QUALITY FIRST
AND
ALWAYS

ABBÉ SPECIALTIES

PAUL O. ABBÉ

CRUSHING, CUTTING, GRINDING, MIXING,
PULVERIZING AND SIFTING MACHINERY

30 BROAD STREET
NEW YORK
N. Y.

Catalog B

ABBÉ SPECIALTIES

ATTRITION MILLS

BOLTING REELS—CENTRIFUGAL, HEXAGON and ROUND

CAGE MILLS — CRUSHERS

CUTTERS — DISINTEGRATORS

DUFOUR BOLTING CLOTH

HAMMER MILLS — KNIFE GRINDERS

RESPIRATORS

PACKAGE PACKERS

COMBINED SIFTERS and MIXERS

SPECIAL MIXERS

BALL and PEBBLE MILLS - - - - CATALOG "A"

PAUL O. ABBÉ

CRUSHING, CUTTING, GRINDING, MIXING,
PULVERIZING AND SIFTING MACHINERY

30 BROAD STREET,

NEW YORK,

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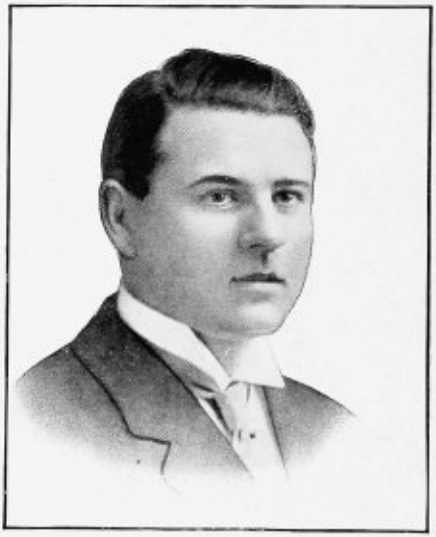
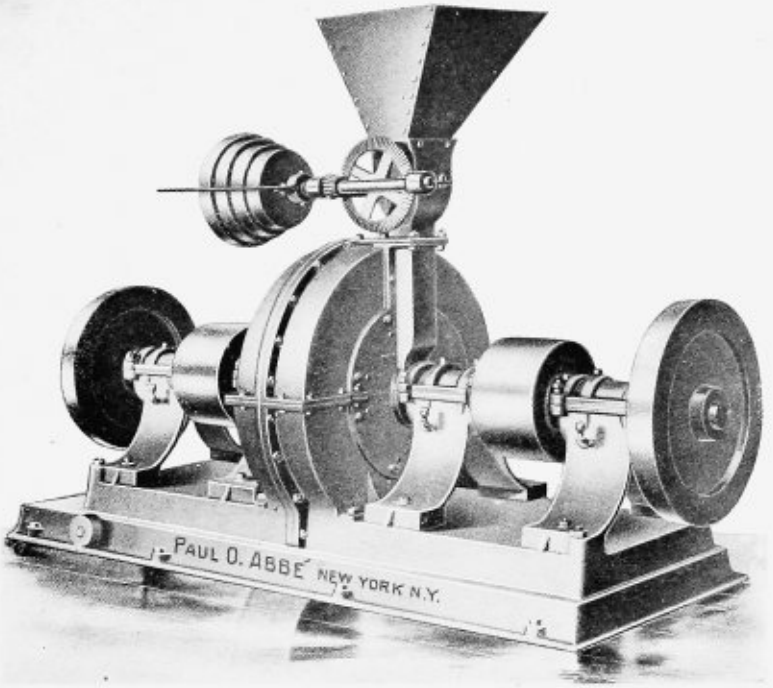


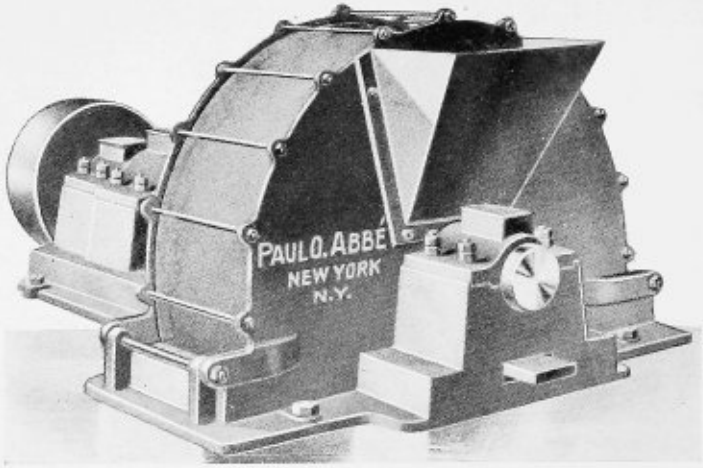
The "Perfection" 30-Inch Cage Mill or Disintegrator



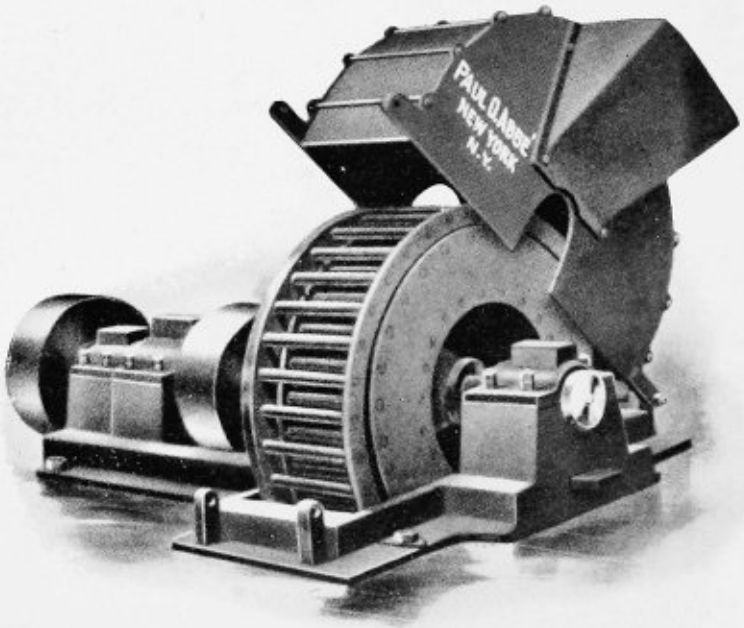
is especially designed for grinding Sulphur, Cork, and Linseed Oil, Glue or other materials that are likely to stick to the cages. It will be noted that the upper bed of this Mill lies on a track so that by removing a few bolts, the bed may be separated and the cages easily cleaned.

This Mill is also provided with an Automatic Feed, has Oil Ring Bearings, and Fly-Wheels, on the outer end of either shaft to counterbalance the cages within the case, thus insuring a uniform wear on the bearings, and making it without doubt, the best Mill of its kind now on the market.

Floor Space required, 7′ 10″ x 3′.
Speed, 800 to 1500 R. P. M.
Power, 10 to 20 H. P.
Pulleys, 14″ x 8″.
Weight, 4000 Pounds.



The Quill Shaft Cage Mill (Closed)



The Quill Shaft Cage Mill (Open)

THE QUILL SHAFT CAGE MILL

Works on the same principal as the mill on page 3, that of two oppositely revolving cages which beat the materials to pieces very rapidly. The cages are made of heavy castings and wrought steel rings in which are set at regular intervals steel rods against which the grinding is done.

I furnish these mills in two different styles, the American and the German, and in various sizes. The American style has four rows of rods, the German has six rows of rods. The latter machine gives a much finer product, but the American mill is satisfactorily used for grinding many materials.

In the larger sizes of mills of this construction I have designed special bearings, they being oiled from the top by an oil box and from the bottom by a wick leading to an oilwell. With a 36 inch size mill I have established a record of grinding 50,000 lbs. of glue in ten hours using less than 30 h. p. to do the work.

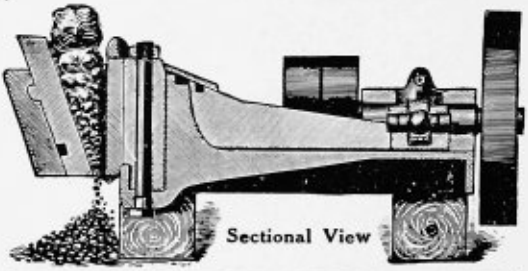
Dimensions:

	24 inch size.	36 inch size.	48 inch size.
Floor space required	3 ft. x 5 ft.	4 ft. x 7 ft.	6 ft. x 9 ft.
Speed	800 rev. per m.	650 rev. per m.	500 rev. per m.
Power	5 to 10 h. p.	10 to 30 h. p.	30 to 50 h. p.
Pulleys	9 in. Diam.	15 in. Diam.	20 in. Diam.
Weight	1500 lbs.	3000 lbs.	6500 lbs.

CRUSHER

For all Classes of Work

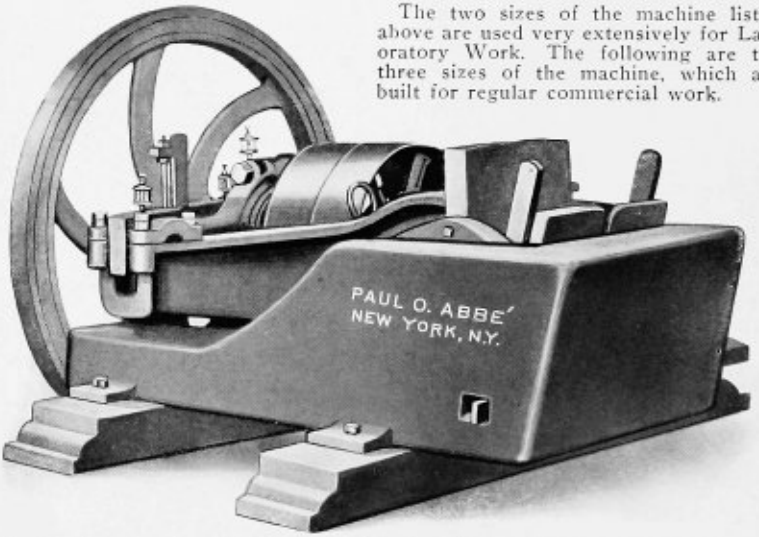
This Crusher is especially adapted for use in connection with Buhr Mills, Pebble Mills, and other Grinding Machines. It takes the material in lump form and reduces it down to 4 mesh. The smaller machines will produce 8 mesh product. This type of Crusher requires less horse power in proportion to the work done, on account of the advantage gained by operating the die by means of the long lever to which is attached the eccentric shaft that is driven by the pulley.



Sectional View

Number	Opening in Jaws	Diam. of Pulley	Width of Pulley	Floor Space Required	Shipping Weight
0	1¼ x 3½	4⅜"	1¾"	13 x 21"	100 lbs.
½	1¾ x 5½	6¼"	2¾"	16 x 28"	260 lbs.

The two sizes of the machine listed above are used very extensively for Laboratory Work. The following are the three sizes of the machine, which are built for regular commercial work.



No.	Opening in Jaws	Speed	Horse Power	Width of Belt	Diam. of Pulley	Weight Heaviest Piece	Total Weight	Capacity per 10 Hours Net Tons			Floor Space Required
								¾ in.	½ in.	No. 4 Mesh	
1	4 x 9	350	One	2"	10"	700 lbs.	1,800 lbs	5 to 8	5 to 7	3 to 6	4½ x 3½
2	5 x 15	300	Three	4"	18"	2,200 lbs.	4,500 lbs.	18 to 20	14 to 20	10 to 15	6 x 4½
3	7 x 18	300	Five	6"	22"	3,500 lbs.	7,400 lbs.	30 to 40	25 to 35	15 to 24	7 x 5½

THE IMPROVED ROTARY CUTTER

This machine is without doubt the best of its kind on the market, having superceded all others within the past fifteen years. There are now at least 700 of these Cutters in successful operation, and the sales are increasing every year. It is built under United States Patents, which cover all the latest improvements.

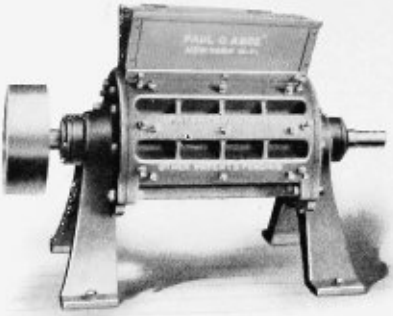
The Improved Rotary Cutter is well adapted to the reduction of such materials as:—Asbestos, Asbestos Scrap, Barks, Boiler Covering, Bones, Bread, Cardboard, Celluloid, Chick Food, Chicory, Chipped Log Wood, Cork, Drugs, Grains of all kinds, Guayule Shrub, Hard Fibre, Hard Rubber, Herbs, Leather, Leaves, Magazines, Mustard, Newspapers, Oat Hulls, Paper, Paper Cones, Pulp, Rags, Rechipper in Sulphite Mill, Roots, Rubber, Sawdust, Shavings, Spices, Spruce Wood Chips, and Spills, Tobacco Stems, Trading Stamps, Coupons and Books, Vegetable Ivory, Wood Blocks, Etc., Etc.

The Cutter is so built that it will cut either the most delicate Leaves, or the hardest Roots, such as:—Chinese Licorice, Tumeric, Soap Root, Nux Vomica, Etc.

For reducing materials before feeding to grinding or pulverizing machines, the Improved Rotary Cutter is unequaled. In fact, its field of usefulness is very extensive, and it is only necessary to mention a few of the manufacturing plants to show the great variety which it is adapted to, among them being:

Box and Shook Factories, where it is used for making sawdust out of shavings, odds and ends of wood blocks, etc.

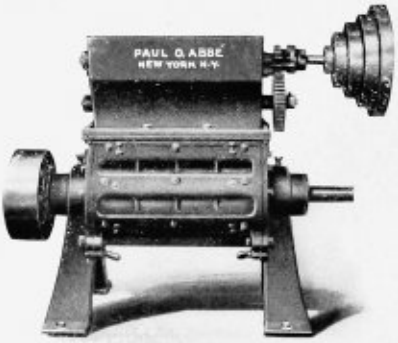
Boiler Covering Works,
Bone and Tallow Plants,
Chemical Works,
Cork Works,
Drug Mills,
Feed and Flour Mills,
Fertilizer Plants,
Grease and Soap Plants,
Paper Mills,
Rubber Works,
Rubber Regenerating Works,
Spice Mills,
Sulphite Mills,
Etc., Etc.



No. 0. Rotary Cutter (Closed)

The Cutter consists of a cylinder to which five knives are securely fastened, which revolves in a circular case (No. 0 Machine has only 3 knives), to which the six stationary knives are fastened. Being straight, the knives are easily sharpened, but are set at an angle to insure a perfect shearing cut. As the material is cut, it passes over the perforated plate, that forms the bottom of the circular case, falls through if fine enough, otherwise it is carried around and cut again by the knives until it will pass the screen opening. The perforated plates can be easily changed, so that a change from one mesh to another is made in a few moments by removing the plates. Three plates of any desired perforation are supplied with each machine. This Cutter is strongly made in every way, and has no gears or difficult adjustments to make it a complicated machine.

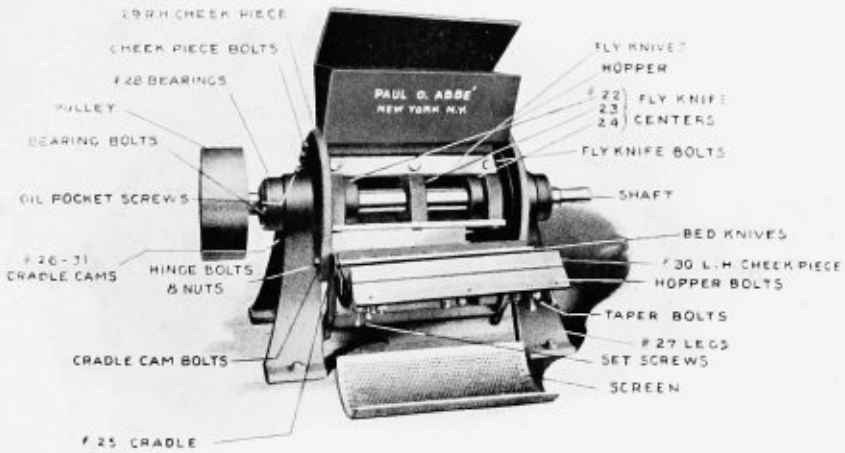
The different sizes are carried in stock.



No. 0. Rotary Cutter with Automatic Feed

The Automatic Feed Hopper can be supplied to fit all the different sizes of Cutters made.

See page 10 for further particulars

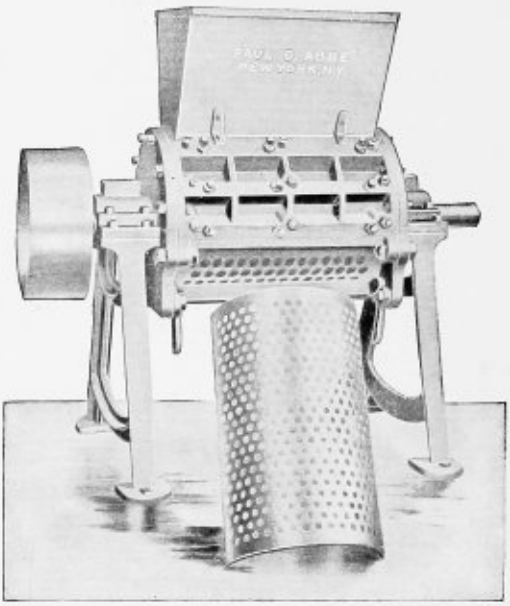


No. 0. Rotary Cutter (Open)

When ordering new Parts order from this list:

3 Fly Knife Centers, Nos. 22, 23, 24
1 Cradle No. 25
2 Cradle Cams, Nos. 26 and 31
2 Legs, No. 27
2 Bearings, No. 28
1 R. H. Cheek Piece, No. 29
1 L. H. Cheek Piece, No. 30
3 Screens
18 Taper Bolts and Nuts
9 Fly Knife Bolts
12 Set Screws
1 Hopper
1 Wrench
1 Pulley
9 Knives (one full set)
12 Cheek Piece Bolts
4 Hinge Bolts and Nuts
4 Cradle and Cam Bolts
8 Bearing Bolts
2 Oil Pocket Screws

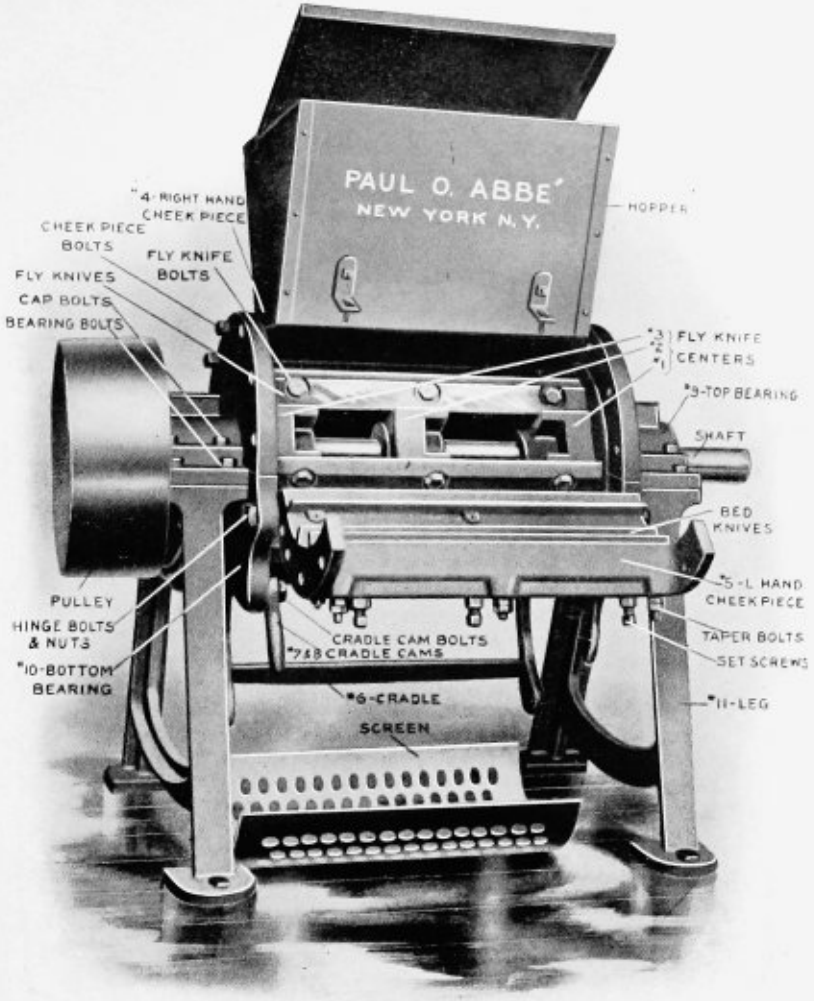
I am also making a Shredder or Pulverizer, which is somewhat similar to the Rotary Cutter, but a larger number of knives gives it more cutting surface and makes it particularly adaptable to shredding leather or other fibrous materials, or where very fine cutting or grinding is desired.



No. 1. Rotary Cutter (Closed)

LIST OF SIZES, ETC.

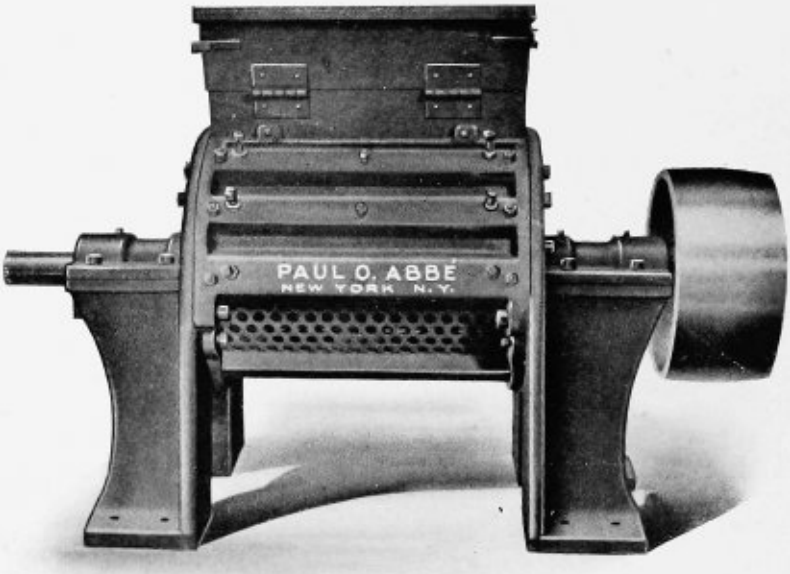
Number of Machine	Floor Space Required	Shipping Weight	Size of Pulley	Speed R. P. M.	H. P. Required	Size of Screen
No. 0	3'1" x 1'5"	500 lbs.	10 x 3"	900 to 1200	2 to 5	10 x 17"
No. 1	4'6" x 2'10"	1500 lbs.	16 x 6"	600 to 900	5 to 15	20 x 24"
No. 1½	5'8" x 2'6"	2150 lbs.	18 x 8"	600 to 900	10 to 20	25⅞ x 24⅛"
No. 2	5'8" x 3'6"	4000 lbs.	20 x 6"	600 to 900	15 to 40	20¼ x 27½"
No. 2½	8' x 3'3"	6000 lbs.	20 x 9"	500 to 800	20 to 45	35 5/16 x 35⅞"
No. 3	8'6" x 3'7"	12000 lbs.	30 x 12"	500 to 750	30 to 60	50½ x 29½"



No. 1. Rotary Cutter (Open)

When ordering new Parts order from this list:

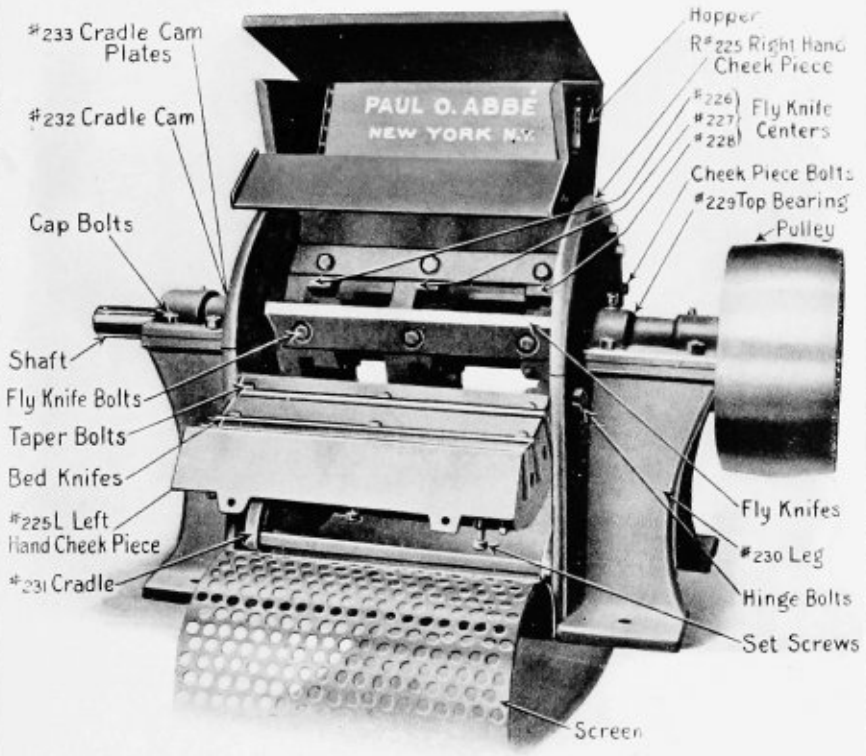
3 Fly Knife Centers, Nos. 1, 2 & 3
1 Right Hand Cheek Piece, No. 4
1 Left Hand Cheek Piece, No. 5
1 Cradle, No. 6
2 Cradle Cams, Nos. 7 and 8
2 Top Bearings, No. 9
2 Bottom Bearings, No. 10
2 Legs, No. 11
3 Screens
18 Taper Bolts and Nuts
15 Fly Knife Bolts
18 Set Screws
1 Hopper
2 Wrenches
1 Pulley
11 Knives (one full set)
12 Cheek Piece Bolts
4 Hinge Bolts and Nuts
4 Cradle and Cam Bolts
8 Cap Bolts
8 Bearing Bolts



No. 1½. Rotary Cutter (Closed)

This size Cutter is similar to the No. 2 Machine, but is not quite as large, being designed to do lighter work. It is, however, amply strong for many purposes, where a large machine, such as the No. 2 is considered of too heavy construction to warrant its use.

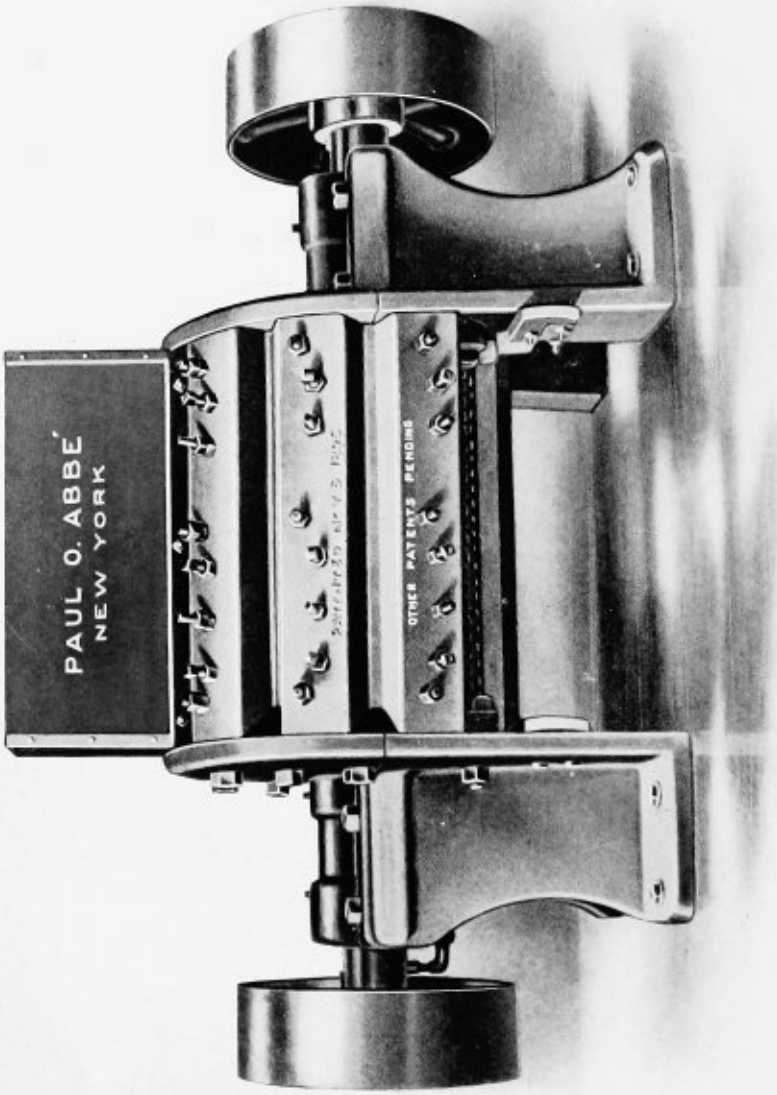
See page 10 for further particulars



No. 1½. Rotary Cutter (Open)

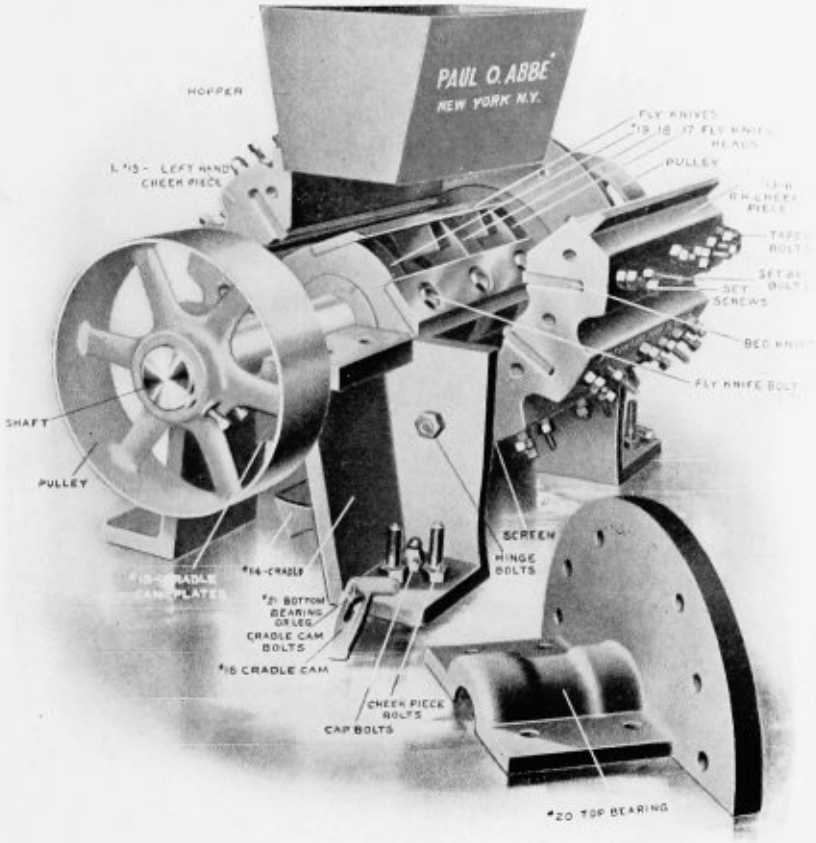
When ordering new Parts order from this list:

3 Fly Knife Centers, Nos. 226, 227, 228
1 Right Hand Cheek Piece, No. R-225
1 Left Hand Cheek Piece, No. 225-L
1 Cradle, No. 231
2 Cradle Cam Plates, No. 233
2 Cradle Cams, No. 232
2 Top Bearings, No. 229
2 Legs, No. 230
3 Screens
18 Taper Bolts and Nuts
15 Fly Knife Bolts
12 Set Screws
1 Hopper
2 Wrenches
1 Pulley
11 Knives (one full set)
12 Cheek Piece Bolts
4 Hinge Bolts and Nuts
8 Cap Bolts
8 Bearing Bolts



No. 2. Rotary Cutter (Closed)

See page 10 for further particulars



No. 2. Rotary Cutter (Open)

When ordering new Parts order from this list:

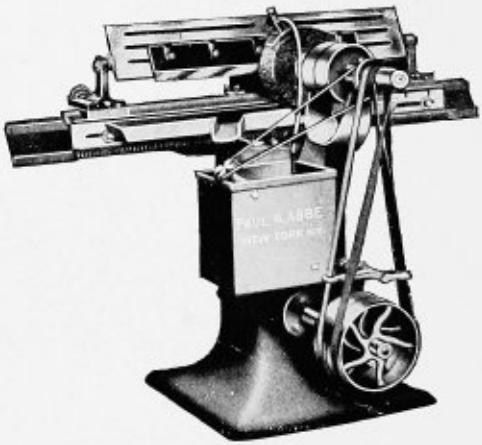
1 Right Hand Cheek Piece, No. 13-R
1 Left Hand Cheek Piece, No. L-13
1 Cradle, No. 14
2 Cradle Cam Plates, No. 15
2 Cradle Cams, No. 16
3 Fly Knife Heads, Nos. 17, 18 & 19
2 Top Bearings, No. 20
2 Legs, No. 21
3 Screens
18 Taper Bolts and Nuts
15 Fly Knife Bolts
18 Set Screws
1 Hopper
1 Wrench
2 Pulleys
11 Knives (one full set)
12 Cheek Piece Bolts
4 Hinge Bolts and Nuts
4 Cradle and Cam Bolts
8 Cap Bolts
12 Set-Back Bolts

AUTOMATIC KNIFE GRINDERS

Automatic Knife Grinders have become a necessity in all well appointed mills and factories. Those I offer have many points not found in others, the principal one being their adaptability to flat or hollow grinding.

The slide or bed can be set at different angles, before the emery wheel, which has a flat face with the outer corner rounded off. If the bed be set at a right angle to the emery wheel spindle, the knife will traverse back and forth against the flat face of the emery wheel, and the knife be ground a flat bevel; if it is set at any other angle, the rounded corner of the emery wheel will do grinding and a concave bevel be the result. This feature will be appreciated by those who prefer a flat, stout edge for rough work, and a thin concave edge for fine work.

All ordinary grinding, such as planer knives, paper knives, stave knives, short veneer knives, etc., not over 5/8" thick, and having more than 1¼" bevel, may be ground on any of the machines without water,



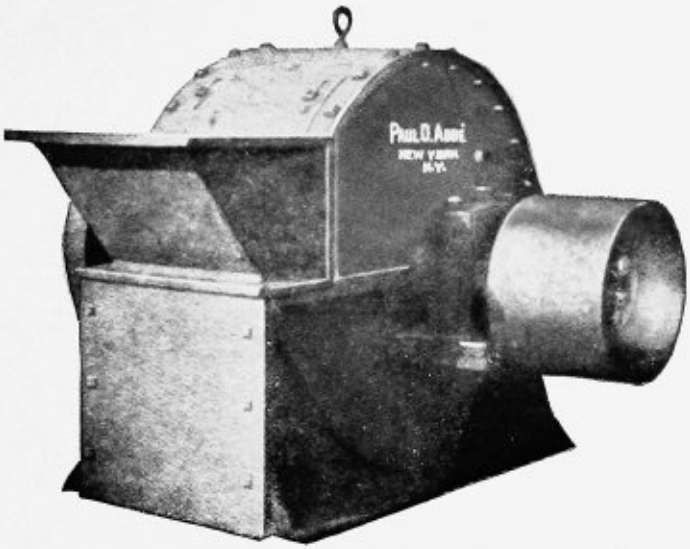
if machine is correctly speeded. and wheels or stones are suitable. A hard wheel will not cut fast enough, it is therefore apt to be crowded, become clogged and is liable to overheat the knife and make it soft on the edge. This should not condemn the machine.

I furnish water attachments on any of the grinders when desired, but do not consider them necessary, except for very large or heavy knives, or leather or tobacco knives, which are made of an extra high grade of steel, are very fine and hard, and must be ground slowly with fine stone that requires water to keep from clogging.

Place the machine on a solid floor, and be sure to run at speed given by me for the style of machine in use, as the emery wheels are graded to suit speed and are useless if run too fast or too slow. Be sure that face of knife, as well as the knife bar is perfectly clean before bolting down.

Floor Space, 78" x 38". Cup Wheel, 8" diameter. Pulleys, 6" diameter. Will cut knives 32" long. Shipping weight, 800 Pounds. H. P., 3.

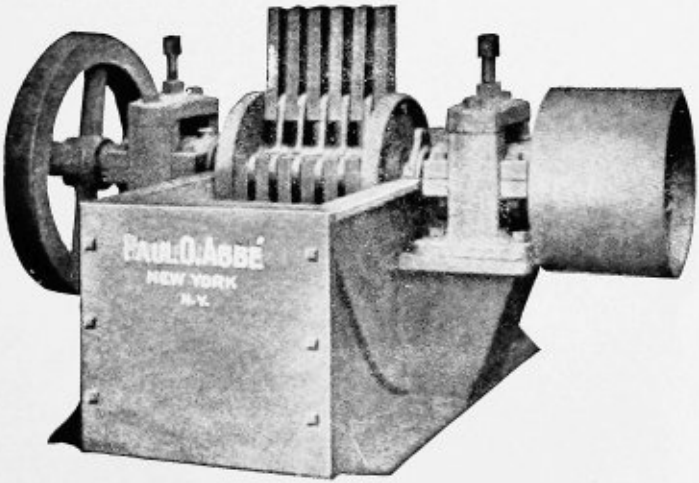
HAMMER MILLS



Type "A". Standard Mill

These Mills are so extensively used that it is hardly necessary to state for what purposes they are adapted. But their greatest field is in the Brick, Coal, Clay, Cement, Cottonseed Cake, Fire Clay, Guano, Limestone, Marl, Phosphate Rock, Soapstone, Etc., trades.

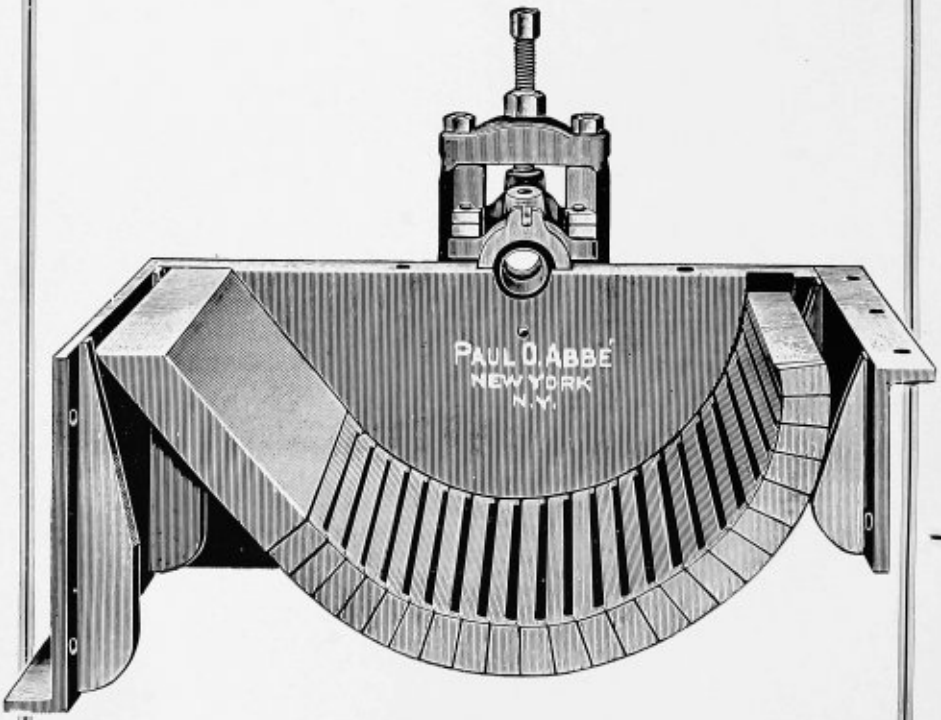
These Mills are built with a view to hard usage; the entire interior is constructed of the best Cast Steel, the Hammers of high-grade Manganese Steel, and the Grates of High-Grade Carbon Steel.

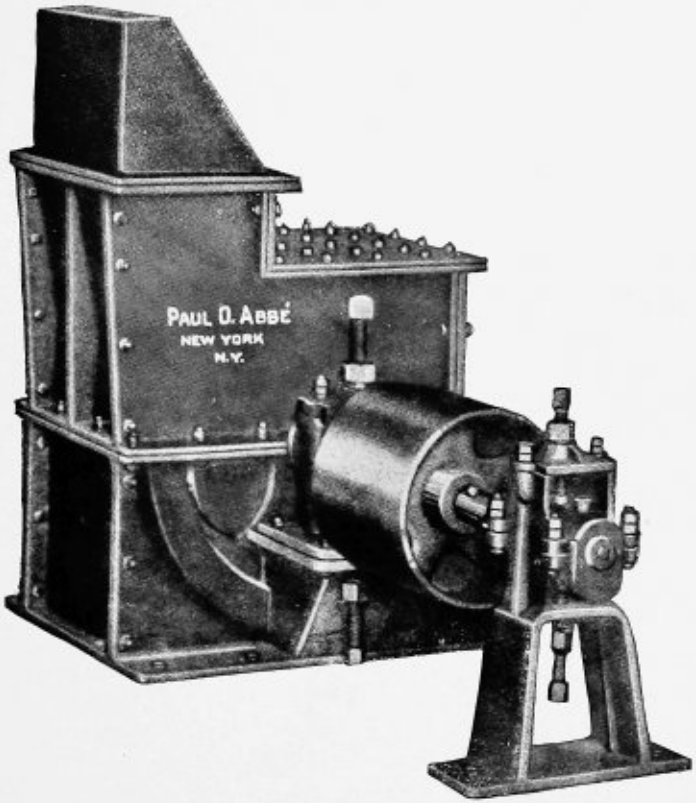


DIMENSIONS, CAPACITIES, ETC.

Name	Size	H. P. Required	Speed	Capacity (Limestone) ½ Bar Opening
X	18 x 12	10-12 H. P.	1400 R. P. M.	1 ton per hour
XB	18 x 14	15 H. P.	1200 R. P. M.	1¼ tons per hour
XX	24 x 14	20 H. P.	1200 R. P. M.	3 tons per hour
XXC	24 x 22	25 H. P.	1200 R. P. M.	4 tons per hour
XXX	30 x 16	35 H. P.	1000 R. P. M.	6 tons per hour
XXXD	30 x 22	50 H. P.	1000 R. P. M.	10 tons per hour
XXXX	36 x 24	65 H. P.	1000 R. P. M.	16-20 tons per hour

The above machines will grind Limestone, Cement, Rock, Ores, and Mineral of all kinds, and other hard, dry substances.





DIMENSIONS, CAPACITIES, ETC.

Bones, Tankage, Fertilizer Materials, Etc. (Daily Capacity)

Name	Size	H. P. Required	Capacity Bones	Capacity Tankage
BABY	15 x 8	5 H. P.	1 ton	3- 5 tons
X	18 x 12	7 H. P.	3- 5 tons	10 tons
XA	18 x 14	10 H. P.	6- 7 tons	12 tons
XB	18 x 16	12 H. P.	10-12 tons	15- 20 tons
XX	24 x 14	20 H. P.	15-18 tons	25- 30 tons
XXB	24 x 16	25 H. P.	18-22 tons	30- 35 tons
XXX	30 x 16	40 H. P.	22-28 tons	45- 60 tons
XXXD	30 x 22	50 H. P.	35-50 tons	60- 70 tons
XXXX	36 x 30	65 H. P.	50-75 tons	100-125 tons

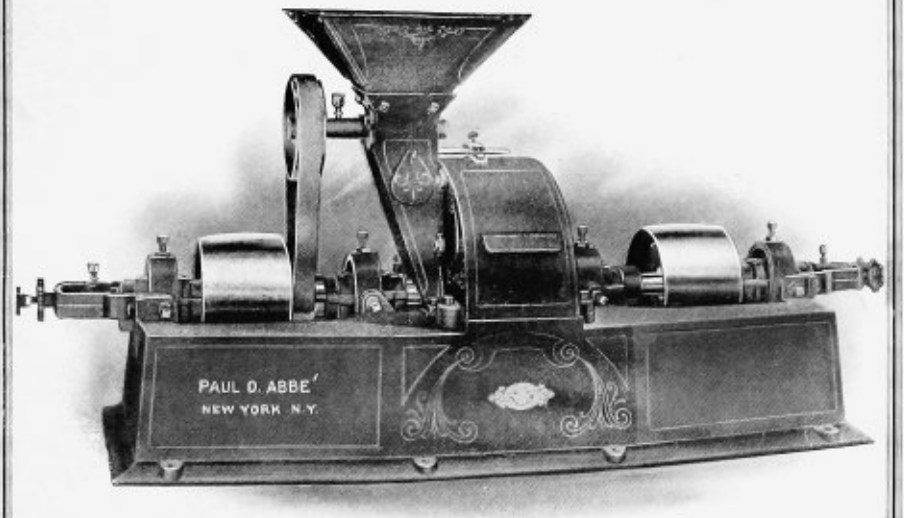
COTTONSEED CAKE BREAKERS AND GRINDERS

Name	Size	H. P. Required	Speed	Capacity
X16	18 x 16	10 H. P.	1400 R. P. M.	30 tons daily
XB	18 x 16	12 H. P.	1200 R. P. M.	50 tons daily
XXB	24 x 16	18 H. P.	1000 R. P. M.	75-100 tons daily
XXX	30 x 16	35-40 H. P.	1000 R. P. M.	150 tons daily

For Expeller Use (Grinding Cake to Meal)

X	18 x 12	7 H. P.	1400 R. P. M.	25 tons daily
XA	18 x 14	8 H. P.	1400 R. P. M.	30 tons daily

ATTRITION MILLS



Attrition Mills have two heads or grinding plates running in opposite direction giving rapid results and the product is not subject to becoming heated. They are adapted to the grinding of Alum, Beans, Borax, Casein, Chemicals, Corn, Cob, Corn and Cob, Corn and Oats, Cotton Fibre, Cotton Seed, Drugs, Dyestuffs, Felt, Gelatine, Hoofs, Hulls, Hominy Chop, Indigo, Indigotine, Nuts, Oats, Rice and Hulls, Resin, Roots, Salts, Sawdust, Seeds, Shells, Soap, Soda, Spices, Sugar, Starch, Straw, Wood Pulp.

Sizes, Floor Space, H. P., Etc.

Diameter	H. P.	Height	Length	Width	Center to Center of Pulley	Pulley	R. P. M.	Weight
18	10-20	2' 8"	5' 10"	2' 0"	2' 11"	9" x 6"	1800	800
18B	10-20	2' 8"	6' 0"	2' 2"	2' 11"	9" x 6"	1800	1000
24B	25-40	3' 9"	7' 2"	2' 10"	3' 5"	12" x 8"	1600	2000

Note:—Also built special an 18" one belt driven Feed Grinding Mill, 9" x 5" Pulley, Speed 2000. Weight, 600. Floor Space, 20" x 27". H. P., 6 to 10.

SWISS SILK BOLTING CLOTH

The Bolting Cloth industry was introduced in Switzerland by Mr. Peter A. Dufour, in the year 1833, and Dufour is today the acknowledged Standard all over the World.

It is to Mr. P. A. Dufour that credit must be given for the regular square mesh cloth which is in use today. The cloth manufactured prior to Mr. Dufour's advent, was made with an irregular oblong mesh.

I publish a book, "From Mulberry Tree to Mill," which tells the whole story and will gladly send you a copy.

PRICE LIST

For the Genuine

DUFOUR BOLTING CLOTH

Price per yard, 40 inches wide

Meshes per lineal inch	Number	Standard	Extra heavy X	Double Extra XX	Meshes per lineal inch	Number	Treble Extra XXX
18	0000	$1.60	.....	$2.00	.....	.....	.....
23	000	1.65	.....	2.05	.....	.....	.....
29	00	1.75	.....	2.10	.....	.....	.....
38	0	1.80	.....	2.15	.....	.....	.....
48	1	1.85	.....	2.25	.....	.....	.....
54	2	1.90	.....	2.30	.....	.....	.....
58	3	2.05	.....	2.45	.....	.....	.....
62	4	2.10	.....	2.55	.....	.....	.....
66	5	2.15	.....	2.65	.....	.....	.....
74	6	2.20	$2.40	2.70	66	6	$2.80
82	7	2.30	2.55	2.80	74	7	2.90
86	8	2.40	2.65	2.90	82	8	3.05
97	9	2.60	2.85	3.10	86	9	3.25
109	10	2.80	3.10	3.35	97	10	3.50
116	11	3.10	3.40	3.70	109	11	3.80
125	12	3.40	3.75	4.10	116	12	4.20
129	13	3.75	4.10	4.55	125	13	4.65
139	14	3.90	4.25	4.70	129	14	4.80
150	15	4.15	4.65	5.00	139	15	5.15
157	16	4.70	5.15	5.60	150	16	5.80
163	17	5.25	5.75	.....	157	17	6.50
166	18	6.10	.....	.....	163	18	7.40
169	19	7.50	.....	.....	.....	.....	.....
173	20	8.50	.....	.....	.....	.....	.....
178	21	9.20	.....	.....	.....	.....	.....
200	25	10.00	.....	.....	.....	.....	.....

Grit Gauze	XXX Grit Gauze
No. Equals	No. Equals
16 . 0000	14 . 16
18	16 . 18
20 . 000	18 . 20
22	20 . 22
24	22 . 24
26 . 00	24 . 26
28	26 . 28
30	28 . 30
32	30 . 34
34 . 0	32 . 36
36	34 . 38
38	36 . 40
40	38 . 42
42	40 . 44
44 . 1	42 . 46
46	44 . 48
48	46 . 50
50 . 2	48 . 52
52	50 . 54
54 . 3	52 . 56
56	54 . 58
58 . 4	56 . 60
60	58 . 62
62 . 5	60 . 64
64	62 . 66
66 . 6	64 . 68
68	66 . 70
70 . 7	68 . 72
72	70

244 x 200 $12.00
275 x 200 $13.00

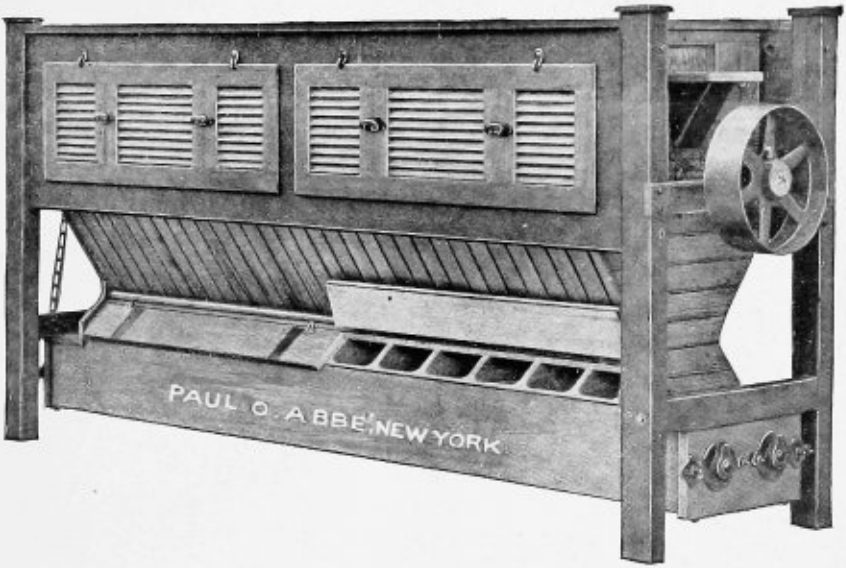
Grit-Gauze, all Nos., $3.00
XXX Grit-Gauze, all Nos., $4.00

Cloths made up promptly and in the most perfect manner.

Webbing furnished in place of Ticking, if desired.

BOLTING REELS

Centrifugal—Hexagon—Round



Centrifugal Reels built from 24″ to 30″ diameter by from 4′ 9″ to 8′ 3″ Long.

Hexagon Reels built from 29″ to 36″ diameter, by from 5′ 0″ to 15′ 0″ Long.

Round Reels built from 20″ to 30″ diameter, by from 5′ 0″ to 11′ 10″ Long.

Automatic Rubber Respirator

Has a perfect **filter device**, and no **sticking** Valve Disc as is found in other Respirators.

It has large capacity and will keep out DUST, SMOKE, FUMES and GASES and protects the exposed workman in any occupation.

It is made of **Soft White Rubber**, is easily kept clean, and bends perfectly to fit any face. Many thousands are in use and old customers are continually ordering more.

Price, $24.00 per Dozen

On receipt of $2.00, one will be forwarded as a sample.
Money refunded if not as represented.