about March 1st on constructing a threestory brick and tile apartment building on Ausmond street, to cost \$20,000. Plans were drawn by Architect Pierre A. Liesch of Aspinwall.

Springfield, C .- Architect William K. Shilling, 324 Bushnell building, has plans nearly completed and will be ready for bids about February 15th on the erection of a two-story and basement tile and stucco residence on the Hills & Dales addition for Peter A. Boggan, 24 E. Main street, Cost \$12,000.

Akron, O .- Plans are being revised by Architects Boenisch & Kraus, Ohio building, for the brick and stucco duplex residence and garage to be built on Casterton avenue, for Mrs. I. M. Blessman who will take bids about the 26th inst. Cost \$6,000.

Architect N. A. Mantz, 234 Spicer street, is about finishing plans for a two-story brick and stone trim apartment building for J. P. Dye, 318 Hamilton Block. Bids are to be taken at once.

Plans for the \$20,000 residence and garage to be built for C. P. McCready, 71 S. Main street, are well under way by Architect Vernon Redding, Bird building, Mansfield, O. No date has been set for taking bids. The building will be of brick, hollow tile and stone trim construction.

The Harbaugh Construction Company, Flatiron building, will soon start work on three brick residences to cost \$4,000 each. Owner will do all work.

Bids are to be taken by Architects Frank, Wagner & Mitchell, Permanent building, Akron, for the construction of a two-story brick residence to cost \$5,-000 for W. G. Wetteran, care Goodyear Tire & Rubber Company.

The same architects have plans for a two-story frame residence for J. H. Meyers, Permanent building, to cost \$5,000.

A New York syndicate is having preliminary plans made by the above architeets for building 75 residences, 15 of which will be built during the early Summer.

Bluefield, W. Va .- Ten brick residences are to be built for P. J. Kelley on Boone by Architects Pedigo & Garry, Estimated cost \$10,000.

Charleston, W. Va .-- Plans are soon to be started by Architect A. G. Higginbotham, Morrison building, for a 21/2story hollow tile and stucco residence to be built on Delaware avenue for John W. Sparks, 420 Wyoming street. Cost \$10,000. Bids are to be asked about March 1.

Revised plans will be made by the above architect for a two-story brick and stone trim apartment building for W. S. Mason, 9 Brooklyn Court. Bids will be taken about April 1. Cost \$30,-000.

J. D. Maxwell, 112 Fayette street, will place sub-contracts for building a twostory brick residence on Quarrie street for Mrs. Branston. Plans by Architect A. C. Higginbotham

The same architect has been retined by William A. McCorkle to design a stone residence to cost \$20,000. Plans will be started at once.

Chillicothe, O .- Bids will be taken next week by Architect John Schweitzer on the construction of four brick residences to cost \$10,000 for A. B. Howson, Main and N. Paint streets. Additional work may mature later.

Cincinnati, O .- Specifications are being written by Architects Weber, Werner & Adkins, 414 Walnut streets, for the \$20,000 residence and garage to be built in Avondale for Henry S. Leyman, Seventh and Walnut streets. Bids will be asked soon.

Plans are under way by Architect Albert J. Bodker, 62 W. Forty-fifth street, New York City, for a 21/2-story terra cotta block, stucco and timber residence to cost \$25,000 for C. F. Kern, 8266 Woodbine avenue. Bids on the general contract will be taken about April 1.

Ten brick and frame residences costing \$40,000 are to be built on Buckingham Place by W. W. Clippinger, Atlas Bank building. No architect has been selected.

Cleveland, O .- Paul Brothers, Citizens building, will probably be awarded the mason contract for two-story brick apartment buildings on Windemere Terrace for private parties. The work was designed by Architect Theodore Conner, 908 Park building.

Frank E. Norton, 3118 Mapledale avcnue, is having plans made by Architect H. M. Clarke, New England building, for a two family frame residence to cost \$4,000. Owner will do all building.

Cuyahoga, Falls, O .- L. J. Pike, Third street, received the contract to build a two-story brick residence to cost \$5,000 for D. F. Flemly, Permanent building, Akran. Plans came for Architect C. W. Frank, Akron.

Euclid Heights, O .- W. B. McAllister, 2163 E. Thirty-first street, received the masonry and carpentry work on the new residence and garage to be constructed on Chestnut Hills Drive for E. G. Buckwell, 1824 E. Ninety-seventh street.

Hinton, W Va .- Architect Paul Egan, Quarrier street, Charleston, will start plans at once and take bids about March 1 on the construction of a hollow tile and stucco residence to cost \$30,000 for Dr. O. O. Cooper.

Akron, O. - Architects Frank, Wagner & Mitchell, 605 Permanent building, has plans in progress for a two-story brick bungalow, to be erected for George R. Hill, 999 E. Market street, who will take bids about February 25. Garage and summer residence will be crected later

The same architects haev plans nearing completion and will take bids about February 15, on erecting a two-story brick residence on Casterton avenue, for Earl R. Findley, care Citizens National Bank. Cost \$6,000.

Plans are in progress for a two-story brick apartment building, to be constructed on Ambrose, Court and W. Market street, for Archie Baringer, 11 Ambrose street. Cost \$10,000.

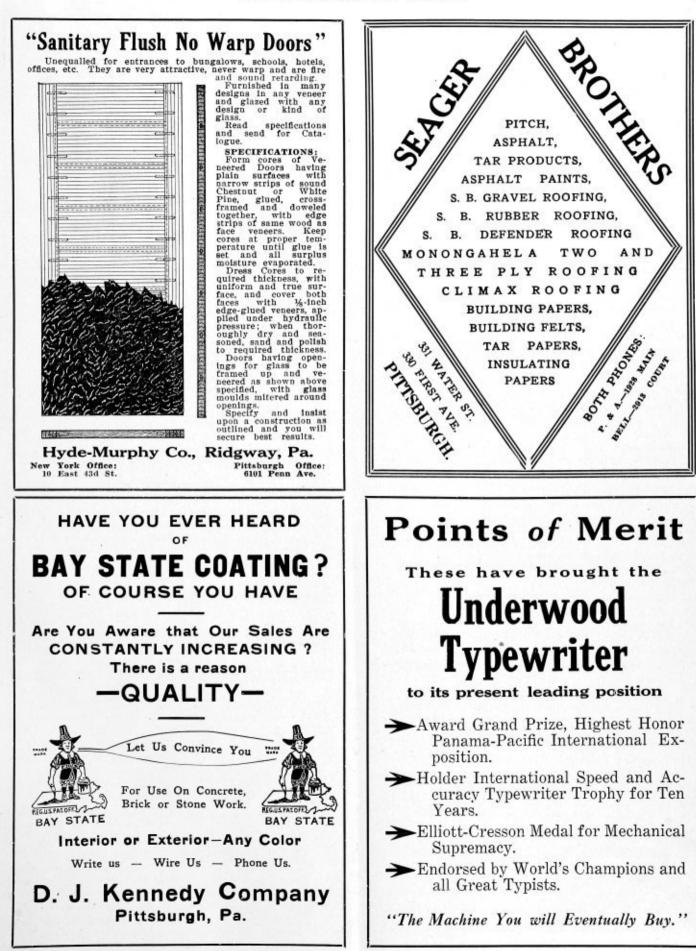
Architect Howard Shaw, 39 State street, Chicago, has plans in progress and will be ready for bids about February 15, on erecting a two-story stucco and hollow tile residence, for A. B. Jones, 628 E. Buchtel avenue. Cost \$25,-000. O. W. Simon, of Chicago, is the landscape architect.

Architects Harpster & Bliss, Nantucket building, have started plans for a 21/2story brick veneered residence and garage, to be erected for Harry Williams, 94 E, Market street. Cost \$10,000.

The same architects are taking bids on erecting a two-story brick veneered residence and garage on Maple street, for Walter Dickson, N. High street, to cost \$10,000.

Broad Oaks, W. Va. - Architect Arthur Hall, 639 W. Mechanic street, Clarksburg, is taking bids on building a two-story brick and hollow tile res-

THE CONSTRUCTION RECORD



7

NEWS FOR CONTRACTORS AND MATERIAL DEALERS

idence for A. J. Rodgers, 150 Harrison street, to cost \$5,000.

Howard Douglas is taking bids on the erection of a two-story brick and hollow tile residence on North street, from plans drawn by Architect Arthur Hall, Clarksburg. Cost \$3,500.

Dayton, O. — W. A. Blum, S. Main street, is taking new bids on the erection of a two-story and basement frame and shingle residence, on S uth avenue, Oakwood, to cost \$7,000. Plans by Architects Schenck & Williams, 591 Arcade building.

Architect Howard Shaw, 39 State street, Chicago, has completed plans for a two-story stucco and frame residence, to be erected for Mrs. H. G. Carnell, Main and K. streets, to cost \$12,000.

Follansbee, W. Va. — Architect W. N. Brown, of Martins Ferry, O., is taking bids on the erection of a frame residence for R. L. Ulrich, to cost \$4,500.

Johnstown, Pa. — The United Brethren Congregation is taking bids to close February 7, on erecting a 2½-story and basement brick and hollow tile parsonage on Bedford street and Homestead avenue, Walnut Grove, to cost \$5,000. Plans by Architect W. S. Powell.

The Merrill Corporation, care Joseph Reese, 703 Johnston Trust building, will take bids about March 1, on constructing a three-story brick and tile apartment building, on Ausmond street, to cost \$20,000. Plans by Architect Pierre A. Liesch, of Aspinwall.

Ludlow, Pa. — Architect Albert Jos Bodker, 62 W. Forty-fifth street, New York City, has plans in progress for a 2½-story brick or stone residence and garage, to be erected for George W. Olmstead, to cost \$50,000.

McKeesport, Pa. — Architect C. L. Whitaker, of Dravosburg, is taking bids on crecting a two-story brick veneered or stucco on hollow tile residence, on Arlington avenue, for Essex Thomas, 810 Arlington avenue, Port Vue. Cost \$3,500.

Springfield, O. — Architect William K. Shilling, 324 Bushnell building, has plans nearly completed and will be ready for bids about February 15, on erecting a two-story and basement tile and stucco residence, on Hills and Dales addition, for Peter A. Boggan, 24 E. Main street. Cost \$12,000.

Toledo, **O**. — Architect George Rheinfrank, 601 Gardner building, has plans in progress for a two-story and basement hollow tile and stucco residence and garage, to be erected at the Eagle Point Colony, for W. K. Terry, 826 Ohio building. Cost \$25,000.

The same architect has preliminary plans in progress for a two-story and basement hollow tile and stucco residence and private garage, to be erected on W. Moran street, for B. F. Epwen, Scottwood avenue. Cost \$15,000.

Canton, O. — Edgar Harris, Long apartments, received the contract for crecting a two-story brick and hollow tile residence and garage, on Fifteenth street, for a party whose name is withheld. Cost \$10,000.

Charleston, W. Va — H. S. Womelsdorf, Southside, will soon take bids on the erection of a 1½-story frame and shingle bungalow on the Southside, to cost \$3,500. Plans by Architect David Dick.

Clarksburg, **W**. **Va**. — Architect A. P. Gladden, Pike street, has plans in progress for a two-story brick and tile residence, to be erected at Broad Oaks, for A. J. Bryan, 172 Mechanic street. Cost \$4,000.

Euclid Heights, O. — Architect W. R. Powell, Hippodrome building, Cleveland, is revising plans and will be ready for bids about February 10, on erecting a 2½-story and basement frame residence on Lincoln Boulevard, for T. M. O'Donnell, 942 Prospect avenue, Cleveland. Cost \$8,000.

Gallipolis, O. — Dr. L. S. Smith contemplates building a two-story and basement frame residence, to cost \$4,000. May mature in spring.

Herman Kerr contemplates erecting a two-story and basement frame residence, to cost \$4,000. Architect not selected.

Green Springs, O. -- Architect J. M. Bostwick, Leader News building, Cleveland, has plans in progress for a 2½-story and basement brick and stucco residence and garage, to be erected for H. C. Gammeter, care American Multigraph Company.

Maken Station, W. Va. — Architect A. P. Gladden, of Clarksburg, has plans in progress for a two-story and basement stone and hollow tile residence, to be erected for Alexander Stone street, to cost about \$6,000. Architect will take bids on superstructure work about March 1.

Pomeroy, **O**. — Dr. J. A. Miller contemplates erecting a two-story and basement frame residence, 30x28, to cost \$4,-CO0. Architect not selected.

Dr. Byron Bing contemplates erecting

a two-story and basement Brick residence to cost \$3,500. Architect not selected.

Toledo, O. — Architect G. B. Rheinfrank, 601 Gardner building, has preliminary sketches in progress for six twostory and basement frame, brick and stucco residences, to be erected at the Eagle Point Colony, for Joe Dunipaco, 2339 Robinwood avenue. Cost \$5,000 each.

The same architect has plans nearly completed and will take bids on erecting a two-story and basement frame residence at West Toledo, for P. G. Craig, Gardner building. Cost \$6,000.

Jeffersonville, O. — Bids will soon be asked by T. O. Mowrey, for building a two-story brick veneer residence, to cost \$5,000. Plans have been completed by Architect J. Howard Hicks, Dennis Block, Washington Court House, Ohio.

McKeesport, Pa. — Bids close on the 7th inst. for building a 2½-story brick and hollow tile residence, for B. Kimmelman, Grandview avenue. Plans from Architect C. R. Moffitt, Masonic building.

Munhall, Pa. — Architect A. G. Wickerham, McClure avenue, Homestead, is ready for bids on the construction of a two-story brick veneer duplex residence to cost \$5,000, for James Walsh, Fourteenth street, Munhall.

New Stanton, Pa. — Bids close soon on the erection of a two-story brick and hollow tile residence for E. B. Anthony, care Jamison Coal & Coke Co. Plans were made by Architect J. E. Myers, Penn Station.

Norwood, O. — The H. L. Pachoud Building Company, First National Bank building, Cincinnati, contemplates building several frame residences from private plans. Cost \$10,000.

Portsmouth, O. — C. E. Nourse, 509 Campbell avenue, received the contract to build a two-story brick residence for Charles Webber, 503 Chillicothe street. Cost \$6,000.

Bids close on the 11th inst, for building a \$7,000 residence on Franklin avenue, for Charles Storck, 1317 Ninthstreet. Architects DeVoss & Donaldson, First National Bank building, designed the building and will take bids.

Charles V. Wertz, 724 Fourth street, has private plans for three frame dwellings, to be built near Wheelersburg, at a cost of \$7,500.

Springfield, O. - Bids are now being

THE CONSTRUCTION RECORL



9

BUILDING PROJECTS AND WORK AWARDED

taken for erecting a double residence on Limestone and Race streets, for Mr. Moser. Architect Roy F. Gable, Bushnell building, made the plans.

Washington, Pa. — Sketches have been completed by Architect E. B. Lee, Peoples Bank building, Pittsburgh, for a brick veneer and hollow tile apartment, for William McK. Smith, 22 Main street.

Business Buildings.

Akron, O.—Architects Henry & Murphy, Second National Bank building, awarded to the Carmichael Construction Company, Hamilton building, the contract for remodeling a three-story storebuilding on Howard and Market streets for Byrider Brothers. Cost \$15,000.

Parkersburg, W. Va. — Scheesley & Janey, Johnstown, Pa., have been awarded the work of grading and building a retaining wall for the new freight station at Parkersburg for the Baltimore & Ohio Railroad Company. Bids on the building will be taken in the Spring. The building will be 40x70 feet, one and two stories, steel frame and brick construction.

Portsmouth, **O**,—The Security Savings Bank & Trust Company contemplate building a bank and office building, same to be three or six stories high. No design has been adopted.

Springfield, O.-Messrs. Link & Link, Limestone and High streets, are having sketches made by Architect H. Ziegler Dietz, Lafayette, Ind., for a two-story office building to cost \$5,000.

W. H. Sieverling, 280 E. Madison street, received the contract to build a two-story brick office and factory building 36x50 feet for the Miller Improved Gas Engine Company.

Martins Ferry, O. — Architect C. W. Bates, Wheeling, W. Va., has been selected to prepare plans for a one-story brick, stone or terra cotta bank building, to be constructed for the German National Bank, to cost \$40,000.

Meadville, Pa. — Engineer R. S. Parsons, 50 Church street, New York City, is preparing preliminary sketches for a one-story brick freight house, to be erected for the Erie Railroad Company, T. D. Dickson, general manager, Swetland building, Cleveland. Project will probably mature in summer.

Minerva, O. — Preliminary plans are being prepared for a two-story brick and hollow tile store and apartment building, to be erected for Harvey Yoder, Main street, to cost \$15,000.

Princeton, W. Va. — Architect A. F. Wysong has plans in progress for a two-story brick store building, 50x110, to be erected for Susong & Russell Hardware Company, to cost \$15,000.

Wheeling. W. Va. — The American Sheet & Tin Plate Co., Frick building, Pittsburgh, is taking new bids on erecting a one-story and basement stucco and hollow tile office and hospital building at the LaBelle Plant, to cost \$15,000.

Zanesville, O. — Architect H. C. Meyer, Peoples Bank building, awarded to W. C. Handshy & Son, the contract for remodeling a three-story and basement brick store and lodge building on Main street, near Third avenue, for the Odd Fellows Lodge. Cost \$19,000.

Akron, O.-C. L. Knight, E. Market street and Broadway, contemplates remodeling an office building or hotel on E. Market street from plans drawn by Architects Harpster & Bliss, Nantucket building.

Architects Frank, Wagner & Mitchell, 405 Permanent building, have plans in progress for a six-story and basement reinforced concrete, brick, steel and terra cotta fireproof store and apartment house to be constructed for Louis Miller, to cost \$150,000. Plans to be completed about March 1st.

Bluefield, W. Va.—The E. S. Pedigo. Company, contemplates constructing a three-story brick and stone department store, 130x184, on Federal avenue and Scott street, to cost \$60,000. Architects Pedio & Garry will prepare the plans.

Charleston, W. Va.—Excavations have been started for a four-story brick and hollow tile and terra cotta and stone store and office building to be constructed on Quarrier street for J. C. Morrison, care Capitol City Bank. Cost \$60,000. Architects Wayland F. Davidson, 1432 Lee street, is taking bids on materials.

Elyria, O —Architect Paul Rissman, Elyria building, is taking bids on constructing a four-story brick and steel store building on E. Broad street, for David Lewis & Co., Broad street.

Greensburg, **Pa**. — Frank Cavalieri & Son will build a two-story brick and hollow tile store and apartment on Pittsburgh street; for a party whose name is withheld. Plans will probably be drawn by Architects Truxell & Boyd.

Architect E. J. Nelson, Laird building, awarded to E. K. Snively, the contract for erecting a two-story brick store and apartment building on Pennsylvania ave-

nue for Dr. J. B. Keaggy, 64 Observatory avenue, Pittsburgh, to cost \$9,000 Contract for brick work let to Charles Schuey.

The same architect has completed plans for a four-story brick and hollow tile apartment building to be constructed on E. Otterman street for C. J. Schoemaker, to cost \$15,000. Owner awards separate contracts.

Architect F. E. Gatterdam, Chicago, 111., is preparing plans for a brick and stone and reinforced concrete brewery and ice manufacturing plant to be constructed for the Greensburg Brewing Company, to cost about \$100,000. Owner will take separate bids about February 15th.

Jenkinjones, W. Va.—The Pocahontas Consolidated Collier Company, contemplates erecting a three-story brick and concrete store building to cost \$25,000. Plans will be drawn by Architect S. V. Garrett of Pocahontas, Va.

Akron, O. — Bids close this week on erecting a two-story brick and tile stone and apartment building, on W. Exchange street, for the Watters Estate. The work which will cost \$25,000, was designed by Architect A. R. Weisenborn, Hill Block.

Bluefield, W. Va. — Samuel L. Matz, Raleigh street, contemplates building a three-story brick office building 80x125 feet. Plans will likely come from Architest E. L. Shufflebarger, Bluefield, Estimated cost \$30,000.

The same architect is working on plans for a three-story brick and apartment building 26x80 feet, for C. B. Whitlow, Bland street. Sub-bids will probably be taken.

Canal Dover, O. — The Immel Food & Milling Co. contemplates building a two-story brick or concrete building from private plans.

Charleroi, Pa. — Bids close on the 8th inst for constructing a four-story brick and terra cotta store and apartment building for Dr. Fred C. Stahlman. Plans were made by Architect A. P. Cooper, Uniontown. The work will cost \$40,000.

Cleveland, O. — P. Hammerstein, 2314 E. Sixty-first street, received the contract to build a two-story brick and. frame warehouse 38x72 feet, for Robinowitz & Roth, 2512 E. Thirty-seventh street.

Architect Edward R. Curtis, Stoneman building, has plans for a three-story brick and frame store and apartment building 76x80 feet; to be constructed on Fulton Road, for M. J. Vlackman,

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5917 Central avenue. Estimated cost \$15,000.

The National Concrete Fireproof Company, Citizens building, was awarded the work of building a store, office and dance hall building on Fairmont Boulevard, for B. Mahler. The building will measure 60x275 feet, and will be of brick, stone and stucco construction. Cost \$100,000.

Columbus, O. — R. H. Evans & Co., Columbus Savings and Trust building, secured the contract to build a five-story brick and limestone trim office and warehouse building, 140x200 feet, for the Central Ohio Paper Company, E. Gay street. Cost \$250,000.

Defiance, O. — Plans will soon be completed by Architect George B. Rheinfrank, Gardner building, Toledo, for a two-story fireproof bank building, for the Defiance Home Savings and Loan Association. Estimated cost \$50,000.

Donora, Pa. — Architect C. C. Compton will soon start plans for the fourstory brick and hollow tile store and apartment building, to be built for Felix Dusi. Cost \$15,000.

C. E. Neff, West Newton, Pa., was awarded the contract to build a twostory brick and hollow tile store and apartment building 22x100 feet, for Dr. H. A. Naher, Postoffice building. Cost \$12,400.

Johnstown, Pa. — Plans are nearing completion by Architect O. P. Thomas, Leader building, for a three-story building 68x132 feet, for John Widman, 750 Railroad street. The time for taking bids is uncertain. Estimated cost \$25,-000.

Lockland, O. — Architects S. S. & G. H. Godley, Neave building, Cincinnati, have been retained by Samuel Glass, 110 W. Elder street, to prepare plans for a two-story brick store and apartment building. The work will cost \$6,000.

Marion, O. — A store house and office building is to be built for the Erie Railroad Company, plans for which will come from the company's engineer, N. S. Parsons, 50 Church street, New York City. Work will likely mature in spring.

Minerva, O. — Howard Yoder will award separate contracts for building a two-story brick store and apartment building. Private plans. Estimated cost \$5,000.

Mt. Pleasant, Pa. — Bids close on the 10th inst. for remodeling a store building on Main street, for H. Kobacher & Sons, Main street. Plans are from Architect P. A. Bartholomew, Coulter building, Greensburg.

Gallipolis, O.—Plans are nearing completion and bids will be taken about February 20th on the erection of a threestory brick and hollow tile and terra cotta bank, office and apartment building on Main street for the First National Bank, Cost \$20,000.

Toledo, **O.** — Architect E. M. Gee, Board of Education building, is taking bids on constructing a two-story and basement white glazed brick and stone store and apartment building on Washington street, for Frank G. Crane, 1410 Second National Bank building.

Akron, O.—The Carmichael Construction Company, Akron, received the contract to build a three-story office and store building on S. Main street for the Akron Leasehold Company, I. O. O. F. building. The contracts for the heating, Lighting and plumbing are still open. Plans for the building came from Architects Fichter & Brooker, Second National Bank building.

Religious.

Cincinnati, O. — Architects Samuel Hannaford & Sons, Hulbert block, are taking bids on constructing a 2½-story and basement pressed brick and stone church on Reading Road, Avondale, for the St. Andrew's Roman Catholic Congregation. Cost \$90,000.

Springfield, O. — Architect Roy F. Gable, 432 Bushnell building, is taking bids on erecting a one-story and basement brick church on Fair street for the Central African Methodist Congregation. Cost \$10,000.

Uhrichsville, O.—Sketches are being submitted for a one-story and basement brick church to be erected for the First Presbyterian Congregation, to cost \$35,-000. Architect William K. Nicklas, 1900 Euclid building, Cleveland, will probably prepare plans.

Wheeling, W. Va. — Architect F. F. Faris, 419 Schmulbach building, is taking bids on erecting a one and two-story brick and stone church at Edgewood for the Trinity Lutheran Congregation. Cost \$30,000.

Bellepoint, W Va. — Architect Paul Egan, Quarrier street, Charleston, is designing a one-story brick building 48x52 feet for the Alderson Memorial Congregation. Bids will be asked for shortly. Cairnbrook, Pa. — Architect W. S. Powell, Johnstown, is working on plans for a one-story brick veneer church building for the Lutheran Congregation. Work will not be started until Spring.

Glendon, W. Va.—Plans will be revised by Architect A. G. Higginbotham, Morrison building, Charleston, for the children's home to be built by the M. E. Congregation at a cost of \$30,000.

Monongahela, Pa. — The Methodist Episcopal Congregation contemplates making alterations and addition to its building to cost \$20,000. No plans havbeen selected.

Portsmouth, O.—A building to cost \$15,000 will be erected by the First Baptist Church. No details have decided upon. Architect will be selected **about** March 20.

The Fourth Street Methodist Congregation is having sketches submitted for a one-story brick building 74x120 feet will cost about \$40,000.

Canton, O. — Architects Petit & Firestone, Cassilly block, will revise plans for a two-story brick and stone synagogue, to be erected for the Hebrew Congregation, to cost \$15,000.

Architect H. D. Schulz, of Carey, O., has plans nearing completion for a brick veneered and stone church addition and remodeling for the Bethany United Evangelical Congregation, to cost \$10,-000. Will probably be ready for bids about February 15.

Ashland, Ky,—Architect Verus T. Ritter of Huntington, W. Va., is drawing plans for a one-story and basement pressed brick and stone church and Sunday school rooms to be crected on Carter and Eighteenth streets for the Ashland M. E. Congregation. Cost \$75,000.

Ironton, O.—Architect W. H. St. Clair, Washington street, Charleston, W. Va., has plans nearly completed for a onestory brick auditorium and gymnasium building to be erected on Fifth street for the M. E. Congregation, to cost \$10,000. Bids will be taken about February 10th.

Johnstown, Pa.—St. John's Reformed Congregation, contemplates erecting a brick and tile parsonage on Somerset street, to cost about \$5,000. Architect not selected and details not decided.

Point Pleasant, W. Va.—The Presbyterian Congregation contemplates erecting a two-story and stone church on Main street to cost \$15,000. Project may mature in late summer.

East Palestine, O. - C. E. Burke.

THE CONSTRUCTION RECORD





BELL PHONE 198 J-CARRICK



PLANS FOR VARIOUS KINDS OF STRUCTURES

Salem, O., was awarded the contract to build a one-story church building and a 2½-story parsonage on W. Martin street for the United Brethren Congregation. Estimated cost \$20,000.

Educational.

Monongahela, Pa.—Architect Charles J. Rieger, Germania Bank building, Pittsburgh, has completed plans and specifications for a two-story and basement brick and stone grade school building to be erected on Jackson, Vine and Pleasant streets, for the Board of Education. Cost \$45,000. Changes will probably be made in plans.

Tippecanoe City, O.—Architect Frank L. Packard, 1212 Hayden building, Columbus, has completed sketches for a two-story and basement brick, limestone and reinforced concrete high school building to be constructed for the Board of Education to cost \$80,000. Building will contain 12 class rooms, chemical and physical laboratory, manual training and domestic science departments, study hall and offices.

Derby, O. — The Board of Derby Township, Miles Green, president, contemplates building a two-story brick school building to cost \$25,000. Plans are to be made by Architects Matheny, Allen & Mountz, Huntington National Bank building, Columbus.

Dornora, Pa.—The Board of Education, J. P. Castner, president, has in view the building of a \$60,000 structure which will likely mature early in Spring. No architect has been retained.

Kingston, O.—A. bond issue has been voted on favorably to cover the cost of building a grade and high school for the Board of Education of Green Township, J. N. Bower, president, Chillicothe, O. Plans will be made by Architects Matheny, Allen & Mountz, Huntington National Bank building, Columbus.

Sugar Grove, O.-S. Q. Henke, Lancaster, O., secured the contract to build a two-story brick and limestone trim school building 53x61 feet for the Board of Education. Cost \$30,000.

Uhrichsville, O — Architect J. E. Lewis,, W. High street, New Philadelphia, O., has been retained by the Board of Education, R. K. Furby, president, to prepare plans for a brick, hollow tile and stone trim school building to contain 10 class rooms, auditorium, gymnasium, science departments, etc. Estimated cost \$40,000.

Uniontown, Pa.—Plans are under way by Architect J. H. Harmon, Uniontown, and will be ready for bids about the 15th inst for constructing a two-story brick and cut stone grade school building for the Board of Education, W. C. McKean, secretary.

Wilson, Pa.—Architect A. G. Wickerham, 601 McClure street, Homestead, Pa., has been selected by the Board of Education, Dr. J. Boyd Stewart, president, to prepare plans for a two-story brick fireproof school building to cost \$60,000.

Kenmore, O.—Bids close on the 28th inst., for constructing a two-story brick school building 38x64 feet for the Board of Education, W. J. Walters, president. The plans were made by the National Engineering Company, Marshall building, Cleveland.

South Newburg, O.—The National Engineering Company, Mashall building, Cleveland, has completed plans for a one-story brick school building to cost \$7,500 for the Board of Education, South Newburg Village. Bids will not be asked for several weeks.

Athens, W. Va. — Architect A. F. Wysong, of Princeton, has plans in progress for a two-story and basement brick and sandstone school, to be erected for the Board of Education, to cost \$10,000.

Clairton, Pa. — The Board of Education contemplates constructing a twostory and basement brick high school building, to cost \$125,000. Building will contain 18 class rooms, auditorium, domestic science and manual training departments and gymnasium. Will probably select site soon and vote on bond issue late in February.

Conover, **O**. — The Board of Education awarded to Charles Voorhees, of Nelsonville, the contract for erecting a two-story and basement brick and reinforced concrete high school building, to cost \$29,000. Plans by Architects A. W. Stover & Co., of Columbus.

Tippecanoe City, **O**.—Architect Frank L. Packard, of Columbus, is preparing sketches for a two-story and basement brick, limestone and reinforced concrete high school building, to be constructed for the Board of Education, to cost \$80,-000.

West Jefferson, O. — The Board of Education of Jefferson Township has selected Architects Howard & Merriam of Columbus, to prepare plans for a two-

story and basement brick grade and high school building to cost \$38,000.

Wheelersburg, O.—The Board of Education will select an architect about March 1st to prepare plans for a twostory brick high school building to cost \$35,000. No details decided.

Cheshire, **O**.—The Board of Education contemplates erecting a two-story and basement brick and stone school addition and will probably select architect about March 1st. Cost \$12,000.

Gallipolis, O.—The Board of Education contemplates erecting a two-story and basement brick and stone grade school building on Fourth street. Architect not selected.

Stryker, O.—Architect M. M. Stophlet of Toledo, has preliminary sketches in progress for a two-story and basement pressed brick and stone centralized school building to be constructed for the Board of Education of Springfield township. Cost \$40,000.

Eden, O. — The Board of Education of Brown township, awarded to Drummond & Miller, 221 Electric building, Cleveland, the contract for constructing a two-story and basement brick and limestone centralized school building, to cost \$25,000. Plans by Architect Paul T. Cahill, of Cleveland.

State, County and Municipal.

Alliance, O.—Revised plans have been completed for a one-story and basement stone fireproof postoffice building to be constructed for the United States Government, to cost \$107,000.

Lebanon, O.—Architects Weber, Werner & Adkins, Mercantile Bank building, Cincinnati, have been retained by the Board of County Commissioners to prepare plans for rebuilding a two-story brick, steel and reinforced concrete infirmary building. The building will cost \$85,000.

Portsmouth, O.—Bids on constructing a flood prevention wall for the city of Portsmouth have been received and new bids will probably be requested about March 15th. The work calls for one mile of wall, 24 feet high and 34 inches thick.

Xenia, O.—The City of Xenia has had plans made by the W. J. Sherman Compasy, Nasby building, Toledo, for a sewage disposal plant to cost about \$60,000. Bids on the work will be taken about the 25th inst.

Canton, O .- Architects Pettit & Firestone, Cassilly block, have been selected



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THE "LAST WORD" IN BUILDING NEWS

to prepare plans for a one-story and basement brick and stone fire station to be-erected on Monroe street for the City to cost \$15,000.

Columbus, O.—Architect William H. Tremaine, 601 Chaber of Commerce building, has plans in progress for a onestory and basement frame children's pavilion to be erected at the tuberculosis hospital for the Board of County Commissioners. Cost \$20,000.

Theatres.

Portsmouth, O.—Henry Winter, 509 Chillicothe street, contemplates building a 1½-story brick or stone picture theatre building 62x120 feet on Fifth street and will secure the services of an architect about March. No details decided.

Bluefield, W. Va —Architects Pedigo & Garry have plans under way for a three-story building 25x121 feet to be used for theatre and apartment purposes and to be built for W. L. Mustard. Hyman Brothers, Huntington, will operate the theatre.

Cleveland, O.—Bids will soon be asked by the Grieble Engineering Company, Cuyahoga building, for constructing a one and two-story brick and ornamental terra cotta picture theatre and store building on St. Clair avenue, near E. One Hundred Tenth street for Mrs. Mary M. Fritts, 459 E. One Hundred Twenty-fourth street.

Connellsville, Pa. — Architect H. W. Altman, of Uniontown, has plans in progress for a two-story brick and hollow tile and steel motion picture theatre to be erected on Pittsburgh avenue for John Wishart of Dunbar, and C. A. Wagoner, to cost \$10,000. Owners will take bids about February 5th to close February 10th.

Manufacturing.

Massillon, O.—The Massillon Sign & Poster Company, contemplates erecting a two-story brick fireproof factory addition on Canal street from private plans. Cost about \$30,000. Will probably take bids about March 1st.

Salem, O — The Masters & Mullen Comany, 454 Rose building, Cleveland, receiced the contract for constructing a three-story brick and steel factory building addition on Depot street for the W. H. Mullins Company, to cost \$125,000. Contract for structural steel and erection let to the Van Dorn Iron Works of Cleveland. A. M. Allen & Co., 303-1900 Euclid building, Cleveland are architects and engineers.

Chillicothe, O.—Plans for an addition to the plant of the Mead Pulp & Paper Company are being made by the company's engineer at 309 Broadway, New York City. The work will call for a twostory building 35x200 feet, brick and steel construction, one-story brick and steel power plant 60x60 feet and a onestory machine shop 31x107 feet, brick and steel construction. Estimated cost \$150,000.

Cincinnati, O. — Architects Zettle & Rapp, Johnston building, will prepare plans at once for building a two-story brick factory building for the Osterlein Machine Company. The work will cost about \$70,000.

Cleveland, **O**.—The Bolton-Pratt Company, Columbia building, secured the contract to build a three-story brick and reinforced concrete building 100x155 feet for N. W. Heller, Hippodrome building, Cost \$100,000.

Lumberport, W. Va.—The Mound City Cut Glass Company, Moundsville, W. Va., will take bids at once on materials for the construction of a corrugated iron and timber building 60x140 feet to cost about \$15,000. J. L. Bonar, 1500 Fourth street, Moundsville, has the plans.

Massillon, O. — The Warwick Company contemplates building a twostory brick building to cost about \$30,-000. No architect has been retained. Work may mature about April 1.

Springfield, O.—Bids are to be taken at once by the Safety Emery Wheel Company for a two-story brick and limestone trim factory and office builring 39x46 feet to cost \$7,000. Plans were made by Architect Roy F. Gable, Bushnell building.

Akron, O —Preliminary plans are under way for a one-story brick, reinforced concrete and steel power house 105x160 feet to be built on River street for the Goodyear Tire & Rubber Company. The plans come from the company's engineer.

Dunbar, Pa. — The American Vacuum Can Company of Charleston intends building an addition to its plant 150x200 feet, one-story high. Private plans.

Hartville, O. — The Quality Tire & Rubber Company, contemplates constructing a two-story brick and concrete fireproof rubber factory addition from private plans. Cost about \$50,000.

Cleveland, O.-Architect Ernest Mc-George, 854 Leader News building, awarded to the Riverside Bridge Company of Martins Ferry, the contract for steel and crection, and to the American Cement Tile Manufacturing Company, Schofield building, the contract for roofing, for a one-story brick factory addition to be erected on Madison avenue and W. One Hundred and Sixth street for Parish & Bingham Company. Cost \$150,000.

Society and Club Buildings.

Delaware, O.—The Knights of Pythias will soon select an architect to prepare plans for a three-story brick, ornamenta! terra cotta or limestone lodge building to cost \$20,000.

Springfield, O. — Architect Stanley Gaver, care W. K. Shilling, 324 Bushnell building, will soon start plans for a twostory tile and stucco athletic field house to be erected on the High schoolAthletic Field for the Springfield High School Alumni Association. Cost \$5,000.

Cleveland, O.—The Newburg Masonic Temple Association will take bids on revised plans of Architect W. J. Carter, Illuminating building, Cleveland, for constructing a three-story brick and reinforced concrete building 68x180 feet to cost about \$70,000.

Welch, W Va. — The F. & A. M. Lodge, No. 112 is having plans made by Architects Pedigo & Gary, Bluefield, for a four-story brick and limestone trim lodge building 40x100 feet, to cost \$25,-000. Bids will be asked about March 15th.

Mt. Vernon, O. — The Mt. Vernon Country Club, I. M. Wolverton, chairman of building committee, is taking new bids on erecting a one and two-story and basement frame country club on Martinsburg Road to cost about \$6,500. Plans by Architects Stribling & Lum of Columbus.

Hotels.

Greenville, O. — Architect Frank L. Packard, 1212 Hayden building, Columbus, has been selected to prepare plans for a seven-story and basement brick, limestone and terra cotta hotel, bank and office building to be constructed on Broadway and Fourth streets for Fred Coppock and Mrs. Maggie Patty. Cost \$160,000, Building will contain restaurant, bank room, hotel lobby and dining room on first floor, offices and hotel rooms on remaining floors, basement to contain pocket billiard room and barber shop.

New Kensington, Pa .- Bids are in for

building an addition to the Hotel Howard on Fifth avenue but the contract will not be placed for several weeks. Work will be started about April 1.

Springfield, O.—The Arcade Hotel is to undergo remodeling work to cost \$25,-000. Plans are now being sketched by Architects Drach & Miller, Kelly building, Springfield. The work calls for new partitions, bath rooms, marble wainscotings, tile floors, electric elevator, etc.

Cleveland, O. — Preliminary sketches are being prepared for a twelvestory brick and ornamental terra cotta hotel building to be constructed on S. W. Corner of Public Square, for a company being organized, care H. C. Robinson, 332 Euclid avenue, and H. H. Johnson, American Trust building. Cost \$1,-500,000. Plans will probably be drawn by Architects George D. Post & Sons, 101 Park avenue, New York City, and Schofield building.

Hospitals.

Chillicothe, O. — Architect Frank L. Packard, 1212 Hayden building, Columbus, has been selected to prepare plans for a tuberculosis hospital to be constructed 3¼-miles west of Chillicothe for the Board of County Commissioners of Ross, Highland, Pike, Scioto, Fayette and Jackson Counties. Cost \$30,000. Same consists of administration building, several ward houses and cottages.

Bellevue, O.-E. L. Conklin, Maumee, O., was awarded the contract to build the Harkness Memorial hospital building for the Bellevue Hospital Association. The building will measure 40x122 feet and cost \$25,000.

Xenia, O. — The Board of Trustees Wiberforce University is having private sketches submitted for a two-story brick hospital building 24x35 feet to cost about \$5,000.

Miscellaneous.

Massillon, O.—The West Side Milling Company contemplates erecting a twostory brick flour and feed mill addition on Freemont street to cost about \$25,000. Architect and engineer not selected.

Miamisburg, O.—Bids close this week on the erection of a one-story and basement brick passenger station for the Cincinnati, Hamilton & Dayton Railway Company. Cost \$4,000. Plans by Architect M. A. Long, Baltimore, Md.

Springfield, O. — Sketches are being made by Architect H. Ziegler Dietz, Lafayette, Ind., for a two-story fireproof garage to be built for Link & Link, High and Limestone streets. The building will be 34x200 feet with a wing 50x100 feet. Plans will be started about March 1.

field is having plans made by Architect R. G. Gotwald, Springfield, for a onestory brick and reinforced concrete garage 40x200 feet. Estimated cost \$18,000. Bids will be asked for at once.

Cincinnati, O — Architects Zettal & Rapp, Johnston building, have plans in progress and will be ready for bids about February 10th on erecting a twostory and basement pressed brick and reinforced concrete public garage on 422-424 John street for the Sandman Estate, 3574 Burch avenue. Cost \$20,000.

Minerva, O.—Dr. A. A. Bates, Market street, contemplates erecting a two-story brick and hollow tile commercial garage on Market street, to cost \$20,000. Architect will be selected shortly.

Liens Filed for Labor and Material Furnished. NO LIEN CONTRACTS.

ALLEGHENY COUNTY, PA.

J. A. Altman, Contractor, vs R. C. Marshall, owner. Agreement made January 25th and filed January 27th, 1916, to provide all materials and perform all work for the erection and completion of a two-story dwelling at Rosedale, Allegheny County, Pa., for \$1,209.50,

D. T. Riffle vs. Fidelity Title & Trust Company, owner. Agreement made January 27th and filed January 28th, 1916, to do all necessary work for alterations and additions to a fireproof building at 319-21-23 Liberty street, Pittsburgh, for \$55,900.

ADDITION TO PAPER MILL.

The Mead Pulp & Paper Company, Dayton, O., is to build an addition to its plant at Chillicothe, O., to cost \$150,000. Plans of the company call for a twostory addition 35x200 feet, brick, steel and reinforced concrete construction, a onestory brick and steel power house 60x 60 feet and a one-story machine shop 31x107 feet. All the buildings will have steel roof trusses, concrete foundations and floors, solid steel sash, etc.

PLANT EXTENSIONS AWARDED.

The Hunkin-Conkey Construction Company, Cuyahoga building, Clevelan J, has been awarded the work of building an additional story to the eight different wings to the plant of the Firestone Tire & Rubber Company, Akron, O., together with six extensions measuring 100x128 feet each. All the buildings will have brick walls, reinforced concrete walls and floors, wood finish floors, asbestos roofing, hollow metal window frames, etc. The estimated cost of the work is \$500,000.

DAYTON ARCHITECTS SELECTED

The Adam Schantz Estate, Commercial building, Dayton, O., will have plans made by Architects Pretzinger & Musselman, Riebold building, Dayton, for a five-story building to be used for store and office purposes. It will have brick walls, terro cotta front, reinforced concrete roof and floor construction and will measure 85x108 feet. Specifications will include tar and gravel roofing, patent store fronts, steam heating, electric work, plumbing, etc. Full details are undecided.

SUB-CONTRACTS FOR AKRON SCHOOLS.

The Harbaugh Construction Company, Flatiron building, Akron, O., which has the contract to build the Portage Path school building for the Board of Education, Akron, has placed the structural steel work with the Niles Forge Company, Akron; ornamental iron was awarded to the Hughes-Keenan Company, Mansfield. Bids are in for the pitch and felt roofing, mill work, plastering, painting, etc., and work will soon be placed. The Indiana Engineering & Contracting Company, Second National Bank building, Akron, has the Miller street school building and has awarded the Ohio Cut Stone Company, Amherst, O., the stone work and the reinforced concrete work to the Trussed Concrete Steel Company, Cleveland.

ANYTHING TO START TROUBLE.

Charges have been made by Erie, Pa., Building Trades Union that construction work on the Gridley and Columbus school buildings at Erie is of a faulty nature inasmuch as specifications were not being observed by the contractors who have the work. The Board of Education is to call a meeting of the finance and property committees to investigate the matter. Both the representative of the designing architect and the superintendent of school buildings deny the assertions.

The Gary Mill Work Company, Gary, Ind., secured the mill work for the Worley school building at Canton, O. The cut stone work went to the Hoadley Stone Company, Bloomington, Ind.; roofing and sheet metal work to Yost Furnace Company, Canton.

* * *

Owing to increased business the Concrete Pipe & Block Works, Lancaster. O., has secured enlarged quarters and has taken on an additional line of building material.

WHAT TO CONSIDER IN BUILD-ING DESIGN.

In a modern office building there are so many different elements which enter into the construction that each part of the building must be considered with particular care. Each element of construction is represented in the market by different types of material and manufacture, and unless such element is wisely selected, a project which figures well before construction may afford a poor return on the investment in the completed building.

In making up preliminary figures for a prospective building, real estate operators as a rule include maintenance, repairs and depreciation charges as well as interest, promotion charges and operating expenses. The three latter items are fixed in proportion to the total expense of the building. Maintenance, repairs and depreciation charges vary materially with different types of construction.

Real estate operators, in considering the construction of a new office or commercial building, have in mind certain points which to them indicate the probable success or failure of such an operation. In the first place the proportion of rentable space to lot area is one feature which determines the success of the venture. If the rentable area is too small in proportion to the size of the lot, the the income of the building will be so seriously curtailed that it will not pay the proper dividends on the investment. The amount of space consumed by corridors, elevators, public rooms, etc., is, of course, the important factor in determining the relation of rentable area to lot size

Questions of construction or of materials entering into the building, and all general details, are usually left to the architect, but it is also advisable for the owners and real estate operators to be sufficiently conversant with the various types of materials, so as to recognize the relative value of the different types of construction.

It is not the first cost in a building that counts in its ultimate success so much as the continual expense of maintenance and repair. For example, in a certain large office building certain plumbing fixtures were used which were considerably more expensive than any of the competitive fixtures proposed. The owners have justified the extra expense by the fact that not one cent has been spent for plumbing repairs for a period extending over a number of years. In another building belonging to the same owners where plumbing fixtures of a less expensive type were installed, there is a continual open account of

plumbing repairs. It is not just to assume that in every case it is necessary to secure the most expensive article nor that the highest price is an insurance against defects, but the above illustration will serve to indicate that after careful examination and comparison of expenses in other buildings the owners did exercise good judgement in selecting the fixtures they had installed.

So it is with the heating installation. battery of boilers-that is two or three boilers set up side by side-while consuming more space in the lower part of the building, is more efficient in operation, presents a flexible heating unit. and provides insurance against failure of the entire plant in extreme weather. For example, where one boiler could easily accomplish the work desired, it is more advisable to take two boilers of a smaller size with an aggregate heating capacity as may be required, these two boilers being arranged so that in mild weather one may be operated, and in extreme weather both may be operated. The life of the boilers in such an installation is longer than is the life of the single boiler previously referred to.

This statement, of course, is true within certain limits. Where boilers are installed of a heating capacity, say, less than 4,000 feet, it would be absurd to put two small boilers in place of one, but from this point upward it may be assumed with reasonable accuracy that a battery of two or more boilers is well worth considering.

The first cost of some of the special vacuum heating or vapor systems seems to the average investor as being prohibitive in a commercial enterprise. Investigation into the relative merits of a gravity system, vacuum system or a vapor system, however, might readily show that the saving in coal consumption and the saving in operating expense of the boiler plant would be sufficiently great to represent good interest on the additional investment.

An analysis of the various kinds of structural elements such as concrete, terra cotta, plaster blocks, metal partiion, etc., is of sufficient importance to be well worth while in the case of a proposed building. The principal consideration, however, by which the relative value of types of construction should be judged is stability and in this connection the quality of permanence would also enter.

DISCOLORATION OF STUCCO.

Unless carefully waterproofed, stucco is sufficiently porous to absorb the dust and soot-laden water with which it is brought in contact. The result is a permanent darkening of the wall-frequently in ugly blotches or streaks. This being a natural effect of the pore-filling process, the obvious method of avoiding it is to fill the pores with a white or colorless waterproof substance before the natural process has had time in which to fill them with soot and dirt.

There are two ways by which this result may be had. Only a small quantity need be used, and the cost should not exceed 11/2 cents per square foot, or about \$35 for an ordinary 8-room residence. The integral paste or powder is carried into the pores, and it is found that the stucco so treated is permanently waterproof and satin-proof. The second method is used to waterproof and stainproof after the completion of the building. It sometimes happens that the builder does not learn of the integral method until it is too late to use it, and in this case a colorless waterproofing method supplies the omission. It is a wonderfully simple process, inexpensive and practically as efficient as the integral method. The surface may be brushed with two coats of a colorless waterproofing; the liquid enters the pores and there deposits a clear, colorless, water-resistant substance which effectively protects it from rain and smoke.

PROBLEMS IN CONCRETE HOUSE BUILDING.

Owing to the increased use of concrete in industrial and business building, remarkable developments have taken place in this branch of the industry, though until recently little advance has been made in the class of buildings of residential character. Dampness is the principal objection to concrete construction. It is easy to see that if a solid wall thoroughly chilled has warm air suddenly impigned upon it, the moisture in the air will be condensed as with an ice water pitcher on a warm day. Now ordinary, monolithic concrete of a fairly rich mixture is practically waterproof. The condensed water is not readily absorbed by the wall-hence the damp condition that follows. Brick, tile and many other materials are absorbents of water to a certain degree; wood, to a large degree.

It is quite clear, then, that if we want to eliminate dampness due to sweating, we must approximate the conditions of such materials as do not sweat, and a construction that cannot be damp under any conditions.

To begin with there is the typical wet mix. Here the water practically carries the cement in saturated solution to all surfaces of the aggregate and deposits it there, enough mixing and churning being given to distribute the cementsaturated water evenly. This type has many advantages as to ultimate strength and waterproof qualities, and is widely specified, but it is not adapted to residence work, either as a final material or as an economy proposition.

At the other extreme is the typical dry mix (used 15 years ago in foundations and to some extent in the concrete block industry to-day). This type, on account of excessive porosity and the great amount of tamping or pressure needed, is equally unfitted for residences. Midway in the scale, however, is another kind of concrete that has some remarkable properties—which are just what the house builder is after.

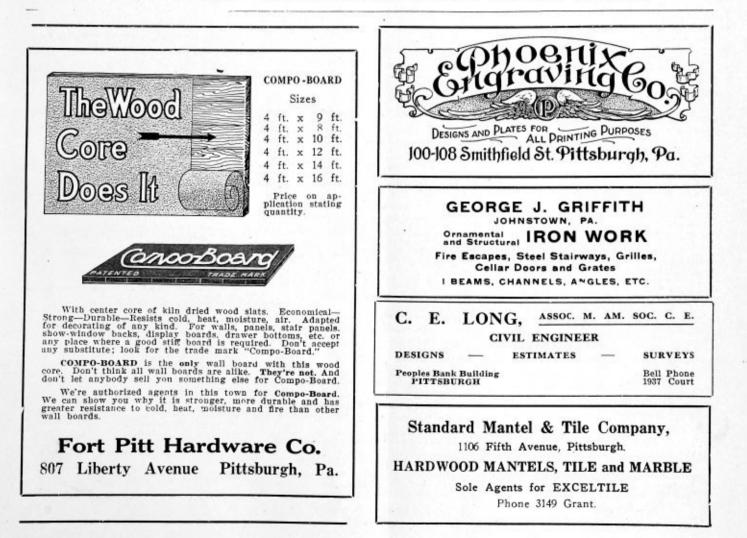
This mix should have primarily an excess of the mediumized aggregate and sand. That is, we want voids, but we want them very, very small and not connected, so to speak. In other words, we want to approximate the structure of wood or brick, not the closeness and homogeneity of steel. It should be wet and plastic like mud, but with no surplus of water, and requires mixing for a comparatively long time. Finally it should be rapidly cured or dried out by removing the forms as soon as possible.

The qualities of this product are peculiar. It will absorb water to a moderate amount without being subject to leakage, and attains considerable tensile strength while still green; also it does not exert much pressure when setting, and is not nearly so subject to expansion and contraction as a wet mix. Cracks will often reknit 24 hours after final set on application of pressure. Frequently scrapings from a wall two days old catch on the wall below and set up again, adhering so firmly that a cold chisel is required to dislodge them. The dimensions of the building were 62 feet 6 inches by 41 feet 6 inches by 23 feet 6 inches from first-floor beams to roof plate. The approximate time of erection above first floor beams was 14 working days.

As the walls largely consisted of two 4-inch slabs, each square foot of wall surface represented the equivalent of two-thirds, of a cubic foot, which gave a cost per square foot of wall surface of 14 cents. The conveying apparatus used consisted of a 5 cubic foot mixer, with hoist and bucket dumping into a very short, steep chute, which in turn emptied into wheelbarrows. No scaffolding whatever was erected, run ways over horses and on second floor beams being substituted.

There is one other factor in the general problem, namely, the overhead cost of concrete work. The tendency has been in the building art to develop concrete work as a thing apart for large buildings and structures requiring great strength. Architects and engineers have become accustomed to use a standard form of specification whose requirements, if lived up to, furnished a product suitable to heavy structures, and little else. To require an ultimate strength of 2,500 pounds to the square inch where the maximum strain would never be 25, is certainly keeping on the safe side, but obviously a little absurd and very uneconomical.

The result has been the (1) in small work the requirements have not been lived up to, which practice has been more or less condoned by architects on account of the high factor of safety; and (2) the segregation of the skilled concrete workers into a class employed almost entirely on big work.



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Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa. Keystone Ornamental ron Co., Homestead, Pa. Kratzer, W. N. & Co., Smallman St., Pitts-burgh

Kratzer, W. N. & Co., Smallman St., Pitts-burgh. Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

FLOOR HARDENER.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FLOOR SURFACING.

Empire Flooring Co., Jenkins Arcade, Pittsburgh. Wayvell, Chappell & Co., Chicago, Ill.

FLOOR AND WALL PAINTS. General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FOUNDATION CASTINGS.

eral Waterproofing Co., Century Bldg., Pittsburgh, Pa. General

FURNACES, STOVES AND RANGES. Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.

GYPSUM BLOCKS.

J. Willis Dalzell, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

HARDWOOD DOORS. Hyde-Murphy Co., Ridgway, Pa.

HARDWOOD FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh.

HOUSE PUMPS. Reineke-Wagner Pump & Supply Co., Pittsburgh.

INTERIOR TRIM.

Dalzell, J. Willis, Pittsburgh, Pa. Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio. H. C. Bemis, Bradford, Pa. Hyde-Murphy Co., Ridgway, Pa. Orner Woodworking Co., DuBois, Pa. Requarth Co., F. A., Dayton, Ohio.

INTERIOR MARBLE WORK.

Erie Marble & Tile Co., Erie, Pa. Pittsburgh Marble Co., Builders' Exchange, Pittsburgh, Pa. Standard Mantel & Tile Co., Pittsburgh. E. J. Walker, Pittsburgh, Pa.

INTERIOR MILL WORK.

Dalzell, J. Willis, Pittsburgh, Pa.
Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio.
Hyde-Murphy Ce., Ridgway, Pa.
Orner Woodworking Co., DuBois, Pa.
Requarth Co., F. A., Dayton, Ohio.

IRON FENCING.

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JOIST HANGERS.

Keystone Ornamental Iroa Co., Home-stead, Pa.
 Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

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J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

LIGHTING FIXTURES.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

LIME. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

MILL WORK. H. C. Benis, Bradford, Pa. Herdman ash, Door & Lumber Co., Zanes-ville, O. Hyde-Murphy Co., Ridgway, Pa.

MANTELS AND TILES.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Hyde-Murphy Co., Ridgway, Pa. The Graff Company, 955 Liberty St., Pitts-burgh, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa.

METAL CELLAR DOORS.

Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

METAL LATH.

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh, Kennedy, D. J. Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

J. Willis Dalzell, Pittsburgh.

Company,

THE CONSTRUCTION RECORD

Classified Index of Advertisers, Continued

METAL LATH CONSTRUCTION.

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NON-STAINING CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

ORNAMENTAL IRON WORK.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa.

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Keystone Ornamental Iron stead, Pa. Co., Home-

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Moss Iron Works, J. E., Wheeling, W. Va. J. Willis Dalzell, Pittsburgh, Pa. Tyler Co., The W. S., Bessemer Bldg., Pitts-burgh.

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PARQUET FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh

PITCH.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

PLASTER BOARD.

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PRIVATE WATER SYSTEMS.

Dowie Water Well Co., Jenkins Arcade, Pitts-burgh, Pa. Reineke-Wagner Pump & Supply Co., Pittsburgh.

QUARRY TILE.

Kushequa Brick Co., Kushequa, Pa.

RAGGLE BLOCK.

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ROOFERS (TIN AND SLATE).

Blank, Herman, 5152 Coral St., E. E., Pittsburgh.

burgh.
Helt, George P., 1915 Sedgwick St., N. S., Pittsburgh.
Hill Top Roofing Co., Bell Phone, 954-J Hill, Pittsburgh.
South Hills Hardware Co., West Liberty, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

ROOFERS (GRAVEL, SLATE AND TILE).

Hahn Brothers, Pittsburgh, Pa. Limbach, Frank, 1724 Lowrie St., Northside,

Limbach, Frank, 1724 Lowrie St., Northeide, Pittsburgh. Scott, A. White, Pittsburgh. Pittsburgh. Weisberg Roofing Co., 1231 Pennsylvania Ave., Northeide, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va. Moss Iron Works, J. E., Wheeling, W. Va.

ROOFING MATERIALS.

STRUCTURAL STEEL PAINTING. William Patridis & Co., Curry Buld., Pitts-burgh.

SUSPENDED CEILINGS.

TERRAZZO WORK.

Pittsburgh Venetian Mosaic Co., Pittsburgh.

TILE (DECORATIVE).

TRUSSIT METAL.

VAULT LIGHTS. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

VENTILATORS.

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WALL LINING. Empire Flooring Co., Jenkins Arcade, Pitts-burgh.

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Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL PLUGS.

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WALL TIES.

Allegheny Steel Band Co., Northside, Pitts-burgh. Bostwick Steel Lath Co., Niles, O. Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

WATERPROOFING.

WATERPROOFING. Fireproof Materials Co., Pittsburgh, Pa. General Waterproofing Co., Century Bldg., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

WATER WELL PUMPS.

Reineke-Wagner Pump & Supply Co., Pitts-

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WIRE GUARDS.

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Kratzer, W. N. & Co., Smallman St., Pitts-

Moss Iron Works, J. E., Wheeling, W. Va. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa

Vilsack, Martin Co., Ltd., 3226-30 Pean Ave.

Fireproof Materials Co., Pittsburgh.

Witherow Steel Co., Pittsburgh, Pa.

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Pittsburgh.

Kennedy, D. J. & Co., Pittsburgh, Pa.

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Fireproof Materials Co., Pittsburgh.

J. C. Baxendell, Mt. Oliver, Pittsburgh.

Alling & Corey, Pittsburgh, Pa.

- Hahn Brothers, Pittsburgh, Pa. Fintkote Mfg. Co., Wabash Bldg., Pitts-burgh.
- Kennedy, D. J. Co., Pittsburgh, Pa.

Saeger Brothers, Pittsburgh, Pa.

H. B. Morrow, Wabash Bldg., Pittsburgh.

Scott A. White, Pittsburgh,

Hills Hardware Co., West Liberty, So₽ th

Pittsburgh. Wh.eling Wall Plaster Co., Wheeling, W. Va.

SAFETY TREADS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh.

Fireproof Materials Co., Pittsburgh, Pa.

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SAND AND GRAVEL. American Sand & Gravel Co., Erie, Pa.

Erie Sand & Gravel Co., Erie, Pa.

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Wheeling Wall Plaster Co., Wheeling, W. Va.

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Herdman Sash, Door & Lumber Co., Zanes-ville, O.

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Mahoning Foundry Co., Punxsutawney, Pa.

SCAFFOLDING.

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SEWER PIPE.

Kennedy, D. J. Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

SHEET METAL WORK. Franklin Sheet Metal Works, Franklin, Pa.

General Mfg. Co., Wheeling, W. Va. Limbach, Frank, 1724 Lowrie St., Northside,

Pittsburgh. H. Knodell, 510 Weiser St., Northaide, Pittsburgh, Pa. w.

SIDEWALK LIGHTS.

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Kratzer & Co., W. N., Smallman St., Pitts-burgh, Pa.

Mullen Brothers Company, Fulton Building, Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

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burgh. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

STAIR WORK.

H. C. Bemis, Bradford, Pa.

Herdman Sash, Door & Lumber Co., Zanes-ville, Obio.

Hyde-Murphy Co., Ridgway, Pa.

Orner Woodworking Co., DuBois, Pa.

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Challis, D. W. & Sons, Sewickley.

McCabe, H. C., Elizabeth St., Pittsburgh. Hall, Harry & Brother, Homestead, Pa. Storch & Sons, V., Carrick, Pittsburgh.

STONE MASONS.

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Abbott, Eli, Builders Exchange, Pittsburgh.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.



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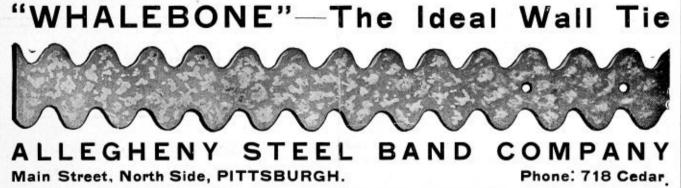
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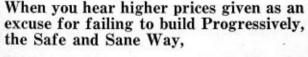
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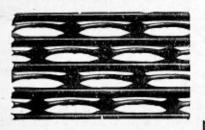
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The Bostwick Steel Lath Co., Niles, Ohio

THE CONSTRUCTION RECORD



CONSTRUCTION RECORD

THE CONSTRUCTION

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SUB-CONTRACTS TO BE PLACED.

The National Concrete Fireproofing Company, Citizens building, Cleveland, which recently secured the contract to build the "Bowen" school at Akron, O., will soon place sub-contracts for the painting, marble and tile work, structural steel and ornamental iron, roofing and sheet metal work, plastering, etc.

CANTON SUB-CONTRACTS OPEN.

The Globe Motor Car Company, Canton, O., will award separate contracts for building a \$100,000 garage building. The steel erection, brick masonry and excavating have already been placed, but the company is having bids submitted on composition roofing, steam heating, plumbing ,electric work, plastering, painting, etc.

YOUNGSTOWN, O., SCHOOL BEING DESIGNED.

The Stambaugh school building, to be built for the Board of Education, Youngstown, O., is being planned by Architects Stanley & Scheibel, Wick building, Youngstown, but no time is set for taking bids. The building will be two stories and basement, 75x168 feet, brick, hollow tile and terra cotta construction, costing approximately \$75,000. It will contain 12 class rooms, auditorium with stage, science departments, etc.

No written specifications have been prepared.

SKETCHING HIGH SCHOOL BUILDING.

The Board of Education, Turtle Creek, Pa., S. M. Cunningham, president, is having sketches submitted for a twostory brick and standstone trim school building which is to be constructed on Penn and Sycamore streets at a cost of \$225,000. The board will select a design about April 1, or shortly after action is taken on a proposed bond issue. The proposed building is to contain 24 class rooms, auditorium, swimming pool, gymnasium science departments etc.

SCHOOL FOR NEW STRAITSVILLE

Plans are under way by Architects Matheny, Allen & Mountz, Huntington National Bank building, Columbus, O., for a two-story brick and reinforced concrete, limestone trim, school building to be constructed for the Board of Education, New Straitsville, O. Besides the usual number of class rooms there will be an auditorium with a seating capacity of 500, science departments, laboratory, etc. Specifications will call for structural steel, asphalt and gravel roofing, patent plaster, sheet metal work, tin clad fire doors, maple flooring, yellow pine interior trim, metal lath, etc. The estimated cost of the work is \$50,000.

WILL DESIGN TWO SCHOOLS.

The Board of Education, Vandergrift, Pa., S. A. Kinnard, president, has adopted the plans of Architect William G. Eckles, Lawrence Savings and Trust building, New Castle, Pa., for a twostory brick high school building, which will be constructed at a cost of \$145,-This building is to contain audi-000 torium, gymnasium, laboratory and class rooms. Mr. Eckles also secured the plans for the new addition to the Munhall, Pa., high school building, which is to be a two-story brick sandstone trim building, 50x80 feet, and to contain eight class rooms, gymnasium, etc. This work will cost about \$75,000. The school board will take estimates in spring.

DECISION ON AKRON ARMORY.

A decision has just been handed down by the Supreme Court of Ohio relative to the building of an armory and auditorium building at Akron, O., the contract for which was placed with Clemmer & Johnson, Hicksville, O. It will be remembered that the attorney general of the state refused to execute a bond for the construction of the work holding that the councilmanic body of Akron had acted illegally in passing an ordinance providing a site for the structure. It is thought that the work on the new building will be started at an early date. It will be a two-story brick and limestone building, the cost of which will be \$142,200.

DESIGNING CEMENT PLASTER SCHOOL.

Architects Jones & Maddox, Dispatch Annex building, Columbus, O., have started plans on a one-story school building 105x140 feet to be constructed of brick and cement plaster on hollow tile for the Board of Education of Monroe Township, Plumwood, O. Bids are to be asked about February 25th on the general contract. The structure will have eight class rooms, gymnasium, laboratory, etc., and will cost about \$50 .-000. Specifications include concrete footings and foundations, face brick, hollow tile, reinforced concrete floors, tin clad fire doors, structural steel, asphalt and gravel roofing, metal lath and sheet metal work, vacuum cleaner and steam heating system, reinforcing steel, etc.

CONVENTION OF WEST VIRGINIA BUILDING INTERESTS.

Arrangements are being perfected for the third annual meeting of the West Virginia Builders Supply and Lumber Association convention to be held in Wheeling, W. Va., on the 18th and 19th inst. Headquarters will be established at the Hotel Windsor, and it is expected that 200 members from all parts of the state will be in attendance. The first day of the convention will be devoted to business matters, while on the second day various subjects pertaining to the building trade will be discussed. On Saturday evening the usual banquet will be held which promises to eclipse any ever held in Wheeling.

G. M. Mossman, vice president of the association and G. J. Dickerson, secretary, both of Huntington, have practically completed all the arrangements and appointed committees for the programme, entertainment, registration and reception.

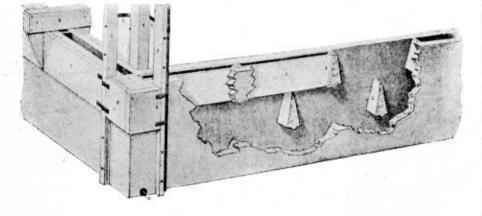
Hollow Concrete Wall System

What is said to be one of the best types of hollow wall construction devised, is that recently invented by an Omaha, Neb., builder, who claims that by his system the costs of wall construction can be brought down to a minimum figure and at the same time eliminates the cold and damp solid concrete wall. The new type of wall should not be confounded with the twin walls tied with wire, nor with concrete block construction. It is not merely a wall of one layer after another, but each coarse is keyed and bonded securely to the course below, the bonds connecting the inner and outer walls. The bonds in each alternate course are staggered to form a

type, which would have a four-inch air space, will withstand one-third more wind pressure than a solid concrete wall.

This system consists of two 12-inch courses for each wall surface and one course of 12-inch cores. Angles and tee uprights for corners, pilasters and connecting wall form sections, and spacers for holding them rigid and plumb. The surface forms are made of 16 guage steel, stiffened with ½-inch by 2-inch steel angles around their edges, which is perforated at intervals of 18 inches for wire tires, and have flat steel hooks to connect to the uprights, and together.

The cores are 16 gauge steel, 36 inches long and adjustable to 20 inches by tele-



continuous air space from bottom to top, thus producing an absolutely dry wall as well as affording insulation features so essential to good building.

Dry basements are said to be more practical with this form of wall construction than with any other mode. The work can be done under the most severe weather conditions. Hollow partition walls provide exceptional means of conducting heat as well as to conceal water, gas and sewer pipes. Window and door slides can also be utilized as well as the installation of ordinary heating registers properly placed in the wall sheds

It is stated that a 10-inch wall of this

GENERAL NEWS.

Mesker Brothers, St. Louis, Mo., secured the ornamental iron work on the manual training shops to be built at Columbus, O., by the Dawson Construction Company, Pittsburgh. The interior trim was awarded to Roach & Musser, Muscatine, Iowa.

New bids are to be asked for the heating system to be installed in the Daniel scoping, and are adjustable from thereto 5 inches in width. A hinged brace prevent them from sagging. They sit on the wall, completely filling the hollow space produced by them. The uprights are of steel 3-16-inch by 2 inches, 10 fect long and carry threaded bolts for hooking the forms in place. These bolts can be reversed, when necessary, to omit pilasters.

Spacers have angled hooked ends to connect to uprights, and are adjustable to different widths of wall. Pilaster corners are made of one piece, angled, and stiffened, and carry hooks for connecting to uprights. All parts are welded and no rivets used.

Worley school building, Canton, O. The electric work was placed with the Canton Engineering & Electric Company, Canton.

L. H. Nielsen, Ferguson building, Pittsburgh, was awarded the electric work in for the assembling plant being constructed on Baum Boulevard, Pitts1 burgh, for the Packard Motor Car Company. The heating work was placed with Burns, Fleming & Co., Pittsburgh.

MORE BUILDING LAST MONTH.

The first month of the year shows a decided increase in building operations in Western Pennsylvania, Ohio and West Virginia over that of January, 1915. The only city of any consequence to show a decline was Pittsburgh and this can be partially attributed to the fact that builders are holding off construction work until a definite idea can be obtained concerning the proposed building code. Residence work should be a feature of Pittsburgh's building field, but the last few years has seen a change in this type of work, principally of the less costly dwellings. High taxation has no doubt placed a heavy ban on residence work and the working classes are not anxious to become property owners when by renting homes they can fare better. Cleveland is one of the best home building cities in the country. Both Akron and Canton are enjoying building "booms" in the way of residence construction, as well as the building of manufacturing plants. The latter class of work is undergoing the greatest season ever known and in all parts of the country many new plants are being established.

The following table shows comparative figures for last month and for January 1, 1915.

J	an., 1916	Jan., 1915
Pittsburgh\$	344,944	\$ 465,461
Cleveland, O		1,116,080
Cincinnati, O	445,805	451,350
Columbus, O	223,415	85,100
Toledo, O	560,875	537,297
Erie, Pa	116,171	66,509
Canton, O	71,725	31,175
Akron, O	288,430	52,635
Youngstown, O	96,345	73,250
Huntington, W. Va	41,555	1,153,497
Charleston, W. Va.,	115,850	
Altoona, Pa	4,982	22,255

Comparative staistics of building and engineering operations in New England, New York, New Jersey, Pennsylvania, Maryland, Delaware, District of Columbia, Virginia, Ohio, West Virginia, Illinois, Indiana, Iowa, Wisconsin, Michigan, Minnesota, North and South Dakota and portions of Missouri and Eastern Kansas, as compiled by the F. W. Dodge Company:

Contracts awarded Jan., 1916..\$62,784,500 Contracts awarded Jan., 1915.. 43,257,000 Contracts awarded Jan., 1914.. 51,102,000 Contracts awarded Jan., 1913.. 62,810,500 Contracts awarded Jan., 1912.. 38,910,000

Comparative statistics of building and engineering operations in Western Pennsylvania, West Virginia and Ohio: Contracts awarded Jan., 1916. \$ 7,343,000 Contracts awarded Jan., 1915. 5,480,000 Contracts awarded Jan., 1914. 4,827,000 Contracts awarded Jan., 1913. 11,221,000 Contracts awarded Jan., 1912. 5,660,000

MANY SCHOOL BUILDINGS TO BE BUILT.

Probably no other section of the country has as much school construction under contemplation as will be found in the Western Pennsylvania, Ohio and West Virginia districts. A rough estimate of the cost of the buildings being planned at the present time and those in view is nearly \$4,750,000. There are many buildings not included in the list presented whose cost will not amount to \$20,000. The largest school reported is that of the Westinghouse high school building for the Board of Education, Pittsburgh, which will cost nearly \$750,000. The school officials at Cincinnati, Cleveland, Clairton, Pa., Dayton, O., Johnstown, Pa., Swissvale, Pa., Tiffin, O., Vandergrift, Pa., and other places will have buildings costing over \$100,-000 each.

The table will show where various school buildings are to be erected and who will design them:

Akron, O\$ 60,000	T. Ralph Ridley, Akron.
Alliance, O., (several buildings) 65,000	W. T. Mills, F. L. Packard, Columbus
Brook Park, O 35,000	W. H. Nicklas, Cleveland.
Bryan, O 50,000	W. H. Nicklas, Cleveland.
Canton, O	W. S. Epperson, Canton.
Cincinnati, O 175,000	S. Hannaford & Sons, Cincinnati.
Clairton, Pa	(Not announced) W. R. McCormack, Cleveland.
Cleveland Heights, O 75,000	(Not selected)
Coalton, O 30,000	F. L. Packard, Columbus.
Covington, Ky 165,000	Weber, Werner & Adkins, Cincinnati.
Creighton, Pa	J. H. Phillips, McKees Rocks, Pa.
Dayton, O	(Not selected)
Dayton, O	
	Pretzinger & Musselman, Dayton.
	(Not selected)
Erie, Pa 150,000	Wm. B. Ittner, St. Louis, Mo.
Georgetown, Ky 90,000	Bausmith & Drainie, Cincinnati.
Granville, O 50,000	(Not selected)
Industrial, W. Va 35,000	H. Rus Warne, Charleston, W. Va.
Johnstown, Pa 200,000	Adams, Lucas & Wild, Johnstown, Pa.
Kingston, O 33,000	Matheny, Allen & Mountz, Columbus.
Kirkersville, O 30,000	Rusk & Sheets, Columbus.
Lakewood, O 40,000	Charles W. Hopkinson, Cleveland.
Maumee, O 40,000	(Not selected)
Monongahela, Pa 45,000	Chas. J. Rieger, Pittsburgh.
Morgantown, W. Va 100,000	(University of W. Va.) Not selected.
Munhall, Pa 75,000	Wm. G. Eckles, New Castle, Pa.
Nevada, O 40,000	Howard & Merriam, Calumbus.
New Straitsville, O 50,000	Matheny, Allen & Mountz, Columbus.
Olmstead Falls, O 60,000	W. H. Nicklas, Cleveland.
Pittsburgh, Pa	(Hall Street school-architect not se
1 htsburgh, 1 a 500,000	lected.)
Pittsburgh, Pa 100,000	
	(South High) W. H. Stotz, Pittsburgh
Pittsburgh, Pa 750,000	(Brushton school) George, S. Orth &
	Bro., Pittsburgh.
Plumwood, O 45,000	Jones & Maddox, Columbus.
Stryker, O 40,000	M. M. Stophlett, Toledo, O.
Swissvale, Pa 180,000	(Not selected)
Tiffin, O 100,000	(Not selected)
Tippecanoe City, O 80,000_	F. L. Packard, Columbus.
Uhrichsville, O 40,000	J. E. Lewis, New Philadelphia, O.
Uniontown, Pa 75,000	J. H. Harmon, Uniontown, Pa.
Vandergrift, Pa 145,000	Wm. G. Eckles, New Castle, Pa.
Warwood, W. Va 60,000	(Not selected)
Waterville, O 40,000	M. M. Stophlett, Toledo, O.
West Liberty, W. Va 60,000	F. F. Faris, Wheeling, W. Va.
Wilkinsburg, Pa	Ingham & Boyd, Pittsburgh,
Youngstown, O 75,000	Stanley & Scheibel, Youngstown, O.

JOHNSTOWN STATION WORK.

The W. H. Fissell Company, New York City, which has the contract to build the passenger station and shelter sheds for the Pennsylvania Railroad Company at Johnstown, Pa., has awarded the mill work to Hemsing & Sons, Souderton, Pa.; plastering, A. J. Confer, Lincoln avenue, Pittsburgh; limestone, J. A. Rose Cut Stone Company, Bedford, Ind.; tile work, L. Dil Force & Bros., Newark, N. J., heating, C. G. Hall, Greensburg, Pa.; electric work, Peet & Powers, New York City.

COLUMBUS HOTEL UP FOR BIDS.

Bids on the construction of the \$250,-600 hotel building to be erected for the Broadway Company, James H. Butler, president, Columbus, O., are to be taken until the 15th inst by Cyrus Huling, 1033 Columbus Savings & Trust bilding. The structure is to be 11 stories high and cover an area of 60x188 feet. It will have steel frame, brick exterior, terra cotta and stone trimmings, reinforced concrete roof and floor construction, etc. Two separate plans have been prepared by Architects David Reibel & Sons, New First National Bank building.

AWARDING OF CONTRACTS DECREASE.

A decline in the amount of contracts awarded for the past week is noted throughout Western Pennsylvania, Ohio and West Virginia. From the statistics compiled from Dodge Reports the decrease is largely among manufacturing and miscellaneous work, the latter comprising office buildings, churches, schools, etc. Residence work is about the same as for the past few weeks. The two largest contracts placed during the past week were the new buildings to cost \$250,000 for the Parish & Bingham Company at Cleveland and a church building amounting to \$180,000 at Sharpsburg, Pa.

The following table shows comparative figures :---

 Total work awarded for year to date
 \$10,655,000

 Total work awarded for week ending Feb. 9th.
 \$1,485,000

 Total work for week of Feb. 2
 2,736,000

 Residence and apartment buildings week ending Feb. 9...
 190,000

 Manufacturing and warehouse work, week ending Feb. 9...
 190,000

 Miscellaneous work for week ending Feb. 9
 \$25,000

 Miscellaneous work for week
 \$70,000

 Contracts for month of Jan...
 7,343,000

 CONCISE BUILDING INFORMATION Authentic Building News on New Dwellings, Stores and Offices, Churches, Schools, Theatres, Etc. These verified reports appear in advance of all other trade publications.

Pittsburgh.

Architect Fred Sauer, 804 Penn avenue, has plans in progress for altering a seven-story and basement store building on 938-40 Penn avenue for the T. J. Keenan Properties, care R. W. Stewart, Keenan building. Work consists of general interior alterations and will cost about \$30,000.

Architect B. F. Kreider, 119 Pitt street, Wilkinsburg, is revising plans for a onestory brick veneered and hollow tile garage to be erected on the Johnson Plan, Wilkinsburg, for Newberry & Ferry, Cost \$6,000.

Architect E. B. Lee, 345 Fourth avenue, is drawing plans for a two-story brick or concrete residence to be crected on the Three Degree Road for Miss Agnes Shields, 212 Oliver avenue. Cost \$15,000.

Architects Ingham & Boyd, Vandergrift building, are drawing plans for a 2½-story brick veneered and hollow tile residence to be erected on Fairfield Lane, Shenley Farms, for Prof. James N Rule, 217 S. St. Clair street. Cost \$8,000.

Architect Thomas Hannah, Keenan building, is drawing new plans for a 2½story brick residence to be erected on Jackson street for Robert C. Fulton, care City Deposit Bank, Center & Penn avenues. Cost \$6,000.

Charles S. Smith, Centre Avenue and Graham street, received the contract for - constructing a one-story and basment stone, brick and tile church on Clay street, Sharpsburg, for St. Mary's Roman Catholic Congragation. Cost \$180,000. Plans by Architect Peter Dederich, 501 Chamber of Commerce building, Detroit, Mich.

Architect Daniel Zwerzynski, 708 hartiers avenue, McKees Rocks, is taking bids to close March 1st on erecting a three-story brick and apartment building on the West Park Plan, Broadway, Stowe Township, for James Liquori, Highland avenue, McKees Rocks. Cost \$6,000.

The Board of Education of Wilkinsburg, has awarded to F. Hoffman & Co., Wilkinsburg, the wrecking contract in connection with the construction of a two-story brick, stone or terra cotta grade and junior high school building on Wallace and Centre avenues, Wilkinsburg. Plans were prepared by Architects Ingham & Boyd, Vandergrift building.

D. T. Riffle, Keenan building, was awarded the contract for constructing a one-story brick and stone freight station a East Liberty Station for the Pennsylvania Railroad Company. Cost \$50,000.

Architect Fred C. Sauer, 804 Penn avenue, awarded to H. L. Kreusler, 3301 Penn avenue, the contract for erecting a two-story brick and steel store building addition on 914-20 Penn avenue for the G. D. Simen Estate, care R. E. Trust Company, Fourth and Wood street. Cost \$22,000.

Architects C. D. Cooley Company, Century building, have been selected to prepore plans for a one and two-story brick pasteurizing and ice manufacturing plant to be constructed on Pennsylvania and Allegheny avenues, Northside, for the Allegheny Dairy Company. Cost \$12,000.

Architect Howard Emery, Wilkinsburg, has plans nearly completed for a brick and hollow tile residence and garage to be erected on Locust and Spruce streets, Edgewood, for J. M. Hipple. Cost \$8,000.

Architect C. W. Cottrell, 509 Cato street, is taking bids on erecting a twostory and basement brick parish house on McKee Place, Semple and Louisa streets for the Oakland Baptist Congregation. Cost \$5,000,

C. J. Lawrence, 1431 Fairplay avenue, will start work at once on the erection of a two-story brick veneered residence on Fallowfield avenue, Beechview, for Harry McCabe, 1626 Broadway avenue, Beechview. Cost \$3,200. The following sub contracts have been awarded:—heating to C. F. Krugh, Dormont, plumbing to W. H. Rosswell, Dormont, and lighting to A. W. Devlin of Dormont.

Architects Hutchins, Rowland & Conwell, 46 Conestoga building, awarded to George M. Hamilton, 1921 Chislet street, the contract for erecting a two-story brick residence on Valmont street between Aylesboro and Northumberland street for A. J. Loeffler, Frick building. Cost \$10,000. Excavations have been completed for a two-story brick veneered residence to be erected on Woodburne avenue, Brookline boulevard, to cost \$3,200. Owner is taking sub bids.

Architect R. J. Colwell, Washington and Noble streets, Swissvale, has started new plans for a 2½-story brick residence, to be built in Rankin, for James Brown. Bids will be asked early in spring.

Bids close on the 19th inst. for constructing a three-story brick, hollow tile and reinforced concrete store and apartment building. The building will contain four store rooms. Plans were made by Architect Emil Schmid, 319 Spring street, Mt. Oliver. Cost \$28,000.

Architect Daniel Zwerzynski, 708 Chartiers avenue, McKees Rocks, is planning an addition for the F. O. E., McKees Rocks, D. E. Shannon, secretary. The building will be 35x50 feet, two stories, brick construction. Plans will be ready for bids about the 15th inst.

W. D. Deemer, Mars, Pa., was awarded the work of building a 212-story brick residence on Hampton street, for George Howard, 1101 Chislett street. Plans were made by Architect A. G. Lowe, 237 Fourth avenue, who will take separate bids on slate roofing, hot water heating, electric wiring and plumbing.

Harry Zimmerman, 221 Wick street, secured the contract to remodel a residence at 2016 Center avenue, for Samuel Levine, 2003 Center avenue.

Architect D. A. Dyche, 131 Collins avenue, will award separate contracts soon for building a block of eight residences on Sawyer street, for A. S. Schwartz, 6016 Penn avenue. They will be of brick veneer construction.

C. W. Houggy, 6022 Station street, received the contract to build an addition to the residence of H. Friedman, 1834 Bedford avenue. The work will cost \$3,000.

Apartments and Dwellings.

Bluefield, W. Va.—Architect T. T. Carter, Thornton building, has plans in progress for 1½-story brick residence to be erected on Highland avenue for S. G. Sublette, Highland anvenue. Cost \$7,500.

The same architect also has plans in progress for a two-story brick residence

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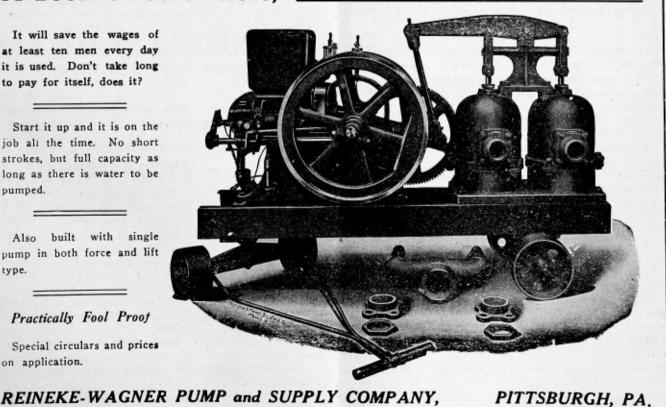
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WHO IS PLANNING • WHO IS BUILDING • WHO IS BUYING

to be erected for W. T. Cook to cost plates erecting a two-story and base-\$4,500.

Canton, O. - rchitects Guy Tilden & Son, Shaefer block, are revising plans for a brick and hollow tile residence and garage to be erected on Cleveland avenue for S. Luntz, Walnut avenue. Cost about \$15,000.

Clarksburg, W. Va .- Architect A. P. Gladden, Goff building, has plans nearly completed for remodeling a two-story brick and hollow tile residence on E. Main street for Mrs. Mary Lyon, E. Main street. Cost \$5,000.

Cleveland, O .- A. Wasserman, 2329 E. Fifty-seventh street, will build a twostory brick apartment building on 2198-2200 E. Seventy-sixth street from private plans. Cost \$7,000.

Adam Welker, 6504 Carnegie avenue, contemplates erecting two two-story frame duplex residences on Superior Road and Lincoln boulevard, Cleveland Heights, to cost \$4,000 each.

Ellwood City, Pa.-Architects Carlisle & Sharrer, Jenkins Arcade, Pittsburgh, are drawing plans for a 21/2-story brick veneered residence to be erected on Second street and Fountain avenue for W. J. Kirk, Frick building, Pittsburgh. Cost \$8,000.

Martinsburg, W. Va.-Architect C. E. Kent, 712 N. Queen street, is revising plans for a 21/2-story brick residence to be erected on Boyd avenue for Raymond Russell, S. Queen street. Cost \$4,000.

The same architect has completed plans for a 21/2-story frame residence to be erected on Boyd avenue for H. Paul Hertzog, care Martinsburg World. Cost about \$5,000. Owner will take bids.

Massillon, O. - Bids have been rejected and new bids will be taken about February 15th on the erection of a brick and hollow tile apartment building on Mill street for Mrs. Bert Hankins, Mill street. Cost \$8,000. Plans by Architect Karl E. Wilhelm, Albright Bank building.

Toledo, O .- Architect M. M. Stophlet, Nasby building, is taking bids on erecting a two-story and basement stucco residence and garage at Ottawa Hills for W. F. Broer, 2406 Robinwood avenue. Cost \$14,000.

The same architect is taking bids on the erection of a two-story and basement frame and shingle residence on Collingwood avenue for E. W. Basset, 247 Kevin Place. Cost \$8,000.

Utica, O. - E. L. Montonya contem-

ment brick or frame residence to cost about \$5,000. Architect not selected.

Wickliffe, O .- F. A. Wheeler, 78 Lockwood avenue, East Cleveland, received the contract for erecting a two-story frame residence and garage for Daniel D. Weyant, 495 Colonial Arcade building, Cleveland. Cost \$6,500.

Bellaire, O. - Architect George H. Dieringer, Wheeling, W. Va., is drawing plans for a 21/2-story brick and hollow tile bungalow to be erected on Gravel Hill for John Zweig, Thirty-fourth and Belmont streets. Cost \$5,000.

Mrs. Dr. D. Boone, Belmont street, will take bids about April 1st on the erection of a two-story hollow tile and stucco and frame residence on Belmont street, Gravel Hill, to cost \$4,500. Plans by Architect George H. Dieringer, Wheeling, W. Va.

Architect George H. Dieringer of Wheeling, is drawing plans for a 21/2story brick and holiow tile residence and undertaking chapel to be erected on 3629 Belmont street for William Brailley to cost \$15,000. Plans will be ready for bids about May 1st.

Bluefield, W. Va .- Architect Alex Mahood, Law & Commerce building, has plans in progerss for a 21/2-story brick residence to be erected for Cecil Lilly, North street, to cost \$10,000.

W. G. Baldwin is taking bids on all materials and sub contracts for the erection of a 25-story brick residence to cost \$12,000. Plans by Architect Alex Mahood.

Cincinnati, O .- A. Shuller, 562 Mt. Hope Road, contemplates erecting a 21/2story brick duplex residence on Woodlawn avenue to cost \$7,000.

Architects Elzner & Anderson, 135 Ingalls building, will be ready for bids about February 15th on the crection of a 21/2-story stucco and limestone residence on Wold avenue, East Walnut Hills, for Miss Mary Hart.

Architect Harry Price, 414 Walnut street, is taking new bids on the erection of a 21/2-story brick residence on Reading Road for Joseph Ginsberg, Sutton and Mears avenues. Cost \$7,000. Foundations are in.

Clarksburg, W. Va. - G. C. Finley is taking separate bids on the erection of a two-story pressed brick and hollow tile residence on W. Main street, to cost \$10,000. Plans were drawn by Architect A. P. Gladden,

Cieveland, O .- Architect H. T. Jeffrey, Union building, is preparing preliminary plans for a seven-story brick and terra cotta family and apartment hotel to be constructed in University Circle, Wade Park, for the White Hall Hotels Company, care G. A. Tenbusch, et al, Union building. Cost \$600,000. Building will contain 500 rooms with bath. No details decided.

John W. Dick, 10001 Yale avenue, received the contract for erecting a twostory frame residence on 3111 Scarborough Road, Cleveland Heights, for James Fintz, 8701 Carnegie avenue. Cost \$5,000.

Architect A. C. Wolf, Swetland building, has plans in progress and will be ready for bids about February 25th on erecting a 21/2-story frame residence on Fairfax Road, Cleveland Heights, for Joseph O. Hahn, 442 The Arcade. Cost \$12,000.

Columbus, O .- James Miller, 527 E. Fulton street, is low bidder on the erection of a two-story and basement brick residence on Linwood avenue and Newton street for L. Sidney Ambrose, 1192 E. Livingstone avenue. Plans by Architect J. A. Jones, Dispatch Annex building. Cost about \$4,500.

Caleb L. McKee, Wyandotte building, is taking bids on concrete foundations and brick work for a two-story basement brick and limestone residence and garage to be constructed on E. Broad street Bexley, to cost \$25,000. Plans by Architect Otto C. Darst, 1109 Brunson building.

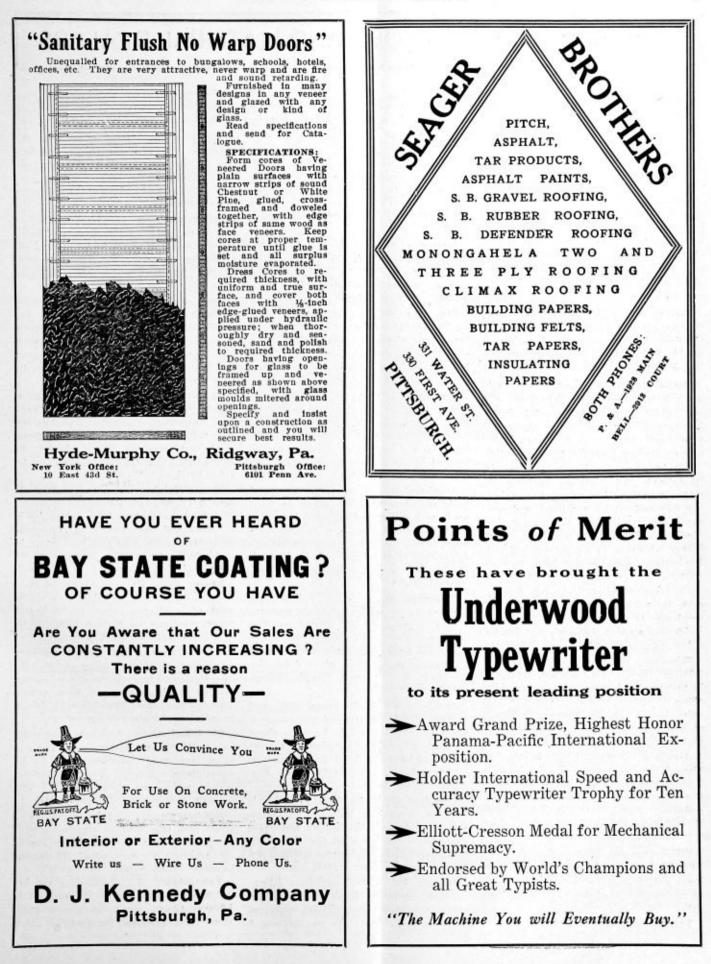
Architect J. A. Jones, 509 Dispatch Annex building, is taking bids on erecting a two-story and basement brick duplex residence for W. H. Sonders. 1744 Oak street, to cost \$7,000.

Lorain, O .- Architect H. O. Wurmser awarded to Henry Hegeman, the contract for erecting a two-story frame residence for D. J. Boone, 1033 Fourth avenue, to cost \$44,000.

Lorain, O. - Architects Steffens & Steffens, Williamson building, Cleveland, have plans in progress for a 21/2story and basement brick or tile and stucco residence and garage to be erected on Lake Shore for L. L. Seeds, care Thew Automatic Shovel Company, Cost \$8,000.

Martinsburg, W. Va .- Architect C. E Kent, 712 N. Queen street, has preliminary plans in progress for a three-story brick apartment building to be constructed for George Bowers, to cost \$25,000.

THE CONSTRUCTION RECORD



7

NEWS FOR CONTRACTORS AND MATERIAL DEALERS

Portsmouth, **O**.—Architects DeVoss & Donaldson, First National Bank building, awarded to James Pfeiffer, the contract for erecting a two-story and basement cement plaster and tile residence and garage on Kinneys Lane for J. M. Stockham, 805 Offnere street. Cost \$8, 000.

Shaker Heights, O.—Architects Reamer & Vorce, 732 Garfield building, Cleveland, have completed plans and will take bids shortly on the erection of a 2½-story and basement hollow tile and stucco residence on Warrington Road for W. S. Cochran, Lakeside avenue, Cleveland. Cost \$7,500.

Sharon, Fa.—Architects Kling & Zenk of Youngstown, are taking bids on the erection of a brick veneered residence for Mrs. M. L. Neff, S. Penn avenue, to cost \$6,000.

Sistersville, W. Va. — Architect Edward Bates Franzheim, Wheeling, will start plans about February 20th for a 2½-story hollow tile and stucco residence and garage to be erected for George Nedenschwander to cost \$20,000.

Toledo, O. — Architect George B. Rheinfrank, 601 Gardner building, is taking separate bids on erecting a hollow tile and stucco residence and garage at the Eagle Point Colony for Hos Dunipace, 534 Spitzer building. Cost \$25,000. William Pitkin, Cutler building, Rochester, N. Y., is the landscape architect.

The same architect has plans in progress for a 2½-story and basement brick residence to be erected at the Eagle Point Colony for Francis W. Simons, 133-37 St. Clair street. Cost \$25,000.

Wheeling, W. Va.—Architect George Ebeling, 125 McLain building, has plans in progress and will probably take bids about February 20th on erecting a 2½story hollow tile and stucco residence at Birch Lynn for E. B. Duis, Richland avenue, Warwood. Cost \$6,000.

Architect George H. Rieringer, has plans in progress and will take bids on materials about March 1st for the erection of a 2½-story brick and hollow tile residence at Oak Park for Mrs. George H. Dieringer, 106 N. Huron street. Cost \$7,000.

Williamson, W. Va.—Architect W. B. Ellswick has plans in progress for altering a 2½-story frame and brick veneercd residence for Judge J. Damron to cost \$4,000.

Youngstown, O .- Fred Diflo, S. Six-

teenth street, is taking bids on erecting a brick veneered duplex residence on Stuart street, to cost \$4,500. Plans by Architect H. L. Ford, Hippodrome building.

J. B. Chambers, 229 Hughes street, contemplates crecting a brick, hollow tile and stone apartment building on Parkwood avenue to cost \$20,000. Plans by Architect H. L. Ford, Happodrome building.

Ambridge, Pa. — Peter Loedding, 146 Park Road, received the contract to build a 2½-story brick residence and garage, on Maplewood street, for Dr. G. B. Forcey. Cost \$15,000.

Blairsville, Pa. — The work of building six double residences for the Columbia Plate Glass Company has been awarded to John L. Brown, St. Clairsville, Pa. Sub-contracts will be taken about March.

Cleveland Heights, O. — Preliminary plans are under way by Architect R. S. Silsbee, Second street and East avenue, Elyria, for a two-story brick and hollow tile residence and garage, to be erected for Dr. Harry G. Sloan, 222 Osborn building, Cleveland. Cost \$20,000.

Architect H. E. Shimmin, Wilbrand building, Cleveland, has plans in progress and will award separate contracts for the erection of a 2½-story and basement brick residence and garage on Derbyshire Road for Fred E. Brumel, Society for Savings building, Cleveland. Cost \$16,000.

Columbus, O. — Jacob Zellers, 481 Lilley avenue, is taking bids on separate contracts and materials for the erection of a two-story and basement brick and limestone terrace on Ohio avenue, near Livingston street, from plans drawn by Architect H. C. Joneš, Grand Theatre building.

Architect Morris Peterman, State and LaZalle streets, has revised plans in progress and will be ready for bids about February 21, on the erection of a twostory and basement brick and frame Colonial residence at Bexley, for Mrs. Welsh: Cost \$6,000.

Hamilton, O. — Architect F. G. Mueller, 705 Rentschler building, is taking bids on erecting a three-story and basement brick residence on the Oak Park Plat, for Phil Robinson, High and Fourth streets. Cost \$12,000.

Indiana, Pa. — Architect John Klingensmith, Farmers Bank building, has plans in progress and will be ready for bids about February 20, on erecting a two-story brick and hollow tile residence on Ninth street, for Dr. C. E. Rink, Ninth street. Cost \$5,000.

Work will be started at once on the erection of a two-story brick and hollow tile residence on S. Sixth street, for R. B. Calhoun, S. Fifth street, to cost \$3,500. Owner builds and awards separate contracts.

Middletown, O. — Sketches are being submitted for a two-story and basement frame residence, to be erected on Hamilton Pike, for C. T. Elliott, to cost \$15,000. Architect will be selected about March 1.

New Philadelphia, O. — The New Philadelphia Construction Company received the contract and will start work at once on the erection of a two-story and basement frame residence and barn for William Koener, of Canal Dover, to cost \$6,500.

Sandusky, O. — Architects Walker & Weeks, 803-1900 Euclid building, Cleveland, have started working drawings for remodeling a 2½-story and basement brick residence, for W. H. Butler, to cost \$6,000. General contract was let to John Feick.

Shaker Heights, O. — Architects Bohnard & Parson, 703-1900 Euclid building, Cleveland, have plans in progress for a $2V_2$ -story and basement brick residence, to be erected for a party whose name is withheld. Cost \$10,000. Plans will be completed about February 25.

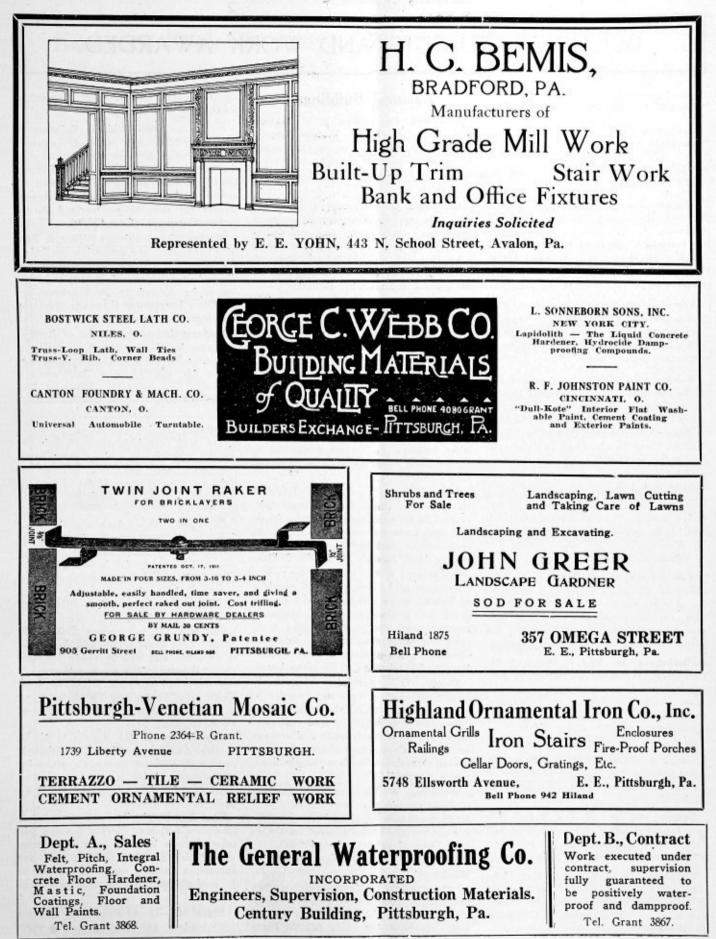
Beaver Falls, Pa. — Charles Pfeiffer, Beaver Falls, will probably secure the work of building a two-story brick and frame residence on Steffon Hill, for G. A. Brittain, 2027 Seventh avenue.

Charles Pfeiffer will award separate contracts for building a frame and shingle bungalow on Eleventh street, for George Hedlon, Fifth avenue and King street. The building will have cement block foundation, shingle roofing, etc.

Cincinnati, O. — Architect Harry M. Price, 414 Walnut street, is planning a brick tenement building, for J. G. Schmidlapp, Union Trust building, which will cost about \$50,000. The building will contain 22 apartments.

Middletown, O. — John Nein, Third street, will take bids on erecting a twostory frame residence from plans made by Architect C. E. Oeden, 213 Jacoby building. Cost \$4,500.

Youngstown, O. — Sketches are being made by Architect F. F. Judd, 141 E. Federal street, for a brick and sandstone trim residence, for Rudolph Kurz, THE CONSTRUCTION RECORD



9

BUILDING PROJECTS AND WORK AWARDED

Himrod avenue. Work will mature about April 1.

Architects Louis Boucherle & Son, Stambaugh building, are making sketches for a brick veneer residence, to cost \$6,000, for private parties. Plans will be ready for bids about March 1.

Dayton, **Pa**.—Architect A. F. Rairig has completed plans and bids are being taken by H. W. Green, Yatesboro, Pa., for building a two-story brick and frame building 40x40 feet to cost about \$4,000. The residence will be constructed in Rural Valley.

Leetsdale, Pa.-Louis VonGuten, Fair Oaks, received the contract to build a 1½-story brick and hollow tile bungalow on Rapp street for Morris Mermelstein, 305 Beaver Road.

Valencia, Pa.—Plans have been started by Architect A. G. Lowe, 237 Fourth avenue, Pittsburgh, for remodeling a 2½story brick and frame residence for Dr. William S. Flower, Diamond Bank building, Pittsburgh. Bids will not be taken for some time. Estimated cost \$5,000.

Warren, O.-Revised plans are being made by Architect J. L. Decker, Stambaugh building, Youngstown, for a brick and hollow tile residence to be built for D. W. Kerr, N. Main street. Bids will be asked about the 20th inst.

Youngstown, O. — Bids will soon be asked by Architect Charles A. Platt, 11 E. Twenty-fourth street, New York City, for constructing a brick and hollow tile residence to cost \$50,000 for James A. Campbell, Stambaugh building.

Clarksburg, W. Va. — Architect Arthur Hall, W. Mechanic street, is taking bids on the construction of a twostory brick and hollow tile residence, to be built for A. J. Rodgers, 150 Harrison street, to cost about \$5,000.

The contract will soon be awarded for building a two-story brick and hollow tile residence for Howard Douglas, on N. Howard street. Plans by Architect Arthur Hall.

Indiana, Pa. — Howard Learn contemplates building a two-story brick and hollow tile residence, from private plans. The work will mature early in summer.

Strasburg, O. — The F. Weber Planing Mill Company secured the contract to build two residences for the Harbison-Walker Refractories Company, Pittsburgh.

Business Buildings.

Clearfield, Pa. — Mrs. J. K. Stavers Company, Third and Walnut streets, contemplates remodeling a three-story brick store and office building on Market street to cost about \$7,000. Architect not selected.

Cleveland, O.—Architect S. H. Weis, Schofield building, has plans in progress for a three-story brick store and apartment building to be constructed on E. One Hundred and Twentieth street & Ashbury avenue for H. Shifran, 2333 E. Sixty-third street. Cost \$25,000.

George B. Cooke, Ford building, Detroit, Mich., received the contract for constructing a three-story reinforced concrete, brick and steel weighing and sacking house for the Huron Portland Cement Company, 1523 Ford building, Detroit, Mich. Cost \$30,000.

Cincinnati, O.—Architect John H. Bell, Bodman building, is taking bids on constructing a six-story and basement pressed brick and reinforced concrete store building on Fourth street for S. P. Nelson & Sons, 208 W. Fourth street. Cost \$40,000.

Rural Valley, Pa. — H. W. Green of Yatesboro, is taking bids to close February 12th on erecting a two-story frame and buff brick veneered restaurant and residence to cost \$4,000. Plans by Architect A. F. Rairigh, R. R. No. 2, Dayton, Pa.

Sylvania, O.—Architect M. M. Stophlet of Toledo, has preliminary plans in progress for a three-story and basement prossed brick and stone or terra cotta bank and commercial building to be constructed for the Farmers Merchant Bank. Cost \$45,000. Details to be given later.

Toledo, O. — Architect Thomas F. Huber, 755 Spitzer building, awarded to H. J. Spieker & Co., the contract for constructing a two-story and basement brick and steel store, office and storage building on Canton and Shephard streets for the American Plumbers Supply Company. Cost \$35,000.

Wheeling, W. Va.—Harris & Spindler received the contract for erecting a twostory brick dairy building, barn and storage on Twenty-seventh street for the F. & G. Dairy Company. Cost \$15,000.

Toledo, O. — Carl Bushnell, 167 W. Washington street, Chicago, Ill., received the contract for remodeling a store building on Adams and Summit streets for Stolberg & Parks, Ashland avenue and Bancroft street. Cost \$22,000. Plans by Architects Ottenheimer, Stearns & Reichart of Chicago.

Architects Mills, Rhines, Bellman & Nordhoff, 1230 Ohio building, awarded to A. Bentley & Sons, Belmont street, the contract for erecting a three-story brick and steel and reinforced concrete service station on Adams and Fourteenth streets for the Willys-Overland Automobile Company. Cost \$20,000.

Warren, O.—Architects Miller & Son of Youngstoun, are preparing preliminary plans for a two-story brick, hollow tile and stone store and apartment building to be erected on Park avenue for the Wick Investment Company, Electric building. Cost \$40,000.

Amherst, O.-L. A. Burgett of Lorain, was awarded the contract for erecting a one-story brick ice storage building addition for the Amherst Cold storage Company to cost \$4,000. Plans by The Drawing Office, Electric building, Cleveland.

Bellaire, O.-Dr. D. Boone, Belmont street, will take bids about March 1st on the erection of a three-story brick and stone store and office building on Belmont street to cost \$5,000. Plans by Architect George H. Dieringer, Wheeling, W. Va.

Cleveland, O. — Architect Christian Schwarzenberg and Gaede, 511-1900 Euclid building, have plans in progress and will be ready for bids about February 12th on erecting a two-story brick store and dairy plant on Lorain avenue for Harry C. Walker, 227 W. Ninty-fifth street. Cost \$15,000.

Columbus, O. — Architect Charles L. Inscho, 1209 Brunson building, has plans in progress and will be ready for bids about February 20th on constructing a two-story and basement brick and limestone store, garage and hall building on N. High street for Ralph Strubel of Frederickstown.

East Liverpool, O.—Architects C. D. Cooley Company building, Pittsburgh, have been selected to prepare plans for a three-story brick ice cream plant to be erected for the Crystal Bottling Company, to cost \$11,000.

East Pittsburgh, Pa. — The Ardmore Lumber Company, Electric avenue, will take separate bids on crecting a threestory brick and hollow tile store and apartment building on Bessemer avenue to cost \$14,000. Excavations have been started.

Elyria, O .- L. A. Burgett & Co., are low bidders on erecting a four-story



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brick, steel and reinforced concrete store building on E. Broad street for David Lewis & Co., Broad street. Plans by Architect Paul Rissman, Elyria building.

Gallipolis, O. — Architects Marriott, Allen & Hall, Hayden-Clinton building. Columbus, have plans in progress and bids will be taken about February 20th on erecting a three-story and basement brick and limestone bank, office and apartment building on Main street for the First National Bank. Cost \$20,000.

Indiana, Pa.—The Indiana Lumber & Supply Company, has plans in progress for a two-story brick and structural steel store building to be erected on Philadelphia street for E. C. Buchheit to cost \$20,000. General contract will probably be awarded to J. A. Stuchell, 972 Wayne avenue.

Lakewood, O. — Sketches are being submitted for rebuilding a -two-story brick and ornamental terra cotta bank building on Detroit avenue and Warren Road for the Lakewood State Bank. Cost \$7,000. Architect will be selected about February 12th.

Martins Ferry, O. — Architect C. D. McCarty of Wheeling, has plans in progress for a two-story frame store and apartment to be erected on Broadway for Dr. J. L. Hurley to cost \$5,000.

Newark, O.-Mercer Brothers, received the contract for remodeling a onestory brick store building on 17 S. Third street for the Franklin Heirs, to cost about \$7,000. F. W. Woolworth Company, are the lessees.

Springfield, O.—Architect William K. Shilling awarded to George Ohmart, Mitchell building, the contract for erecting a two-story and basement brick office building for the Miller Improved Gas Engine Company. Cost \$5,000.

Toledo, O.—Architects Devore & Mc-Gormley, 304 Nasby building, have plans nearly completed for a two-story and basement pressed brick and stone store and apartment building to be erected on entral and Detroit avenues for Dr. F. B. . McMiering. Cost \$25,000.

Architect Sidney F. Aftel, 949 Ohio building, has plans nearing completion for a three-story and basement pressed brick, steel and terra cotta store and lodge building to be constructed on 1623-29 Broadway, for the Viking Lodge No. 892, I. O. O. F. Cost \$50,000.

Altoona, Pa. — Joseph Vogt, Seventh street, contemplates erecting a brick meat market on 1601 Seventh avenue, to cost about \$5,000. Architect not selected.

Columbus, O. — Jacob Zeller, 481 Lilley avenue, is taking bids on separate contracts and materials for the erection of a two-story and basement brick and limestone store, doctor's office and apartment building, on corner of Livingston and Ohio avenues. Architect H. C. Jones;- Grand Theatre building, is taking bids.

Coshocton, O. — Architect F. Stillman Fish, 307 Superior building, Cleveland, is revising plans for a three-story store and hotel building, to be constructed for the McDowell Estate, to cost \$75,000. Owner is taking alternate bids on fireproof construction, steel or tile floor construction. Owner and architect will take bids on general contract about February 24.

Monaca, Pa. — Bids are in for the erection of a two-story brick store and apartment on Pennsylvania avenue, for Charles Stein, to cost \$8,000. Plans by Architect L. Patterson, Mitchell Block, Rochester.

Rankin, Pa. — Architect R. J. Colwell, Swissvale, has completed plans for a two-story brick store and residence block, to be erected on Fifth street, for Joseph Nezoff, Fifth street, to cost \$10,-000. Same will contain two store and seven residences.

Sewickley, Pa.—Architect H. A. Lord, Postoffice building, Ambridge, awarded to D. L. Swearingen, 724 Washington avenue, the contract for remodeling a two-story frame store and apartment building on Broad and Beaver streets, for E. W. Meyers. Cost \$3,000.

Sistersville, W. Va. — Architect Edward Bates Franzheim, Schmulbach building, Wheeling, will soon take bids to close February 22, on erecting a twostory brick store and apartment building for M. L. Clendening, to cost \$10,000.

Sylvania, O. — Architect M. M. Stophlet, Nasby building, Toledo, has started working drawings for a one- or twostory and basement pressed brick, stone or terra cotta bank building, to be constructed for the Farmers and Merchants Savings Bank, to cost \$25,000.

Washington, Pa. — Walker & Curley, Bessemer building, Pittsburgh, received the contract for erecting a brick and timber packing house addition, for Armour & Co., 208 LaSalle street, Chicago, to cost about \$5,000.

Youngstown, O. — Architects Louis Boucherle & Son Stambaugh building, are preparing sketches for a three-story brick and hollow tile and stone store

and apartment building, to be erected for a party whose name is withheld. Cost about \$15,000. Will probably be ready for bids about March 1 or 15.

Architect H. Layman Ford, Hippodrome building, is preparing sketches for a two-story brick and hollow tile and art stone store and apartment building, to be erected for a party whose name is withheld, to cost about \$20,000. Plans will be completed about March 1.

Ambridge, Pa. — Bids are to close on the 20th inst. for constructing a store and apartment building on Merchant street, for J. H. Doutt. The building will be 22x100 feet, two stories high. brick veneer on hollow tile. Plans came from Architect Henry Lau, Ambridge.

Beaver Falls, Pa. — J. W. Carson, Beaver Falls Review, will select an architect soon to design a one-story brick and hollow tile office building addition.

Elyria, O. — L. A. Burgett, Lorain, received the work of building a fourstory briek and steel frame store building, on E. Broad street, for David Lewis & Co Cost \$70,000.

Erie, Pa. — The Mettler-Gloyd Company, Prospect avenue, was low bidder for constructing the 10-story brick, steel frame and hollow tile store and office building on Eighth and E. State streets, for Mrs. Esther L. Campbell. Cost \$121,000. Contract will be signed at an early date.

Lorain, O. — Bids will be taken about April 1 by Architect Paul Rissman, Elyria Block, for building a two-story brick and steel store and apartment building, 40x45 feet, for John Soete, 1760 E. Twenty-eighth street. Estimated cost \$10,000.

Youngstown, O. — Bids are in and the low bidder will be announced shortly for constructing the top addition to the store building of Stambaugh & Thompson Company.

Altoona, Pa.—Architect F. J. Shollar, Altoona Trust building, is working on plans for a three-story brick and apartment building 52x85 feet to be constructed for private parties. Cost \$25,000.

Religious.

Tiffin, O.—Architects Fulton & Butler of Uniontown, Pa., have plans nearly completed for a 1½-story and basement brick and stone church and parish house to be constructed on E. Perry street for the First Presbyterian Congregation, to

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PLANS FOR VARIOUS KINDS OF STRUCTURES

cost \$50,000. Owner will take bids about February 20th.

Welch, W. Va.—Architect A. F. Wysong of Princeton, has completed plans for a two-story and basement brick and sandstone church to be erected for the Christian Church Congregation, to cost \$10,000. Owners will probably build and buy materials.

Cleveland, O.—The Windermere Presbyterian Congregation, will soon select an architect to prepare plans for a oneor two-story brick and sandstone church addition to be erected on Euclid avenue and Windermere street, East Cleveland, to cost \$25,000. Addition to contain Sunday school rooms.

Pitcairn, Pa.—Sketches are being submitted for a one-story brick church to be erected on Third and Highland avenues for the United Presbyterian Congregation, to cost \$18,000. Campaign for funds to be started soon and building committee to be appointed in about two weeks.

Wilmington, O.—Charles B. Hicks of South Charleston, is low bidder on constructing a pressed brick and concrete church and parish house on Mulberry street for St. Columbkill's Roman Catholic Congregation. Cost \$45,000 Plans by Architect S. F. Sheblessey, Lincoln Inn Court, Cincinnati.

Coshocton, O. — The United Brethren Congregation is taking bids to close March 1, on erecting a one-story and basement brick and stone church, to cost \$18,000. Plans by Architect Edwin E. Pruitt, Hartman building, Columbus.

Moundsville, W. Va. — Sketches are being submitted for a one- and twostory brick and stone church, to be constructed on Jefferson and Seventh streets, for St. Francis Xavier's Roman Catholic Congregation, to cost \$46,000. Architect will be selected about March 1st.

Fairmont, W. Va. — Bids are soon to be asked by the Presbyterian Congregation, J. Walter Barnes, chairman of building committee, for building a one-story stone church building, to cost about \$75,000. Plans came from Architect W. N. Nicklas, 1900 Euclid building, Cleveland.

Moundsville, W. Va. — The St. Francis Xaviers Roman Catholic Congregation is having sketches submitted for a one-story brick and stone church building, to cost about \$45,000. An architect will be selected about March 1.

Portage, Pa .- The Evangelical Luth-

eran Congregation, Portage, is having plans made by Architect F. J. Shollar, Altoona, for a one-story brick church building 46x51 feet to cost about \$7,000.

Rochester, Pa.—Minor changes are to be made to the plans of Architects Kaufman & Large, Conestoga building, Pittsburgh, for the proposed building of the First Baptist Congregation. Bids will not be taken until April 1. Cost \$30,000.

Educational.

Ironton, O.-St. Joseph's Congregation contemplates constructing a two and three-story brick and stone or terra cotta parochial school building on Second and Adams streets, to cost about \$35,000. No details decided.

Mahaffey, Pa.—The Board of Education has selected Architects Harrington & Howard of DuBois, to prepare plans for a two-story hollow tile and brick veneered grade school building to be erected at a cost of \$14,000. Plans will be completed about March 1st.

Circleville, O.—The Board of Education of Washington Township awarded to T. W. Newman, 60 S. Harris avenue, Columbus, the contract for erecting a two-story and basement brick and limestone centralized township school building to cost \$27,000. Plans by Architect Richard A. Dawson, 209 Brunson building, Columbus.

Coalton, **O.**—The Board of Education has selected Architect Frank L. Packard of Columbus, to prepare plans for a twostory and basement brick and limestone grade and high school building to cost \$30,000. Building will contain auditorium with stage and class rooms.

Hanover, O.—Architect W. B. Patton, 15 S. Park Place, Newark, has plans in progress for a two-story brick, limestone and reinforced concrete high and grade school building addition to be erected for the Board of Education to cost \$25,-000.

Olmsted Falls, O.—The Board of Education is taking bids to close February 28th on constructing a two-story and basement frame fireproof high and grade school building on Dutch Road to cost \$80,000. Plans by Architect W. H. Nicklas, 608 1900 Euclid building, Cleveland.

Plumwood, O. — Architects Jones & Maddox, Dispatch Annex building, Columbus, are drawing plans for a one-story and basement brick and cement plaster and hollow tile grade and high school building to be erected for the Board of Education of Monroe Township. Cost \$45,000. Architects will take bids about February 25th.

Toledo, O.—Architect Edward M. Gee, Board of Education building, awarded to William Gruenke, 795 Woodland avenue, the contract for constructing a twostory and basement brick school building addition for the Board of Education. Cost \$40,000.

Wall, Pa.—Architects S. C. Richard & Co., of Braddock, have plans in progress for a two-story brick grade school building to be erected on Wall avenue, for the Board of Education to cost \$12,000. Owner will take bids about March 1st.

Waterville, O. — The Board of Education has selected Architect M. M. Stophlet, Nasby building, Toledo, to prepare plans for a brick fireproof high and grade school building to cost about \$40,-000.

West Liberty, W. Va.—Architects F. F. Faris, Wheeling, and M. L. Wells of Wellsburg, have been selected to prepare plans for a two-story brick, stone and terra cotta normal school building to be constructed for the West Liberty Normal School, State Board of Control, to cost \$60,000.

Cleveland, O. — Architect Marius C. Rosseau, 9609 Pierpont avenue, will probably be selected to prepare plans for a one and two-story and sandstone church and building to be constructed on E. Sixty-seventh street and Aetna Road for St. George's Lithuanian Congregation. Cost \$100,000.

Creighton, Pa. — Architect John H. Phillips of McKees Rocks has plans about completed for a two-story brick and hollow tile grade school to be erected in East Deer Township for the Board of Education. Cost \$20,000.

Holloway, O.—Architect J. E. Lewis of New Philadelphia, has plans nearly completed for a two-story and basement brick and limestone school addition to be erected for the Board of Education.

Kingston, O. — Architects Matheny, Allen & Mountz, 1 S. High street, Columbus, are preparing sketches for a two-story and basement brick centralized grade and high school building to be constructed for the Board of Education of Green Township to cost \$33,-000.

Kirkersville, O. — Architects Rusk & Sheets, Brunson building, Columbus, have plans in progress and will be ready

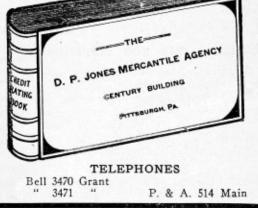


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THE "LAST WORD" IN BUILDING NEWS

for bids about March 1st on constructing a two-story and basement brick and limestone grade and high school building for the Board of Education of Harrison Township. Cost \$30,000.

Logan, O.—Architect William Loomis, 501 Canal street, will probably be selected to prepare plans for two two-story brick high school building additions to the east and west buildings for the Board of Education. Cost \$20,000.

Monongahela, Fa.—The Board of Education is taking bids on constructing a two-story and basement brick and stone fireproof grade school building on Jackson, Vine and Pleasant streets to cost \$45,000. Plans were drawn by Architect Charles J. Rieger, Germania Bank building, Pittsburgh. Building will contain 10 class rooms, gymnasium, domestic science and manual training departments in basement.

Munhall, Pa. — Architect William G. Eckles of New Castle, is preparing sketches for a two-story and basement brick and sandstone high school building addition to be constructed on Eleventh and Andrew streets, for the Board of Education. Cost \$75,000. Owner will take bids in Spring.

Vandergrift, Pa. — Architect William G. Eckles of New Castle, has been selected to prepare plans for a two-story brick high school building to be constructed for the Board of Education to cost \$144,500. Building will contain auditorium, gymnasium, laboratory, manual training and domestic science departments. Will vote on Bond Issue on March 26th.

Warwood, W. Va.—The Richland District Board of Education will soon select an architect to prepare plans for a three-story and basement brick fireproof high and grade school building to be constructed on Warwood avenue to cost \$60,000. Also for a two-story brick and hollow tile and stucco fireproof centralized country grade school building to be erected on Short Creek to cost \$10,000.

State, County and Municipal.

Dayton, O.—Architect Louis J. P. Lott, 1001 Commercial building, has been selected to prepare plans for a workhouse to be constructed on Germantown Pike for the City to cost \$35,000. No details decided.

Cleveland, O. — Architect Willard Hirsh, 1303 Swetland building, will probably be selected to prepare plans for a two-story brick and stone engine house to be crected on Shaw avenue, East Cleveland for the City of East Cleveland. Cost \$10,000.

South Charleston, W. Va.—The Village will soon take new bids on constructing a water works plant to cost \$30,000. Arthur Giessler, 1063 Reibold building, Dayton, is the engineer.

Theatres.

Dayton, O.-Bids are in for the erection of a one-story reinforced concrete motion picture theatre addition on rear of Fifth and Main streets for Valentine Rayburg, 19 S. Main street. Cost \$10,-000. Plans by Architects F. J. Hughes & Co., U. B. building, Annex.

Hubbard, O.-William Wolf is taking bids on the erection of a one-story brick motion picture theatre from plans drown by Architects Stanley & Scheibel of Youngstown. Cost \$6,000.

Altoona, Pa. — The Patriotic Order Sons of America, 311 Tenth street, are taking bids to close February 16th on erecting a three-story brick and hollow tile motion picture theatre and lodge building addition on Eighth avenue near Twelfth street, to cost \$20,000. Plans by Architects F. J. Shollar & Sons.

Canton, O.—Architects C. C. & A. L. Thayer, of New Castle, Pa., are preparing preliminary plans for a brick and steel motion picture theatre to be constructed on Second and Market streets for the Clark Estate, 210 N. Market avenue, to cost \$75,000. Uncertain when plans and specifications will be completed.

Bethseda, O. — The sketches of Architect George E. Dieringer, 106 Huron street, Wheeling, for a one-story brick picture theatre building have been approved by T. M. Kildow, Bethseda. The building will be 32x120 feet. Bids will not be taken until April 1.

Manufacturing.

Williamson, W. Va.—Architect M. R. Carpenter, 62 Pickering building, Cincinnati, O., is preparing sketches for a one and two-story brick ice manufacturing and cold storage plant to be constructed for the Williamson Light & Ice Company. Cost \$50,000.

Cleveland, O. — The John Donnelly Construction Company, 1471 E. Fiftyfifth street, received the general contract for erecting a one-story brick and steel factory building on 4623 Lakeside avenue for the Kilby Manufacturing Company, to cost \$24,000. Contract for structural steel and erection let to he Massillon Bridge Company.

East Pittsburgh, Pa.—Toupet, Beil & Conley, Oliver building, Pittsburgh, secured the contract for constructing a three-story brick and steel research laboratory for the Westinghouse Electric & Manufacturing Company, to cost \$40,-000.

Emporium, Pa. — The Union Powder Company, will take bids about February 15th on constructing a one-story brick and hollow tile plant addition at Salt Run, to cost \$50,000.

Niles, O. — The Grasselli Chemical Company, has awarded to W. N. Kratzer Company, Pittsburgh, the contract for structural steel for a chemical manufacturing plant to be constructed from plans by Engineer Frank S. Coke, 784 Arcade, Cleveland. Excavation and concrete foundation work and steel erection done by owners.

Springfield, O.—George Ohmart, Mitchell building, received the contract for erecting a one-story brick factory addition on Plum and Fair streets, for the Miller Improved Gas Engine Company.

New Philadelphia, O. — The Union Lumber Company, Canal Dover, received the contract for erecting a one-story brick and concrete factory addition for the Belmont Stamping & Enameling Company.

Huntington, W. Va. — Henry Persun, Eighth street, was awarded the contract to build a three-story brick factory building, 60x75 feet, for the Empire Furniture Company.

Hospitals.

Massillon, O. — Architect Edmund Herrman, Central Savings building, Canton, is writing specifications and will take bids about February 15th on constructing a four-story brick, hollow tile and stone hospital addition on Akron street for the Massilon City Hospital. Cost \$50,000.

Oberlin, O.—The Trustees of Oberlin College contemplates constructing a memorial hospital on W. Lorain street, to cost \$50,000. Plans will probably be drawn by Architect Cass Gilbert, 11 E. Twenty-fourth street, New York City.

Dayton, O. — Architect Howard E. Germann, Schwind building, has been selected to prepare plans for a Tuberculosis hospital to be constructed on the Covington Pike for the Sisters of St. Francis, St. Elizabeth's Hospital, Hopeland avenue and Cincinnati street. Cost \$300,000. Details not decided.

Hotels.

Point Pleasant, W. Va.—Architect H. Warne of Charleston, has completed sketches for remodeling a hotel building into a hotel, lodge and bank building on Main street for the Spencer Hotel Company. Sketches are now awaiting approval of owners. More definite data about February 15th.

Zanesville, .O. — Architect Harry C. Meyer, 411 Peoples Bank building, will take bids about February 15th on constructing a three-story and basement brick and limestone hotel addition on 26 S. Fifth street for the Stevens Estate, care C. W. Truesdale, agent. Cost \$30,000.

Miscellaneous.

Akron, O.—Architect A. C. Bishop, 418 Citizens building, Cleveland, has completed plans for a one-story brick ice storage builling to be erected for the Klages Coal & Ice Company, to cost \$25,000.

Cambridge Springs, Pa.—Contractors Alexander Shumway & Utz, Exchange building, Rochester, N. Y., are taking sub bids on erecting a one and twostory reinforced concrete condensery for the Mohawk Condensed Milk Company, Sherman, N. Y.

Cincinnati, O.—The Ferro Concrete Construction Company, Richmond and Harriett streets, are taking separate bids on constructing a six-story and basement brick and terra cotta garage and salesroom on Sixth and North streets, for the Grayden Estate, 152 E. Fourth street. Cost \$90,000. Plans by Architects Elzner & Anderson, Ingalls building.

Architects S. S. & G. H. Godley, Neave building, have been selected to prepare plans for a one-story brick garage to be erected on rear of Reading Road and South Crescent Place for Val Duttenhofer, Eighth and Sycamore streets. Cost \$8,000.

Cleveland, O.—The Fraser Construction Company, 1900 Euclid building, received the contract for erecting a twostory brick commercial garage on 1812 E. Twenty-second street for Julius Roemer, 725 St. Clair avenue. Cost \$15,-000.

Architect E. F. Hibbons, Erie building, is taking bids on erecting a onestory brick stable and wagon shed on 1822 Central avenue for the Independent Towel Supply Company, 1822 Central avenue. Cost \$12,000.

Greensburg, Pa. - Architects C. D.

Cooley Company, Century building, Pittsburgh, have started plans for remodeling a brewery into an ice plant for the Star Brewing Company, to cost \$5,000. Plans will be ready for bids about February 17th.

Windber, Pa.—The Pennsylvania Lumber & Construction Company, of South Fork, received the contract for constructing a one-story brick passenger station for the Pennsylvania Railroad Company, to cost \$45,000.

Cincinnati, O. — Architects Samuel Hannaford & Sons, Hulbert block, have been selected to prepare plans for a onestory stucco, cement and brick auto filling station to be constructed on S. E. corner of Madison Road and Moorman avenue for the Moore Oil Company. Cost \$25,000.

Coraopolis, Pa.—Plans are in progress for a one-story tile commercial garage to be erected on Fourth avenue for S. C. McCormick, 867 Fifth avenue, to cost \$5,000. Owner builds and buys materials.

Cleveland, O. — The Frazer Construction Company, 1900 Euclid building, was awarded the contract to build a twostory brick building for garage purposes for Julius Roemer, 725 St. Clair avenue. Cost \$15,000.

Liens Filed for Labor and Material Furnished.

ALLEGHENY COUNTY, PA.

Carlson Brothers, of Homestead vs. Mr. and Mrs. Charles H. Mudler, of Homestead. Agreement made February 2, 1916, to erect a two-story brick veneered residence on Eleventh avenue, Homestead, for \$3,980.

F. E. Geisler & Co. vs. Gardner Steel. Agreement made October 29, 1915 and filed February 2, 1916, to complete the heating work for a 2½-story brick dwelling, on arkman avenue, Schenley Farms, Pittsburgh, for \$1,125.

E. M: Moone vs. Pennsylvania Savings Bank, a corporation. Agreement made January 28 and filed February 7, 1916, to complete a two-story dwelling house at 626 N. Rebecca street, Eleventh ward, Pittsburgh, for, \$600.

Stinson-Kennedy Company vs. Nicola Land Company. Agreement made February 8 and filed February 8, 1916, to do the plumbing work for a three-story and basement garage in the Fourth ward, Pittsburgh.

SCHWAB TO HAVE COSTLY RESIDENCE.

Work is to be begun early next month on the building of a \$100,000 residence at Loretto, Pa., for Charles M. Schwab, Bethlehem Steel Company, New York City. It will be a three-story structure 80x90 feet, built of brick and limestone, the contract for which was recently placed with Cruikshank & Fraser, 103 Park avenue, New York. Most of the sub-contracts have been placed with New York firms. The ornamental plastering, mantels, cabinet work and painting are to be separate contracts.

BUILDING CHEMICAL PLANT AT NILES.

The Grasselli Chemical Company, Cleveland, O., will erect separate building at Niles, O., and will purchase materials for same. These buildings are to be one-story high of brick and steel construction, the latter material having been purchased from W. N. Kratzer Company, Pittsburgh. All the structures will have concrete footings and foundations, brick and concrete flooring, tar and gravel roofing, wood sash, electric work, etc.

MORTAR BED FOR WOOD BLOCK PAVING.

A Mortar Bed for wood-block paving, instead of a sand cushion, has been recommended by the American Wood Preservers' Association. A 1:4 mixture, brought to a thickness of from ½ to 1 inch by templates, and containing just enough water to insure a proper setting of the cement, is advocated. The intention is to produce a granular mixture which may be raked to the desired grade.

Under certain conditions, especially where vibration may be expected, the committee report specifies that a mortar cushion may be omitted and a bituminous coating of one or two thicknesses, spread upon the smoothly finished and thoroughly dry concrete base, substituted therefore. A bituminous filler for the points is recommended.

A circular letter requesting information as to wood block paving practice was sent to 155 cities and replies were received from seventy-nine. The majority called for a bituminous filler, with pitch having a slight advantage over asphalt. The favored cushion is shown to be about equally divided between sand and mortar. The heavy creosote is by far the most popular preservative oil.

The data show that very few cities install the blocks by ramming the rows or courses tightly together. Most of the pavements are laid with the blocks in slight contact or by leaving interstices of at least 1% inch between the ends of the individual blocks. A large majority advocate laying the blocks at an angle of 90 degrees with the curb line.

Slipperiness of wood block pavement is retarded, up to 6 per cent grades, with either lug blocks, creosoted lath strips or beveled blocks. Very few cities specify expansion joints transversely; most of them require a 1 inch joint parallel and adjacent to each curb. These expansion joints are filled with asphalt, pitch, fiber or sand, the preference being in the order named. In only two instances was a cement grout filler specified for wood blocks.

ILLUMINATION OF FACTORIES.

Although the problem of adequate lighting in factories is receiving more attention at the present time than formerly, yet one may note many instances of poorly lighted shops. This applies equally as well to natural as to artificial lighting.

From the standpoint of safety it is necessary that the factory receive adequate light. Proper light greatly decreases the liability of accident, in that the operators may more easily avoid obstructions in passage ways, moving vehicles, fellow operators and the dangerous parts of machines.

Proper lighting increases production, at the same time reducing its cost. Under correct lighting it is possible for the men to work on as good an efficiency basis during the hours of decreasing daylight as during the hours when the shop is illuminated by natural light. As as result of this condition the total output per man is greatly increased. In addition the number of seconds are materially reduced, resulting in a higher grade of product with its corresponding increase in sales value. Seconds must either be sold at reduced prices or else thrown away.

Another point to be considered is the physical condition of the employes. In the first place light must be so employed that the workmen may easily see the work at hand without straining their eyes, and, secondly, there should be no glare. By glare is meant light out of place. An example of this is the use of a clear, bare lamp directly in front of the operator. From the foregoing it may be seen that light may radically affect the physical condition of the workman, and as their physical condition materially affects their working efficiency it is evident that too much stress cannot be laid on the point of adequate lighting.

Having treated on some of the effects of correct illumination, we will turn our attention to the methods of obtaining the results desired.

The first point to be considered is the

illuminant. In general, lamps above 20 watts in size are used for factory lighting. The smaller wattage lamps are often used for the lighting of benches, stockracks, local lighting of machines and the like. The medium sized lamps are used for the lighting of factories where the ceiling height is from 10 to 15 feet. The larger sizes are used for the lighting of higher ceiling buildings, where they may be hung from 20 to 40 feet. An example of the latter case is a typical crane bay where the units may be located above the crane or at the sides on columns below the crane. The various methods of lighting will be treated later.

In order that proper illumination results may be obtained, it is essential that the lamps be equipped with correct reflectors. There are many makers and types of reflectors that are available for factory lighting.

Of the various type of direct lighting reflectors available for factory lighting the steel type is doubtless to be preferred. These steel reflectors may be divided into four general groups:

 Large bowl type reflectors for general illumination over large areas.

(2) Small bowl type reflectors (symmetrical or angle), for localized lighting.

(3) Dome type reflectors for very wide distribution.

(4) Large angle reflectors for general illumination where light must come from the side.

These reflectors are made in two finishes: alluminum and porcelain enamel. For most instances the porcelain enamel reflectors will give the greatest satisfaction, as they are not readily soiled, do not deteriorate with age, are not easily scratched and are quickly cleaned.

As is doubtless known, the distribution of light from a clear, bare incandescent lamp is such that the maximum candlepower is at the horizontal. Although this distribution lends itself most excellently to redirection by means of suitable reflectors, it is not particularly efficient in itself, due to the fact that a majority of the light is required downward on the working plane. It is seen from this that a primary function of a reflector is to redirect the light in a useful direction.

Reflectors are also necessary to cover the lamp in such a manner that the bright filament of the lamp is not in the direct line of vision. As a result the use of lamps without reflectors, or lamps with shallow type of reflectors, so located that the lamps are in the direct line of vision, are to be avoided. The glare occasioned in these instances is not only injurious to the eyes of the workmen, but it has an effect on the accomplished. Of the three methods of lighting, direct, semi-indirect and totally indirect, the direct system of lighting is the one most applicable to factory lighting. This is due to the fact that efficiency is the determining factor and, considered from the standpoint of light utilization, the direct system is more efficient than either the semi-indirect or totally indirect. There are four methods of direct lighting commonly employed for the lighting of factories: Localized lighting, general illumination, combined general and localized lighting, and localized general illumination.

Local lighting consists of the use of low candlepower lamps located close to the workman and under his control. Although this system is applicable in certain processes, such, as in the boring out of castings and the making of fine parts. it should be avoided as much as possible. Its use is liable to result in undue eye strain. When used, a certain amount of general lighting should be provided for the rest of the room, in order that there may not be too great a contrast between the brightly lighted work and the dimly lighted room. This low value of general illumination is also necessary in order that the operators may easily see objects while moving about the room.

The general illuminating system, or a modification thereof is used quite extensively for all classes of factory lighting. General illumination is radically different from local lighting in that large units are used hung high and out of the reach of the workmen. As a result no time is lost in adjusting the lamps. Renewals and maintenance are at a minimum. The object in this method of lighting is to obtain, as nearly as possible, even illumination over the entire area. The units should be correctly spaced and hung at the proper height in order to obtain the results desired. Most reflector manufacturers have determined ratios between spacing and hanging height for reflectors that give certain distributions, These ratios, when adhered to, will result in approximately even illumination.

In certain processes where a high intensity of illumination is required at certain points, as in a machine shop, it is often inadvisable to provide general illumination. The reason for this is that the entire room would have to be lighted to a high intensity in order to provide sufficient light and to have it come from the proper direction.

General illumination is particularly adapted to large, high, open workrooms where the manufacturing processes are fairly close together and a good percentage of the floor area is in such use as to require illumination.

As large units are usually used for

this system, it is essential that they be provided with suitable reflectors, in order to protect the eyes of the workmen and to produce satisfactory illumination. Where the ceilings are medium in height, say 9 to 12 feet, it is generally advisable to provide a bowl shaped reflector. For higher ceilings the dome type will be found to be very satisfactory.

The combined general and localized lighting system consists of the use of a relatively low value of general illumination supplied by ceiling units, supplemented by local lights, where more light is required. One application of this method is where one part of a room is used for storage and the remainder used for machine work. Another application is in the sewing room of a clothing factory. In this case a high intensity is required at the needle point. This may be supplied by low wattage lamps in small reflector, one lamp being used for each machine, close to the work. Light for movement about the room is supplied by larger units located in the ceiling. Other uses for this method of lighting may readily be brought to mind.

As stated previously, localized general

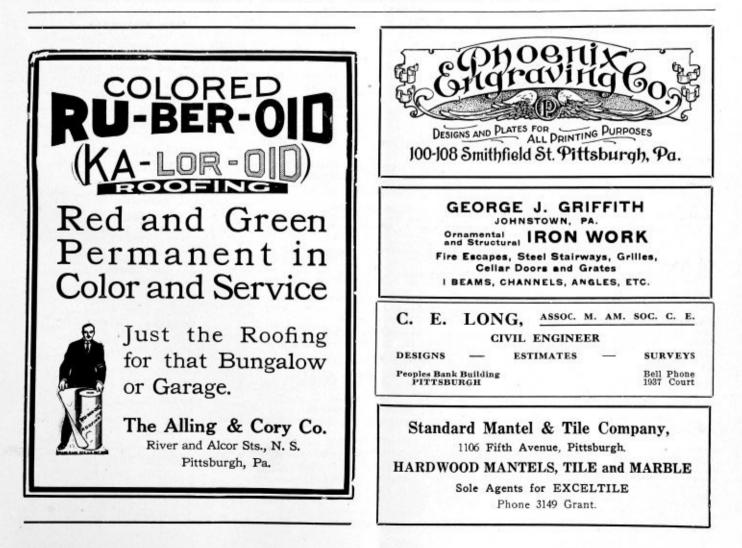
illumination is a modification of general illumination. In this method no attempt is made to provide even illumination, the object being to provide a high intensity where needed, that is at important points, and a lower intensity at intermediate points. It is seen from this that it has as a limit on one side localized lighting and on the other side general illumination.

A "HOME" FOR TWO ARCHITECTS

A one-story structure about thirty feet square at Lake Shore drive and Elm street, Chicago, is drawing much attention and causing many inquiries. The "funny" little house is the new studio of John Holabird and John W. Root, two well known Chicago architects and bosom friends. Their acquaintance ripened into friendship when they studied together at the Beaux Arts in Paris, the cozy little studio was opened a few days ago with a tea and reception to their friends. Visitors streamed in and out and admired the one-room interior in which the two artist architects have let their fancy run.

In the center of the room is a little pool in which water plants bloom. Rumor has it that the pool is merely a saucer which covers a bathtub. This the hosts did not reveal. It was in the original plan to have a sunken bathtuo in the center of the floor. Above this, but close to the floor, a small table was to have been suspended. Lunchean guests were to be seated on cushions around the tub, were to rest their feet on its bottom and were to eat from the suspended table. The structure is coated with cement and is decorated with relief of severe lines. The "lady" is a statue on the north wall. Four large French windows admit the light.

Much of the curiosity concerning the house is created by the seeming absence of a place of entrance. But the door is there. It is at the rear. To the spectator on the front the little place is boxlike. A pedestrain seeing the guests enter at the rear remarked that they appeared rather fashionable to be "tapping back doors."



Classified Index of Advertisers, Arranged for Ready Reference

ARCHITECTURAL CASTINGS. Mahoning Foundry Co., Punxsutawney, Pa.

ARCHITECTURAL TERRA COTTA.

Scott A. White, Pittsburgh. Finnessy, Jas. E., Oliver Building, Pitts-burgh, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa.

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ART AND STAINED GLASS.

Hyde-Murphy Co., Ridgway, Pa. Marshall Art Glass Co., S. S., Box 139, Alle-

gheny.

Twin City Art Glass Works, 110 Sandusky St., Pittsburgh.

ASPHALT SHINGLES.

Fintkote Mfg. Co., Wabash Bldg., Pittsburgh.

H. B. Morrow, Wabash Bldg., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING PAPER.

Saeger Brothers, Pittsburgh, Pa.

BANK AND OFFICE FIXTURES.

H. C. Bemis, Bradford, Pa.

Hyde-Murphy Co., Ridgway, Pa.

Requarth Co., F. A., Dayton, Ohio. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

BRICK JOINT RAKER.

George Grundy, 905 Gerrett St., Pittsburgh.

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Hall, Harry & Brother, Homestead, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

Witherow Steel Co., Pittsburgh.

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Wheeling Wall Plaster Co., Wheeling, W. Va.

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Brown Brothers, Broadway and Lincoln Aves., Mt. Lebanon.

Kissell, D. C., 7410 Race St., Pittsburgh. Lash, D. H., 720 Grandview Ave., Pittsburgh. Rogers, Philip, 157 Moultrie St., Pittsburgh, Wiegand, J. W., Suburban Ave., Nineteenth Ward, Pittsburgh.

CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa.

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CEMENT COATING.

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Witherow Steel Co., Pittsburgh.

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General Contractors' Machinery Co., Pitts-

Contractors Machinery Supply Co., Pitts-burgh, Pa. CONCRETE HARDENER.

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Hyde-Murphy Co., Ridgway, Pa.

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Reineke-Wagner Pump & Supply Co., Pittsburgh.

CONTRACTORS' EQUIPMENT.

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burgh, Pa.

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Kratzer, W. N. & Co., Smallman St., Pitts-burgh. Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

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HARDWOOD FLOORS.

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burgh.

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METAL DOORS. J. Willis Dalzell, Pittsburgh.

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METAL LATH CONSTRUCTION.

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- Kennedy, D. J. Co., Pittsburgh, Pa.
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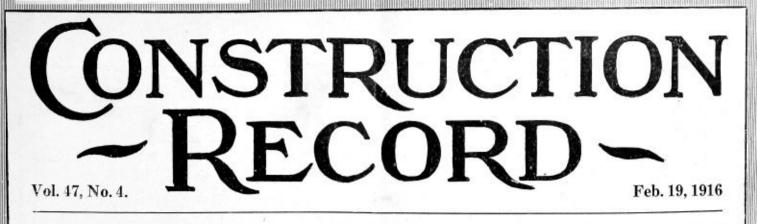
Sheet Metal Work

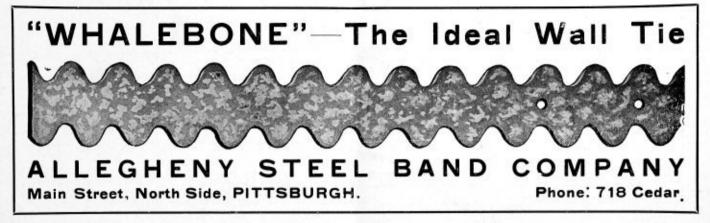
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Vol. 47	February	19, 1916.	No.	4.

REVISING EDGEWOOD CHURCH PLANS.

The Edgewood Presbyterian Congregation, Swissvale avenue, Edgewood, Pa., has selected Cram & Ferguson, 33 W. Forty-second street, New York City, to act as consulting architects with Architect Thomas Hannah, Kennan building, Pittsburgh, for revising the plans for the proposed \$80,000 church addition. These new plans will probably be ready for bids about March 15th.

DESIGNING BANK AND OFFICE BUILDING.

A brick and granite building to be used for bank and office purposes is to be constructed at Montpelier, O., by the Farmers & Mercantile State Savings Bank of that place from plans which are in preparation by Architect O. A. Carpenter, Montpelier. The structure will be 22x90 feet and will have a structural steel frame. Full details are undecided. Owners will take bids about April 1.

READY FOR CHURCH BIDS.

Specifications are practically completed by Architect W. M. Nicklas, 1900 Euclid building, Cleveland, covering the construction of the \$75,000 church building for the Presbyterian Congregation, Fairmont, W. Va. Bids on the general contract are to be taken at once. This

building will be one-sory, stone construction, tar and gravel roofing, wood finish floors, electric lighting, steam heating, etc.

PREPARING HOSPITAL SKETCHES

The Sandusky Memorial Hospital Association, John M. Sherman, Fremont, O., president, is having sketches made for a three-story steel frame and brick or reinforced concrete and stone trim building 42x150 feet to be built at Fremont, O., at a cost of \$150,000. These sketches are being made by Architect William W. Sabin, New England building, Cleveland, who will start working drawings about April 1. It is the intention to build a power house, laundry and nurses home later.

PLANNING Y. M. C. A. FOR CINCINNATI.

Architects Elzner & Anderson, Ingalls building, Cincinnati, have started plans for the new Central branch building for the Y. M. C. A., Cincinnati, which will be built on Canal and Elm streets at a cost of \$350,000. Louis E. Jalledy, 37 Liberty street, New York City, is the associate architect. The building will be 12 stories high, covering and area of 100x175 feet and will contain bowling alleys, educational rooms, auditorium, gymnasium, handball courts, kitchen and dining rooms, etc. Bids on the general contract will be asked about the 21st inst.

SHARPSBURG CHURCH WORK TO BE STARTED.

Work is to be started within two weeks by Charles S. Smith, Center avenue, Pittsburgh, who was awarded the contract to build the \$180,000 edifice for the St. Marys Roman Catholic Congregation, Sharpsburg, Pa. The structural steel has been placed with John Eichleay, J., Co, Pittsburgh and the copper work with Frank Limbach, Northside, Pittsburgh, Sub-contracts including the ornamental iron, stone, fireproofing, etc. The marble and tile work, plastering, metal lathing, etc., is under reservation by Architect and tile work, plastering, metal lathing, etc., is under reservation by Architect Peter Doderich, Chamber of Commerce building, Detroit. Other sub-work will be done by the general contractor.

WILSON, PA., SCHOOL PLANS.

It is exvected that plans for the new \$60,000 school building at Wilson, Pa., for the Board of Education, Dr. J. Boyd Stewart, president, will be ready for bids about March 15th. The new building will contain 13 rooms and auditorium and will be two stories high measuring 66x147 feet. It will be of brick and hollow tile construction with sandstone trimmings. Specifications will include structural steel, ornamental iron, asphalt roofing, metal lath, etc. The heating, plumbing and lighting will be separate contracts. Plans are now being made by Architect A. G. Wickerham, Homestead, Pa.

SKETCHING LARGE OFFICE BUILDING.

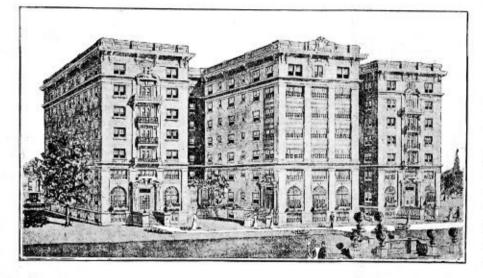
Architects W. G. Wilkins & Co., Westinghouse building, Pittsburgh, are making preliminary sketches for a proposed twelve-story office building to be constructed on Duquesne Way and Barker Place, Pittsburgh, for the Atlantic Refining Company. The contemplated building will occupy a space of 45x108 feet and will be constructed of face brick and ornamental terra cotta exterior with fireproof, roof and floor construction. Plans will probable be completed early in Spring when bids on the general contract will be asked. The building will probably cost about \$200,000.

TWO MILLION DOLLAR HOTEL.

The plans for the proposed "Bond" Hotel, Toledo, O., to be built by Sherman Bond and others of that city are well under way by Architects Mills, Rhines, Bellman & Nordhoff, Ohio building, Toledo. The building will be 120x 180 feet, sixteen stories high and will contain ten store rooms and 600 guest rooms. Specifications will be taken up in a short time. The structural steel work will be reserved by the owners. while the plumbing and heating will be awarded separately. Construction work will call for face brick, stone, reinforcing, steel, cement marble and tile work, composition roofing, metal lath, waterproofing, weatherstrips, patent store fronts, electric elevators, vacuum cleaning system, etc. The time is uncertain for taking bids.

Cleveland to Have Magnificent Hotel

With new additions to the Statler and Hollenden Hotels at Cleveland together with several other buildings of like nature being constructed in Cleveland one would think that the Forest City was well supplied to entertain transient trade. No other city between New York and Chicago has shown such rapid is president of the Whitehall Hotels Company. The plans call for a sevenstory building to have a frontage of 200 feet and running back 190 feet; it will contain 500 rooms, each with bath; exterior construction work calling for face brick and ornamental terra cotta. In the basement there will be an English room,



strides in hotel building as has been noticed in Cleveland for the past few years but the demand seems unchecked.

Another hotel and family apartment structure is to be built near Wade Park, the estimated cost of which is placed at \$600,000. The building is being designed by Architect H. T. Jeffries, Union building, Cleveland, and will be constructed for G. A. Tenbusch, Union building, who open for public service. Along the front of the building will be a terrace which will be canopied in summer time and set with tables for service of guests.

So far only preliminary plans for the proposed building have been drawn but the project is quite a certainty and final drawings are to be made within a short time.

Data on Hollow Building Tile

The following data on hollow building tile were recently compiled by A. V. Bleininger, of the Unitel States Bureau of Standards. He states that the use, in the form of hollow tile, of larger units than brick is growing rapidly in the favor of the building public. Of these units a considerable number of sizes are made, without webs or with webs in one or both directions. Interlocking tiles have also come into use to a considerable extent. Two classes of tile may be distinguished, one in which the tiles are placed vertically and the other in which they are set in a horizontal position. These tiles are being used both for bearing and non-bearing walls. For the former only hard-burned tile can be considered, while soft material is well suited for partition walls. Hollow tiles are particularly useful for enclosure walls

of steel or concrete skeleton structures and for stucco work.

The crushing strength of single tiles, hard burned, my vary from 4,000 to 10,-000 pounds per square inch of effective area, and the modulus of elasticity from 3,000,000 to 5,000,000. Quoting from specifications proposed by the Hollow Building Tile Manufacturers' Association: "All tiles shall be true, straight and free from objectionable cracks, shall be well burned and of sufficient hardness not to absorb more than 10 per cent of their weight of water in a 48-hour absorption test, and shall have an ultimate crushing strength of not less than 3,000 pounds per square inch of net web area tested * * *." "No tile in any wall shall be loaded, including all live and dead load, so as to exceed 200 pounds per square inch of its bearing members. No hollow tile shall contain any void whose cross sectional dimension, measured at right angles to the web, is more than 4 inches, and the vertical webs and shells of all tiles used for all bearing walls shall have a thickness of not less than 15 per cent of the measurements across the void enclosed by such shells or webs." * * * "For a one-story building the thickness of the wall shall not be less than 6 inches; for a two-story building, 8 and 6 inches; from a three-story structure, 8, and beyond the second story, 6 inches; for a four-story building, 12 inches for the first and second story, 8 inches for the third and 6 inches for the fourth story.

It is evident that, in construction of this kind, the most important informaion is obtained from the testing of builtup wall sections and piers. Some results of such work are given in the Table.

From these tests it appears that the quality of the mortar, as is the case with brick, is a most important function. In the examples where lime-cement mortars were used the addition of cement was quite small. The laying of tiles in the vertical position is greatly facilitated by the use of strips of wire screens, which also impart to the wall a very high degree of rigidity.

The stability of tile walls is very marked indeed, and may exceed that of brick walls of equivalent dimensions. In regard to the fire-resisting quality of tiles the same conditions prevail which have been mentioned under the head of brick. Where this quality is to be emphasized a certain degree of porosity is essential. This applies especially to fireproofing used for the protection of steel columns and girders.

For this purpose products made from No. 2 fire clays are especially suitable, as they are of a porous nature and are able to withstand any high temperatures. Very low fusing clays which vitrify easily should not be used for fireproofing purposes.

The subject of tile floors and arches and of combined tile and concrete construction is a large one, and the testing data available are not extensive. The large and successful use of tiles for this purpose seems to prove the worth of this material.

The excellent thermal non-conducting quality of hollow tiles makes them particularly desirable for residence construction. This statement applies, of course, only to atmospheric temperatures. A hollow tile wall would not be desirable for furnace walls, owing to the rapid increase of heat loss by radiation through the air spaces with increase of temperature.

What has been said of the strength of burnt clay in the form of tiles applies

also to terra cotta. The data available on this subject are very meager. The strength of terra cotta is not very important, inasmuch as this material is used principally for facing purposes, although it is usually well burned and of excellent strength. It is generally made from No. 2 fire clays, and, with an absorption of 10 per cent, shows an average crushing strength of not less than 4,-000 pounds per square inch. The resistance' to weathering of the glazes and enamels is to be considered, and it is essential that the covering slips and glazes be firmly united to the body of the ware and that the enamels be sufficiently resistant to make them waterproof.

TABLE I.—RESULTS OF TESTS OF HOLLOW TILE WALL SECTIONS

	(Dutside dimer	nsions.	Area,		max. Max. le	oad per
Construction of section.	Height.	Widt	th. Thick	mess. sq. ir	n. Mortar.	load. sq. in.	iet area.
Two 4-in. tile	7 ft. 734	in. 83%	in. 83%	in. 56.0	Cement 1:3	98.81 tons	6,873
Two 4-in. tile	8 ft. 4	in. 83% i	in. 83/8	in. 56.0	Cement 1:3	141,30 tons	5,065
8 x 12 x 8-in. tile	11 ft. 934	in. 361/2	in. 81/4	in 144.0	Cement 1:3	506.000 lb.	3,514
8 x 12 x 8-in, tile	12 ft. 1	in. 37 i	in. 81/4	in. 144.0	Cement 1:3	346,000 lb.	2,403
1134 x 1134 x 4-in. tile	12 ft. 5/8	in. 255/8	in. 834	in. 120.6	Lime-cement	136.0 tons	2,255
81/4 x 16 x 81/8-in, tile, cross webs	11 ft. 1134	in. 327% i	in. 81/4	in. 78.8	Lime-cemeut	43.5 tons	1,114
12 x 8 x 12-in, tile, webs vertical	12 ft. 21/2		2001	in. 140.0	Cement 1:3	436,000 lb.	3,110
12 x 8 x 12-in. tile, webs vertical	12 ft. 4			in. 80.0	Cement 1:3	154,000 lb.	1,925
12 x 8 x 12-in, tile, 2 transverse, webs							
horizontal	12 ft. 41/4	in. 363/4	in. 73⁄4	in. 60.0	Cement 1:3	80,000 lb.	1,333
8 x 8 x 12-in, tile, side construction	11 ft. 1134	S0007			Lime-cement		1,144
Four-inch porous tile	12 ft. 65%		1000	and the second second	Lime-cemeut		964
8 x 8 x 16-in. glazed tile, 3 transverse,							
webs vertical	12 ft. 1/4	in. 321/2	in. 8	in. 80.0	Lime-cement	84.0 tons	2,100
Double 4-in. partition, hard-burned tile	12 ft. 5/8						2,255
Four-inch partitions, hard tile	12 ft. 5/8	C		10-14 C			1,990
Three-inch partition, hard tile	11 ft. 93/4	100 PM			Lime-cement		2,347
Partition of 4 x 81/2 x 8-in. tile, plastered	12 ft. 35/8				Cement 1:3	185.0 tons	3,303
rannon of 4 x 0/2 x one me, preserve				gross		100.0 10115	0,000
Denison interlocking tile, tile wall, faced				B1033	and the second		41.2
with brick	11 ft.	5 ft. 1	1 in. 121/2	in. 762	Cement 1:3	686,000 lb.	

Steel Corporation to Build Office Building



A modern office building is to be erected at Youngstown, O., by the Carnegie Steel Company for which an appropriation of \$100,000 has been granted by the directors. It is to be built near the Ohio works and will cover an area of 100x150 feet. Preliminary sketches are now being made by Architects Kling & Zenk, Davis Block, Youngstown, which call for a three-story fireproof structure to be of brick and hollow tile construction, sandstone limestone trimmings. A large dining room will be a feature of the proposed building which will afford accomodations for the plant officials and office attaches. No working drawings have been started so far.

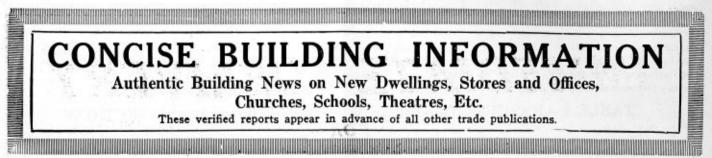
CONTRACTS AWARDED THE PAST WEEK.

The amount of work placed during the past week did not exceed in value the amount placed the previous week. There was a falling off in residence construction as well as for warehouse and manufacturing plants, while the amount of miscellaneous work is slight in excess of previous figures. The principal contracts placed during the week was a \$100,000 stone plant at Maple Grove, O., electric light and power plant at Salem, O., to cost \$200,000 and a \$70,000 building for the Westinghouse Electric & Manufacturing Co., East Pittsburgh. Or the miscellaneous work there is included a \$100,000 Jewish temple at Toledo, and an office building addition at Akron, O., amounting to \$125,000.

The following figures compiled from Dodge Reports give last week's record: Total work awarde dfor year

to date\$	12,080,000
Total work awarded for week	
February 16	1,425,000
Total work awarded for week	
February 9	1,485,000
Residence and apartment work	
for week ending February 16	145,000
Warehouse and manufacturing	
work for week February 16	401,000
Miscellaneous work for week	
ending February 16	879,000
Contracts for month of January	7,343,000

denoted with the state of the



Pittsburgh.

Architect M. Nirdlinger, Diamond Bank building, has plans in progress for a three-story and reinforced concrete service station and repair shop to be constructed on Baum boulevard near Roup street for McAllister Brothers Motor Car Company.

Plans are in progress for 26 brick and hollow tile residences to be erected on Darlington Road and Wightman street for the Conley Land Company, 5931 Penn avenue, to cost \$7,000 each. Toupet, Beil & Conley, 5931 Penn avenue, are general contractors. Six residences may mature March 1st and the demainder during the summer.

Architect W. G. Wilkins, Westinghouse building, has completed plans for a two-story armory to be constructed on Emerson street for the State of Pennsylvania Armory Board. Cost \$60,000. Owner will take bids soon to close about March 15th.

Architect John H. Phillips of McKees Rocks, awarded to Charles Neuman, Chartiers avenue, McKees Rocks, the contract for erecting a one-story brick store building on Island avenue, McKees Rocks, for John C. Quirk, 613 Island avenue, McKees Rocks.

Plans are in progress for a one-story brick and steel dye works addition to be crected on Eshelman street for the C. C. Young Dye Works, 324 Federal street, Northside. Cost \$6,000. The Faber Engineering & Constitution Company, 410 Bessemet building, has the contract.

The Wilson Construction Company, Fulton building, was awarded the contract to build a two story brick and stone trim dining hall at Marshalsea for the City of Pittsburgh. The first floor will be used for dining rooms and the second floor for hospital wards. Burns-Fleming Company, Pittsburgh, received the heating work and the Morganstern Electric Company the electric work.

Plans are to be completed within a few weeks by Architect M. Nirdlinger, Diamond Bank building, for a threestory and reinforced concrete service station and repair shop for the Mc-Allister Brothers Motor Car Company. The building will measure 75x150 feet. W. A. Looney, 1106 King avenue, is having private plans submitted for a 2½-story brick residence to be constructed on McPherson street, at a cost of \$8,000. Plans will be ready for bids about March 1.

Nathaniel Brothers, 2247 Valera street, Carrick, who have the contract to build a two-story brick veneer residence on Concord avenue for Emil Klein, Staver avenue, Mt. Oliver, will place sub-contracts for the slate roofing, hot air heating, plumbing, etc.

Architect W. A. Wabel, 188 Shetland avenue, has completed plans for a onestory brick church building, 50x85 feet to be built on Auburn street for the Mt. Ararat Baptist Congregation. J. E. Branham, 5702 Mignonette street, is chairman of the building committee. Bids will not be asked until late in the spring.

Kaufmann Realty Company, 413 Fourth avenue, contemplate making alterations to the store and hotel building at Smithfield street, and Second avenue, the work to cost about \$20,000. An architect will be selected and details decided about March 10th.

Architect J. E. Obitz, 6200 Penn avenue, has about completed plans for two brick and hollow tile residences to be built on Mason street for John Blackadore, 7806 Frankstown avenue. Bids will be taken in a short time.

Bids will be asked about March 15th by Architect E. B. Lang, 804 Penn avenue, for constructing a one-story brick and stone church building on Munson avenue, McKees Rocks, for the St. Marks Roman Catholic Congregation. The work will cost \$50,000.

C. M. Neeld, 1415 Oliver building, is awarding separate contracts for building three two-story brick veneer and frame double duplex residences on Neeld avenue, Beechview. Excavations have already been started. The work calls for hot water heating, tile bath floors, yellow pine and oak trim floors and doors, etc. Estimated cost \$35,000.

Sketches are being made by the Hunting-Davis Company, Century building, for an eight-story brick and reinforced concrete worehouse to be constructed on Duquesne Way between Sixth and Seventh streets for F. F. Nicola, Farmers Bank building. The project depends upon the granting of a right of way by Pittsburgh council. The proposed work will cost about \$250,000.

F. F. Schellenberg & Co., Oliver building, secured the contract to build a hollow tile and stone trim residence on the Three Degree Road, near Wildwood, for A. M. Thompson, 724 Frick building. Plans came from Architect David Goldner, Highland building.

If sufficient funds can be raised by the officials of the Passavant Hospital, F. R. Babcock, chairman, a \$100,000 addition is to be built from plans which will be made by Architect Edward Stoltz, Monongahela Bank building.

Bids are being taken by Architect R. Berg, Brownsville Road, Carrick, for remodeling a residence at 515-517 Shady avenue into an apartment building for the Central Trust Company, 2034 Penn avenue. The work will call for slate roofing, interior partitions, plumbing, heating, etc.

The contract for building a brick and steel arcade and apartment building on Pen avenue and Hays street, Wilkinsburg, for E. W. Duff, 1200 Center avenue, Wilkinsburg, has been awarded to S. L. Smith & Co., 613 Ross street, Wilkincburg. Sub-bids are to be taken at once.

Bids close on the 19th inst for constructing a three-story and basement loft building on Center and Ellsworth avenues for J. D. Boyce. The building was designed by Architects C. M. Bartberger & Son, Westinghouse building and will be of irregular shape. Estimated cost \$30,000.

Robert Wimmer, 7236 Idlewild street, received contract to build a 2½-story brick residence on Jackson street, East End, for Robert C. Fulton, Center and Penn avenues. Cost \$6,000.

Harry Rubenstein, Mercer street, has private plans and will take separate bids on erecting a two-story double duplex residence on Bedford avenue, near Kirkpatrick street. Estimated cost \$9,000.

Architect S. L. R. Rousseau, Denslow apartments, California avenue, North-

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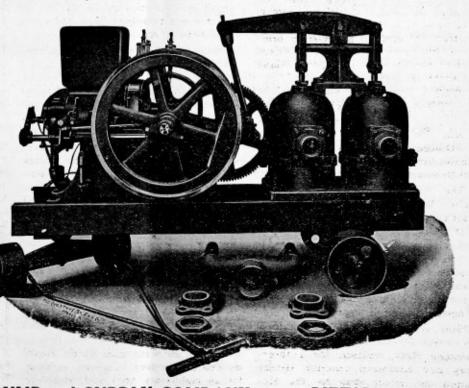
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WHO IS PLANNING • WHO IS BUILDING • WHO IS BUYING

side, is taking bids on the erection of a 2½-story brick and hollow tile residence in Bellevue, for A. Stucki, 1615 Falk avenue, Northside. Cost \$7,000; a twostory brick and shingle cottage in Ben Avon for L. A. Huback, 418 Walnut Road, Ben Avon. Cost \$5,000; a twostory brick and hollow tile duplex residence at Crafton Heights, for Ernest Reicoff, Union Bank building, to cost \$7,000, and a two-story brick and shingle cottage, 26x26, on the South Hills, Mt. Lebanon, for Andrew Duccl, to cost \$3,500.

Architect W. H. Wable, 188 Shetland avenue, has plans in progress for a 2½story brick veneered and cut stone residence, to be erected on Lang avenue, for a party whose name is withheld. Cost \$6,000.

Apartments and Dwellings.

Altoona, Pa.—Robert Fay, Green avenue, contemplates erecting a two-story stone and stucco residence in the Sylvan Hill District to cost about \$12,000. Architect not selected.

Cleveland, O. — H. B. Pearse, 10801 Earle avenue, was awarded the contract for erecting a two-story frame residence on 11602-04 Ohlman avenue for R. G. Kelley, 14017 Idarose avenue. Cost \$5,000.

Columbus, O.—Architect H. A. Jones, Dispatch Annex building, awarded to James Miller, 527 E. Fulton street the contract for erecting a two-story and basement brick residence on Linwood avenue and Newton street for L. Sidney Ambrose, 1192 E. Livingston avenue. Cost \$5,347.

Medina, O. — Architects Robinson & Miller, Leader building, Cleveland, have plans completed and will be ready for bids about February 23d and erecting a 2½-story and basement brick residence for David Knislly, Butler, Ind., to cost \$11,000.

Sewickley, Pa. — Bids are in for the erection of a two-story brick double residence on Grime street for Miss Lillian Willock, Pine street, to cost \$8,000. Plans by Architects Ruttan & Russell, Magee building Pittsburgh. General contract will probably be awarded to D. L. Swearingen.

Toledo, O. — Architects Mahurin & Mahurin, Swinney Block, Fort Wayne, Ind., have preliminary plans in progress for a two-story and basement brick residence and private garage to be erected on Beechwood Place for Dr. W. Mc-Bridge, 218 W. Washington street. Cost \$9,000.

Youngstown, O.-F. V. Kearney, Third avenue, New Brighton, contemplates building a number of frame and brick residences near Youngstown and New Castle, to cost \$3,000 each. Project may mature in about one month.

Zanesville, O.-Architect Clarence E. Handshy has plans in progress and will be ready for bids about March 1st on crecting a two-story and basement brick double residence on Wayne avenue for George Martin, care American Encaustic Tile Company. Cost \$5,500.

The same architect will be ready for bids March 1st on the crection of a twostory and basement cement plaster and tile residence on Sunset avenue for J. D. Edmiston, 408 Main street. Cost \$5,-000.

Zanesville, O. — Architect Harry C. Meyers, Peoples Bank building, has started plans and will be ready for bids about March 15th on erecting a twostory and basement brick and stone residence and garage on Myrtle and Forest avenues, for Simon Linser, 976 Main street. Cost about \$10,000.

Erie, Pa.—Plans are under way by Architect J. O'Sullivan, 146 E. Twelfth street, for a two-story brick and frame residence to cost \$4,000 for John F. Skoog, manager Erie Stove & Manufacturing Company. Work will mature early in Spring.

James D. Walker, 705 Peach street, contemplates building four family residences on Peach street, near Third. Private plans. Owner will build and buy material.

A two-story brick residence to cost \$9,000 will be built on French street for Edward Schwab, French street, from plans now being made by Architect J. C. O'Sullivan.

Martinsburg, W. Va.—A. Paul Hertzog is asking bids on the erection of a 2½-story frame residence to cost about \$5,000. Plans were made by Architect C. E. Kent, N. Queen street.

Duquesne, Pa.—Nelson & Anderson, Dell & Highland avenues, received the contract for building a 2½-story brick and hollow tile residence on Seventh avenue for Dr. George E. Martin, Eighth avenue to cost \$75,000.

Follansbee, W. Va.-Bids close this week on the erection of a frame residence for R. L. Ulrick to cost \$4,500. Plans by Architect W. N. Brown, Martins Ferry.

Lakewood, O.-D. A. Reamer, Garfield building, Cleveland, will soon start plans for a 2½-story and basement brick residence and garage to be erected in Clifton Park for A. B. Smythe, 200 Erie building, Cleveland. Cost \$20,000.

F. M. Jones, 1248 Summit avenue, has started foundations for a two-story frame residence to be erected on 12951 Emerson avenue for Joseph Thomas, 4108 Euclid avenue, Cleveland. Cost \$3,-500.

The Citizens Home Building Company, 420 Citizens building, Cleveland, have started foundations for a two-story frame residence to be erected on 1590 Rosewood avenue for Frank W. Ellison, 2177 West Ninty-fifth street, Cleveland. Cost \$4,000.

Architect Charles E. Tousley, 4500 Euclid avenue, Cleveland, has plans in progress for a two-story brick residence to be erected on Lake and Summit streets for H. G. Barker, 2034 E. Fourth street, Cleveland, Cost \$10,000.

Meadville, Pa. — Architect J. Steinbrook, care Harper Lumber & Building Company, has plans in progress for a two-story brick and tile residence to be erected on Randolph street for M. H. Curry, North street. Cost \$3,500.

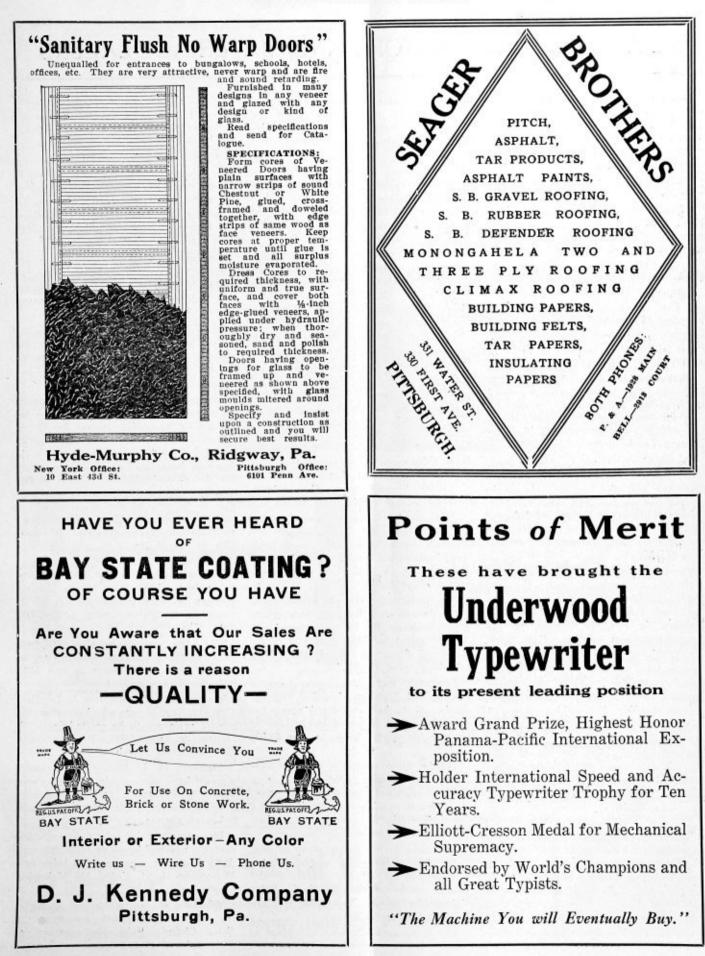
McKeesport, Pa.—Architect S. L. R. Rosseau, California avenue, Northside, Pittsburgh, is taking on erecting a twostory brick and shingle cottage for A. B. Campbell, Jr., 1324 Huey street. Cost \$6,000.

The Glassport Lumber Company, of Glassport, is low bidder on erecting a 2½-story brick and hollow tile residence on Grandview avenue for B. Kimmelman, Grendview avenue. Cost \$10,000.

Medina, O. — Architects Robinson & Miller, Leader building, Cleveland, have completed preliminary sketches for a 2½-story and basement brick residence to be erected for Frank Spellman cost \$7,500.

New Philadelphia, O.—Architect John Kalsch, 220 Avenue building, Cleveland, has completed palns for a 2½-story and basement brick residence addition to be erected for Charles Lahmer to cost \$3,-500.

The same architect has completed plans for a 2½-story frame residence addition to be crected on Second and High streets for Miss Alice Bates. Second and High streets. Cost \$3,000.



NEWS FOR CONTRACTORS AND MATERIAL DEALERS

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Parkersburg, W. Va.—Architect Frank Upman, Woodward building, Washington, D. C., will take new bids about March 1st on erecting a two-story and basement brick and hollow tile and stone residence and office and apartments on Market street for Dr. Milton McNeilan. Cost \$6,000.

Alliance, O. — Architect Willard Hirsh, 1303 Swetland building, Cleveland, has plans in progress for a twostory frame residence, to be erected for a party whose name is withheld. Cost \$5,500

Chillicothe, O. — A. B. Howson, Main and Pain streets, is taking bids to close February 25, on erecting a two-story and basement brick terrace on Mulberry and Fifth streets, to cost \$10,000. Plans by Architect John Schweitzer.

Clarksburg, W. Va. — Architect A. G. Lamont, Goff building, awarded to J. W. Roberts, 332 Mechanic street, the contract for building a two-story frame and shingle bungalow on Goff Plaza for Edward Leatherberry. Cost \$3,000.

Cleveland, O. — Architect H. E. Shimmin, Wilbrand building, has completed plans and will take separate bids on the erection of a 2½-story and basement brick residence and garage on Edgehilt Road, Cleveland Heights, for Mrs. Emma Brumel, 5909 Hawthorne avenue. Cost \$15,000.

The same architect will also take separate bids on the erection of a 2½-story and basement brick residence and garage on Edgehill Road, Cleveland Heights, for Fred E. Brumel, 902 Society for Savings building. Cost \$9,000.

J. H. McCall, 604 Hickox building, contemplates constructing a two-story brick apartment building on Euclid Heights boulevard, Cleveland Heights, to cost \$26,000. No architect selected.

The Kauffman Architectural Company, 627 Rose building, has plans completed and will take separate bids on the erection of a 2½-story brick residence on Whitehorn Road, Cleveland Heights, for Robert P. Greenleaf, Perry Payne building. Cost \$6,000.

Architect H. E. Shimmin, Wilbrand building, has completed plans and wilt take separate bids on the erection of a 2½-story and basement brick residence and garage on Edgehill Road, Cleveland Heights, for E. S. Weil, 750 Broadway. Cost \$8,000.

F. F. Deubel, St. Clair and Eddy. Road, contemplates creeting a two-story

brick and hollow tile and stone apartment building, on Kinsman Road and Roselawn avenue, to cost \$20,000. Architect will be selected about May 1.

Stefen Herich, 1582 Winchester avenue, Lakewood, received the contract for erecting a two-story brick tenement on 3429 Marvin avenue, for Arthur Bream, 1850 W. Forty-eighth street. Cost \$6,000. Plans by Architect George Rudolph, 5217 Woodlawn avenue.

J. Keslem, 2429 E. Fifty-fifth street, will take separate bids on erecting two 2-story brick tenement buildings, to cost \$8,000 each. Plans wer drawn by Architect S. H. Weis, 1030 Schofield building.

Architect S. H. Weis, Schofield building, has completed plans for a two-story brick tenement, to be erected on Lakeview Road, for J. Cadkin, 2689 E. Fiftyfirst street. Cost \$8,000. Owner builds. **Parkersburg, W. Va.**—Architect Harry T. Smith of Detroit, Mich., has been sclected to prepare plans for a three-story brick and terra cotta or stone apartment building to be constructed on corner of Tenth and Market streets for J. J. Crotty, Second street. Cost \$35,000. Will be ready for bids about March 1st.

Architect A. H. Adair awarded to W. W. Watterson, 1726 Spring street, the contract for building a two-story brick and hollow tile residence on Covert street for D. C. McMechen, 1908 Beaver street. / Cost \$3,500.

The same architect will revise plans for a three-story brick and stone apartment building to be constructed on Market street for Mrs. Sophia R. Pool, Rathbone Flats, to cost \$25,000. May take bids about March 1st.

Tarentum, Pa. — Architect Glenn L. Saxton, 628 Plymouth building, Minneapalis, Minn., has completed plans for two one-story frame cottages to be erected for Albert Voss to cost \$3,500 each.

Toledo, O. — Architect G. B. Rheinfrank, 601 Gardner building, is taking bids on erecting a two-story and basement frame residence at West Toledo, for P. G. Craig, Gardner building. Cost \$6,000.

The same architect has plans in progress for a two-story and basement hollow tile and stucco residence and garage to be erected at Eagle Point Colony for W. K. Terry, 826-30 Ohio building. Cost \$25,000.

The same architect also has plans in

progress for six two-story and basement frame, brick and stucco residences to be erected at the Eagle Point Colony for Joe Dunipace, 2369 Robinwood avenue. Cost \$5,000 each.

Architect George B. Rheinfrank, Gardner building, has plans in progresss for a two-story hollow tile and stucco residence and garage to be erected on W. Moran street for B. C. Bowen, 2445 Collingwood avenue. Cost \$15,000.

Warren, O. — Architect Robert J. Keich, Western Reserve building, is taking bids on the erection of a brick and hollow tile and limestone residence for O. A. Caldwell to cost \$8,000.

Plans are in progress for a cut stone, stucco and metal lath residence to be erected on E. Market street for D. L. Decker, Stambaugh building, Youngstown. Cost \$6,000.

Architect Robert J. Keich is preparing sketches for a brick residence to be erected on Mahoning avenue for D. A. Gillmer, Belmont street, to cost \$10,000; sketches for a brick and sandstone residence to be erected on th Perkins Plan for Dr. F. S. McKenzie, to cost \$9,000; sketches for a brick residence and garage to be erected for a party whose name is withheld. Cost \$25,000. May start working drawings about February 25th or March 1st.

Architect H. L. Dittmer, City building, is preparing sketches and will probably be ready for bids about March 15th on crecting a brick residence for E. F. Craig, 501 E. Market street, to cost \$5,-500.

The same architect is also preparing sketches for a country residence to be erected for S. L. Oddings to cost \$10.-000. No details decided.

Warren, O. — Architect H. L. Dittmer, City building, is preparing sketches for a brick residence to be erected for J. N. Heltzel, to cost \$5,000. Will be ready for bids about March 15.

Architect H. L. Dittmer, City building will have plans ready for bids about March 15 or April 1, on the erection of a brick residence, for Edward Bratton, 9 Linden avenue, to cost \$6,000.

The same architect is also preparing sketches and will be ready for bids about April 1, on the erection of a brick residence for H. H. Cobb, 326 Mahoning avenue. Cost \$5,500.

Wickliffe, O. - Architect S. R. Badgley, Cleveland, awarded to Rowe & Giles, Chagrin Falls, the contract for



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BUILDING PROJECTS AND WORK AWARDED

erecting a 2½-story and basement cement plaster and tile residence, on Ridge Road, for the Rev. C. H. Stocking. Cost \$5,500.

Winburne, Pa. — The Rev. J. E. Backnak is taking bids on the erection of a frame residence addition and alteration, to cost \$3,000. Plans by Architect W. H. Overdorff, of DuBois.

Woodlawn, Pa. — Architects Carlisle & Sharrer, of Pittsburgh, awarded to Miller & Cochran, the contract for erecting a 2½-story and basement brick residence, for Dr. J. A. Stevens, to cost \$6,000.

Youngstown, O. — Charles Zeigler, 29 Ellenwood avenue will take bids about February 21, on erecting a brick veneered residence, to cost \$4,000. Plans by Architect H. C. Ellenberger, 1509 Market street.

Architect H. C. Ellenberger has completed plans for a frame residence, to be erected for J. H. Decker, 46 E. Evergreen street, to cost \$2,500. Owner builds.

The same architect has also completed plans for a brick veneered residence, 28 x34, to be erected for J. H. Decker, 40 E. Evergreen street, to cost \$4,000. Owner builds.

The same architect has completed plans for a frame residence, to be erected for Architect Watson, 48 S. Portland avenue. Cost \$3,000. Owner will soon take bids.

Business Buildings.

Charleroi, Pa.—Architect A. P. Cooper of Uniontown, will revise plans for a four-story and basement tapestry brick and terra cotta store and apartment building to be constructed on Fifth street for Dr. Fred C. Stahlman. Cost \$20,000.

Cleveland, O. — Plans will soon be started for a two-story brick store and apartment building to be erected on E. Seventy-ninth street for I. C. Hoffman, 1069 E. Seventy-ninth street. Cost \$7,-500. Owner will take separate bids about March 1st.

Elyria, O. — Architects Walker & Weeks, 1900 Euclid building, Cleveland, have started working drawings for a tenstory brick, sand or limestone bank and office building to be constructed on Middle avenue for the Lorain County Savings & Trust Company.

Jackson, Ky .-- J. D. Fitzgibbon of St. Louis, Mo., received the contract for constructing a one-story and basement brick and stone and concrete railroad station for the Louisville & Nashville Railway Company, Ninth and Broadway, Louisville. Cost \$25,000.

Mullens, W. Va.—The Bank of Wyoming contemplates constructing a threestory brick bank and hotel building to cost \$25,000. Architect may be selected about March 1st.

Shelby, O.—Architect W. G. Pollock, 402 Garfield building, Cleveland, will remodel a three-story brick, sand or limestone bank building on Main and Gamble streets for the First National Bank. Cost \$15,000.

Youngstown, O.—Architects Kling & Zenk, Davis Block, awarded to Henry Gerst, the contract for carpenter work, and to Henry Niedermeier, the contract for brick masonry for a three-story brick and stone hardware store addition to be constructed on Federal street for Stambaugh & Thompson Company. Cost \$30,000.

Akron, O.—The Akron Storage & Contracting Company, secured the contract to build a top addition to the office building of M. O'Neil, which will be leased to the Akron Athletic Club, the estimated cost of which is \$215,000.

Bids will soon close on the erection of a one-story brick storage building for the Klages Coal & Ice Company. The building will measure 76x59 feet and will cost \$25,000. Plans by A. C. Bishop, Citizens building, Cleveland, O.

Cincinnati, O.—Bids close on the 24th inst. for constructing a six-story brick and reinforced concrete store building, 40x90 feet, for S. P. Nelson & Sons, 208 W. Fourth street. Plans were made by J. H. Boll, Bodman building, Cincinnati.

Cleveland, **O.**—U. G. Kollor, 1536 Alameda avenue, Lakewood, received the contract to build a warehouse 30x96 feet for the Teachout Companly, to cost \$8.-000.

J. E. Sague, 710 E. One Hundred and Twentieth street, is taking bids on the erection of a two-story store and apartment building 36x50 feet to be built on St. Clair street at a cost of \$7,500. Private plans.

Max Morris, 1657 E. Sixty-fifth street, has private plans for a two-story brick store and apartment building to contain six suites, for which separate contracts will be awarded.

The contract for making alterations and additions to the Chamber of Industry building has been awarded to F. A. Skeel, 3719 Cypress avenue. The work will cost \$25,000.

Columbus, O.—Architect J. A. Jones, Dispatch Annex Building, will take bids next week on the erection of a store and garage building 125x187 feet to be built on Long and Fourth streets, for W. V. Baker, 316 S. High street.

Bids will be taken by Architect Stribling & Lum, Denig Ferson building, for constructing a two-story brick and stone trim store building on Fourth street, for Nelson J. Ruggles, 820 Scott street.

Dayton, O.—John Rouzer Company, 41 Wyandotte street, received the contract to build a one-story brick building 32x89 feet to contain four stores for W. P. Jenkins, Fifth and Ludlow streets.

I East Liverpool, O.—I. J. Allen Company, St. Clair avenue, contemplate building a three-story brick and hollow tile store and office building to cost \$50,-000. No plans have been selected.

Faulk Brothers, Dresden avenue, are considering the building of a store, office and apartment building, 20x80 feet three stories high and request estimates on steel beams, concrete walls, foundation work, etc.

D. F. Nellis, East Liverpool, received the contract to remodel an office and storage building on Dresden avenue for Armour & Co. Sub-contracts will be awarded at once.

Erie, Pa.—Wilkinson & Miller Marine Bank building, will place sub contracts for the erection of a two-story brick and hollow tile building, 60x80 feet, for the Erie Pure Milk Company. The work will cost \$30,000.

J. Reinholds, E. Eighteenth street, will take bids about March 15th on the erection of a four-story brick and hollow tile store and apartment building, 23x100 feet, to be built on State street near Seventeenth. Plans were made by Architect Joseph Lee, 703 State street.

Bids close on the 20th inst for constructing a three-story warehouse 60x65 feet, for the Erie Wholesale Grocery Company. The structural steel has been placed with the Erie Steel Construction Company.

Braddock, Pa.—Architect F. A. Park, 5435 Kincaid street, Pittsburgh, has plans under way for a three-story brick building to be used for bakery and apartment purposes to be constructed on Braddock avenue for C. M. Ellen-

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berger, 612 Fourth street, Braddock. Estimated cost \$15,000.

Franklin, Pa. - Architect S. B. Brady, Franklin Trust building, has plans for remodeling a store and apartment building on Water and Thirteenth streets, for J. F. Leasgang. The work will cost a two-story and basement brick teleabout \$6,000.

Clarksburg, W. Va. - Architects W. J. Watson & Co., Leader-News building, Cleveland, O., have preliminary plans for a three-story and basement passenger and freight station and store and office building, to be constructed on Fourth street, for the Monongahela Valley Traction Company. Cost \$80,000. Basement to be used for freight depot, first floor for passenger depot and store rooms, and second and third floors for offices.

Covington, O .- The Citizens National Bank contemplates remodeling the first floor of office building at Main street, to be used as banking room. Work includes electric work, plumbing, concrete vaults, fireproof vault door, bank fixtures complete, bronze grills, oak counter, oak standing desk, customer desk and tole. floor.-

Franklin, Pa. - Contractors Corrine & Wilt, Chestnut street, will soon start work on rebuilding a two-story and Jasement brick store building on Thirteenth street, for R. G. Lamberton, to cost \$15,000.

Montpelier, O. - Architect O. A. Carpenter will soon start plans for a twostory brick and granite bank and office building, to be constructed on Main street, for the Farmers and Mercantile State and Savings Bank. Owner will take bids about April 1.

W. C. Pollock, 402 Garfield building, Cleveland, will be ready for bids about February 21, on remodeling a two-story brick and limestone bank and office building for the Montpelier National Bank, to cost \$8,000.

Mt. Pleasant, Pa - Architect Paul Bartholomew awarded to Frank Hurst, the contract for remodeling a structural steel store on Main street, for H. Mobacher & Sons, Main street. Cost \$14,-000.

New Cumberland, W. Va.-Roy Stewart, Ridge avenue, contemplates erecting a two-story brick and hollow tile store and apartment building, on Chester avenue, from private plans. Cost \$7,000. General contract wil lprobably be awarded to Cottrell Brothers, Weirton. Oil City, Pa. - Architect W. Orin Teets has plans in progress for remodeling a brick hotel building, into a store and apartment building, for Trad & Parker. General contract awarded without competition to E. M. Crouch.

Toledo, O. - The Ohio State Telephone Company contemplates erecting phone building, on Detroit avenue. Architect not selected.

Eailey & Bouquin, of Oil City, Pa., received the contract for constructing a brick and structural steel market building on S. Eric street, for Swift & Co. Cost \$40,000.

Wellsburg, W. Va. - Architect M. L. Wells has been selected to prepare plans for a two-story brick store building, to be erected on Charles street, for Myers & Easterday, to cost \$10,000.

Youngstown, O. - Architect G.: A. Edelsvard, 1008 Mahoning Bank building, is taking bids on constructing a three-story brick and stone store and apartment building on Em and Raven avenues for Mark M. Gundelfinger, Henry W. Davis and Carl F. Dingledy to cost about \$50,00.

Architect E. R. Thompson, Belmont avenue, awarded to C. M. Medicus, the contract for rebuilding two-story brick and reinforced concrete saloons at East Youngstown, for George J. Renner, Jr., 09 Pike street. Cost about \$17,000.

Architects G. A. Edelsvard, Mahoning Bank building, has plans about completed and will take bids on constructing a four-story and basement brick and hollow tile store and auditorium, building, on Market street for the Swidish Auditorium, to cost \$80,000.

Religious.

Toledo, O. - Architects Ottenheimer.' Stern & Reichert, 134 Monroe street, Chicago, awarded to A. Bentley & Sons Company, the contract for constructing a two-story and basement pressed brick. concrete and terra cotta Jewish temple on Collingwood avenue and Ackline street for the Congregation Shoner Eminive. Cost \$100,000.

Ambridge, Pa .- D. H. Morrison, Scwickley, was low bidder for building a one-story brick and stone church building for the Divine Redeemer Catholic Congregation. The contract will be awarded within a week or two. 120

Cadiz, O .- Architect J. B. Martin, East Liverpool, O., has been retained by the Colored Methodist Episcopal congregation to prepare plans for a 11/2-story

brick and stone trim church building, to cost \$12,000,

Canton, O .- Plans are under way by Architect Willard Hirsh, Swetland building. Cleveland, for two-story brick, tile and stucco parish house to be built on E. Fifth street, for the St. Paul's Episcopal Congregation. Bids will be taken about March 1st. - Estimated cost \$15,-CCO.

Dayton, O. - A one-story brick and stone trim church building to cost \$10,-000, is to be built at Westwood for the Westwood Lutheran Congregation, plans for which were made by Architect Robert C. Gotwald, Springfield, O. Bids will be asked for in a short time.

Franklin, Pa. - An addition to cost \$25,000 is to be built for the First Presbyterian Church. Sketches are now being submitted.

Jeannette, Pa .- J. E. Myer, Penn Station. Pa., was low bidder for constructing a one-story brick and frame mission building for the Pittsburgh Baptist Association. Work will be started at once.

Johnstown, Pa. - Hess Brothers, Franklin street, were low bidders for building a one-story brick, and hollow tile stone trim building 68x90 feet, for the United Brethren Congregation. The contract will be awarded early next week.

Oil City, Pa .- The Trinity Methodist Congregation is having sketches prepared by Architect W. O. Teets, I. O. O. F. building, Oil City, for a threestory brick addition to cost \$18,000.

Warren, O. - Preliminary plans are being made by Architects Craw, Lewis & Wickenhoefer, 200 Fifth avenue. New York City, for additions and alterations to the building of the First Presbyterian Congregation. Working drawings will be started soon so that bids may be taken about March 15th.

Wellsville, O .- The First Presbyterian Congregation has selected the plans of Architect E. E. Pruitt, Hartman building, Columbus, O., for a \$75,000 memorial church building. Plans will be started at an early date so that bids may be taken and contracts awarded by May 1st.

Youngstown, O .- The Primitive Methodist Congregation is raising finances to build a \$7,000 mission building on Kendall avenue. Work may mature about March 15th. Private plans.

The Salvation Army, 213 Market





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PLANS FOR VARIOUS KINDS OF STRUCTURES

street, will soon announce the name of the architect to prepare plans for a twostory brick and stone trim citadel. The estimated cost is \$50,000.

Clarksburg, **W. Va.**—The steel work for the new M. P. Church building has been awarded to the J. E. Moss Iron Works, Wheeling. Architect A. G. Lamont, Goff building, is taking bids on material. The building will measure 60x70 feet and cost \$35,000.

Marion, O.—John Baldauf, 324 S. Vine street, received the contract to build a one-story brick veneer church building for the Church of the Brethern. Cost \$6,000.

New Castle, Pa.—St. Johns Lutheran Congregation is having sketches made by Architect W. G. Eckles, New Castle, for a brick church building to cost \$40,-000. The building is now being financed.

Youngstown, O. — St. Stanislaus Kestks Roman Catholic Congregation contemplates constructing a brick fireproof church on South avenue, to cost \$75,000. Will probably select architect soon and start construction about April 1.

Educational.

Greenville, Pa.—The Board of Education contemplates constructing a brick fireproof high school building to cost \$180,000. Building to contain 30 rooms, auditorium, gymnasium, swimming pool, manual training and domestic science departments and shop rooms. Bond issue will probably be voted on after March 1st.

Tyrone, Pa.—The Board of Education contemplates erecting a two-story brick and reinforced concrete high school addition on Lincoln avenue to cost \$40,-000. Plans will probably be drawn by Architect F. J. Schollar, Altoona.

Wilson, Pa.—Architect A. G. Wickerham of Homestead, has plans in progress for a two-story brick and hollow tile grade school building to be constructed for the Board of Education to cost \$60,-000.

Deforest, O. — A \$20,000 centralized school building is to be built for the Board of Education of Howland Township, W. C. King, president, Warren, O. The building will measure 38x80 feet and will contain four class rooms, auditorium, etc. Plans will be completed and bids asked about March 15th.

Highland, O .- Plans are under way by Architects. Matheny, Allen & Mountz,

Huntington National Bank building, Columbus, O., for a two-story brick and stone trim school building for the Board of Education. Peter Adams, president. Bids will be asked about March 1st.

Struthers, O.-The Struthers Slovak Church, Rev. Zalibore, pastor, contemplates building a parochial school to cost \$50,000. An architect will be selected in the near future.

Beaver, Pa.—The citizens of Beaver will vote on a proposed bond issue of \$55,000 for constructing a two-story school building 60x150 feet. No architect chosen.

Black Lick, O.—The Board of Education of Jefferson Township, C. R. Kidd, president, Black Lick, contemplates building two buildings, one at Havens Corners and the other at Taylor Station. Estimated cost \$50,000.

Martins Ferry, O. — A bond issue of \$50,000 will be voted on March 15th to cover the construction of a brick and stone school building which is contemplated by the Board of Education, R. A. Blackford, president. No architect has been selected.

Richfield, O.—All bids were rejected for constructing a three-story brick and reinforced concrete school building for the Board of Education. Minor changes will be made to the plans and specifications of Architects Harpster & Bliss, Nantucket building Akron, and new bids asked at once.

Warren, O.—Plans will be completed about March 15th by Architect R. I. Keich, Western Reserve building, for a two-story brick and hollow tile, limestone trim school building 68875 feet for the Board of Education of Howland Township, W. C. King, president. Bids will be asked about March 20th.

West Dover, O.-Working drawings will soon be started by Architect H. O. Wurmser, Lorain, for the proposed twostory fireproof school building for the Board of Education, W. F. Reed, clerk. Uncertain when bids will be asked.

Georgetown, O. — Architects Ritter & Bates, Portsmouth, have plans in progress for a two-story brick school addition, to be erected for the Board of Education, to cost \$10,000.

Manufacturing.

Cincinnati, O.—Plans of B. L. Baldwin & Co., Perin building, for a one and three-story brick and reinforced concrete foundry building and pattern shop for the Lunkenheimer Company will be ready for bidders about March 1. The building will measure 100x300 feet and cost about \$125,000.

Cleveland, O.-W. I. Thompson, 6110 Euclid avenue, received the contract to build several buildings for the Parisin & Bingham Company, Madison avenue. The steel contract was placed with the Riverside Bridge & Iron Company, Martins Ferry, O.

A building for light manufacturing purposes will be constructed on Prospect street for the Euclid Penn Realty Company, 5200 Euclid avenue. Plans will be made by Architect Paul Matzinger, Lennox building. Estimated cost \$12,000.

East Liverpool, O. — The Adamant Porcelain Company, George E. Reed, manager, contemplates building an addition to double the present capacity. No definite plans have been adopted.

Franklin, Pa. — New bids are to be taken by Architect T. S. Brady, Franklin Trust building, for constructing a brick and steel addition to the plant of the Colburn Tool Company. The building will measure 20x100 feet and cost about \$10,000.

Maple Grove, O. — The Massillon Bridge Company, Massillon, O., received the structural steel work on the new stone plant to be built for the Holran Stone Company. The building will measure 100x300 feet.

Marietta, O.—The Marietta Manufacturing Company has purchased a steel building and will have same removed to Point Pleasant. Concrete foundations and floor will be done by day work. Requirements will consist of composition roofing, belting, shafting, etc.

Parkersburg, W. Va.—The Corrugated Box Company, E. Waldschmidt, manager, contemplates building a one-story brick and hollow tile factory plant to cost \$10,000. No plans have been adopted.

Salem, O.-Showers & Taylor, Zanesville, O., were low bidders for constructing a one-story brick, steel and reinforced concrete power plant for the Salem Electric Light & Power Company.

Springfield, O. — The Clifton Plating & Manufacturing Company will build a two-story building 4545 feet from private plans. Bids will not be taken until March 15th.

Beaver Falls, Pa .-. The Cement Products Company, contemplates crecting a



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THE "LAST WORD" IN BUILDING NEWS

The

1¹/₂-story cement block and steel factory building on the Keystone Driller Company's plant from private plans. No details decided.

Port Clinton, O.—The Matthews Boat Company, contemplates erecting a one or two-story brick boat factory building. Architect will be selected soon.

Tiffin, O.—The Massillon Bridge Company, of Massillon, received the contract for steel and erection for two structural steel factory buildings to be constructed for the Holran Stone Company.

Toledo, O.—Architects Mills, Rhines, Bellman & Nordhoff, 1234 Ohio building, have plans in progress for a one and six-story reinforced concrete factory addition to be constructed on Avondale and Upton avenues for the Champion Spark Plug Company.

State, County and Municipal.

Ashland, Ky.—The contract for building the post office building for the United States Government has been awarded to R. P. Farnsworth, Owensboro, Ky. Cost \$59,200.

Berkley Springs, W. Va.—The Luten Bridge Company, Yorw, Pa., secured the contract to build two concrete bridges for the Board of County Commissioners.

Williamson, W. Va.—The contract for building a steel and reinforced concrete foot bridge across Tug River has been placed with the Virginia Bridge & Iron Company, Roanoke, Va. Cost \$23,000.

Pineville, **Ky.**—The Board of County Commissioners, H. M. Cline, president, is having sketches submitted for a \$100,-000 court house building. The building will be two or three stories high and will be constructed of native stone.

Lima, O. — Preliminary plans are being prepared for a water supply system to be constructed for the city, to cost \$660,000 No details decided. Will vote on bond issue soon.

Martinsburg, W. Va. — The United States government is taking bids to close February 29, on constructing a postoffice and court house alteration and scwage disposal system. Project consists mainly of new stairway and elevator enclosure from basement to fourth story, and new room in basement for elevator machinery and other general alterations.

Parkersburg, W. Va. — The city will take bids February 19, to close March 1 on the paving of Ann street, from Third to Eighth streets, to cost \$18,000. Also for the improvement of Third street from Ann to Court streets, and Swan street, from Crafton to Thirteenth streets.

Hotels.

Danville, Ky.-Architect W. S. Van-Dalsen, Danville, is revising plans for a five-story brick, (steel, reinforced concrete and terra cotta building to contain 100 rooms for a syndicate headed by Samuel Lyons, W. O. McIntyre and others.

Theatres.

Parkersburg, W. Va.—Plans are under way by Architect R. H. Adir, Julian street, for enlarging and remodeling a theatre building on Market street, for the Star Bijou Company. The work will consist of a rear addition, new steel ceilings, plastering, decorating, painting, lighting fixtures, etc. Bids will be asked next week.

New Cumberland, W. Va. — H. V. Young has private plans for a one-story brick picture theatre building 40x90 feet. Work will likely mature about March 15th. Dowden & Mackson, New Cumberland, will be the lessees.

Yorkville, O.—Architect W. M. Brown, Eighth street, Martins Ferry, O., will revise plans for a one-story brick, hollow tile and reinforced concrete picture theatre building to be constructed for Morgan & Nunly, Yorkville. Estimated cost \$10,000.

Hospitals

Altoona, Pa.—The Mercy Hospital Association, J. A. Elder, president, contemplates building an additional wing to the present building to cost about \$50,-000. Competitive sketches are being received.

Bellevue, O.-L. E. Conklin, Maumee, O., who received the contract to build the Markness Memorial Hospital building, will ask sub-bids about March 1 on all materials.

Society and Club Buildings.

Cleveland, O. — Architects Frank Meade and James Hamilton, Garfield building, have plans in progress for altering the interior of a three-story and basement stone fireproof club building on Euclid avenue and E. Twelfth street for the Union Club Company. Cost \$250,000.

Toledo, O .- The Toledo Academy of Medicine, Dr. Lewis Miller, Spitzer building, has purchased a site on Sixteenth street on which a two-story brick building 40x110 feet will be erected. No architect has been chosen.

New Castle, Pa.—Sketches for a fourstory brick lodge building for the L. O. O. M., No. 51 are now being made by Architect Frank Foulk, Pearson building.

Miscellaneous.

Cambridge, O.—Bids are being taken to close about March 1st on the erection of a brick and limestone recreation building on N. Seventh street for Charles S. McMahon, president of the National Bank of Cambridge. Cost about \$25,000. Plans by Architect J. G. Petrikin, 514 Central Nation al Bank building, and Frank L. Packard of Columbus, is consulting architect.

Zanesville, O.—Architect Clarence E. Handshy, Main and Second streets, may revise plans for a two-story and basement brick garage to be erected on Main street for Charles N. Harvey, Main and Second streets. Cost \$20,000.

Altoona, Pa.—Charles Vuille, 1224 Fifth avenue, Altoona, contemplates building a brick garage for commercial purposes. The work will mature about March I.

Morgantown, W. Va.—Cole Brothers, Morgantown, were low bidders for constructing a brick and concrete garage for the West Morgantown Improvement Company. The building will be leased by F. S. Bishop. Plans may be slightly revised and be refigured.

Steubenville, O. — John D. White received the general contract for building a one-story brick, steel and concrete garage for the Standard Motor Company. The Steubenville Stone Company will do the foundation work.

Tresoeskyn, **Pa**. — The Monongahela Saw & Planing Mill Co., Monongahela City, received the contract to build a one-story brick sub-station 20 x 41 feet, for the Pittsburgh Coal Company.

REVISING HOTEL AND STORE PLANS.

The McDowell Estate, Coshocton, O., is having plans revised by Architect F. S. Fish, Superior building, Cleveland, for a three-story store and hotel building 50x100 feet to cost about \$75,000. Alternate bids will be taken on steel or hollow tile construction about the 24th inst. An additional story will be built later.

Liens Filed for Labor and Material Furnished.

ALLEGHENY COUNTY, PA.

Young & Schmitt vs. August B. Shields, owner, and Daniel Shields, Agent for owner. Building in Chartiers Township. Cost \$44.63.

Robert Mitchell Furniture Company, vs. Central Trust Company, owner. Building in Second Ward, Pittsburgh. Cost \$2,270.

NO LIEN CONTRACTS.

Charles S. Smith vs. Mrs. Gretchen Pack Rose. Agreement made February 9, 1916, to install and complete the plumbing and heating system is residence and garage on Kittanning Pike, Indiana Township, for \$6,409.00.

David T. Riffle vs. Pennsylvania Railroad Company. Agreement made February 4th and filed February 10, 1916, to furnish labor and materials for new out bound warehouse building at East Liberty Freight Station, Pittsburgh.

Edward Brady Sons vs. Baltimore & Ohio Railroad Company. Agreement made December 7, 1915, and filed February 10, 1916, to construct a new vower house, etc., Fittsburgh.

J. D. McElroy & Sons vs. E. W. Mudge. Agreement made February 10th and filed February 11th, 1916, to furnish work, labor and material to assemble, construct and finish roofing and sheet metal work for residence in Fourteenth Ward, Pittsburgh.

Iron City Heating Company, vs. B. F. Jones, Jr. Agreement made February 3 and filed February 11, 1916, to construct and finish all heating work in private residence in Sewickley, for \$11,757.

S. S. White vs. B. F. Jones, Jr. Agreement made February and filed February 11, 1916, to complete and construct all plumbing work in private residence at Sewickley, for \$12,765.00.

Franklin Electric & Construction Company, vs. B. F. Jones, Jr. Agreement made February 3 and filed February 11, 1916, to construct and complete electric work for residence at Sewickley, for \$3,-819.

H. L. Kreusler vs. May-Stern & Co. Agreement made February 7th and filed February 14, 1916, to make alterations and improvements to building at 914-16-18-20 Penn avenue, Pittsburgh, for \$19,-287.00.

GENERAL NEWS.

The Lake Shøre Sawmill & Lumber Company, Cleveland, received the mill work contract for the Bowen school building, at Akron, O. Lehr Welker, Akron, O., formerly connected with the Goodrich Tire & Rubber Co., has been appointed building inspector to succeed Howard C. Goodwin. Otto Richeld has been reappointed clerk of the building department.

H. Miller & Sons Co., Pittsburgh, announce the removal of their offices in the near future to 503-4 May building, Pittsburgh.

The Fifth Avenue Grace U. P. Congregation, Columbus, O., F. Luckhard, chairman of building committee, will purchase the necessary lighting fixtures for the new \$60,000 church building. * * *

J. G. Builinger, Toledo, O., contractors for building the infirmary buildings at Findiay, O., are taking bids on tile, terrazzo and composition flooring, sheet metal work, etc.

Architect M. Nirdlinger, Diamond Bank building, Pittsburgh, will take bids in about 60 days on the marble and tile work for the L. O. O. M. building, Butler, Pa. Bids on the steam heating will be taken shortly.

* * 1* The Lau Iron Works Company, Youngstown, O. has taken over the business of Lau & Hogan, W. C. Hogan retiring. The firm of Lau & Hogan was organized five years ago and made a specialty of structural steel and ornamental iron work.

SUGGEST ANNEX TO ARMORY.

Efforts are to be made to have appropriations made by the city of Pittsburgh and the State of Pennsylvania to cover the expenditure of constructing an addition to the armory building on O'Hara and Boquet streets, Pittsburgh. The purpose is to secure better facilities for handling conventions, the need of which is quite pronounced in Pittsburgh. No definite plans have been made for such a structure, but it may mature within the next few months.

NEW SCHOOL FOR LEAITTS-BURG, O.

The Leavittsburg, O., school building which is being designed by Architect Robert T. Keitch, Warren, O., will be two stories and basement, the exterior construction to be of light colored brick with stone trimmings. There will be six class rooms and auditorium with a seating capacity of 300. The stairways will be of ornamental iron. The building will be finished in plain oak with hardwood floors. The work will cost \$30,000, ______

HOSPITAL TO BUILD HOME.

The St. Vincents Hospital Sisters of Charity, Toledo, O., is having plans made by Architect Thomas Huber, Spitzer building, Toledo, for a nurses home 60x88 feet, five stories high with an additional wing 40x80 feet, the work to call for brick and stone trimmings with steel beams and girders, wood and cement floors. The heating, plumbing and electric work will be awarded separately. The time for taking bids on the general contract is uncertain.

CONTRACT FOR LABORATORY AWARDED.

The Westinghouse Electric & Manufacturing Co., East Pittsburgh, has just placed the contract for building a research laboratory building 50x146 feet, three stories high, to Toupet, Beil & Conley, Oliver building, Pittsburgh. The work will cost \$70,000. The structure will be entirely fireproof. Bids were taken on various reinforced concrete solid slab systems, but the final decision was to adopt the Toupet floor system.

MORE ACTIVITY IN BUILDING.

During January there was considerable improvement noticeable in building circles in the larger cities of the country in comparison with the first month of last year. Chicago shows up exceptionally well with an increase of 88 per cent; Boston, 79 per cent; Brooklyn 85 per cent; Detroit 63 per cent; Philadelphia, 104 per cent; Baltimore, 98 per cent; Cleveland, 43 per cent; Washington, 59 per cent. Pittsburgh had a decline of 26 per cent; St. Louis, 41 per cent; Cincinnati, 1 per cent; New York, 26 per cent. Of the 112 leading cities of the country the total building operations aggregated \$51,-687,497 for the month as against \$38,324,-968 for January, 1915.

The following table will show records for the various cities:

	Jan. 1916	Jan. 1915.
Chicago,	\$8,118,200	\$ 4,237,900
New York,	7,571,177	10,273,384
Boston,	4,300,000	2,408,000
Brooklyn,	3,012,343	1,624,203
Philadelphia,	1,859,090	910,805
Milwaukee,	2,433,838	203,649
Detroit,	1,979,410	1,217,290
Cleveland,	1,600,895	1,116,080
Buffalo,	510,000	381,000
St. Louis,	644,191	1,094,673
Minneapolis,	586,340	585,100
Baltimore,	948,210	480,095
Cincinnati,	445,895	451,350
Pittsburgh,	344,944	465,461
Washington,	738,546	470,328
Louisville,	178,980	333,520

BARRETT TO BUILD IN YOUNGSTOWN.

The Barrett Manufacturing Company, Battery Place, New York City, will erect a new condensor and distilling plant at Youngstown, O., the buildings to be of brick, steel and reinforced concrete construction. It is understood that bids on the erection of the buildings will be asked from only invited bidders. About \$100,000 will be spent on the buildings and equipment.

SUB-CONTRACTS FOR POST OFFICE.

Most of the sub-contracts for the construction of the East Pittsburgh, Pa., post office building have been awarded to eastern firms. The Torbet Construction Company, Hampton, Va., has placed the heating and plumbing work with Charles T. Taylor, Hampton; hardware, Henry Keidel & Co., Baltimore; electric work, Strang Electric Company, Philadelphia; mill work, R. F. Taylor Company, Indianapolis, while the cut stone work went to the Fursy-Kerber Cut Stone Company, Chicago. Contract for the tile roofing was awarded to the Ludowici Celadon Company, Washington, D. C.

WOOD MANTEL TRADE BETTER.

The National Wood Mantel Manufacturers' Association in its official report states that during the last year a sharp return to favor of this commodity has been noted and firms that formerly were in the wood mantel business on a large scale and later took on other wood working lines are again throwing in larger capacity for the manufacture of these lines. The Columbia Mantel Company, of Louisville, is devoting practically all of its capacity to this line and the old firm of Steul & Thuman, Buffalo, which has, of late years, been devoting most of its capacity to bed-room furniture, is again manufacturing wood mantels on an increasingly large scale.

ENLARGE STEEL SASH FACTORY.

Two new concrete buildings to be used for the manufacture of Fenestra solid steel windows were authorized by the directors of the Detroit Steel Products Company following the annual meeting of the stockholders held last week. These new buildings will be started immediately and rushed to completion and will increase the capacity of the factories by approximately 100 per cent.

At the meeting of the stockholders the following directors were elected: Walter S. Russel, Henry Russel, M. P. Rumney, C. H. O. Meyer, Robert S. Drummond, J. G. Rumney and Leo Butzel. The directors re-elected officers as follows:— President, Walter S. Russel; Vice-President, Robert S. Drummond; Secretary-Treasurer and General Manager, J. G. Rumney.

STONE COMPANY NOT IN RESTRAINT.

A decision of the United States District Court of Ohio regarding the case brought against the Cleveland Stone Company by government officials claimin that the company was a combination in restraint of trade was entered a few days ago the final decree being that the company is not a monopoly in violation of the anti-trust law However the court decides that the company did attempt to monopolize trade in certain articles from which they are perpetually enjoined.

The company is permitted to maintain the organization of all its affiliated companies only for the purpose of retaining trade names and good will. The decision enjoins it from fixing prices on its products by aggreement with competitors, from fixing re-sale prices for pobbers and dealers, from paying rebates to jobbers and dealers to handle its products exclusively. Jurisdiction is still maintained by the court to reopen the case on the application of any party.

TILE REINFORCING LATH.

Recognizing the increasing use of metal reinforcement for vitrified tile flooring a well known concern is introducing a special type of expanded metal for use in this connection. Its distinctive feature is its moderate depth combined with positive hold on the mastic. The diamond shaped openings are small and expand in such a manner as to permit of a perfect clinch of cement. A minimum amount of cement is required by the use of this reinforcement. It is made from open hearth steel or toncan metal painted or galvanized. This reinforcing material is especially adapted by reason of its truss backing for reinforcing of all sorts of flooring, side wall, partition and other gorms of tile work.

QUICK PILE PULLING.

A great amount of time was saved in pulling sheet piles in the work of the Cranford Construction Company, Pittsburgh, in the construction of the foundation for the Pittsburgh & Lake Erie warehouse at Pittsburgh.

Before any piling was driven for cofferdam, the earth was excavated to a depth of 30 feet. Then 14-in. Lackawanna piles were driven all around the pit to their full depth of 35 feet. The earth inside was removed to the 60 foot level which left about 3 feet of pile below the bottom of the excavation.

This depth is below the bottom of the Monongahela river, so that the excavation is wet even after the piling has been driven to full depth. After the excavation the water is pumped out and concrete is placed in the bottom to a depth of 5 feet. No tar paper or other separator is placed to prevent the concrete from bonding to the steel piles.

The piling is retrieved by a novel process. The steam hammer that drives the sheet piling is reversed and operating in that manner the piling is literally driven out as well as in.

PROTECT TILE STANDARDS.

At the annual convention of the Interstate Mantel and Tile Dealers' Association last week new standards were proposed for protecting the architects of the country against indiscrimminate dealers who figure on bids for standard quality tile and then supply inferior grades. This is in line with the effort of the ceramic interests, and others to protect the tile standards and thereby save the industry from falling into disfavor among architects.

The convention was the largest ever held. Robert Beck, of Chicago, was reelected president. In the working out of the plan for shutting out the irresponsible dealer the Tile Manufacturers' Representatives Club of New York of which R. E. Jordan is president, will play a large part in that complaints by architects regarding quality and standards, etc., may be filed with that organization.

POINTS ON BUILDING LAWS.

Some states have peculiar laws concerning the filing of liens and contractors as well as building material interests should be careful when making contracts to ascertain who is the rightful owner of ground on which the building is to be constructed and who has the legal right to sign a contract. A case is cited in a western city where lumber or materials were furnished a husband for a building and the contractor deait with the husband and then later found the the husband was not financially responsible, and that the building had been erected upon the wife's land. Under such circumstances the court held that because the material was not furnished upon a contract with the wife, who was the owner of the land, there was no right to a mechanic's lien against the property, and the husband, being financially irresponsible, the contractor had to bear the loss. So the contractor should find out, before furnishing materials and labor, in whose name the property stands, and be sure that he is contracting with the owner of the property.

In emphasizing the care that you should take when engaged in building operations in making and preserving the proof that you have properly done your work and furnished the materials upon which your claim might be founded. how often do we see in court a suit in connection with some large building which a contractor has erected. The contractor has done everything as he agreed to in his contract; but the owners of the building dispute that materials were furnished in the amount claimed by the contractor, and it becomes incumbent on the contractor to make proper legal proof of delivery on the premises of the materials, according to contract. One case in court where the only proof that the contractor could show that the materials in question had been delivered was by showing the verified itemized statement which had been filed in the Register of Deeds office, for the purpose of filing his mechanic's lien, and the Supreme Court, under the law, properly held that this was not even prima facie proof of the delivery of the materials upon the premises. It is suggested, wherever possible, that a written delivery slip with the signature of the driver or of the owner, if possible, upon same as a memorandum for you, be made. This would make proof of delivery an easy proposition.

How often we find that some firstclass contractor is so intent upon doing a good job that when alterations, additions or changes are requested from the contract, he does not secure a written order for same from the owner and therefore if the matter finally comes to a law suit, has trouble in recovering the pay for these things to which he is entitled-if he recovers at all.

THE LIGHTING OF THE COUNTRY HOUSE.

The portable lamp is the one type of lighting fixture best adapted for the country house. Starting with the small portables, suitable for sideboard, mantel, desk or boudoir, there is a wide range of designs. Some use dainty glass shades and some silk shades, both being found in many attractive designs. These may use mantle units, either of 35 or 60 candlepower, according to the requirements of the special location. Then we have the portables for library tables. These are found in varying sizes and generally use a unit of 100 candle-power. The designs are again numerous with either the decorative glass shade or the silk shade. There is also the large floor portable with silk shade and a line of semi-indirect portables, either with translucent glass bowl alone or with this bowl suitably surrounded with an ornamentel silk shade. All of these lamps are equipped with the self-lighting attachment, giving the maximum convenience possible.

Side brickets and ceiling fixtures, direct lighting and semi-indirect, where they are required in this class of installation, are, of course, available in many designs and equipments.

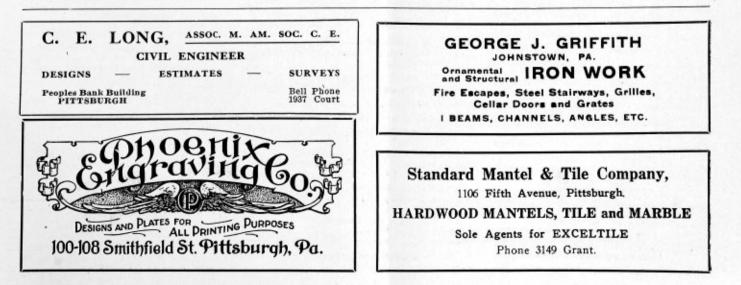
The entrance hall in most present day country houses is in reality a room of fairly large dimensions. The most modern treatment of this space is with a semi-indirect fixture, containing a gas lighting unit of power enough to furnish a moderate general illumination, which, in most cases, is supplemented with a portable lamp. The connection for this portable is made from a floor or baseboard outlet specially designed for this work. In the country house the reception room may be lighted with great effectiveness by employing a direct lighting ceiling fixture with low candle-powered, upright or inverted mantle units. The design and finish of these fixtures, together with the glass or silk shades now procurable for the lighting units, renders the fixture a decorative feature of the room, as well as a means of lighting. This applies likewise to the semiindirect fixtures also used extensively for this interior.

Dining room lighting calls for lighting, of a fairly high intensity, on the table, and a low, general illumination throughout the room. The dome fixture is used supplemented with side brackets.

Sanitary considerations demand a rather high intensity in the kitchen. A ceiling fixture, with one or more single mantle inverted units with diffusing glassware, furnishes the general illumination, and bracket lights, with low candle-powered inverted units, are used over the sink and gas range. A high powered, single mantle, inverted unit may be used on the ceiling instead of the two or three smaller units, with equal success. In the installation shown the center fixture is controlled from wall, while the local lights are controlled at the fixture.

The lighting of the library or living room in the country house generally depends on side brackets for low general ilumination.

Side brackets play an important part in the bed rooms as well. For dresser lighting, with 35 candle-power units and dainty silk or glass shades, they are extremely well adapted. A small portable may complete the installation and can be obtained to harmonize with the brackets and furnishings, as well as to furnish adequate local lighting for reading at the bed, or, in fact, in any portion of the room.



Classified Index of Advertisers, Arranged for Ready Reference

ARCHITECTURAL CASTINGS. Mahoning Foundry Co., Punxsutawney, Pa.

ARCHITECTURAL TERRA COTTA.

Scott A. White, Pittsburgh. Finnessy, Jas. E., Oliver Building, Pitts-burgh, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa.

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ART AND STAINED GLASS.

Hyde-Murphy Co., Ridgway, Pa. Marshall Art Glass Co., S. S., Box 139, Alle-

gheny. Twin City Art Glass Works, 110 Sandusky St., Pittsburgh.

ASPHALT SHINGLES.

Fintkote Mfg. Co., Wabash Bldg., Pittsburgh.

H. B. Morrow, Wabash Bldg., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING PAPER.

Saeger Brothers, Pittsburgh, Pa.

BANK AND OFFICE FIXTURES.

H. C. Bemis, Bradford, Pa.

Hyde-Murphy Co., Ridgway, Pa.

Requarth Co., F. A., Dayton, Ohio. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

BRICK JOINT RAKER.

George Grundy, 905 Gerrett St., Pittsburgh.

BUILDERS' SUPPLIES.

Hall, Harry & Brother, Homestead, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

BRICK MANUFACTURERS AND DEALERS.

Kennedy, D. J. Co., Pittsburgh, Pa. Kushequa Brick Co., Kushequa, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING CONTRACTORS.

Brednich, Jacob, 243 Lelia St., Mt. Washing-ton, Pittsburgh.

Brown Brothers, Broadway and Lincoln Aves., Mt. Lebanon.

Kissell, D. C., 7410 Race St., Pittsburgh. Lash, D. H., 720 Grandview Ave., Pittsburgh. Rogers, Philip, 157 Moultrie St., Pittsburgh, Wiegand, J. W., Suburban Ave., Nineteenth Ward, Pittsburgh.

CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

CEMENT COATING.

Fireproof Materials Co., Pittsburgb, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

CERAMIC AND TILE WORK.

Erie Mantel & Tile Co., Erie, Pa. Pittsburgh Venetian Mosaic Co., Pittsburgh.

CONCRETE FOUNDATIONS.

Garber-Erder Co., Wabash Bldg., Pittsburgh.

CONCRETE MIXERS.

Easter-Emmons Co., 432 Diamond St., Pittsburgh.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-burgh, Pa.

burgh, Pa. CONCRETE HARDENER.

George C. Webb, Jenkins Arcade, Pittsburgh.

COMPOSITION FLOORS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh. Dalzell, J. Willis, House Building, Pitts-burgh, Pa.

CONTRACTORS' PUMPS.

Reineke-Wagner Pump & Supply Co., Pittsburgh.

CONTRACTORS' EQUIPMENT.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-burgh, Pa.

CORNICE WORK.

Franklin Sheet Metal Works, Franklin, Pa.
General Mfg. Co., Wheeling, W. Va.
Limhach, Frank. 1724 Lowrie St., Northside, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

DIRECTORY BOARDS. J. Willis Dalzell, Pittsburgh, Pa.

DOOR CHECKS.

Allegheny Sales Company, First National Bank Building, Pittsburgh.

ELECTRICAL CONTRACTORS.

Carter Electric Co., Oliver Bidg., Pittsburgh. Loomis Electric Co., W. R., Wabash Building. Pittsburgh.

ELEVATORS AND DUMB WAITERS.

Marshall Brothers, South Twenty-first and Mary Sts., Pittsburgh.

ELEVATOR DOORS.

J. Willis Dalzell, Pittsburgh, Pa. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa. Watt Mfg. Co., Northside, Pittsburgh.

EXPANDED METAL.

Bartacubb Altrac. Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh, Pa.

FELT.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FIREPROOF DOORS AND PARTITIONS.

Fireproof Materials Co., Pittsburgh, Pa. J. Willis Dalzell, Pittsburgh, Pa. General Mfg. Co., Wheeling, W. Va.

FIRE ESCAPES.

FIRE ESCAPES. Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa. Keystone Ornamental ron Co., Homestead, Pa. Kratzer, W. N. & Co., Smallman St., Pitts-

Kratzer, W. N. & Co., Smanman Su, burgh. Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

FLOOR HARDENER.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FLOOR SURFACING.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh. Wayvell, Chappell & Co., Chicago, Ill.

FLOOR AND WALL PAINTS. General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FOUNDATION CASTINGS.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FURNACES, STOVES AND RANGES.

Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.

GYPSUM BLOCKS.

J. Willis Dalzell, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

HARDWOOD DOORS. Hyde-Murphy Co., Ridgway, Pa.

HARDWOOD FLOORS.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh.

Reineke-Wagner Pump & Supply Co., Pittsburgh.

INTERIOR TRIM.

Dalzell, J. Willis, Pittsburgh, Pa.
Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio.
H. C. Bemis, Bradford, Pa.
Hyde-Murphy Co., Ridgway, Pa.
Orner Woodworking Co., DuBois, Pa.
Requarth Co., F. A., Dayton, Ohio.

INTERIOR MARBLE WORK. Erie Marble & Tile Co., Erie, Pa. Pittsburgh Marble Co., Builders' Exchange, Pittsburgh, Pa. Standard Mantel & Tile Co., Pittsburgh. E. J. Walker, Pittsburgh, Pa.

INTERIOR MILL WORK.

Dalzell, J. Willis, Pittsburgh, Pa.
Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio.
Hyde-Murphy Cc., Ridgway, Pa.
Orner Woodworking Co., DuBois, Pa.
Requarth Co., F. A., Dayton, Ohio.

IRON FENCING. Keystone Ornamental Iron Company, Homestead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SHEET IRON ROOFING AND SIDING.

William Patridis & Co., Curry Bldg., Pitts-burgh.

IRON STAIRWAYS

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Keystone Ornamental Iron Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

JOIST HANGERS.

Keystone Ornamental Iroa Co., Home-stead, Pa.
 Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

LIGHT IRON FURRING. J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

LIGHTING FIXTURES.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

LIME. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

MILL WORK. H. C. Bemis, Bradford, Pa. Herdman ash, Door & Lumber Co., Zanes-ville, O. Hyde-Murphy Co., Ridgway, Pa.

MANTELS AND TILES.

MANTELS AND TILES. Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Hyde-Murphy Co., Ridgway, Pa. The Graft Company, 955 Liberty St., Pitts-burgh, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa.

METAL CELLAR DOORS.

Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

METAL LATH.

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh, Kennedy, D. J. Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

METAL DOORS. J. Willis Dalzell, Pittsburgh.

Company.

Classified Index of Advertisers, Continued

METAL LATH CONSTRUCTION.

J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

METAL SPINNING.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

MORTAR COLORS.

Wheeling Wall Plaster Co., Wheling, W. Va. Kennedy, D. J. Co., Pittsburgh, Pa.

NON-STAINING CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

ORNAMENTAL IRON WORK.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa.

- Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.
- Keystone Ornamental Iron Co., Home-stead, Pa.
- Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Moss Iron Works, J. E., Wheeling, W. Va. J. Willis Dalzell, Pittsburgh, Pa. Tyler Co., The W. S., Bessemer Bldg., Pitts-burgh.

Vilsack, Martin Co., Ltd., 3226-30 Penn Ave., Pittsburgh.

Watt Mfg. Co., Northside, Pittsburgh.

PARQUET FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh

PITCH.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

PLASTER BOARD.

Kennedy, D. J. & Co., Pittsburgh. Pa. Wheeling Wall Plaster Co., Wheeling, W. Va. McDade Company, Alex., The, 1121 Glen St., Wilkinsburg, Pa.

PRIVATE WATER SYSTEMS.

Dowie Water Well Co., Jenkins Arcade, Pittsburgh, Pa. Reineke-Wagner Pump & Supply Co., Pitts-

QUARRY TILE.

Kushequa Brick Co., Kushequa, Pa.

RAGGLE BLOCK.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

REINFORCING MATERIAL.

Fireproof Materials Co., 320 Liberty St., Pittsburgh.

- Kennedy, D. J. & Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. New Kensington Fiber Plaster Co., New Kensington, Pa. Witherow Steel Co., Pittsburgh, Pa.

ROOFERS (TIN AND SLATE).

Blank, Herman, 5152 Coral St., E. E., Pitts-

- Blank, Herman, 5152 Coral St., E. E., Fitts-burgh.
 Helt, George P., 1915 Sedgwick St., N. S., Pittsburgh.
 Hill Top Roofing Co., Bell Phone, 954-J Hill, Pittsburgh.
 South Hills Hardware Co., West Liberty, Dittsburgh.
- Pittsburgh. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa. W.

ROOFERS (GRAVEL, SLATE AND TILE).

Hahn Brothers, Pittsburgh, Pa. Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh. Scott, A. White, Pittsburgh. South Hills Hardware Co., West Liberty, Pittsburgh.

Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

ROOFING MATERIALS.

STRUCTURAL STEEL PAINTING.

William Patridis & Co., Curry Buld., Pitts-

SUSPENDED CEILINGS.

TERRAZZO WORK.

Pittsburgh Venetian Mosaic Co., Pittsburgh

TILE (DECORATIVE).

TRUSSIT METAL.

VAULT LIGHTS. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

VENTILATORS.

Dalzell Bros. Co., Youngstown, O. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

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Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL LINING.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh.

WALL PLASTER.

Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL PLUGS. Allegheny Steel Band Co., Northside, Pitts-burgh. George C. Webb, Jenkins Arcade, Pittsburgh. Bostwick Steel Lath Co., Niles, O.

WALL TIES.

Allegheny Steel Band Co., Northside, Pitts-burgh. Bostwick Steel Lath Co., Niles, O. Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

WATERPROOFING.

Fireproof Materials Co., Pittsburgh, Pa. General Waterproofing Co., Century Bldg., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh, Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

WATER WELL PUMPS.

Reineke-Wagner Pump & Supply Co., Pitts-

WIRE FABRICS.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WIRE GUARDS.

Franklin Sheet Metal Works, Franklin, Pa.

Highland Ornamental Iron Co., 5748 Ellswortb Ave., Pittsburgh, Pa.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Moss Iron Works, J. E., Wheeling, W. Va.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa

Vilsack, Martin Co., Ltd., 3226-30 Pean Ave Pittsburgh.

Ornamental Iron Co., Home-

Fireproof Materials Co., Pittsburgh.

Witherow Sieel Co., Pittsburgh, Pa.

burgh.

Keystone Or stead, Pa.

New

Kennedy, D. J. & Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., Kensington, Pa.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa. E. J. Walker, Pittsburgh, Pa.

Fireproof Materials Co., Pittsburgh.

J. C. Baxendell, Mt. Oliver, Pittsburgh.

burgh.

Alling & Corey, Pittsburgh, Pa.

- Hahn Brothers, Pittsburgh, Pa. Fintkote Mfg. Co., Wabash Bldg., Pitts-burgh.
- Kennedy, D. J. Co., Pittsburgh, Pa.
- Saeger Brothers, Pittsburgh, Pa.
- H. B. Morrow, Wabash Bldg., Pittsburgh. Scott A. White, Pittsburgh.
- Sorth Hills Hardware Co., West Liberty, Pittsburgh.
- Wheeling Wall Plaster Co., Wheeling, W. Va.

SAFETY TREADS.

- American Mason Safety Tread Co., Builders' Exchange, Pittsburgh.
- Fireproof Materials Co., Pittsburgh, Pa.
- Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SAND AND GRAVEL.

American Sand & Gravel Co., Erie, Pa.

Erie Sand & Gravel Co., Erie, Pa.

- Kennedy, D. J. Co., Pittsburgh, Pa.
- New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.
 - - SASH AND DOORS.
- Herdman Sash, Door & Lumber Co., Zanesville, O.
- Orner Woodworking Co., DuBois, Pa.

SASH WEIGHTS.

Mahoning Foundry Co., Punxsutawney, Pa.

SCAFFOLDING.

Independent Scaffold Co., Pittsburgh, Pa.

SEWER PIPE.

- Kennedy, D. J. Co., Pittsburgh, Pa
- New Kensington Fiber Plaster Co., New Kensington, Pa.
- Wheeling Wall Plaster Co., Wheeling, W. Va.

SHEET METAL WORK.

- Franklin Sheet Metal Works, Franklin, Pa. General Mfg. Co., Wheeling, W. Va.
- Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
- W.
- H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

SIDEWALK LIGHTS.

Albert Grauer & Co., 216 E. Reliance St., Northside, Pittsburgh.

- Kratzer & Co., W. N., Smallman St., Pitts-burgh, Pa.
- Mullen Brothers Company, Fulton Building, Pittsburgh, Pa.
 Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SKYLIGHTS AND VENTILATORS. General Mfg. Co., Wheeling, W. Va. Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

STAIR WORK.

H. C. Bemis, Bradford, Pa. Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio,

Hyde-Murphy Co., Ridgway, Pa.

Orner Woodworking Co., DuBois, Pa.

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Navarro, P., 1240 Grotto St., Pittsburgh, Pa.

Moss Iron Works, J. E., Wheeling, W. Va.

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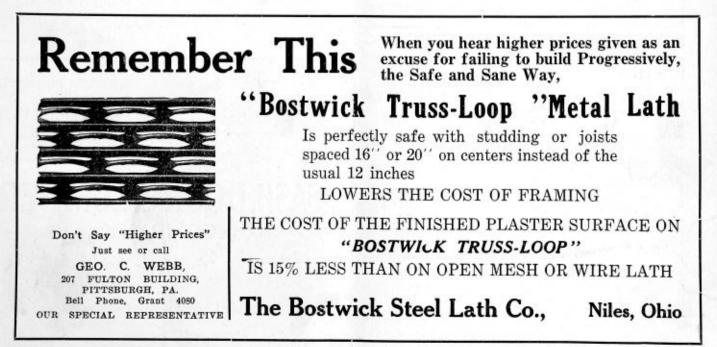
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SCHOOL BOARD SELECTS DESIGNERS.

The Board of Education, Fulton building, Pittsburgh, after approving the purchase of sites on which to build additions to the Peabody and Fifth Avenue high school buildings, new Perry and Greenfield school buildings and the West End-Sheridan high school recommended that the following architects be selected for the above work: Edward Stotz, Fifth Avenue High; Kienel & Elliott, Greenfield school; Edward B. Lee, Peabody high; R. M. Trimble, Perry school, and Press C. Dowler, Beechwood school.

SUB-BIDS TO BE ASKED FOR AKRON BUILDING.

The Carmichael Construction Company, Hamilton building, Akron, O., which has the contract to build a sevenstory bank and office building 69x78 feet, for the Peoples Savings and Trust Company, Akron, will take bids on material about April 1. Plans for the building are now under way by the above company. The design for the banking fixtures will be made by Thomas B. Boyd, 286 Fifth avenue, New York City. Construction work will call for hollow metal windows, fire doors, skylights, metal ceilings, maple flooring, leaded glass, metal lath, tile floors, electric elevators, structural steel, ornamental terra cotta, reinforced steel, cement, face brick, etc.

MUNHALL SCHOOL PLANS NEARLY READY.

Architect William G. Eckles, Lawrence Savings and Trust building, New Castle, Pa., has about finished the plans for the \$75,000 school addition for the Board of Education, Munhall, Pa. The building will be 50x80 feet, two stories, and will be of brick, hollow tile and sandstone trim construction. It will contain eight class rooms, gymnasium, etc. Specifications will be completed early next week and bids asked on the general contract within a short time. The building will have composition roofing.

ASK BIDS ON LODGE BUILDING.

Plans and specifications have been prepared by Architect S. F. Aftel, Ohio building, Toledo, O., and bids are now being asked on the erection of a threestory brick and steel frame building 75x 120 feet, to be built for the Viking Lodge, 892,-I. O. O. F., Toledo. The structure will contain stores and lodge rooms and will have reinforced concrete floors, fire doors, metal ceilings, patent store fronts, composition roofing, sidewalk lights, etc. The heating, lighting and plumbing will be separate contracts. The work will cost \$50,000.

BIDS ON KENTUCKY SANITARIUM TO BE TAKEN.

A three-story brick, reinforced concrete and terra cotta trim sanitarium and hotel is to be constructed at Madisonville, Ky., by the Dawson Springs Hotel & Sanitarium Co., Louisville, Ky., which will cost about \$350,000. Plans for the new structure have been completed by Architect Brinton B. Davis, Inter-Southern Life building, Louisville, which call for a building 75x418 feet. Material specifications are now being written and bids will be asked in about two weeks.

MCNONGAHELA SCHOOL TO BE AWARDED.

Bids will close Monday next on building the brick and ornamental terra cotta trim school building for the Board of Education, Monongahela, Pa., the design for which came from Architect C. J. Rieger, Germania Bank building, Pittsburgh. The structure will measure 85x88 feet, two stories high. Written specifications call for cement floors in corridors, concrete foundations, fireproofing beams and girders, structural steel, interior trim of hard pine, wood window frames, composition roofing, fireproof partitions, ornamental terra cotta, etc.

SCHOCL NEAR WEIRTON, W. VA.

Architects Peterson & Clark, Steubenville, O., have plans well under way for the brick fireproof school building which is to be constructed near Weirton, W. Va., for the Board of Education of Burler Township, D. M. Shakely, president, Hollidays Cove, W. Va. It will contain 12 class rooms, science departments and gymnasium. Bids will be taken March 1 to close March 15. Specifications include concrete footings and foundations. slag roofing, face brick, mechanical hot air heating system, gas and electric fixtures, plumbing, etc.

TOLEDO CITY OFFICIALS TO BUILD.

The Board of Public Service, Valentine building, Toledo, O., is to ask bids within a short time on constructing a three-story brick or terra cotta building 30x120 feet to be used for police and hospital purposes. Plans for the building are being made by Architects Mills. Rhines, Beelman & Nordhoff, Ohio building, Toledo. The steel work is to be a separate contract as well as the electric work, heating and plumbing. Other specifications include composition roofing, face brick, fire doors, cell work, skylight, ventilators, electric elevators, etc.

VANDERGRIFT SCHOOL DE-PENDS ON BOND ISSUE.

The citizens of Vandergrift, Pa., will be asked to vote on issuing \$145,000 bonds to cover the cost of a proposed school building for that place. The Board of Education has already adopted the plans of Architect William G. Eckles, Lawrence Savings and Trust building, New Castle, who has started working drawings for the building which will be a two-story brick and hollow tile with sandstone or limestone trim. It is to contain class rooms, auditorium, gymnasium, science departments, etc. Building requirements will likely call for composition roofing, terrazzo flooring, fire doors, face brick, reinforcing steel, steam heating system, electric lighting, etc.

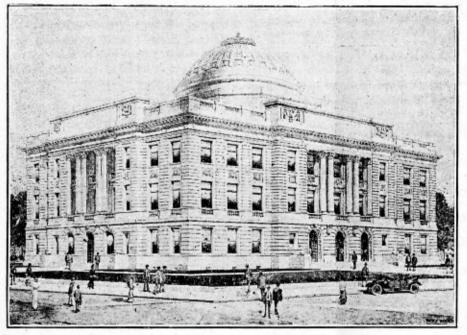
Award Wilmington, O., Court House

Much interest was centered in the estimates submitted for constructing the pro-posed court house and jail building for the Board of County Commissioners, Wilmington, O. These bids were opened a few days ago and showed that the lowest price submitted for the court house building was furnished by the Western Building Company, Buffalo, N. Y., the stated cost being \$177,497. The low estimate on the jail building was furnished by the Hammilton Construction Company, Hamilton, O., at \$21,400.

The court house building will be 108x 134 feet, four stories high and the jail structure 51x56 feet three stories. The power plant will be located in the latter structure.

The construction work will call for Rockcastle or Kentucky blue stone, hollow tile partitions, probably oak interior trim, reinforced concrete floor and roof construction, ornamental and patent plastering, metal lath, pitch and felt roofing, steam heating, electric lighting, Bedford limestone for trimmings, etc.

There are to be three separate entrances leading to a central dome. Besides a large assembly room, room for the G. A. R. and various smaller rooms for relics, retiring purposes, etc. Following are the tabulations of bids:--



	Court	Jail
	House	Build'g
Western Building Company, Buffalo, N. Y.,	\$177,497	\$30,000
John Jewell & Sons, Cincinnati, O.,	185,344	25,470
D. W. McGrath, Columbus, O	191,700	24,628
Bailey-Koerner Company, Louisville, Ky.,	. 192,245	24,500
Ohio Building & Construction Company, Cincinnati, O.,	192,267	24,850
Roche-Brunner Company, Cincinnati, O	193,870	27,739
Sutherland Building & Construction Co., St. Louis, Mo.,	196,617	24,893
Dawson Construction Co., Pittsburgh, Pa.,	197,000	23,000
King Lumber Company, Charlottesville, Va.,	198,309	27,739
Hamilton Construction Company, Hamilton, O.,	199,200	21,400
Covall Construction Company, Ionia, Mich.,	200,000	24,500
Mettler-Gloyd Company, Cleveland, O.,	208,900	28,032
Willing Brothers, Bellevue, O.,	216,222	29,276
W. B. McAllister Company, Cleveland, O.,		26,300
W. H. Isgrigg & Son, Greensburg, Ind.,	225,900	28,200
W. H. Fissell & Co., New York, N. Y.,	242,807	30,000
Low bidder on plumbing and heating, M. W. Townsend,		ville, O.,
\$21,096.		

Low bidder on electric work, Avery, Loeb & Co., Columbus, O., \$2,758.

Devise New Roof and Flue Tile

Close analyses of Chimney conditions and roof defects in many city buildings will show the need of an improvement in flue linings and roof copings. It has been said that of all the perfections in building the least progress has been made in chimney linings and in roofs. With the idea of correcting some of these conditions, there has been a system which, it is thought, will effect a cure for rapid depreciation of roofs and chimneys and incidentally make, the modern building more safe against fire. The originator of the plan has had an actual experience in designing, erecting both public and private buildings, for over thirty years and also detailing and manufacturing building materials. He noticed time and time again the inferior construction of the interior of the chimney flue. Last year during a visit to the office of the fire prevention bureau in one of the largest cities, offered to wager the chief that more than ninety per cent. of the smoke flues in this city were defective; at first he was inclined to accept the wager, but when his first assistant agreed with me he likewise then agreed that there were not ten per cent fireproof chimneys in that city

If you have an occasion to examine a chimney, take a good pocket electric searchlight and tie a string to it, and then lower it down some of the flues that you think were built right and note the defects as you lower and raise the light. You will note, if the flues are unlined, that the mortar joints are badly decayed and the partition walls are eaten away by the noxious gases, so much that they are absolutely worthless. If the flue is lined with a butt joint flue lining you will find a rough irregular chimney flue.

Bricklayers, as a rule, are not particular about the interior of the chimney flue. You will also find the liners are set first to one side, then to the other side. and some of the joints are set close, while the greater part are set from one inch to one foot apart. Many of the flues contain only a few feet of flue lining at the very top of the chimney, and possibly a joint or two where the smoke pipes enter it. As a whole the chimney flue is of very bad construction, and is one of the direct causes of the many fire losses reported by the Board of Underwriters. Having had the above experience and having examined a great many chimney flues, the flue lining and coping blocks shown herewith was designed to overcome these bad features. The flue lining has a deep flush socket joint, made specially so that it can be built in advance of the brick or other masonry work.

Knowing that the ordinary flue is not fireproof, and that it is a conductor of heat instead of a non-conductor, a way was devised to insulate it with dead air, or, semi-vacuum in sealed air cells. This will prevent the flue lining from becoming overheated, and will also create a much better draught and will insure the owner from having his property burned from a defective or overheated flue.

Most all building codes require eight inches of brick around the exterior of the flue lining, where the code requires less, the walls of attached chimneys with flues not exceeding eight by twelve inches and larger should have walls eight inches thick to within ten feet of the top, aside from strength or stability. Thick walls are preferable to thin walls.

A chimney has three requirements or purposes: First, to produce the necessary increases. Therefore, if a perfected air cell lining is used of a proper size the interior becomes warm quicker and therefore increases the velocity of the gasses. Thus the rule of the chimney construction is reduced to the height and area.

The size of the flues for house heaters should be ample in size for the heating apparatus and carried as nearly straight as possible from a point near the cellar floor to above the highest projection of the roof. They should be independent, having no connection with other flues or openings, and always of the same area from top to bottom. A well-jointed air cell, flue tile, preferably round, is better than a square flue of larger area. The chimney flue should be carried three or four feet below the smoke pipe entrance and provided with a cleanout door at the base, tightly fitted, to

draught for the propoer combustion of the fuel; second, to furnish a means of discharging the noxious products of combustion into the atmosphere at such a height from the ground that the same may not prove a nuisance to the people living in the vicinity of the chimney; third, that it be so constructed that the noxious gases or heat will not enter the building or its contents to become ignited and also cause explosions when the noxious gases are confined within nonventilated rooms or space.

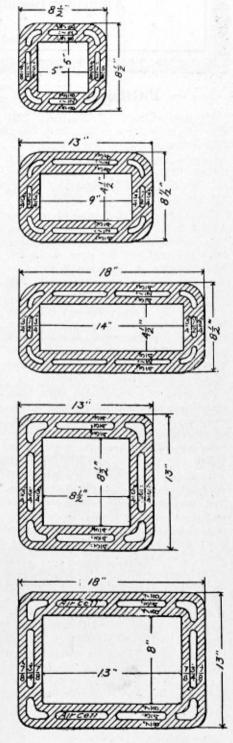
To produce an effective draught in the furnace, the chimney requires size and height; a chimney had better be a little to large than too small. Each pound of coal burned yields thirteen to thirty pounds of gas, the volume of which varies with the temperature.

The weight of gas carried off by a chimney in a given time depends upon four things: Size of chimney, velocity of flow, the density of gas, and the temperature of the interior of the chimney. The density decreases, directly as the absolute temperature, while the velocity facilitate the removal of the accumulated dust and soot.

No chimney should have the interior less than eight and one-half inches in depth nor of a smaller size than the smoke pipe form the heater.

For an ordinary kitchen range an eight and one-half by eight and onehalf inch interior size flue will generally answer, but an eight by thirteen size is better. For fire-places, the size of the flue should never be less than eight and one-half by eight and one-half interior, and increased according to the size of the opening and grate. It is not safe to construct any flue these days for either wood or anthracite coal. If the flue is made of sufficient size to burn bituminous coal, it will handle the smoke from all flues.

Going a step farther the same manufacturer has developed a new type of raggle block and wall coping which is also shown in detail. The system is equally applicable to a built-up roof. This block is designed for use on any kind of a roof, whether sloping or flat. specification or promenade tile. This form of coping takes care of all expansion and contraction and at the same time provides an ideal anchorage and



absolute watertight joining at the wall and roofing connection. There are various applications for special shapes of this tile.

One of these are scuppers which will intersect the standard blocks and which furnish a practical way of fastening the roofing whether it is metal or other material.



Pittsburgh.

Architect Charles R. Geisler, 1933 Warnock street, awarded to Harry Bupp, 2093 Wingate avenue, the contract for erecting a two-story brick veneered and hollow tile store and apartment building on Capital avenue for Henry Anmann, 103 Capital avenue, Cost \$6,500.

The same architect awarded to Paul Auel & Son, 93 S. Twenty-fourth street, the contract for erecting a two-story brick veneered and tile store and apartment building on Twenty-sixth and Carson streets for Dora Rosenthal, 2620 Carson street. Cost \$6,500.

George B. Wills Company, 101 Park avenue, New York City, was the low bidder on constructing a one-story brick and steel and reinforced concrete boiler house addition at the Bureau of Mines for the United State Government.

Architect A. Proellochs, 7031 Race street, will take bids on erecting a twostory brick duplex residence on Homewood avenue near Monticello street for John Hess, 7030 Monticello street. Cost \$3,500.

Architect Charles R. Geisler, 1933 Warnock street, awarded to Henry Bupp. 2093 Wingate avenue, the contract for crecting a two-story brick veneered an i frame residence on Plain View avenue for J. E. Crawford, 2020 Plain View avenue. Cost \$3,500.

The same architect will also take bids on erecting a two-story brick veneered and hollow tile motion picture theatre and apartment building on 1600 Carson street for Louis Michael, 1612 Carson street. Cost about \$15,000.

Architect F. A. Park, 5435 Kincaid street, has completed plans for a 2½-story brick veneered residence to be erected on Poplar avenue, Greentree Boro, for David Toberg, 6839 Reynolds street. Cost \$4,500.

The same architect awarded to Colussy Brothers, Baldwin street, Bridgeville, the contract for building a 1½-story shingle and frame cottage near bridgeville, for W. W. Walker, Bridgeville. Cost \$3,000.

Frank McMaster, 225 Ella street, is taking separate bids on erecting a threestory brick residence on Ella street to cost \$4,500. Plans by Architect F. A. Park, 5435 Kincaid street.

E. H. Hulem, 4 Trenton avenue, Edgewood, received the contract for erecting a two-story and basement birck parish house on McKee Place, Semple and Louisa streets, for the Oakland Baptist Congregation. Cost \$5,000. Plans by Architect C. W. Cottrell, 509 Cato street.

Architect U. J. L. Peoples, Vandergrift building, is preparing sketches for a two-story brick residence to be erected on Beason street near Shady avenue for Mrs. C. Dunstein, 1287 Shady avenue. Cost about \$20,000.

Architects Ingham & Boyd, Vandergrift building, are preparing sketches for a 2½-story brick residence to be erected on Fairfield Lane, Schenley Farms, for C. Valentine Kirby, 919 Haights street. Cost \$10,000.

Architects Kiehnel & Elliott, Keenan building, awarded to Ritz Brothers, Frankstown Road, Penn Township, the contract for erecting a 2½-story brick residence on Celeron street, Forbes Manor Plan, for Mrs. A. M. McDonough. Cost \$5,000.

Minor changes are being made by Architects Carlisle & Sharrer, Jenkins Arcade, to the plans calling for a 2½-story brick veneer and hollow tile residence to be constructed at Edgewood Acres for William Eugroff, East Pittsburgh. Contract will likely be awarded at an early date. Estimated cost \$10,000.

Architect J. M. Phillips, Chartiers avenue, McKees Rocks, is drawing plans for a two-story brick and hollow tile club house to be built near Wilmerding for private parties. The building will measure 50x100 feet and cost about \$15,000. Bids will be asked about March 15th.

The same architect is preparing plans for a one-story brick factory building 100x250 feet to be constructed in the Pittsburgh district. Other details are withheld for the present.

Charles A. Boehmer & Sons, Rialto street, Northside, secured the contract for building a 2½-story brick and hollow tile residence on Gerber avenue, Northside, for Edward B. Funk, 640 Preble avenue, Northside, Cost \$6,000.

Bids will be taken by Architect F. A.

Park, 5435 Kincaid street, until March 4th for building a double duplex nd a single duplex residence on Franklin street, Wilkinsburg, for D. Coll, 414 Franklin street. Estimated cost \$20,000.

Bids will close next week on the construction of a three-story brick store and apartment building 25x50 feet in West Park for James Liquori, Highland avenue, McKees Rocks. Plans were made by Architect Daniel Zwersynski, 708 Chatiers avenue, McKees Rocks.

A \$300,000 apartment building is to be constructed on Ellsworth avenue, near Amberson, for E. F. Gerber. The building is to be 10 stories high and will be constructed by J. G. Fullman, ast End Trust building. More details will be given later.

Architect J. M. Phillips, McKees Rocks, will soon ask bids on the erection of a 2½-story brick veneer and frame residence at Coraoplis Heights for Stanley Szarnski. Estimated cost \$6,000.

Separate contracts will be awarded for constructing a three-story brick residence on Ella street for Frank McMaster, 225 Ella street. Plans were made by Architects F. A. Park, 5435 Kincaid street.

Plans for the \$50,000 residence to be built on Beacon street, near Shady avenue, for Ernest Roth, 5417 Bartlettstreet, are to be made by Architect M. Nirdlinger, Fidelity building. Plans will be ready for bids in about two weeks.

Improvements are to be made to West View Park by T. N. Harton & Co., Farmers Bank building, the work to consist of several new frame buildings to have composition roofing. The work will be done by the owners who will buy all material.

Bids are to close March 10 for constructing the club house addition for the F. O. O. E., McKees Rocks, D. E. Shannon, secretary. The work calls for a two-story brick building 35x50 feer, plans for which came from Architect Daniel Zwierzynski, 708 Chartiers avenue. McKees Rocks.

The B. A. Groah Construction Company, 847 North avenue, Northside, received the contract to enlarge and remodel the garage to the Allegheny Express Company, 501 Sandusky street.

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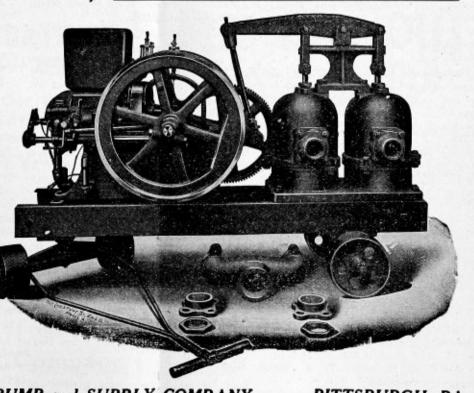
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WHO IS PLANNING • WHO IS BUILDING • WHO IS BUYING

Apartments and Dwellings.

Bellefontaine, O. — The Presbyterian Congregation contemplates erecting a two-story and basement brick parish house on N. Main street to cost \$25,000. Same will contain Sunday school rooms, gymnasium and social rooms.

Frank L. Hutchings, 302 W. Sandusky street, is ready for sub-bids on remodeling a frame country residence on Ludlow Road for Herman Baer.

Cleveland, O. — Architects Frank B. Meade and James Hamilton, 1002 Garfield building, have plans in progress and will award separate contracts for the erection of a 2½-story and basement brick residence and garage to be erected on Fairmont boulevard and Marlboro Road, Cleveland Heights, for J. B. Crouse, care National Lamp Works of General Electric Company, East Cleveland. Cost \$35,000.

McKeesport, Pa.—Architect C. R. Moffitt awarded to the Glassport Lumber Company, Glassport, the contract for erecting a 2½-story brick and hollow tile residence on Grandview avenue for B. Kimmelman, Grandview avenue. Cost \$10,000.

Steubenville, O. — S. M. Rowan, 161 Fourth street, contemplates erecting a two-story frame and stucco bungalow on the Simmons Plan from private plans. Cost \$5,000. Owner builds and buys materials.

Youngstown, O. — Glen-Heedy, 278 Norwood avenue, is taking bids on the erection of a brick veneered residence from plans drawn by Architect C. F. Owsley, Mahoning Bank building. Cost \$5,000.

Akron, O. — Architects Harpster & Bliss, Nantucket building, have plans nearly completed for a 2½-story brick veneered residence and garage, to be erected for Harry Williams, 94 E. Market street. Cost \$10,000.

G. C. Knox, Washington street, received the contract for erecting three 2-story frame residences on 894-98-900 Bellows street, for Herman Hoffman, State Bank building. Cost \$2,500 each.

Architect Vernon Redding, Bird building, Mansfield, has plans in progress and will be ready for bids about March 1, on erecting a 2½-story brick and hollow tile and stone residence and garage for C. R. McCready, 71 S. Main street. Cost \$20,000.

Architect M. C. Peck, Springfield Center, has preliminary plans in progress for a two-story frame residence, to be erected on Ivan Place, for W. G. Priest, 61 Brown street, to cost \$3,500. Owner will take separate bids about March 15.

Architect F. W. Hagloch, 301 Ohio building, has plans in progress and will take bids about February 29, on erecting an apartment building on 272 James street, for Marcus Dennis, 305 Alicedale street. Cost \$10,000.

The Herman Hoffman Company will make improvements on the old ball park grounds for 100 residences, to be erected from private plans. Contract for grading was let to E. McShaffery & Sons. Owners will take bids later. Cost \$200,000.

Butler, Pa. — Architect George W. Kline has plans in progress for a twostory brick and hollow tile apartments to be erected on Monroe and Brady streets, for P. E. Dubenspeck, Monroe street. Cost \$6,000.

Architect Walter Ketterer, Mifflin street, has plans in progress for a twostory brick residence, to be erected on Franklin street, for Fred Goettler, North street, to cost \$5,000.

The same architect also has plans in progress for a two-story brick and cut stone residence, to be erected on Mc-Kean street, for Dr. G. D. Purvis, North street, to cost \$4,000.

Jacob Hemminger, Washington street, contemplates erecting a 2½-story brick and hollow tile and cut stone residence, on Washington street, to cost \$12,000. Plans will be drawn by Architect W. G. Kline.

Clarksburg, W. Va. — G. C. Finley is taking bids on materials for the erection of a two-story pressed brick and hollow tile residence on W. Main street, to cost \$10,000. Plans by Architect A. P. Gladden. Contract for brick masonry let to A. L. Shrum.

Architects S. W. Ford & Co. will take bids about March I, on erecting a twostory hollow tile and stucco residence, on the Goff Plaza, for Luzins Hoys, Jr., care Home Furniture Company. Cost \$5,000.

Cleveland, O. — Architect A. C. Wolf, Swetland building, has plans in progress for a 2½-story and basement brick residence, to be erected on Euclid boulevard, Cleveland Heights, for James May. Cost \$15,000.

Architect Willard Hirsh, 1303 Swetland building is preparing preliminary sketches for a three-story brick apartment building, to be constructed on Euclid avenue, for Paul Brothers Company, Citizens building. Cost \$80,000.

Architect E. A. Curtis, 22 Stoneman building, has completed plans for a twostory brick apartment building, to be erected on 659 E. One Hundred and Twenty-fourth street, for M. Chanan, 2525 E. Forty-third street. Cost \$6,000. Owner will take separate bids at once.

Cincinnati, O. — A. M. Harvout, 414 Walnut street, received the contract for erecting a 2½-story pressed brick duplex apartment on E. Auburn avenue, for Mrs. Clara Littner. Cost about \$8,-006.

Fairmont, W. Va. — Architects Jones & Nuzum, Fleming building, have plans in progress for remodeling a residence for Kemble White, to cost \$4,000.

Marion, O. — Architect M. C. Peck, of Springfield Center, has preliminary plans in progress for a two-story frame residence, to be erected for Z. Stout, to cost \$5,000.

Maysville, Ky. — Architect Clifton B. Sloan, 321 E. One Hundred and Eleventhstreet, Kansas City, Mo., has revised plans in progress for a 2½-story pressee brick residence and garage, to be erected on Edgemont Place, for R. L. Browning. Cost about \$20,000.

McDonald, Pa. — Architect A. Proetlochs, 7031 Race street, Pittsburgh, has plans in progress for a two-story brick residence, to be erected for J. B. Masquelier, to cost \$4,500. Owner builds and buys materials.

New Kensington, Pa. — Architect J. P. Osborne, 205 Catalpa street, has plans in progress and will be ready for bids about March 1, on erecting a twostory brick and stucco residence, to be erected on Kenneth and Walnut streets, for Mrs. A. J. Fagan, 519 Fourth avenue, Parnassus. Cost \$5,000.

Sewickley, Pa. — J. B. Orr, 628 Mapte Lane, contemplates erecting a two-story brick and hollow tile residence, but has not decided on exact location.

Sharon, Pa. — A company is being organized by A. C. Dickson, P. A. Christian, Frank Flowers and others, who contemplate the erection of 500 frame and brick residences, to cost from \$2,000 to \$3,000 each. ompany will probably be organized by March 15.

Architect Edward J. Weaver has plans in progress for a brick and shingle residence, to be erected for Charles H. Turner, to cost \$4,500.

A. Wishart & Son are low bidders on crecting a two-story brick veneered du-



NEWS FOR CONTRACTORS AND MATERIAL DEALERS

plex residence, on Prindel avenue, for S. T. Thomas, 15 Logan avenue. Cost \$4,500

Architect Edward J. Weaver has plans completed for a residence to be erected on State street, for Floyd C. Smith, to cost \$1,200.

The same architect has plans in progress for a frame residence, to be erected for Harry Cook, Pine street, to cost \$3,500. Owner builds.

Architect C. A. Matheny, 50 Spruce street, has plans in progress for a brick veneered and shingle residence, to be crected on Cedar street, for L. C. Bartholomew, to cost \$4,500.

Architect D. G. Pastress, Harmonybuilding, is taking bids on building a frame bungalow on Cedar street, for J. M. Linginger, 86 S. Irvin avenue, to cost \$3,500.

Spencer, W. Va. — Dr. E. S. Goff is taking bids to close March I, on erecting a two-story pressed brick and horlow tile residence and office, to cost about \$15,000. Plans by Architect Elmer F. Jacobs, of Morgantown.

Springfield Center, O. — Architect M. C. Peck has plans in progress for a twostory frame bungalow, to be erected for T. J. Plamer, East Akron, to cost \$5,000.

Steubenville, O. — Architects Peterson & Clark awarded to McFeely Brothers, the contract for erecting a two-story stucco residence, to be erected on N. Fourth street, for Eli T. Castner, 236 S. Fourth street. Cost \$12,000.

Toledo, O.-Architect M. M. Stophlet, 608 Nasby building, has plans in progress for two two-story and basement shingle duplex residences to be erected on Collingwood avenue for Mrs. Baker. Cost \$5,000 each.

Architect H. W. Wachter, 908 Nicholas building, will take bids about March 1st on erecting a three-story brick apartment building on Ninteenth and Jefferson streets for G. L. Merceran, 413 Monroe street.

Architects Bates & Gamble, 601 Close building, have plans in progress and will take bids about March 1st on erecting a two-story pressed brick and limestone residence and garage for Peter Brown, 601 Close building. Cost \$15,000.

Uniontown, Pa.—Plans are in progress for a two-story brick and stucco residence to be erected on the S. Uniontown plan for J. A. Johnson to cost \$8,000.

Architect George M. Green, 67 Union street, has plans in progress for a threestory brick and frame residence to be erected for Mrs. J. E. Gainer, to cost \$8,000.

Akron, O. — A 2½-story brick veneer residence and garage is to be built on S. Main and Broadway, for Dr. A. A. Kohler, city health officer, plans to come from Architects Harpster & Bliss, Nantucket building.

Clarksburg, W. Va. — Architect Arthur Hall is preparing plans for a twostory frame residence, to be built on Seventh street, Colonial Heights, for Earl Wells.

Business Buildings.

Akron, O. — Architect A. C. Bishop, 418 Citizens building, Cleveland, awarded to John Crisp & Son, the contract for constructing a one-story brick ice storage building for the Klages Coal & Ice Company, to cost \$25,000.

Chillicothe, O. — Architect John Schweitzer awarded to H. E. Gartner, the contract for constructing a twostory and basement brick and limestone store and apartment building on Main street for Lewis Elsas,

Cleveland, O. — Architects Hubbel & Benes, 201 Avenue building, will take bids on constructing a two-story and basement brick and reinforced concrete telephone exchange building on Cedar and Edgewood Roads, Cleveland Heights, for the Cleveland Telephone Company. Cost \$50,000.

Dayton, O.-J. W. Boren & Sons Company, 203 Arcade building received the contract for remodeling a three-story and basement brick and reinforced concrete creamery building on Canal and Fifth streets for the Dayton Pure Milk & Butter Company, Architects Peters, Hermann & Brown, 1127 Reibold building have plans in progress.

Erie, Pa. — The Mettler-Gloyd Company, Prospect avenue, Cleveland, are low bidders on constructing a ten-story brick, steel and hollow tile store and office building on Eighth and State streets, for Mrs. Esther L. Campbell. Plans by Architect C. Paxton Cody, 515 Marine Bank building.

Leechburg, Pa. — The Kittanning Telephone Company, is taking new bids on erecting a two-story fireproof exchange from plans drawn by Architect O. C. Rairigh, Kittanning. Cost \$3,500.

Martins Ferry, O .- Architect C. W. Bates, National Bank building, Wheel-

ing, W. Va., has plans in progress for terra cotta, brick and reinforced concrete bank, store and office building to be constructed on Walnut and Fourth streets, for the German Savings Bank Company. Cost \$50,000. To contain banking room and store room on First floor and offices on Second and Third floors.

Tarentum, Pa. — Architect Press C. Dowler, Arrott building, Pittsburgh, has plans in progress for a three-story brick and steel bank, office and lodge building to be constructed on E. Sixth and Corbet streets for the Peoples National Bank to cost \$100,000.

Toledo, O.—Architect Sidney F. Aftel, 949 Ohio building, is taking bids on constructing a three-story and basement Presser brick, steel and terra cotta store and lodge building on Broadway for the Viking Lodge No. 892, I. O. O. F. Cost \$50,000.

Weirton, W. Va.—I. M. Alpert is taking bids on erecting a two-story brick and stone store and apartment building on avenue A to cost \$10,000. Plans by Architects Peterson & Clark of Steubenville, O.

Youngstown, O.—Architects Stanley & Scheibel, Wick building, have plans in progress for a two-story brick and stone store and apartment building to be erected on Short street for J. Brody, 215 E. Federal street. Cost about \$5,000.

Akron, O.—Preliminary plans are in progress for a three-story reinforced concrete, brick and steel store and office building to be constructed on E. Market and Broadway for the Snyder Grocery ompany. Cost \$60,000.

Zimmerly Brothers contemplate remodeling a one or two-story brick and steel packing plant at Kenmore, to cost \$20,000. Architect not selected.

Architect I. J. Goldstein, 301 Ohio building, awarded to Eli Popa and Marvick, 884 Washington street the contract for erecting a two-story brick store and apartment building on S. Main street for Gaber Groza, 1105 S. Main street. Cost \$7,000.

Braddock, Pa.—Architect F. A. Park, 5435 Kincaid street, Pittsburgh, has plans in progress for a two-story brick store, bakery and apartment building to be crected on Braddock avenue for C. M. Ellenberger, 612 Fourth street. Cost \$15,000.

Clarksburg, W. Va. - Architects C. D. Cooley Company, Century building,



BUILDING PROJECTS AND WORK AWARDED

Pittsburgh, have plans in progress for a one and two-story brick bakery addition to be erected on 38 Jackson street for the Sanitary Baking Company. Cost \$35,000.

Cleveland, O. — A. Permut & Frides, 1647 E. Seventy-third street, are taking bids to close March 1st on erecting a two-story brick store and apartment building on 8122 Quincy avenue to cost \$7,500. Plans by Architect H. Altshuld, 2548 E. Sixty-first street.

Cleveland, O.-M. Marmonstein, 3210 Woodland avenue, is taking separate bids on erecting a two-story brick store and apartment building on 3965 Woodhill Road, to cost \$15,000. Plans by Architect A. F. Janowitz, Permanent building.

Columbus, **O**. — The Vorys Miller Realty Company, contemplates constructing a brick and concrete store and office building on 43-45 E. Gay street, to cost \$50,000. Architect not selected.

Architect Charles L. Inscho, 1209 Brunson building, awarded to John Heckert, 79 Ruggery building, the contract for erecting a two-story and basement brick and limestone store, garage and hall building on N. High street for Ralph Strubel, Frederickstown.

Cuyahoga Falls, O.—Architects Henry & Murphy of Akron, are taking bids on crecting a two-story reinforced concrete, brick and terra cotta store, temple and office building on Portage street for Howard Lodge I. O. O. F. Cost \$15,000.

Dayton, O. -- Architect J. P. Vance, Louis building is taking bids on erecting a four-story and basement brick store and apartment building on Third and Webb streets for J. L. Laymon, 1800 E. Third street. Cost \$30,000.

East Liverpool, O.—Architect John T. Windrim, Philadelphia, has plans in progress for a brick and structural steel telephone building addition to be constructed on Market street and Drury Lane for the Central District Telephone Company. Cost \$50,000.

Ellwood City, Pa. — Architect J. E. Dwyer, has plans in progress and will award separate contracts for erecting a two-story brick and hollow tile and terra cotta store building on Fifth and Lawrence avenue for G. S. Young, Lawrence avenue. Cost \$6,000.

Lawrence Bellora, Eighth and Lawrence avenues, is taking bids to close March 5th on erecting a two-story brick and hollow tile store and apartment on Eighth and Lawrence avenues, to cost \$8,000.

Farrell, Pa.—Work will soon be started on the erection of a one-story cement block and concrete warehouse for Charles Flowers, to cost \$2,500.

Dayton, O.—Architects Schenck & Williams have been selected to prepare plans for a ten-story concrete and steel bank and office building to be constructed on N. Main street for the Dayton Savings & Trust Company. Cost \$250,000.

Dayton, O. — Architects Schenck & Williams, Arcade building, have been selected by the Dayton Savings and Trust Company to prepare plans for a 10-story brick, concrete and steel bank and office building, to cost \$100,000.

Middletown, O. — Architects arl E. Oeden and F. G. Mueller, Hamilton, have plans completed and are taking bids on constructing a three-story and basement brick store and lodge building on E. Third street for the Middletown Lodge Knights of Pythias. Cost \$35,000.

New Castle, Pa.—Morris Moresky, 1220 Moravua street, is taking bids on erecting a three-story brick and hollow tile and stone store and apartment building to cost about \$30,000. Plans by Architect H. M. Wirsing.

New Kensington, Pa. — Felix Gallo, Fifth avenue, is taking bids on erecting a two-story brick store and apartment on Sixth and Eleventh streets from plans drawn by Architects Nicholas Brothers, Fifth avenue. Cost \$5,000.

Architect W. J. Laughlin awarded to Work Brothers, the contract for remodeling a store on Fourth avenue for Hart & Siegel, Fourth avenue, to cost \$2,000.

Steubenville, O.—Architect Fred Faris. Wheeling, has plans in progress for a three-story brick bakery to be erected on Market street for the Juergens Company, Wheeling, W. Va., to cost \$50,000.

Toledo, O. — Architects DeVore & Gormley, Nasby building, are taking bids on erecting a two-story and basement pressed brick and stone store and apartment building on Centre and Detroit avenues, for Dr. F. B. McMiering. Cost \$25,000.

LaSalle & Koch Company, contemplates constructing a 12-story brick and steel or concrete fireproof department store building on Adam and Huron streets. Architect will be announced later. Woodlawn, Pa. — Architect Daniel Sperzynski 708 Chartiers avenue, Mc-Kees Rocks, will draw plans for a two-story brick and hollow tile store and apartment building to be erected on Franklin avenue for a party whose name is withheld. Cost \$12,000.

Religious.

Columbus, O.—The Third Avenue M. E. Congregation, contemplates erecting a new church building or remodeling the present building at Third avenue and High street. Project may mature in Spring.

Warren, Pa. — Architects Freeburg & Fidler of Jamestown, N. Y., are taking bids on erecting a two-story brick and stone church addition on Penn avenue and Prospect street for the Grace Methodist Episcopal Congregation. Cost about \$20,000.

Educational.

Akron, O.—The Carmichael Construction Company, received the contract for constructing a three-story and basement reinforced concrete, brick and steel parochial school and parish house on 735 Coburn street for St. Mary's Roman Catholic Congregation. Cost \$125,000. Plans by Architect E. P. Graham, Boston, Mass.

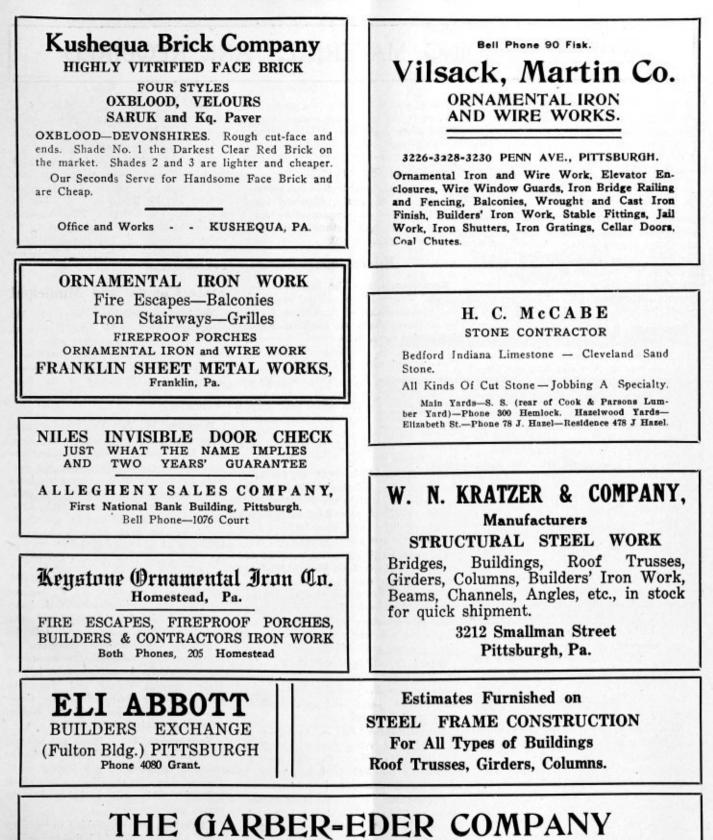
Braceville, O.—Architects W. C. Owen & Co., Leader building, Cleveland, have been selected to prepare plans for a twostory brick fireproof centralized school building to be constructed for the Board of Education to cost \$24,000.

Bristolville, O.—The Board of Education will soon select an architect to prepare plans for a two-story brick centralized school building to cost \$20,000.

Munhall, Pa. — Architect William G. Eckles. New Castle, has plans about completed for a two-story and basement brick and sandstone high school building addition to be constructed on Eleventh and Andrews streets for the Board of Education. Cost \$75,000.

New Castle, Pa.—Architects C. C. & A. L. Thayer have been selested to prepare plans for a brick grade school addition to be erected for the Board of Education to cost about \$30,000. To contain five class rooms, manual training and domestic science departments.

Weirton, W. Va. — Architects Peterson & Clark of Steubenville, have plans nearly completed for a two-story and basement brick fireproof high and grade school building to be constructed be-



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11

WHERE BUILDING MATERIALS ARE REQUIRED

tween Weirton and Hollidays Cove, for the Board of Education of Butler School District. Cost \$40,000. Owner will take bids about March 1st to close March 15th.

Braddock, **Pa**.—Plans have been started by Architect W. Ward Williams, Magee biulding, Pittsburgh, for the onestory brick, stone and terra cotta church and parish house to be built on George street for the St. Peters & Paul Greek Catholic Congregation. The church building will measure 60x120 feet. The parish house will be constructed of brick veneer on hollow tile. Plans will be ready for bids in about 30 days.

Cincinnati, O.—The sketches of architect A. Kunz, Jr., 955 W. Court street, for a 2½-story brick and limestone trim home for the St. Aloysius Roman Catholic Congregation have been adopted. Work may mature soon. Estimated cost \$7,000.

Clarksburg, W. Va.—St. Pauls M. E. Congregation will soon adopt plans for its proposed church and parish house to be built at a cost of \$40,000. The buildings will be of brick and stone construction.

Jeannette, Pa. — The First Reformed Congregation will soon announce definate plans for a proposed church building to cost \$40,000. R. H. Hughes is chairman of the building committee.

Marion, O.—A one-story addition is to be built to the Epworth M. E. Church, plans for which will come from Architect J. Lewis Ellis, 132 S. Main street. Bids will be taken next week.

St. Bernard, O. — A 3½-story brick building 40x60 feet is to be built for the St. Clemens Roman Catholic Congregation to be used as a sister home. Plans are being made by Architect J. E. Shebley, Lincoln Court Inn, Cincinnati.

Wilmington, O.-The Western Building Company, Buffalo, N. Y., received the contract to build a 1½-story brick and concrete church and parish house for the St. Columkills Roman Catholic Congregation. The work will cost \$45,-000.

Galion, O.—The First Methodist Episcopal Congregation and Architect W. T. Mills, Columbus, O., will take sub-bids on material about March 8th on the construction of a one-story brick and stone trim church building to cost \$50,000.

Wadsworth, O. — Plans will be completed about April 1 by Architect R. H. Hinsdale, Erie building, Cleveland, and sub-bids will be taken by the owners for material to be used in the construction of a one-story brick and art stone church building and a two-story brick school building. The work will cost \$100,000.

Portsmouth, O.—The Holy Redeemer dist Episcopal Congregation has retained Architect E. E. Pruitt, Hartman building, Columbus, to prepare plans for a one-story brick and stone trim church building to cost \$40,000.

Educational.

Barberton, O. — The Board of Education, Roger Miller, clerk, has plans and specifications of Architects Harpster & Bliss, Nantucket building, Akron, for a two-story brick and reinforced concrete school building, 50x100 feet. Owners will take bids shortly.

Brackenridge, Pa. — Bids close March 7, on the construction of a two-story brick, hollow tile and stone trim school building 34x150 feet, for the Board of Education, John Gist, secretary. Plans came from Architect J. H. Phillips, Mc-Kees Rocks, Pa.

able, O. — Architects A. K. Stover & Co., Hartman building, Columbus, O., have been retained by the Board of Education of Wayne township, to design a two-story brick and stone trim school building, to cost about \$25,000.

Cincinnati, O. — The selection of Architects Tietig & Lee, Fourth National Bank building, has been announced by the Board of Education, to prepare plans for the Harriett B. Stowe school building. The structure will be of brick and reinforced concrete and will contain 24 class rooms, auditorium, etc.

Girard, O. — The Board of Education, D. J. Evans, president, contemplates building two 2-story brick buildings, to cost \$40,000. No details decided. Bond issue must be acted upon.

New Brighton, Pa. — Architect W. G. Eckles, Lawrence Savings and Trust building, New Castle, Pa., has been retained by the Board of Education, to design a \$100,000 school building.

Portsmouth, O. — The Hold Deemer church will have plans drawn at once by Architect J. F. Sheblessy, 519 Main street, Cincinanti, for a two-story brick and limestone trim school building, to contain 12 rooms. Estimated cost \$40,-000.

Uniontown, Pa. -- Architect A. P. Cooper, First National Bank building, will prepare plans for two school buildings, to cost \$100,000. Wall, Pa. — Bids close March 6, on constructing a two-story brick school building 66x70 feet, for the Board of Education. Cost \$12,000.

Warwood, W. Va. — Architect F. F. Faris, Wheeling, will design the twostory brick and hollow tile and stucco school for the Board of Education, the work to cost \$10,000. The Warwood avenue building will be designed by Architect Edward B. Franzheim, Schmulbach building, Wheeling. Estimated cost \$40,000.

State, County and Municipal.

Washington, Pa. — Architect F. Mc-Crooks, 950 Century building, Pittsburgh, has been selected to prepare plans for a brick and stone county home building to be constructed at Arden for the Washington County Directors of the Poor, care R. C. Buchanan, Wylie avenue, Washington.

Wheeling, W. Va.—The United States Government has awarded to the Newport Contracting & Engineering Company of Newport News, Va., the contract for constructing a one-story brick and stone power house about 4½ miles above Marietta, Ohio, on the Ohio River Dam, to cost \$20,000; also for erecting a one-story and stone power house about 1000 feet above Bens Run, W. Va., on the Ohio River Dam, to cost \$20,000.

Wilmington, O.—The Western Building Company, Buffalo, N. Y., secured contract for a four-story and basement pressed brick, concrete and steel and terra cotta court house, and the Hamilton Construction Company, of Hamilton, O., low bidder on constructing a three-story and basement jail on Main, South Walnut and Sugartree streets for the Board of County Commissioners. Plans by Architects Weber, Werner & Adkins of Cincinnati.

Youngstown, O. — Plans are nearing completion for a steel and reinforced concrete bridge to be constructed on E. Federal street for the City, to cost about \$100,000. Bids will probably not be taken until Summer.

Clarksburg, W. Va.—Bids will be taken April 1 by the City of Clarksburg on the erection of a one-story brick and reinforced concrete pumping station 40x60 feet. Plans were made by George W. Fuller, 170 Broadway, New York City.

Fairmont, W. Va.-A. reinforced concrete bridge is to be built across the Monongahela river to cost \$350,000.





LUMBERAND MILLWORK

PLANS FOR VARIOUS KINDS OF STRUCTURES

Plans are being made by City Engineer S. B. Miller. The work depends upon the passing of a bond issue to cover the work.

Dayton, O.—The market house is to be remodeled from plans now being made by the superintendent of building construction City of Dayton. The work will call for marble wainscotings, tile floors, etc.

Lebanon, O.—The Hamilton Construction Company, Hamilton, O., was low bidder for constructing the soldiers and sailors memorial building for the Board of County Commissioners. Bids exceeded the appropriation and new bids will likely be asked.

Meadville, Pa.—The City of Meadville will remodel and enlarge the market house building, the work to cost \$20,-000. Architect E. J. Weaver, McDowell building, Sharon, will plan the work.

Sylvania, O.-T. C. Brooks, Detroit, Mich., secured the contract to build a water works system. The work will necessitate two deep well pumps, steel tank, cast iron piping, castings, etc.

Manufacturing.

Springfield, O. — Architect Roy F. Gable, 422 Bushnell building, has completed plans and is taking bids on erecting two-story and basement brick and limestone factory and office building on Columbus street for the Safety Emery Wheel Company, Columbus and Wheel avenues. Cost \$7,000.

Akron, O.—The Enterprise Manufacturing Company, E. A. Pfluger, president, is having preliminary plans for an addition to the plant to cost \$25,000. No design has been selected.

Ashland, O. — The Hunkin-Conkey Construction Company, Cleveland, received the contract to build on addition to the plant of the Faultless Rubber Company. Cos \$10,000.

Dayton, O.—The Edgemont Machine Company contemplates building an addition to cost \$20,000. The building will have brick walls, steel sash, wood floors, etc. No design selected.

S. W. Shue, 549 Broadway, was low bidder for constructing a factory, office and warehouse structure for the Miama Brass Company. Cost \$6,000.

Ellwood City, Pa. — The Clydesdale Stone Company, Oliver building, Pittsburgh, contemplaes building a brick building to have steel truss roof, wood window sash and door frames, etc Bids will be taken in about three weeks.

Norwood, O.-H. C. Hazen Contracting Company, Reading Road, Cincinnati, received the contract to build a threestory brick and concrete factory building saw tooth roof, for the Cincinnati Rubber Manufacturing Company. Cost \$60,000.

Toledo, O. — Architects Devore & Gormley, Nasby building, have plans for a two-story brick and heavy timber factory building to be built for the Hettric Brothers Company. Bids will be asked shortly.

Society and Club Buildings.

Akron, O. — Plans and specifications have been completed by Architects Henry & Murphy, Second National Bank building, for the B. P. O. E. The building will be 58x115 feet, four stories and will be constructed of brick with limestone trim. Bids are to be taken at once. Estimated cost \$60,000.

Architects Trowbridge & Ackerman, 62 W. Forty-fifth street, New York City, have been retained by the Portage Path Club, to prepare plans for a two-story addition. J. F. Suppes, Ohio building, is the local representative.

Hillsboro, O.—Arcitects Weber, Werner & Adkins, 414 Walnut street, Cincinnati, are making plans for a brick and stucco addition to the Masonic building. Bids will not be taken until early Spring. Estimated cost \$30,000.

Ironton, O.—Architects Weber, Werner & Adkins, 414 Walnut street, Cincinnati, will take bids at once on constructing a four-story brick and terra cotta trim building 56x130 feet for the Lawrence Lodge of Ironton, F. & A. M. The building will contain store rooms, offices and lodge rooms.

Alliance, O. — The B. P. O. E. has selected Architect Robert S. Marsh, First National Bank building, to design a three-story brick, hollow tile and stone trim lodge building. Working drawings will be started next week.

Theatres.

Ashville, O.-J. T. Rockery contemplates crecting a one-story brick motion picture theatre from plans drawn by Architects DeVoss & Donnaldson, First National Bank building, Portsmouth.

Burgettstown, Pa.-Plans are being revised by Architect J. H. Phillips, Mc Kees Rocks, for the picture theatre building to be constructed for George E. Thomassy. Bids will be asked next week. The work will cost \$7,000.

Miscellaneous.

Covington, Ky. — Architects Weber, Werner & Adkins, Cincinnati, O., have completed plans for a one-story pressed brick and limestone garage and salesroom to be erected for the Charles Schilar Motor Car Company, 3705 Montgomery avenue, Evanston, Cincinnati. Cost \$8,000. Owner will award separate contracts.

Erie, Pa.—The Board of Trust of St. Vincent's Hospital contemplate erecting a two-story brick fireproof laundry and power house addition on Sassafras street near Twenty-fourth street, to cost \$10,-000. Committee will meet in April to select architect.

Kittanning, Pa.—Bids have closed for the erection of a two-story brick and reinforced concrete commercial garage on Jefferson street for Walker & Grim Company, 109 Market street. Cost \$15,000.

Perrysburg, O. — Architect George Rheinfrank, 601 Gardner building, Toledo, will take bids on the erection of a two-story stucco, frame and hollow tile private garage for J. B. Bell, 601 Gardner building, Toledo.

Youngstown, O.—William M. Henderson is low bidder on erecting a onestory brick and concrete garage for the City to cost about \$5,000.

Kittanning, Pa. — Plans have been completed by Architect O. C. Rairigh, Kittanning, for a one-story brick building 30x38 feet, to be used for garage purposes by the Kittanning Laundry Company. Bids will be taken by the owners about March 15th.

McKeesport, Pa. — No date has been set for closing bids on the construction of a one-story brick commercial garage 40x75 feet, to be built on Walnut and Kelly streets, for E. J. Bryan, Locust street. Plans were made by Architect C. R. Moffitt, Masonic building, who is taking bids. Estimated cost \$8,000.

Maryville, O. — Architect William Heller is about ready for bids on the construction of a two-story brick garage and apartment building 33x102 feet, to be built for H. I. Huffman & Son. Estimated cost \$6,000.

Morgantown, W. Va. - Cole Brothers were awarded the work of building a two-story brick and stone trim build-



on one piece of property is less than any one else charges.

We can do it for this price because we make so many property reports that it requires a force of title examiners constantly at this work and nothing else.

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THE "LAST WORD" IN BUILDING NEWS

ing, to be erected for the West Morgantown Improvement Company. The building will be used for garage purposes by F. C. Bishop, Morgantown.

Sharon, Pa. — Architect E. J. Weaver, McDonald building, is working on plans for a one-story brick garage, to be built for H. C. Neff, 31 Euclid avenue.

Ellwood City, Pa. — The Mahoning & Shenango Railway & Light Company, contemplates building a power dam to cost \$150,000. The design will come from the Stone-Webster Engineering Company, Boston, Mass.

Liens Filed for Labor and Material Furnished.

ALLEGHENY COUNTY, PA.

Frank P. Winkler vs. Peter Miragha, owner. Building in First Ward, Borough of Carnegie. Cost \$1,541.87.

Heckler Brothers vs. Charles E. Griffin, owner and Charles A. Opperman, contractor. Building in Upper St. Clair Township. Cost \$241.99.

Martin O'Hagan vs. Catherine Sweeney, owner, and Herman Vannes, contractor. Building in Tenth Ward, Pittsburgh. Two items, \$45.60 each and two items, \$142.90 each.

Mercer Painting Company, vs. South Side Trust Company, a corporation and Martha Davis, owner. Building in old Twenty-first Ward, Pittsburgh. Two items, cost \$128.00 each.

Mercer Painting ompany, vs. South Side Trust ompany, a corporation and Martha Davis, owner. Building in Seventh Ward (old 20th Ward) Pittsburgh. Cost \$161.50.

NO LIEN CONTRACTS.

R. H. Fisher vs. Dr. B. L. Ramsey. Agreement made February 7th and filed February 15, 1916, to erect and complete a brick veneered duplex house and brick garage on East End avenue, Pittsburgh, for \$7,625.00.

G. L. Craig & Co., vs Nicola Land Company. Agreement made February 15th and filed February 16, 1916, to construct the electric work in a three-story and basement garage in Fourth Ward, Pittsburgh.

Modern Heating Company, vs. Schenley Farms Company, a corporation. Agreement made February 15th and filed February 16, 1916, to erect and construct and complete the heating system in a residence in Fourth Ward, Pittsburgh.

Cuthbert Brothers Inc., vs. Pennsyl-

vania Company. Agreement made February 17 and filed February 21, 1916, to arrange partitions and other alterations in Rooms 221-222-223 and two unnumbered rooms occupied by the Division Freight Agent as office quarters Pennsylvania Station, Pittsburgh.

CONTRACTS AWARDED LAST WEEK.

Figures for the amount of work placed in Western Pennsylvania, Ohia and West Virginia for the past week show a decided decline, in fact the week is one of the poorest of the year so far. The only work of consequence signed up was the Wilmington, O., Court House building amounting to \$214,000 and the parochial school at Akron, O., to cost \$125,000. Few contracts were awarded for manufacturing plants and warehouses while residence work is below former figures. The following table compiled from Dodge Reports show last week's business.

 Total work awarded for year to date
 \$13,205,000

 Total work awarded for week February 23
 1,125,000

 Total work awarded for week February 16
 1,425,000

 Residence and apartment work for week ending February 16
 120,000

 Warehouse and manufacturing
 120,000

work for week February 16 110,000 Miscellaneous work for week ending February 16 895,000 Contracts for month of January 7,343,000

GENERAL NEWS.

C. W. Cheney, Wilmington, O., received the sheet metal work and roofing for the St. Columkills Roman Catholic church building, Wilmington. The electric work went to the Standard Electric Company, Wilmington and the plumbing to Fred J. Breeze, Wilmington.

* * * The McKeever Electric Company, Columbus, O., secured the electric work for the office and warehouse building of the Central Ohio Paper Company, Columbus. * * *

Matthews Brothers, Milwaukee, Wis, have been awarded the interior trim for the Union Arcade building, Pittsburgh. The plastering contract was secured by McNulty Brothers, Pittsburgh and the marble and tile work was awarded the Interior Marble & Tile Company, Pittsburgh.

A new architectural and engineering firm has been established at Columbus, O., with Wilbur T. Mills at the head which will be known as the Wilbur T. Mills Company. Associated with Mr. Mills will be Erwin Rossbach, who will be vice-president; M. Lawrence Millsbaugh, secretary and treasurer; Ralph R. Keener nd Warren K. Dunn, who will act as contracting manager. The new company will be capitalized at \$50,000

CLEVELAND'S BUILDING SHOW.

The Complete Building Show, the first of its kind ever held, has been successfully opened at Cleveland, O. About 65,000 square feet of floor space at the Coliseum are being used with an interesting variety of building exhibits covering every phase of building operations from the raw material to the finished lines. Various organizations are holding their conventions in the same building.

LOW BIDDER FOR GOVERNMENT BUILDING.

The George B. Wills Company, New York City, was the low bidder for building an addition to the boiler house of the Bureau of Mines, Pittsburgh. The building was estimated by the Wills company to cost \$84,615. The George Hogg Company, was second low bidder with a price of \$88,000.

PRELIMINARY PLANS FOR AKRON BUILDING.

The Snyder Grocery Company, 391 S. Main street, Akron, O., is having preliminary plans submitted for a threestory brick, reinforced concrete and steel building 63x78 feet to be constructed on E. Market and Broadway at a cost of \$60,000. The building will be used for store and office purposes and will have reinforced concrete foundations, steel frame, face brick exterior, hollow metal windws, patent store fronts, fire doors, tile and maple flooring, metal lath brick, galvanized iron cornices, metal heating system, electric lighting, skylight, etc. No time has been set for taking bids.

MEETING OF WEST VIRGINIA DEALERS.

The two days alloted by the West Virginia Lunmber and Dealers Supply Association for their annual convention at Wheeling, were fully consumed with matters of much importance to the members. From the time the first meeting was held in the Windsor Hotel until the guests departed for their various homes there was not an idle moment. The association has sprung up within three years to large proportions and during the past year there has been noted an increase of membership of one-third over that of the previous year. Mayor Kirk of Wheeling extended the hospitality of the city and evidently was sincere in his remarks but later events proved that his words had not gone beyond the assembly hall. The theatre party, so well arranged, was marred by overzealousness on the part of a city blue coat.

The business sessions were extremely interesting, the question of a lien law to afford proper protection being given considerable attention. The last legislature failed to enact such laws governing mechanics liens and efforts are to be made to have a proposed measure, which the association will adopt, enacted at the coming session of the law makers.

Considerable discussion was heard concerning the demand of the dealers that the present five cent per barrel differential on cement to contractors he raised to 10 cents per barrel. The dealers asked this so as to permit a reasonable margin on their profits to handle the material. It is understood that the Ohio association made the same demand recently and favorable action was taken by the cement interests, although the impression is prevalent that the agreement is not being adhered to.

A committee was appointed to make efforts to have the present bankrupt law revised. George M. Mossman, Huntington, presented an interesting paper on "Uniform Credits" which is published elesewhere while the subject of "Preparation for Co-operation" was ably handled by A. R. Black, Port Clinton, O.

The banquet given to the guests on Saturday proved one of the features of the two-days meet. The committee appointed to select a place of meeting for the next convention selected Charleston. The nominating committee selected the following officials for the ensuing year. President, H. E. Shalle, Charleston; first vice-president, G. A. Grishaber, Charleston; second vice-president, Walter Perkin, Bluefield; third vice-president, J. J. Menkemeyer, Wheeling; fourth vice-president, J. C. Biddle, Clarksburg.

UNIFORM CREDITS.

By G. M. Mossman.

When the word "uniform" is used one opens up a broad field for discussion as to what points it may or may not cover.

Uniform Credits, as applying to the lumber and builders supply trade may be suggested, outlined, and defined in the one word: If the selling of goods on time is credit, then the subject-Uniform Credit would indicate a uniform rule as applying to the sale of such goods. But do we have such a rule. I have been selling builders supplies for nearly twenty years past and until recently, even very recently, I have not heard of such. Lumber and builders supply dealers after having ivested the last cent in mills, machinery, warehouses, teaming equipment, and opening an office, look over the field for the best established brands and the most liberal manufacturers from whom to buy our stock-on credit-upon its arrival we go over every tag, box, barrel, board and stick to see that we are not cheated as to quality, quantity or count. We store it away from the elements so as not to damage it, put in fire extinguishers and sprinkling system and take every precaution against loss of this merchandise, which we have paid our good money, or still owe for. One nice, bright morning everything is ready, and we open our office and in comes a gentleman we know. He is a gentlemen because he wants to buy something. He says his name is Mr. Contractor, and he wants some material for a job he has down street.

You write out his order and promise immediate delivery, and he probably walks out without your having even asked him when he expected to pay you for this lumber, lime, plaster, paint, roofing, or doors. Why did you not do it? Were you, Mr. Dealer, able to buy your stock on such unspoken terms, without a positively set date for payment. Not by any manner of means. When your bills are due, you have to pay them, if not; "We are drawing on you for amount due. Please honor upon prcsentation." Failing to do honor as requested, you will probably be given ten days in which to settle or stand a law suit. I have always tried to settle within the ten days.

But, Mr. Dealer, why didn't you ask the man? Why didn't you state your terms? Why didn't you make thorough inquiry into his ability to pay, his reputation to pay? Why didn't you advise him of the limit of credit that could be extended to him. Most of us know that the contracting game is a precarious and uncertain one. No matter how honest a contractor may be: if he has insufficient capital to carry on his business, he may pay to-day and tommorrow he may not.

The answer, of course, you all know. You and I are afraid of our competitor. We were afraid that if we put any restrictions whatever around the order, he would take it to the other fellow. In our mad scramble for business, we were willing to overlook the vital and most important feature of the whole deal, that of making it more certain of getting the money. We dealers will extend credit of hundreds and sometimes thousands of dollars to so-called contractors who could not buy a pair of shoes on credit. Of course, we fool ourselves into believing we are protected by a supposed law, and the law will take care of us. A year from now, however, it is hoped there will be a lien law on the statute books of our state about which we can say better things. But we dealers are going to change this condition; we are going to co-operate. We have in process now a plan that we think will give us more information. When anybody asks you for a financial statement now under the new law enacted at the last Legislature. you had better "watch your step." That's some law, but the consolation is that the fellow that I ask will have to tell the truth as well as myself.

We are going to try the signed financial statement stunt on the contractor. It may give trouble with some, but we will show him in the end that it will serve to help him, if he is fair, by a process of eliminating the one who is unfair. We shall ask him, of course, about his real estate, if any, in whose name recorded, the circumstances if any, the amount of capital he uses in his business, the amount he owes, and the amount owing him, if he has ever failed or taken the bankrupt law, and last, his own estimate of net worth. When this statement has been secured, it will be compared with the county records in-sofar as they show by a competent person and memorandums made as to his findings.

When this is complete, he will be classified by the members of the club as a whole and given a rating, after which a sufficient number of exact copies of the statement and findings will be made and distributed to each member of the local club. This signed financial statement is to be the basis of our extention of credit. We expect also to establish a system of exchange, information between ourselves as to how any single contractor is paying his bills—whether prompt, fair, or slow. On building and loan work, we shall refuse to furnish any

Paper read at the annual meeting of the West Virginia Lumber & Builders Supply Association.

material until we know positively if the lot is fully paid for and whether the contract between the owner and contractor provides for the giving of a deed of trust to the creditors in event of a delay in securing the loan.

But you say you cannot get these signed statements, the contractors will not give them. Very well, the man who does not give a statement gets no credit; and right here is where co-operation comes in. There isn't going to be a dealer in Huntington who isn't going to co-operate. We know what co-operation means in Huntington. Co-operation built the city. We know what it will do. However, I'll admit we have been rather slow in co-operating on credits.

Look around you, please, and note the tendency in all lines to tighten credits, to hold to stricter use of terms and discounts, to collect interest on past due accounts. Take the cement industry as an example. Their special inducements for payment in ten days. If J read aright the signs of the times, we are facing a revolution in the matter of extending credit as well as the abolition of some other old-time rules of business, not only in our own times, but all the various channels of trade. The leaks today, if stopped, are the profits tomorrow.

We have got to co-operate. We have got to co-operate for legislation. We have got to co-operate against discrimination and we must co-operate if we expect to have Uniform Credits.

AKRON TO HAVE LARGE APARTMENT.

Architects Frank, Wagner & Mitchell, Permanent building, Akron, O., are drawing plans for a six-story reinforced concrete, steel, brick and terra cotta apartment building 25x250 feet to be built for Louis Miller, Akron. On the first floor there will be several store buildings and a number of one room apartments, while the remaining five floors will have two and three room apartments with library, lounging rooms, etc. Plans are to be completed within a short time. Specifications will consist of hollow metal window frames, structural steel, reinforcing steel, face brick, ornamental terra cotta, etc. The work is to cost \$150,000.

SPEIFICATIONS FOR MASONIC BUILDING.

Specifications are now being written - by Architects Weber & Adkins, 414 Walnut street, Cincinnati, for the Masonic Temple to be constructed at Ironton, O., for the Lawrence Lodge, No. 196, F. & A. M. Bids on the general contract are to be taken at once by the architects. The building will be 56x130 feet, four stories high, and will have face brick exterior with terra cotta trimmings. It will contain five store rooms, office and lodge rooms. Specifications will call for metal lath partitions, metal lumber floor and roof construction, reinforcing beams and columns, pressed brick, galvanized iron cornices metal skylight, etc. Bids on the steam heating will be taken later.

ARTIFICIAL STONE USED.

From the first introduction of cast stone on the market it has appealed to the ornamental side of architecture may be said to have gotten but little beyond this stage as yet, but it is gradually superseding stone in all parts of the superstructure. The first Portland cement concrete blocks for building were made only with the beginning of this now fifteen-year-old century. And they are old-fashioned. The old-fashioned concrete block, taking nothing into consideration regarding its short-comings under pressure tests in the early days, required that the building be made to fit the block. The present advanced product makes the stone to fit the building.

Great opportunities are presented for co-operation with architects for the presentation of distinctly individual effects. There are no stock shapes to make each building look like every other. The architect furnishes detail drawings. There is a set of plans and detail work made, the molds and costs are made, as would be done in a foundry.

Special members of a superstructure are the present average specification of cast stones. They are made mostly for capstones and ornamental columns, corniccs, water-tables, Jintels, and sills. They are made at times to match granite, limestone, stucco, or sandstone. In other buildings they are used contrastingly in brick constructions.

A large bank was constructed lately in Boston, Mass., which has an entire front of cast limestone. This building is regarded as a splendid piece of architecture. About 150 different patterns were used in making the stone casts.

When it came to choice of building materials in this instance, the bank gave serious consideration to a choice between natural and cast stone. Because of its nearness to other buildings of fine architectural appearance, there was an especial desire to have a front that will keep lastingly clean. It was concluded that to avoid smoke and grime, which sinks into natural stone as much as 1/8 of an inch, artificial stone was preferable, because it is dense and preserves its color well. Accordingly the change was made from limestone to this block after the plans were drawn.

A rigid requirement, too, is a scientific crushing and grading of the stones used in preparing aggregate, to get a proper mix and a dense, impervious stone. Most architects make sure to get a wet cast. They demand, as a rule, a stone made in a sand mold with a thin grout. Hence the perfection of the sand mold process is necessitated, it being held as obvious that wood forms are subject to swelling. Two patented processes in the main are called upon to fill the bulk of orders for such high-quality stone.

After making sure to get a wet cast, it is held that the aggregates must be mixed right, mixed well, and agitated continually from the mixer to the mold. The makers leave it in the wet sand mold a week or ten days, according to various conditions, giving it a slow process of hardening. Sometimes the product has to season in the mold as much as 30 days. On hardening, it gets as sharp lines in detail as art work.

In the specifications for artificial stone of the high-grade type, the architects require a stone made in a sand mold, packed solid of the same material through and through. Where faced stones, made monolithic with the backing, are used, the facing is required to be, on an average, at least 1½ inches in thickness. In general, they want the stone surfaced after it is taken out of the mold.

The texture and density of the stone are subject to strict specifications, and color is another factor that is given close attention. The obtaining of a proper color is required in the proper selection of aggregates, forbidding the use of dye coloring matter.

Besides the advantages of holding color, with hone finish cast stone there is no cutting and fitting on the ground, hence no waste. Such cuttings as may be done to the stone are of the ornamental sort; and these carvings are done by specialists in that line, after models submitted and approved by the architects.

CONTROLLING BUILDING OPERATIONS.

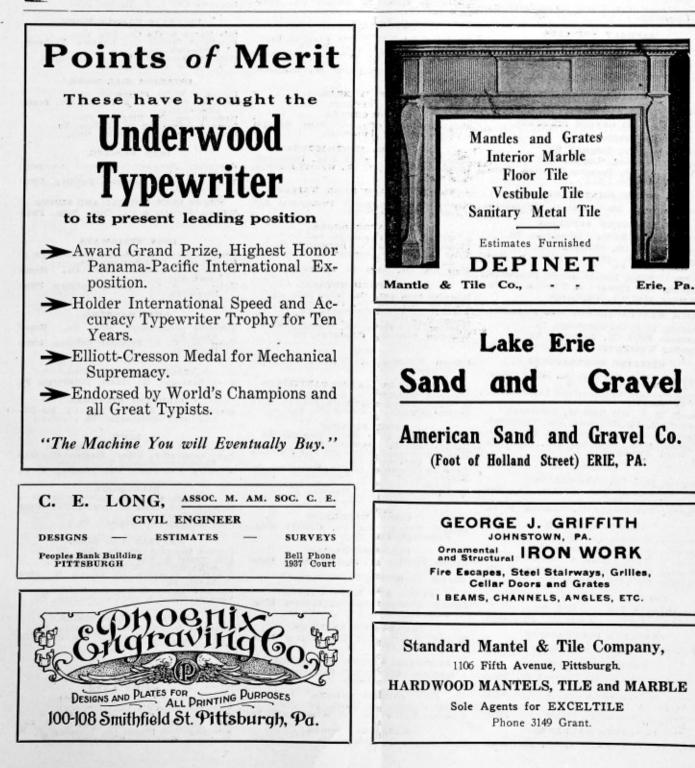
One of the most remarkable features of the present building material market is the absence of concessions in every line. It is to be expected that structural steel might be relieved of the necessity of making concessions for new business and even seek a premium for prompt deliveries because of the heavy orders affecting various steel capacities from the specifier may well ponder the reflected stiffness in such lines as common 'and front brick, stone, slate, lime, plaster, linseed oil and study the results such trends will have upon future building.

One year ago at this time the building material market was full of fear because of lack of forthcoming building construction. But 1915 proved to be a very good year and January, 1916, shows remarkable figures for construction work. Building material manufacturers themselves are evidencing some uneasiness about the effect high costs of building materials may have upon spring construction. Dealers maintain that it will be dangerous to advance prices any higher because it will scare off new construction.

The real dominant factor is the ability to fund the operation. The key to the building situation today is the mortgage situation. Once the money is provided the cost of materials will bear little relation as to whether the structure is to go ahead or no.

In every building operation there are three primary factors, demand, cost and availability of funds. Given all three in favorable form and the operation will take building materials whether they are high or low. But the greatest of these is money.

Judging by the volume of estimating being reported by rchitects, there is a healthy demand for certain types of new buildings today and, that being the case, there ought to be a demand for building materials this year practically regardless of price.



Classified Index of Advertisers, Arranged for Ready Reference

ARCHITECTURAL CASTINGS.

Mahoning Foundry Co., Punxsutawney, Pa.

ARCHITECTURAL TERRA COTTA. Scott A. White, Pittsburgh.

Finnessy, Jas. E., Oliver Building, Pitte-burgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa.

ART AND STAINED GLASS.

Hyde-Murphy Co., Ridgway, Pa.

20

Marshall Art Glass Co., S. S., Box 139, Alle-Twin City Art Glass Works, 110 Sandusky St., Pittsburgh. gheny.

ASPHALT SHINGLES.

Fintkote Mfg. Co., Wabash Bldg., Pittsburgh.

H. B. Morrow, Wabash Bldg., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING PAPER.

Saeger Brothers, Pittsburgh, Pa.

BANK AND OFFICE FIXTURES.

H. C. Bemis, Bradford, Pa.

Requarth Co., F. A., Dayton, Ohio. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

BRICK JOINT RAKER.

George Grundy, 905 Gerrett St., Pittsburgh.

BUILDERS' SUPPLIES.

Hall, Harry & Brother, Homestead, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New New Kensington Kensington, Pa.

George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

BRICK MANUFACTURERS AND DEALERS.

Kennedy, D. J. Co., Pittsburgh, Pa.

Kushequa Brick Co., Kushequa, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING CONTRACTORS.

Brednich, Jacob, 243 Lelia St., Mt. Washing-ton, Pittsburgh. Brown Brothers, Broadway and Lincoln Aves.,

Mt. Lebanon.

Kissell, D. C., 7410 Race St., Pittsburgh. Lash, D. H., 720 Grandview Ave., Pittsburgh. Rogers, Philip, 157 Moultrie St., Pittsburgh, Wiegand, J. W., Suburban Ave., Nineteenth Ward, Pittsburgh.

CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

CEMENT COATING.

Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

CERAMIC AND TILE WORK.

Erie Mantel & Tile Co., Erie, Pa. Pittsburgh Venetian Mosaic Co., Pittsburgh.

CONCRETE FOUNDATIONS.

Garber-Erder Co., Wabash Bldg., Pittsburgh.

CONCRETE MIXERS.

Easter-Emmons Co., 432 Diamond St., Pittsburgh. General Contractors' Machinery Co., Pitts-burgh, Pa.

Contractors Machinery Supply Co., Pitts-burgh, Pa.

burgh, Pa. CONCRETE HARDENER.

George C. Webb, Jenkins Arcade, Pittsburgh.

COMPOSITION FLOORS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh. Dalzell, J. Willis, House Building, Pitts-burgh, Pa.

CONTRACTORS' PUMPS.

Reineke-Wagner Pump & Supply Co., Pittsburgh

CONTRACTORS' EQUIPMENT.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-burgh, Pa.

CORNICE WORK.

Franklin Sbeet Metal Works, Franklin, Pa.
General Mfg. Co., Wheeling, W. Va.
Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

DIRECTORY BOARDS.

J. Willis Dalzell, Pittsburgh, Pa. DOOR CHECKS.

Allegheny Sales Company, First National Bank Building, Pittsburgh.

ELECTRICAL CONTRACTORS.

Carter Electric Co., Oliver Bldg., Pittsburgh. Loomis Electric Co., W. R., Wabash Building, Pittsburgh.

ELEVATORS AND DUMB WAITERS.

Marshall Brothers, South Twenty-first and Mary Sts., Pittsburgh.

ELEVATOR DOORS.

J. Willis Dalzell, Pittsburgh, Pa. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Bullding, Pitts-burgh, Pa. Watt Mfg. Co., Northside, Pittsburgh.

EXPANDED METAL

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh, Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh, Pa.

FELT.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FIREPROOF DOORS AND PARTITIONS. Fireproof Materials Co., Pittsburgh, Pa. J. Willis Dalzell, Pittsburgh, Pa. General Mfg. Co., Wheeling, W. Va. Pa. Va.

FIRE ESCAPES.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa. Kratzer, W. N. & Co., Homestead, Pa. burgh

burgh. Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

FLOOR HARDENER. Waterproofing Co., Century Bldg.,

General Pittsburgh, Pa.

FLOOR SURFACING.

Empire Flooring Co., Jenkins Arcade, Pittsburgh. Wayvell, Chappell & Co., Chicago, Ill.

FLOOR AND WALL PAINTS.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FOUNDATION CASTINGS.

eral Waterproofing Co., Century Bldg., Pittsburgh, Pa. General

FURNACES, STOVES AND RANGES.

Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.

GYPSUM BLOCKS.

J. Willis Dalzell, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

HARDWOOD DOORS.

Hyde-Murphy Co., Ridgway, Pa.

HARDWOOD FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh.

HOUSE PUMPS. Reineke-Wagner Pump & Supply Co., Pittsburgh.

INTERIOR TRIM.

Dalzeli, J. Willis, Pittsburgh, Pa. Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio. H. C. Bemis, Bradford, Pa. Hyde-Murphy Co., Ridgway, Pa. Orner Woodworking Co., DuBois, Pa. Requarth Co., F. A., Dayton, Ohio.

INTERIOR MARBLE WORK. Erie Marble & Tile Co., Erie, Pa. Pittsburgh Marble Co., Bullders' Exchange, Pittsburgh, Pa. Standard Mantel & Tile Co., Pittsburgh, E. J. Walker, Pittsburgh, Pa.

INTERIOR MILL WORK.

Dalzell, J. Willis, Pittsburgh, Pa. Herdman Sash, Door & Lumber Co., Zanes-ville, Obio. Hyde-Murphy Cc., Ridgway, Pa. Orner Woodworking Co., DuBois, Pa. Requarth Co., F. A., Dayton, Ohio.

IRON FENCING.

Keystone Ornamental Iron Company, Homestead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SHEET IRON ROOFING AND SIDING.

William Patridis & Co., Curry Bldg., Pitts-burgh.

IRON STAIRWAYS.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Keystone Ornamental Iron Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

JOIST HANGERS.

Keystone Ornamental Iroa Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

LIGHT IRON FURRING. J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

LIGHTING FIXTURES.

LIME. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va

MILL WORK. H. C. Bemis, Bradford, Pa. Herdman ash, Door & Lumber Co., Zanes-ville, O.

MANTELS AND TILES.

MANTELS AND TILES. Depinet Mantel & Tile Co., Erle, Pa. Erle Mantel & Tile Co., Erle, Pa. Hyde-Murphy Co., Ridgway, Pa. The Graff Company, 955 Liberty St., Pitts-burgh, Pa. Standard Mantel & Tile Co., Pittsburgh. Venaugo Mantel & Tile Co., Franklin, Pa.

METAL CELLAR DOORS. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

METAL LATH.

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh, Kennedy, D. J. Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

Hyde-Murphy Co., Ridgway, Pa.

J. Willis Dalzell, Pittsburgh.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

Classified Index of Advertisers, Continued

METAL LATH CONSTRUCTION.

J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

METAL SPINNING.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

MORTAR COLORS.

Wheeling Wall Plaster Co., Wheling, W. Va. Kennedy, D. J. Co., Pittsburgh, Pa.

NON-STAINING CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

ORNAMENTAL IRON WORK.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa.

Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.

Keystone Ornamental Iron Co., Home-stead, Pa. W. N. & Co., Smallman St., Pitts-Kratzer.

burgh. Moss Iron Works, J. E., Wheeling, W. Va. J. Willis Dalzell, Pittsburgh, Pa.

Tyler Co., The W. S., Bessemer Bldg., Pitts-burgh.

Vilsack, Martin Co., Ltd., 3226-30 Penn Ave., Pittsburgh, Watt Mfg. Co., Northside, Pittsburgh.

PARQUET FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh

PITCH.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

PLASTER BOARD.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va. McDade Company, Alex., The, 1121 Glen St., Wilkinsburg, Pa.

PRIVATE WATER SYSTEMS.

Dowie Water Well Co., Jenkins Arcade, Pitts-burgh, Pa. Reineke-Wagner Pump & Supply Co., Pitts-

burgh.

QUARRY TILE.

Kushequa Brick Co., Kushequa, Pa.

RAGGLE BLOCK.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

REINFORCING MATERIAL.

Fireproof Materials Co., 320 Liberty St., Pittsburgh.

Kennedy, D. J. & Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. New Kensington Fiber Plaster Co., New Kensington, Pa. Witherow Steel Co., Pittsburgh, Pa.

ROOFERS (TIN AND SLATE).

Blank, Herman, 5152 Coral St., E. E., Pitts-

- Blank, Herman, 5152 Cotat St., E. S., Level, S., Burgh,
 Helt, George P., 1915 Sedgwick St., N. S., Pittsburgh,
 Fill Top Roofing Co., Bell Phone, 954-J Hill, Pittsburgh,
 South Hills Hardware Co., West Liberty, Pittsburgh,
 W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

ROOFERS (GRAVEL, SLATE AND TILE).

Hahn Brothers, Pittsburgh, Pa.
Limhach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
Scott, A. White, Pittsburgh.
South Hills Hardware Co., West Liberty, Pittsburgh.
Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.
Wheeling Wall Plaster Co., Wheeling, W. Va.

ROOFING MATERIALS.

STRUCTURAL STEEL PAINTING.

William Patridis & Co., Curry Buld., Pitts-burgh.

SUSPENDED CEILINGS.

TERRAZZO WORK.

Pittsburgh Venetian Mosaic Co., Pittsburgh

TILE (DECORATIVE).

TRUSSIT METAL.

VAULT LIGHTS.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

VENTILATORS.

Dalzell Bros. Co., Youngstown, O. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WALL BOARD.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL LINING. Empire Flooring Co., Jenkins Arcade, Pitts-burgh.

WALL PLASTER.

Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL PLUGS. Allegheny Steel Band Co., Northside, Pitts-burgh. George C. Webb, Jenkins Arcade, Pittsburgh. Bostwick Steel Lath Co., Niles, O.

WALL TIES.

Allegheny Steel Band Co., Northside, Pitts-burgh. Bostwick Steel Lath Co., Niles, O. Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

WATERPROOFING.

Fireproof Materials Co., Pittsburgh, Pa. General Waterproofing Co., Century Bldg., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh, Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

WATER WELL PUMPS.

Reineke-Wagner Pump & Supply Co., Pitts-

WIRE FABRICS.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WIRE GUARDS.

Franklin Sheet Metal Works, Franklin, Pa.

Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa

Vilsack, Martin Co., Ltd., 3226-30 Pean Ave Pittsburgh.

Moss Iron Works, J. E., Wheeling, W. Va.

Ornamental Iron Co., Home-

Fireproof Materials Co., Pittsburgh.

Witherow Steel Co., Pittsburgh, Pa.

burgh.

Keystone Or stead, Pa.

Fireproof Materials Co., Pittsburgh.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa. E. J. Walker, Pittsburgh, Pa.

J. C. Baxendell, Mt. Oliver, Pittsburgh,

Alling & Corey, Pittsburgh, Pa.

- Hahn Brothers, Pittsburgh, Pa. Fintkote Mfg. Co., Wabash Bidg., Pittsburgh.
- Kennedy, D. J. Co., Pittsburgh, Pa.
- Saeger Brothers, Pittsburgh, Pa. H. B. Morrow, Wabash Bldg., Pittsburgh.
- Scott A. White, Pittsburgh.
- Sos th Hills Hardware Co., West Liberty, Pittsburgh,
- Wh, eling Wall Plaster Co., Wheeling, W. Va.

SAFETY TREADS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh.

Fireproof Materials Co., Pittsburgh, Pa.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SAND AND GRAVEL.

American Sand & Gravel Co., Erie, Pa.

Erie Sand & Gravel Co., Erie, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa.

- New Kensington Fiber Plaster Co., New Kensington, Pa.
- Wheeling Wall Plaster Co., Wheeling, W. Va.

SASH AND DOORS.

Herdman Sash, Door & Lumber Co., Zanes-ville, O.

Orner Woodworking Co., DuBois, Pa.

SASH WEIGHTS.

Mahoning Foundry Co., Punxsutawney, Pa.

SCAFFOLDING.

Independent Scaffold Co., Pittsburgh, Pa.

SEWER PIPE.

Kennedy, D. J. Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

SHEET METAL WORK.

Franklin Sheet Metal Works, Franklin, Pa. General Mfg. Co., Wheeling, W. Va.

- Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
- H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa. ₩.

SIDEWALK LIGHTS.

Albert Grauer & Co., 216 E. Reliance St., Northside, Pittsburgh,

Kratzer & Co., W. N., Smallman St., Pitts-burgh, Pa.

Mullen Brothers Company, Fulton Building, Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SEVLIGHTS AND VENTILATORS.

General Mfg. Co., Wheeling, W. Va. Kratzer, W. N. & Co., Smallman St., Pitts-

burgh.

H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa. W.

STAIR WORK.

H. C. Bemis, Bradford, Pa.

Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio.

Hyde-Murphy Co., Ridgway, Pa.

Orner Woodworking Co., DuBois, Pa.

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Alliance Structural Co., Alliance, O.

Navarro, P., 1240 Grotto St., Pittsburgh, Pa.

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High Grade Service

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Sheet Metal Work

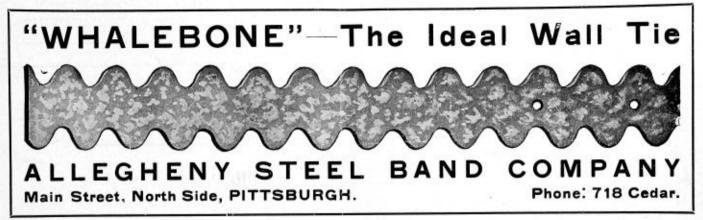
Send us Your Plans for Estimate.

Co.

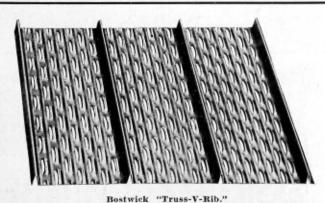
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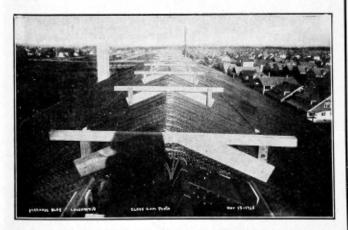
THE J. E. MOSS IRON WORKS, Wheeling, W. Va. STRUCTURAL STEEL Steel Reinforcing-Steel Structures and Fireproofing Designed, Fabricated Materials of all kinds and Erected **ORNAMENTAL IRON** Metal Lumber Iron Stairs **Reinforcing Bars Fire Escapes** FIREPROOFING PRODUCTS Ferro-Lithic Plates Iron Railings **Rib-Trus Plates Cast Iron Work** Sidewalk Lights WE CARRY THE LARGEST STOCK OF STEEL IN THIS VICINITY. **Builders'** Iron Work



For a fire safe concrete roof, without forms or stiffening channels, this material is ideal. Call up Geo. C. Webb, 207 Fulton Bldg., Pittsburgh, Pa. Bell Phone Grant 4080. He will take care of your requirements for Pittsburgh and District.

The Bostwick Steel Lath Co., Niles, Ohio.

"Bostwick Truss-V-Loop" on the roof of The New Masonic Temple, Lakewood, Ohio.



J. W. Chrisford, Cleveland, O., Architect and Builder.



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CONNELLSVILLE TO HAVE TWO SCHOOLS.

Competitive sketches are to be submitted to the Board of Education, Connellsville, Pa., for two school buildings to cost about \$125,000 each. The school board will meet early next week to take up matters concerning a proposed bond issue to cover the cost of the proposed work. J. R. Davidson is president of the board.

ASK BIDS ON WAREHOUSE SOON.

The Hunting-Davis Company, Century building, Pittsburgh, which is designing the proposed warehouse to be constructed on Duquesne Way, Pittsburgh, for F. F. Niccola, Farmers Bank building, Pittsburgh, will have plans ready for bids in about ten days. The building will be eight stories high measuring 110x150 feet and will have face brick exterior, reinforced concrete walls and foundations, reinforced concrete slab roof construction. The work will cost \$250,-000.

SELECT PLANS FOR UNIONTOWN SCHOOL.

The Board of Education, Uniontown, Pa., has adopted the plans of Architect Harry W. Altman, First National Bank building, Uniontown, for the proposed junior high school building to be built on

Wilson avenue at a cost of \$75,000. The building will be three stories high and will contain laboratory, gymnasium, manual training, domestic science and class rooms. Gas electric lighting fixtures and instantaneous water heating system will be specified.

TOLEDO SCHOOL BIDS TO BE TAKEN.

The Board of Education, Toledo, O., will ask bids about April 1 in the construction of the Sherman street school building which is estimated to cost \$200,-000. Plans of Architect F. M. Gee, 1952 Franklin avenue, call for a three-story building of brick, stone and steel construction 'to contain 36 rooms, gymnasium, manual training and domestic science departments, etc. The electric lighting, heating and plumbing will be separate contracts.

DEFIANCE BANK BUILDING BEING FIGURED.

Plans and specifications have been completed by Architect George S. Rheinfrank, Gardner building, Toledo, O., for the \$50,000 bank building, to be built for the Defiance Home Savings and Loan Association, Defiance, O., and bids on the general contract will be asked at once. The building will measure 40x 52 feet, two stories high, and will be constructed of stone or terra cotta. Specifications include metal doors and windows, skylight, concrete floor slab construction, structural steel and reinforcing steel, ornamental iron stairways, ornamental terra cotta, gypsum block partitions, terrazzo and marble work, composition roofing, etc.

PLANNING WILMERDING APARTMENT.

A four-story brick, hollow tile and structural steel apartment building 75x-100 feet is to be constructed at Wilmerding, Pa., for F. A. Faller, Commerce avenue, Wilmerding, from plans which are now being made by Architect C. C. Compton, McKean avenue, Donora, Pa. Bids will not be asked on the work until May 1. The work will call for face brick, structural steel, hollow tile, concrete floors in basement, fire escapes, yellow pine flooring, stone foundations, copper store fronts, skylight, slag roofing, gas and electric lighting, steam heating system, etc. Estimated cost \$50,000.

ALLIANCE, O., SCHOOL BIDS ASKED.

The Board of Education, Alliance, O., Edward Diehl, clerk, will take bids un'i the 20th inst for constructing a grade school building on S. Lincoln avenue, remodeling and altering the Mt. Union building on State street, grade school building on Seneca street and the Franklin building. Plans for the Franklin and Seneca buildings were made by Architect Frank L. Packard, Hayden building, Columbus, while Architect W. T. Mills, McCune building, Cleveland, planned the work for the State and S. Lincoln avenue work. The entire work will cost about \$90,000.

WADSWORTH, O., CHURCH PLANS UNDER WAY.

It is thought that the plans of Architect R. H. Hinsdale, Erie building, Cleveland, for the new church building for the Grace Evangelical Lutheran Congregation, Wadsworth, O., will be completed by April 1, after which bids on materials will be required. The building will be of brick and art stone, one story and balcony and will cost \$100,000. The work also calls for a school room 45x60 feet. The owners will do all building and buying of ma-Specifications call for slate terials. roofing, tile and marble flooring, art glass, vapor heating system, skylight, reinforced concrete beams, tin clad fire doors, Caen interior stone finish, electric work, plumbing, etc.

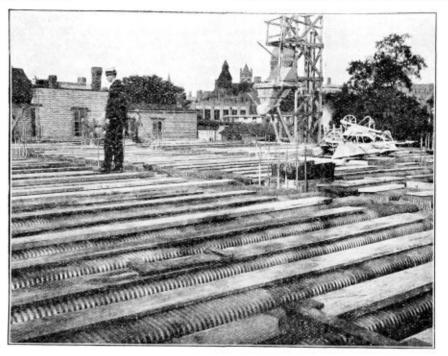
SEPARATE BIDS FOR YOUNGS-TOWN APARTMENT.

Separate bids are to be awarded at an early date by Architect G. A. Edelsvard, Mahoning Bank building, Youngstown, O., for the construction of a three-story brick and stone trim and steel skeleton store and apartment building 60x110 feet which will be built on Elm and Rayen avenues for M. M. Gundelfinger and Henry W. Davis, Mahoning Bank building, Youngstown. The building will contain five store rooms and 18 apartments and will cost about \$50,000. The structural steel has been placed with the John Eichleay, Jr., Company, Pittsburgh, and the pressed steel beams with the Trussed Concrete Steel Company, Youngstown Bids on the heating, plumbing, electric work, masonry, carpentry work, glazing, .etc., are now being asked.

Economical Steel-Tile Floor Construction

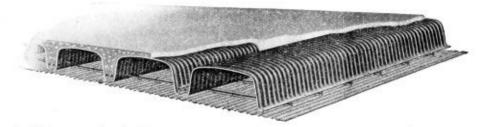
At the present time when fireproof construction is demanded in all large structures such as schools, hotels, apartments, office buildings, lofts and warehouses it is essential that the floors be as light as possible as well substantial in every way. The Steel-Tile form, illustrated herewith offers an exceptionally light floor and eliminates a great part of the dead concrete with which reinforced concrete floors are burdened. As will be noticed in the view the deep narrow joists in the Steel-Tile floor has practically no useless material or dead load in them. there is the danger of a weak floor because neat cement is the very life of concrete and when this is gone it has a spongy, loose structure that is not at all dependable for building work.

By using Steel-Tile forms, only 45 per cen to 60 per cent of the cubical contents of the floor are occupied, whereas with heavy tile or concrete, the entire space is filled. Such a large reduction in actual weight permits lighter girders and walls, in fact lighter construction all the way through to the very footings of the structure. Less weight does not in the least imply a sacrifice in saving.



This system has a broad flat flange which is great help to the contractor who lays the tile because this flange fits down tightly upon the shoring and prevents leakage of concrete while the floor

On the contrary, every pound of concrete in Steel-Tile floors is of use so built and graded from thin slabs to deep reinforced joists as whole strength can be exerted in sustaining any live loads



is being poured. Engineers who construct steel form floors object strenuously to some types of steel forms because the edges are so corrugated that a greater part of the neat cement leaks through underneath and runs down to the floor below. Naturally there is some expense in cleaning this up and placed upon the floor.

This system can be laid more rapidly than any other form of fireproof floor construction. With the centering up, the Steel-Tile and reinforcing bars for the joists are easily set in place. Sometimes spacers are used but generally 1t is only necessary to nail the Steel-Tile

lightly to the centering before pouring, These end tile are set at the end of each row closing up the form and leaving the proper amount of space for concrete to take up any shearing tendency near the beam or girders. Flat ceilings and smooth surfaces are readily obtained with this floor construction. Beams and girders are made of the same depth as the narrow joists and rigid metal lath is run continuously over the entire ceiling. The more practical method for all purposes is to finish the Steel-Tile floor before erecting any of the ceiling lath. Tie wires are run through the holes and extended below the finished joist.

When such a job is finished there is no possibility of streaking for the ceiling plaster does not some in contact with the deep floor joists which dry out more slowly than the thinner ceiling and floor slabs. The surface is perfectly smooth and should a suspended ceiling be required, it can be easily put up by extending steel suspension rods down the required distance and erecting the channels and lath as before.

The General Fireproofing Company, Youngstown, Ohio, has lately been furnishing considerable of this material for various school buildings as well as apartments, the large McSorley Apartment building, Pittsburgh, has been fitted throughout with Steel-Tile floors. It does not matter as to whether the frame of the building be of steel or concrete for Steel-Tile floors will prove of equal advantage in both types.

SUB-BIDS FOR CANTON WORK.

Bitterman & Fisher, Y. M. C. A. building, Canton, O., will soon start work on building a three-story addition to the building of the Canton Feed & Milling Company and will place contracts soon for composition roofing, structural steel, electric work and other lines. The sprinkler system is under reservation by the owners.

START DAYTON BANK PLANS SOON.

Architects Schenk & Williams, Arcade building, Dayton, O., will start plans at an early date for the \$250,000 bank and office building to be constructed on N. Main street, Dayton, for the Dayton Savings & Trust Company The building will be 10 or 12 stories high covering an area of 50x178 feet and will have brick walls, terra cotta trim, concrete roof and floor construction, tar and gravel roofing, metal lath partitions, etc. No time has been set for taking bids

ROW OVER EBENSBURG COURT HOUSE.

announced in these columns As several weeks ago bids were to have been opened last week on the construction of several additions to the Ebensburg, Pa., court house building. The county commissioners agreed not to open the bids which were submitted by four general contractors and who deposited certified checks of \$10,000 each. No definite reason is given by the commissioners for refusing to open the bids and the minutes of the commissioners meetings, it is reported, do not show any decision of the board to adopt such a policy.

Some months ago during a heated campaign for county offices charges were made that the proposed work would cost fabulous sums and if candidates fostered the work the chances for their re-elec-The tion would be very uncertain. county court issued a writ of mandamus compelling the controller to advertise for bids, this writ was appealed to the supreme court which held that the project was legitimate. In the face of all these proceedings the commissioners now refuse to open the bids and court action will again be necessary. The four bids were submitted by the King Lumber Company, Charlottesville, Va., W. H. Fissell & Co., A. J. Robinson Company, and the P. J. Carlin Construction Company, all of New York City. The E. G. Wolfehope Company, New York, submitted an estimate on the heating work.

TAKE BIDS ON STATE DORMITORY.

The Board of Trustees of Kent State Normal School, Kent, O., Frank Morrell, chairman of building committee, will take bids until April 1, on the construction of a women's dormitory building 60x220 feet, two stories high, plans for which came from Architect W. T. Mills, McCune building, Cleveland. The building will be of brick, steel and reinforced concrete construction, and will cost \$120,000.

CONTRACTS AWARDED DURING FEBRUARY.

The construction contracts awarded throughout Western Pennsylvania, Ohio and West Virginia during the past month shows a slight decline from the figures of January, the amount reached in February being \$7,050,000 as against \$7,343,000 in January. Residence work amounted to \$908,000, manufacturing and warehouses \$1,536,000, and miscellaneous work which includes churches,

schools, office and bank buildings, theatres, garages, etc., reached \$4,606,000. Comparing last month's awards with those for February of the previous years the figures show quite an increase. In 1915 the month's work amounted to \$6,436,600; 1914, \$6,307,000, while 1913 showed \$12,459,000 for the month of February.

LOW BIDDERS ON SCHOOL BUILDING.

Drummond & Miller, Electric building, Cleveland, O., submitted the lowest estimate on building a two-story brick fireproof school building for the Board of Education, Olmstead Falls, O. The price offered was \$47,700. Kratt & Agnew, Lorain, submitted the second low bid with \$53,352 while Willing Brothers, O., estimated the work at \$55,485.

CONSTRUCTION WORK AWARDED

The amount of contracts awarded during the past week showed some gain over the previous week. While no large buildings were contracted for, the amount of medium sized contracts helped largely in bringing the totals up to fairly good size. Residence work improved somewhat, the total work reaching \$252,000 as against \$120,000 for the previous week. There was a decrease in the amount of work placed for manufacturing and warehouse structures while a gain is noted for school, church, office and bank buildings and other lines. The following figures compiled from Dodge Reports show the following results:

Total work awarded for year to date\$14,637,000 Total work awarded for week ending March 1 1,432,000 Total work awarded for week ending February 23. 1,125,000 Residence and apartment work for week March 1. 252,000 Warehouse and manufacturing work for week March 1. 99,000 Miscellaneous work for week of March 1. 1,081,000 Total contracts placed during January, 1916. 7 343 000 Total contracts placed during February, 1916. 7,050,000

AKRON, O., SCHOOL AWARDED.

The Dawson Construction Company, May Building, Pittsburgh, has been awarded the work of building an addition to the Robinson school building for the Board of Education, Akron, O. The main building will be 50x126 feet, three stories with two wings each 30x75 feet, these to contain 12 class rooms, domestic science and manual training departments, etc. Construction work will call for structural steel, face brick, reinforcing steel, cement, vault lights, white pine interior trim, composition roofing, marble and terrazzo work, cut stone work, heating, lighting and plumbing, etc.

ASK BIDS ON TOLEDO HOTEL.

Architects Mills, Rhines, Bellman & Nordhoff, Ohio building, Toledo, O., will ask bids soon on the structural steel work for the proposed 16-story hotel building to be erected on Madison avenue, Toledo, for the Bond Hotel Company. The building will measure 120x 180 feet and will have brick exterior and stone trimmings. It will contain 10 store rooms on the first floors with the remaining floors to be used for guests. The foundation and excavation work will be figured in the general contract, bids on which will be taken about April 1, The entire proposition will cost \$2,500,-000

OFFICIALS ADVOCATE ENCLOSED FIRE ESCAPES.

Two important resolutions, advocating that discretionary power he vested in building oficials and that inclosed stairways should be provided for every building were passed at the recent meeting of the Building Officials Conference held in Chicago. About thirty representatives of building departments and bureaus throughout the country were present. The morning and part of the afternoon sessions were devoted to discussing the recent changes and improvements in building codes and the desirability of giving officials discretionary power, a large part of that discussion being devoted to the question of the certificate of occupancy. Other topics that occupied some of the time were the use of terra cotta blocks and gypsum products, metal lath and wood shingles.

It was agreed that proper means of egress from every building should be provided in the form of inclosed stairways that outside metal fire escapes should not be considered as a required means of egress from new buildings, and that their use should be confined to existing buildings where other means of egress are impractical; and that wherever such fire escapes are used the opening thereon should be protected by metal such as wire glass or by fire-resisting doors with proper fusible links.

Rudolph P. Miller, of New York City, was elected to serve as chairman of the conference for the next year and James G. Hougton, building inspector of Minneapolis, was elected vice-chairman. Sidney J. Williams, state building inspector of Wisconsin, was elected secretary. CONCISE BUILDING INFORMATION

Authentic Building News on New Dwellings, Stores and Offices,

Churches, Schools, Theatres, Etc.

These verified reports appear in advance of all other trade publications.

Pittsburgh.

Frank W. Main, Farmers Bank building, will soon select an architect to prepare plans for a three-story brick veneered and tile residence to be erected on Parkman avenue near Grant boluevard, to cost about \$15,000 Work will be started in early spring.

Architect Emil Schmid, 319 Spring street, Mt. Oliver Station, awarded to John Arand, 104 Spring station the contract for erecting a three-story brick and hollow tile and reinforced concrete store and apartment building on West Liberty street, Dormont, for Conrad Sauer, 505 Amity Street, Homestead. Cost \$28,000.

Architect A. L. Miller, 924 Chislett street, has plans in progress for a 2½story brick and hollow tile residence to be erected in the Hazelwood district for Wm. Klotz, Carnegie Steel Company, Homestead. Cost \$4,500.

Architect F. H. Stolte, 5608 Broad street, awarded to Hubert Neilson, Magee and Locust streets, the contract for building a one-story brick blacksmith shop on 1203 Gibbon street for Edward L. Brown, 1334 Forbes street. Cost \$3,200.

Architect R. Berg, Jr., Brownsville Road and Church street, Carrick, awarded to John Ehrlinger, 425 Van Braam street, the contract for erecting ten onestory brick and concrete private garages on rear of 513-17 Shady avenue for the Central Trust Company, 2034 Penn avenue. Cost \$6,000.

Architect R. J. Colwell, 7532 Rosslyn street, awarded to R. B. Masters, 7421 Duquesne avenue, Swissvale, the contract for erecting a two-story brick veneered and frame duplex residence on Oberlin avenue for T. C. Lyons. Cost \$6,500.

Heginbotham Brothers, 919 Wallace avenue, Wilkinsburg, received the contract for erecting a one-story brick veneered and hollow tile garage on the Johnson Plan, Wilkinsburg, for G. Newberry, Carnegie building. Cost about \$4,500. Plans by Architect B. F. Kreider, 1119 Pitt street, Wilkinsburg.

Architect R. Berg, Jr., Brownsville Road, Carrick, awarded to John Ehrlinger, 425 Van Breem street, the contract for remodeling a two-story brick apartment building on 515-17 Shady avenue for the Central Trust Company, 2034 Penn avenue. Cost \$5,000.

A. E. Thompson, care J. B. Lawler, East End Saving & Trust building, contemplates constructing a six-story brick fireproof warehouse on Butler street. Definite data will be given in about two weeks.

Architect C. C. Compton, McKean avenue, Donora, will prepare plans for a four-story brick and hollow tile and structural steel store and apartment building to be constructed on Herman and Commerce avenues, Wilmerding, for F. A. Faller, Wilmerding. Cost \$50,000.

Architects Alden & Harlow, Farmers Bank building, will prepare sketches for a two-story and basement brick and cut stone masonic temple to be constructed on South avenue, Wilkinsburg, for the Masonic Order of Wilkinsburg. Cost \$50,000.

Plans are in progress for a 2½-story brick veneered and tile residence to be erected on Eldridge avenue for E. M. Marks, 5872 Northumberland avenue Cost about \$7,500.

The Hunting-Davis Company, Century building has plans in progress for an eight-story and basement brick and reinforced concrete warehouse to be constructed on Duquesne Way between Sixth and Seventh streets for F. F. Nicola, 1414 Farmers Bank building. Cost \$250,000.

Bids are in for the erection of a twostory brick storage house on Twentythird street, between Liberty and Spring avenues for the Pennsylvania Lines West, Northwestern Division. Cost \$15,000.

Architect George Schwan, 1310 Peoples Bank building, has completed sketches for thirty two-story brick duplex residences to be erected on Wyandotte, Colwell and Kirkpatrick streets for the Sanitary Dwelling Company. Cost \$100,000.

Architects Rutan & Russell, Magee building, awarded to D. L. Swearingen of Sewickley, the contract for erecting a two-story brick double residence on Grime street, Sewickley, for Miss Lillian Willock, Pine street, Sewickley. Cost \$8,000.

Architects Conwell, Hutchins & Rowland, 46 Conestoga building, awarded to George M. Hamilton, 1921 Chislett street, the contract for erecting a 2½-story brick and stucco residence on Walnut street for L. J. Coyle, 1208 Peoples Bank building. Cost \$10,000.

Henry Busse & Co., Main and Wabash avenues, West End, received the contract to remodel a residence on Emily street, Crafton, for Albert Graham, 85 Emily street, Crafton.

Architects Ingham & Boyd, Vandergrift building, are working on plans for a residence to be built on Coraopolis Heights, for Grant Curry. Bids will not be taken until late in spring.

Apartments and Dwellings.

Akron, O. — Architect M. C. Peck, Springfield Center, awarded to G. A. Mishler, East Akron, the contract for erecting a 1½-story brick veneered bungalow on Englewood avenue, East Akron, for August Tripp, Englewood avenue, East Akron. Cost \$5,000.

Broad Oak, W. Va. — A. J. Rodgers. 150 Harrison street, is taking bids to close March 20th on the erection of a two-story brick and hollow tile residence to cost \$5,000. Plans by Architect Arthur Hall of Clarksburg.

Cincinnati, O. — Architects Samuel Hannaford & Son, Hulbert Block, have plans in progress for a four-story and basement pressed brick and limestone or terra cotta nurses home to be constructed on Reading Road and June street for the Bethseda Hospital of the German Deaconess Home. Cost \$50,000. May take bids about about March 15th.

Henry Sieving, 5362 Montgomery Park, Norwood, will take sub bids about March 6th on the erection of a 1½-story stucco and frame semi-bungalow on Grand Vista avenue for Miss Emma Schiear, 2119 Hudson avenue, Norwood. Cost about \$7,000.

Cleveland, O.—Architect H. L. Porter, Society for Saving building, will draw plans for a two-story frame duplex residence to be erected on Oberlook and Cottage Grove avenues, Cleveland

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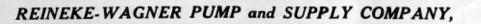
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Heights, for the Overlook Land Company. Cost \$7,000.

The same architect has completed plans for a two-story frame residence to be erected on Lincoln Boulevard for John G. Baxter, 8101 Broadway. Cost \$4,500.

The same architect has plans in progress and will award separate contracts for the erection of two two-story frame residences on Edgehill Road, Cleveland Heights, for the Overlook Land Company, Society for Savings building. Cost \$4,500 each.

Drummond & Miller, 221 Electric building, received the contract for erecting a two-story frame residence on Lee Road, Cleveland Heights, for Carl R. Lee, Supperior and W. Ninth streets. Cost \$8,000. Plans drawn by the Kauffman Architect Company, Rose Building.

Plans are in progress for a 2½-story frame residence to be erected on Overlook Road, Cleveland Heights, for H. L. Porter, Society for Savings building. Cost \$4,000.

Architect F. Stillman Fish, 307 Superior building, awarded to Charles Michel, 2514 Edgehill Road, Cleveland Heights, the contract for masonry, and to J. B. Haweratt, 11806 Castlewood avenue, the contract for carpentry, for a two-story frame and brick residence to be erected on Euclid boulevard, Cleveland Heights, for Charles M. Darrah, 11805 Ashbury Road. Cost \$6,000.

Columbus, O.—Architect J. Edgar Outcalt, 12 E. Long street, awarded to H. C. McCall, Worthington, the contract for erecting a two-story and basement frame residence at Arlington, for C. J. West, E. Woodruff avenue. Cost \$5,000. Contractor will take bids later on roofing, heating, plumbing and electric wiring.

The same architect has completed plans for three 1½-story and basement frame bungalows to be erected at Webster Park for C. J. Webster, to cost \$3,000 each. Owner is taking bids on material.

Duquesne, Pa.—Architect A. L. Miller, 924 Chislett street, Pittsburgh, has completed plans for a two-story brick and hollow tile duplex residence to be erected on Kennedy avenue for W. E. Hauk, 128 S. First street. Cost \$8,000.

The same architect has also completed plans for a 2½-story brick and hollow tile residence to be erected on Fourth street for J. C. Dale, Fourth street to cost \$4,500. Greenville, Pa.—H. W. Beil, 109 Columbia avenue, was awarded the contract for building a brick and hollow tile residence for J. N. Reichert, to cost \$3,500.

Lakewood, O.—Architect H. L. Porter, Society for Savings building, Cleveland, has completed plans for a two-story brick two family residence to be erected for W. C. Trichler, 1546 Roycroft avenue to cost \$6,500.

George Dixon of Rocky River, received the contract for building a twostory frame residence on Clifton Boulevard for H. L. Hardy, 2685 E. Seventyninth street, Cleveland, to cost \$5,000. Plans by the Kauffman Architectural Company of Cleveland.

Massillon, O.—Architect Karl E. Wilhelm, Albright Bank, is revising plans for a brick and hollow tile and stone apartment building to be constructed on Mill street for Mrs. Bert Hankins, Mill street. Cost \$8,000.

Middletown, O. — Architect C. E. Oeden, Jacoby building, has plans in progress for six two-story and base frame or brick residences to be erected at Arlington Heights for Nein Brothers, E. Third street. Cost \$4,000 each. Ready for bids about March 25th.

Midland, Pa. — A. Wishart & Sons of Sharon, received the contract for erecting thirteen brick duplex residences for the Midland Land & Improvement Company, to cost about \$5,000 each.

A. Wishart & Sons, Sharon, also received the contract for erecting a frame duplex residence for the Midland Land & Improvement Company, to cost \$8,000.

Parkersburg, W. Va. — Architect W. Howe Patton awarded to S. M. Carfer, the contract for building a 1½-story frame bungalow for Dr. Rolla Camden, Fourth and Market streets. Cost \$2,500.

Salem, O.—Architect C. F. Owsley of Youngstown, has completed plans and specifications for a two-story brick residence to be erected for Dr. A. B. Hobson, to cost \$8,000. Owner may take bids about March 15th or April 1st.

Springdale, Pa.—W. S. Wick, Secondstreet, contemplates erecting seven twostory frame residences to be erected at Wallalan to cost \$2,100 each.

Springfield Center, O.—Architect M. C. Peck has plans in progress for a twostory frame bungalow to be erected for J. Palmer, R. D. No. 21, East Akron, to cost \$35,000. General contract let to T. J. Palmer, R. D. No. 20, East Akron. Toledo, O. — Architects Langdon & Hohly, 1442 Nicholas building, are taking bids on erecting a two-story brick Bachelor apartment building on Sixteenth street for The Percentum Company, Nicholas building. Cost \$30,000.

Charles K. Friedman, 1024 Ohio building, contemplates erecting a 2½-story pressed brick, stone country residence and garage on the East side of the river; plot 123 acres. Architect will probably be selected shortly.

Vaughnsville, O.—Architects Leech & Leech of Lima, have plans in progress for a 1½-story brick veneered and stucco residence to be erected for J. D. Williams to cost \$4,000.

Winburne, Pa.—The Rev. J. E. Bachnak is taking new bids on the erection of a frame residence addition to cost \$3,-000. Plans by Architect W. H. Overdorf of DuBois.

Alliance, O. — A 2½-story brick and tile residence and garage is to be built on Ridgway street, for Lemetto Smith, Columbia theatre, plans for which are to come from Architect L. W. Thomas, Pythian Temple, Cleveland. Bids will be taken soon and contract awarded by April 1.

Wyoming, O. — Bids will be asked soon for constructing a 2½-story brick residence and garage on Wilmuth street, for A. M. Peck, 727 Burns avenue. Plans are now being made by Architect H. W. Cordes, Union Trust building, Cincinnati.

Alliance, O.—Henry Stuckey, care Alliance Machine Company, contemplates erecting a brick residence on the Park Allotment from private plans. Cost \$5,-000.

P. J. Marsh, 284 W. Main street will soon start work on and the erection of a frame residence on S. Seneca street for Mr. Evalett to cost \$2,500 will soon take bids on slate roofing, hot air heating, plumbing and electric work and coil water heater.

Architect Robert S. Harsh, First Natioal Bank building, will have plans ready for bids about March 6th on the crection of a stucco and hollow tile residence on Overlook Drive for Clyde Cassidy, 1205 Avalon avenue. Cost about \$6,000.

The some architect will also take bids on the erection of a brick and hollow tile residence for E. B. Gross, Hartshorn street to cost \$6,000.

Dr. J. K. Tressell, 505 E. Market street,



NEWS FOR CONTRACTORS AND MATERIAL DEALERS

contemplates erecting a 2½-story brick residence to cost \$5,000. Architect not selected.

C. G. Cline, 761 S. Linden avenue, contemplates crecting a brick residence on S. Union avenue to cost \$6,000. Details not decided.

P. J. Marsh, 284 W. Main street will soon start the erection of a frame residence on Haynes street for Harry Roderick, 945 S. Union avenue, to cost \$3,000. Bids will be taken on hot air heating, plumbing and electric work.

Bids are in for the erection of a twostory brick, hollow tile and stone apartment building on Market street for Rosco R. Sharer to cost \$8,000. Plans were drawn by Architect W. W. Matchett, 539 E. Main street.

Ashtabula, O. — Architect C. V. Martin, Haskall building, has completed plans for a two-story and basement frame residence, to be erected for C. N. Royce, 38 Nathan street, to cost \$5,-000.

Brownsville, Pa. — Architect A. P. Cooper, of Uniontown, is drawing preliminary plans for a two-story hollow tile and stucco residence, to be erected on Union street, for G. C. Gartletts. Cost \$8,000.

Chillicothe, O. — Architect John Schweitzer, county recorder's office, has plans in progress and will take bids about March 12, on the erection of a two-story and basement brick residence on Caldwell street, for Charles F. Heinzelman, 246 Hickory street. Cost \$4,000.

Cincinnati, O. — M. Y. Cooper, Union Trust building, contemplates erecting a 2½-story brick residence on Advance street, to cost about \$7,000. Plans by Architect M. F. Eastman, Union Trust building.

M. Y. Cooper, Union Trust building, also contemplates erecting two 1½-story pressed brick bungalows, on Carplin Place, to cost about \$12,000. Plans by Architect M. F. Eastman.

Architect Albert Joseph Bodker, 62 W. Forty-fifth street, New York City, is drawing prelinimary plans for a 2½story terra cotta, stucco and timber residence, to be erected on Rose Hill Park, Avondale, for Clifford F. Kern, 20 Pickering building. Cost \$25,000.

Henry Sieving, 5362 Montgomery Park, Norwood, will take sub-bids about March 6, on erecting a 2½-story pressed brick St. Louis apartment building, on Brewster street, for Mrs. Olive Bogan,

1838 Brewster avenue. Cost about \$12,-000.

Architect Frederick A. Schmidt, 134 E. Fourth street, has been selected to prepare plans for a 2½-story pressed brick residence, to be erected on Linwood avenue, for Mrs. Linnie D. Pilchard, 2528 Bell Place. Cost about \$6,000.

Cleveland, O. — Architect A. C. Wolf, Swetland building, will shortly take separate bids on the erection of a 2½story and basement frame residence, on Fairfax Road, Cleveland Heights, for Joseph O. Hahn, 442 the Arcade. Cost \$12,000.

Architect H. L. Porter, Society for Savings building, will award separate contracts for the erection of three twostory frame residences on Overlook Road, Cleveland Heights, for the Overlook Heights, for the Overlook Land Company. Cost \$3,700 each.

The Kaufmann Architectural Company, 627 Rose building, will award separate contracts for the erection of a 2½story and basement brick residence on Whitchorn Road, Cleveland Heights, for Robert P. Greenleaf, Perry Payne building. Cost \$6,000.

Architect W. H. Smith, 608 Union building, has plans in progress for a two-story frame double residence, to be erected on Oak Road, Cleveland Heights, for Mrs. H. W. Tellin. Cost \$6,000.

Architect A. F. Janowitz, Permanent building, has preliminary plans in progress for 10 two-story brick apartment buildings, to be constructed on Central avenue, for Louis A. Katz, 321 Williamson building Cost \$12,000 each. Owner will probably take bids about April 1.

The Pasadena Company, care M. L. Thomson, et. al., 1320 Citizens building, contemplates constructing a five- or six-story brick and stone apartment addition on E. Ninety-sixth street, near Euclid avenue. Addition to contain 24 apartments. No details decided.

Plans have been completed and bids will be taken shortly on the erection of a two-story brick apartment building on 10009 Lorain avenue, for A. Linsky, 6107 Scovill avenue. Cost \$10,000.

B. Spivack, 2670 E. Fifty-first street, is taking separate bids on erecting a two-story brick tenement building on 845 E. Seventy-ninth street, to cost \$8,-000. Plans by Architect S. L. Weis, 1032 Schofield building.

Cuyahoga Falls, O .- Architect Andrew Isles, Diamond Bank building, Pittsburgh, has completed plans for a 2½story and basement brick residence and garage to be erected for Raymond Jenks, to cost \$10,000.

Jake Stein, 516 Washington avenue, contemplates erecting a two-story brick and hollow tile residence to cost \$5,000.

Emporium, Pa.—Architect H. C. Park of Ridgway, has plans in progress for a three-story and basement concrete block apartment building to be erected for George Metzgar, to cost \$10,000.

Geneva, O.—Arcitect M. C. Goddard, Main street, is taking bids to close March 9th on the erection of a 1½-story frame bungalow on Main street for Dr. A. E. Childs, Main street Cost \$3,500.

Frank Hazen will take bids about March 15th on the erection of a two-story frame bungalow from private plans. Cost \$3,000.

Greenville, O.—Architect Phillip Pfeiffer, First Nationtal Bank building, has plans about completed for a two-story and basement brick residence to be erected on Wayne avenue for Mrs. Emily Morrow, Wayne avenue. Cost \$5,000.

Homestead, Pa. — G. Kinley, Ammon street, is taking bids on the erection of a three-story brick duplex residence on rear of Eighth avenue, to cost \$3,800.

Huntington, W. Va.—Architects Meanor & Sweeney awarded to Charles Harer, 425 Fifth street, the contract for erecting a 2½-story brick residence on Park Hill for L. A. Daniels, care Adelphia Hotel. Cost \$6,000.

Bids have closed on the erection of a 2½-story brick and stone residence on Thirteenth avenue for Dr. C. M. Hawes, Ritter building. Cost \$6,500. Plans by Architect Verus T. Ritter.

Plans will soon be started for a twostory brick and stucco and hollow tile residence to be erected at Cedar Grove for N. A. Meanor, R. & P. Building. Cost \$10,000.

Architects Meanor & Sweeney, R. & P. building, have started plans for a 2½story stucco and hollow tile residence to be erected at Cedar Grove for Frank Ellington, 703 R. & P. building. Cost \$10,000.

Lakewood, O.—Architects Knox & Elliott, 1248 Rockefeller building, Cleveland, have plans in progress and will take bids about March 6th on erecting a 2½-story and basement brick residence on Edgewater Drive for Thomas K. Maher, 1242 Rockefeller building, Cleveland, Cost \$10,000.



BUILDING PROJECTS AND WORK AWARDED

Architect W. Asa Hudson, Williamson building, has completed plans for a twostory brick terrace to be erected on Sloan street for H. V. Christian, 1350 Sloan street. Cost \$15,000.

Architect H. Kradilek, Illuminating building, Cleveland, has completed plans and will award separate contracts for the erection of a two-story frame double residence on Warren Road for Mrs. William A. Duffy, Illuminating building, Cleveland. Cost \$4,000.

Lima, O.—Architects Leech & Leech are taking bids on the erection of a twostory and basement pressed brick residence on Lakewood avenue for W. E. Bayley, 208 S. Collett street. Cost \$4,000.

The same architects will also take bids on erecting a two-story and basement pressed brick and terra cotta and stone apartment building on Cole street for Lee Faurot, 410 S. Jameson street. Cost \$15,000.

Architect A. C. DeCurtins, 503 Opera House block, is taking bids on erecting a two-story brick veneered residence and garage on Market street for Mrs. Fannie Spanagla. Cost \$8,000.

Lima, O. — Architects Leech & Leech will take bids shortly on the erection of a two-story pressed brick, terra cotta and stone apartment building, on W. High street, for P. M. Ireland, West Market street. Cost \$15,000.

Lorain, O. — Architects Steffens & Steffens, 1028 Williamson building, Cleveland, have plans in progress for a 2½-story and basement tile and stucco residence and garage, to be erected for L. L. Deeds, to cost \$8,000.

Mentor, O. — Architect John H. Graham, Union building, Cleveland, will award separate contracts for the erection of a 2½-story and basement frame country residence, for Chester K. Brooks, 7706 Platt avenue, Cleveland. Cost \$25,000.

Middletown, O. — Architect C. E. Oeden, 213 Jacoby building, has plans about completed for a two-story and basement frame, metal lath and stucco residence, to be erected for G. A. Ahbrandt, to cost \$8,000.

Architect C. I. Williams, Reibold building, Dayton, has been selected to prepare plans for a two-story and basement frame or brick residence, to be erected on Hamilton Pike, for C. T. Elliott. Cost \$15,000.

Monessen, Pa. — Architect J. M. Bealf has plans in progress for a two-story hollow tile and stucco duplex residence, to be erected on McKee avenue, for Julius Racy, to cost \$6,500.

Portsmouth, O. — Filmore Musser, care Ohio Valley Bank, contemplates crecting 100 two-story and basement frame and brick, cement plaster and tile residences, on Sixteenth, Seventeenth and Eighteenth streets, to cost from \$2,000 to \$4,000 each. Plans will be drawn by Architects Ritter & Bates. Owner will build about 10 residences at present and remainder to be built later.

Harry W. Miller, 224 Masonic Temple building, contemplates erecting a twostory and basement brick or frame country residence, to cost \$4,000.

Parkersburg, W. Va. — John H. Prescott, Union Trust building, contemplates building a two-story frame and shingle residence, on the Camden Addition, to cost \$4,000. Owner will build.

Sandusky, O. — Architects O'Donnell & Wolfe have plans in progress for a residence, to be erected in Cable Park, for a party whose name is withheld. Cost \$6,000. Bids will be taken about March 10.

St. Marys, Pa. — Architect H. C. Park, of Ridgway, is preparing sketches for a two-story and basement brick and frame residence, to be erected on Brussel street, for J. J. Straub. Cost \$5,000.

Sebring, O. - R. Y. Cliff, Market street, contemplates erecting a twostory brick and frame residence from plans drawn by Architect C. F. Owsley, of Youngstown. Cost \$6,000.

Toledo, O. — Architects Mahurin & Mahurin, Swinney Block, Fort Wayne, Ind., have plans in progress for a twostory and basement brick residence and garage, to be erected on Beechwood Place, for Dr. W. McBride, 218 Washington street. Cost \$9,000.

Winding Gulf, W. Va. — The Winding Gulf Collieries Company is taking bids on materials for the erection of a 1½story frame bungalow, to cost \$4,000. Plans by Architect W. B. Smith, of Huntington.

Business Buildings.

Akron, O.-Jesse Failor, 328 S. Main street, is taking separate bids on erecting a two-story brick and tile store and apartment building on E. Market street, to cost \$20,000. Plans by Architects Boenisch & Kraus, 316 Ohio building.

Alliance, O.—Architects C. D. Cooley Company, Century building, Pittsburgh, have plans in progress and will be ready for bids about March 10th on constructing a three-story brick and concrete and steel fireproof milk depot for the Sanitary Milk Company. Cost \$25,000.

Cincinnati, O. — Architect Gustav W. Drach, Union Trust building, will prepare plans for a three-story and basement pressed brick and limestone department store building to be constructed on corner of Race and Fourth streets for the Browning-King Company. Cost \$15,000. Contract for wrecking was let to the Buckeye Wrecking & Salvage Company, 959 W. Seventh street.

Architects Zettel & Rapp, Johnston building, have been selected to prepare plans for a two-story pressed brick office building to be erected on North street, Oakley, for the Cincinnati Lathe & Tool Company. Cost \$15,000.

The Leibold-Gott Building Company, 505 Gwynne building, are taking separate bids on constructing a three or eight-story and basement pressed brick store and office building on corner of Twelfth and Walnut streets for the Niehaus Estate. Building will contain store and lodge rooms and offices.

Cleveland, O.—Preliminary plans are in progress for a two-story brick fireproof Coliseum addition to be erected on E. Thirteenth street near Euclid avenue for J. A. Wigmore & Co., 1330 Williamson building. Cost \$250,000. No details decided.

Dayton, O.—Architect Gustave A. Niehus, 25 Callahan building, is ready for bids on erecting a two-story and basement brick store building on Perry and Maple streets for Edward C. Albert, 37 E. Burns avenue. Cost \$9,000.

Donora, Pa.—Architect Daniel Zwierzynski, McKees Rocks, has completed plans for a two-story brick and hollow tile store and apartment building to be erected on McKean avenue for Thomas Muia, Castle Shannon Road. Cost \$6,-000.

Felix Dusi, Fifteenth street, is taking bids to close March 13th on erecting a four-story brick and hollow tile store and apartment building on Fifteenth street to cost \$25,000. Plans by Architect C. C. Compton.

John Panaykinton, 1310¹/₂ Moravia street, New Castle, is taking bids on erecting a three-story frame store and apartment building on Meldon avenue, to cost \$8,000. Plans by Architect C. C. Compton.

Architect C. C. Compton, McKean avenue has plans in progress for a two-

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story brick and hollow tile store and apartment building to be erected on Meldon avenue for J. W. Hale, Sixth street. Cost \$4,000.

The same architect also has plans in progress for a two-story brick and hollow tile store and apartment building to be erected on McKean avenue for G. W. Woodward, Sixth and Meldon streets. Cost \$7,000.

Gallipolis, O.—Bids have closed on the crection of a three-story and basement brick and limestone bank, office and apartment building on Main street for the First National Bank to cost \$20,000. Plans by Architects Marriott, Allen & Hall of Columbus, and Associate Architect C. C. Ingalls.

Martins Ferry, O. — Architect C. W. Bates, National Bank building, Wheeling, W. Va., is drawing plans for a terra cotta and brick bank, store and office building to be constructed on Walnut and Fourth street for the German Savings Bank Company. Cost \$50,000.

Piqua, O.—Architect Howard W. Germann, 1100 Schwind building, Dayton, has plans ready for bids on the erection of a two-story and basement brick store and apartment building on corner of Wayne and Water streets, for Charles H. May, Wayne and Water streets. Cost \$30,000.

Steubenville, O.—Architect F. F. Faris. 416 Schmulbach building, Wheeling, W. Va., has plans in progress for a twostory brick bakery building to be constructed on Market street for the General Baking Company, to cost \$25,000.

Warren, O. — The Trumbull Steel Company, will take bids shortly on the erection of a two-story brick and hollow tile office building addition to cost \$10,000. Plans by Architect J. L. Becker, Stambaugh building, Youngstown.

Akron, O.—Architects Mowbray & Uffinger, 56 Liberty street, New York City, have been selected to prepare plans for altering a bank building for the National City Bank to cost \$10,000. General contract awarded to Carmichael & Son Construction Company.

Alliance, O.—Architect W. N. Matchett, Main street, will prepare plans for a two-story hollow tile and stucco store and apartment building to be erected on Ash street for William Shem, 347 E. Main street. Cost \$12,000.

The Allott Kryder Hardware Company, Public square, contemplates erecting a three or four-story brick store and office building on Main street. Architect

will be selected about April 1st or 15th.

Cleveland, O.—A syndicate, care Edward P. Strong, 919 Society for Saving building, contemplates constructing a two or three-story brick store and apartment building on E. Fifty-fifth street to cost \$40,000. Architect will be selected about March 15th.

Architecet S. H. Weis, Schofield building, has completed plans for a two-story and basement brick and stone store and apartment building to be constructed on 1036-38-40-42 E. One Hundred and Twenty-third street, for B. Benjamin, 2488 E. Sixty-third street. Cost \$25,000.

Architect A. Sharowsky, 2349 Orange avenue for J. Bassicher, 2435 Orange avenue. Cost \$5,000. Owner will take bids shortly.

Columbus, O. — B. F. Johnson was awarded the contract for remodeling a store building on 83-85-87-89 N. High street for S. S. Kresge Company, 1719 Kresge building, Detroit, Mich. Plans by Architect Roy Cummings of Detroit, and Stribling & Lum of Columbus.

Conneaut, **O.** — Architects Steffens & Steffens, 1028 Williamson building, Cleveland, are revising plans for a two-story brick store and office building to be erected on Main and Broad streets for S. F. Hahn. Cost \$12,000. Owner will take new bids about March 22nd.

Cleveland, O. — Plans will be ready next week by the Forest City Engineering Company, Hipodrome building, for a two-story brick store and apartment building, 45x110 feet, to be built on Superior avenue, near E. One Hundred and Tenth street, for J. P. Stotter, Leader-News building. Estimated cost \$25,000.

Wheeling, W. Va. — Cuthbert Brothers, Bessemer building, Pittsburgh, received the contract to build a one-story stucco and hollow tile building, 33x52 feet to be used for office and hospital purposes, by the American Sheet & Tin Plate Co. Cost \$8,500.

Columbus, O. — Architect Otto C. Darst, 1109 Brunson building, is preparing sketches for a one- and seven-story brick and limestone or terra cotta store and office building, to be constructed on 43-45 E. Gay street, for the Copco Realty Company. Cost \$50,000. Owner is uncertain whether to use the upper six stories for offices or light manufacturing purposes.

Conneaut, O. — Architect Fred S. Horton is revising plans for a brick and concrete storage building, to be erect-

ed on Washington street, for L. Zack & Co., Washington street. Cost \$6,000.

Coshocton, O. — The McDowell Estate will take bids about March 7, on constructing a three-story brick, steel or tile store and hotel building, to cost \$75,000. Plans are being drawn by Architect F. Stillman Fish, 307 Superior building, Cleveland.

Dola, W. Va. — J. Allen Swiger is taking bids on the erectron of a twostory clapboard store building, from plans drawn by Architects S. W. Ford & Co., Clarksburg. Cost \$3,000.

Elmwood Place, O. — Architect H. W. Cordes, Union Trust building, Cincinnati, has new plans in progress for a two-story stucco and frame office building, to be erected for Stacey Brothers' Construction Company. Cost \$10,000.

Elyria, O. — Architects Walker & Weeks, 1900 Euclid building, Cleveland, have working drawings in progress for a 10-story brick, steel and reinforced concrete bank and office building, to be constructed on Middle avenue, for the Lorain County Savings & Trust Co.

Erie, Pa. — Architects Alden & Harlow, of Pittsburgh, awarded to Henry Shenk, the contract for constructing a 10-story brick, steel and limestone store and office building, on Eighth and State streets, for Mrs. Esther L. Campbell. Cost \$108,000.

Architect H. Edsall Barr awarded to the Pennsylvania Fireproofing Company the contract for constructing a threestory and basement warehouse on Nineteenth and Peach streets, for the Erie Wholesale Grocery Company, to cost \$35,000. Contract for structural steel erection let to the Erie Steel Construction Company.

Grayson, Ky. — Architect W. B. Smith, of Huntington, has been selected to prepare plans for a two-story brick bank and office building, to be erected for the Citizens Bank, of Grayson, to cost \$15,000.

Greensburg, Pa. — Architects Emmett E. Bailey Company, Oil City, are taking new bids to close March 7, on Constructing a seven-story and basement brick and steel fireproof bank and office building, on 115 W. Main street, for the Westmoreland National Bank. Cost about \$75,000.

Huntington, W. Va. — Architect E. N. Alger is drawing plans for a threestory brick and stone store and apartment building, to be constructed on





PLANS FOR VARIOUS KINDS OF STRUCTURES

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Twelfth and Fourth avenues, for J. W. Dingess. Cost \$25,000.

Leetonia, O. — O. J. Easterly and James Q. Caldwell, of Columbiana, contemplate erecting a one-story hollow tile feed store and grainery, from private plans. Cost \$3,000.

Lima, O. — Architects Leech & Leech have plans in progress and will take bids on the erection of a two-story pressed brick and stone store and apartment building, on S. Elizabeth street, for L. E. Stamets, 660 W. Spring street. Cost \$15,000.

The same architects will also take bids on the erection of a three-story pressed brick and stone store and office building, on E. Market street, for L. E. Stamets, to cost \$20,000.

Monessen, Pa. — Architects J. A. Lohman & Son have plans in progress for a one-story brick and hollow tile and structural steel public market house, to be constructed on Donner avenue, for a party whose name is withheld. Cost \$25,000.

The Motz Lumber Company received the contract for erecting a three-story frame office building for the Pittsburgh Steel Products Company, to cost \$4,000.

Monessen, Pa. — Michael Malynial, Schoonmaker avenue, is taking bids to close March 10th on the erection of a a two-story brick and hollow tile store and apartment on Schoonmaker avenue to cost \$12,000.

Montpelier, O.—Architect W. C. Pollock, 402 Garfield building, Cleveland, has plans nearly completed for remodeling a two-story brick and imestone bank and office building for the Montpelier National Bank to cost \$8,000.

New Castle, Pa.—Morris Moresky, 1220 Moravia street, is taking bids on erecting a three-story brick, hollow tile and stone store and apartment building to cost \$30,000. Plans by Architect H. M. Wirsing, 7 S. Jefferson street.

Painesville, O.—Architect J. M. Crabbs awarded to T. Rust, S. State street, the contract for erecting a two-story hollow tile and steel bottling plant, garage and engine room on S. State street for the Painesville Coca Cola Bottling Company. Cost \$6,000.

Sandusky, O. — Dr. William Graefe contemplates erecting a two-story brick fireproof store and office building on Wayne street. No details decided.

Shelby, O .- Architect W. G. Pollock of Cleveland, has plans nearing completion for remodeling a three-story brick, sand or imestone bank building on Main and Gamble streets for the First National Bank. Cost \$15,000.

Youngstown, O. — Architect G. A. Edelsvard, 1008 Mahoning Bank building, will soon take separate bids on constructing a three-story brick, stone store and apartment building on Elm and Rayen Aveues for Mark M. Gundelfinger, Henry W. Davis and Carl F. Dingledy. Cost about \$50,000.

Religious.

Alliance, O. — The Christ Reformed Congregation is taking bids on erecting a one-story brick and stone church on East Oxford and Mechanic streets to cost \$20,000. Plans by Architect Henry C. Cabele, 1900 Euclid building, Cleveland.

Columbus, O. — Architects Matheny, Allen & Mountz, Columbus, and W. H. Nicklas of Cleveland, have been selected to prepare plans for a one-story brick church to be erected on Main street and Fairwood avenue for the Morgan Memorial Methodist Episcopal Congregation. Cost \$30,000.

Cresson, Pa.—James Hood, Highland building, Pittsburgh, was awarded the contract for erecting a one-story stone and hollow tile chapel on Summit street, for the Union Chapel, to cost \$12,000. Plans by Architect Louis O. Brosie, Highland building, Pittsburgh.

DuBois, Pa.-J. J. Heiges, 26 E. Washington street, is low bidder on the general contract for the erection of a twostory stone church addition on W. Scribner and High streets for the First Presbyterian Congregation, to cost \$9,-000. M. O. Skinner is low bidder on the stone work. Plans were drawn by rchitect W. H. Overdörf, Long and Brady streets.

Lakewood, O.—The Duff Construction Company, Marshall building, Cleveland, received the contract for masonry, carpentry and fireproofing for a three-story brick parochial school addition to be erected on Detroit and Granger avenues for St. James Roman Catholic Congregation. Cost \$50,000. -Plns by Architect J. E. Schneider, Cleveland.

Monongahela, Pa. — Architect C. C. Compton, Donora, has been selected to prepare plans for a two-story brick and hollow tile Sunday school addition to be erected on Fifth street for the Methodist Episcopal Congregation to cost \$15,-000 New Straitsville, O.—Architects Matheny, Allen & Mountz, Columbus, will probably revise plans for a one-story and basement brick and stone church to be erected for the New Straitsville M. E. Congregation to cost \$20,000.

Toledo, O. — The Second Church of Christ Scientists has purchased a site on Collingwood avenue and Bancroft street on which they will build a 1½story brick or stone church building. Architect will be selected soon.

Atwater, O. — Architect W. W. Matchett, 539 E. Main street, Alliance, has plan in progress for remodeling a church for the M. E. Congregation, to cost about \$2,500.

Cincinnati, O. — Architects Samuel Hannaford & Sons, Hulbert Block, are taking bids on constructing a 2½-story and basement pressed brick and stone church on Reading Road, Avondale, for St. Andrew's Roman Catholic Congregation. Cost \$100,000.

Dayton, O.—Architect W. L. Jaekle, 1300 Union Bank building, has plans in progress for a one-story brick and terra cotta church to be constructed on Notre Dame avenue, North Dayton, for the Holy Rosary Roman Catholic Congregation. Cost \$85,000.

Fullerton, Ky.—The Christian Congregation, is taking bids on building a onsstory and basement frame church from private plans, to cost about \$3,000.

Johnstown, Pa. — Hess Brothers, Franklin street, will start work at once on erecting a one-story and basement brick and hollow tile and stone church on Bedford street and Homestead avenue, Walnut Grove for the United Brethren Congregation. Cost \$30,000.

Portsmouth, **O.** — The First Baptist Congregation, is receiving competitive sketches for a one-story and basement brick or cement plaster church to be erected on Waller and Gallia streets to cost \$25,000. Architect will be selected about March 10th.

The Allen Chapel A. M. E. Congregation contemplates erecting a one-story and basement brick church on Seventh street to cost about \$20,000. Project may mature about April 15th.

Ravenna, O.—Architects Richards, Mc-Carty & Bulford of Columbus, have completed plans for a one-story and basement brick and limestone church to be constructed for the First Methodist Congregation, to cost \$45,000. Owner will take bids about March 8th.



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THE "LAST WORD" IN BUILDING NEWS

Sandusky, O. — The First Reformed Congregation, is taking bids on remodeling the interior of the church building on Jefferson and Hancock streets, to cost \$6,000.

Shawnee, O. — Architects Matheny & Allen & Mountz, Columbus, have started plans for a one-story and basement brick and stone church for the Methodist Episcopal Congregation. Cost \$15,000.

Educational.

Amherst, O.—The Board of Education will soon select an architect to prepare plans for a two-story brick or stone high school building to be constructed at a cost of about \$50,000. Will vote on bond issue about March 15th

Charleroi, Pa.—Architect A. P. Cooper of Uniontown, awarded to the Charleroi Lumber Company, the contract for erecting a two-story brick and hollow tile and terra cotta school addition on Crest avenue for the Board of Education. Cost \$20,000.

Industrial, W. Va.—The State Board of Control is taking bids to close March 15th on erecting a one and two-story brick and cut stone school building to cost \$35,000. Plans by Architect H. Rus Warne of Charleston.

Kent, O.-The Board of Trustees of Kent State Normal School is taking bids to close April 1st on constructing a twostory and basement reinforced concrete, brick and steel Women's dormitory at the State Normal School to cost \$120,000. Plans by Architect Wilbur T. Mills of Columbus.

Uniontown, Pa.—'The Board of Education has selected Architect Harry W. Altman to prepare plans for a three-story brick and steel fireproof junior high school building to be constructed on Wilson avenue to cost \$75,000.

The Board of Education has selected Architect A. P. Cooper, to prepare plans for a grade school building to be constructed on Church street to cost \$10,000. Will contain 14 class rooms, assembly room and library.

Walbridge, O.—Architect M. M. Stophlet, 608 Nasby building, Toledo, is preparing preliminary plans for a pressed brick and fireproof centralized school building to be erected for the Board of Education of Lake Township. Cost \$50,000.

West Dover, O .- The Board of Education will soon select an architect to prepare plans for a two-story brick fireproof grade and high school building to be erected at a cost of \$19,000. Building will contain about 6 class rooms and manual training departments.

Winchester, O. — Architect Fred W. Elliott of Columbus, has plans in progress for a two-story and basement brick school addition to be erected for the Board of Education, Cost \$5,000.

Lyndora, Pa.—Excavations have been completed for a brick and stone school to be erected on Pierce avenue for St. Michael's Greek Catholic Congregation, from plans drawn by Architect George W. Kline of Butler, George Schenk & Co., of Butler, are the general contractors.

Maumee, O.—Architect M. M. Stophlet, Nasby building, Toledo, is preparing preliminary plans for a 2½-story brick and stone grade and high school building to be constructed for the Board of Education. ost \$40,000.

New Boston, O.—Architects DeVoss & Donaldson, First National Bank building, Portsmouth, have been selected to prepare plans for a two-story brick grade school building to be constructed for the Board of Education. Cost \$50,-000.

Akron, O.—The Board of Education awarded to the Dawson Construction Company, May building, Pittsburgh, the contract for erecting a three-story and basement reinforced concrete, brick and steel addition to the Robinson School on Fourth and Chittenden streets, to cost \$57,000 Plans by Architect T. Ralph Ridley, S. Forge street.

Coalton, O.—Architect Frank L. Packard of Columbus, has plans in progress for a two-story and basement brick and limestone special district grade and high school building to be erected for the Board of Education to cost \$30,000.

Connellsville, **Pa**.—The Board of Education contemplates constructing two school buildings to cost \$125,000 each. Owners will meet on March 7th to decide data of voting on Bond Issue.

Fremont, O.—The Board of Education contemplates constructing a technical school on Court Place and Park avenue to cost \$50,000. Architect will be selected shortly.

Logan, O.—Architect William Loomis, 501 Canal street, has plans in progress for two two-story and base brick additions to to the East and West School buildings to be erected for the Board of Education. Cost \$10,000.

Matewan, W. Va .- Architects Pedigo

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& Garry of Bluefield, have been selected to prepare plans for a two-story brick school building to be erected for the School Board to cost about \$20,000. Board to cost about \$20,000.

Salem, O. — The Board of Education will soon take bids to close about March 17th on the completion of the high school building to cost about \$45,000. Plans by Architect C. F. Owsley of Youngstown.

Toledo, O. — The Carnegie Library Corporation of New York and Toledo, has purchased a site on Greenwood avenue and Main street, East Side, on which they will erect a two-story brick and stone public library to cost \$30,000. Acchitect not selected.

Westville, O.—The Board of Education of Mad River Township has awarded to Pickering Brothers of Urbana, the contract for erecting a two-story and basement brick and lines one grade and high school building addition to cost \$24,000. Plans by Architects Rusk & Sheets of Columbus.

Bristolville, O. — Architects Miller & Son of Youngstown, have been selected to prepare plans for a two-story brick centralized school building to be erected for the Board of Education to cost \$20-000. Bids will probably be taken about March 10th.

Monongahela, Pa.—The Board of Education awarded to J. G. Fullman, East End Saving & Trust building, Pittsburg, the contract for constructing a two-story and basement brick and ornamental terra cotta grade school building on Jackson, Vine and Pleasant streets, to cost \$40,000 Plan by Architect Charles J. Rieger, Germania Bank building, Pittsburgh. Contract for plumbing was let to Regan & Hornell of Charleroi, and electric work to the Morganstern Electric Company, 325 Second avenue, Pittsburgh.

Norwood, O.—The Board of Education awarded to Edward T. Honnert, Colerain Pike, Mt. Healthy, O., the contract for erecting a one-story and basement pressed brick grade school building at Norwood View to cost about \$25,000. Plans were drawn by Architects Bausmith & Drainie, Gerke building, Cincinnati.

Stringtown, O.-The Board of Education of Salt Creek Township, awarded to L. D. Hettrick & Brothers, 799 S. Ohio avenue, Columbus, the contract for erecting a two-story and basement brick and limestone centralized grade and high school building on Adelphi Pike, to cost \$25,000. Plans by Architects Matheny, Allen & Mountz, Columbus.

Toledo, O. — Architects Schriber & Beelman, 612 Second National Bank building, awarded to John Pioch Company, Huron street, the contract for erecting a two-story and basement brick and stone parochial school building on Buckeye and Erie streets, for the Evangelical Lutheran Congregation. Cost \$20,000.

Woodville, O. — A \$50,000 school building is contemplated by the Board of Education, the work depending on the issue of bonds. No architect has been selected.

State, County and Municipal.

Bens Run, W. Va.—The United States Government, Wheeling, W. Va., has reawarded to the Ohio Building & Construction Company, of Cincinnati, the contract for erecting a one-story brick and stone power house at Dam No. 16, Ohio River, to cost \$20,000.

Cheviot, O.-The Kirchner Construction Company, Cincinnti, is low bidder on the improvements on Harrison Turnpike, Green Township, for the Board of County Commissioners. Project consists of 3222 cubic yards concrete, 19340 square yards granite paving and brick manholes.

Eaton, O.—Architects Richards, Mc-Carty & Bulford of Columbus, have been selected to prepare plans for a court house to be constructed on Barren and Main streets for the Board of County Commissioners. Cost \$250,000.

Kittanning, Pa.—Plans have been completed and bids will be taken about April 1st on the construction of a state road to Ford City, to cost \$13,000.

Marietta, O. — The United States Government, Wheeling, re-awarded to the Ohio Building & Construction Company, of Cincinnati, the contract for erecting a one-story brick and stone power house at Dam No. 17, Ohio River, to cost \$20,000.

Midway, O.—The Board of Trustees of Range Township will soon select an architect to prepare plans for a onestory and basement brick township hall to cost \$70,000.

Orient, O.—Architects Richards, Mc-Carty & Bulford of Columbus, have completed plans and bids will be taken shortly on the erection of a three-story and basement brick cottage at the Ohio Custodian Farm for the Board of Administration. Cost \$70,000.

Zanesville, O.—The Board of Public Service contemplates constructing water works improvements to cost \$400,000. Project may not mature until Summer.

Athens, O .- Architects Ritter & Bates,

Portsmouth, have plans nearly completed for a two-story and basement brick and limestone childrens home to be constructed for the Board of County Commissioners to cost about \$40,000. Building will contain sleeping and dining rooms, kitchen, offices and library. Architect and owners will take bids about March 6th.

Martinsburg, W. Va.-J. L. Robinson Construction Company, Baltimore, Md, is low bidder on altering the post office and court house building for the United States Government, and Nolan Clifford Company of Newport News, Va., is low bidder on constructing the sewage disposal system.

Gallipolis, O. — Architects Richards, McCarty & Bulford of Columbus, have completed plans for two three-story brick and reinforced concrete dormitories at the State Hospital for the Ohio Board of Administration. Cost \$70,000 each.

Piqua, O.—Architect Karl I. Best, 215 Hayden building, Columbus, has completed plans and is ready for bids on the erection of a two-story and basement brick armory for the Ohio National Guard Armory Board to cost \$20,000.

Sandusky, O. — The United States Government contemplates constructing a stone and brick post office building to cost \$215,000. No details decided.

Cheviot, O. — Kirschner Construction Company, 221 W. Ninth street, Cincinnati, was awarded the work of road improvements, the cost amounting to \$71,000.

Hinton, W. Va. — The Farris Bridge. Company, Charleston, W. Va., and the Oregonia Bridge Company, Lebanon, O., were low bidders for building a steel bridge across the Green River for the Board of County Commissioners.

Midway, O. — Architect E. H. Rickett, 274 Twelfth avenue, Columbus, has been retained by the Board of Trustees of Range township, to design a township hall. The building will be 40x78 feet, one story, brick construction.

Manufacturing.

Akron, O.—The Burger Iron Co., received the contract for steel and erection work for a one-story brick and steel concrete factory addition to be erected on 1007 Bank street for the Biggs Boiler Company, to cost \$15,000.

Ironton, O.-W. L. Scheickart Company, received the contract for erecting a three-story brick factory addition on Second street, for the Foster Stove Company.

Sistersville, W. Va.—Plans have been completed for a corrugated iron and steel benzol acid and by-product plant to be constructed for the Caldwell

Chemical Company. Capacity of plant to be 1,000 tons coke per day.

Cleveland, O. — Alexander Brothers, Williamson building, received the contract for erecting a two-story brick factory addition on 7501 Cedar avenue for G. F. Mitchell & Son, E. Sixty-fifth street and Cedar avenue. Cost \$30,000.

Cleveland, O.—Architects Richardson & Yost, 354 Rockefeller building, will soon take bids on constructing a brick and reinforced concrete factory on Superior avenue for the National Telephone Supply Company, Cost \$50,000.

The Osborn Engineering Company Engineers building, awarded to the Mettler-Gloyd Company, Hippodrome Annex, the contract for constructing a fourstory and basement factory building extension on 11020 W. Madison avenue and Berea Road for the Glidden Varnish Company. Cost \$50,000.

Architects George S. Rider Company, Century building, awarded to the Boldt-Low Construction Company, Swetland building, the contract for erecting a onestory brick and steel enameling building addition on 1135 Ivanhoe Road for the Cleveland Metal Products Company, Cost \$25,000.

Architect M. Altschuld, 2548 E. Sixtyfirst street, has completed plans for a two-story brick lumber shed, planing mill and office building to be erected on 7102-16 Woodland avenue for I. Goldberg, 2351 E. Thirty-ninth street. -Cost \$10,000.

Columbiana, O.—The J. Harrold Tool Company, contemplates erecting a onestory brick or hollow tile and concrete factory from private plans. Details not fully decided.

Conneaut, **O**.—Preliminary plans are in progress for a one-story brick factory addition to be erected for the Vurke Machine & Tool Company. Cost \$4,000.

Cleveland, O.—The Ajax Manufacturturing Company intends erecting a twostory brick and reinforced concrete building 60x130 feet, and two other steel frame buildings 60x126 feet, one story. Burchard, Roberts & Wales Co., Swetiand building, will make the plans.

Society and Club Buildings.

Braddock, Pa. — The Hodder Construction Company, re low bidders on erecting a three-story brick and sandstone temple addition on Library street for the Masonic Building Association of Braddock. Cost \$20,700. Plans by Architects S. C. Richards & Co., Dean building.

Donora, Pa.—Architect C. C. Compton, McKean avenue, has plans in progress for a two-story and basement club house to be erected on Meldon avenue between Ninth and Tenth streets for the National Slovac Society. Cost \$15,000.

New Kensington, Pa.—Architects C. C. & A. L. Thayer have plans in progress for remodeling a brick building on Fifth avenue for the Y. M. C. A. to cost \$25,000.

Cleveland, **O**.—The Brooklyn Catholic Club contemplates erecting a threestory brick and hollow tile and stone club building on Pearl Road to cost \$30,-000. Architect will be selected about April 1st.

Theatres.

Hubbard, O. — Architects Stanley & Scheibel, Wick building, Youngstown, awarded to Huff Brothers, the contract for erecting a one-story brick motion picture theatre for William Wolf to cost \$6,000.

Connellsville, Pa.—Bids are in for the crection of a two-story and hollow tile motion picture theatre on Pittsburgh avenue for John Wishart, Dunbar, and C. A. Wagoner. Cost \$10,000. Plans by Architect Harry Altman of Uniontown.

Hotels

Columbus, O.-S. D. Peacock & Sons, Cincinnati, received the enclosure contract for the eleven-story brick and steel, terra cotta hotel building being constructed on Grant avenue and Broad street for The Broadway Company, care James H. Butler, Columbus Hotel, Fifth and Long streets. Cost \$250,000.

Mercer, Pa. — The Humes Hotel, J. Humes, proprietor, contemplates erecting a four-story brick hotel building on Public Square, to cost about \$40,000. Will probably select an architect about March 15th.

York Run, Pa. — Plans have been completed by Architect H. W. Altman, Uniontown, for a two-story brick and hollow tile hotel building, to be erected for B. Cokaronavic, York Run. Bids will close on the 12th inst. Excavation and foundation work has been awarded.

Hospitals.

Covington, Ky.—Architect B. T. Wisenall, First National Bank blding, Cincinnati, O., has plans in progress for a three-story brick hospital addition to be constructed on 165 E. Second street for the Booth Memorial Hospital to cost \$100,000. Owner awards separate contracts and bids will be taken about March 15th.

Miscellaneous.

Cleveland, O.—Architect A. C. Wolf, Swetland building, awarded to George A. Rutherford Company, 2160 E. Eighteenth street, the contract for erecting a one-story brick stable, garage and wagon shed on Payne and E. Thirtyfifth streets for Harry S. French, 5450 Hamilton avenue. Cost \$15,000.

Sharon, O.—Architects Harry Hake and Charles Kuch, Telephone building, Cincinnati, have plans in progress for an automobile and aero speedway to be constructed on Springdale, Cincinnati & Dayton Pikes, Hauck Road and Crescentville Pike for the Cincinnati Motor Speedway Company. Cost \$750,000.

Cleveland, O. — Engineer C. L. Cobb. Illuminating building, is preparing sketches for a 1½-story brick and reinforced concrete substation to be erected on Madison avenue near W. Sixty-fifth street for the Cleveland Electric Illuminating Company. Cost \$25,000.

Columbus, O.-William Kolb, 144 E. Fulton street, and D. W. McGrath, are low bidders on erecting a two-story and basement brick and terra cotta and limestone garage and salesroom on S. Fourth and Capitol streets for the Capitol Motor Car Company. Cost about \$20,000. Plans by Architects Maetzel, Tresselt & Bassett, Central National Bank building.

Kempton, O. — Architects Leech & Leech of Lima, have plans in progress for a three-story and basement pressed brick and stone garage and armory to be erected for E. G. Leist to cost \$15,000. General contract awarded on a percentage basis to P. H. Sereff.

Morgantown, W. Va.—Architect Elmer Jacobs has completed plans for remodeling a three-story brick commercial garage for H. J. Zevely to cost \$3,000.

Columbus, O. — D. W. McGrath, New First National Bank building, received the contract to build a two-story brick and terra cotta garage and salesroom, for the Capitol Motor Car Company. Cost \$20,000.

Liens Filed for Labor and Material Furnished. ALLEGHENY COUNTY, PA.

W. F. Overly vs. A. M. Moreland, owner, and William Kerrs Sons, Contractors. Building in Seventh Ward, Pittsburgh. Cost \$1,281,00.

Charles A. Oppermann, vs. Charles E. Griffin, Elsie H. Griffin, owners. Building in Upper St. Clair Township. Cost \$5,-936.00.

McFarland & Alexander vs. Mary L. Tack, owner, and David K. Morrison, Contractor. Building in Borough of Sewickley. Cost \$160.

F. A. Requarth Company, a corporation, vs. Andrew M. Moreland, owner, and William Kerrs' Sons, Contractors. Building in Seventh Ward, Pittsburgh. Cost \$1,270,81.

Charles D. Printz vs. Andrew M. More-

land, owner, and William Kerrs' Sons, Contractors. Building in Twentieth Ward, Pittsburgh. Cost \$2,007.88.

NO LIEN CONTRACTS.

Heginbotham Brothers vs. Mrs. Ida M. Quinette. Agreement made February 14th and filed February 23, 1916, to crect a residence on lot No. 147, Bryn Mawr Farm, Wilkins Township, Allegheny County. Cost \$4,985.

MAKING CONTRACTOR S PROFITS INCREASE.

A method of letting percentage contracts, whereby the contractor can make more money by reducing the cost of a job than by increasing it, is clearly illustrated by a report made by the Master Builders' Association of Boston. The contract is drawn so that the cost of the work is not to exceed a certain sum, which includes a percentage of profit to the contractor on the actual cost, and if the contractor produces the work at a less cost than the maximum, he is allowed a bonus percentage on the amount saved such that the result will be an increased profit to the contractor. as an illustration, suppose that a maximum cast of \$10,000 is agreed upon, with a 10 per cent profit on the actual cost and a 20 per cent bonus on any saving. If the contractor makes the total cost exactly \$10,000, the actual cost would then be approximately \$9,091, and the 10 per cent profit \$909. If, however, the contractor suceeds in keeping the actual cost down to \$8,000, the accounting at the end of the job will stand thus:

Actual cost of work\$	
10 per cent profit	800
C	
Cost to owner\$	
Saving under maximum cost	1,200
20 per cent of saving paid con-	
tractor	240
Total profit to contractor	1,040

It will be observed that this leaves the contractor \$131 better off than if he had made the job cost the maximum allowed. Meanwhile, including the bonus, the owner has paid \$9,040 for the work, which leaves him a saving of \$960 on the guaranteed cost. It is best to make the bonus percentage 20 per cent, as, if it is lower, the increase in the contractor's profit for keeping the cost down will be nominal. For instance, if only 10 per cent had been allowed, the contractor's profit in the above example would have been only \$11 greater if he had done the job for \$8,000 than if he had done it for \$10,000. Extra work ordered or savings on prices are added to or deducted from the contract price, giving a new maximum.

GENERAL NEWS.

H. F. Wardwell, formerly home office manager, has been appointed general sales manager of the Detroit Steel Products Company. He succeeds P. A. Smith, who recently resigned to enter another line of business. During the past few months Mr. Wardwell has devoted his time largely to office organization, but his experience in the field and his natural selling ability give him every qualification for guiding the sales division.

Clemmer & Johnson, Hicksville, O., who have the contract to build an auditorium and armory building, at Akron, O., for the City of Akron and the Ohio National Armory Board, Columbus, have awarded the structural steel work to the Champion Iron Works, Kenton, O. The cut stone work was placed with the Hoadley Stone Company, Bloomington, Ind.

Scott A. White, Oliver building, Pittsburgh, secured the roofing and terra cotta work for the laboratory building to be constructed at East Pittsburgh, Pa., for the Westinghouse Electric & Manufacturing Company. J. A. Evers, Harvard street, Pittsburgh, received the plastering work.

The Monongahela Saw & Planing Mill Co., Monongahela, Pa., advise that the contract recently taken for the erection of a number of residences for the Pittsburgh Coal Company, at South View, Pa., numbered 60 houses instead of six as mentioned.



Classified Index of Advertisers, Arranged for Ready Reference

ARCHITECTURAL CASTINGS. Mahoning Foundry Co., Punxsutawney, Pa.

ARCHITECTURAL TERRA COTTA.

Scott A. White, Pittsburgh. Finnessy, Jas. E., Oliver Building, Pitts-burgh, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa.

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ART AND STAINED GLASS.

Hyde-Murphy Co., Ridgway, Pa. Marshall Art Glass Co., S. S., Box 139, Alle-

gheny. Twin City Art Glass Works, 110 Sandusky St., Pittsburgh.

ASPHALT SHINGLES.

Fintkote Mfg. Co., Wabash Bldg., Pitts-burgh.

H. B. Morrow, Wabash Bldg., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Vs.

BUILDING PAPER.

Saeger Brothers, Pittsburgh, Pa.

BANK AND OFFICE FIXTURES.

H. C. Bemis, Bradford, Pa.

Hyde-Murphy Co., Ridgway, Pa.

Requarth Co., F. A., Dayton, Ohio.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

BRICK JOINT RAKER.

George Grundy, 905 Gerrett St., Pittsburgh.

BUILDERS' SUPPLIES.

Hall, Harry & Brother, Homestead, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. Fiber Plaster Co., New New Kensington Rensington, Pa.

George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

BRICK MANUFACTURERS AND DEALERS.

Kennedy, D. J. Co., Pittsburgh, Pa.

Kushequa Brick Co., Kushequa, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING CONTRACTORS.

Brednich, Jacob, 243 Lella St., Mt. Washing-ton, Pittsburgh.

Brown Brothers, Broadway and Lincoln Aves., Mt. Lebanon. Kissell, D. C., 7410 Race St., Pittsburgh. Lash, D. H., 720 Grandview Ave., Pittsburgh. Rogers, Philip, 157 Moultrie St., Pittsburgh.

Wiegand, J. W., Suburban Ave., Nineteenth Ward, Pittsburgh.

CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

CEMENT COATING.

Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

CERAMIC AND TILE WORK.

Erie Mantel & Tile Co., Erie, Pa. Pittsburgh Venetian Mosaic Co., Pittsburgh.

CONCRETE FOUNDATIONS.

Garber-Erder Co., Wabash Bldg., Pittsburgh. CONCRETE MIXERS.

Easter-Emmons Co., 432 Diamond St., Pittsburgh.

General Contractors' Machinery Co., Pitts-burgh, Pa.

Contractors Machinery Supply Co., Pitts-burgh, Pa. CONCRETE HARDENER.

George C. Webb, Jenkins Arcade, Pittsburgh.

COMPOSITION FLOORS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh. Dalzell, J. Willis, House Building, Pitts-burgh, Pa.

CONTRACTORS' PUMPS.

Reineke-Wagner Pump & Supply Co., Pittsburgh

CONTRACTORS' EQUIPMENT.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-

burgh, Pa.

CORNICE WORK.

Franklin Sheet Metal Works, Franklin, Pa.
General Mfg. Co., Wheeling, W. Va.
Limbach, Frank. 1724 Lowrie St., Northside, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

- DIRECTORY BOARDS.
- J. Willis Dalzell, Pittsburgh, Pa.
 - DOOR CHECKS.

Allegheny Sales Company, First National Bank Building, Pittsburgh.

ELECTRICAL CONTRACTORS.

Carter Electric Co., Oliver Bldg., Pittsburgh. Loomis Electric Co., W. R., Wabash Building. Pittsburgh.

ELEVATORS AND DUMB WAITERS.

Marshall Brothers, South Twenty-first and Mary Sts., Pittsburgh.

ELEVATOR DOORS.

J. Willis Dalzell. Pittsburgh, Pa. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Bullding, Pitts-burgh, Pa. Watt Mfg. Co., Northside, Pittsburgh.

EXPANDED METAL.

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh, Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh, Pa.

FELT.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FIREPROOF DOORS AND PARTITIONS. Fireproof Materials Co., Pittsburgh, Pa. J. Willis Dalzell, Pittsburgh, Pa. General Mfg. Co., Wheeling, W. Va.

FIRE ESCAPES.

FIRE ESCAPES. Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa. Keystone Ornamental ron Co., Homestead, Pa. Kratzer, W. N. & Co., Smallman St., Pitts-burgh. Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

FLOOR HARDENER.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FLOOR SURFACING.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh. Wayvell, Chappell & Co., Chicago, Ill.

FLOOR AND WALL PAINTS. General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FOUNDATION CASTINGS. General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FURNACES, STOVES AND RANGES.

Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.

GYPSUM BLOCKS. J. Willis Dalzell, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

HARDWOOD DOORS.

Hyde-Murphy Co., Ridgway, Pa.

HARDWOOD FLOORS. Empire Flooring Co., Jenkins Arcade, Pitts-

burgh. HOUSE PUMPS. Reineke-Wagner Pump & Supply Co., Pitts-

burgh.

INTERIOR TRIM.

Dalzell, J. Willis, Pittsburgh, Pa.
Herdman Sash, Door & Lumber Co., Zanes-ville, Obio.
H. C. Bemis, Bradford, Pa.
Hyde-Murphy Co., Ridgway, Pa.
Orner Woodworking Co., DuBois, Pa.
Requarth Co., F. A., Dayton, Obio.

INTERIOR MARBLE WORK.

Erie Marble & Tile Co., Erie, Pa. Pittsburgh Marble Co., Builders' Exchange, Pittsburgh, Pa. Standard Mantel & Tile Co., Pittsburgh. E. J. Walker, Pittsburgh, Pa.

INTERIOR MILL WORK.

Dalzell, J. Willis, Pittsburgh, Pa. Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio. Hyde-Murphy Ce., Ridgway, Pa. Orner Woodworking Co., DuBois, Pa. Requarth Co., F. A., Dayton, Ohio.

IRON FENCING.

Keystone Ornamental Iron Company, Homestead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SHEET IRON ROOFING AND SIDING.

William Patridis & Co., Curry Bldg., Pitts-burgh.

IRON STAIRWAYS

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Keystone Ornamental Iron Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

JOIST HANGERS.

Keystone Ornamental Iroa Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

LIGHT IRON FURRING.

J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

LIGHTING FIXTURES.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

LIME. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

MILL WORK. H. C. Bemis, Bradford, Pa. Herdman ash, Door & Lumber Co., Zanes-ville, O.

MANTELS AND TILES.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Hyde-Murphy Co., Ridgway, Pa. The Grafi Company, 955 Liberty St., Pitts-burgh, Pa. Standard Mantel & Tile Co., Pittsburgh, Venango Mantel & Tile Co., Franklin, Pa.

METAL CELLAR DOORS. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

METAL LATH.

METAL LATH. Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh, Kennedy, D. J. Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

ville, O. Hyde-Murphy Co., Ridgway, Pa.

METAL DOORS. J. Willis Dalzell, Pittsburgh.

Classified Index of Advertisers, Continued

METAL LATH CONSTRUCTION.

J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

METAL SPINNING.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

MORTAR COLORS.

Wheeling Wall Plaster Co., Wheling, W. Va. Kennedy, D. J. Co., Pittsburgh, Pa.

NON-STAINING CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

ORNAMENTAL IRON WORK.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa.

Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa. Keystone Ornamental Iron Co., Home-stead, Pa.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Moss Iron Works, J. E., Wheeling, W. Va. J. Willis Dalzell, Pittsburgh, Pa.

Tyler Co., The W. S., Bessemer Bldg., Pitts-burgh.

Vilsack, Martin Co., Ltd., 3226-30 Penn Ave., Pittsburgh.

Watt Mfg. Co., Northside, Pittsburgh.

PARQUET FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh

PITCH.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

PLASTER BOARD.

Kennedy, D. J. & Co., Pittsburgh. Pa. Wheeling Wall Plaster Co., Wheeling, W. Va. McDade Company, Alex., The, 1121 Glen St., Wilkinsburg, Pa.

PRIVATE WATER SYSTEMS.

Dowie Water Well Co., Jenkins Arcade, Pitts-burgh, Pa. Reineke-Wagner Pump & Supply Co., Pittsburgh.

QUARRY TILE.

Kushequa Brick Co., Kushequa, Pa.

RAGGLE BLOCK.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

REINFORCING MATERIAL.

Fireproof Materials Co., 320 Liberty St., Pittsburgh.

Kennedy, D. J. & Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. New Kensington Fiber Plaster Co., New Kensington, Pa. Witherow Steel Co., Pittsburgh, Pa.

ROOFERS (TIN AND SLATE).

Blank, Herman, 5152 Coral St., E. E., Pitts-

Blank, Herman, 5152 Corat St., E. B., 1995
burgh.
Helt, George P., 1915 Sedgwick St., N. S., Pittsburgh.
Hill Top Roofing Co., Bell Phone, 954-J Hill, Pittsburgh.
South Hills Hardware Co., West Liberty, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

ROOFERS (GRAVEL, SLATE AND TILE).

Hahn Brothers, Pittsburgh, Pa.
Hahn Brothers, Pittsburgh, Pa.
Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
Scott. A. White, Pittsburgh.
South Hills Hardware Co., West Liberty, Pittsburgh.
Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.
Wheeling Wall Plaster Co., Wheeling, W. Va.

ROOFING MATERIALS.

Alling & Corey, Pittsburgh, Pa. Hahn Brothers, Pittsburgh, Pa. Fintkote Mfg. Co., Wabash Bldg., Pitts-burgh.

- Kennedy, D. J. Co., Pittsburgh, Pa.
- Saeger Brothers, Pittsburgh, Pa. H. B. Morrow, Wabash Bldg., Pittsburgh.
- Scott A. White, Pittsburgh.
- Hills Hardware Co., West Liberty, Sor th Pittsburgh.
- Wh, eling Wall Plaster Co., Wheeling, W. Va. SAFETY TREADS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh. Fireproof Materials Co., Pittsburgh, Pa.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SAND AND GRAVEL. American Sand & Gravel Co., Erie, Pa.

Erie Sand & Gravel Co., Erie, Pa.

- Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.
- Wheeling Wall Plaster Co., Wheeling, W. Va.
- SASH AND DOORS. Herdman Sash, Door & Lumber Co., Zanes-ville, O.
- Orner Woodworking Co., DuBois, Pa.

SASH WEIGHTS. Mahoning Foundry Co., Punxsutawney, Pa.

SCAFFOLDING.

Independent Scaffold Co., Pittsburgh, Pa.

SEWER PIPE.

Kennedy, D. J. Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

SHEET METAL WORK.

Franklin Sheet Metal Works, Franklin, Pa.

General Mfg. Co., Wheeling, W. Va. Limbach, Frank, 1724 Lowrie St., Northaide,

Limbach, Fran Pittsburgh.

W. H. Knodell, 5 Pittsburgh, Pa. 510 Weiser St., Northside,

SIDEWALK LIGHTS.

Albert Grauer & Co., 216 E. Reliance St., Northside, Pittsburgh.

Kratzer & Co., W. N., Smallman St., Pitts-burgh, Pa.

Mullen Brothers Company, Fulton Building, Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SKYLIGHTS AND VENTILATORS.

General Mfg. Co., Wheeling, W. Va.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

STAIR WORK.

H. C. Bemis, Bradford, Pa.

Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio.

Hyde-Murphy Co., Ridgway, Pa.

Orner Woodworking Co., DuBois, Pa.

STONE DEALERS AND CONTRACTORS. Challis, D. W. & Sons, Sewickley. McCabe, H. C., Elizabeth St., Pittsburgh.

Hall, Harry & Brother, Homestead, Pa. Storch & Sons, V., Carrick, Pittsburgh.

STONE MASONS.

Navarro, P., 1240 Grotto St., Pittsburgh, Pa.

STRUCTURAL STEEL ERECTORS.

Abbott, Eli, Builders Exchange, Pittsburgh. Alliance Structural Co., Alliance, O. Eichleay, Jr. Co., John, Pittsburgh. Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Moss Iron Works, J. E., Wheeling, W. Vs.

STRUCTURAL STEEL PAINTING.

William Patridis & Co., Curry Buld., Pitts-burgh.

SUSPENDED CEILINGS. J. C. Baxendell, Mt. Oliver, Pittsburgh.

TERRAZZO WORK.

Pittsburgh Venetian Mosaic Co., Pittsburgh.

TILE (DECORATIVE).

TRUSSIT METAL.

VAULT LIGHTS. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

VENTILATORS. Dalzell Bros. Co., Youngstown, O. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WALL BOARD.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL LINING. Empire Flooring Co., Jenkins Arcade, Pitts-burgh.

WALL PLASTER.

New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL PLUGS.

Allegheny Steel Band Co., Northside, Pitts-burgh, George C. Webb, Jenkins Arcade, Pittsburgh, Bostwick Steel Lath Co., Niles, O.

WALL TIES.

Allegheny Steel Band Co., Northside, Pitts-burgh. Bostwick Steel Lath Co., Niles, O. Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

WATERPROOFING.

Fireproof Materials Co., Pittsburgh, Pa. General Waterproofing Co., Century Bldg. Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh Wheeling Wall Plaster Co., Wheeling, W. Va Witherow Steel Co., Pittsburgh.

WATER WELL PUMPS.

Reineke-Wagner Pump & Supply Co., Pitts-

WIRE FABRICS.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WIRE GUARDS.

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Keystone Ornamental Iron Co., Home-stead, Pa.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Moss Iron Works, J. E., Wheeling, W. Va.

Tyler Co., W. S., Bessemer Building, Pitt-burgh, Pa Vilsack, Martin Co., Ltd., 3226-58 Phen Ave. Pittsburgh.

Fireproof Materials Co., Pittsburgh.

Witherow Sieel Co., Pittsburgh, Pa.

burgh.

Kennedy, D. J. & Co., Pittsburgh, Pa.

Fireproof Materials Co., Pittsburgh.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa. E. J. Walker, Pittsburgh, Pa.



Wheeling Wall Plaster Co. Wheeling, W. Va.

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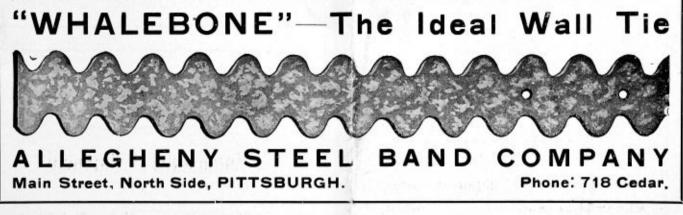
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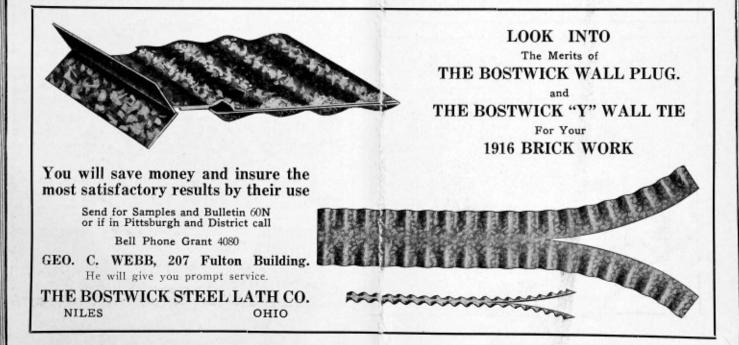
ORNAMENTAL IRON

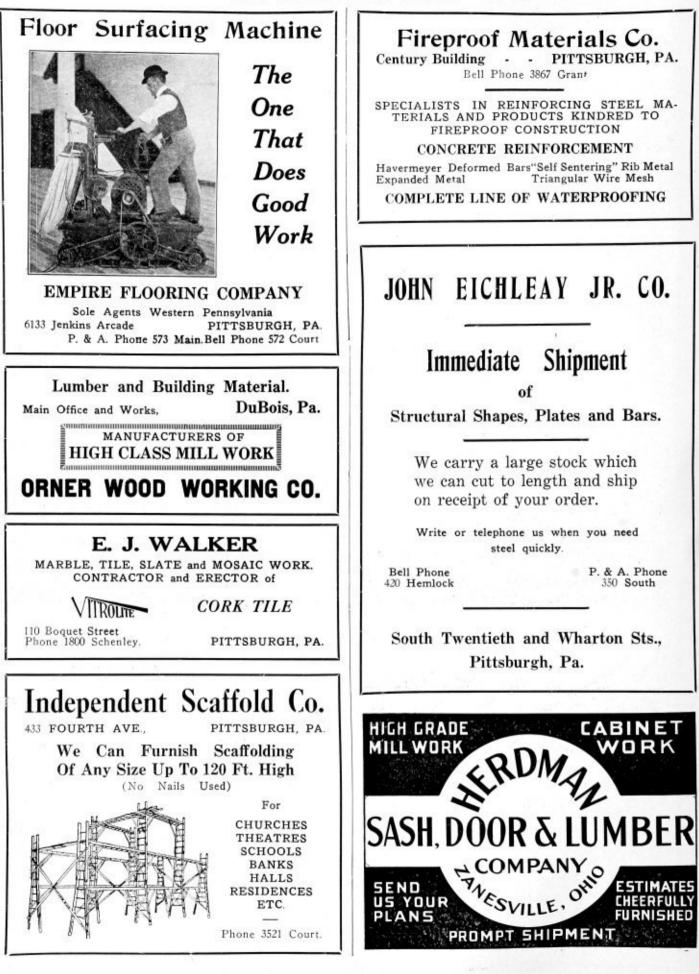
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NEW. PLANT FOR METAL ROOFING INTERESTS.

The Asbestos Protected Metal Company, First National Bank building, Pittsburgh, is having plans drawn by its engineering department for five new buildings to be erected at Ambridge, Pa. These buildings will be one- and twostories high, and will be one- and twostories high, and will be of steel frame, some of which will have brick walls and the others cement stucco on metal lath. All the material will be purchased by the owners who will do the building.

SCHOOL BIDS BEING TAKEN.

Architect Frank L. Packard, Hayden building, Columbus, O., is about ready for bids on the construction of a \$65,000 high school building at Tippecanoe City, O., for the Board of Education. Fred Grant, clerk. The building will contain 12 class rooms, chemical and physical laboratories, study hall and offices and will be constructed of brick, limestone trim, reinforced concrete floor and roof construction, yellow pine interior, etc.

START UNIVERSITY ADDITION PLANS.

Two new buildings are to be added to the West Virginia University, Morgantown, W. Va., for which plans are soon to be started by Architect Paul T. Davis,

1713 Sansom street, Philadelphia. One building will be used for dormitory purpose and the other as an agricultural school. Both buildings will be of brick construction with stone or terra cotia trim, fireproof floors, etc. About \$250,-000 will be expended.

MACHINERY PLANT TO ENLARGE

The Ajax Manufacturing Company, Cleveland, O., is having plans made by the Burchard, Roberts, Wales Company, Swetland building, Cleveland, for a new brick and reinforced concrete building 60x130 feet, two stories high and two other buildings 60x125 feet each, the entire work to cost \$60,000. The floors will be of creosoted wood block and concrete while the roofing will be of cement tile and wood frame. Other requirements will consist of hollow metal doors, solid steel window sash, electric elevator, etc.

ELYRIA TO HAVE LARGE BUILDING.

Working drawings are soon to be started by Architects Walker & Weeks, 1900 Euclid building, Cleveland, O., for a ten-story brick, and steel frame bank and office building for the Lorain County Savings & Trust Company, Lorain, O. The structure will be 42x120 feet and is to have hollow tile partitions, skylight, marble and tile work, terrazzo flooring, composition roofing, etc. The steam heating, electric work, plumbing, elevators, etc., will be included in the general contract. Working drawings will be completed about April 1.

WRITING SPECIFICATIONS FOR COLLEGE BUILDING.

Architects Joseph G. Steinkamp & Brothers, 414 Walnut street, Cincinnati, are now writing specifications for the college building to be constructed on Dana avenue, Cincinnati, for the St. Xaviors College. The group of buildings will consist of a main structure 114x273 feet, three stories; faculty building 114x250 feet, three stories; two-story gymnasium 99x159 feet, dining hall, etc. All buildings will be of brick and terra cotta trim with reinforced roof and floor construction. General and separate bids will be taken on the faculty building about March 15th.

TAKE BIDS ON NEWBURG LODGE BUILDING.

Estimates are being taken to close on the 15th inst for constructing the proposed lodge building for the Newburg Masonic Temple Company, Newburg, O., plans for which came from Architect W. J. Carter, Illuminating building, Cleveland. The structure will be three stories and basement and will have brick exterior, reinforced concrete foundations, limestone trimmings. Specifications include roofing tile, ornamental terra cotta, cut stone, reinforcing steel, hollow building tile, metal lath, structural steel, waterproofing, tar and gravel roofing, terrazzo floors, yellow pine interior finish, maple flooring, etc. The building will cost \$70,000.

NOT TO RUSH PLANS.

The grounds and building committee of the Board of Education, Johnstown, Pa., has decided to take sufficient time to properly plan the proposed junior high school building. Architects J. E. Lucas. George Wild and J. E. Adams will confer with Architect Henry Hornbostel, New York, regarding the details to be worked out. The board of officials agree that a modern gymnasium shall be built on the top floor of the building with the domestic science and manual training departments in the basement. There is to be a large auditorium with balcony and elevated platform. The exact number of class rooms has not been determined.

ADDITION TO HOSPITAL BUILDING.

Plans have been started by Architect E. F. Stotz, Monongahela building, Pittsburgh, for the new addition to the Mercy Hospital, Pride, near Forbes street, Pittsburgh. The structure will be three stories high and will be of brick construction with steel frame, ornamental terra cotta and standstone trimmings, fireproof roof and floor construction. About \$500,000 will be spent on the work. Other materials required will consist of composition roofing, metal lath, hollow tile for partition work, oak interior trim, patent plastering, marble for base and toilets, tile flooring, ornamental iron stairway, fire doors, etc. No date has been set for taking bids.

High School Building for Wilcox, Pa.



The Board of Education, Wilcox, Pa., is to have one of the finest constructed school buildings in that section of the state and will be built along the best lines of architecture for such purposes. Architects Hersh and Hersh, Altoona, Pa., have about finished the plans and

RECORDS ON BUILDING WORK.

Following are comparative statistics of building and engineering operations in New England, New York, New Jersey, Pennsylvania, Maryland, Delaware, District of Columbia, Virginia, Ohio, West Virginia, Illinois, Indiana, Iowa, Wisconsin, Michigan, Minnesota, North and South Dakota and portions of Missouri and Eastern Kansas, during February, for the past five years, as compiled by the F. W. Dodge Company: Contracts awarded Feb., 1916. \$66,280,500 Contracts awarded Feb., 1915. . 48,827,400 Contracts awarded Feb., 1914. . 39,062,000 Contracts awarded Feb., 1913. . 70,064,500 Contracts awarded Feb., 1912. . 42,094,500

Operations in Western Pennsylvania, West Virginia and Ohio, were as follows:

Contracts awarded Feb., 1916..\$ 7,050,000 Contracts awarded Feb., 1915.. 6,436,000 Contracts awarded Feb., 1914.. 6,307,000 Contracts awarded Feb., 1913.. 12,459,000 Contracts awarded Feb., 1912.. 2,305,000

ICE PLANT FOR CANTON.

The Water Ice Company, Canton, O., now being organized by Press Campbell, 208 Reynolds Place, F. W. Crowfoot, 317 Fourth street, and others of Canton, will build a brick, steel frame and reinforced concrete building 90x100 feet, one and two stories high, from private plans specifications and bids on the general contract will be taken about the 20th inst. The building will be two stories and basement, covering an area of 62x134 feet. It will have stone foundations, cut stone trimming, face brick exterior, modern plumbing, heating and electric work, maple flooring, slag roofing, etc.

LAST WEEK'S BUILDING.

The largest single contract awarded during the past week aggregated \$300,-000 for a steel bridge to span the Ohio River at Steubenville, O., for the La-Belle Iron Works, followed by an orphanage building at Cresson, Pa., amounting to \$100,000. School house construction throughout the territory amounted nearly a quarter of a million dollars, while residence work did not run as heavy as the previous week. The total value of contracts, awarded in Western Pennsylvania, Ohio, and West Virginia, compiled from Dodge reports, show the following figures: Total work awarded for year

to date\$ Total work awarded for week	16,361,000
ending March 8 Total work awarded for week	1,724,000
ending March 1	1,432,000
Residence and apartment work for week of March 8	184,000
Warehouse and manufacturing work for week of March 8	211,000
Miscellaneous work for week of March 8	1,325,000
Total contracts placed during January 1916	7,343,000
February 1916 Total contracts placed during	7,050,000

ROUGH TEXTURE BRICK NOT SATISFACTORY.

BY T. P. CUTHBERT.*

The vogue of rough texture brick, particularly during the last three years, has brought about an almost complete revolution in the brick business. Six or seven years ago we frequently heard the question asked:—"Who started the use of rough texture brick?" I don't think that question has ever been satisfactorily answered, but we all know that it got its real start about that time, and we know that a great deal of money was expended by both face-brick manufacturers and dealers everywhere in establishing this demand.

The total amount expended in this way, owing to the frequent changes in displays necessitated by changes in the texture of brick, must have been enormous. And if we add to this the money that has been spent in laying up special panels of texture brick for the individual inspection of special customers, the total amount would actually run into the hundreds of thousands of dollars. Almost any brick salesman or dealer can furnish a list of many jobs where the expense of laying up special panels of rough face-brick has amounted to more than the total gross profit of the dealer who secured the order.

This practice goes a long way toward explaining why few dealers have made satisfactory profits during recent years, and also why so many of the older and more conservative dealers, some of whom may be said to have fathered the face-brick business in this country, express dissatisfaction with present conditions, for there were no such extraordinary expense connected with the sale of smooth face brick.

Six or eight years ago, when only "good" rough texture brick were made, when quality was considered rather than price, they were probably profitable to both manufacturer and dealer. Since then, while the cost of selling has steadily increased, both price and quality have come in a straight line downward, until the profits once made on these brick have reached or passed the vanishing point, and the price obtained for smooth face-brick has been pulled down, along with the price for roughs.

Is there anything surprising about present conditions? It would seem not. We are getting just exactly what we should have expected and what some of our oldest face-brick dealers actually anticipated. When you take a well made face-brick, wire-cut the face, scratch it

* Paper read before the American Face Brick Association. up into a so-called rug or otherwise mutilate it, you destroy the very qualities that make it a face-brick; it loses its class, and becomes an absorbent dust and dirt catcher. While on the other hand, if a common brick is treated in a similar manner, its crudeness and the imperfections that identify it as a comcon brick fit only for backing-up, are covered, and it is elevated to a point where "rough texture" face-brick and "rough texture" common brick will sell for about the same price.

This means an extra profit for some of the scores of common brick manufacturers, who have been boosted into the face-brick business by this craze for rough texture brick; but it spells nothing less than ruination for many of the best known men in the face-brick business.

By the roughening process, the improvements that have been made in facebrick during the last two generations, as well as the expensive equipment on many face-brick plants in all sections of the country, are neutralized and made of little or no account.

In order to accurately forecast what the rough texture brick has in store for us in the future, we have only to look backward and consider what it has done for us in the recent past, and what it is now doing.

What effect has the craze for rough texture brick had on the manufacturers of high-grade red brick? Six years ago in a certain section of Pennsylvania there was located a group of four manufacturers of high-grade red brick. They were doing a large business in all sections of the country, many brick being exported. To-day but two of these factories remain in the face-brick business, and although one of these is making "rough texture" brick, as well as smooth, the total shipments of facebrick from that section is probably less than 20 per cent of what it was five years ago.

In a certain district in Ohio there are six face-brick factories, most of them until three or four years ago—prosperous, going concerns, their products well known. The production of these factories during recent years has been less than 50 per cent of normal, yet their stock sheds are fairly bulging with brick, and when such plants as these and some of the best known manufacturers of red brick are having a hard struggle to keep their heads above water, it is time for every one of us to give some serious consideration to the cause of these conditions.

In the Ohio and Beaver valley sections, some of the manufacturers of mottled brick have had a similar experience. The production of this type of brick has been more than cut in half during the past five years, and many factories have been driven into the paving brick business or have been forced to shut down entirely.

Some have been inclined to explain these conditions by a general fall-off in the demand for face-brick, or to depressed general business conditions, but this is not correct; it is a fact that the percentage of buildings, particularly houses, in which face-brick have been used, has rapidly increased during recent years, and the demand for facebrick has shown a corresponding increase in spite of general business conditions.

Shipments of face-brick in this country have actually increased almost 33 per cent during the last six years and the largest three years we have ever had, with one single exception, have been the last three. Nor can we give rough texture brick the credit for being responsible for this increase, as the very largest year the face-brick business ever enjoyed was 1909, when rough texture brick made up a very insignificant part of the total.

The business of most face-brick manufacturers has shriveled up, not because of general business conditions, but because of the craze for rough texture brick. But this is not all of it—it is not even the worst of it. The average price of all legitimate face-brick made in this country, whether smooth or rough texture, has gone downward, simply as the result of the influence rough texture brick have had on the business, and in spite of the fact that the price of practically every other manufactured article has gone in a constant, straight line upward.

What excuse was there for this craze for "rough texture brick?" To my We will mind there was very little. grant that there are certain jobs where rough brick seem to fit and, with climatic and other conditions taken into consideration, they are good. Previous to three years ago a medium shade of rough texture brick were used in a house on Shady avenue, Pittsburgh. Immediately adjoining this house the same builder also used smooth brick of the same shade. After they were finished. it was almost impossible even for a man in the face-brick business to see any difference between the two brick, even from across the street. These houses are now about six years old-one job is of a greasy appearance and extremely dirty, while the other presents almost exactly the same appearance as it did when finished. Cases that parallel this can be found in all sections of the country. It makes no difference whose rough texture brick is considered and it makes no difference whether they are made on common brick plants or on face-brick

plants, the story is the same; they get dirty, and if they are soiled and dirty at the end of a very few years what will happen to them in 10 or 20 years?

Have the brick dealers been benefited by the craze for roughs? Many of them have not. Old established concerns whose names are known to all, have expressed dissatisfaction with the conditions that have been brought about by rough texture brick. Several of them expressed their intention of openly opposing the sale of rough texture brick and of instructing their salesmen accordingly.

Can brick dealers bring their business back to the old footing by pushing the sale of smooth texture brick? This can be done, in fact it has already been done in Philadelphia, where rough texture brick were rapidly obtaining a foothold, exactly the same as they were doing elsewhere.

A year or two after the craze started, it suddenly stopped. There were just three reasons for this, but to mention these reasons would simply be to mention the names of the three leading brick manufacturers and dealers in the city of Philadelphia. These men had foresight, where most of us had only hindsight.

In my opinion one of the best ways to kill off common brick competition is for manufacturers of face-brick, particularly manufacturers of red face-brick, to make smooth face-brick in all the varying shades in which they have been making rough face-brick, including the flashed brick with red cores and blue and brown edges and other markings, and for them to make them as smooth and perfect as possible.

Such a brick will lend itself to artistic bricklaying quite as well as a rough texture brick of the same shade. The principal difference between the two brick will be that the smooth brick will have a better and cleaner cut appearance in the wall and the man who sells it can say it will stay clean without endangering the future of his immortal soul

COLUMBUS OFFICE BUILDING BEING FIGURED.

Estimates are now being received by Architects Richards, McCarty & Bulford, Ruggery building, Columbus, O., on the erection of a six-story brick, terra cotta and stone trim bank, store and office building 187x621 feet for the Citizens Trust & Savings Bank, Columbus, O. The construction work will call for reinforcing steel, cement, face brick, terra cotta, cut stone, metal sash, sidewalk lights, patent store fronts, composition and wood flooring, tin clad fire doors, etc Estimated cost \$400,000. CONCISE BUILDING INFORMATION Authentic Building News on New Dwellings, Stores and Offices, Churches, Schools, Theatres, Etc. These verified reports appear in advance of all other trade publications.

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Pittsburgh.

A store and apartment building 40x120 feet, three stories, is to be built at Wilkinsburg, from plans of Architect W. E. Snaman, Empire building. Owner's name withheld.

The same architect is preparing plans for a two-story brick and frame store and apartment building 25x90 feet, to be constructed in Millvale, for George B. King, 504 Grant avenue, Millvale. Plans will be ready for bids next week.

Bids are to be asked soon by Architect D. Simpson, Wabash building, for building a 2½-story brick residence, in Dormont, to cost \$7,000, for Mr. Mc-Cullough, care architect.

Architect W. G. Wilkins, Westinghouse building, is taking bids to close March 13, on the erection of a twostory brick armory on Emerson street, for the State of Pennsylvania, Armory Board. Cost \$60,000.

Samuel Austin & Sons Co., 14230 Euclid avenue, Cleveland, received the contract for rebuilding a one-story brick and steel factory on Sixty-third and Butler streets, for Hubbard & Co., Sixtythird and Butler streets. Cost \$60,000.

David Lash, 720 Grandview avenue, Mt. Washington, received the contract to build two brick duplex residences on Grandview avenue, for David Mallory. The work will cost \$11,000.

The contract for altering the bakery building of the Ward Baking Company, 3100 Liberty avenue, has been placed with Walker & Curley, Bessemer building. The work calls for general interior alterations and will cost \$18,000.

Architect E. B. Lang, 804 Penn avenue, has about completed the plans for a one-story brick and stone church building, 70x120 feet, for the St. Marks Roman Catholic Congregation, McKees Rocks. Bids will be asked soon.

Plans have been started by Architect Edward F. Stotz, Monongahela Bank building, for the three-story brick, stone and ornamental terra cotta addition to be built to the Mercy Hospital. Estimated cost \$500,000.

Architect W. A. Thomas, Park building, has completed plans and is writing specifications for the theatre and apartment building, to be constructed on Wylie avenue and Charles street, for Joseph Sochatoff, Wylie avenue. The building will be 22x120 feet, three sories, and will cost about \$20,000. Bids are to be taken at once.

Plans will be revised by Architects Carlisle & Sharrer, Jenkins Arcade, for a \$10,000 residence to be erected at Edgewood Acres, for William Eugroff, East Pittsburgh, and bids asked at once.

Revised plans have been completed for building two lockkeepers' residences on Second avenue, for the United States government, Col. Shunk, engineer, Farmers Bank building. Bids will be taken shortly.

Architects Conwell, Rowland & Hutchins, Conestoga building, have been retained by John Callabrase, McKees Rocks, to prepare plans for a threestory brick store and apartment building, to cost about \$15,000.

Plans will soon be completed by Architect F. A. Park, 5435 Kincaid street, for a two-story brick veneer residence, to be erected on Greenfield avenue, for William Z. Fox, 7341 Center avenue. Bids will be taken next week.

The East End Christian Church, Alder and Highland avenues, will have a \$50,000 addition built from plans which will come from Architect Ellsworth Dean, Fitzsimmons building. The new building will contain school and auditorium, bowling alleys, gymnasium, etc.

Bids are to be taken on revised plans by Architects Carlisle & Sharrer, Jenkins Arcade; for building a 1½-story brick and hollow tile bungalow on Davis avenue, Northside, for P. W. Schmidt, 832 N. Lincoln avenue. Estimated cost \$5,000.

The Neville Island Presbyterian Church is having plans made by Architect C. Hodgden, Penn building, for a one-story brick and hollow tile church building, to cost about \$20,000. Plans will be ready for bids in about a week.

Bids are being submitted for constructing a brick veneer, frame and shingle bungalow at Edgewood Acres, for W. S. Weible, care Westinghouse Electric & Manufacturing Company, East Pittsburgh. Plans were made by Architect W. E. Snaman, Empire building.

Bids close on the 16th inst. for constructing a one-story brick building 45x 180 feet, at Twelfth street and Liberty avenue, for the Pennsylvania Railroad Company. The building will contain 10 store rooms and garage. Plans came from Architect W. H. Cookman, Broad Street Station, Philadelphia.

Architect John A. Long, Benedum-Trees building, has plans nearing completion for a one-story brick post office building to be constructed in Homewood between Susquehanna and Finance streets for Henry Kreiling, 6216 Penn avenue. Cost \$7,000. Plans will be ready for bids shortly and building to be completed for United States Government by May 1st.

Architect Louis Stevens, Columbia Bank building, has started plans for sixteen 2½-story brick and hollow tile and stucco residences to be erected in Oakland between Lathrop and Darragh streets, for the Schenley Farms Company, 201 Tennyson avenue Cost \$10,-000 each.

Dr. J. J. Schill, 3709 Butler street, is taking bids to close this week on the erection of a two-story brick and reinforced concrete commercial garage on 3706-08 Butler street. Plans by Architect D. A. Dyche, 130 Collins avenue.

Louis O. Brosie, Highland building, will award sub-contracts soon for building two double residences in Dormont. These will be of brick and hollow tile construction and will cost \$4,000 each.

Architect L. O. Brosie, Highland building, is planning four brick and hollow tile residences to be constructed on Spahr street for A. E. Sedile, 5637 Ripbey street. Owner builds and awards separate contracts.

W. C. & J. D. Smith, Spahr and Alder streets, have private plans for a twostory brick and hollow tile duplex residence to be built on Penn avenue and Trenton street, Wilkinsburg. Cost \$4,-000.

Architect S. F. Heckert, Bessemer building, is working on plans for a threestory brick and terra cotta trim laboratory building 125x140 feet to be built for the St. Francis Hospital, Forty-fifth street. The work will cost \$50,000.

Bids on the construction of the George Westinghouse school building for the Board of Education, Fulton building,

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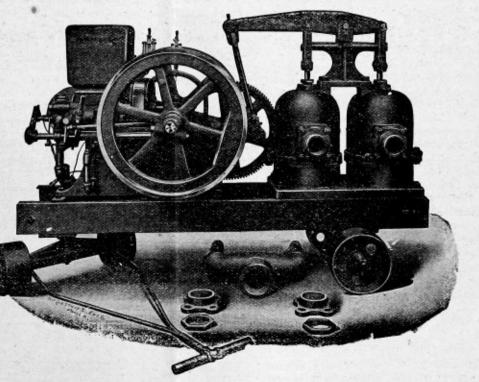
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WHO IS PLANNING • WHO IS BUILDING • WHO IS BUYING

will probably be asked about April 15th. Some slight changes are to be made to the plans by Architects George S. Orth & Brother, Farmers Bank building.

Louis Wolf, 104 Freeland street, will start excavations soon for a duplex residence to be built on Kingsboro street for Fred S. Hazelbarth, 108 Craighead street.

Bids close on the 16th inst for constructing a two-story brick veneer residence in Ben Avon for J. H. Watt, Laurel and Watt avenues, Ben Avon. Plans by Architects W. E. Snaman, Empire building.

Separate bids are being taken by George Zortman, 812 Bessemer building, for the erection of a two-story brick veneer and frame apartment building, to be built on Jackman avenue, Avalon. The building will measure 46x58 feet, and cost about \$13,000.

Bids are in and the contract will soon be awarded for constructing two brick veneer residences on Brighton Road, Northside, for Martin Boschert, 3862 Brighton Road. The work will call for rubble stone foundations, yellow pine floors and interior trim, cement basement floors, etc.

Schutz, Schreiner & Clyde, May building, received the contract to remodel a store building on Wood street, for the James B. Bennett Company. The work will cost \$15,000.

W. N. May, Aspinwall, received the contract to build a three-story brick and stone trim club house on Mt. Washington for the South Hills Republican Club. The heating, electric work and plumbing are included in the contract.

Architect S. L. Rosseau, 3622 California avenue, Northside, is ready for bids on the erection of a two-story brick and hollow tile store and auditorium on Lincoln avenue, Bellevue, for a party whose name is withheld. Cost \$10,000.

Apartments and Dwellings.

Toledo, O. — Bids are being taken for constructing a two-story brick and limestone trim residence and garage, for Peter Brown, 601 Close building. Plans were drawn by Architects Bates & Gamble, Close building. Estimated cost \$15,-000.

Winters & Clark, Nicholas building, will build 20 frame residences to cost about \$2,200 each. Work will require wood shingle roofing, hot air heating, electric work, etc. Uniontown, Pa.—Bids will close about the 15th inst. for building a three-story brick and cut stone trim apartment building 23x85 feet, for Mrs. E. L. Kramer. Plans were made by Architect J. H. Harmon, Uniontown.

Akron, O. — Randall & Weiser, N. High street, received the contract to build a two-story brick and stucco residence and garage on Maple street, for Walter Dickson, Wilbeth Road. The work will cost \$10,000.

Architect J. H. Cramer, Conestoga building, Pittsburgh, has completed plans and specifications for a \$10,000 residence, to be built for Edward Nall. Bids are to be taken at an early date.

Alliance, O. — Bids are to be asked about the 15th inst. for building a brick residence for William Carson, E. Market street. Private plans. Building will have slate or asphalt roofing, hot air heating, electric wiring, etc.

Cincinnati, O.—Charles Owens, Glenn building, has private plans for a 2½story brick duplex residence, to be constructed in Hyde Park. Cost \$6,000. Bids are to be taken about the 15th inst.

Cleveland, O. — George R. Mitchell, 5 Roxford Road, East Cleveland, is having preliminary sketches submitted for a two-story Colonial residence and garage, to be built on Lake avenue and W. One Hundred Tenth street. Estimated cost \$15,000.

Willard Genrich, Scranton Road, contemplates building a 2¹/₂-story brick residence, to cost \$9,000. An architect will be selected about April 1.

Separate bids will be taken by Edwin W. Paul, Citizens building, for constructing a 2½-story brick residence and garage on Leighton Road, Cleveland Heights. Private plans. Estimated cost \$8,000.

E. F. Heitmeyer, 2253 E. Eighty-third street, has private plans for two twostory duplex residences, to be built near Kinsman Road, Cleveland Heights. Cost \$8,000.

The contract for building a 2½-story brick residence on Wellington Road, Cleveland Heights, for A. M. Throckmorton, 1513 E. One-Hundred and Eighteenth street, will probably be awarded this week. Architect J. M. Bostwick, Leader-News building, made the plans.

Ellwood City, Pa. — Plans and specifications have been completed by Architects Carlisle & Sharrer, Jenkins Arcade, Pittsburgh, for a 2½-story brick veneer and hollow tile residence, for W. J. Kirk, Spring avenue. The work will cost \$8,000.

Huntington, W. Va. — C. W. Phellis, R. & P. building, will take bids on the superstructure work for a 2½-story brick and hollow tile residence and garage, to cost \$25,000. Plans came from Architect E. N. Alger, R. & P. building.

The same architect is working on plans for a two-story brick residence eto cost \$8,000, for J. W. Lawton, Tenth street.

Irwin, Pa. — Preliminary sketches are being made by Architect Thomas Hannah, Keenan building, Pittsburgh, for a two-story brick and cut stone trim residence, for George W. Fink, Main and Second streets.

Perrysburg, O.—A cottage and several farm buildings are to be built for George P. Greenhalgh, Toledo, O., from plans now under way by Architect Alfred Hopkins, 101 Park avenue, New York City. Bids on the general contract will be taken in the near future.

Sandusky, O. — Architects O'Donnell & Wolfe are working on plans for a twostory brick veneer residence, to cost \$7,000, for private parties. Bids will be asked about the 15th inst.

Sharon, Pa. — A. Wishart & Sons Co., received the contract to build a duplex residence on Prindel avenue, for E. T. Thomas, 15 Logan avenue. Cost \$4,500.

Alliance, O. — The Geiger Realty Company, 526 F. Main street, contemplates building about 75 frame residences, to cost about \$2,500. Owner will build and buy all material. Private plans.

Canton, O. — Melbourne Brothers, Fifteenth street, N. W., will start work April 1, on a \$20,000 gate lodge, to be built for H. H. Timkin, 1014 Market avenue. Architect H. D. Gilchrist, Frick building, Pittsburgh, prepared the plans.

Cleveland, O. — Piscope Brothers, 12122 Murray Hill Road, will start work soon on the erection of a two-story brick and hollow tile apartment building, on E. Ninety-third street. Subcontracts will be awarded for all work.

N. C. Brooks, 605 E. One Hundred and Seventeenth street, received the contract to build a two-story brick apartment building on Bellefield avenue, Cleveland Heights, for J. H. McCall, Hickox building. Cost \$12,000.

B. Tusha, E. Seventy-ninth street, near , St. Clair avenue, will award separate



NEWS FOR CONTRACTORS AND MATERIAL DEALERS

contracts for constructing a two-family residence on the Hayden allotment. Private plans.

Architect George Rudolph, 5217 Woodland avenue, is revising plans for a twostory brick apartment building, to be constructed for J. Selikovita, 2345 E. Sixty-third street. Bids will be taken about April 1.

Working drawings will soon be started by Architect T. R. Disbro, 3170 Oak Road, for a 2½-story brick residence and garage, to be constructed on Fairmont Boulevard, for M. P. Reynolds, 7704 La-Grange avenue. Bids will be taken April 1.

Plans have been completed by Architect A. M. Keller, 13438 Fourth avenue, E. Cleveland, for a two-story brick and hollow tile apartment building, 40x80 feet, for Piscope Brothers, 12122 Murray Hill Road. Owners will do all work.

Lakewood, O. — Architect B. W. Corning, Schofield building, Cleveland, will award separate contracts for building a two-story frame residence on Shaw Road, for private parties.

Newark, O. — Bids close on the 15th inst. for building a two-story hollow tile and stucco residence, to cost \$5,000, for Frank L. Boggs, 35 S. Fourth street. Plans by Architect Vernon Redding, Mansfield.

Sharon, Pa.-Wallis & Carley, Sharon, were awarded the work of building a two-story brick veneer residence for Mrs. M. L. Neff, S. Penn avenue. Cost \$6,000.

Toledo, O. — Plans have been completed and bids will soon be taken by Architect George B. Rheinfrank, Gardner building, for erecting a two-story frame and stucco residence addition and garage for James B. Bell, Kenilworth avenue. Cost \$12,000.

Wickliffe, O. — F. A. Wheeler, 78 Lockwood avenue, E. Cleveland, secured the contract to build a two-story frame residence and garage for Daniel D. Weyandt, 495 Colonial Arcade, Cleveland. Work will be started in about 10 days.

Youngstown, O. — Stephen A. Herman, 442 E. Myrtle avenue, received the contract to build a brick veneer and stone trim parsonage on Covington street, for the Sts. Peters ands Paul Roman Catholic Congregation.

Canonsburg, Pa.—Architect George W. Brugger, 29 N. Central avenue, is preparing sketches for a two-story stucco and hollow tile appartment building to be erected on Greenside and College avenues for J. J. Foley. Cost \$12,000.

Dayton, O.—Architects Schenck & Williams, 591 Arcade building, awarded to the F. A. Requarth Company, Sears and Monument avenues, the contract for erecting a two-story and basement frame and shingle residence on South avenue, Oakwood, for W. A. Blum, S. Main street. Cost \$7,000.

Loretta, Pa.—F. E. Spinner, 35 Warren street, New York City, was awarded the contract for erecting a gate, house, cottage etc. for Charles A. Schwab. Architect Charles W. Levitt, Jr., 220 Broadway, New York City, is in charge of work.

New Philadelphia, O.—Architect John Kalsch, 220 Avenue building, Cleveland, is taking separate bids on the erection of a 2½-story and basement brick residence addition for Charles Lahmer, to cost \$3,-500.

Norwood, O.—The Leibold-Gott building Company, 506 Gwynne building, Cincinnti, received the contract for crecting a 2½-story pressed brick and stone residence anl garage on Forest avenue for Dr. W. E. Chester, First National Bank building. Cost \$15,000.

Portsmouth, O.—Architects DeVoss & Donaldson, 38 First National Bank building, awarded to W. Frank Carson, 517 Glove street, the contract for erecting a two-story and basement cement plaster and tile residence on Franklin avenue for 'Charles Storck, 3317 Ninth street. Cost \$8,000.

Shaker Heights, O.—Architects Frank B. Meade and James Hamilton, 1002 Garfield building, Cleveland, have completed plans and will take separate bids on the erection of a 2½-story and basement brick residence and garage on South Boulevard for Edward S. Rogers, 232 Superior avenue, N. E., Cleveland.

Warren, O.—Architect Thomas R. Coe, 730 W. Market street, has preliminary plans in progress for a two-story and basement brick residence to be erected for T. Verne Craig, 207 N. Elm street. Cost \$7,000.

Washington, Pa.—John T. Giles, 164 Henderson avenue, received the contract for building a two-story brick veneered and shingle residence on N. Main street for Joseph Plants, N. Main street. Cost \$4,000.

Youngstown, O. — Architects Louis Boucherle & Son, Stambaugh building, are taking bids on erecting a two-story and basement brick and shingle residence on Norwood avenue for Bert Smith. Cost \$4,500.

Architect H. Lyman Ford, 206 Hippodrome building, has plans in progress for a two-story and basement frame residence to be erected on Portland avenue for Frank Zarling, 215 Hughes street. Cost \$4,000.

Architects Stanley & Scheible, 1301 Wick building, have plans in progress for a two-story and basement brick store and apartment building to be erected at East Youngstown, for Eugene Crowe, 1460 Elm street. Cost \$10,000.

Youngstown, O.—Architect George W. Vaughn, 1 Diamond block, has plans in progress for remodeling a two-story and basement frame duplex residence on Ford street for Louis J. Scheible, rear of 1023 Ford avenue.

Architect Charles A. Platt, 11 E. Twenty-fourth street, New York City, is taking bids on erecting a 2½-story and basement brick and hollow tile residence and garage on Logan Road for James A. Campbell, Stambaugh building. Cost \$100,000.

Cleveland, O.—The Archer Frost Company, 1900 Euclid building, has plans under way for a two-story brick apartment building to contain six suites to be constructed on Euclid Heights Boulevard for J. H. McCall, Hickox building. Cost \$26,000.

Columbus, O. — Architects Matheny. Allen & Mounts, Huntington National Bank building, will take bids next week for building a two-story brick residence and garage to cost \$15,000 for Earl M. Gillian, 333 E. State street.

Green Springs, O. — Architect J. M. Bostwick, Leader-News building, Cleveland, has plans about completed for a three-story brick, tile and stucco family hotel building 36x72 feet to be built for H. C. Gammeter, 2337 Bellefield avenue, Cleveland, Separate bids will be taken

Maumee, O.—Preliminary sketches are being made by Architect George M. Rheinfrank, Gardner building, Toledo. for a two-story stucco and frame residence and garage for John D. Biggers, Estimated cost \$15,000.

Toledo, **O**.—Bids will be taken at once by Architect H. W. Wachter, Nicholas building, for constructing a three-story brick and frame apartment building 40x50 feet for G. L. Morcerau, 413 Monroe street.



BUILDING PROJECTS AND WORK AWARDED

Youngstown, O.-Sketches are being made by Architect George W. Vaughn, Diamond Block, for a two-story brick terrace to cost \$12,000 for private parties.

Bowling Green, O. — J. F. Wilson, Court House building, contemplates building a 1½-story frame residence to cost \$3,500. No architect has been selected.

Cleveland, O. — Charles E. Anderson, 7530 Star avenue, received the contract to build a double residence on Durant avenue, for Peter Johnson, 10213 Olivet avenue.

Architect A. E. Skeel, 4500 Euclid avenue, will award separate contracts for huilding a 2½-story residence and garage on Edgewater Drive for J. C. King, care architect. The estimated cost is \$15,000.

Columbus, O. — Bids are in and the contract will be awarded this week for building a two-story cement plaster on metal lath residence and garage for William E. Henderson, 238 W. Tenth street. Architects Howeli & Thomas, E. Broad street, made the plans.

Medina, O. — Architects Robinson & Miller, Leader-News building, Cleveland, will be ready for bids soon on the erection of a 2½-story brick residence, to cost \$11,000, for David Knisely.

Morgantown, W. Va. — Bids are in and the work will soon be placed for building a 2½-story brick residence and garage on Grand street, for James H. Smith, 615 Grand street. Plans came from Architects Janssen & Abbott, Pittsburgh.

Newark, O.-Charles Green, 174 Rugg avenue, received the contract to build a two-story brick veneer residence for Aug. P. Hess, E. Main street.

Norwood, O. — Architect Oscar Schwartz, Provident Bank buliding, Cincinnati, will award separate contracts for building a three-story pressed brick apartment building, 40x60 feet, on Ralston avenue, for J. R. Schroyer, Lawn and Ralston streets. Cost \$20,000

Saltsburg, **Pa.** — S. M. Waddle, R. D., Saltsburg, contemplates building a twostory frame residence, to cost \$3,000 Private plans.

Warren, O. — Preliminary plans are under way by Architect R. J. Keitch, for a two-story brick residence and garage, to be constructed for Charles R. Siegfried, 128 Mahoning avenue. Estimated cost \$12,000.

Sketches are being made by Architect T. R. Coe, 730 W. Market street, for a two-story frame or brick double residence, to be constructed for George A. and William M. Gartner, 22 Main street. Cost \$6,600.

Youngstown, O. — Architects Stanley & Scheibel, Wick building, are working on preliminary plans for a twostory brick residence, to cost \$10,000, for Dr John Heberding, 115 W. Rayen avenuc.

Massillon, O. — Architect Karl E. Wilhelm, Albright Bank building, has completed plans for a frame residence to be erected for Arthur F. Ellis, First Savings and Loan building. Cost \$3,500.

Findlay, O. — Architect Bernard Becker, 424 Gardner building, Toledo, awarded to Ferguson & Son, the contract for erecting a two-story frame and stucco residence on S. Main street, for George F. Marks, care Ohio Oil Company. Cost \$8,000.

Vandergrift, Pa. — Claude Hill, Longfellow avenue, contemplates erecting a two-story brick residence on Longfellow avenue, from private plans. Cost \$4,000.

Business Buildings.

Akron, O. — Architects C. D. Cooley Company, Century building, Pittsburgh, have completed sketches for a threestory and basement brick and terra cotta dairy plant, to be constructed for the Akron Pure Milk Company, to cost \$75,000.

Alliance, O. — Architects C. D. Cooley Company, Century building, Pittsburgh, are preparing sketches for a one- and two-story brick dairy plant, to be erected for the Alliance Pure Milk Company, to cost \$12,000.

Ambridge, Pa. — Architects Carlisle & Sharrer, Jenkins Arcade, Pittsburgh, have completed plans for a three-story and basement brick store and lodge building, to be constructed for the German South Hungarian Benefit Society. Cost \$20,000.

Ashtabula, O. — James Laird, 97 Lake street, is taking bids on erecting a twostory brick store and office building, on Bridge street, for Frank Petros, Bridge street. Cost \$8,000.

Charleroi, Pa. — Architect A. P. Cooper, First National Bank building, Uniontown, is revising plans for a fourstory and basement brick and terra cotta store and apartment building, to be constructed on Fifth street, for Dr. Fred C. Stahlman. Cost \$35,000.

Cleveland, O. - L. Esterson, 6513 Sco-

vill avenue, is taking separate bids on the erection of a one-story and basement brick store building, on 7533-37-39-41 Broadway, to cost \$7,000. Plans by Architect S. H. Weis, 1032 Schofield building.

Architects George B. Post & Son, 1109 Schofield building, have completed plans and will soon take bids on constructing a six-story brick and terra cotta store and loft building addition on Euclid avenue, near E. Ninth street, for the Euclid-Twelfth Company, Williamson building. Cost \$300,000.

The Uhl Jaster Company, 1900 Euclid building, received the contract for erecting a two-story brick store building and dairy plant, on Lorain avenue, for Harry C. Walker, 227 W. Ninety-fifth street. Cost \$19,000. Christian Schwarzenberg & Gaede, 511-1900 Euclid building, are the architects and engineers.

Architect S. H. Weis, Schofield building, has completed plans for a threestory brick store and apartment building, to be constructed on E. One Hundred and Twentieth street and Ashbury avenue, for H. Shifran, 2333 E. Sixtythird street. Cost \$25,000.

Conneaut, O. — John Sanders is the architect and contractor for the erection of a one-story brick bakery addition on Main street, for A. H. Bauss, Main street. Cost \$3,500.

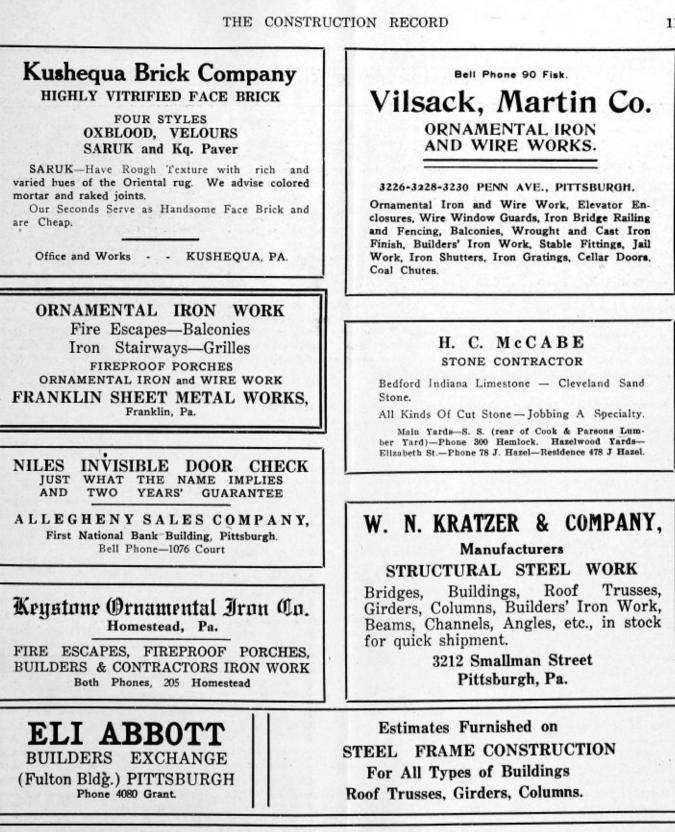
Coraopolis, Pa. — Specifications are being written for a two-story brick store and apartment building, to be erected on 614-16 Fifth avenue, for John Cortess, 513 Fifth avenue, to cost \$4,000. Owner will take bids shortly.

Greensburg, Pa. — Architect Paul Bartholomew will draw plans for a twostory hollow tile and concrete store and office building, to be erected on Main street, for the Jamison Coal & Coke Co. Cost \$20,000.

Jeannette, Pa. — Architect J. E. Meyers & Co., of Penn Station, has plans nearing completion for a two-story brick and hollow tile printing room and apartment, to be erected for the Jeannette Publishing Company. Cost \$12,000.

Dr. J. B. Lowman, 738 Luzerne street, is taking bids on erecting a four-story and basement brick and reinforced concrete and hollow tile store and apartment building, on Market street, to cost \$20,000. Plans by Architect Henry M. Rodgers, Johnstown.

Middletown, O. — Architect M. A. Long awarded to Charles E. Denny, the contract for crecting a one-story and



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DESIGNS and ESTIMATES

11

WHERE BUILDING MATERIALS ARE REQUIRED

basement pressed brick and limestone passenger station for Hudson Harmon and Rufus E. Smith, receivers of the Cincinnati, Hamilton & Dayton Railway Co. Cost \$6,000.

Monessen, Pa.—Architect J. M. Beall, has plans in progress for a three-story brick and hollow tile store and apartment building, to be constructed on Schoonmaker street, for Joe Billetto. Cost \$10,000.

Norwood, O. — Architects Tietig & Lee, Fourth National Bank building, Cincinnati, have been selected to prepare plans for a four- or five-story pressed brick and reinforced concrete and limestone loft building, to be constructed on Main and Madison avenues, for the Henderson Lithographing Company. Cost \$140,000.

Portsmouth, O. — The General Service Company is taking bids on erecting a two-story and basement brick store building, on Fifth street, from plans drawn by Architects Ritter & Bates, First National Bank building. Cost \$6,000.

Architects Ritter & Bates have plans in progress for a two-story and basement brick store and apartment building, to be erected on Eighteenth street, for Charles Legler, Eighteenth street. Cost \$6,000.

Tarentum Pa. — Bids are in for the erection of a three-story and basement brick and tile office and warehouse on Fourth avenue, for the Tarentum Lumber Company. Plans by Architect Ira F Cutshall. Cost \$5,000.

Columbus, O.—B. F. Johnson, 1471 Oak street, received the contract to remodel a store building at 83-89 N. High street for the S. S. Kresge Company, Detroit. The work will cost \$35,000.

Dayton, O.—The contract for erecting a two-story brick store building for John Skinner, Jefferson street, has been placed with the John Rouzer Company, Wyandotte building.

Gallipolis, O. — The First National Bank has awarded to John E. Danner, Gallipolis, the contract to build a threestory bank, office and apartment building 29x110 feet. Cost \$20,000.

Johnstown, Pa.—Bids close this week on the construction of a four-story brick store and loft building for W. H. Strauss, 112 Franklin street. Plans by Architects S. E. Dickey & Co., Johnstown Trust building. Estimated cost \$12,000.

Marion, O .- The contract will probably be awarded this week for constructing a two-story brick store and apartment building on David street for E. T. Lewis Company, 109 N. Main street. Plans came from Architect H. L. Ellis, Marion.

Montpeliar, O.—Separate bids are being taken for remodeling a two-story bank and office building for the Montpeliar National Bank. Architect W. C. Pollock, Garfield building, made the plans.

New Boston, O.—C. E. Nourse, Portsmouth, was low bidder for erecting a three-story brick, reinforced concrete and limestone trim office building for the Whittaker-Glessner Company, Portsmouth. Estimated cost \$35,000.

Piqua, O.—A. M. Fry, W. North street, will take sub-bids at once on the erection of a brick store and apartment building on Wayne and Water streets for Charles H. May, the work to cost \$30,-000.

Toledo, O.—The contract for building a store, bank and apartment building on W. Central avenue for Dr. H. E. Smead. Detroit avenue, has been awarded to N. T. Jackson, Bank of Commerce building, Toledo.

Youngstown, O.-A store and apartment building, two stories and basement, will be constructed for Morris Kaufman, 146 Marion avenue, from plans now being made by Architects Louis Boucherle & Son, Stambaugh building. Estimated cost \$12,000.

No date has been set for closing bids on the erection of a two-story brick and stone trim store, office and apartment building 20x85 feet for A. M. DeCicco, 921 Market street. Plans were made by Architect H. L. Ford, Hippodrome building.

Akron, O. — The following contracts have been awarded for the construction of a seven-story and basement steel, reinforced concrete, brick and terra cotta bank and office building on Main and Exchange streets, for the Peoples Savings & Trust Company. Contract for steel and erection let to the Burger Iron Company and reinforced steel to the Trussed Construction Company, Columbus. The Carmichael Construction Company, are the general contractors. Cost \$250,000.

Ashland, Ky.—William Mead is receiving sketches for a four-story brick and stone or terra cotta store and office building to be constructed on Winchester avenue, to cost \$50,000. Architect will be selected about March 15th.

Alexander & Clay are receiving sketches and will select an architect about March 15th to prepare plans for a four-story brick, stone or terra cotfa furniture store to be constructed on Winchester avenue to cost \$50,000.

Scetches are also being submitted for a four-story brick, stone or terra cotta store and office building to be constructed on Winchester street for M. W. Thomas, to cost \$50,000. Will select architect about March 15th.

Arlington, O. — Architect George Horn, of Findlay, has plans in progress and will take bids about April 1, on erecting a two-story brick store and apartment building, for R. J. Dorne.

Indiana, Pa. — Contract will be awarded this week for the erection of a twostory brick and structural steel store building on Philadelphia street, for E. C. Buchheit, to cost \$20,000.

Altoona, Pa.—Bids will close this week on constructing a four-story brick and frame store and apartment building 52x96 feet on Eleventh avenue for Welsh Brothers. Plans were made by Architect F. J. Shollar, Altoona Trust building.

Akron, O.—Scott Porter was awarded the work of building a three-story brick and steel frame store and apartment building on E. Market street for Jesse Failor, 328 S. Main street. Cost \$25,000.

Cleveland, O.—The Fraser Construction Company, 1900 Euclid building, secured the contract to build a two-story brick store and apartment building for private parties. Work will not be started for several weeks

Dayton, O. — Plans have been completed by Architect J. P. ance, Louis building, for a four story brick store and apartment building 44x100 feet to be built on Third and Webb streets for J. L. Laymon, 1800 E. Third street. Plans will be ready for bids at an early date. Cost \$30,000.

Findlay, O. — The Buckeye National Bank is having plans made by Architect George Horn for remodeling the interior of its building. Bids will be taken about the 25th inst.

Moween, Pa.—G. C. Overdor, Blairsville, Pa., will probably start work about May 1 on the erection of a two-story frame store and six residences to be built for the Moween Coal & Coke Company, The work will cost \$18,000.





PLANS FOR VARIOUS KINDS OF STRUCTURES

Religious.

Boswell, Pa. — Architects Fulton & Butler, of Uniontown, have plans in progress for a two-story brick and cut stone church, to be erected on Merchant and Main streets, for St. Andrews Evangelical Lutheran Congregation. Cost \$15,000.

Columbus, **O.**—Architect Richard Z. Dawson, 209 Brunson building, has plans in progress for a one-story brick church addition to be erected on Grant avenue for the Shiloh Baptist Congregation. Cost \$40,000.

Brownsville, Pa.—Additions and alterations are to be made by the. First Presbyterian Congregation, the work being planned by Architect H. W. Altman, First National Bank building, Uniontown. Estimated cost \$10,000. No time has been set for taking bids.

Canton, **O.**—The Hebrew Congregation is having plans and specifications prepared by Architects Petitt & Firestone, Cassilly Block, for a brick and hollow tile building 42x85 feet. Uncertain when bids will be asked.

Cleveland, O. — Sketches are being made by Architects Knox & Elliott, Rockefeller building, for a \$25,000 addition to be built for the Windemere Presbyterian Congregation, East Cleveland. The building will be one or two stories high.

Columbus, O.—Plans have been completed by Architects Richards, McCarty & Bulford, Hartman building and bids will soon be asked for building a onestory stone church building to cost \$45, 000 for the Madison avenue M. E. Congregation.

Ebenezer Station, O.—Bids are now being taken for building a one-story church building 56x78 feet for the Ebenezer M. E. Congregation. The building will be constructed of field stone. Plans by Architects Schenck & Walker, Conover building, Dayton.

Huntington, W. Va. — The Trinity Episcopal Congregation has proved the plans of Architect E. N. Alger, Huntington, for a church and parish house to cost \$50,000. Working drawings will soon be started.

The Baptist Congregation has selected a site at Twelfth street and Fifth avenue for building a brick and stone church and school room to cost \$6,000. No architect has been selected.

Jeannette, Pa .- Architect W. G. Sloan,

Greensburg, has been retained by the First Reformed Congregation to prepare plans for a brick or stone edifice to cost \$30,000.

J. E. Myers, Penn Station, will design the remodeling work for the Holy Trinity Lutheran Congregation, the work to cost \$15,000. It is possible that a new building may be erected.

Lakewood, O.—The Lakewood Presbyterian Church contemplates building a new structure to cost \$50,000. No plans have been decided upon.

Monongahela, Pa. — Plans are under way by Architect C. C. Compton, Donora, Pa., for altering the building of the Methodist Episcopal Congregation. Bids will be taken next week.

Rochester, Pa. — Revised plans have been completed by Architects Rowland, Conwell & Hutchins, Conestoga building, Pittsburgh, for a one-story brick and stone trim church building for the First Baptist Congregation to cost \$30,000. Bids will be taken about the 16th inst.

Springfield, O.-J. A. Poss, Springfield, received the work of building an addition to the Grace Reformed Church. Cost \$10,000.

Tiffin, O. — The First Presbyterian Congregation will take bids about the 20th inst for erecting a 1½-story brick and stone trim church and parsonage 85x 95 feet. Plans have been nearly finished by Architects Fulton & Butler, Uniontown, Pa. Cost \$30,000.

Ironton, O. — Architects Weber, Werner & Adkins, 1206 Mercantile building, Cincinnati, have preliminary plans in progress for an auditorium and gymnasium building, to be erected on Fifth street, for the Methodist Episcopal Congregation. Cost \$10,000.

Bellepoint, W. Va.—The Alderson Memorial Congregation is taking bids on the erection of a one-story brick church building 48x52 feet to cost about \$12,000. Plans came from Architect Paul Egan, Quarrier street, Charleston.

Canton, O. — The Menonite Congregation has private plans for a one-story brick and stone trim church building 40x60 feet. Private plans. Bids will be taken next week.

Cincinnati, O.—Architect A. L. Fecheimer, Union Trust building, is writing specifications for a 1½-story brick and stone trim auditorium annex for the Rockdale Avenue Temple. Bids will be taken about the 22nd inst. Estimated cost \$40,000.

Cleveland, O. — Architects Fulton & Butler, Uniontown, Pa., will complete plans the latter part of the month for the \$50,000 church building for the Emmanuel Baptist Congregation.

Cresson, Pa.-J. C. Ivory, 3036-Sixth Avenue, Altoona, received the contract to erect the superstructure for an addition to the St. Johns Orphanage, Altoona. The steel work has been awarded to the Lancaster Steel & Structural Works, Lancaster, Pa. The building will be 75x200 feet and cost about \$100,000.

Dayton, O.—The Westwood Lutheran Congregation, near Dayton, will be ready for bids soon on the crection of a onestory brick and stone trim church building 36x62 feet. Plans by Architect R. C. Gotwald, Springfield.

Toledo, O.—Bids will be taken next week by Architect J. C. Huber, Ohio building, for building a two-story church and parochial school 62x114 feet for parties whose names are withheld for the present.

No date has been set for taking bids on the erection of a 1½-story brick and stone trim church building for the St. Marks German Lutheran Congregation. Plans by Architects Spier & Gehrke, Detroit, Mich.

Warren, Pa.—Previous bids were too high and new estimates will be taken for building a two-story brick and stone trim building for the Grace Methodist Episcopal Congregation. Plans are to be revised by Architects Freeburg & Fidler, Jamestown, N. Y.

Wellsville, O.—Plans have been started by Architect E. B. Pruitt, Hartman building, Columbus, O., for the one-story stone church building for the First Presbyterian Congregation. Bids will be asked about pril 1.

Educational.

Bowling Green, O.-Plans will soon be ready for bids by Architects Howarl & Merriam, Broad street, Columbus, O., for a two-story brick and limestone trim training school to be built for the Board of Trustees of Northfestern Ohio University Estimated cost \$100,000.

Covington, **O**. — An addition to cost \$15,000 is contemplated by the Board of Education. The selection of a design will be made this week.

Dayton, O.-Bids are to be taken this week, closing April 4th, for constructing the North Riverdale school building for the Board of Education. The structure



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will contain 16 class rooms, auditorium, swimming pool, science departments, etc., and will cost \$150,000. Plans by Architects Albert Pretzinger and E. P. Musselman, Reibold building.

Edison, O.—Bids are to close on the 24th inst for constructing the two-story brick and limestone trim school building. Plans were made by Architect Charles L. Inscho, Columbus.

Fincastle, O.—Architect E. P. Galvin, Sardinia, O., is making the plans for a two-story brick school building 56x75 feet to be constructed for the Board of Education. Cost \$14,000.

Plymouth, O.—Sketches for a \$25,000 school building are being made by Architect C. V. Martin, Haskell building, Ashtabula, O. The building will be 50x100 feet, one-story high, stucco on hollow tile construction.

Uniontown, Pa. — Alterations and additions are to be made to the Nutt avenue school building for the Board of Education. Preliminary plans are now being made by Architect H. W. Altman, First National Bank building.

Van Buren, O.—A centralized school building to cost \$45,000 is contemplated by the Board of Education. No plans have been adopted.

West Liberty, W. Va.—A \$60,000 high school building is being designed by Architect F. F. Faris, Schmulbach building, Wheeling, M. L. Wells, Wellsburg, associate architect. The building will be of brick, stone and terra cotta construction. Uncertain when bids will be taken.

Cleveland, O.-The Board of Education, F. G. Hogan, director, will take bids about April 1 on the construction of an addition to the "Memorial" school building on E. One Hundred Fifty-second street. Building will contain 16 class rooms, manual training and domestic science departments. Estimated cost \$75,000.

DeForest, O.—Bids close on the 23rd inst for building a two-story brick, hollow tile and limestone trim school building for the Board of Education. The building which was designed by Architect R. J. Keich, Western Reserve building, Warren, O., will cost \$20,000.

Eden, O.^{*} The Martin Construction -Company, Dispatch Annex, Columbus, secured the work of building a two-story brick and limestone trim school building for the Brown Township School Board, Cost \$32,000.

North Dover, O. - Architect W. H.

Nicklas, 1900 Euclid building, Cleveland, will design the work of building an addition to the school building of the Board of Education, W. F. Reed, clerk. Estimated cost \$20,000.

Ravenna, O.—Nicholas Miller, Massillon, O., secured the contract to build the centralized school building for the Board of Education of Palmyra Township. Bids on material and sub-contracts will be taken at once by Mr. Miller.

Wilcox, Pa. — Architects Hersh & Hersh, Altoona, Pa., are working on plans for a brick and cut stone trim school building, two stories high, for the Board of Education. Plans will be ready for bids about March 20th.

Brookfield, O. — The Board of Education of Brookfield township, contemplates erecting a two-story and basement brick grade and high school building to cost about \$25,000. Architect Frank L. Packard, of Columbus, will prepare plans.

Charleston, W. Va. — The Board of Education contemplates constructing a two-story brick, stone or terra cotta grade school building to cost \$35,000. Architect not selected and no details decided.

Circleville, O. — The Board of Education contemplates constructing a twostory and basement brick and limestone and reinforced concrete high school building, to cost \$125,000. Architect Frank L. Packard, of Columbus, will prepare the plans.

Conesville, O. — Architect Frank L. Packard, of Columbus, has new plans in progress and will take bids about March 24, on erecting a two-story and basement brick and limestone high school building, for the Board of Education. Cost \$18,000.

Kirkersville, O. — Architects Rusk & Sheets, of Columbus, have completed plans for a two-story and basement brick and limestone grade and high school building, to be erected for the Board of Education, of Harrison township. Cost \$30,000. Owners will take bids about April 1.

Norwood, O. — The Board of Education awarded to Edward T. Honnert, Colerain Pike, Mt. Healthy, the contract for constructing a one-story pressed brick grade school building at Norwood View, to cost about \$25,000. Architects Bausmith & Drainie, of Cincinnati, prepared the plans.

Portage, O. - Architects S. P. Stewart & Son, of Bowling Green, have plans in progress for a two-story and basement brick high school building addition, to be erected for the Board of Education. Cost \$15,000.

Urbana, O. — The Board of Education of Urbana township, is taking bids on erecting a two-story brick and limestone grade and high school building, to cost \$30,000. Plans by Architects Rusk & Sheets, of Columbus.

Wilson, Pa. — Architect A. G. Wickerham, of Homestead, has completed plans and will take bids about March 15, on constructing a two-story brick and hollow tile grade school building, for the Board of Education, to cost \$60,000. Bids will contain 13 class rooms and auditorium.

State, County and Municipal.

Canton, O. — J. McQuerin is low bidder on remodeling the city hall for the city of Canton, to cost \$4,000. Plans drawn by Architects Petit & Firestone, Cassilly Block.

Chardon, O. — Engineer R. W. Pratt, 708 Hippodrome building, Cleveland, has been selected as engineer for the water works plant, to be constructed for the village, to cost \$50,000. Project will probably mature about June 1.

Dayton, O. — Architect Louis J. P. Lott, Commercial building, is preparing sketches for a work house, to be constructed on Germantown Pike, near Soldier's Home, for the city of Dayton. Cost \$35,000. No details decided.

Eaton, O. — Architect H. E. Heaston and associate architects Richards, Mc-Carty & Bulford, of Columbus, have been selected to prepare plans for a court house, to be constructed on Barren & Main streets, for the Board of County Commissioners. Cost \$250,000.

Fairchance, Pa. — The Fayette County Board of Commissioners is taking bids on grading, paving and curbing from the borough line to N. Church street. Cost \$15,000.

Lancaster, O. — Architects David Reibel & Son, of Columbus, have completed plans for remodeling the court house for the Board of County Commissioners, to cost \$50,000. Owner will take bids about March 20.

Massillon, O. — The Ohio Board of Administration contemplates rebuilding a one- or two-story brick laundry building, at the State Hospital, to cost \$20,-000. Architect not selected.

Youngstown, O. - Plans have been

completed for a bridge to be constructed on E. Federal street, for the city, to cost about \$100,000. Bids will probably be taken about April 1.

Turtle Creek, Pa.—Bids will be taken about April 1 for paving work which will cost about \$10,000. William Kenyon is chairman of council.

Manufacturing.

Cleveland, O. — Architect F. E. Smtih, 1527 Williamson building, has completed plans for a one- and twostory brick factory building, to be erected on 6935 Superior avenue, for the Cleveland Sheet Metal Works.

Coraopolis, Pa. — Architect Edward Cornelius, House building, Pittsburgh, has plans in progress for a two-story brick factory addition, to be erected for the Consolidated Lamp & Glass Co., to cost \$15,000. Owner builds and buys materials.

Defiance, O. — The Defiance Screw Machine Products Company, contemplates erecting a two-story brick factory addition from private plans. No equipment required. Project will not mature until fall.

Geneva, O. — Plans are in progress for a one-story brick foundry addition, to be erected for the Champion Hardware Company, to cost \$8,000.

Greenfield, O. — R. R. Hire was awarded the contract for erecting a 2½story and basement factory addition for C. R. Patterson & Sons, to cost about \$8,000.

Norwood, O. — Architects Tietig & Lee, Cincinnati, awarded to the Ferro Concrete Construction Company, Richmond & Harriett streets, Cincinnati, the contract for constructing a four-story reinforced concrete and brick dry color building, on Cleneay avenue, for the Ault & Wiborg Co. Cost \$90,000.

Youngstown, O. — Wilbur B. Young received the contract for constructing a two-story brick and concrete steel, and corrugated iron condensor and distilling plant, for the Barrett Manufacturing Company, to cost \$100,000. Contract for steel tanks awarded to the Craver Manufacturing Company, of Chicago. Heating, plumbing and electric work to be done by owner.

Cleveland, O. — Architects Richardson & Yost, 354 Rockefeller building, are taking bids on constructing a three-story brick and reinforced concrete factory on Superior avenue for the National Telephone Supply Company. Cost \$50,000.

Dayton, O.—Architect Rollin E. Gebhart, Callahan building, has plans in progress for a two-story and basement brick and reinforced concrete factory building to be erected on 216 Torrence street for the Monarch Tag Company. Cost \$20,-000. Architects Gaga & Gemin, Eighth and Pontiac streets, awarded to Charles F. Hosket, 662 E. Richard street, the contract for constructing a brick and reinforced concrete factory, office and warehouse on McDonough street, E. E., for the Miami Brass Company. Cost \$6,000.

Edgemont, O. — The Crume Brick Company, contemplates erecting a plant to be used for the manufacture of roofing tile. Cost \$20,000. Owners also contemplate an addition to equipment of present plant.

Montpelier, O. — Architect A. M. Strauss, Bank Block, Fort Wayne, Ind, will revise plans for a two-story and basement brick and hollow tile factory and public garage to be erected for Alfred Kreider. Cost \$9,000.

Warren, O.—The Warren Tool & Forge Company contemplates erecting a one-story brick factory addition on Griswald street to cost \$10,000. Private plans.

Bowling Green, O. — The Thornburg Manufacturing Company contemplates building a one-story brick factory addition. No plans have been adopted.

Covington, Ky.—Specifications are being written by Architect David Davis, Fosdick building, Cincinnati, for the new addition to be built to the plant of the Reliance Textile & Dye Works. Bids will be taken shortly.

Johnstown, Pa. — Samuel Wilson, Swank building and Stanley Hayes, 321 Ohio street, contemplate building plant for the assembling of motor cars. The building will probably be 200x375 feet, four stories Private plans.

Cleveland, O.-The George J. Warden Company, 6530 Carnegie avenue, is having preliminary sketches made for a three-story brick addition 40x50 feet. Plans will come from Architect E. E. Smith, Williamson building.

George S. Rider & Co., Century block, will take bids shortly on the construction of an addition 50x80 feet, one-story high, for Joseph. Dyson & Sons. The building will have brick walls, steel roof trusses.

The Masters & Mullen Company, Rose building, secured the contract to alter and enlarge the plant of the Electric Controller & Supply Company.

Leetonia, O.—The Standard Slag Company will soon start work on a three or four-story building 36x50 feet. Architect George W. Vaughn, Diamond block, Youngstown, will design the building.

Toledo, O.—A. Bentley & Son Company received the contract to build a six-story reinforced concrete factory addition 84x140 feet for the Champion Spark Plug Cmpany.

Society and Club Buildings.

Cleveland, O. — Architect Ralph M. Hulett, 365 Lennox building, is about ready for bids on the erection of a twostory brick club house, on W. Fiftyeighth street, for the Karpatian Roumanian Society. Cost \$15,000.

Defiance, O. — The Defiance Lodge B. P. O. E. has purchased a site on corner of Third and Jackson streets, on which they will erect a one-story brick Elk's home, to cost \$15,000. Architect to be selected and plans started during the summer.

New Kensington, Pa. — Architects Janssen & Abbott, Century building, Pittsburgh, have completed plans for a two-story brick and cut stone club house, to be constructed on Freeport Road, between Cargo and Seventh streets, for the Aluminum Company of America, Oliver building, Pittsburgh. Cost about \$50,000. Owner builds and awards separate contracts.

Mt. Vernon, O. — Architects Stribling & Lum, of Columbus, awarded to Walter Earlywine, the contract for erecting a one- and two-story and basement frame country club on Martinsburg Road for the Mt. Vernon Country Club. Cost \$8,445. Contract for brick and cut stone work let to O. Ronsome.

Theatres.

Cincinnati, O. — Architects Robertson & Fahnestock, Gerke building, have been selected to prepare plans for a one-story brick theatre addition to be erected on 832 Liberty street, for the New Liberty Amusement Company, 832 Liberty street. Cost \$25,000.

Parkersburg, W. Va. — Architect R. H. Adair, Julian street; is taking bids to close this week on the erection of a theatre addition on Market street, for the Star and Bijou theatre. Cost \$8,000.

Hotels.

Cliff Mine, Pa. — Architect John H. Phillips, of McKees Rocks, awarded to Peter Hillen, of Louperex, the contract for erecting a two-story brick veneered hotel for a party whose name is withheld Cost \$7,000.

Zanesville, O. — Architect Harry C. Meyer awarded to E. Mast, the contract for erecting a three-story and basement brick and limestone hotel addition on 26 S. Fifth street, for the Stevens Estate. Cost \$30,000.

Danville, Ky.—Architect W. S. Van Dalsen awarded to E. R. Dillehay, the contract for constructing a five-story pressed brick, structural steel and reinforced concrete, stone and terra cotta hotel building for a Syndicate, care Danuel Lyons, et al. Cost \$50,000. Building will contain 100 rooms.

Hospitals.

Charleston, W. Va .- Architect W. P. Ginther, Akron, O., awarded to Abbott Brothers, the contract for constructing a three-story reinforced concrete, brick, steel and stone hospital addition on Laidley avenue for St. Francis Hospital. Cost \$50,000.

Youngstown, O .- Bids are in for the remodeling of a three-story brick and stone Maternity Hospital on Oak Hill avenue for the Youngstown Hospital Association. Plans by Architects Stanley & Scheible, 1301 Wick building.

Coshocton, O .- The City of Coshocton will build a two-story brick fireproof hospital building 40x85 feet and will likely select an architect about April 1.

Miscellaneous.

Woodlawn, Pa. - Architects Carlisle & Sharrer, Jenkins Arcade building. Pittsburgh, have completed plans for a three-story brick veneered stable, to be erected for Paul W. Moore. Foundations are in and work will be resumed and specifications started shortly. Owner builds and awards separate contracts.

Columbus, O. - Dr. Joseph Jones, 1122 Oak street, is taking bids on the erection of a one-story and basement brick garage, on rear of 214 E. Gay street, to cost \$5,000. Plans by Architect J. A. Jones, Dispatch Annex building.

Logan, O. - Architect William Loomis, 501 Canal street, is drawing preliminary plans for a two-story and basement brick garage, store rooms and office building, to be erected for the Main Motor Car Company. Cost \$10,000. Project may mature about March 15.

Miamisburg, O. - Architect Gustave A. Niehaus, 25 Callahan building, Dayton, have completed plans and bids will be taken at once on the erection of a garage, for D. A. Stump, to cost \$15,000.

Minerva, O. - Dr. A. A. Bates, Marthree-story and basement brick and steel ket streets, contemplates erecting a twostory brick and hollow tile commercial garage on Market street, to cost \$15,-200. Architect to be selected soon.

Canonsburg; Pa .- John McDowell, 214 Belmont street, contemplates erecting a three-story brick and hollow tile commercial garage, store and lodge building on Jefferson avenue from private plans. Cost \$15,000.

Covington, Ky .- Jacob Weber, Linden Drive, College Hill, Cincinnati, O., received the contract for erecting a onestory pressed brick and limestone garage and salesroom on Fifth street for the Charles Schiear Motor Car Company. Cost \$8,000. Plans by Architects Weber, Werner & Adkins, 414 Walnut street, Cincinnati.

Steubenville, O. - The American Bridge Company, Frick building. Pittsburgh, received the contract for constructing a steel bridge across the Ohio river from La Belle Iron Works to the La Belle Coal & Coke Co. Cost \$300,000. Work will be started in about one month

McComb, O. - Architect George Horn, of Findlay, O., has plans in progress and will take bids about April 1 on erecting a one-story brick public garage for B. B. Dean, 285 Congress street, East Detroit, Mich.

Warren, O. - Bids will be taken about April 1, on the erection of a one-story brick and concrete garage on Market street, for James A. Gargill, 7 Electric building. Cost \$10,000.

Waynesburg, Pa. - Plans have been completed for remodeling a three-story brick fireproof commercial garage and office building on Washington avenue, for Riley Huffman, Sayers building, Cost \$10,000.

Dayton, O .- The Richey-Wertz Company, S. Ferry street, will ask sub-bids on the erection of a two-story brick and stone trim garage 50x200 feet for George W. Schroyer & Co.

Architect Howard German, Schwind building, is working on plans for a onestory brick building 60x60 feet to be used for sales and garage purposes. Bids will be taken about the 15th inst.

Logan, O .- New plans are being made by Architect William Loomis, 501 Canal street, for a two-story brick building 40x150 feet for the Main Motor Car Company. No time has been set fo rtaking bids.

Liens Filed for Labor and Material Furnished.

ALLEGHENY COUNTY.

Joseph Marmarose Company vs. Joseph R. Dodson, owner. Building in Thirteenth ward, Pittsburgh. Three items. Cost \$121.771/2 each.

John Keppel vs. Anna Kramer, owner and contractor. Building in Sixth ward, Pittsburgh. Cost \$249.

NO-LIEN CONTRACTS.

Barker Painting Company vs. Central District Telephone Company, a corporation. Agreement made February 26 and filed February 29, to do interior painting of new Grant office building at corner of Cherry Way and Seventh avenue, Pittsburgh, for \$4,770.

Moss & Blakely Plumbing Co. vs. Schenley Farms Company. Agreement made February 29 and filed February 20, to erect and construct the heating work for residence No. 41, in Fourth ward, Pittsburgh.

S. Marmius vs. Samuel Perrin. Agreement made February 26 and filed March 1, 1916, to erect and complete a garage in rear of 1134 N. Euclid avenue, Pittsburgh, for \$550.

Stewart-Holland Company vs. Pennsylvania Railroad Company. Agreement made February 21 and filed March 2, 1916, to furnish iron railing and gates required for bridges and retaining walls in Wilkinsburg.

Snyder Engineering Company, of Wilkinsburg vs. Pennsylvania Railroad Company. Agreement made February 10 and filed March 3, to furnish and erect 20 ornamental lamp posts at new station in Wilkinsburg.

BUILDING OPERATIONS BETTER.

Building operations in Western Pennsylvania, Ohio and West Virginia for the past month show considerable gain over the corresponding period last year. A slight decline is noted in the records for Cleveland last month when compared with February, 1915, while most other cities show a decided increase. Pittsburgh's figures were the best for over a year with the exception of September and December of last year. Canton had the best month in the history of the building trade while other places are showing renewed activity. The table below will show February's figures for the present year, as well as last year and the total amount of work for the first two months of this year: -----

P. 1. 1014

	Feb. 1916	Feb. 1915	JanFeb. 1916
Pittsburgh	\$1,321,686	\$ 608,644	\$1,666,630
Cleveland	1,552,725	1,733,925	3,153,620
Cincinnati	596,120	499,465	1,041,927
Columbus	314,225	153,350	537,640
Toledo	700,781	. 454,607	1,261,656
Dayton	99,739	14,453	214,784
Akron	435,575	110,260	724,005
Canton	356,675	39,550	428,400
Erie	87,445	109,168	203,616
Altoona	21,510	16,843	26,402
Youngstown	85,675	79,650	182,020
Huntington	41,555	51,225	
Mansfield	78,650		172,950
Charleston	34,310		150,160

THEATRE PLANNED FOR CLEVELAND.

Preliminary plans are now being made by Architect Thomas W. Lamb, 744 Eighth street, New York City, for a onestory brick fireproof theatre building to be constructed on Vincent street, Clevcland, O., for a company which is now being organized by H P. Bells 1110 Euclid avenue, Frank M. Drew, 717 Euclid avenue and others. The structure is to cover an area of 132x141 feet and to have two balconies. The estimated cost of the work is \$385,000.

SELECT PLANS FOR LOFT STRUCTURE.

The Henderson Lithographing Company, Main street and Madison avenue, Norwood, O., has retained Architects Tietig & Lee, Fourth National. Bank building, Cincinnati, to design a \$140,000 loft building which will be constructed of brick, reinforced concrete and limestone. The building will be four or five stories high and will have composition roofing, concrete floor slabs, hollow metal window frames, cement finish floors, etc. The work will mature early in Summer.

The Euclid Stone & Brick Company, Electric building, Cleveland, O., has private plans for a new brick plant to be built at South Euclid, O., at a cost of \$125,000





Classified Index of Advertisers, Arranged for Ready Reference

ARCHITECTURAL CASTINGS. Mahoning Foundry Co., Punxsutawney, Pa.

ARCHITECTURAL TERBA COTTA.

Scott A. White, Pittsburgh. Finnessy, Jas. E., Oliver Building, Pitte-burgh, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa.

20

ART AND STAINED GLASS.

Hyde-Murphy Co., Ridgway, Pa. Marshall Art Glass Co., S. S., Box 139, Alle-

gheny. Twin City Art Glass Works, 110 Sandusky St., Pittsburgh.

ASPHALT SHINGLES.

Fintkote Mfg. Co., Wabash Bldg., Pittsburgh.

H. B. Morrow, Wabash Bldg., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING PAPER.

Saeger Brothers, Pittsburgh, Pa.

BANK AND OFFICE FIXTURES.

H. C. Bemis, Bradford, Pa.

Hyde-Murphy Co., Ridgway, Pa.

Requarth Co., F. A., Dayton, Ohio.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

BRICK JOINT RAKER.

George Grundy, 905 Gerrett St., Pittsburgh.

BUILDERS' SUPPLIES.

Hall, Harry & Brother, Homestead, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

BRICK MANUFACTURERS AND DEALERS.

Kennedy, D. J. Co., Pittsburgh, Pa.

Kushequa Brick Co., Kushequa, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va. BUILDING CONTRACTORS.

Brednich, Jacob, 243 Lelia St., Mt. Washing-ton, Pittsburgh.

Brown Brothers, Broadway and Lincoln Aves., Mt. Lebanon. Kissell, D. C., 7410 Race St., Pittsburgh.

Lash, D. H., 720 Grandview Ave., Pittsburgh. Rogers, Philip, 157 Moultrie St., Pittsburgh. Wiegand, J. W., Suburban Ave., Nineteenth Ward, Pittsburgh.

CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

CEMENT COATING.

Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

CERAMIC AND TILE WORK.

Erie Mantel & Tile Co., Erie, Pa. Pittsburgh Venetian Mosaic Co., Pittsburgh.

CONCRETE FOUNDATIONS.

Garber-Erder Co., Wabash Bldg., Pittsburgh. CONCRETE MIXERS.

Easter-Emmons Co., 432 Diamond St., Pittsburgh.

- General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-burgh, Pa. CONCRETE HARDENER.

George C. Webb, Jenkins Arcade, Pittsburgh,

COMPOSITION FLOORS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh. Dalzell, J. Willis, House Building, Pitts-burgh, Pa.

CONTRACTORS' PUMPS.

Reineke-Wagner Pump & Supply Co., Pittsburgh.

CONTRACTORS' EQUIPMENT.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-burgh, Pa.

CORNICE WORK.

Franklin Sheet Metal Works, Franklin, Pa. General Mfg. Co., Wheeling, W. Va. Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh. W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

DIRECTORY BOARDS. J. Willis Dalzell, Pittsburgh, Pa.

DOOR CHECKS.

Allegheny Sales Company, F Bank Building, Pittsburgh. First National

ELECTRICAL CONTRACTORS.

Carter Electric Co., Oliver Bldg., Pittsburgh. Loomis Electric Co., W. R., Wabash Building. Pittsburgh.

ELEVATORS AND DUMB WAITERS.

Marshall Brothers, South Twenty-first and Mary Sts., Pittsburgh.

ELEVATOR DOORS.

J. Willis Dalzell, Pittsburgh, Pa. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa. Watt Mfg. Co., Northside, Pittsburgh. Tyler

EXPANDED METAL.

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh, Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh, Pa.

FELT.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FIREPROOF DOORS AND PARTITIONS. Fireproof Materials Co., Pittsburgh, Pa. J. Willis Dalzell, Pittsburgh, Pa. General Mfg. Co., Wheeling, W. Va.

FIRE ESCAPES.

FIRE ESCAPES. Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa. Keystone Ornamental ron Co., Homestend, Pa. Kratzer, W. N. & Co., Smallman St., Pitts-burgh. Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

FLOOR HARDENER.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FLOOR SUBFACING.

Empire Flooring Co., Jenkins Arcade, Pittsburgh. Wayvell, Chappell & Co., Chicago, Ill.

FLOOR AND WALL PAINTS.

eral Waterproofing Co., Century Bldg., Pittsburgh, Pa. General

FOUNDATION CASTINGS.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FURNACES, STOVES AND RANGES. Weisberg Roofing Co., 1231 Penusylvania Ave., Northside, Pittsburgh, Pa.

GYPSUM BLOCKS.

J. Willis Dalzell, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

HARDWOOD DOORS.

Hyde-Murphy Co., Ridgway, Pa.

HARDWOOD FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh. HOUSE PUMPS. Reineke-Wagner Pump & Supply Co., Pitts-

burgh.

INTERIOR TRIM.

Dalzell, J. Willis, Pittsburgh, Pa. Herdman Sash, Door & Lumber Co., Zanga-ville, Obio. H. C. Bemis, Bradford, Pa. Hyde-Murphy Co., Ridgway, Pa. Orner Woodworking Co., DuBols, Pa. Requarth Co., F. A., Dayton, Ohio.

INTERIOR MARBLE WORK. Erle Marble & Tile Co., Erle, Pa. Pittsburgh Marble Co., Builders' Exchange, Pittsburgh, Pa. Standard Mantel & Tile Co., Pittsburgh. E. J. Walker, Pittsburgh, Pa.

INTERIOR MILL WORK.

Dalzell, J. Willis, Pittsburgh, Pa. Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio. Hyde-Murphy Cc., Ridgway, Pa. Orner Woodworking Co., DuBois, Pa. Requarth Co., F. A., Dayton, Ohio.

IRON FENCING.

Keystone Ornamental Iron Company, Homestead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SHEET IRON ROOFING AND SIDING.

William Patridis & Co., Curry Bldg., Pitts-burgh.

IRON STAIRWAYS

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Keystone Ornamental Iron Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

JOIST HANGERS.

Keystone Ornamental Iroa Co., .Home-stead, Pa.
 Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

LIGHT IRON FURRING. J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

LIGHTING FIXTURES.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

LIME. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

MILL WORK. HILL WORK. H. C. Bemis, Bradford, Pa. Herdman ash, Door & Lumber Co., Zanes-ville, O. Hyde-Murphy Co., Ridgway, Pa.

MANTELS AND TILES.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Hyde-Murphy Co., Ridgway, Pa. The Graff Company, 955 Liberty St., Pitts-burgh, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa.

METAL CELLAR DOORS.

Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

METAL LATH.

Bostwick Steel Lath Co., Niles, Ohio. Fireproof, Materials Co., Pittsburgh, Kennedy, D. J. Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

J. Willis Dalzell, Pittsburgh.

Classified Index of Advertisers, Continued

METAL LATH CONSTRUCTION.

J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

METAL SPINNING.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

MORTAR COLORS.

Wheeling Wall Plaster Co., Wheling, W. Va. Kennedy, D. J. Co., Pittsburgh, Pa.

NON-STAINING CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

ORNAMENTAL IRON WORK.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa.

Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.

Keystone Ornamental Iron Co., Home-stead, Pa.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh. Moss Iron Works, J. E., Wheeling, W. Va.

J. Willis Dalzell, Pittsburgh, Pa.

Tyler Co., The W. S., Bessemer Bldg., Pitts-burgh.

- Vilsack, Martin Co., Ltd., 3226-30 Penn Ave., Pittsburgh.
- Watt Mfg. Co., Northside, Pittsburgh.

PARQUET FLOORS.

Empire Flooring Co., Jenkins Arcade, Pittsburgh

PITCH.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

PLASTER BOARD.

Kennedy, D. J. & Co., Pittsburgh. Pa. Wheeling Wall Plaster Co., Wheeling, W. Va. McDade Company, Alex., The, 1121 Glen St., Wikinsburg, Pa.

PRIVATE WATER SYSTEMS.

Dowie Water Well Co., Jenkins Arcade, Pitts-burgh, Pa. burgh, Pa. Reineke-Wagner Pump & Supply Co., Pittsburgh.

QUARRY TILE.

Kushequa Brick Co., Kushequa, Pa.

RAGGLE BLOCK.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

REINFORCING MATERIAL.

Fireproof Materials Co., 320 Liberty St., Pitts-burgh.

Kennedy, D. J. & Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. New Kensington Fiber Plaster Co., New Kensington, Pa. Witherow Steel Co., Pittsburgh, Pa.

ROOFERS (TIN AND SLATE).

Blank, Herman, 5152 Coral St., E. E., Pitts-

- Blank, Herman, 5152 Coral St., B. B., And burgh.
 Helt, George P., 1915 Sedgwick St., N. S., Pittsburgh.
 Hill Top Roofing Co., Bell Phone, 954-J Hill, Pittsburgh.
 South Hills Hardware Co., West Liberty, Pittsburgh.
 W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

ROOFERS (GRAVEL, SLATE AND TILE).

Hahn Brothers, Pittsburgh, Pa.
Hahn Brothers, Pittsburgh, Pa.
Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
Scott, A. White, Pittsburgh.
South Hills Hardware Co., West Liberty, Pittsburgh.
Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.
Wheeling Wall Plaster Co., Wheeling, W. Va.

ROOFING MATERIALS.

STRUCTURAL STEEL PAINTING.

William Patridis & Co., Curry Buld., Pitts-

SUSPENDED CEILINGS.

TERRAZZO WORK.

Pittsburgh Venetian Mosaic Co., Pittsburgh

TILE (DECORATIVE).

TRUSSIT METAL.

VAULT LIGHTS. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

VENTILATORS.

Dalzell Bros. Co., Youngstown, O. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WALL BOARD.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh. WALL LINING.

WALL PLASTER.

New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL PLUGS. Allegheny Steel Band Co., Northside, Pitts-burgh. George C. Webb, Jenkins Arcade, Pittsburgh. Bostwick Steel Lath Co., Niles, O.

WALL TIES.

Allegheny Steel Band Co., Northside, Pitts-burgh. Bostwick Steel Lath Co., Niles, O. Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

WATERPROOFING.

Fireproof Materials Co., Pittsburgh, Pa. General Waterproofing Co., Century Bldg. Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb. Jenkins Arcade, Pittsburgh Wheeling Wall Plaster Co., Wheeling, W. Va Witherow Steel Co., Pittsburgh.

WATER WELL PUMPS.

Reineke-Wagner Pump & Supply Co., Pitts-

WIRE FABRICS.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WIRE GUARDS.

Franklin Sheet Metal Works, Franklin, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.

Moss Iron Works, J. E., Wheeling, W. Va.

Tyler Co., W. S., Bessemer Building, Pitte-burgh, Pa

Vilsack, Martin Co., Ltd., 2226-58 Piern ive Pittsburgh.

Ornamental Iron Co., Home-

W. N. & Co., Smallman St., Pitts-

Fireproof Materials Co., Pittsburgh,

Witherow Steel Co., Pittsburgh, Pa.

burgh.

Keystone Or stead, Pa.

Kratzer, V burgh.

Kennedy, D. J. & Co., Pittsburgh, Pa.

Fireproof Materials Co., Pittsburgh.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa. E. J. Walker, Pittsburgh, Pa.

J. C. Baxendell, Mt. Oliver, Pittsburgh.

burgh.

Alling & Corey, Pittsburgh, Pa. Hahn Brothers, Pittsburgh, Pa. Fintkote Mfg. Co., Wabash Bldg., Pitts-burgh.

- Kennedy, D. J. Co., Pittsburgh, Pa.
- Saeger Brothers, Pittsburgh, Pa.
- H. B. Morrow, Wabash Bldg., Pittsburgh.
- Scott A. White, Pittsburgh,
- Hills Hardware Co., West Liberty, So) th Pittsburgh.
- Wh.eling Wall Plaster Co., Wheeling, W. Va. SAFETY TREADS.
- American Mason Safety Tread Co., Builders' Exchange, Pittsburgh.

Fireproof Materials Co., Pittsburgh, Pa.

- Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SAND AND GRAVEL.

- American Sand & Gravel Co., Erie, Pa. Erie Sand & Gravel Co., Erie, Pa.
- Kennedy, D. J. Co., Pittsburgh, Pa.
- New Kensington Fiber Plaster Co., Kensington, Pa.
- Wheeling Wall Plaster Co., Wheeling, W. Va.

New

- SASH AND DOORS.
- Herdman Sash, Door & Lumber Co., Zanes-ville, O.
- Orner Woodworking Co., DuBois, Pa.

SASH WEIGHTS. Mahoning Foundry Co., Punxsutawney, Pa.

SCAFFOLDING.

Independent Scaffold Co., Pittsburgh, Pa.

SEWER PIPE.

Kennedy, D. J. Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

SHEET METAL WORK.

Franklin Sheet Metal Works, Franklin, Pa.

- General Mfg. Co., Wheeling, W. Va.
- Limbach, Frank, 1724 Lowrie St., Northeide, Pittsburgh.
- H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

SIDEWALK LIGHTS.

Albert Grauer & Co., 216 E. Reliance St., Northside, Pittsburgh.

Kratzer & Co., W. N., Smallman St., Pitts-burgh, Pa.

Mullen Brothers Company, Fulton Building, Pittsburgh, Pa.
 Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SKYLIGHTS AND VENTILATORS. General Mfg. Co., Wheeling, W. Va. Kratzer, W. N. & Co., Smallman St., Pitts-

burgh. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa. W.

STAIR WORK.

H. C. Bemis, Bradford, Pa.

Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio.

Hyde-Murphy Co., Ridgway, Pa.

Orner Woodworking Co., DuBois, Pa.

STONE DEALERS AND CONTRACTORS.

Challis, D. W. & Sons, Sewickley.

McCabe, H. C., Elizabeth St., Pittsburgh. Hall, Harry & Brother, Homestead, Pa. Storch & Sons, V., Carrick, Pittsburgh.

STONE MASONS.

Navarro, P., 1240 Grotto St., Pittsburgh, Pa.

STRUCTURAL STEEL ERECTORS.

Abbott, Eli, Builders Exchange, Pittsburgh. Alliance Structural Co., Alliance, O.

Eichleay, Jr. Co., John, Pittsburgh.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Moss Iron Works, J. E., Wheeling, W. Va.



Wheeling Wall Plaster Co. Wheeling, W. Va.

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SHEET METAL WORK

CORNICES, SKYLIGHTS, COPPER and TIN ROOFING.

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510 Weiser St. (E. Diamond Street) NORTH SIDE PITTSBURGH

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W. R. Loomis Electric Co. Electrical Contractors

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Phone 650 Court.

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> Tile, Slate, Gravel and Slag Roofing

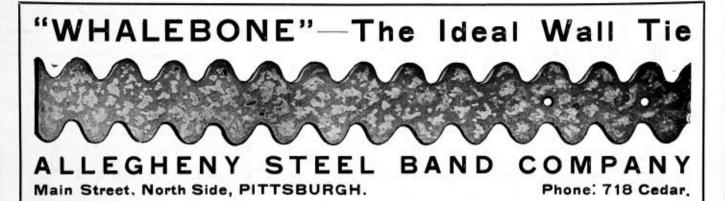
ARCHITECTURAL TERRA COTTA.

Sheet Metal Work

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67 NINETEENTH	I ST.	WHEELING	W. VA.





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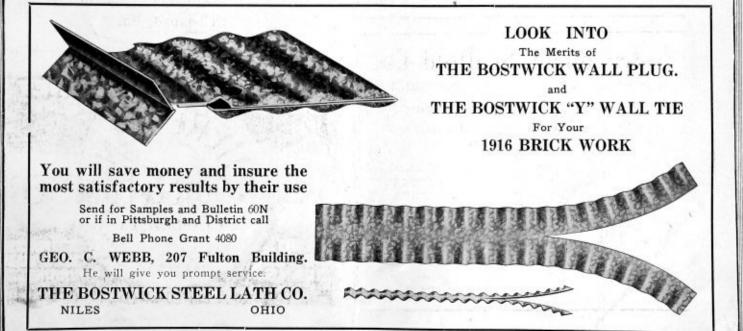
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Steel Reinforcing and Fireproofing Materials of all kinds Metal Lumber Reinforcing Bars Ferro-Lithic Plates Rib-Trus Plates Sidewalk Lights





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Vol. 47.	March 18, 1916.	No. 8.
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ADDITION TO TECH SCHOOLS.

Working drawings have been started for the proposed addition to the Carnegie Institute of Technology, Schenley Park, Pittsburgh, by Architect Henry Hornbostel. The building is to be 40x 170 feet, five stories high and will be constructed of buff brick exterior, terra cotta trim, fireproof roof and floor construction. Bids on the general contract will be asked about April 15th. Estimated cost \$125,000.

SELECT DESIGN FOR FAIRMONT HOTEL.

The new hotel building to be constructed at Fairmont, W. Va., for the Fairmont Hotel Company, will be designed by the Wilburn & Heister Company, Washington, D. C., the selection having been made late last week. The structure will be six stories high and cover an area of 120x131 feet. It will have steel frame, brick and stone exterior with terra cotta trimming. Estimated cost \$350,000.

Y. M. C. A., TO BE FIGURED SOON.

Specifications are now being written by Architects Elzner & Anderson, Ingalls building, Cincinnati, for the Central branch Y. M. C. A., building to be

erected on Canal and Elm streets at 4 cost of \$335,000. Bids on the general contract are to be taken at an early date. The building will be 100x175 feet, 12 stories high and will contain gymnasium and swimming pool, dormitory, work shop, club and educational rooms, bowling alleys, etc

COURT ORDERS BIDS OPENED.

Judge Joseph W. Bouton, McKean County, Pa., presiding in the Cambria County Court, has decreed that the bids submitted for the construction of the court house at Ebensburg, Pa., be opened. Two of the contractors who estimated the work made the request through legal services while another asked to have their bid returned. The latter request was not agreed to and the five bids are still in the hands of the county commissioners.

MAY RESCIND SCHOOL CONTRACT.

The Board of Education, Canton, O., has asked Architects C. C. & A. L. Thayer, New Castle, Pa., to estimate the amount of work done by Melbourne Brothers, Canton, on the Burns school building and to advise the amount still unfinished. The school officials met recently and decided to ask bids for completing the work, thus rescinding the contract made with the contractors who, it is stated, have refused to proceed with the work until certain provisions of the original contracts are amended.

YOUNGSTOWN FIRM ENLARGING

The General Fireproofing Company, Youngstown, O., has had bids submitted on the construction of a one-story brick and reinforced concrete building 108x188 feet which will also call for a reinforced concrete loading platform and retaining wall. The general contract will be awarded shortly. Specifications include concrete footings, cement finish floors, reinforcing steel, solid steel sash, heating system, etc.

SKETCHES FOR AKRON HOME.

The Summer Home for the Aged, William Palmer, president, Second National Bank building, Akron. O., has approved the plans of Architects Schenck & Mead, 105 W. Fortieth street,

New York City, for the new buildings which are to be built on Prospect street, Akron, at a cost of \$100,000. 'The work will call for an administration building, service and dining hall, two dormitories, six cottages, power house, chapel and hospital. It is not likely that bids will be asked before Summer.

CLEVELAND HOTEL AWARDED.

The contract for building a twelvestory hotel structure on the site of the present Forest City House, Cleveland, O., has been awarded to the Crowell, Lundorff-Little Company, E. Fiftyseventh street, Cleveland, without competition. The structural steel for the building will be awarded by the contractors on a tonnage basis. The construction work will be of steel, brick and ornamental terra cotta. Plans of Architects George B. Post & Sons, 101 Park avenue, New York, call for the building to be 110x132 feet on W. Third street. Estimated cost \$1,500,000.

TERMINAL BUILDING FOR AKRON.

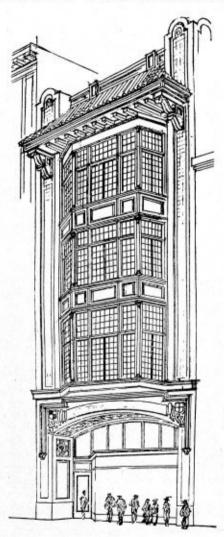
The Northern Ohio Traction & Light Company, Hamilton building, Akron, O., is having plans made by Architect Franz Warner, Hippodrome building, Cleveland, O., for a four-story brick, hollow tile, steel fireproof terminal building 70x 190 feet, a six-story package building 40x180 feet and a one-story train shed 100x140 feet which will be constructed on N. Main, Federal and High streets at a cost of \$200,000. The terminal building will contain eight store rooms. Uncertain when working drawings will be started.

CHURCH FOR WELLSVILLE, O.

Plans have been started by Architect Edwin S. Pruitt, Hartman building, Columbus, O., for the one-story church building to be constructed for the Firsc Presbyterian Congregation, Wellsville, O. The building will measure 70x100 feet and will cost \$70,000. It will contain auditorium, school rooms, social rooms and kitchen. Specifications will call for structural steel, metal lath, slate or tile roofing, tin clad fire doors, sheet metal work, patent plaster, mechanical hot air heating system, stone work, concrete foundations, electric work, etc. No time has been set for taking bids.

New Feature in Store Building Design.

Something new in store building design is embodied in the plans of Architects Zettle & Rapp, Johnston building, Cincinnati, for the new structure to be constructed for the Gennett Corporatior, Richmond, Ind., which intends erecting a four-story building 28x150 feet on



Fourth and Vine streets, Cincinnati. The building is to be leased by the Starr Piano Company. It will have two basements, the exterior work to be of pressed brick with terra cotta and steel sash trimmings. Plans will probably be ready for bidders the latter part of the month. Estimated cost \$100,000.

MAKING ESTIMATES FOR METAL CEILINGS.

In many parts of the country, especially in sections remote from any large city or town, it is often the custom for the local carpenter-contractor, or builder to install metal ceilings as a part of his work. Oftimes the rooms are of irregular outline and this involves more or less confusion in figuring unles the party making the estimate is well posted on all the details of the work. As a general proposition, however, there is nothing unduly complicated about measuring and estimating on ceilings for the average run of rooms.

The first step after one has been asked to give an estimate on a metal ceiling is to get proper measurements from the building or from the plans in case the building is not completed. In making up an estimate from plans it will be necessary to note to what scale the plans are drawn, after which the proper sizes can readily be figured. Ordinarily metal ceilings are sold at a specific price per 100 square feet called a "square." This price usually covers the different parts of the ceiling, including the centerpieces, plates, moldings, fillers, cornices, etc.

If the rule hereafter given is closely followed there will be little difficulty in calculating the number of square feet required for a room of regular dimensions. Suppose, for example that an estimate is required for a metal ceiling for a room 25-40 feet in size. Assuming that a 16 inch cornice is to be selected, a strip extending entirely around the room 16 inches wide, or deep, as one may choose to call it, will have to be covered, or in other words instead of the area to be covered being 25x40 feet there must be aded to these dimensions 16 inches on one end of the room and 16 inches on to dimensions of the other end of the room. It is customary to add 2 inches on each side and end for variation and the filler. The simplest method for calculating the area of ceiling required would be as given in the the table presented herewith:

Size of room25 x 40 ft. 16-in. cornice will add 2 ft. 8 in. x 2 ft. 8 in. Variation and filler 0 ft. 4 in. x 0 ft. 4 in.

Total dimensions to

be covered by metal 28 x 43 ft.

Thus it will be seen that by multiplying these dimensions it will be found that there are 1204 square feet of metal in the room. For the ordinary type of ceiling, say, worth \$3 per square, the cost will be \$36.12. This will ordinarily include the cornice, the filler, the mold, and all the plates necessary to make up the ceiling.

In measuring a building, particular care should be taken to notice whether or not cornice can be used all around the room Wherever there are centerpieces to be placed in the ceiling, those should also be noted on the drawing. In making these drawings for the side walls it is best to mark the position and size of any openings, such as doors and windows, as otherwise the manufacturer will ship enough side wall to cover solid in spaces of that description.

Now and then the builder or sheet metal contractor will come across rooms

EBENSBURG, PA., COURT HOUSE BIDS OPENED.

Following the order of the court to compel the Cambria County Commissioners to open the bids submitted for the construction of the addition to the court house building at Ebensburg, Pa., it was found that the lowest bid was furnished by the King Lumber Company, Charlottesville, Va. Only five contractors figured the work, three on the superstructure alone, one on the superstructure and mechanical work and the other on the mechanical work only. Bids were asked on each of the three proposed wings. The prices offered were as follows:

A. J. Robinson Company, New York	North wing \$65,091	South wing \$65,266	East wing \$108,648	Total 3 wings \$239,005
King Lumber Company, Charlottesville	49,500	49,500	84,400	181,400
P. Carlin Construction Co., New York	66,000	66,500	107,000	232,500
W. H. Fissell & Co., New York	52,700	53,884	87,720	193,304
E. G. Woolfolk & Co., New York				

The combined base bids of the Robinson company was \$294,124, which included the superstructure of the new wings, sub-story work, improvements to present building and elevators; King Lumber Company's figures for the combined work was \$218,100; Carlin Construction Company submitted a total of \$295,500 and W. H. Fissell & Co., \$253,284. None of the above estimates included the heating, plumbing and ventilating. The lowest price named for the ventilating system was offered by the E. G. Woolfolk Company at \$10,045 which also submitted the low figure for plumbing at \$17,160 and heating at \$16,164. The elevator work for all three wings was placed at \$11,550.

Using the base bid of \$218,000 for the work not including the two elevators, heating and ventilating system, approaches, plumbing, electric work, etc., the best lump sum bid was the King Lumber Company with \$299,599. The contract will likely be awarded to the low bidder at an early date.

in which there are small beams or steel girders projecting down from the ceiling through the center of the room. It will be necessary to figure, of course, on covering the surfaces of these regardless of how many there may be. For instance, if a ceiling beam 15 inches deep extends down into a room in the center, there will be two sides of it to be covered, which would add 30 inches to the size of the room; also 2 inches to each side for variation and filler, which would add 4 inches extra.

After the room has been measured, the builder or sheet metal man should get his customer to select the ceiling design which he wishes. The next step is to determine if the pattern will work out to advantage in such a room. In this connection it might be well to state that it is not advisable to use ceilings in small rooms that take a large cornice and large expanse of border and filler.

GRADE CROSSINGS FOR COLUMBUS.

Considerable work is planned by the City of Columbus, O., Norfork & Western, Pennsylvania and Cleveland, Cincinnati, Chicago & St. Louis railroad companies for grade crossing eliminations in various parts of the city. The Pennsylvania and Big Four roads will build four subways on Second, Fifth, Eeleventh and Seventeenth street, bids for which are now being taken by C. A. Paquette, Ingalls building, Cincinnati, The work will include 180,000 cubic yards of grading and embankment, 4154 cubic yards of concrete masonry and about 1,000 tons of steel for the four bridges. The work for the Norfolk and Western road calls for 10 subways from 50 to 80 feet each but is held up by court procedure. Henry Maetzel, Columbus, is the city engineer. The estimated cost of the improvements is \$3,000,000.

CANTON SCHOOL PLANS LEGAL.

The question as to whether the walls for the proposed Market street school building for the Board of Education, Canton, O., were too close to adjacent lot lines has been satisfactorily settled by Architect George S. Hammond, Cleveland, who submitted the plans to the state building inspectors at Columbus. O. The state building code does not permit windows in walls running parallel with lot lines within a distance of 30 feet but there is no governing law concerning windows in walls at right angles. While the building code has never been tested by court proceedure the interpretations of the inspectors must be respected.

Unique Type of School Design

A new structure of unusual design is to be built for the Board of Education, . Oakwood, O., from plans which are now in preparation by Architects Dexter & McClure, Canby building, Dayton, O. It will be of brick and concrete construction and will contain five class rooms and a kindergarten department, also an auditorium to seat 250 persons. Underneath the auditorium in the basement

will be play rooms and dining room for community dwellers. Another room in the basement will be used for library purposes and board meetings while the remaining space will be devoted to manual training and domestic science departments.

Working drawings and specifications will soon be ready for bidders. The cost of the building is estimated at \$40,000.



INCREASE IN BUILDING.

Only a few of the large cities of the United States show a decrease in building operations for the month of February Chicago, New York, Milwaukee and Cleveland reported a loss over the amount of work placed during January. The net loss in Chicago amounted to \$763,800, New York \$2,469,590, Cleveland \$48,275, Milwaukee \$1,679,848. With the exception of New York and Washington, D. C., all the large cities show increased building operations for the first two months of the year as compared with the figures for the same period of 1915. The following table give last month's showing with the year's total as well as the figures for January and February, 1915:

	February 1916	JanFeb. 1916	JanFeb. 1915
Chicago	\$7,354,400	\$15,472,400	\$ 9,029,400
New York	5,101,587	12,692,764	18,831,228
Boston		8,891,000	5,995,000
Philadelphia	. 2,437,750	4,286,840	2,485,735
Milwaukee	. 753,990	3,187,828	612,705
Detroit		4,166,370	2,524,505
Cleveland	. 1,552,620	3,153,620	2,850,005
Buffalo	. 684,000	1,194,000	688,000
St. Louis	. 1,180,334	1,824,525	1,795,735
Minneapolis	. 823,960	1,410,300	1,296,595
Baltimore,	. 1,438,263	2,386,475	1,457,460
Pittsburgh		1,666,630	1,074,105
Cincinnati		1,042,013	950,995
Washington	. 1,129,300	1,867,846	1,961,161
Louisville	. 941,330	1,120,310	653,040
Brooklyn	. 3,600,693	6,613,036	3,891,217
			and the second se

GENERAL NEWS.

T. V. Glassy, Providence, R. I., was awarded the marble and tile work for the experimental station being built on Forbes street, Pittsburgh, for the United States Government.

* * *

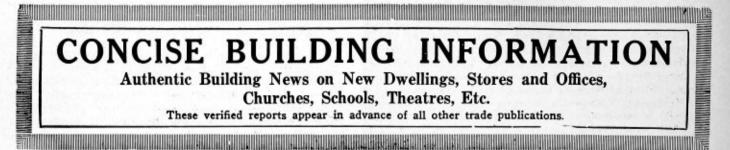
Separate contracts will be placed for the heating, plumbing and electric work to be done in the court house building at Madison, Va., for the Board of County Commissioners. P. Q. Shrake & Son. New Matamoras, O., have the general contract.

* * *

Architects Thies & Thies, Davis building, Dayton, are taking bids on the marble and tile work for the new Holden Hotel at Dayton, O., which is being constructe dat a cost of \$200,000.

. . . .

The Board of Education, Huntington, W. V., will purchase the lighting fixtures for the Eighth street school building now being built to cost \$46,000.



Pittsburgh.

Bids are to be taken at once by Architect S. L. R. Rosseau, 3622 California avenue, Northside, for erecting a twostory brick veneer duplex residence on Perrysville Avenue for H. S. Hays, 416 Federal street, Northside. Estimated cost \$7,000.

The same architect has plans for a two-story brick veneer and frame duplex residence to be built on California avenue for private parties. Bids are to be taken at once Cost \$7,000.

C. N. Wilson, Second National Bank building, Wilkesbarre, Pa., will superintend the erection of a two-story steel, brick and terra cotta trim store building to be built on E. Ohio and Weiser streets, Northside, for the F. W. Woolworth Company, Wilkesbarre. The building will be 50x100 feet. Plans for the work are now under way.

Specifications are now being written by Architect M. Nirdlinger, Fidelity building, for the \$50,000 residence to be constructed on Beacon street, near Shady avenue, for Ernest Roth, 5417 Bartlett street. Plans will be ready for bids shortly.

The Reliance Realty Company, 126 Anderson street, Northside, is to erect a structure on Morgan street, Northside, for machine shop purposes and will soon select an architect to design the work.

Architect O. M. Llewellyn, Bank and Trust building, Greensburg, Pa., has about completed plans for a two-story brick veneer residence to be built on Lilac street for Miles Little, 823 Lilac street. The work will be awarded to Llewellyn & Jones, Second National Bank building, Pittsburgh, without competition.

Walker & Curley, Bessemer building, received the contract to alter and enlarge the packing house of Armour & Co., Anderson street, Northside.

Llewellyn & Jones, Second National Bank building, will probably receive the contract to build a one-story brick and hollow tile theatre building in Sheridan for Alfred Brown. Plans are to come from Architect O. M. Lewellyn, Bank and Trust building, Greensburg.

Bids are to be taken at once by Archi-

tect Charles R. Geisler, 1933 Warnock street, for constructing a two-story brick veneer on hollow tile theatre and apartment building at 1600 Carson street for Louis Michael, 1612 Carson street. Estimated cost \$15,000.

The F. L. Schmeltz Company, Renshaw building, will award separate contracts for materials and sub-contracts on the erection of four duplex residences on Oakwood avenue, West View, for John Sitterly, Jenkins Arcade. Estimated cost \$30,000.

Toupet, Beil & Conley, Oliver building, received the contract for building a onestory brick fireproof commercial garage on McDonald and Meadow streets for A. A. Krouer, 7124 Agnew street.

G. F. Machfessel, 3208 Universal avenue, received the contract to build a three-story brick store and apartment building in Stowe Township for James Liquori, Highland avenue, McKees Rocks. Cost \$5,000.

Charles Boehmer & Sons, Gang avenue and Rialto street. Northlately side. have been awarded following construction work : the Two-story brick duplex residence on Crafton Terrace, Crafton, for Mr. Ernest Reicoff. Cost \$7,500. Two-story brick and shingle cotage on Willoughby street, Brookline for Andrew Tucci, cost \$3,500. Two-story brick and shingle cottage on Thompson Run Road, Shaler Township, for Ferdinand Walter, cost \$3,800. Two-story shingle cottage on Walnut Road, Ben Avon for Mrs. Bessie W. Hubach, cost \$4,000, and Store and apartment building on Rialto street, Northside, for Joseph Steinbrunner, cost \$4,300.

Architect W. A. Thomas, Park building, will take bids shortly for erecting a three-story brick and frame structur-22x120 feet on Wylie avenue for Joseph Sochatoff, Wylie avenue and Charles street. The building will be used for theatre and apartment purposes.

C. E. Donkin, 5717 Center avenue, will award separate contracts for building two duplex residences in Bellevue. Excavations have been started on one while work is soon to be started on the other. Private plans.

Architects Ingham & Boyd, Vanergrift

building, are drawing plans for a 2½story brick residence to be erected on Fairfield Lane, Schenley Farms, for C. Valentine Kirby, 919 Haights street. Cost \$10,000.

Plans have been completed and bids will be taken about April 1st on the erection of a 2½-story brick residence on McPherson steet for W. A. Looney, Frick Annex. Cost \$8,000.

Architects Ingham & Boyd, Vandergrift building, are preparing sketches for a 2½-story brick residence to be erected at Edgeworth for J. B. Orr, Farmers Bank building. Cost \$15,000.

Architect R. Maurice Trimble, Ferguson building, is ready for bids on remodeling a three-story brick store and office building on Penn avenue, East End, for a party whose name is withheld. Cost \$15,000. Building will contain four stores on first floor, 24 offices on second and third floors.

George Heidish, 6420 Howe street is ready for bids on the erection of a two-story brick and hollow tile apartment building on Braddock avenue near Forbes street to cost \$15,000. Plans by Architect F. A. Park, 5435 Kincaid street.

Architect U. J. L. Peoples, Vandergrift building, has plans ready for bids on the erection of a two-story brick residence on Beacon street near Shady avenue. Cost about \$20,000.

Architect Harry S. Bair, Vandergrift building, has plans about ready for bids on the erection of a 2½- story stone residence on Fairfield Lane and Center avenue for Arthur K. Rabe, Thirty-third and Liberty streets. Cost \$25,000.

Architect T. E. Cornelius House building, is taking bids on erecting a 2½story brick residence near Highland Park for H. M. Gearing. Cost \$10,000.

The W. F. Eichenlaub Heirs, 3500 Butler street are taking bids on erecting a two-story brick veneered double deuplex residences on Clarissa street to cost \$18,000. Plans by Architect F. A. Park, 5435 Kincaid street.

Work will soon be started on the erection of three two-story and basement brick and frame residences on Exeter street near Greenfield avenue for G.

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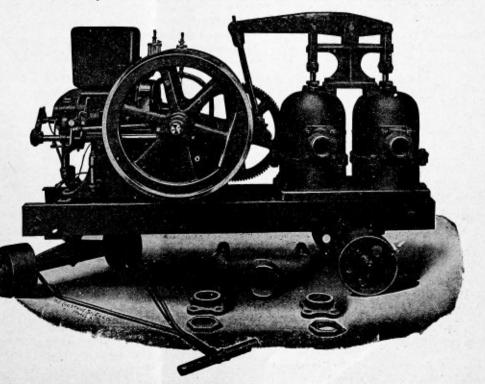
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WHO IS PLANNING • WHO IS BUILDING • WHO IS BUYING

W. Currin, 3237 Dawson street. Cost about \$6,000.

E. H. Hulem, 4 Trenton avenue, Edgewood, will award sub-contracts for erecting a two-story and basement brick parish house on McKee Place, Semple and Louisa streets, Oakland, for the \$5,000. Plans by Architect C. W. Cottrell; 509 Cato street.

The Swisvale Board of Education, Dr. W. T. Pyle, president, has retained Architect, C. Howard Lloyd, Telegraph building, Harrisburg, Pa., to design the proposed high school building, which will cost \$180,000.

Apartments and Dwellings.

Charleston, W. Va.—G. T. Nutter will take bids soon on materials for building a two-story frame residence to cost \$4, 500. Plans were made by Architect David Dick, Capitol street.

Architect A. C. Higginbotham, Morrison building, is working on plans for a 2½-story hollow tile and stucco residence to be built on Delaware avenue for John W. Sparks, 420 Wyoming stree^t. Estimated cost \$10,000.

The same architect is working on plans for a four-story brick and hollow tile apartment building, two-stories, for Miss Grace Skidmore Bids will be taken about the 20th inst.

Cincinnati, O.—Separate contracts will be awarded for constructing a 2½-story brick and stone trim residence on Erie avenue for Frank X. Piatt, 3738 Edwards Road. Plans were made by Architect Randolph Ware, 407 York street, Newport, Ky.

Architects Lowe & Bellenbacher, 14 -E. Jackson street, Chicago, are making new plans for a frame and stucco residence and garage to cost \$7,000 for W. P. Rogers, Cincinnati Law School. Uncertain when bids will be taken.

Benz & Sturwold, 3650 Warsaw avelvan H nue, contemplate building two frame residences on Mayfield avenue, each to cost \$5,000. Private plans. Alto

Mrs. David R. Kahn, 727 Cholson avenue, is having sketches submitted for a two-story brick residence to cost \$15,000.

Cleveland, O. — The Ferguson-Flanigan Company, Vickers building, has been awarded the contract to build a two-story frame duplex residence to cost \$5,000 for R. Willing, 10323 Cresswood avenue. Work will be started at once.

Architect R. A. VanRenssalaer, 10623 Evertan avenue, is planning three two-

story brick and hollow tile duplex residences in Cleveland Heights for John McTernan, 4304 St. Clair avenue. Bids are to be taken at once.

Architect W. A. Hudson, Williamson building, has about completed plans for a 2½-story frame residence and garage to cost \$18,000 for private parties. Estimates will be asked at once.

Lakewood, O.—Preliminary plans for a two-story apartment building are being made by Architect O. N. Chamberlin, Schofield building, Cleveland, for private parties. Working drawings will be started at an early date.

Massillon, O.-George Brown, E. South street, will take bids about April 1 on the erection of a brick and hollow tile residence to cost \$4,500. Plans came from Architect Carl Wilhelm, Albright building.

The same architect has about finished plans for a brick, hollow tile and stone trim apartment building to be built for Mrs. Bert Hankins, Mill street, who will take bids about April-1. Cost \$8,000.

Revised plans will be made by the above architect for a brick and hollow tile residence to be constructed for Dr. F. M. Lose, 207 Pietzecker street. Bids will be taken in about a week. Cost \$5,000.

Toledo, .O.—A two or three-story apartment building 60x100 feet is to be built for the H.* L. Stebbins Company, Nicholas building from private plans. Bids will not be asked until May 1.

Akron, O.—Bids are to be taken about April 1 by J. G. Scales, 1760 S. Union street, for enlarging and remodeling a residence on Merriman Road. Plans of Architect W. C. Peck, Springfield Center, call for new plumbing and electric work, general interior alterations, etc.

The same architect has completed plans for a \$3,500 residence to be built on Ivan Place for W. G. Priest, 61 Brown street. Owner will place all sub-contracts.

Altoona, Pa.—Robert Fay, 715 Green avenue, contemplates building a twostory stone and stucco residence to cost \$12,000. An architect will be selected next week.

Beaver Falls, Pa. — Plans are under way by Architect R. W. Pierce, Jenkins Arcade, Pittsburgh, for a two-story and stone trim residence to cost \$10,000 for Dr, H. E. Krukenberg, Masonic building. Bids are to be taken at an early date. Bryan, O.—Phillip Christman contemplate building a two-story frame residence to cost \$3,000. Private plans.

Canton, O.—Orville Chain, 1232 Louisiana avenue, has private plans for a twostory frame and shingle residence to cost \$6,000. Bids will be asked for shortly.

Canal Dover, O.—A frame residence to cost \$3,500 is under contemplation by 1 P. Steits, Wooster and Second streets. Work may mature in Summer.

Charleston, W. Va.—Plans have been started by Architect A. G. Higginbotham, Harvey building, for a 2½-storystone residence to be built for William A. MacCorkle at a cost of \$20,000.

Cincinnati, O. — Architects W. W. Franklin & Sons, 528 Walnut street, have been retained by Harry J. Lohman, 3850 Oakley avenue, to prepare plans for a 2½-story brick or stucco residence and garage to be built on Walnut Hills. Cost \$15,000.

Columbus, O.—Plans have been completed by Architects Marriott, Allen & Hall, Hayden-Clinton building, and bids are soon to be asked by Glenn Yountz, 219 N. High street, for building a twostory brick residence to cost \$4,000.

Follansbee, W. Va.—Carl Boyd, Martins Ferry, O., received the contract to build a two-story frame residence for R. L. Ulrich. Cost \$4,000.

Hollidaysburg, Pa. — Bids will close soon on constructing a two-story brick veneer residence for George Kephart. Private plans.

Huntington, W. Va. — The Montgomery Construction Company received the contract to build a brick and stone trim residence on Thirteenth avenue for Dr. C. M. Hawes, Ritter building. Cost \$6,500.

McKeesport, Pa. — Charles Ahlquist, 1406 Versailles avenue, was awarded the work of building a two-story brick and shingle residence for A. E. Campbell, Jr., 1234 Huey street. Cost \$6,000.

Parma, O.—A. G. Klippel, 12576 Clifton Boulevard, Lakewood, contemplates building a two-story brick residence to cost \$8,000. No plans have been adopted.

Youngstown, O. — Heller Brothers was awarded the contract to build a \$100,000 residence and garage on Logan Road for James A. Campbell, Stambaugh building. The work will be of brick, hollow tile and stone trim.

Aliquippa, Pa. — The Rochester Construction Company, Rochester, received the contract to enlarge and remodel an



NEWS FOR CONTRACTORS AND MATERIAL DEALERS

apartment building on Main street for Harry Barnett.

Alliance, O.-New bids from revised plans will be taken by A. J. Reeves and Architect R. A. Conkey, 9610 Pierpont avenue, Cleveland, for building a twostory residence and garage. Estimated cost \$15,000

Altoona, Pa.—A. W. Rudolph has private plans for building six frame or stucco residences, each to cost \$2,500.

Cincinnati, O.—John Mathias & Son, 3836 Glenmore avenue, received the work of constructing a two-story and stone trim apartment building for Wm. Fehr, Mt. Clair street. Cost \$9,000.

Cleveland, O.—Architect W. J. Price, 866 Ansel Road, has plans for a twostory brick apartment building to be constructed for M. Grabkeeski, 1179 E. Eighty-fourth street. Cost \$7,500.

Hollidaysburg, Pa.—Plans will soon be completed by Architects M. S. Hunter & Son, Hollidaysburg, for a two-story brick veneer residence for C. Panyn. Cost \$5,000.

Wheeling, W. Va. — Bids will close this week on constructing a 2½-story hollow tile and stucco residence to cost \$6,000 for E. B. Duis, 275 Richland avenue, Warwood. Plans were made by Architect George Ebeling, McLain building, Wheeling.

Akron, O. — Architect M. P. Lauer, Hamilton building, has started plans for a two-story brick and stone trim apartment building to be constructed for private parties. The building will be measure 26x130 feet and cost \$15,000.

Bids will be taken by Architects Boenisch & Kraus, Ohio building, on the erection of a two story duplex residence and a one-story garage for Mrs. I. M. Blessman. Cost \$6,000.

Bids are to be taken until the 25th inst for constructing a 2½-story brick, hollow tile and stone trim residence and garage for C. P. McCreedy, 71 S. Main street. Plans came from Architect Vernon Redding, Mansfield.

Canton, O.—Plans are nearing completion by Architect Willard Hirsh, Swetland building, Cleveland, for a two-story brick, hollow tile and stucco parish house 35x80 feet for the St. Pauls Episcopal Congregation. Estimated cost \$15,000.

Maume, O.—Preliminary plans are being made by Architect George B. Rheinfrank, Gardner building, Toledo, for a two-story frame and stucco residence and garage to be built for John D. Biggers. No details decided.

Toledo, O.—Architect H. W. Wachter, Nicholas building, will take bids at once on building a three-story brick apartment building on Ninteenth and Jefferson streets for G. L. Morcereau, 413 Monroe street.

Woodlawn, Pa. – E. M. Ridenour, Woodlawn Lumber Company contemplates building seven frame residences from private plans. Owner will build and award separate contracts.

Akron, O. — Architects Frank, Wagner & Mitchell, Permanent building, have plans nearing completion for a two-story brick and tile bungalow, summer residence and garage to be erected for George R. Hill, 999 N. Market street.

A. B. Jones, care Goodrich Rubber Company, is taking bids on erecting a two-story stucco and hollow tile residence and garage to cost \$25,000. Plans by Architect Howard Shaw, 39 State street, Chicago.

Architects Frank, Wagner & Mitchell, Permanent building, are taking bids to close this week on the erection of a twostory brick residence on Conger avenue for W. G. Wetteran, care Goodyear Tire & Rubber Company. Cost \$5,000.

Architects Harpster & Bliss, Nantucket building, have plans nearing completion for a 2½-story brick veneered residence and garage to be erected for Harry Williams, 94 E. Market street. Cost \$10,000.

Alliance, O.—Architect W. W. Matchett awarded to Robert Mellor, the contract for erecting a two-story and basement brick and hollow tile apartment building on E. Market street for Roscoe T. Sharer. Cost \$8,000.

The same architect has plans in progress for a two-story and basement brick and stone terrace to be erected on Ely street for Howard Tollerton. Cost \$15,000.

Hollidaysburg, Pa.—M. G. Hunter & Son, 819 Walnut street, received the work of building a two-story brick veneer residence for Frank Ciber, the work to cost \$4,800.

Homestead, Pa.—Harry Honse, Homestead, was awarded the contract to buil.1 a three-story brick duplex residence on Eighth avenue for G. McKinley, Ammoa street.

Bids will close on April 15th for erecting a 2½-story brick and stone residence on Twelfth street for C. W. Posey, 320

Thirteenth avenue. Plans by Architect J. D. Rowlands, 574 Doyle street.

Homeworth, O.—Preliminary plans are being made by Architect W. W. Matchett, Alliance, for a two-story stucco residence to cost \$4,000 for Ira Kimes. The building will have slate roofing, oak flooring, brick mantels, etc.

Juniata, Pa. — John Hall, 600 Fourth avenue, contemplates building eight brick and hollow tile residence, each to cost \$2,500. Private plans. Work may mature soon.

Kent, O.-A. L. Morrette, Akron Savings & Trust building, Akron, secured the contract to build a 2½-story brick veneer residence and garage for Dr. W. C. Ramsey, 566 Crosby street Akron. Cost \$6,000.

Kenton, O.—Architects McLaughlin & Hulsken, Lima, have preliminary plans for a two-story brick residence to cost \$10,000 for private parties. Uncertain when bids will be asked.

Lancaster, O.—A. B. VanGrundy, 615 Columbus street, secured the work of erecting a two-story frame residence for Edward Beck, R. F. D. Lancaster. Cost \$4,000. Sub-contracts will be awarded soon.

Lima, O.-W. E. Bailey, 208 S. Collect street, will erect a two-story brick residence from plans which are being made by Architect Leech & Leech, Public Square. Uncertain when work will mature.

The same architects are taking bids on the erection of a two-story brick and terra cotta apartment building to cost \$15,000 for P. M. Ireland, W. Market street. Cost \$15,000.

Martins Ferry, O.-R. L. Byrum & Sons Company, Wheeling, secured the contract to build a two-story brick vencer residence for W. L. Medell. Sub-contracts are to be placed soon.

Mentor, O.—Architect J. H. Graham, Union building, is taking bids on the construction of a 2½-story frame or hollow tile and stucco residence and garage to be built near Cleveland for Chester K. Brooks, 7706 Platt avenue, Cleveland. Cost \$25,000.

Milton, O.—Bids will be taken April 1 on building a \$12,000 residence for E. E. Harshberger from plans which are being made by Architect E. N. Alger, Huntington.

Painesville, O .- Plans are being made by Architect W. A. Hudson, Williamson building, Cleveland, for a two-story



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BUILDING PROJECTS AND WORK AWARDED

frame residence and garage to be built for private parties. Bids will be asked for in a short time.

Parkersburg, W. Va.—Bids are in and the contract will soon be placed for building a residence, office and apartment building on Market street for Dr. Milton McNeilan. Cost \$5,000. Plans by Architect Frank Upman, Woodward building, Washington, D. C.

Rochester, Pa.—Teapole & Haney will, soon start work on the erection of a twostory brick and hollow tile residence to cost \$4,000 for Frank Doutt.

John Mellor, First National Bank, is having sketches submited for a twostory brick residence to cost \$6,000. An architect will be retained about April 1.

Akron, O.—Bids are being taken by Architects Boenisch & Kraus, Ohio building, for the construction of a twostory frame residence to cost \$4,000 for A. Stalder, 449 Perkins avenue.

Beaver Falls, Pa. — Charles Pfeiffer will soon start work on the building of a two-story frame and shingle bungalow on Eleventh street for George Hedlon, Fifth avenue and King street. Sub-contracts are to be awarded soon.

Bellaire, O.—Bids are in and the contract will soon be placed for erecting a two-story frame apartment building 36x 70 feet for F. A. Kirkland, Central avenue. Plans by Architect J. Wood, Bellaire.

The same architect will take bids until the 20th inst for constructing a twostory brick apartment building addition for Mrs. G. A. Heinlein, the work to cost \$3,500.

Cambridge, O.—Plans are about completed by Architect J. F. Orr, Central National Bank building, for a two-story brick veneer apartment building 37x50 feet for Dr. Henry L. Wells, Forest avenue. Bids will not be asked for some time. Cost \$9,000.

Canton, O. — Harvey S. Loehr, 2248 Mahoning avenue, received the contract to build a two-story frame residence on Howard street for Lyle Stansberry, 1318 Edward avenue, also a residence on Kimball Road for Louis Brenet, 2415 Kimball Road. Mr. Loehr will soon start work on both residences as well as the one for Dr. C. W. Potter, 121 Cleveland avenue.

Sketches are being made for a 2½story brick residence and garage to be built on N. Fulton Road for Clarence Herbruck, Harter Bank building. Plans will come from Architect W. S. Epperson, 105 N. Cleveland avenue.

Cleveland, O. — The carpentry and masonry work on a \$16,000 residence to be built in Cleveland Heights, for G. E. Milligan, 1300 W. Ninth street, have been awarded. Other contracts will be placed by Architect B. W. Corning, Schofield building.

Architect L. L. Porter, Society for Savings building, is making sketches for a two-story frame duplex residence to be built in Cleveland Heights for the Overlook Land Company, Society for Savings building. Cost \$7,000. Separate contracts will be placed.

Cincinnati, O. — Charles E. Wilson, 1901 Madison Road, has retained Architects Elzner & Anderson, Ingalls building, to prepare plans for a 2½-story brick and stone trim residence to be built on Handyside avenue.

Columbus, **O.**—Oscar Schmid, 362 S. Ogden avenue, will take separate bids on material for remodeling a residence on Ogden avenue. Plans by Architect H. Charles Jones, Grand Theatre building.

Architects Matheny, Allen & Mountz, Huntington National Bank building, have plans for a double terrace to be constructed on Schiller street for the Jackson Realty Company, Chamber of Commerce building. Estimated cost \$25,000. Bids will be taken next week.

Separate bids will be taken by C. H. Nims, 1556 Worthington avenue, for erecting six apartment buildings on Oak street to cost \$60,000. Plans are being made by Architects Julian & Julian, 576 N. High street.

Cuyahoga Falls, O.—Bids will be asked by Architects Frank, Wagner, & Mitchell, Permanent building, Akron, for erecting a 2½-story frame residence to cost \$4,000 for Frank Howe, E. Center street, Akron.

DuBois, **Pa**.—Architects Harrington & Howard have plans under way for a twostory brick and hollow tile residence for James Gleason Bids will be asked April 1. Cost \$7,500.

Duquesne, Pa.—Bids close on the 25th inst for building a 2½-story brick and hollow tile residence to cost \$4,500 for J. C. Dale, Fourth street. Plans by Architect A. L. Miller, 924 Chislett street, Pitsburgh

Springfield, O.-A. \$12,000 residence is to be built on the Dales addition by Peter A. Boggan, 24 E. Main street. from plans to come from Architect William K. Shilling, Bushnell building. Work includes garage in basement.

The same architect has sketches for a two-story frame residence to cost \$4,-000 for Ralph Stewart, 131 E. Pleasant street. Working drawings will soon be started.

Tiffin, O. — Working drawings have been started by Architect G. W. Netcher. Washington street for a two-story stucco residence and garage for David Gottleib, Sycamore street. No time has been set for taking bids.

Wheeling, W. Va.—Architect George W. Pague, German Bank building, has plans for a three-story hollow tile and stucco apartment building to be built on N. Main street for Ambrose F. Habig. Bids will be asked about April 1.

Youngstown, O.-Wilbur Young, Wick building, was awarded the work of building a brick veneer residence for Glen Heedy, 278 Norwood avenue. Cost \$5,-000.

Architects Louis Boucherle & Son, Stambaugh building, will be ready for bids soon on the erection of a brick veneer residence to cost \$6,000 for J. B. Smith, 819 Michigan avenue.

Zanesville, O.—No date has been set for closing bids on the erection of a twostory brick double residence on Wayne avenue for George Martin, 744 Elberon avenue. Plans by Architect C. E. Handshy.

Duquesne, Pa. — Architect A. L. Miller, 924 Chislett street, Pittsburgh, has about completed plans for a two-story brick and hollow tile apartment building, to be constructed for Dr. W. E. Hawk, 12 S. First street. Cost \$10,000.

Beaver Falls, Pa. — R. B. McDanel Company, New Brighton, secured the work of building a 2½-story brick residence on Eighth avenue for Dr. J. H. Howard, Swick building. Cost \$11,000.

Struthers, O.—Sketches are being made by Architects Louis Boucherle & Sons, Stambaugh building, Youngstown, for an eight room brick residence to be built for Max Schwartz. Cost \$6,000.

Warren, O. — *F. G. Schuler, 8 Market street, was awarded the contract to build a two-story brick and stucco residence and garage on Third street for E. H. Lampe, 300 Second avenue. Cost \$10,000

Zanesville, O.—Bids are to be taken in a few days by Architect C. E. Handshy on the erection of a two-story brick residence to cost \$5,000 for Charles O. Stewart, 126 Market street. Cost \$6,500.

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DESIGNS and ESTIMATES

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Business Buildings.

Cleveland, O.—Separate bids are being taken by A. Arnoff, 575 E. One Hundred Seventeenth street, for building a twostory brick and hollow tile store and apartment building 50x110 feet. Plans came from Architect George E. Rudolph, 5217 Woodland avenue.

Columbus, O.-H. H. Carr, 2502 Broad street, received the contract to build a five-story brick, reinforced concrete and stone trim office building for H. C. Goodman Company.

Architect Charles L. Inscho, Brunson building, has plans for remodeling a building on Sixth street, near State, for Dr. George Williams. New partitions, floors, electric wiring, roofing, etc., will constitute the work.

Akron, O.—The Commercial Savings Bank has commissioned Architect W. G. Pollock, Garfield building, Cleveland, to prepare plans for remodeling its building. The work will call for interior remodeling, steam heating system, marble and bronze work, etc. Bids will be asked about April 10th.

Porter Brothers, 105 E. Cuyahoga street, received the contract to build a two-story brick and hollow tile store and apartment building 60x90 feet on E. Market street for Jesse Failor, 328 S. Main_ street. Cost \$25,000.

C. J. Carothers, 218 S. Arlington avenue, was awarded the work of building a two-story brick store and apartment building 39x50 feet for B. Federhar, 177 Chittenden street. Cost \$8,500.

Brownsville, Pa. — Plans are being made by Architect J. H. Geisy, Mellon Bank building, Pittsburgh, for enlarging and remodeling the Second National Bank building. Plans will be ready for bids about pril 1.

Canal Dover, O. — Preliminary plans are being made by Architect J. E. Lewis, 154 High street, New Philadelphia, for a three-story brick building 100x100 feet for the Immell Feed & Milling Company. Cost \$30,000.

Celina, O.—A. G. Ayers, W. Market street, contemplates building a twostory brick store and office building to cost \$10,000. No design has been selected.

Cincinnati, O. — Architects Zettle & Rapp, Johnston building, are working on plans for a two-story brick and reinforced concrete office building 35x80 feet for the Cincinnati Lathe & Tool Company. Bids will be taken next week. Cleveland, O. — Plans of Architects Ernest Huberty, 8017 Whithorn street, are about ready for bids for building a four-story structure 50x100 feet for the Federal Coffee Mills Company, 828 Broadway.

The William Dunbar Company, 8201 Cedar avenue, received the contract to build a two-story brick, steel and terra cotta trim sales room and warehouse for the Neighbors Motor Company. Private plans.

Columbus, O.-C. F. Hansberger, 51 E. State street, received the work of erecting a two-story brick and stone trim store building 25x120 feet for Nelson J. Ruggles, 820 Scott street. Cost \$7,000.

William Heckert, Ruggery building, was awarded the work of constructing an addition to the store building of Carlisle & Sons on Vine street. Cast \$28,000.

Fairmont, W. Va.—Holbert & Spedden, Fairmont, received the contract to build a three-story brick, steel and stone trim office 35x50 feet for the Bell Telephone Company. Cost \$35,000.

Massillon, O. — A three-story brick and hollow tile store and apartment building is to be constructed on N. High street for Charles Myers, 118 N. High street from plans of Architect Carl Wilhelm. Bids will be taken about April 15th. Cost \$10,000.

Monessen, Pa. — Michael Malynia, Schoonmaker avenue, will take bids soon on the erection of a two-story brick and hollow tile store and apartment building 22x100 feet. Plans have been made by Architect J. M. Beall, Monessen.

Sandusky, O.-Working drawings will soon be completed by Architects A. M. Allen & Co., 1900 Euclid building, Cleveland, for a three or four-story brick and reinforced concrete building 58x85 feet for the Star Journal Publishing Company. Cost \$50,000.

Toledo, O.-M. Rabbitt & Son, Nasby building, received the contract to build a two-story brick and stone trim store and apartment building 80x90 feet for Dr. Frank McNierney, Colton building. Cost \$25,000.

Youngstown, O. — Joseph R. Nause, 1526 Market street, will take bids about April 1 on building a two or three-story store and apartment building Private plans.

Altoona, Pa.—Architect Julian Millard, Hutchison building, has plans in progress for a two-story brick store and office building to be erected on 1109-11

Eleventh avenue, for Jacob Brett. Cost \$10,000.

Akron, O. — Architects Boenisch & Kraus, 316 Ohio building, have plans in progress for a two-story and basement brick and stone store and apartment building to be erected for George F. Fricker, 726 Second National Bank building. Cost \$6,000.

Architect Frank & Mitchell, 405 Permanent building, have been selected to prepare plans for remodeling a store on S. Main street for Frank Laubach & Clemmer, S. Main street. Cost \$4,000.

The Read Benzol Company, contemplates erecting a two-story brick an-i steel dry cleaning plant addition on Summit street to cost \$10,000. Architect not selected and no details decided.

Architect Vernon Redding of Mansfield, has plans in progress for a threestory reinforced concrete, brick and steel store and hotel building to be constructed on E. Market and Broadway streets for Charles Stahl, 618 Hamilton building. Cost \$60,000.

Beaver Falls, Pa.—F. F. Brierly & Sons, Seventh avenue, are taking bids to close shortly on the erection of a two-story brick store addition on Seventh avenue to cost \$4,500. Plans by Architect J. A. Snyder.

Conway, Pa.—Architect F. E. Mathews of Rochester, has plans in progress for a two-story frame store, apartment and bowling alley to be erected on Second street for J. D. Cottage, Second street. Cost \$5,000.

Elmwood Place, O. — Architect Anthony Kunz, Jr., 955 W. Court street. Cincinnati, has plans in progress for a three-story and basement pressed brick and limestone store and apartment building to be erected on Carthage Pike and Lombardy street for Mrs. Mary Arlinghaus, 113 Main street. Cost \$13,000.

Lima, O.—Architect A. C. DeCurtins, 503 Opera House building, awarded to F. E. Wood, the contract for erecting a three-story pressed brick and limestone store and office building and dance hall, on High street for Stein Brothers, 200 McKibben street. Cost \$10,000.

Mt. Union, Pa.—Architect Julian Millard, Altoona, has completed plans for a two-story stone and hollow tile bank and office building to be erected on Jefferson avenue for the Central National Bank. Cost \$20,000.

Mullens, W. Va .- The Bank of Wyoming contemplates constructing a four-





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PLANS FOR VARIOUS KINDS OF STRUCTURES

story brick bank and hotel building to cost \$30,000. Architect not selected. First floor to contain banking rooms and hotel lobby, and second and third floors to contain sleeping rooms.

Toledo, O.—Architect Otto C. Darst of Columbus, awarded to the Bright Construction Company, the contract for constructing a four-story and basement brick and limestone warehouse on 126 Ontario street for the Central Ohio Paper Company. Cost \$35,000.

Woodlawn, Pa.—Architect L. Patterson, Mitchell block, Rochester, is revising plans for a two-story brick and frame store and apartment building to be erected on Main and Hopewell avenues for Harry Gasfriend. Cost \$6,000.

Youngstown, O.—Bids are in on the erection of a two-story brick and sandstone store and apartment building on Short street for J. Brady, 215 Federal street, to cost about \$5,000. Plans by Architects Stanley & Scheibel, Wick building.

Architect Louis Boucherle & Son, Stambaugh building, are taking bids on erecting a three-story brick and hollow tile and stone store and apartment building on Wilson avenue, East Youngstown, for Morris Kaufman, E. Marion street, E. Young'stown. Cost about \$15,-000.

Philipsburg, Pa. — The Philipsburg Beef Company, Pine street, is taking bids to close soon, on the crection of a two-story brick and reinforced concrete packing plant to cost \$10,000. Plans by Architect George Puderbugh of Altoona.

Alliance, O.-Sketches are under way by Architect W. W. Matchett, 537 E. Main street, for a three-story brick and stone trim store and apartment building 50x50 feet for W. W. Shidley, City Hall. Estimated cost \$12,000.

Greensburg, Pa. — Bids close on the 18th inst for erecting the seven-story brick, steel and fireproof bank and office building for the Westmoreland National Bank. Plans were made by the Emmett E. Bailey Company, Keenan building, Pittsburgh and Oil City, Pa.

Brownsville, Pa. — The Pennsylvania Railroad Company has private plans for a 2½-story brick office building, 40x73 feet, bids for which will be taken until the 20th inst.

Delphos, O.-T. R. Sliemers, 106 Euclid street, Lima, was awarded the work of constructing a two-story building 21x42 feet for the Delphos Home Telephone Company. Cost \$30,000. Johnstown, Pa.—Plans of Architect O. P. Thomas, Leader building, will soon be ready for bids on erecting, a threestory brick and shingle store building 68x132 feet for John Wildman, Railroad street

Leechburg, Pa.—Revised plans of Architect Orin Tects, Oil City, will soon be completed and bids will be asked for the erection of a two-story fireproof building 18x48 feet for the Kittanning Telephone Company.

Springfield, O.—Plans for the new bank building for the Mad River National Bank will be ready for bids about April. The building will measure 30x65 feet and will cost \$50,000.

Tarentum, Pa.—Architect P. C. Dowler, Arrott building, Pittsburgh, will soon ask bids on the construction of the threestory brick and ornamental terra cotta building 45x71 feet for the Peoples National Bank. Estimated cost \$30,000.

Warren, O.—Bids will be taken next week on the construction of the addition to the office building of the Trumbull Steel Company. Estimated cost \$10,-000. Plans by Architect J. L. Decker, Stambaugh building, Youngstown.

Architects Miller & Son, Dollar Bank building, Youngstown, will take bids soon for erecting a two-story brick and hollow tile store and apartment building 100x108 feet for the Wick Investment Companly. Estimated cost \$40,000.

Religious.

Charleston, W. Va. — Bids are to be taken soon and close April 1 on erecting a one-story brick and stone trim church building for the First Church of Christ Science. Plans will come from Architect H. R. Warne, Charleston.

Cincinnati, O.—Specifications are being written by Architects Garber & Woodward, Union Central building; for a 1½-story brick and stone church building to cost \$50,000 for the New Thought Temple. Bids on the general contract will be taken next week.

Cleveland, O. — Preliminary sketches are being made by Architects Briggs & Nelson, Rose building, for a one-story brick and stone trim church building for the Fourth Church of Christ Scientists. Uncertain when working drawings will be started. Estimated cost \$100,000.

Massillon, O.-Preliminary plans are being made by Architect Carl Wilhelm, Albright building, for remodeling the church building of the Wesley M. E. Congregation. The school room wilt be rebuilt and general alterations made to interior of the church structure. Bids are to be asked for shortly.

Navarre, O. — Working drawings are about completed by Architect Carl Wilhelm, Albright building, Massillon, for an addition to be built to the St. Pauls Evangelical Church. The work will cost \$10,000.

Shadyside, O. — Freeman & Hudson, Bellaire, O., received the contract to build a one-story brick and stone trim building 60x140 feet for the Shadyside M. E. Congregation. Sub-contracts are to be placed at once.

Warren, O.-Architects Crew, Lewis & Wickenhoefer, 200 Fifth avenue, New York City, will take bids about April 1 on making additions and alterations to the First Presbyterian Church, the work to cost about \$50,000.

Huntington, W. Va.—The West Huntington Methodist Episcopal Congregation will soon select an architect to design a brick and stone trim church building to cost \$18,000.

Sycamore, O.-A one-story brick and stone church building is contemplated by the Sycamore Reformed Congregation. Work may mature soon.

Springfield, O.—Architect R. F. Gable, Bushnell building, will soon be ready for bids on the construction of a one-story brick and stone trim church building for the Central African Methodist Congregation. Estimated cost \$10,000.

Akron, O.—Plans are being revised by Architect M. P. Lauer, Hamilton building, for the two-story brick and stone church and school building for the North Hill Methodist Congregation. Bids will be taken about the 22nd inst. Estimated cost \$40,000.

Marion, O.—The Calvary Evangelical Congregation will select an architect about the 20th inst for designing a twostory brick and stone trim church building to cost \$40,000.

Pitcairn, Pa. — Hobaugh & Wimer, Butler, Pa., secured the contract to build a one-story brick and hollow tile and sandstone trim church building for the McGinnis Presbyterian Congregation. The work also calls for veneering and altering present parsonage.

Atwater, O.—Architect W. W. Matchett, 539 E. Main street, Alliance, is taking bids on remodeling a one-story and basement brick church for the First M. E. Congregation, to cost \$5,000.



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THE "LAST WORD" IN BUILDING NEWS

Chattanooga, O.—Architect Robert C. Gotwald of Springfield, has preliminary plans in progress for a one-story and basement brick church to be crected for the Lutheran Congregation to cost \$20,-000.

Portage, Pa.—Architect F. J. Shollar, Altoona, will soon start plans for a onestory brick church to be erected for the Evangelical Lutheran Congregation, to cost \$7,000.

Sharonville, O.-St. Michael's Roman Catholic Congregation, contemplates erecting a church on Oak street to cost \$25,000. Architect will be selected shortly.

Zanesville, O.—The St. Johns English Lutheran Congregation contemplates erecting a one-story brick and stone trim church building to cost \$60,000. No architect will be selected until April 15.

Educational.

Durbin, W. Va.—The Board of Education of Greenback District, J. E. Curry, president, contemplates building a twostory brick school building to cost \$20,-000. The selection of an architect will be made shortly.

Brackenridge, Pa.—Dennis Duff, Ford City, Pa., was low bidder for constructing the two-story brick and hollow tile school building for the Board of Education. Work Brothers, New Kensington were second low bidders.

Cleveland, O.—The Western Reserve University is placing sub-contracts for building a three-story brick, stone and ornamental terra cotta building 84x124 feet. The steel work has been placed with the Massillon Bridge Company, Massillon and mason work to J. B. Clark. Noble, O.

Holloway, O.—Plans will be completed late this month for a two-story brick and limestone trim addition to the school building for the Board of Education. Plans are being made by Architect J. E. Lewis, New Philadelphia.

Parrall, O. The Board of Education of Dover Township has approved the plans of Architect J. E. Lewis, New Philadelphia, and will ask bids soon on building a brick, hollow tile and metal lumber school structure 40x88 feet. Estimated cost \$25,000.

Richfield, O. — Foraker Brothers, Akron, O., were low bidders for constructing a three-story reinforced concrete, brick and steel frame school building 86x124 feet for the Board of Education. The bids was \$30,707. The next

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low bidder was Rowe & Giles, Chagrin Falls, O., at \$31,956.

Ronceverte, W. Va. — The Board of Education, Dr. J. Witt Deveber, president, contemplates building a school building to cost \$30,000. The proposed building will contain eight class rooms and auditorium.

Antioch, O.—The Sunnyside Lumber Company secured the contract to build a two-story brick and stone grade school building for the Board of Education. Cost \$11,900.

Johnstown, Pa. — A one-story brick and hollow tile school building to cost \$21,000 is to be built in Upper Yoder Township by the Board of Education. Architect W. R. Myton, Johnstown Trust building, will make the plans.

Brackenridge, Pa.—O. O. Dershimer, Butler, was awarded the work of building a two-story brick and hollow tile school building 34x150 feet for the Board of Education. Plans came from Architect John Phillips, McKees Rocks.

Willoughby, O. — Preliminary plans have been started by Architect Franz Warner, Hippodrome building, Cleveland, for the institutional buildings to be constructed for the Andrews Institute for Girls. Working drawings will be started about April 1. The work will cost \$500,000.

Beloit, O.—Architect Frank L. Packard of Columbus, has been selected to prepare plans for a one or two-story brick and stone township grade and high school building to be erected for the Board of Education to cost \$25,000

Bryon, O.—Architect W. H. Nicklas, 1900 Euclid building, Cleveland, will soon start plans for a two-story and basement brick fireproof high school building to be constructed for the Board of Education to cost \$50,000.

Coolville, O. — Architect Frank L. Packard of Columbus, has been selected to prepare plans for a two-story basement brick grade and high school building to be erected in Troy Township for the Board of Education. Cost \$35,-000.

Harrod, O.—Architects Leech & Leech of Lima, have plans in progress for a two-story and basement pressed brick and stone centralized school building to be erected for the Board of Education to cost \$20,000.

New Brighton, Pa.—Architect W. G. Eckles of New Castle has completed preliminary sketches for a two-story and basement high school building to be constructed on North avenue for the Board of Education Cost \$100,000.

Reading, O.-Estimates are being received on constructing a three-story and basement pressed brick, stone and terra cotta grade school building on South street for the Board of Education to cost \$60,000. Plans by Architects Garber & Woodward of Cincinnati.

Van Buren, O.—Architects McLaughlin & Hulsken, Lima, have plans in progress for a two-story and basement pressed brick and stone centralized school building to be constructed in Allen Township for the Board of Education. Cost \$45,000.

Creighton, Pa.—O. O. Dershimer, Butler, Pa., received the contract to build the grade school building for the Board of Education. The building will measure 50x74 feet.

Lafayette, O. — Architects Rusk & Sheets, Brunson building, Columbus, have been retained by the Board of Education to prepare plans for a two-story brick and stone trim school building to contain six rooms. Estimated cost \$15,-000.

Newport, O.—The school officials have authorized Architect Harry Meyers, Peoples Bank building, Zanesville, O., to prepare plans for a two-story brick and stone trim school building to cost about \$12,000.

Youngstown, Pa. — The Board of Education has retained Architects Stanley & Schiebel, Wick building, Youngstown, to prepare plans for the Boardman high school building, to be constructed of brick, hollow tile, wood floor, etc. Cost \$30,000.

Dayton, Pa. — Architect A. F. Rairigh has completed plans for the fourroom school building for the Rural Valley Public School Board, and will take bids about April 1. Estimated cost \$7,-000.

The same architect has plans for a two-room school building for the Plumville School Board, which will cost \$4,-000. Bids will be asked April 1.

State, County and Municipal.

Massillon, O. — Bids are now being asked for constructing a 2½-story brick and stone trim cottage for the Ohio Board of Administration, Columbus, O. The building will measure 72x89 feet and cost \$70,000. Plans by Architects Richards, McCarty & Bulford, Hartman building, Columbus. Pinesville, W. Va. — The Board of County Commissioners, H. M. Cline, chairman, has private plans for a two or three-story stone court house building which will be built at a cost of \$75,000. The building will measure 75x100 feet.

Society and Club Buildings.

Johnstown, Pa.—Plans are now under way by Architect H. M. Rodgers, Johnstown Trust building, for the five-story brick fireproof lodge building to be built on Vine street for the Knights of Pythias, Harry Kahl, chairman of building committee. Cost \$50,000.

Akron, O.—Specifications are now being written for the construction of the club house on First street for the University Club. Architects Harpster & Bliss, Nantucket building, expect to take bids next week.

Braddock, **Pa.** — The Hodder Construction Company will remodel and enlarge the Masonic Temple at a cost of \$20,700. Work will soon be started.

Johnstown, Pa.—Bids will be asked at once by Architect George Wild, Main street, for constructing a two-story brick steel and reinforced concrete lodge building 49x150 feet for the Loyal Order of Moose. Cost \$25,000.

Warren, O. — Preliminary plans are being made by Architect J. L. Decker, Stambaugh building, Youngstown, for a 1½-story frame, stucco and metal lath club house for the Warren Country Club. Bids will be taken about April 10.

Manufacturing.

Cincinnati, O. — The Alms & Doepke Company, Canal and Hunt streets, is having plans made by S. S. Godley & Son, Neave building, for a four-story brick and reinforced concrete power house addition. Bids are to be asked for at once. Estimated cost \$25,000.

Massillon, O. — The Peerless Drawn Steel Company contemplates the building of three new factory additions, the work to call for steel frame, corrugated iron roofing and siding. Work may mature at an early date.

Cincinnati, O. — L. Schreiber & Sons Company received the structural steel and the Roche-Brunner Building Company the excavating and concrete work for the new factory building for the R. K. LeBlond Machine Tool Company. Plans call for a four-story building 35x-325x70 feet, and four-story structure 52x 270 feet and a one-story building 300x500 feet. Other contracts will soon be awarded. Cost \$275,000.

Coraopolis, Pa.—Specifications are being written by Architect Ed. Cornelius, House building, Pittsburgh, for the construction of the two-story brick factory

addition for the Consolidated Lamp & Glass Company. Owner will take bids on materials at once.

Emporium, Pa.—Plans have been completed and bids will be taken by the Union Powder Company, 42 Broadway, New York City, for constructing twentyfive one-story brick, frame and hollow tile buildings, each 25x35 feet, for acid manufacturing purposes.

Toledo, O.—A. Bentley & Sons Company received the work of building a onestory brick and steel crane shop for the Willys-Overland Company. The building will measure 54x81 feet.

The contract has been awarded to the Schmidt-Harwood Company for constructing a two-story brick and mill constructed building 70x130 feet for Hettrick Brothers Company.

Cleveland, O. — Architects J. W. Frazier Company, Illuminating building, will revise plans and take new bids on constructing a brick, steel and reinforced concrete manufacturing plant addition on Addison Road for the Lake Erie Iron Company. Former bids were unsatisfactory and were rejected.

Akron, O. — The Twentieth Century Heating & Ventilating Company, is taking bids on erecting a one-story brick factory addition on Ira and Edison avenues to cost \$25,000.

Cleveland, O.-The Crowell-Lundoff-Little Company, 1951 W. Fifty-seventh street received the contract for constructing a manufacturing plant addition and alteration on E. Fortieth street for the Ajax Manufacturing Company. Cost \$40,000.

Cincinnati, O.—The H. C. Hazen Contracting Company, 2070 Reading Road, received the contract for erecting a onestory pressed brick and reinforced concrete addition on 1825 Reading Road for the Cincinnati Gear Company, Cost \$8,000.

Doylestown, O. — The Doylestown Aluminum Ware Company, contemplates erecting a one or two-story brick factory and warehouse addition to cost \$10,000. Architect not selected.

East Liverpool, O.—Architect W. C. Owen & Co., Leader building, Cleveland, O., have preliminary plans in progress for a brick and steel factory building to be constructed on Fourth street for Golding Sons Company. Cost \$30,-000. Owner will be ready for bids March 25.

Port Clinton, O.—Architects DeVore-McGormley Company, 322 Nasby building, Toledo, have plans in progress for a one-story brick and steel boat factory building to be erected for the Matthews Boat Company.

Johnstown, Pa .- The Somerset Dairy

Company, W. M. Baker, manager, contemplates erecting a two-story concrete building to cost \$10,000. No plans have been decided upon.

Theatres.

Portsmouth, O. — Harry Winter, 509 Chillicothe street, will select an architect about April 20th to design a 1½story brick, stone and terra cotta trim theatre building 62x120 feet.

Burgettstown, Pa. — George E. Thomassey will take new bids on the erection of a two-story brick theatre building 25x90 feet, plans coming from Architect J. H. Phillips, McKees Rocks, Pa.

Hotels.

Springfield, O. — Architects Drach & Miller, Kelly building, have plans in progress for remodeling the Arcade Hotel on Fountain avenue, to cost \$25,000. Plans will be ready for bids about April 1.

Cleveland, O. — Architect Willard Hirsh, Swetland building, is working on plaus for a family hotel building 36x140 feet, four stories high, to be built on Euclid avenue, near E. Ninety-sixth street, for the Euclid Logan Realty Company, Citizens building. Estimated cost \$80,000.

Hospitals.

Huntington, W. Va.—The St. Francis Hospital Association is having sketches submitted for building a brick, stone and terra cotta fireproof hospital building to cost \$250,000. One wing may only be built at present.

New Brighton, Pa.—The Beaver Valley General Hospital, F. F. Brierly, chairman of Board of Trustees, contemplates enlarging and altering the building, the work to cost \$30,000. No plans have been selected.

Miscellaneous.

Cleveland, O. — Halle Brothers, 1228 Euclid avenue, are having preliminary sketches submitted for a brick fireproof garage and warehouse to be built on Chester Avenue at a cost of \$50,000. No definite plans have been arranged. J. C. McClure, 915 James avenue, is having plans made by Architects Ful-

having plans made by Architects Fulton & Taylor, Hippodrome building, for a one-story brick fireproof garage 52x78 feet Bids will be taken at once. Estimated cost \$8,000.

Kittanning, Pa.—The contract will be awarded this week for constructing a two-story brick and reinforced concrete garage 57x135 feet for the Walker & Crim Company. Private plans. Estimated cost \$15,000.

Wheeling, W. Va .- Bids will be taken

next week for building a two-story brick, hollow tile and stucco garage 25x75 feet for Arthur Stifel, Fourth and Main streets. Plans were made by Architect Edward B. Franzheim, Schmulbach building.

Beaver Falls, Pa.—McCreary & Sons, Seventcenth street, contemplate erecting a two-story brick and hollow tile commercial garage on Seventeenth street and Seventh avenue, to cost \$20,-000.

Monongahela City, Pa.—B. F. Forsythe, Main street, is taking bids on erecting a two-story brick and hollow tile and concrete commercial garage on Chess street to cost \$25,000. Plans by Architects Yohe Brothers.

Zanesville, O.—Architect Clarence E. Handshy, Main and Second streets, will revise plans for a two-story and basement brick garage to be erected on Main street for Charles N. Harvey, Main and Second streets. Cost \$20,000.

Liens Filed for Labor and Material Furnished.

ALLEGHENY COUNTY, PA.

W. W. Ishman & Co., vs. James Malcolm. Building in Plum township. Cost \$1,940.

Howard A. Welle & Co. vs. Bertha A. Lord Building in Seventh ward, Pittsburgh. Cost \$2,526.75.

NO-LIEN CONTRACTS.

J. E. Pinkerton Company vs. Martin Boschert. Agreement made March 6 and filed March 7, to erect and complete two residences on Brighton Road, Pittsburgh, for \$10,356.

Heginbotham Brothers vs. Linda and Frank A. Ferry. Agreement made Feb. 29 and filed March 9, to erect a onestory brick and tile garage in Second ward, Wilkinsburg. Cost \$4,588.

D. L. Swearingen vs. Lillian Willock. Agreement made February 28 and filed March 9, to construct and complete a double house in Sewickley, Pa., for \$7,-394.

Charles Nauman vs. Isaac Greenberg. Agreement made and filed March 9, to erect and complete a three-story brick apartment building at Helen and Washington streets, McKees Rocks, for \$9,-445.

The Hyde-Murphy Company, Ridgway, Pa., secured the interior trim for the assembly plant being built on Baum Boulevard for the Packard Motor Car Company. P. J. Hagerty, Homestead, Pa., will do the marble and tile work.

LARGE CONTRACTS FOR WEEK.

An unusual amount of work was placed during the past week for construction of all kinds, in fact it shows figures which are better than for any previous week of the year. Residence work seems to have been well started as the amount of this kind of construction reached \$421,000. The \$100,000 Campbell residence in Youngstown, helped materially in swelling the amount. Warehouse and manufacturing work is above that of several weeks past, while miscellaneous work featured with a \$1,-500,000 hotel building at Cleveland and a \$500,000 steam railroad proposition at Colver, Pa. Street work to the amount of \$150,000 was placed in Cleveland while other types of construction consisting of schools and office buildings brought up this total to \$3,175,000. The total value of contracts awarded in Western Pennsylvania, Ohio and West Virginia, compiled from Dodge Reports, show the following figures:

Total work awarded for year

to date\$20,393,000 Total work awarded for week ending March 15 4,032,000 Total work awarded for week ending March 8 1,724,000 Residence and apartment work for week of March 15 421,000 Warehouse and manufacturing work for week of March 15. 436,000 Miscellaneous work for week 3,175,000 of March 15 Total contracts placed during January, 1916 7,343,000 Total contracts placed during February, 1916 7,050,000

HOTEL STRUCTURE TO BE STARTED.

Wells Brothers Company, 53 W. Jackson street, Chicago, will start work about June 1 on the erection of a 12-story hotel building to be built on Prospect street, near Ninth, Cleveland, O., for the Free Hotel Company, 1004 Prospect street. The building will be operated under lease by C. M. Snyder, Radisson Hotel, Minncapolis, Minn., who is having designs made by Architect Victor De Brauwere, Plymouth building, Minneapolis. Plans will call for a structure 145x300 feet in size and will cost \$1,500,-000.

AWARDED FACTORY CON-STRUCTION.

John Gill & Sons Company, Citizens building, Cleveland, has the contract on a percentage basis for building a twostory reinforced concrete and frame factory building 165x500 feet for the Properties Company, Plain Dealer building, Cleveland. Sub-bids will be taken at an early date on solid steel sash, tin clad fire doors, freight elevators, cement finish floors, heating, plumbing, prepared roofing, etc.

B. & O. T. BUILD STATION.

Announcement is made by an official of the Baltimore & Ohio Railroad Company that a new passenger station is to be built on the Northside, Pittsburgh which will cost about \$100,000. Plans for the building will be made at Baltimore by the company's engineers.

SOME PHASES OF GENERAL CONTRACTING.

General contractors submitting estimates for the entire work of erecting a building obtain competitive estimates on the various parts of the work from various sub-contractors, either preferred or approved as the case may be, the aggregate of which sub-estimates, together with certain other estimates furnished by the general contractor, plus the total profits to the general contractor, forms the general contractor's estimate for the entire work. It appears very often that general contractors are also masons and carpenters, or both; accordingly, they do not obtain competitive estimates on these items of the work. For example, the schedule of charges usually required by the architect from the general contractor upon the signing of the contract sets forth the various parts of the work subcontracted for and their prices plus their commission to the general contractor The amount of the work sublet is in the neighborhood of say 70 per cent of the entire work, and the balance of 30 per cent is that part of the work furnished direct by the general contractors without competition

If it is desirable to engage a general contractor to supervise the entire work and see to the proper building sequence of the various trades so that all work shall fit and agree and be carried forward harmoniously, efficiently and with dispatch, then why not have him in a professional capacity of supervisor only, with adequate remuneration for his valuable services as such, and have competitive estimates on all the items entering into the make-up of the building, including the mason work, carpenter work, and the like? Each sub-contract could be made directly between the sub-contractor and the owner, the sub-contracts might come through the general contractor in the form of a certificate, which to become valid for payment, would have to be countersigned by the architect. Such a plan might combine the desirability of a general contract plan and the plan of sub-letting every part of the work directly from the architect's office Sub-letting directly from the architect's office is theoretically economical, as it eliminates the percentage of profit to the general contractor on these sub-estimates, but it must be borne in mind that the building business is a science in itself requiring long practice and experience, and few are the architects' offices so equipped as to perform this function advantageously.

Steps in the direction of sub-letting have been made for some time in segregating from the general contract many items, such as heating and ventilation, plumbing, electric wiring, elevators, etc., leaving the balance of the work to be cared for by a general contract, and thus obtain that flux which is necessary to proper building procedure, but under this plan these parts segregated from the general contract and sub-let directly by the architect are usually the very works which the general contractor alleges are the causes of all delays and difficulties which may arise in his own work.

The question is, why should not the general contractor sub-let everything on a competitive basis and not personally enter the field for any part of the trade, such as mason work or carpenter work in connection with the entire work which is to be intrusted to his supervision? If the general contractor sublets every portion of the work he should be raised to a purely professional sphere and would not have to hold the double function of a purely professional service and a commercial one as being a direct contractor for any part of the entire work.

WHY WINDOWS IN INCOMPLET-ED BUILDINGS ARE WHITENED.

The reason window panes are whitened in buildings not yet completed is thus explained by a local building contractor:

"We don't plaster them all over with chalk to prevent the public from seeing the unfinished condition of the interior, but to keep the workmen from battering out the glass. Transparent glass looks just about as transparent as air to the man who is moving a wooden or an iron beam in a hurry, and he is likely to ram the end of it through an expensive window, but when the glass is coated with white it becomes visible, and the workmen hand their material in through the door."

STATIC LOAD TESTS FOR CONCRETE BEAMS.

The first of a series of concrete investigations of large-size test members has been started by the United States Bureau of Standards. The making of thirty-six concrete beams, 8 by 11 in. in cross section, and 13 ft. long, is the initial step in the work, these are to be subjected to static load tests, the beams being piled in a criblike manner and then further loaded by a platform carrying a dead weight. The deflection, etc., of the beams will be measured from time to time, and after one year's observation, a duplicate set of beams will be tested to destruction.

There are 37 manufacturers of instulated wire in America and their output, despite their equipment and 24 hour operation, cannot equal the demand.



Classified Index of Advertisers, Arranged for Ready Reference

ARCHITECTURAL CASTINGS.

Mahoning Foundry Co., Punxsutawney, Pa.

ARCHITECTURAL TERRA COTTA. Scott A. White, Pittsburgh.

Finnessy, Jas. E., Oliver Building, Pitts-burgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa.

ART AND STAINED GLASS. Hyde-Murphy Co., Ridgway, Pa.

20

Marshall Art Glass Co., S. S., Box 139, Alle-

Twin City Art Glass Works, 110 Sandusky St., Pittsburgh. gheny.

ASPHALT SHINGLES.

Fintkote Mfg. Co., Wabash Bldg., Pitts-burgh.

H. B. Morrow, Wabash Bldg., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING PAPER.

Saeger Brothers, Pittsburgh, Pa.

BANK AND OFFICE FIXTURES.

H. C. Bemis, Bradford, Pa.

Hyde-Murphy Co., Ridgway, Pa.

Requarth Co., F. A., Dayton, Ohio. Tyler Co., W. S., Bessemer Building, Pitta-burgh, Pa.

BRICK JOINT RAKER. George Grundy, 905 Gerrett St., Pittsburgh.

BUILDERS' SUPPLIES.

Hall, Harry & Brother, Homestead, Pa. Kennedy, D. J. Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., New Kensington, Pa.

George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

BRICK MANUFACTURERS AND DEALERS.

Kennedy, D. J. Co., Pittsburgh, Pa.

Kushequa Brick Co., Kushequa, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING CONTRACTORS.

Brednich, Jacob, 243 Lelia St., Mt. Washing-ton, Pittsburgh.

Brown Brothers, Broadway and Lincoln Aves., Mt. Lebanon.

Kissell, D. C., 7410 Race St., Pittsburgh. Lash, D. H., 720 Grandview Ave., Pittsburgh. Rogers, Philip, 157 Moultrie St., Pittsburgh. Wiegand, J. W., Suburban Ave., Nineteenth Ward, Pittsburgh.

CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

CEMENT COATING.

Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

Witherow Steel Co., Pittsburgh.

CERAMIC AND TILE WORK.

Erie Mantel & Tile Co., Erie, Pa. Pittsburgh Venetian Mosaic Co., Pittsburgh.

CONCRETE FOUNDATIONS.

Garber-Erder Co., Wabash Bldg., Pittsburgh.

CONCRETE MIXERS.

Easter-Emmons Co., 432 Diamond St., Pittsburgh. General Contractors' Machinery Co., Pitts-burgh, Pa.

Contractors Machinery Supply Co., Pitts-burgh, Pa.

burgh, Pa. CONCRETE HARDENER.

George C. Webb, Jenkins Arcade, Pittsburgh.

COMPOSITION FLOORS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh. Dalzell, J. Willis, House Building, Pitts-burgh, Pa.

CONTRACTORS' PUMPS.

Reineke-Wagner Pump & Supply Co., Pittsburgh

CONTRACTORS' EQUIPMENT.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-burgh, Pa.

CORNICE WORK.

Franklin Sheet Metal Works, Franklin, Pa.
General Mfg. Co., Wheeling, W. Va.
Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

DIRECTORY BOARDS.

J. Willis Dalzell, Pittsburgh, Pa. DOOR CHECKS.

Allegheny Sales Company, F Bank Building, Pittsburgh. First National

ELECTRICAL CONTRACTORS.

Carter Electric Co., Oliver Bldg., Pittsburgh. Loomis Electric Co., W. R., Wabash Building. Pittsburgh.

ELEVATORS AND DUMB WAITERS.

Marshall Brothers, South Twenty-first and Mary Sts., Pittsburgh.

ELEVATOR DOORS.

J. Willis Dalzell, Pittsburgh, Pa. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa. Watt Mfg. Co., Northside, Pittsburgh.

EXPANDED METAL

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh, Pa.

FELT.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FIREPROOF DOORS AND PARTITIONS. Fireproof Materials Co., Pittsburgh, Pa. J. Willis Dalzell, Pittsburgh, Pa. General Mfg. Co., Wheeling, W. Va.

FIRE ESCAPES.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa. Kratzer, W. N. & Co., Homestead, Pa. Kratzer, W. N. & Co., Smallman St., Pitts-hurgh

Kratzer, W. N. & Co., Smallman St., Pitts-burgh. Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

FLOOR HARDENER.

eral Waterproofing Co., Century Bldg., Pittsburgh, Pa. General

FLOOR SURFACING.

Empire Flooring Co., Jenkins Arcade, Pittsburgh. Wayvell, Chappell & Co., Chicago, Ill.

FLOOR AND WALL PAINTS.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FOUNDATION CASTINGS.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

FURNACES, STOVES AND RANGES. Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.

GYPSUM BLOCKS.

J. Willis Dalzell, Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

HARDWOOD DOORS.

Hyde-Murphy Co., Ridgway, Pa.

HARDWOOD FLOORS.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh.

HOUSE PUMPS. Reineke-Wagner Pump & Supply Co., Pitts-burgh.

INTERIOR TRIM.

Dalzell, J. Willis, Pittsburgh, Pa.
Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio.
H. C. Bemis, Bradford, Pa.
Hyde-Murphy Co., Ridgway, Pa.
Orner Woodworking Co., DuBois, Pa.
Requarth Co., F. A., Dayton, Ohio.

INTERIOR MARBLE WORK.

Erie Marble & Tile Co., Erie, Pa. Pittsburgh Marble Co., Builders' Exchange, Pittsburgh, Pa. Standard Mantel & Tile Co., Pittsburgh. E. J. Walker, Pittsburgh, Pa.

INTERIOR MILL WORK.

Dalzell, J. Willis, Pittsburgh, Pa.
Herdman Sash, Door & Lumber Co., Zanes-ville, Obio.
Hyde-Murphy Cc., Ridgway, Pa.
Orner Woodworking Co., DuBois, Pa.
Requarth Co., F. A., Dayton, Ohio.

IRON FENCING. Keystone Ornamental Iron Company, Homestead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SHEET IRON ROOFING AND SIDING.

William Patridis & Co., Curry Bldg., Pitts-burgh.

IRON STAIRWAYS

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa. Keystone Ornamental Iron Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

JOIST HANGERS.

Keystone Ornamental Iroa Co., Home-stead, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

LIGHT IRON FURRING. J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

LIGHTING FIXTURES.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

LIME. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

MILL WORK. H. C. Bemis, Bradford, Pa. Herdman ash, Door & Lumber Co., Zanes-ville, O. Hyde-Murphy Co., Ridgway, Pa.

MANTELS AND TILES.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Hyde-Murphy Co., Ridgway, Pa. The Graff Company, 955 Liberty St., Pitta-burgh, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa.

METAL CELLAR DOORS. Fireproof Materials Co., Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

METAL LATH.

Bostwick Steel Lath Co., Niles, Ohio. Fireproof Materials Co., Pittsburgh, Kennedy, D. J. Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

J. Willis Dalzell, Pittsburgh.

Classified Index of Advertisers, Continued

METAL LATH CONSTRUCTION.

J. C. Baxendell, Mt. Oliver, Pittsburgh, Pa.

METAL SPINNING.

Standard Brass & Bronze Mfg. Co., 813 Lib-erty Ave., Pittsburgh, Pa.

MORTAR COLORS.

Wheeling Wall Plaster Co., Wheling, W. Va. Kennedy, D. J. Co., Pittsburgh, Pa.

NON-STAINING CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

ORNAMENTAL IRON WORK.

Franklin Sheet Metal Works, Franklin, Pa. Griffith, Geo. J., Johnstown, Pa.

Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.

Keystone Ornamental Iron Co., Home-stead, Pa. Kratzer, W. N. & Co., Smallman St., Pitts-

burgh. Moss Iron Works, J. E., Wheeling, W. Va. J. Willis Dalzell, Pittsburgh, Pa.

Tyler Co., The W. S., Bessemer Bldg., Pitts-burgh.

Vilsack, Martin Co., Ltd., 3226-30 Penn Ave., Pittsburgh. Watt Mfg. Co., Northside, Pittsburgh.

PARQUET FLOORS.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh

PITCH.

General Waterproofing Co., Century Bldg., Pittsburgh, Pa.

PLASTER BOARD.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va. McDade Company, Alex., The, 1121 Glen St., Wilkinsburg, Pa.

PRIVATE WATER SYSTEMS.

Dowie Water Well Co., Jenkins Arcade, Pitts-burgh, Pa. Reineke-Wagner Pump & Supply Co., Pitts-

burgh.

QUARRY TILE.

Kushequa Brick Co., Kushequa, Pa.

RAGGLE BLOCK.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

REINFORCING MATERIAL.

Fireproof Materials Co., 320 Liberty St., Pittsburgh.

Kennedy, D. J. & Co., Pittsburgh, Pa. Moss Iron Works, J. E., Wheeling, W. Va.

New Kensington Fiber Plaster Co., New Kensington, Pa. Witherow Steel Co., Pittsburgh, Pa.

ROOFERS (TIN AND SLATE).

Blank, Herman, 5152 Coral St., E. E., Pitts-

Blank, Herman, 5152 Corai St., E. E., Fitte-burgh.
Helt, George P., 1915 Sedgwick St., N. S., Pittsburgh.
Hill Top Roofing Co., Bell Phone, 954-J Hill, Pittsburgh.
South Hills Hardware Co., West Liberty, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

ROOFERS (GRAVEL, SLATE AND TILE).

Hahn Brothers, Pittsburgh, Pa.
 Limbach, Frank, 1724 Lowrie St., Northside, Pittsburgh.
 Scott, A. White, Pittsburgh.
 South Hills Hardware Co., West Liberty, Pittsburgh.
 Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.
 Wheeling Wall Plaster Co., Wheeling, W. Va.

ROOFING MATERIALS.

STRUCTURAL STEEL PAINTING.

William Patridis & Co., Curry Buld., Pitts-

SUSPENDED CEILINGS.

TERRAZZO WORK.

Pittsburgh Venetian Mosaic Co., Pittsburgh

TILE (DECORATIVE).

TRUSSIT METAL.

VAULT LIGHTS.

Tyler Co., W. S., Bessemer Building, Pitta-burgh, Pa.

VENTILATORS.

Dalzell Bros. Co., Youngstown, O. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

WALL BOARD.

Kennedy, D. J. & Co., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL LINING.

Empire Flooring Co., Jenkins Arcade, Pitts-burgh.

WALL PLASTER.

New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

WALL PLUGS. Allegheny Steel Band Co., Northside, Pitts-burgh. George C. Webb, Jenkins Arcade, Pittsburgh. Bostwick Steel Lath Co., Niles, O.

WALL TIES.

Allegheny Steel Band Co., Northside, Pitts-burgh. Bostwick Steel Lath Co., Niles, O. Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. & Co., Pittsburgh, Pa. New Kensington Fiber Plaster Co., New Kensington, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va.

WATERPROOFING.

Fireproof Materials Co., Pittsburgh, Pa. General Waterproofing Co., Century Bldg. Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh Wheeling Wall Plaster Co., Wheeling, W. Va Witherow Steel Co., Pittsburgh.

WATER WELL PUMPS.

Reineke-Wagner Pump & Supply Co., Pitts-

WIRE FABRICS.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa. Fireproof Materials Co., Pittsburgh.

WIRE GUARDS.

Franklin Sheet Metal Works, Franklin, Pa. Highland Ornamental Iron Co., 5748 Ellsworth Ave., Pittsburgh, Pa.

Keystone Ornamental Iron Co., Home-stead, Pa.

Kratzer, W. N. & Co., Smallman St., Pitts-burgh.

Tyler Co., W. S., Bessemer Building, Pitte-burgh, Pa

Vilsack, Martin Co., Ltd., 3226-39 Pass Ave., Pittaburgh.

Moss Iron Works, J. E., Wheeling, W. Va.

Witherow Szeel Co., Pittsburgh, Pa.

burgh.

Kennedy, D. J. & Co., Pittsburgh, Pa.

Fireproof Materials Co., Pittsburgh.

Depinet Mantel & Tile Co., Erie, Pa. Erie Mantel & Tile Co., Erie, Pa. Standard Mantel & Tile Co., Pittsburgh. Venango Mantel & Tile Co., Franklin, Pa. E. J. Walker, Pittsburgh, Pa.

J. C. Baxendell, Mt. Oliver, Pittsburgh.

burgh.

Alling & Corey, Pittsburgh, Pa.

- Hahn Brothers, Pittsburgh, Pa. Fintkote Mfg. Co., Wabash Bldg., Pitts-burgh.
- Kennedy, D. J. Co., Pittsburgh, Pa.
- Saeger Brothers, Pittsburgh, Pa.
- H. B. Morrow, Wabash Bldg., Pittsburgh.
- Scott A. White, Pittsburgh.
- Soo th Hills Hardware Co., West Liberty, Pittsburgh.
- Wh.eling Wall Plaster Co., Wheeling, W. Va.

SAFETY TREADS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh.

Fireproof Materials Co., Pittsburgh, Pa.

Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

SAND AND GRAVEL.

American Sand & Gravel Co., Erie, Pa.

Erie Sand & Gravel Co., Erie, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa.

- New Kensington Fiber Plaster Co., New Kensington, Pa.
- Wheeling Wall Plaster Co., Wheeling, W. Va.
 - SASH AND DOORS.
- Herdman Sash, Door & Lumber Co., Zanes-ville, O. Orner Woodworking Co., DuBois, Pa.
- - SASH WEIGHTS.

Mahoning Foundry Co., Punxsutawney, Pa. SCAFFOLDING.

Independent Scaffold Co., Pittsburgh, Pa.

SEWER PIPE.

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SHEET METAL WORK.

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- H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa. W.

SIDEWALK LIGHTS.

Albert Grauer & Co., 216 E. Reliance St., Northside, Pittsburgh.

Kratzer & Co., W. N., Smallman St., Pitts-burgh, Pa.

Mullen Brothers Company, Fulton Building, Pittsburgh, Pa. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

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H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa. w

STAIR WORK.

H. C. Bemis, Bradford, Pa.

Herdman Sash, Door & Lumber Co., Zanes-ville, Ohio.

Hyde-Murphy Co., Ridgway, Pa. Orner Woodworking Co., DuBois, Pa.

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Challis, D. W. & Sons, Sewickley. McCabe, H. C., Elizabeth St., Pittsburgh.

Hall, Harry & Brother, Homestead, Pa. Storeh & Sons, V., Carrick, Pittsburgh.

STONE MASONS.

Navarro, P., 1240 Grotte St., Pittsburgh, Pa.

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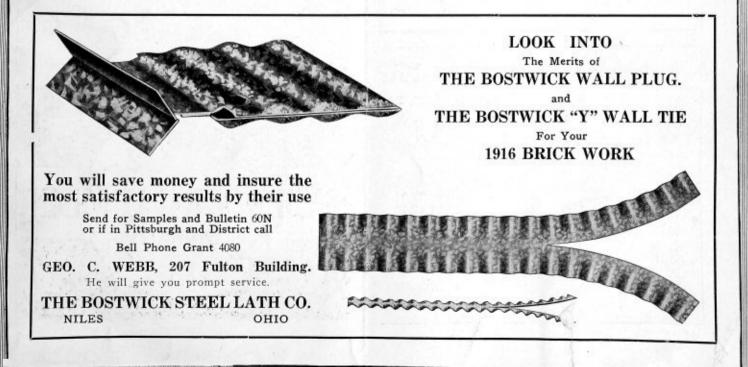
General Manufacturing Co. 67 NINETEENTH ST. WHEELING W. VA.

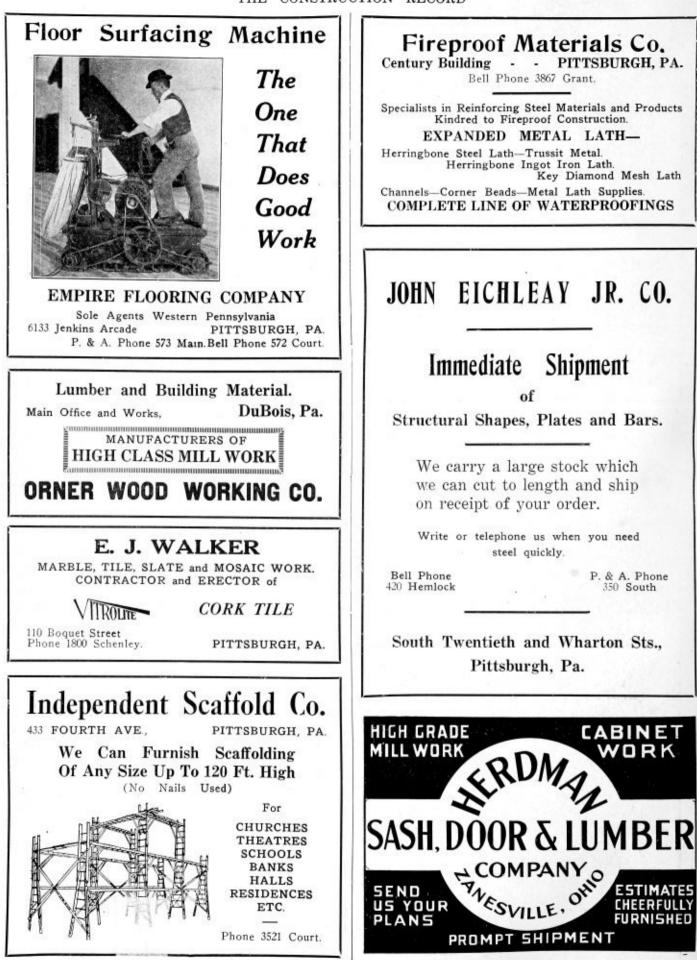




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HANDLING TRUSS-CON PRODUCTS.

The Duncan & Porter Company, Mendoba street, Northside, Pittsburgh, has taken the selling agency for Trus Con products for the Western Pennsylvania territory. Mr. J. J. D. Mackin is Pittsburgh representative for the Truss Con Laboratories.

DESIGNING HOSPITAL LABORATORY.

Architect Sidney Heckert, Bessemer building, Pittsburgh, is designing a threestory brick and terra cotta trim laboratory building 125x140 feet to be constructed for the St. Francis Hospital, Pittsburgh, at a cost of \$50,000. Building requirements will consist of wood sash and frames, ornamental iron stairways, face brick, terra cotta, composition flooring, marble and tile work, promenade tile, prepared roofing, etc. No time has been set for taking bids on the general contract.

EATON COURT HOUSE BEING PLANNED.

Working drawings will soon be started by Architect H. H. Heaston, Eaton., O., and associate architects Richards. Mc-Carty & Bulford, Hartman building, Columbus, O., for the proposed court

house building to be constructed for the Board of County Commissioners, Eaton, O. The building will be three stories high, measuring 74x145 feet and will be of stone and granite base construction with reinforced concrete floors and roof. The work will cost \$250,000. No time has been set for taking bids.

LOW BIDDERS ON SCHOOL.

The Longest & Tessier Company, Greensboro, N. C., was the low bidder for constructing a school building at Industrial, W. Va., for the State Board of Control, Charleston, W. Va. The building will measure 34x130 feet, one and two stories high and will have solid brick walls, reinforced concrete floor and roof construction. The company bid was \$41,-700 while that of Charles P. Kirschner, Athens, O., was \$43,750 followed by the Acme Construction Company, Charleston, with \$44,200.

AKRON ELKS WORK AWARDED.

The Akron Storage & Constructing Company, Akron, O., was awarded the work of building a four-story brick and limestone trim structure 58x115 feet for the B. P. O. E., Akron, O., the estimated cost of which is \$60,000. The construction work will call for face brick, steel floor tile, cut stone, brick mantels, concrete fireproofing, metal lath, ornamental iron work, pitch and felt roofing, hollow metal doors and windows, marble and tile work, vault lights, etc.

MASSILLON PLANT TO ENLARGE.

The Peerless Drawn Steel Company. Massillon, O., contemplates building three factory additions to its plant on Sippo street, from private plans. The buildings will all be one-story high and will measure about 40x80 feet each, the work to call for steel frame, corrugated iron roofing and siding, concrete flooring, etc. The work may mature at an early date.

EXTEND SCHOOL BIDS.

Time for taking bids on the construction of a \$45,000 school building for the Board of Education, Salem, O., has been extended to April 12th. The work was designed by Architects C. P. Owsley, Mahoning Bank building, Youngstown,

O., and calls for a brick, hollow tile and stone trim addition with two wings each 43x59 feet. Building requirements will consist of concrete footings, reinforcing steel, cut stone, hollow tile, waterproofing, sidewalk lights, metal lath, terrazzo and tile work, slag or gravel and composition roofing, iron stairways, etc., etc.

SEPARATE BIDS FOR COLLEGE BUILDING.

The Ohio Miami Medical College, University of Cincinnati, Cincinnati, O., is to have a building for medicine erected, the contract for which will be awarded on a percentage basis. Specifications will call for reinforced concrete foundations, metal tile and beam floor construction, metal covered doors, oak flooring, interior finish of oak, waterproofing, face brick, cut stone, electric work, sheet metal work, structural and ornamental iron work, metal covered doors, elevators, etc., etc. The building will cost \$250,000.

GREENSBURG BANK NOT AWARDED.

It was thought that the award of the contract for constructing the seven-story brick and steel fireproof bank structure for the Westmoreland National Bank, Greensburg, Pa., would be made this week but it was decided to postpone the award for another week. Plans for the structure were made by the Emmett E. Bailey Company, Pittsburgh and Oil City. Estimated cost \$75,000.

DAYTON OFFICE BUILDING BE-ING SKETCHED.

Architects Schenk & Williams, Arcade building, Dayton, O., will start working drawings about April 1 for the ten-story brick and granite exterior bank, store and office building to be built on E. Main and Second streets for the Mutual Home & Savings Association, Dayton. The building will measure 83x100 feet and is estimated to cost \$20,000. Building requirements will consist of tar and gravel roofing, ornamental and patent plaster. plate and prism gass, metal lath, patent store fronts, two elevators, marble and tile work, metal windows and doors, fire doors, steam heating, lighting fixtures, plumbing, etc.

ESTIMATES ON ARMORY BUILDING.

Bids were opened a few days ago on the erection of three buildings for the Pennsylvania State Armory Board at Walnut and Alder streets, Pittsburgh. The iow bidder for the three buildings was the Ley Construction Company, Pittsburgh, with a combined figure of \$74,014. The administration building is to occupy a space of 58x155 feet, two stories; stable and blacksmith shop 35x222 feet, one and two stories and a gun shed 59x74 feet, two stories, all buildings to be of brick, cut stone and ornamental terra cotta.

The bids submitted were all in excess of the appropriation and it is likely that the plans of the W. G. Wilkins Company, Pittsburgh, will be revised so that the cost of the work will come within the amount stipulated. Following are the list of bidders and their estimates:

Bidders.	Gun Shed	Admn.	Stables	Admin. & Gun Shed	Three Bldgs.
Ley Construction Co., Pittsburgh	\$16,525	\$45,839	\$11,650	\$62,364	\$ 74,014
E. L. Wehr, Pittsburgh	16,145	46,339	13,595	61,985	75,105
Thomas Riley, Pittsburgh	17,979	49,549	13,723	63,817	76,415
H. Miller & Sons, Pittsburgh		48,564	12,668	63,915	76,445
Fetzer-Winger Co., Pittsburgh	18,655	45,324	13,653	63,950	77,000
Golden & Crick, Pittsburgh	17,511	47.020	13,808	64,191	77,509
H. L. Kreusler & Co., Pittsburgh	16,916	48,027	13,096	64,943	78,040
Dawson Construction Co., Pittsburgh	18,905	50,270	15,305	66,800	79,953
Miller Construction Co	18,104	49,549	12,300	67,653	79,965
Schutz, Shreiner & Clyde, Pittsburgh	17,670	52,950	14,546	69,000	83,000
A. & S. Wilson Co., Pittsburgh	18,625	50,778	15,110	68,587	83,153
A. Conradis, Pittsburgh	19,126	51,816	16,220	70,142	85,700
D. T. Riffle, Pittsburgh	18,240	53,400	14,830	71,000	86,100
Nicola Bldg. Company, Pittsburgh.	18,120	53,960	15,140	71,200	86,300
Henry Shenk, Pittsburgh	20,146	57,500	16,030	74,688	89,361
Martsolf Brothers Co., Pittsburgh	17,815	57,206	17,150	75,000	92,000
J. E. Welland, Pittsburgh	22,921	52,714	16,845	75,435	92,180
F. Hoffman, Pittsburgh	20,148	57,777	16,162	77,925	94,087
C. H. Kerr Co., Pittsburgh	26,594	61,255	20,140	87,849	107,989
Plumbing-					
Weldon & Kelly Co., Pittsburgh	. 300	5,116	1,582	5,416	6,998
W. N. Sauer, Pittsburgh		4,190	1,511	4,154	5,295
Moss & Blakely, Pittsburgh	217	4,517	1,195	4,734	5,929
Heating-	No.1	No. 2			
McGinnis-Smith Co., Pittsburgh	3,680	3,880			
Moss & Blakely Co., Pittsburgh	2,558	2,806			
G. F. Higgins Co., Pittsburgh	3,622	3,815			
F. E. Geisler Co., Pittsburgh		3,940			
Modern Heating Co., Pittsburgh	3,116	3,181			
Bartley O'Neil Co., Pittsburgh	3,562	3,752*			
Iron City Heating Co., Pittsburgh	3,212	3,273			

FLOOR SURFACES IN BUILDINGS.

Method of Construction Important Question-Serious Wear Caused By Friction of Feet.

By SANFORD E. THOMPSON, Boston, Mass.*

In fireproof construction, whether it be office building, factory, or institution, the question of the type of floor surface to select and the method of construction to adopt is a most important one. The constant tread and shuffling of feet cause a friction that it is difficult to withstand without serious wear.

An engineer in consulting practice is called upon frequently not only to design and construct but to investigate defective construction and also to make special tests for the determination of the best methods to employ in a particular case.

The selection of the type of floor is dependent on the character of the structure, the nature of the wear, and the architectural appearance. Every building must be considered by itself. In giving approximate costs of floors it is recognized that the condition of the market both in labor and materials and the quality of the materials selected, affects the unit price to a very large degree; also the location, size and shape of the rooms to be finished.

As ordinarly laid in buildings, granolithic or concrete surfaces are subject to dusting and under heavy traffic, such as trucking are liable to serious wear. On the other hand, experience with firstclass construction and tests of actual floors shows that it is possible, by proper selection of the aggregates and expert workmanship, to reduce the dusting to an insignificant amount and to produce a surface hard enough to stand even severe wear. For factory floors the use of granolithic is largely increasing.

The chief objection to concrete or granolithic surfaces for offices, drafting rooms, class rooms, and certain laboratories, is that it is dull in appearance, hard on the feet for men standing all day, tends to break tools dropped upon it, and it is not adapted to attaching seats and other furniture, readily, especially where they have to be shifted occasionally. The life of a well laid granolithic surface under foot traffic is practically permanent.

Experimental surfaces, together with laboratory tests made as a check, show that a pleasing surface, approaching terrazzo in appearance and fully as durable under foot traffic, can be obtained by placing granolithic with scarcely any trowelling, and then grinding the surface just enough to expose the grains of sand and stone The grains which show are finer than in terrazzo and darker colored. Removal of the scum takes away the monotony of the plain gray cement surface, since this is relieved by the various colors of the sand and stone. A glossy effect can be produced, if desired, by the grinding which permits of easy cleaning and gives a surface suitable even for a lavatory at much less cost than tile or terrazzo. Still further to give variety to the appearance, tile can be placed in patterns or as a border. From observations of the time required for grinding the surfaces and allowing amply for delays, the extra cost for grinding is estimated not to exceed 3 cents per square foot of surface area.

The hardness and noise characteristic of granolithic finish are overcome by covering the surface with linoleum. In offices and several colleges the type of construction meets with favor.

Linoleum is laid on a concrete surface, which need not be brought to a fine finish and therefore can be completed at the time the base concrete is laid and at a low cost. Any marring of the surface or sudden rains will not affect its use for the linoleum finish.

The linoleum should be stuck firmly to the granolithic surface and preferably a cove base should be run around the room and sills provided at entrances 50 that the surface of the granolithic will be flush. In this way the edges are prevented from fraying. The life of firstclass quality linoleum, if edges are not fryed, is probably from 15 to 30 years, depending upon the amount of travel. These ages are estimated from records of linoleum now in use.

Linoleum, after allowing for the better finish required on the concrete costs substantially the same as a single floor

^{*} Excerpts from a paper presented at a meeting of the American Society of Mechanical Engineers, New York City, by Mr. Thompson.

of birch or maple, but it is noiseless, more uniform in appearance, and requires less labor for maintenance in good condition.

Floors of maple, birch, beech, oak, or long leafed Southern pine are used most largely for offices, classrooms, or lecture rooms, and in many of the older colleges for laboratories and halls. Unless the greatest care is taken in selection of materials and workmanship, they are liable to shrink or swell and sometimes to squeak under foot. If at all hollow underneath, they are more noisy than a concrete surface.

There are various methods of laying hardwood floors. For classrooms a single thickness of maple or birch nailed to sleepers with cinder concrete between should be satisfctory. Another type of construction is to use patented metal screeds embedded in the base concrete, and nail the floor boards to splines in the screeds. For rooms subjected to heavy traffic, 2-in. or 2½-in. plank may be placed underneath the hardwood floor.

Terrazzo is made by spreading upon the base concrete a mixture of neat cement and marble chips and grinding the surface to a depth sufficient to cut into stones and expose them on their largest diameters. Marble, sometimes white and sometimes colored, is used, and since no sand is employed the particles may be of fairly uniform size. The joints between the particles being of neat cement are hard and even more durable than the pieces of the marble themselves. Large pieces of marble, from 34-in, to 1-in. in diameter, give a more distinctive floor but cost more than a floor of the smaller stones, from 1/8-in to 1/2-in. in diameter. There is more tendency to crack than in a good granolithic properly bonded to the base, but if laid with the best workmanship, this crack is reduced to a minimum

When laid with great care, composition is a satisfactory and durable material. Floors six or eight years old have been examined and show satisfactory wear. Composition is more resilient than granolithic, so that there are less complaints of hardness. It is nearly, but not quite, as noisy. Furniture can be screwed directly to the composition.

Tile of various colors is an excellent material for corridors, lavatories, and even for laboratories, but is too expensive to use except where required for architectural treatment. There are various types and qualities of tile, ranging from quarry tile to cork and rubber tile.

Objections to granolithic finish are dusting of the surface, the dead gray color, and the liability of local defects. Experiments show that these can be overcome by grinding the surfaces with a carborundum machine.

The general plan adopted is similar to that used with terrazzo finish. Instead, however, of grinding off a considerable thickness and thus entailing a large expense per square foot, only a very thin layer is taken off so as to show the grains of sand and the pieces of coarser aggregate.

With this treatment, the surface is of a varied texture, and shows the various colored grains, and permits of different effects by using aggregates of different colors. While the effect is not so conspicuous as the terrazzo, the surface is of a quieter tone, and should be satisfactory for ordinary corridors and halls.

A perfect bond between the granolithic and the base concrete is obtained most casily by placing the granolithic before the base concrete has reached its set. Surfaces thus laid are liable to injury from the workmen who have to go upon them before they have hardened thoroughly, and occasionally an unexpected shower will roughen the surface in such a way that it is very difficult to repair.

If some other material than granolithic is used for the wearing surface, the base

ESTIMATES ARE HIGH.

The Hamilton County Commissioners, Cincinnati, O., opened bids recently for the jail work in connection with the court house now under construction but in nearly every instance the bids exceeded the appropriation. The Stewart Iron Works, Cincinnati, submitted a bid of \$107,490 for five-ply chrome steel and \$96,-846 for case hardened steel. The Van concrete must be left in a condition satisfactory for placing the surface. For most materials, such as harwood finish, compositions, asphalt, and similar treatments, the surface of the base must be brought more mearly level than where granolithic is used. This can be accomplished by very careful screeding of the surface, trowelling of rough places, and filling holes made by footprints before the concrete has hardened. An allowance of one cent per square foot is made in the cost estimates for this extra treatment.

For linoleum, a real granolithic is not required, but the surface must be level and true. This should be accomplished by spreading a thin layer of mortar before the base concrete is set, but this need not be of the very best quality of granolithic unless with the object of using portions of the floor without linoleum. This thickness of the mortar may be ½-in. to ¾-in. This should be trowelled at the proper periods, but with less care than for a granolithic that is to be used as wearing surface. Some form of cove base around the walls is advantageous to use with the linoleum.

Dorn Iron Works Company, Cleveland, estimated the chrome steel work at \$117,981 and \$112,124 for the case hardened steel. Plumbing bids were submitted by Thomas J Dyer Company at \$12,471., Murphy Plumbing Company at \$16,113, Standard Engineering, Washington, D. C., at \$17,740. The architects estimate on the work was \$13,000. Architect Rankin, Kellog & Crane, Chicago, have presented a preliminary draft of the specifications for the marble and tile work.

Fifth Knowne Webster

BIDS ON DAYTON BRIDGES.

The construction of three bridges at Dayton, O., for the city authorities attracted many bidders who submitted estimates a few days ago. It was the desire of the city authorities that all the work be placed with one company and that the combined bid for the three bridges be accepted. This will result in the contract being placed with the Pacific Bridge Company, Portland, Ore., whose bids aggregated \$244,026 as against \$254,362 of A. J. Yawger Company, Indianapolis, Ind. Following is the tabulation of bids:

	Fifth	Neowee	webster
AD-	Street	Street	Street
Dravo Construction Company, Pittsburgh	\$116,930	\$ 68,963	\$70,882
Pacific Bridge Company, Portland, Ore	118,724	63,107	62,195
Winston Brothers, Minneapolis	124,827	71,796	71,370
A. J. Yawger Company, Indianapolis	128,317	63,083	62,962
Booth & Flinn, Pittsburgh	139,136	74,769	74,221
Hickey Brothers, St. Louis	139,682	70,232	65,490
Vang Construction Company, Cumberland, Md.	140,720	67,996	67,620
Duquesne Contracting Company, Pittsburgh	147,693	78,362	76,450
Bates & Rodgers, Chicago	154,177	86,575	83,088
Thomas Sheehan, Hagerstown, Md	155,549		
National Contracting Company, Evansville, Ind.	159,095	112,607	97,805
Mason, Hilton & Co., New York	163,370	97,420	92,810
Foundation Company, Wheeling	165,834		91,976
Jefferson Construction Company, New Orleans	166,204	74,911	72,960



Pittsburgh.

F. A. Boyd, Century building, contemplates erecting six two-story frame residences on the University Park Plan, to cost \$2,000 each. Plans will be started shortly and bids will be taken during summer.

John M. Staub, 5434 Avondale Place, contemplates erecting duplex residences on Bartlett and Murdoch streets. No details decided.

Architects Ingham & Boyd, 323 Fourth avenue, are preparing specifications for a two-story and basement brick and stone residence to be crected at Edgeworth for William Boyd, Jr., Vandergrift building. Cost \$10,000.

W. B. Bennett, 742 N. Negley avenue, was awarded the contract for constructing a three-story and basement brick and cut stone loft building on Center and Ellsworth avenues, for J. D. Boyce, to cost \$30,000. Plans by Architects C. M. Bartberger & Son, and F. C. Fisher, Westinghouse building.

D. T. Riffle, Keenan building, was awarded the contract for erecting a two-story steel, brick and reinforced concrete blower room and switch house extension at Brunot Island Station for the Duquesne Light Company, Sixth avenue. Cost \$20,000.

Architect A. R. Douglas, 311 Penn avenue, Wilkinsburg, awarded to Schrein & Bryones, 4646. Friendship avenue, the contracte for erecting a one-story and basement brick store room on 811-13 Greenfield avenue for M. B. Cull, 828 Hazelwood avenue. Cost \$4,200.

Architect F. A. Park, 5435 Kincaid street, awarded to J. A Adams & Son, 501 Holmes street, Wilkinsburg, the contract for erecting a two-story brick and hollow tile double duplex residence on 414 Franklin street, Wilkinsburg, for D. Coll, 414 Franklin street, Wilkinsburg.

Bids are in for the erection of a threestory brick service station and repair shop on Baum Boulevard for McAllister Brothers Motor Car Co. Plans were drawn by Architect M. Nirdlinger, 71! Diamond Bank building. Bids too high and uncertain what action will be taken.

Architect John A. Long, Benedum-

Trees building, awarded to S. G. Baldensperger, Highland building, the contract for erecting a one-story brick post office building on Homewood avenue for Henry Kreiling, 6216 Penn avenue. Cost \$16,000. Building to completed for United States Government by May 1st.

Bids are to close this week on constructing a twin residence on the Westinghouse park plan, for James Rintoul, Farmers Bank building, plans for which were made by Architect Thomas Pringle, Mellon Bank building. The building will be of brick veneer and hollow tile construction and cost about \$7,500.

The Schenley Farms Company, Tennyson avenue, is taking bids on the superstructure work for 16 residences, to be constructed on Oakland avenue, the plans coming from Architect Louis Stevens, Columbia Bank building. The work will be of brick, hollow tile and stucco, each to cost \$10,000.

Bids close on the 31st inst. for remodeling a building on Penn avenue, East End, for private parties, the plans being made by Architect R. M. Trimble, Ferguson building. The building will be used for store and office purposes. Estimated cost \$15,000.

Apartments and Dwellings.

Akron, O. — Edward Nall is taking bids on the erection of a 2½-story brick veneered and hollow tile residence, to cost \$10,000 Plans by Architect J. H. Craner, 78 Conestoga building, Pittsburgh.

Architects Harpster & Bliss, Nantucket building, awarded to the Patterson Building Company, 99 W. Market street, the contract for erecting a twostory brick veneered and frame residence and garage on Medina Road, for J. A. Braden, Hamilton building. Cost \$10,000.

Canton, O. — Architect L. Dreschler, 340 Leader building, Cleveland, awarded to G. W. Brant, the contract for erecting a 2½-story brick, stucco and hollow tile residence and garage on Market street, for W. S. Langford, Courtland Hotel. Cost \$15,000.

Celina, O. - N. A. Ley, of Lima, was awarded the contract for erecting a twostory brick veneered residence for Walter Mersma, to cost \$8,000. Plans by Architect Andrew DeCurtins, Opera House Block, Lima.

Cleveland, O. — Architect A. F. Janowitz, 322 Permanent building, is taking bids on erecting a two-story brick residence and garage on Miles avenue and E. Seventy-ninth street, for J. Neuman, 8305 Harvard avenue. Cost \$9,000.

Architects Meade & Hamilton, Garfield building, awarded to H. L. Haines, 60 N. Taylor Road, the contract for masonry and carpentry, and to Stambarger Company, 2945 Mayfield Road, the contract for plumbing for a 2½-story and basement cement plaster and tile residence and garage, to be erected on E. One Hundred and Ninth street, Bratenal, for Henry P. McIntosh, Jr., 322 Euclid avenue. Cost \$25,000.

The following contracts have been awarded for the erection of a two-story frame duplex residence on 12409 Saywell avenue, for Jacob Kleinman, to cost \$6,000. General contract to the Prudential Building Company, 526 Williamson building; carpentry to A. M. Fligle, 550 E. One Hundred and Fiftenth street, and masonry to Mike Principe, 2052 E. One Hundred and Twenty-fifth street.

J. Kirshtein, 2374 E. Thirty-seventh street, is taking bids on erecting a twostory irame duplex residence on E. One Hundred and Nineteenth street, to cost \$5,000. Plans by Architect Edward Landy, 5022 Portland avenue.

Architect Theodore Conner, Park building, has plans in progress for a 2½-story brick residence, to be erected on Glenmont Road, Cleveland Heights, for Willard Henrich, 5218 Scranton Road. Cost \$9,000.

Columbus, O. — Architects Howell & Thomas, 151 E. Broad street, awarded to C. A. Sibley, 1103 W. Patterson avenue, the contract for erecting a two-story and basement cement plaster residence and garage on Sixteenth street, for William E. Henderson, care Ohio State University. Cost \$9,000.

Cresson, Pa. — The State of Pennsylvania, Department of Health, Philadelphia, is taking bids to close March 28 on the erection of a stone residence for the medical director. Plans by Archi-

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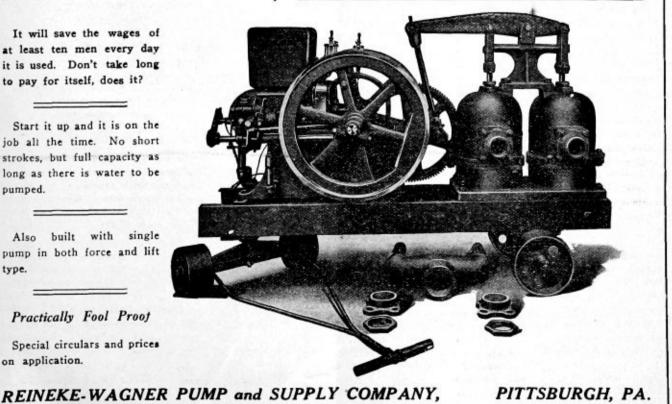
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tects Harris & Richards, Drexel building, Philadelphia.

East Liverpool, O. — Allen Green contemplates erecting a two-story brick and hollow tile residence on Thompson Boulevard, from private plans. Cost \$4,000.

Emporium, **Pa**. — Architect H. C. Park, of Ridgway, is taking bids to close this week on the erection of a threestory and basement concrete block apartment building, for George Metzgar, to cost \$10,000.

Erie, Pa. — Architect Joseph Lee, 703 State street, will take bids on erecting a 2½-story brick veneered and stucco bungalow and garage on Twenty-first and Chestnut streets, for Frank Steiner, 1729 State street. Cost \$8,000.

Euclid Heights, O. — Architects Dercum & Beer, Avenue building, Cleveland, will award separate contracts for crecting a 2½-story and basement frame residence on Edgehill and Kenilworth avenues, for W. C. Sayle, 3929 St. Clair street, Cleveland. Cost \$8,000.

Franklin, Pa. — Architect S. D. Brady, Trust building, has completed plans for a 255-story stucco and hollow tile and shingle residence, to be erected for a party whose name is withheld. Cost \$7,000.

Franklin, Pa.—Architect S. O. Brady, Trust building, has completed plans and will take bids on the erection of a twostory shingle and frame residence addition on Elk street for a party whose name is withheld. Cost \$3,500.

The same architect has plans in progress for a 2½-story shingle and frame residence to be erected on Liberty street for a party whose name is withheld.

Lakewood, O.—Architect A. C. Wolf, Swetland building, Cleveland, has awarded the following contracts for erecting a 2½-story and basement brick residence and garage on Lake avenue for C. F. Buescher, 4612 St. Clair avenue, Cleveland. Masonry to Soutar & Brown Company, 1476 E. One Hundred and Fourteenth street, carpentry to David Henderson, 2265 E. One Hundreth street and plumbing to A. E. Boyer, 1416 W. One Hundred and Tenth street, Clevez land.

Marion, O.—Architect J. Lewis Ellis, Ackerman building, is taking bids on erecting a two-story and basement brick and cement plaster double residence on Cherry street for S. H. Keller. Cost \$5,-500.

Maysville, Ky .- The Limestone Lum-

ber Company, is revising plans for a 2½-story pressed brick residence and garage to be erected at Edgemont Place for R. L. Browning. Cost \$8,000.

Midland, Pa. — Marshall & Beglin, Neaver avenue, received the contract for building a two-story brick and hollow tile double residence on Eighth street for W. H. Leech, Eighth street. Cost \$5,000.

Marion, O. — Merrill Turney, Center street, contemplates erecting a two-story brick and stone apartment building on S. State street, to cost \$10,000.

Midland, Pa.—Marshall & Beglin received the contract for erecting three two-story brick and hollow tile apartment buildings on Beaver street for Frank Ayzerella, Beaver avenue. Cost \$5,500.

A. Wishart & Sons of Sharon, received the contract for erecting eight twostory frame duplex residences on Ohio and Midland avenues for the Midland Land Company. Cost \$1,600 each.

Shadyside, O. — Architect John C. Wood, Zweig building, Bellaire, has plans in progress for a two-story frame residence to be erected on Main street for H. C. Wagner. Cost \$4,000.

Shaker Heights, O.—Architects Meade & Hamilton, Garfield building, Cleveland, are taking separate bids on erecting a 2½-story and basement brick residence and garage on South Boulevard for Edward S. Rogers, 232 Superior avenue, N. E., Cleveland.

Springfield, O. — Architect Roy F. Gable, 422 Bushnell building, is taking bids on remodeling a two-story frame apartment building on E. High street for Mrs. Fannie M. Raup, Bushneil building. Cost \$5,000.

Tiffin, O.-Harry F. Finley, 226 Monroe street, contemplates building a twostory frame residence on S. Monroe street, from private plans. Cost \$3,500.

Toledo, O.—Architects Bates"& Gamble, Close building, have plans nearly completed for a two-story pressed brick and limestone residence and garage to be erected for Peter Brown, 601 Close building. Cost \$15,000.

Architect M. M. Stophlet, Nashby building, awarded to N. D. Harris, 2264 Fulton street, the contract for building two two-story and basement shingle duplex residences on Collingwood avenue for Mrs. Baker. Cost \$5,000 each.

Williamson, W. Va.-Architect W. B. Ellswick, awarded to the Acme Con-

struction Company, the contract for altering a residence for Judge J. Damron to cost \$4,000.

Youngstown, O. — Architect H. C. Ellenberger, 1509 Market street, has completed plans for a brick veneered residence to be erected for Charles Zeigler, 29 Ellenwood avenue. Cost \$4,000.

Youngstown, O. — Architect H. C. Ellenberger, Market street, has completed plans for a frame residence to be erected for J. H. Decker, 46 E. Evergreen street. Cost \$2,500.

The same architect has also completed plans for a brick veneered residence to be erected for J. H. Decker to cost \$4,-000.

Architects Stanley & Scheibel, Wick building, are taking bids on erecting a two-story and basement brick veneered residence and garage at Mill Creek for Dr. John Heberding, 151 W. Rayen avenue. Cost \$10,000.

Ashley, O. — E. R. Sperry contemplates erecting a two-story and basement brick residence from private plans. Cost about \$5,000.

Butler, Pa. — Architect George W. Kline has completed plans for a twostory brick residence to be erected on W. Diamond street for Dr. George Jauss, W. Diamond street. Cost \$3,500.

Work will soon be started on the erection of seven two-story frame residences on Springdale avenue for W. S. Wick, Second street, to cost \$2,000 each. Joe Sarver was awarded the contract for the erection of four houses and the owner builds the balance and awards separate contracts.

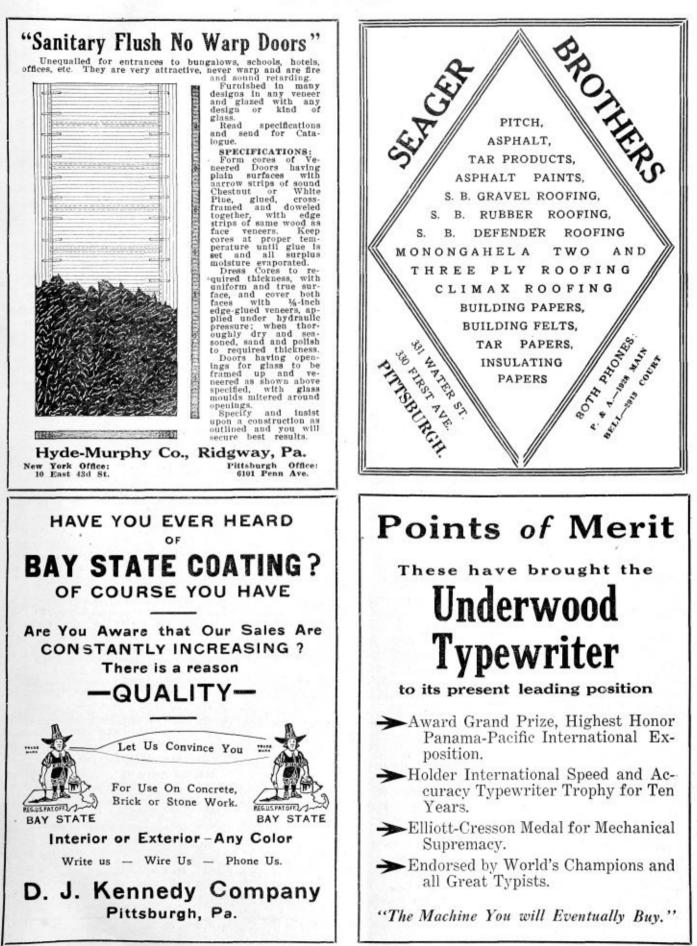
Cincinnati, O. — Mat Nathan, 21 E. Front street, will award contracts for the erection of a 2½-story pressed brick duplex apartment building on Second avenue near Glenway, to cost \$5,006. Plans by Architect Oscar Schwartz, Provident Bank building.

Elwood City, Pa. — Architect J. E. Dwyer has completed plans for a twostory brick residence to be erected on Fifth and Wayne streets for Robert Curry, Fifth and Wayne streets. Cost \$4, 000.

Erie, Pa.—Architect C. S. Kirby, 757 E. Sixth street, has plans in progress for a two-story brick veneered residence to be erected in Lawrence Park for H. A. Nye, Twelfth and French streets. Cost \$6,000.

Baldwin Brothers, Seventh and State streets, are taking separate bids on erect-

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NEWS FOR CONTRACTORS AND MATERIAL DEALERS

ing fourteen two-story brick veneered residences on East street, Thirteenth street and Poplar street, to cost \$2,500 cach.

Architect J. C. O'Sullivan, 146 E. Twelfth street, has plans in progress for a two-story brick veneered apartment building to be erected on E. Seventeenth avenue for Max Yubletchnick, 117 E. Seventeenth street. Cost \$5,000.

Work will soon be started on erecting six two-story brick vencered duplex residences on S. Park and Plum streets, Ninth and Raspberry streets and Eighth and Cranberry streets, for S. W. Landis, 702 State street. Cost \$8,000 each.

Architect F. Arthur Rianhard, Williamsport, Pa., has plans nearly completed for a residence to be erected on Twentieth and Sassafras streets for E. S. Roach. Cost \$10,000.

Martinsburg, W. Va.—Architect C. E. Kent, 712 N. Queen street, awarded to the C. D. Burns Lumber Company the contract for erecting a frame residence on Boyd avenue for A. Paul Hertzog, care Martinsburg World. Cost about \$5.000.

Middletown, O.—Architect C. I. Williams, Reibold building, Dayton, has plans in progress for a two-story and basement frame residence to be erected for C. T. Elliott, Advance Bag Company. to cost \$15,000.

Steubenville, O. — Scott M. Rowan, Jr., received the contract for building a two-story frame residence on Commercial street, for George M. Sattes, to cost \$3,500.

Scott M. Rowan, Jr., also received the contract for erecting two 2-story frame residences on Oregon avenue, for William Cain, Ridge avenue, to cost \$3,500 each.

Struthers, O. — Arthur Lyons, Bridge street confemplates erecting a two-story brick and hollow tile apartment building on the Lyons Plat, to cost \$12,000. Also contemplates the erection of 75 frame and brick veneered residences on the Lyons Plat, to cost from \$2,200 to \$4,500 each. Project will mature in summer.

Toledo, **O**. — Architect H. W. Wachter, 908 Nicholas building has preliminary plans in progress for a three-story brick apartment building, to be erected on Nineteenth and Jefferson streets, for G. L. Mercereau, 413 Monroe street.

Warren, O. - Architect H. L. Dittmer, City building, is preparing sketches for a frame and shingle country residence, to be erected for I. L. Iddings, Second National Bank building. Cost about \$10,000.

The same architect is also drawing preliminary plans for a brick residence to be erected for H. H. Cobb, 326 Mahoning avenue, to cost \$5,500.

The same architect is ready for bids on the erection of a brick residence for for Edward Bratton, 9 Linden avenue. Cosi \$6,000.

Wheeling, W. Va. — Architect M. F. Giesey, awarded to George L. Reed, the contract for building a two-story frame residence addition for Thomas N. Stewart, to cost about \$6,000.

Youngstown, O — The Realty Security Company contemplates erecting five brick veneered residence in Brownlee Woods, to cost \$4,000 each. The Security Construction Company, Stambaugh building, are the general contractors.

Work will soon be started on the crection of a frame residence on the Northside, for R. J. Slemmons, Logan avenue, East Youngstown. Cost \$2,500.

Business Buildings.

Akron, O. — A. W. Morette, Akron Savings and Loan building, received the contract for erecting a store and apartment building on the Goodyear Allotment, for Frank A. Seiberling, care Goodyear Tire & Rubber Company. Cost \$30,000.

Architects Richards, McCarty & Bulford, of Columbus, have plans in progress for a steel, brick and limestone bank building, to be constructed for the Depositors Savings Bank, to cost \$150,-000.

Cleveland, O. — C. J. Lynn, 5606 Euclid avenue, is architect and general contractor for a one-story brick store building, to be erected on 5506 Euclid avenue, for the Abbott Realty Company, 5606 Euclid avenue. Cost \$6,000.

Wangerine Brothers, 10915 Orville avenue, received the contract for erecting a two-story brick and hollow tile store and apartment building, on 11702 Kinsman Road, for A. C. Weideck, to cost \$15,-000. Contract for masonry was let to Charles Laws, 2634 E. One Hundred and Twenty-eighth street.

Architect W. J. Carter, 1423 Illuminating building, has preliminary plans in progress for a four-story brick and stone bank and office building, to be constructed on Lorain avenue, for the Lorain Street Savings Bank Company. Cost \$50,000.

Duchon Brothers are low bidders on constructing a two-story brick store and apartment building, on Superior avenue and E. One Hundred and Tenth street, for J. F. Stotter, 331 Leader-News building. Cost \$25,000. Plans by the Forest City Engineering Company, 512 Hippodrome building.

Henry Dolicksy, 1543 E. Seventy-third street, received the contract for constructing a three-story brick and stone store and apartment building, on E. Ninety-third street and Hough avenue, for Ezra Brudno, 502 Society for Savings building. Cost \$50,000. Plans by Architect Fred Book, Stop 136, Shore Line.

Architects Hubbell & Benes, 201 Avenue building, will soon award separate contracts for the erection of a two-story and basement brick and reinforced concrete telephone exchange building on Cedar and Edgewood Roads, Cleveland Heights, for the Cleveland Telephone Company. Cost \$50,000.

Conneaut, **O**. — The Conneaut Creamery Company contemplates erecting a two- or three-story reinforced concrete, brick and steel creamery building on Main street, to cost \$10,000. Architect not selected.

Coraopolis, **Pa**. — John Cortese, 513 Fifth avenue, is taking bids on the erection of a two-story brick store and apartment building on 614-16 Fifth avenue, to cost \$5,000.

Defiance, O. — Architects David L. Stine & Son, of Toledo, awarded to Dan Kinter, the contract for constructing a one-story brick and stone bank building for the Merchants National Bank, to cost \$30,000.

Johnstown, Pa. — Architects S. E. Dickey and Co. awarded to Fred Zipf & Co., 1717 Pine street, the contract for erecting a four-story and basement brick store and loft building, on Washington street, for W. H. Strauss, 112 Franklin street. Cost \$12,000.

Martins Ferry, O. — Architect Charles D. McCarty, of Wheeling, has plans nearing completion for a two-story frame store and apartment, to be erected for Dr. J. L. Hurley, to cost \$5,000.

McKeesport, Pa. — Architects C. D. Cooley Company, Century building, Pittsburgh, are preparing sketches for a threestory and basement brick bakery, to be erected for George A. Pistel, to cost \$20,000.

Norwood, O. - Architect A. J. Hues-



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BUILDING PROJECTS AND WORK AWARDED

man, 1317 Main street, Cincinnati, awarded to G. H. Plump & Son, 1415 Mansfield street, Cincinnati, the contract for erecting a store and apartment building on Montgomery street, for Joseph Cucinotta, 511 W. Fifth street, Cincinnati. Cost \$5,000.

Steubenville, O. — Architect F. F. Faris, of Wheeling, W. Va., has plans nearly completed for a three-story brick bakery building, to be constructed on Market street, for the General Baking Company. Cost \$25,000.

Struthers, O. — Architects Louis Boucherle & Son, 506 Stambaugh building, Youngstown, have plans in progress for a two-story brick and hollow tile bank building addition, to be erected on Bridge street, for the Struthers Savings and Banking Company.

Toledo, **O**. — Architect H. W. Wachter, 908 Nicholas building, awarded to M. H. Sturdevant, 5217 Walnut street, the contract for erecting a two-story and basement brick service station on Madison avenue and Fourteenth street, for the Wilcox Estate. The Landsman Griffith Company, is the lessee.

Architects Mills, Rhines, Bellman & Nordhoff, 1234 Ohio building, awarded to Gettins & Kopitke, Messinger building, the contract for constructing a twostory brick and terra cotta store and office building on 429-37 St. Clair street, for the Valentine Realty Company. Cost \$50,000.

Warren, O. — Architects Miller & Son, of Youngstown, are taking bids on constructing a brick store and apartment building for Frank Guarnieri, Main street, to cost about \$25,000.

Wellsburg, W. Va. — Architect M. L. Wells has completed plans for a twostory and basement brick store building, to be erected on Charles street, for Myers & Easterday, to cost \$10,000.

Wheeling, W. Va. — Plans are in progress for a one-story brick power plant, to be constructed at Fortieth and Water streets, for the Bloch Brothers' Tobacco Company, to cost \$50,000. Bids on general contract will be taken about May 1.

Architects F. F. Faris and Edward B. Franzheim, Schmulbach building, are about ready for bids on constructing a one-story and basement stone and terra cotta or marble bank building, on Market street, for the Security Trust Company. Cost \$50,000.

Youngstown, O. - G. N. Reed Company, 3302 Wilson avenue, East Youngstown, are taking separate bids on erecting a two-story brick, hollow tile and sandstone store and apartment building at East Youngstown, to cost \$20,000.

Architects Kling & Zenk, Davis Block, are preparing preliminary plans for a four-story brick or cement block office building, to be constructed on Spring street and Waverly avenue, for the Carnegie Steel Company. Cost \$100,000.

Alliance, O. — Architects C. D. Cooley Company, Century building, Pittsburgh, are ready for bids on erecting a threestory brick, concrete and steel fireproof milk depot for the Sanitary Milk Company, to cost \$25,000.

Cleveland, O. — The Forest City Engineering Company, Hippodrome building, awarded to Duchon Brothers, 5809 Outhwaite avenue, the contract for constructing a two-story brick store and apartment building on Superior avenue and E. One Hundred and Tenth street, for J. F. Stotter, 331 Leader News building. Cost \$25,000.

Architects Mills, Rhines, Bellman & Nordhoff, 1234 Ohio building, Toledo, awarded to the Leonard Construction Company, 332 S. Michigan avenue, Chicago, the contract for constructing a four-story and basement brick, steel and limestone public garage, sales room and service station on rear of 6604 Euclid street, for the Overland Cleveland Company. Cost \$50,000.

Delaware, O. — The First National Bank contemplates remodeling a bank and picture theatre on Sandusky street, to cost \$15,000. Architect not selected.

East Liverpool, O. — George W. Meredith, 1013 Liberty avenue, Pittsburgh, is taking bids to close March 26, on rebuilding on Sixth street. Plans by Architect W. A. Ullom, 813 House buildmg, Pittsburgh.

Gil City, Pa. — E. M. Crouch is taking sub-bids on crecting a brick store and apartment building on Seneca street, for J. D. Trax and W. M. Parker, Center street. Cost \$13,000. Plans by Architect W. Orin Teets.

Architect S. D. Brady, of Franklin, has plans in progress for a one-story brick and steel warehouse, to be erected for the National Transit Company, to cost \$9,000. Contract for structural steel will be awarded to the Pittsburgh Bridge & Iron Co., Farmers Bank building, Pittsburgh.

Youngstown, O. - Bids are in on the

erection of a two-story brick, hollow tile and art stone store and apartment building, for A. M. DeCicco, 921 Market street. Cost about \$20,000. Plans by Architect H. Lyman Ford, Hippodrome building.

Architect H. Lyman Ford awarded to H. D. Stonebrook, Parmalee avenue, the contract for erecting a two-story brick and stone store, apartment and office building on Market street, for A. M. De-Cicco, 921 Market street. Cost \$10,000.

Akron, O.—Architects Richards, Mc-Carty & Bulford of Columbus, are preparing preliminary plans for a one or three-story brick and terra cotta and stone bank building to be constructed for the Depositors Savings Bank, to cost \$150,000.

Charleroi, Pa.—Architect A. P. Cooper of Uniontown, awarded to the Charleroi Lumber Company, the contract for constructing a four-story and basement brick and terra cotta store and apartment building on Fifth street for Dr. Fred C. Stahlman. Cost \$35,000.

Cleveland, O.—Architect W. H. Nicklass, 1900 Euclid building, awarded to Minnick-Gibbons Contracting Company. Erie building, the contract for altering a three-story brick office building on 10544 Euclid avenue for T. H. Brooks, 3104 Lakeside avenue. Cost \$8,000.

Architect H. Hradilek, Illuminating building, awarded to A. J. Friedman Company, 563 Hippodrome building, the contract for erecting a two-story brick store and apartment building on W. Ninety-third street and Madison avenue for Joseph David, 718 Citizens building. Cost \$12,000.

Mannington, W. Va. — Work will be started on erecting a two-story stucco and hollow tile store and office building on Main street for J. T. Koen, to cost \$5,000.

Morgantown, W. Va.—E. M. Chaplin & Co., are low bidders on constructing a three-story and basement brick and terra cotta store and apartment building on 1315 High street for Frank Cox and George C Baker, Plans by Architect Carl Reger, 83 W. Va., Traction building. Cost \$25,000.

Norwood, O.-Excavations have been started for a one-story pressed brick and stone store building to be crected on Montgomery and Lawrence avenues for John Stagge, Main and Sherman avenues, to cost \$10,000. Architect A. J. Huesman, 1317 Main street, Cincinnatti, will award separate contracts.

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DESIGNS and ESTIMATES

WHERE BUILDING MATERIALS ARE REQUIRED

Toledo, O. — Architect Roman Havlicek, 1119 Nicholas building, has plans in progress for a two-story and basement brick and hollow tile bakery and apartment building to he erected on Whittmore and Genessec streets, for Steven Toth, 1919 Whittmore street.

. 3

Architect H. W. Wachte, 908 Nicholas building, awarded to Hiran Miller, 408 Machen street, the contract for erecting a two-story and basement brick and steel saloon and apartment building on Lagrange and Hudson streets for Valentine Lachak, 908 Nicholas building. Cost \$7,-000.

Weirton, W. Va.—Architects Peterson & Clark, Steubenville, O., awarded to Guy Johnson, Toronto, the contract for erecting a two-story brick and stone store and apartment building on Avenue A for I. M. Alpert. Cost \$10.000. Contract for masonry let to the Steubenville Stone Company.

Religious.

Boswell, Pa. — Architects Fulton & Butler, Uniontown, have plans in progress for a one-story brick veneered church to be erected for the Lutheran Congregation. Building will contain auditorium and school rooms.

Franklin, Pa.—The First Presbyterian Congregation will soon select an architect to prepare plans for a brick church addition to cost \$25,000.

Kane, Pa.—Architect Ernest Greene, 5 Beekman street, New York City, has plans in progress for a 1½-story brick church addition to be erected for the Congregational Church to cost \$12,000. Plans will be completed about April 10th.

Marion, O.—The Emanuel Lutheran Congregation has purchased a site on Vine and Church streets on which they will erect a two-story and basement brick church to cost \$25,000. Architect not selected.

Somerset, Pa. — Architect Edward Walker, 28 E. South street, has plans completed for a two-story brick veneered church addition to be erected for the United Brethren Congregation, to cost \$5,000.

Wheeling, W. Va. — Architect F. F. Faris, Schmulbach building, awarded to the Klieves Lumber Company, the contract for erecting a brick, stone and terra cotta church addition on Eoff street, for the Second Trinity Congregation. Cost \$25,000. Cadiz, O.—Architect J. B. Martin, St. Clair street, East Liverpool, is preparing preliminary sketches for a 1½-story brick and cut stone church to be erected for the Colored Methodist Episcopal Congregation. Cost \$12,000.

Moundsville, W. Va. — Sketches have been completed and architect will be selected this week to prepare plans for a one and two-story brick and stone church to be constructed on Jefferson and Seventh streets for St. Francis-Xavier's Roman Catholic Congregation. Cost \$45,000.

Worthington, O.—Architect Charles L. Inscho of Columbus, is preparing sketches for a brick and concrete orphanage to be constructed for the Ohio State Methodist Orphanage. Project consists of three cottages to cost about \$15,000 each.

Connellsville, Pa. — Architect J. M. McCollum, Berger building, Pittsbrugh, has been selected to prepare plans for a brick Sunday school building to be erected on Apple street, for the Methodist Protestant Congregation. Cost \$13,000.

Ravenna, O. — The First Methodist Episcopal Congregation is taking bids to close April 15 on constructing a onestory and basement brick and limestone church building, to cost \$45,000. Plans by Architects Richards, McCarty & Bulford, Hartman building, Columbus.

Educational.

Nevada, O. — Vernon Vorhees, of Nelsonville, is low bidder on the erection of a two-story and basement brick and limestone township grade and high school building, for the Board of Education of Eden township. Plans by Architects Howard & Merriam, of Columhus.

Newport, Ky. — Architect Howard McClorey, Gerke building, Cincinnati, is taking separate bids on erecting a twostory pressed brick and stone school and church on Eighteenth and Schneider streets, Clifton Heights, for St. Paul De-Vincent Congregation. Cost \$18,000.

Oil City, Pa. — Architect J. P. Brenot, Opera House building, has plans in progress for a two-story brick grade school building, to be erected in the West End, for the Board of Education. Cost \$50,000.

story and basement brick and limestone Prices Corners, O. — The Board of Education of Canaan township, awarded to James I. Barnes, of Logansport, Ind., the contract for erecting a twograde and high school building, to cost \$30,000. Plans were drawn by Architects A. W. Stover & Co., of Columbus.

Richfield, O. — Foraker Brothers, Rose street, Barberton, received the contract for constructing a three-story reinforced concrete, brick and steel centralized grade and high school building for the Board of Education, to cost \$40,000. Plans by Architects Harpster & Bliss, of Akron. Contract for heating was let to the Columbus Heating & Ventilating Company, Columbus, and plumbing to Kirn & Shuman Plumbing & Heating Company, of Akron.

Somerville, O. — The Board of Education awarded to Corderman & Baxter, Middleport, the contract for erecting a fireproof high grade school building, to cost \$30,000. Plans by Architect Edward J. Mounstephen, Dayton.

Spencerville, O. — Architects Shriber & Beelman, Second National Bank building, Toledo, have completed plans for a one-story brick and stone public library, to be erected for the Carnegie Library Board, to cost \$10,000.

Summerford, O. — The Board of Education of Summerford township, contemplates erecting a two-story and basement brick grade and high school building, to cost about \$20,000. Architect not selected. Will vote on bond issue about April 15.

Toledo, **O**. — The Carnegie Library Corporation has purchased a site on Dorr and Fender streets, West End, on which they will erect a one-story brick and stone branch library to cost \$30,000. Architect will be selected shortly.

Toronto, O.—The Board of Education contemplates constructing a high school building to cost \$100,000. Architect not selected. Building will contain class rooms, auditorium, gymnasium, manual training and domestic science departments.

Warwood, W. Va. — Architect F. F. Faris, Schmulbach building, Wheeling, has started plans for a two-story brick and hollow tile and stucco fireproof centralized country grade school building, to be erected for the Richland District Board of Education. Cost \$20,000.

Wellsville, O. — Architect W. F. Struthers, Publication building, Pittsburgh, has been selected to prepare plans for a brick and concrete Carnegie Library building, to be erected at Ninth and Main streets, for the Carnegie Library Association. Cost \$15,000.

Boardman, O .- Architects Stanley &





PLANS FOR VARIOUS KINDS OF STRUCTURES

Scheibel, Wick building, Youngstown, O., are preparing preliminary plans for a brick and stone central high school building to be constructed in Boardman Township for the Board of Education. ost \$30,000.

Braceville, O.—The Board of Educationawarded to Nicholas Miller, Massillon, the contract for erecting a twostory brick fireproof centralized school building to cost \$24,000. Plans by Architects W. C. Owen & Co., Leader News building, Cleveland.

Brook Park, O.—The Board of Education is taking bids to close April 12th on erecting a two-story and basement brick and stone fireproof high and grade school building to cost \$35,000. Plans drawn by Architect William Nicklas, 1900 Euclid building, leveland.

Canfield, O.—The Board of Education contemplates erecting a brick school building in Canfield Township. Architect will be selected after bond issue is voted upon, probably about April 15th.

Lowellvile, O.—The Board of Education of Poland Township, will soon select an architect to prepare plans for a brick central grade school building to be erected at a cost of \$30,000. Building will contain eight class rooms and auditorium.

The Board of Education of Poland Township, also contemplates erecting a brick grade school building to cost about \$15,000. Uncertain when architect will be selected.

Maumee, O.—Architect David L. Stine & Son, Valentine building, Toledo, are preparing preliminary plans for a onestory brick and stone Carnegie library to be erected for the Carnegie Library Association. Cost \$10,000.

Mingo, O.—Architects A. W. Stover & Co., of Columbus, awarded to James I. Barnes, Logansport, Ind., the contract for erecting a two-story and basement brick and limestone high and grade school addition for the Board of Education. Cost \$20,000.

Beaver, Pa.—The Board of Education will select an architect to prepare plans for a two-story brick fireproof grade school building to be erected on Market street to cost \$55,000. Building will contain 20 class rooms, auditorium, gymnasium, domestic science and manual training departments.

Birmingham, O. — Architect Earl E. Beel, 136 Ely Power Block, has been selected to prepare plans for a two-story and basement brick grade and high school building to be erected for the Board of Education to cost \$16,000. No details decided.

Bristolville, O. — Architects Miller & Son, Dollar Bank building, Youngstown, have working drawings in progress for a two-story brick and hollow tile centralized school building to be erected 000. Building will contain 4 class rooms. 000. Building will entain 4 class rooms, domestic science and manual training departments.

Camden, O.—The Board of Education is taking bids to close March 31st on constructing a two-story and basement brick and hollow tile and terra cotta high school building in Somers Township, to cost \$65,000 Plans by Architect E. R. Thompson of Youngstown.

Claysville, Pa.—Architect Charles W. Bates, Wheeling, has plans in progress for a two-story and basement brick high school building to be erected on Main street for the Board of Education. Cost \$15,000. Bids will be taken about April 15th.

Covington, **O**. — Architect E. Henson Ricket, 274 Twelfth avenue, Columbus, O., has plans in progress for a two-story brick school building addition to be erected for the Board of Education to cost \$15,000.

Dayton, O. —, Architects Pretzinger & Musselman, 1125 Reibold building, have been selected to prepare plans for a two-story and basement reinforced concrete grade school building to be erected in Ohmer Park for the Board of Education. Cost from \$130,000 to \$150,000.

The same architects have also been selected to prepare plans for a two-story and basement reinforced concrete fireproof grade school building to be constructed on Chapel Road for the Board of Education Cost about \$150,000

Erie, Pa.—Architect William B. Ittner, St. Louis, Mo., has plans in progress for a three-story and basement brick and terra cotta and stone high school building to be constructed on Twenty-ninth and State streets for the Board of Education. Cost \$350,000. Contract for grading was let to J. & M. Doyle cost \$14,712.20. Bids for building will not be taken until April 1st.

Industrial, W. Va.—Longest & Tessier Company, of Greensboro, N. C., are low bidders on constructing a one and twostory and basement brick and cut stone school building for the State Board of Control, to cost \$35,000. Plans by Architect H. Rus Warne of Charleston.

Kenmore, O.—The Board of Education is taking new bids to close March 31st on the erection of a two-story and base-ment brick grade school building to cost \$15,000. Plans by the National Engineering Company, Cleveland.

Ellwood City, Pa. — The Board of Education contemplates erecting a grade school building on North street, to cost \$25,000. Architect not selected.

Alliance, O.—The Board of Education awarded to the Hamilton Construction Company, the contract for constructing a two-story and basement brick and limestone or sandstone grade school addition, to cost about \$20,000. Plans by Architect Frank L. Packard, of Columbus.

The Board of Education also awarded to the Hamilton Construction Company the contract for erecting a two-story and basement brick and limestone grade school addition on Seneca street, to cost \$20,000. Plans by Architect Frank 1. Packard, Columbus.

The Board of Education awarded to James Wells, Marshall building, Cleveland, the contract for constructing a three-story brick; hollow tile and sandstone grade school building, on S. Lincoln avenue, to cost about \$25,000. Plans by Architect Wilbur T. Mills, of Columbus.

Bay Village, O. — Architect W. H. Nicklas, 1900 Euclid building, Cleveland, has been selected to prepare plans for a two-story and basement brick fireproof school building, to be erected for the Board of Education. No details decided.

New Antioch, O. — Architects Weber, Werner & Adkins, Mercantile Library building, Cincinnati, have been selected to prepare plans for a two-story brick grade school building, to be erected for the Board of Education, to cost \$17,500. Building will contain five class rooms.

State, County and Municipal.

Akron, O.—Plans will be drawn for a stone and brick post office building to be constructed on E. Market street for the United State Government, to cost \$340,000.

Cincinnati, O. — Architect Louis G. Dittoe, Carew building, is preparing preliminary plans for a one-story pressed brick and limestone public comfort station to be erected at Spring Grove avenue and Crosby street for the City. Cost \$11,500.



EQUITY.

One of our experienced Title Examiners will quickly ascertain for you the amount of equity, in realty pledged as security, by searching the County records.

A Complete Property report for the nominal sum of two dollars will show this equity and anything of record affecting it.

Eliminate doubt as to payment of the contract, not at its maturity, but before the debtor assumes the obligation.

Not when the material has been supplied and labor paid for—but NOW.

Commercial Reports. Collections.



THE "LAST WORD" IN BUILDING NEWS

Dayton, O.—The Pacific Bridge Company, of Portland, Ore., is low bidder on constructing the Fifth street bridge for the City, to cost \$130,000.

Elkins, W. Va. — Architect James A. Wetmore, Washington, D. C., is taking new bids to close May 8th on constructing a one-story brick and stone post office building for the United States Government, to cost \$135,000.

Fremont, O.—Sketches have been completed for a two-story and basement brick and stone post office building to be constructed for the United States Government, to cost \$100,000. Bids will be taken in Fall.

Harrodsburg, Ky.—The United States Government will crect a post office building on Main street and Lexington avenue.

Lebanon, O. — Architects Bausmith & Drainie of Cincinnati, have completed new plans for a one-story and basement pressed brick Soldiers and Sailors Memorial building to be erected on Main street and Broadway, for the Board of County Commissioners. Cost \$11,000.

Martinsburg. W. .Va. — The United States Government, awarded to J. L. Rebinson 'Construction Company, of Baltimore, Md., the contract for altering the post office and court house, and to the Nolan Clifford Company of Newport News, Va., the contract for constructing the sewage disposal system.

Midway, O.—Architect E. H. Rickett, Columbus, has plans in progress for a one-story and basement brick and limestone township hall to be erected for the Board of Trustees of Range Township. Cost \$7,000. Bids will be taken about April 1st.

Pataskala, O. — George Emswiler of * Etna, O., is low bidder on erecting a two-story and basement brick and limestone town hall for the Village to cost \$25,000. Plans by Architects Rusk & Sheets of Columbus.

Shaker Heights, O.—The Village has awarded to The Lanese Company, 816 Columbia building. Cleveland the contract for constructing a storm and sanitary sewer in Marchmont Road from Warrensville Center Road to South Corporation Line. Cost \$11,132.

Tiffin. O.—Plans are in progress and bids will be taken about April 15th on constructing a highway bridge on Linden Road, Hopewell Township, for the Board of County Commissioners.

Toledo, O .- Architect Thomas H. F.

Huber, 752 Spitzer building, has plans in progress and will take bids about April 1st on crecting a brick addition to the Children's Home for the Board of County Commissioners. Cost \$35,000.

Franklin, Pa.—The Commissioners of Venango County and Board of Poor, contemplates erecting a two-story brick fireproof laundry building to cost \$10,000 Plans will be drawn by Architect Karl A. Miller of Meadville.

Lebanon, O.—Architects Weber, Werner & Adkins of Cincinnati, have plans in progress for a two-story brick and stee! and concrete fireproof infirmary building to be rebuilt for the Board of County Commissioners, to cost \$84,000. Owners are now taking bids on wrecking old buildings to close March 27th.

Tiffin, O.—Engineer J. I. Oberlander will start plans for a concrete and stone highway bridge to be constructed between the Railroad Bridge and Pioneer Mill Dam, for the Board of Commissioners of Seneca County. Cost \$15,000.

Society and Club Buildings.

Alliance, O. — Architect W. W. Matchett, 539 E. Main street, is taking bids on crecting a two-story and basement brick sorority house on Simpson street for the Alpha Delta Girls Sorority. Cost \$5,000.

Cincinnati, O. — Architects Elnzer & Anderson, 135 Ingalls building, awarded to the M. Marcus building Company, 2023 Reading Road, the contract for erecting a 1½-story and basement stucco clubhouse addition on Grandin Road for the Cincinnati Country Club. Cost. \$6,000.

Architects Garber & Woodward, 2803 Union Central building, have preliminary plans in progress for a four-story and basement pressed brick and limestone and terra cotta girl's home addition to be constructed at N. W. corner of Third and Pike streets for the Cincinnati Union Bethel. Cost \$100,000.

Fort Mitchell, Ky.—Architects Robertson & Fahnestock, Gerke building, Cincinnati, O., awarded to John J. Craig, 24 W. Ninth street, Covington, the contract for erecting a pressed brick country club addition for the Fort Mitchell Country Club. Cost \$8,000.

Fort Mitchell, Ky.—John J. Craig of Covington, Ky., is low bidder on erecting a pressed brick country club addition for the Fort Mitchell Country Club to cost \$8,000. Plans by Architects Robertson & Fahnestock, Gerke building, Cincinnati, O.

Titusville, Pa. — Architect Orin Teets, Oil City, is preparing sketches for remodeling a club building for the F. O. E. to cost \$10,000.

Martins Ferry, O.—The Martins Ferry Hungarian Home Company, is taking bids to close March 25th on erecting a one and two-story and hollow tile and stone club house and dance hall on Main and Center streets to cost \$1,2000. Plans by Architect W. N. Brown, S. Eighth street.

Tiffin, O. — Architect Charles Ernest, Michael building, is ready for bids on erecting a two-story brick and stone Girls cottage for the Junior Order of United American Mechanics. Cost \$8,000.

Akron, O. — Architects Henry & Murphy awarded to the Akron Storage & Contracting Company, the contract for constructing a four-story brick and limestone Elk's club building, on S. High street, for the B. P. O. E. Cost \$70,000.

Cleveland, O. — The Mettler-Gloyd Company,' Hippodrome Annex, are low bidders on constructing a two-story and mezzanine brick and ornamental terra cotta lodge building, on Miles Park avenue, Newburg, for the Newburg Masonic Temple Company, Cost \$70,000. Plans by Architect W. J. Carter, Illuminating building.

Manufacturing.

Cleveland, O.—Architects and Engineers George S. Rider & Co., Century Block, have plans in progress for a brick and steel factory building to be erected on Harvard avenue and E. Forty-ninth street for the Cleveland Wire Spring Company. Uncertain when working drawings will be completed.

Homestead, Pa.—Architect J. Edward Jeim. 3945 Brighton Road, Northside, Pittsburgh, has completed plans for a two-story and basement brick and hollow tile laboratory to be erected for the Mesta Machine Company, at West Momestead, to cost about \$15,000. Owner builds and awards separate contracts.

Marion, O.—The Marion Tire & Rubber Company, will soon select an engineer for a one and two-story brick factory to be erected. No details decided.

Meadville, Pa.—The City contemplates erecting a brick power plant addition 'o cost about \$10,000. Bond Issue will be voted upon in May.

THE CONSTRUCTION RECORD

New Cumberland, W. Va. — Excavations have been started for a one-story brick steel plant to be constructed for the National Steel Casting Company. care 324 Diamond street, Pittsburgh. Owner builds and buys materials.

Scottdale, Pa.—The Atlas Power Company contemplates erecting a brick cap factory addition from private plans.

Seward, Pa. — Work will soon be started on erecting a plant extension and alteration for the Railway Supply & Eqquipment Company. Cost \$5,000 Owner builds and buys materials.

Springfield, O.—The Ridgely Murray Company contemplates erecting a onestory brick factory building addition on W State street, to cost \$6,000. Architect will be selected about May 1st.

Canton, O.-J. C. Garland, 340-43 Spitzer building, Toledo, received the contract for constructing an Industrial spur for the Wheeling & Lake Erie Railroad Company, to cost \$150,000. Project includes about 100,000 cubic yards reinforced concrete and undergrade at Tuscarawas and one small culvert. Track laying will be done by owner.

Meadville, Pa.—Plans are nearing completion and bids will be taken shortly on the erection of a one-story brick and steel plant addition for the Bronze. Metal Company to cost \$15,000.

New Vienna, O. – C. L. Baugh of Clarksville, contemplates erecting a three-story frame canning factory from private plans. Cost \$10,000.

Theatres.

Akron, O. — Architects Fichter & Brooker awarded to the Carmichael Construction Company, 5261 Hamilton building, the contract for constructing a two-story and basement brick and stone and terra cotta theatre and office building on 139-41 S. Main street for the McIntosh-Bowers-West Company. Cost \$40,000.

Connellsville, Pa. — Architect Harry Altman of Uniontown, awarded to R. L. Hannan, the contract for erecting a twostory brick and hollow tile and steel motion picture theatre on Pittsburgh avenue for John Wishart, Dunbar, and C. A. Wagoner. Cost \$10,000.

Dayton, O.—Architect R. E. Gebhart, 50 Callahan building, awarded to the Ritchie Wertz Company, S. Perry street, the contract for erecting a one-story brick and reinforced concrete motion picture theatre addition on Jefferson street for Charles J. Gross, S. Jefferson street. Cost \$10,000.

Duquesne, Pa. — Architects Carlisle & Sharrer, Jenkins Arcade building, Pittsburgh, are perparing sketches for a

brick and sandstone motion picture theatre, etc., to be constructed for a party whose name is withheld. Project includes department store, three stories, 53x80, motion picture theatre 1½-story, 49x90 and store room, one story, 38x80.

Erie, Pa. — Architects Shutts & Morrison, Marine Bank building, have plans in progress for a one-story stucco and hollow tile motion picture theatre to be erected on Eighteenth and Chestnut streets for John Hauer, Eighteenth and Chestnut streets. Cost \$6,000.

Cleveland, O. — Architect O. M. Stapf, 1017 Rose building, has plans in progress for a one- and two-story brick motion picture theatre and store building, to be erected on Fulton Road, near Lorain avenue, for the Fulton Square Theatre. Cost \$65,000.

Miscellaneous.

Miamisburg, O. — J. B. Schmitt, 610 Sycamore street, Cincinnati, received the contract for erecting a one-story and basement brick and limestone passenger station for the Cincinnati, Hamilton & Dayton Railway Co. Cost \$10,-000.

Brownsdale, Pa. — The Monongahela Saw & Planing Mill Co., received the contract for building a two-story frame barn for the Pittsburgh Coal Company Oliver building, Pittsburgh. Cost \$6,-500.

Cincinnati, O. — Henkel & Sullivan, 710 Mercantile Library building, received the contract for constructing a speedway at Birmingham, Ala., for the Birmingham Motor Speedway Company, to cost \$500,000.

Bowling Green, O. — Plans are in progress for a one-story brick and hollow tile public garage, to be erected on S. Main street, for the Standard Garage Company, to cost \$6,000. Contract was awarded without competition to B. F. Stuller and W. V. Campbell.

Hotels.

Ashland, Ky. — Pelfrey & Davis received the contract for erecting a fourstory and basement pressed brick and reinforced hotel addition on Thirteenth and Winchester avenues, for the Venture Hotel Company. Cost \$25,000. Gustave W. Drach, Union Trust building, Cincinnati, O., is the architect, and W. G. Franz, Union Trust building, Cincinnati, is the engineer.

Zanesville, O. — Architect Harry Meyer, Peoples Bank building, is preparing sketches for a five-story and basement brick and limestone hotel and lodge building, to be constructed on N. Fifth street, for the Zanesville Pythian Home Company.

Hospitals.

Cincinnati, O. — Architects Tietig & Lee, Fourth National Bank building, awarded to S. Meinken, 2126 Western avenue, the contract for erecting a tuberculosis hospital addition and alteration, at Lick Run, for the Board of Hospital Commissioners. Cost \$15,000.

Covington, Ky. — Architect B. T. Wisenall, Cincinnati, O., has plans in progress for a three-story and basement brick hospital addition to be constructed on 165 E. Second street, for the Booth Memorial Hospital. Cost \$100,000. Owner awards separate contracts.

Magnetic Springs, O. — Architects D. S. Schureman & Son, have plans in progress for a two-story and basement frame sanitarium addition to be erected for the Sager Sanitarium to cost \$7,000. Owner and architects will take bids about April 15th.

Toledo, O. — Architect Thomas Huber, 750 Spitzer building, has plans nearly completed and will take bids about April 1st on erecting a five-story and basement brick, sand or limestone nurses home on Cherry street, for St. Vincent's Hospital, Sisters of Charity.

BUILDING CONTRACTS FOR PAST WEEK

The past week was not as satisfactory a one in the amount of contracts awarded as that of the previous week. From the reports gathered it would appear that a large proportion of the work placed was for street and road work, principally in the Cleveland section where nearly \$225,000 worth of street paving was contracted for. School house construction was not as heavy as heretofore, there being but \$100,000 to be credited to this line of work. Residence work is below that of last week also but this branch of the building trade can be expected to bring better results in the near future. The following table compiled from Dodge Reports show values of work placed for various periods:

Total work awarded for year to date\$22,297,000 Total work awarded for week of March 22 1,904,000 Total work awarded for week of March 15 4,032,000 Residence and apartment work for week of March 22 322,000 Warehouse and manufacturing work for week of March 22 198,000 Miscellaneous work for week of March 22 1,384,000 Total contracts placed during January 1916 7,343,000 Total contracts placed during February 1916 7,050,000

SPEEDWAY PLANS NEARLY READY FOR BIDS.

Specications are almost completed for the speedway to be built at Springdale, near Cincinnati, O., for the Cincinnati Motor Speedway Company, L. W. Edwards, president. Architects Harry Hake and Charles Kuch, Telephone building, Cincinnati, designed the work which will call for grand stand to seat 16,000 persons to be constructed of wood beams and trusses, concrete footings, composition roofing, etc. There will be a large amount of cement sidewalks, drive ways and parking spaces. Bids will be taken about April 1.

SEPARATE BIDS FOR COLUMBUS APARTMENTS.

Plans are being made by Architects Julian & Julian, 576 N. High street, Columbus, O., for a three-story brick apartment building 115x184 feet to contain six suites which will be built on Oak street for C. L. Nims, 1556 Worthington street, Columbus, who will award separate contracts at once. The work will call for asphalt and built-up roofing, hot air heating, electric work, oak and yellow pine floors and interior trim, sheet metal work, face brick, etc., etc. Estimated cost \$60,000.

FACTORY SPECIFICATIONS

READY.

B. L. Baldwin & Co., Perin building. Cincinnati, O., are about completing the specifications for the new foundry and pattern shop to be built for the Lunkenheimer Company, Cincinnati. The foundry building will be 100x260 feet, one story, brick, steel and reinforced concrete construction while the pattern shop will be 45x100 feet, four stories. A one-story cleaning shop 50x100 feet will also be built. Specifications will call for pitch, felt and gravel roofing, steel sash, ventilators, skylights, concrete floors, electric elevators, etc. Cost \$125,000.

IRONTON WORK CLOSES SOON.

Bids are to close on the 28th inst for building the store and lodge structure at Ironton. O., for the Lawrence Lodge No. 198, F. & A. M., Ironton, O., plans for which came from Architects Weber, Werner & Adkins. Cincinnati. The building will be 58x132 fect, four stories and basement and is to cost about \$75,000. Five stores, 14 offices and lodge rooms will occupy the entire structure. Building specifications call for pressed brick, hollow tile partitions, copper weatherstrips, metal lumber, sheet metal work, pitch, felt and gravel roofing, terra cotta. cement, ornamental iron work, electric work, heating, plumbing, marble and tile work, yellow pine, oak and birch interior trim, wood window and door frames, etc.

AKRON HOTEL TO BE FIGURED

Bils are to be taken about April 1 by by Charles Stahl, 618 Hamilton building. Akron, O., for constructing a threestory brick, steel and reinforced con crete store and hotel building 63x78 feet which will be erected on E. Market and Broadway street. Plans for the structure are well under way by Architect Vernon Redding, Bird building, Mansfield, O. Estimated cost \$60,000.

PUBLISHERS TO BUILD.

The Star Journal Publishing Company, Sandusky O., is having plans made by A. M. Allen & Co., 1900 Euclid building, Cleveland, for a three or four-story brick and reinforced concrete building 58x85 feet which is to cost about \$50,000. Working drawings will be finished at an early date and bids on the general contract asked for soon. Requirements will consist of composition roofing, cemeut finish floors, skylights and ventilators, pressed brick, reinforcing steel, cemen', electric work, steam heating, etc.

ECONOMY IN BUILDING DESIGN.

By SAMUEL L. POLIS. C. E.

The cost of a building operation consists in the main of two items, viz: (a) land, (b) structure.

Having determined the kind of structure desired, the operator or owner generally endeavors to obtain a building loan or mortgage that is as large as possible in proportion to the combined cost of land and building. The balance must be provided by the operator or owner and represents his equity in the completed structure. The natural desire of the person building is to keep his original equity as small as he can, and it is, therefore, of great importance to keep the cost of the structure as low as possible consistent with the architectural and engineering requirements of the building.

Examples of Costs.

After the character and general design of the structure have been decided upon and preliminary plans made, a fair estimate of the cost of each item becomes possible. An actual example of the costs of the various items of a completed structure is as follows:

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Excavation	ŝ		ł	ł	,		ž	ŝ	,				,	,	,			1.2
Foundations		,				,	ļ				 ,	à	,		,	,		5.0
Brickwork		l														ļ		4.3

Structural steel	6.2
Ashler and terra cotta	3.4
Fireproof floor arches	1.8
Partitions	.85
Plastering	2.5
Ornamental iron and bronze	4.0
Elevators	2.55
Plumbing	
Heating and ventilating	1.2
Electrical	0.8
Carpentry	2.2
Marble, mosaic and floor finish	2.8
Skylights and copper work	0.2
Hardware	0.05
Roofing and miscellaneous	1.0
Glass	.95

C

Cost per cubic foot42.5

The items of masonry, steel, foundations and fireproofing require about 50 per cent of the total outlay for the above building and while not typical of all costs we can rightly assume that the items of masonry, steel and fireproof floor construction require an outlay of from 40 per cent to 60 per cent of the building. When the estimates seem to show that the complete structure will be excessive in cost or where an owner would like to have the plans scrutinized for possible elimination of needless materials, the above three items, together with the plumbing, heating and electrical construction should be examined by competent experts. The other items that enter into building construction are for such work as plastering, painting, ornamental terra cotta, etc., that cannot be reduced in cost without affecting the architecture of a building or its maintenance costs.

Contractors' Opinion.

Some practical building contractors do not think much of the engineer's ability and theoretical knowledge. A builder of this class knows and can usually cite examples showing where the engineer wanted him to build a 24 inch brick wall and he built a 16 inch wall, which is still intact, or that the engineer required him to use heavier steel than he knew was necessary. The practical builder would be correct in his opinion of the engineer were it not that the latter must have dealt with a quantity known as a "safety factor," which the builder did not consider. A safety factor may be defined as a number; that the safe working load of a structural member is multiplied by, to give the load at which it will break, e. g., it gives the ratio between the breaking strength and the safe permitted working load of structural work.

The Building Code of New York re-

THE CONSTRUCTION RECORD

quires that the safety factor for metals should be four (4), for timber six (6) and for stone ten (10). This means that if one allows 1,000 pounds of loading per square inch of cross-section on a wood post, it can actually carry 6,000 pounds per square inch before breaking. This difference between 1,000 and 6,000 pounds could be used to advantage by the practical builder, but he is volating the law if he exceeds the former figure. How-

ever, attention is drawn to the fact that the above safety factor could permit one to considerably overload the walls or floors of any building occasionally, without any material damage being done to the building.

Another mater that should be corsidered now is that of floor loads. A floor load is made up of two quantities, the dead load of the floor and the required live load. The dead load consists of: (a) the weight of the floor itself, including the steel, fireproof floor arches, cinder fill, floor finish and ceiling plaster, (b) the partitions. The live load is an arbitrary quantity specified in the building codes and designates the amount of movable load per square foot of surface that may legally be distributed over the floor area. The walls, beams, girders and columns must be designed to safely carry the sum of the dead and live loads.



Classified Index of Advertisers, Arranged for Ready Reference

ARCHITECTURAL CASTINGS. Mahoning Foundry Co., Punxsutawney, Pa.

ARCHITECTURAL TERRA COTTA.

Scott A. White, Pittsburgh. Finnessy, Jas. E., Oliver Building, Pitts-burgh, Pa.

Kennedy, D. J. Co., Pittsburgh, Pa.

20

ART AND STAINED GLASS.

Hyde-Murphy Co., Ridgway, Pa.

Marshall Art Glass Co., S. S., Box 139, Allegheny.

Twin City Art Glass Works, 110 Sandusky St., Pittsburgh.

ASPHALT SHINGLES.

Fintkote Mfg. Co., Wabash Bldg., Pitts-burgh.

H. B. Morrow, Wabash Bldg., Pittsburgh, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING PAPER.

Saeger Brothers, Pittsburgh, Pa.

BANK AND OFFICE FIXTURES.

H. C. Bemis, Bradford, Pa.

Hyde-Murphy Co., Ridgway, Pa.

Requarth Co., F. A., Dayton, Ohio. Tyler Co., W. S., Bessemer Building, Pitts-burgh, Pa.

BRICK JOINT RAKER.

George Grundy, 905 Gerrett St., Pittsburgh.

BUILDERS' SUPPLIES.

Hall, Harry & Brother, Homestead, Pa. Kennedy, D. J. Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., New Kensington, Pa. George C. Webb, Jenkins Arcade, Pittsburgh.

Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

BRICK MANUFACTURERS AND DEALERS.

Kennedy, D. J. Co., Pittsburgh, Pa. Kushequa Brick Co., Kushequa, Pa.

Wheeling Wall Plaster Co., Wheeling, W. Va.

BUILDING CONTRACTORS.

Brednich, Jacob, 243 Lelia St., Mt. Washing-ton, Pittsburgh. Brown Brothers, Broadway and Lincoln Aves., Mt. Lebanon.

Kissell, D. C., 7410 Race St., Pittsburgh. Lash, D. H., 720 Grandview Ave., Pittsburgh. Rogers, Philip, 157 Moultrie St., Pittaburgh, Wiegand, J. W., Suburban Ave., Nineteenth Ward, Pittsburgh.

CEMENT.

Kennedy, D. J. Co., Pittsburgh, Pa.

New Kensington Fiber Plaster Co., New Kensington, Pa. Wheeling Wall Plaster Co., Wheeling, W. Va.

CEMENT COATING.

Fireproof Materials Co., Pittsburgh, Pa. Kennedy, D. J. Co., Pittsburgh, Pa. George C. Webb, Jenkins Arcade, Pittsburgh. Wheeling Wall Plaster Co., Wheeling, W. Va. Witherow Steel Co., Pittsburgh.

CERAMIC AND TILE WORK.

Erie Mantel & Tile Co., Erle, Pa." Pittsburgh Venetian Mosaic Co., Pittsburgh.

CONCRETE FOUNDATIONS.

Garber-Erder Co., Wabash Bldg., Pittsburgh.

CONCRETE MIXERS.

Easter-Emmons Co., 432 Diamond St., Pittsburgh. General Contractors' Machinery Co., Pitts-

burgh, Pa

Contractors Machinery Supply Co., Pitts-burgh, Pa CONCRETE HARDENER.

George C. Webb, Jenkins Arcade, Pittsburgh.

COMPOSITION FLOORS.

American Mason Safety Tread Co., Builders' Exchange, Pittsburgh. Dalzell, J. Willis, House Building, Pitts-burgh, Pa.

CONTRACTORS' PUMPS.

Reineke-Wagner Pump & Supply Co., Pittsburgh

CONTRACTORS' EQUIPMENT.

General Contractors' Machinery Co., Pitts-burgh, Pa. Contractors Machinery Supply Co., Pitts-burgh, Pa.

CORNICE WORK.

Franklin Sheet Metal Works, Franklin, Pa.
General Mfg. Co., Wheeling, W. Va.
Limbach, Frank. 1724 Lowrie St., Northside, Pittsburgh.
W. H. Knodell, 510 Weiser St., Northside, Pittsburgh, Pa.

DIRECTORY BOARDS. J. Willis Dalzell, Pittsburgh, Pa.

DOOR CHECKS. Allegheny Sales Company, F Bank Building, Pittsburgh. First National

ELECTRICAL CONTRACTORS.

Carter Electric Co., Oliver Bldg., Pittsburgh, Loomis Electric Co., W. R., Wabash Building. Pittsburgh.

ELEVATORS AND DUMB WAITERS.

Marshall Brothers, South Twenty-first and Mary Sts., Pittsburgh.

ELEVATOR DOORS.

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FELT.

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burgh. Moss Iron Works, J. E., Wheeling, W. Va. Vilsack, Martin Co., Ltd., 3222-30 Penn Ave.

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eral Waterproofing Co., Century Bldg., Pittsburgh, Pa. General

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FLOOR AND WALL PAINTS.

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FOUNDATION CASTINGS.

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FURNACES, STOVES AND RANGES. Weisberg Roofing Co., 1231 Pennsylvania Ave., Northside, Pittsburgh, Pa.

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HARDWOOD DOORS. Hyde-Murphy Co., Ridgway, Pa.

HARDWOOD FLOORS.

Empire Flooring Co., Jenkins Arcade, Pitteburgh.

HOUSE PUMPS. Reineke-Wagner Pump & Supply Co., Pittsburgh.

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INTERIOR MILL WORK.

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MILL WORK. H. C. Bemis, Bradford, Pa. Herdman ash, Door & Lumber Co., Zanes-ville, O

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