

Richmond
City Mill Works.
Richmond, Indiana.

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PRICE LIST.

ILLUSTRATED.

Richmond City Mill Works,

RICHMOND, IND.

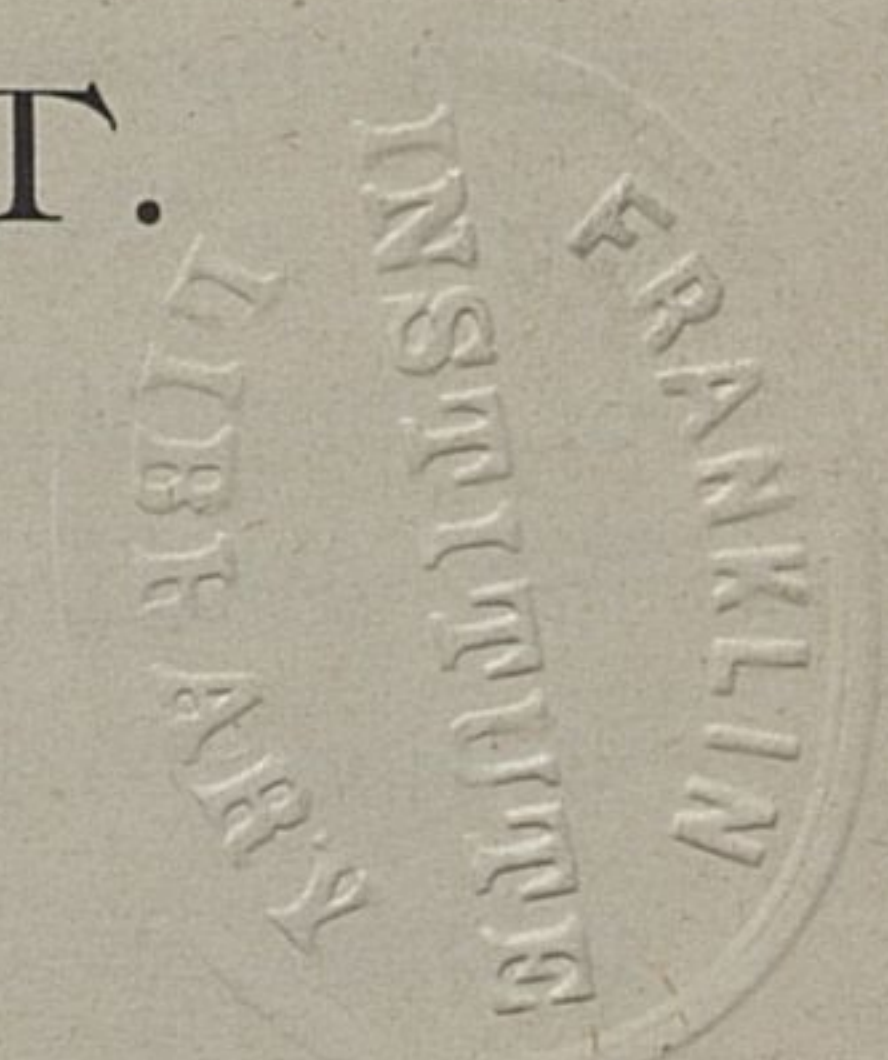
FLOUR MILL MACHINERY

IN ALL ITS BRANCHES.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

1893

M. CULLATON & Co., PRINTERS,
RICHMOND, IND.



To our Friends and Patrons :

The following pages contain a very complete list of all the machines used in or necessary to the equipment of first-class Flouring or Corn Mills, with detailed prices of connecting machinery. Unless so stated, prices are subject to liberal discounts, which will be furnished on application.

Our record as Mill builders extends over a period of about eighteen years. During this time we have furnished and erected the machinery in hundreds of mills in all parts of the country. Each of these mills is a good reference.

With increased facilities for turning out the best machinery promptly and satisfactorily, we solicit the continued patronage of our old friends, and trust that this illustrated Price List may aid in securing hosts of new friends.

Respectfully,

RICHMOND CITY MILL WORKS.



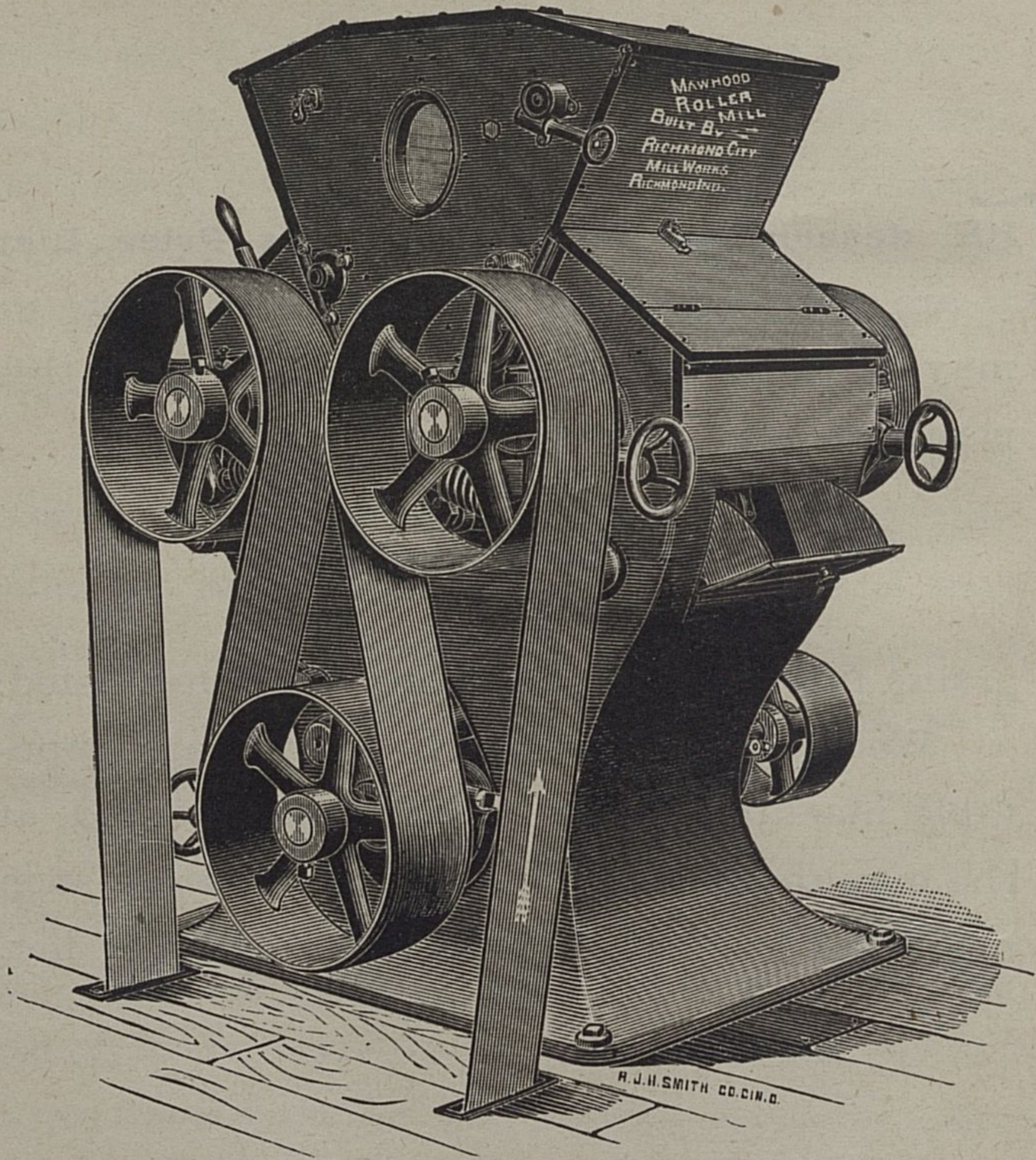
THE descriptive features of this Price List are necessarily not so full and complete as may in some cases be desired. To meet this want we are prepared to send

Special Circulars

giving full descriptions of any machines listed.

We are also prepared to furnish any reputable machines (in our line) manufactured, at the manufacturers' lowest prices, whether such machines are found in this Price List or not.





FAST END DRIVE.

RICHMOND ROLLER MILL.

RICHMOND ROLLER MILL.

DESCRIPTION OF THE MILL.

The Mill Frame, from the Roll Bearings down to the floor, is one solid, heavy casting, to which the Roll Bearings and attachments are connected by substantial bolts, insuring great rigidity and steadiness in the machine. The Fast Rolls are driven by a belt from the power line shaft. This belt passes under a pulley on the end of a counter-shaft which is placed in a tunnel through the bed of the machine, giving said pulley and shaft a reverse motion. This counter-shaft is adjustable, and serves as a tightener for the driving belt above mentioned, and will take up an average of about ten inches on the main belt before cutting is required. The Slow Rolls are connected by a single belt passing over pulleys on their several journals, and engaging a pulley on the end of the counter-shaft of the mill. This slow side belt is so placed that its tension is not affected by the movement of the aforesaid counter-shaft. A special tightener is provided for this belt, which will take up several inches of slack. Thus, either belt may be tightened at will, without affecting the other. There are no crossed belts on the machine.

The Swinging Roll Arms, Leveling Device, Adjusting Tie Rod, Spreading Mechanism, and Tension Springs, are all constructed on new, novel, and mechanical principles; the Swinging Arm being mounted so as to maintain a swiveling movement in any desired direction, at the same time the Roll being held toward its mate in grinding relation with the greatest accuracy and rigidity.

The Leveling Device is conveniently located, easily manipulated with an ordinary monkey wrench, positive in action, and not liable to derangement.

The Adjusting Tie Rod for securing and adjusting the Swing Roll Arm is novel in its combinations. The Rolls are adjusted by simply turning the hand wheel, and when properly set, need no set nuts or clamps to keep them in position, but are firmly and securely held in position until changed by the operator.

The Spreading Device, by one action of the lever, separates both pairs

of Rolls in a double machine, and stops the Feed mechanism. The reverse action is made with the same facility and ease.

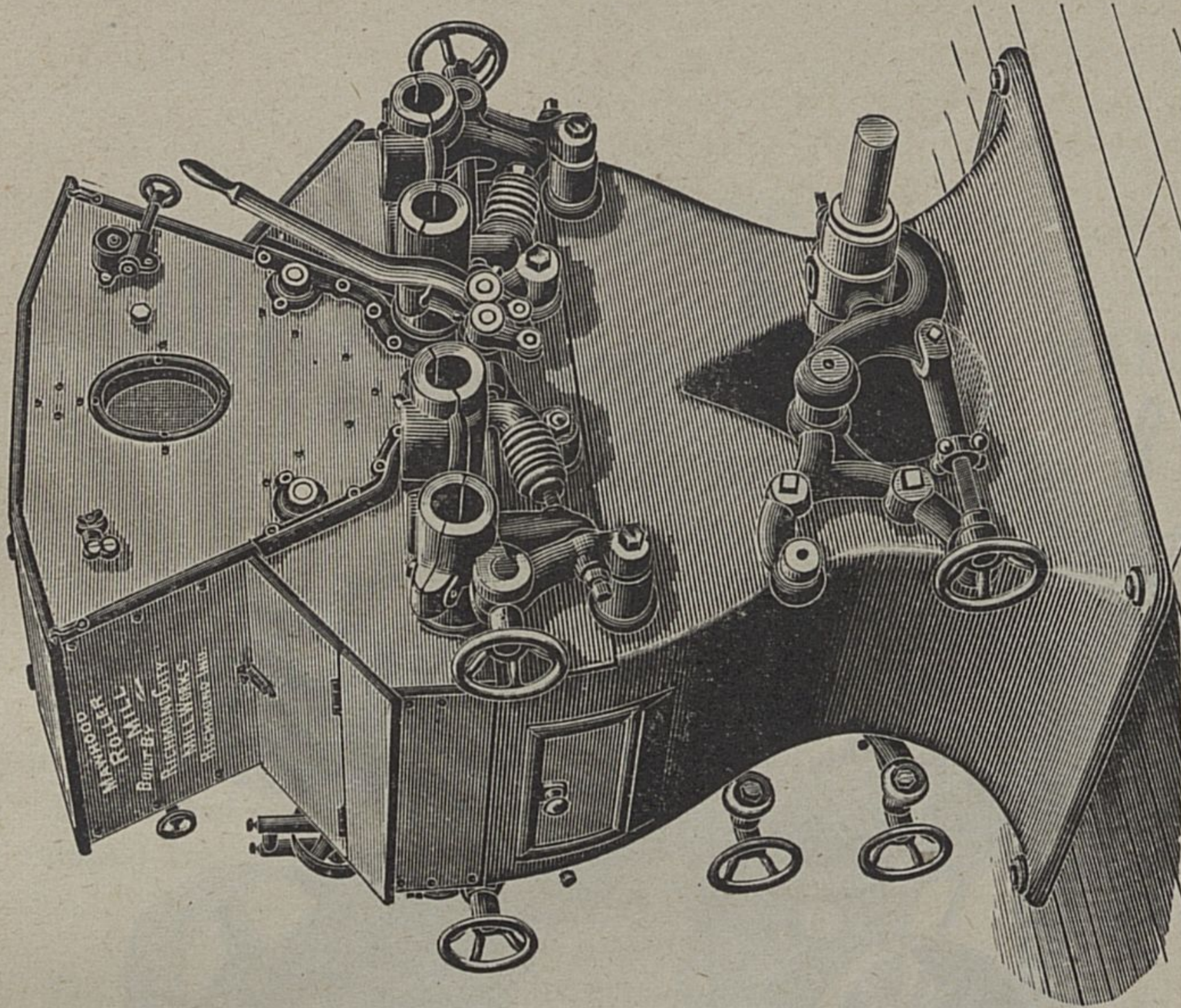
The Tension Springs are perfect in their action. They hold the Swinging Roll away from its mate, so as to prevent striking or abrasion of the Roll surface should the material to be ground cease to flow between the Rolls while in grinding position, and at the same time the full force of the spring is applied to hold the Rolls in grinding relation, only yielding when any hard substance, such as nails, screws, or flights, passes between them, thus preventing the breakage of any of its parts.

The Feed Device on the Richmond Improved Mill is unequalled for simplicity, durability, and efficiency. It is perfectly automatic in its operation, will feed all kinds of material in a thin, even, unbroken sheet the entire length of the Rolls, from the first break on wheat to the finishing product on low grade rolls. It will never fill up and cause a choke in the spouts, will not allow the material to flow too rapidly at any time, especially on starting the mill, at which time an accumulation of material oftentimes gives serious trouble.

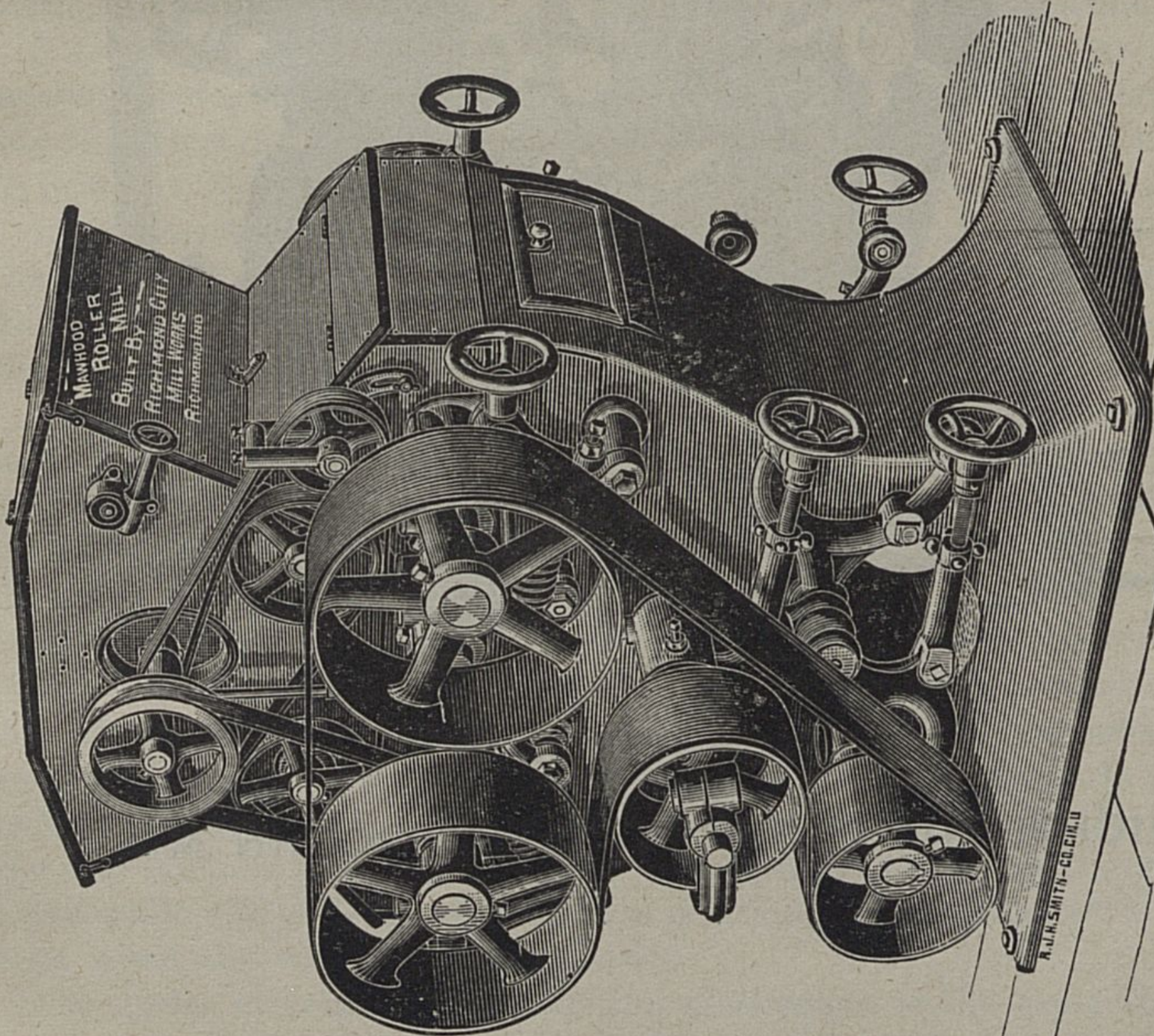
The **Rolls** are of the best Ansonia make. The corrugations are shaped with special reference to a non-cutting action, and at the same time produce a large per cent. of middlings.

The **Frame** of the Mill is so constructed as to prevent the lodgment and accumulation of dust and dirt and the leakage of dust from within, and combines many other desirable features highly appreciated by all good millers.

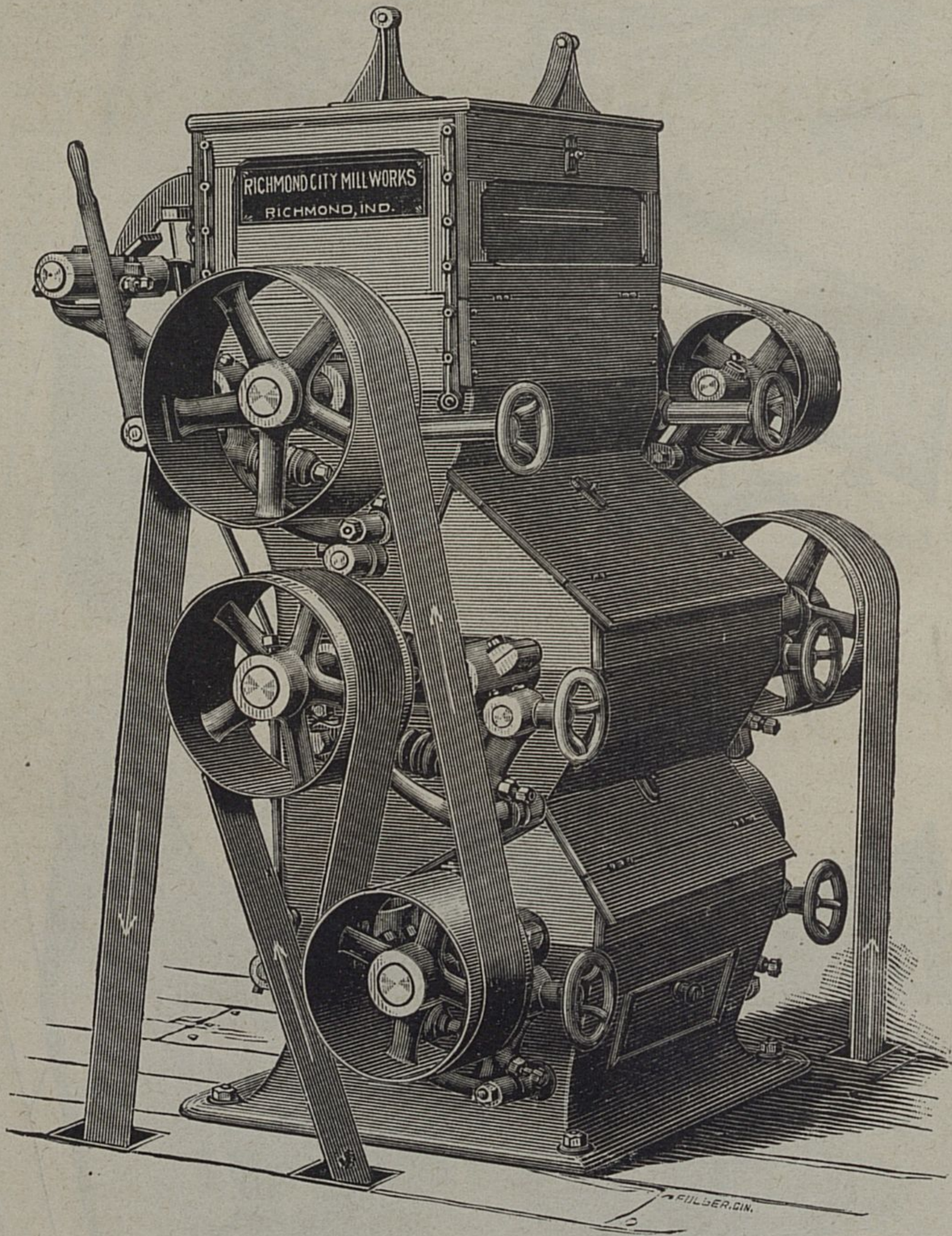




R. J. H. SMITH - CO. CINCINNATI, O.



R. J. H. SMITH - CO. CINCINNATI, O.



FAST ROLL DRIVE.

RICHMOND THREE PAIR HIGH CORN MILL.

RICHMOND

THREE PAIR HIGH CORN MILL.

Our Six Roller, or Three Pair High Corn Mill, in its construction and method of driving, embodies some marked improvements over all machines of this class heretofore placed on the market.

Attention is called to the following brief description of some of its more important features.

As is usual in machines of this class, the three pairs of rolls are placed in vertical line.

THE BED FRAME.

The Bed Frame of the machine is one solid casting of neat and artistic design, combining great strength and rigidity with a pleasing outline.

A serious objection to many mills of this class is the difficulty experienced in placing in or removing the rolls from the frame—the construction being such that the mill must be completely dismantled in order to get the rolls in or out. This difficulty is entirely overcome in our new Six Roller Mill.

In this machine the rolls are freely admitted to their bearings without in any way disturbing the mill or its connections. The rolls are covered with removable wood housings, provided with doors, through which the grinding may be examined and the tram plate introduced.

One roll of each pair is carried in stationary journal boxes, which are attached rigidly to the mill frame. The movable rolls are mounted in journal boxes on doubly pivoted swinging arms, which are provided with convenient devices for tramming, grinding adjustment, and quick opening and closing of the rolls.

The application of the relief springs is peculiar. They answer every purpose of a relief spring, allowing the rolls to open under undue strain, and restoring them automatically to grinding position. At the same time they are so located that the pressure against the movable arms is in the direction of the working strain, which prevents the reaction of the levers when the working strain is lessened. The springs are under the greater tension while the rolls are in grinding position, and are relieved to some extent when the rolls are thrown apart.

The entire system of roll adjusting mechanism is the same that we have used on one style of our standard four roller mills for several years

past. It has stood the test of hard service, and we have never had one complaint against it.

All the movable roll arms and the feed mechanism are so linked together that the movement of a single lever will open and close the three pairs of rolls, and stop or start the feed.

THE VIBRATORY FEEDER.

The Vibratory Feeder over the first pair of rolls is new and novel in design. The construction and action of this feeder is such that any material that could be ground on such a mill may be fed to the rolls in a continuous, even sheet the whole length of the rolls. The feeder is practically noiseless, and not liable to derangement from wear or other causes.

THE DRIVING BELTS.

The Driving Belts are applied in such a manner that the driving shaft may be located directly under the center of the machine, or may be varied from that position one or two feet in either direction without the use of idler pulleys. A wide belt passes from a pulley on the power shaft to pulleys on the journals of the middle, lower, and upper fast rolls in succession, driving each one in its proper direction. A tightener is applied to this belt above the floor. An open belt of same width passes from a smaller pulley on the power shaft over a pulley on the feed counter shaft, and thence over pulleys on the journals of the upper, lower, and middle slow rolls in succession, controlling the speed and direction of each slow roll. A tightener is also provided for this belt.

We use no crossed belts or gears on these machines.

What are the Points of Superiority in the Richmond Six Roller Mill?

First. The solid casting one-piece bed frame.

Second. The facility for removing and putting in the rolls without dismantling the machine.

Third. The most sensitive, and at the same time the most rigid roll adjusting devices to be found anywhere.

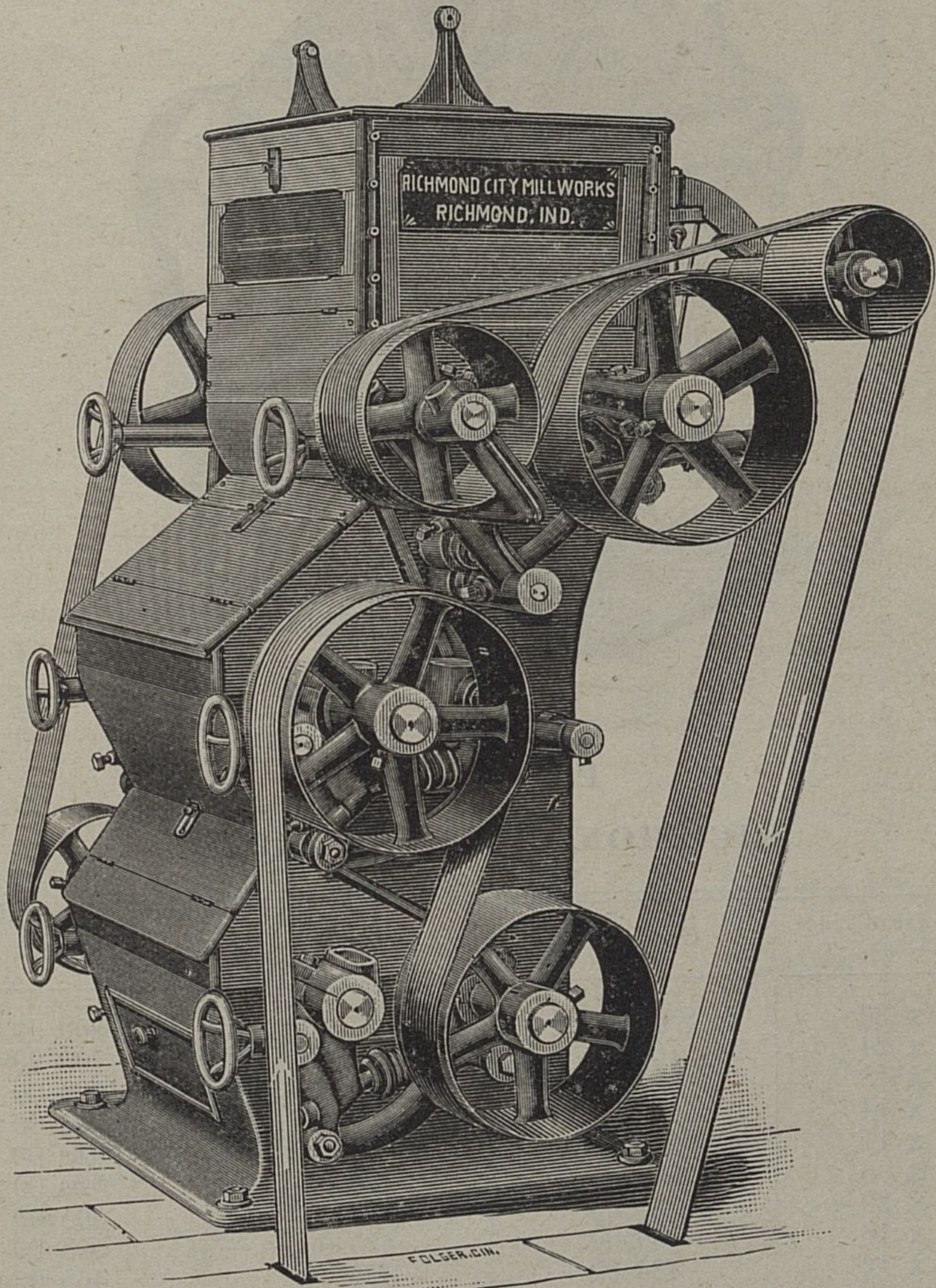
Fourth. The driving of all fast and slow rolls direct from the power shaft with open belts.

Fifth. The facility with which the stock may be examined after passing through each pair of rolls.

Sixth. A vibratory feeding device which will feed and distribute evenly corn, oats, cob meal, and all kinds of feed stock.

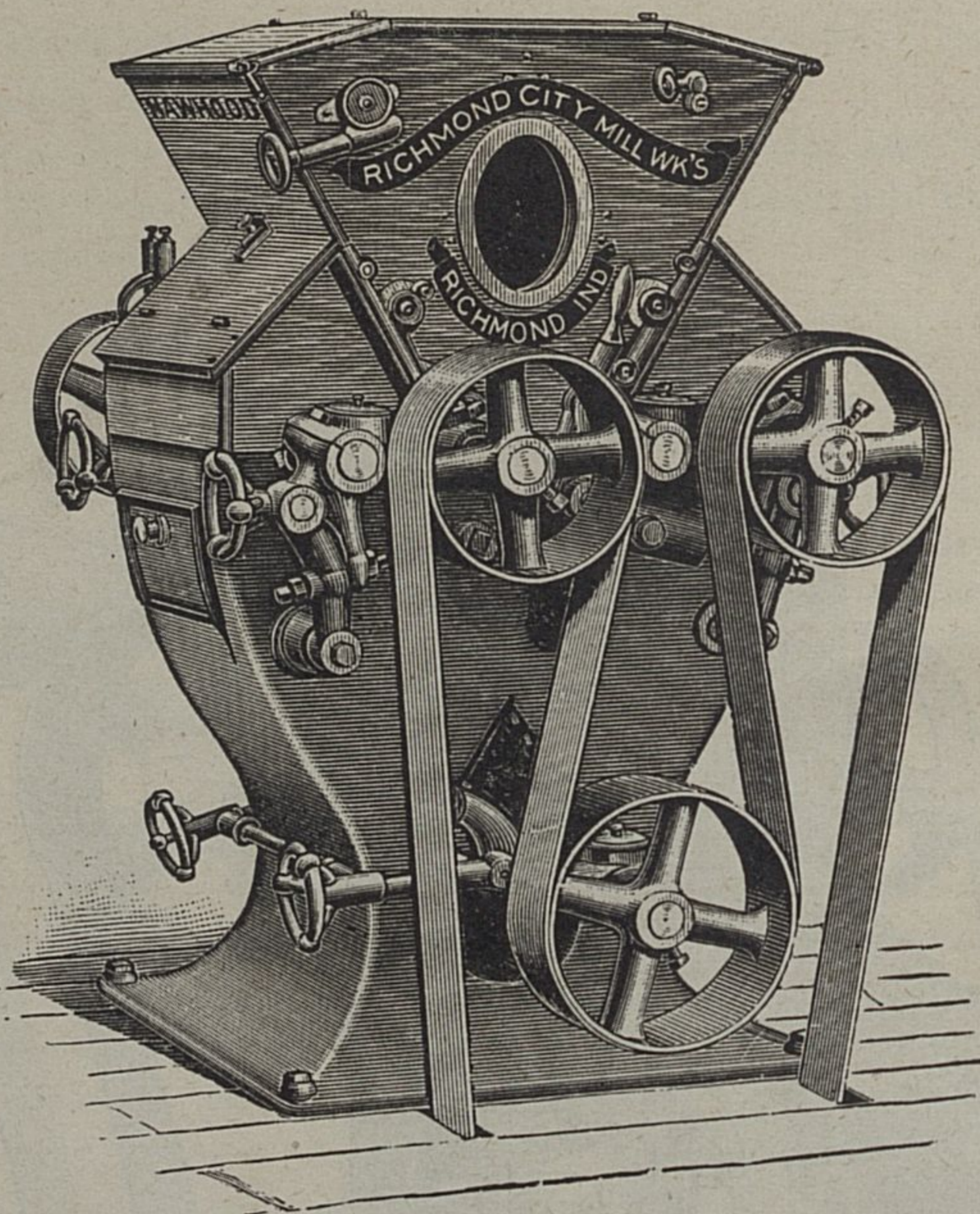
STRONG! ARTISTIC! DURABLE! The best Corn Roller Mill manufactured.

COVERED BY LETTERS PATENT.



SLOW ROLL DRIVE.

RICHMOND THREE PAIR HIGH CORN MILL.



PRICE LIST.
RICHMOND ROLLER MILLS.

Size of Rolls in inches.	Corrugated.	Mixed.	Smooth.
9 x 30	\$850 00	\$825 00	\$800 00
9 x 24	750 00	725 00	700 00
9 x 18	650 00	635 00	620 00
9 x 14	600 00	590 00	580 00
9 x 11	560 00	550 00	540 00
9 x 8	530 00	525 00	520 00
6 x 20	580 00	575 00	565 00
6 x 16	530 00	525 00	515 00
6 x 12	480 00	475 00	465 00

RICHMOND THREE PAIR HIGH ROLLER MILLS.

9 inches by 30 inches.	9 inches by 24 inches.	9 inches by 18 inches.
\$1,100 00	\$1,000 00	\$900 00

RICHMOND ROLLER MILLS.

DIMENSIONS.

Size of Rolls.	EXTREME DIMENSIONS.				DRIVE PULLEY.		Floor to Center of Rolls.	Speed Fast Rolls.	Shipping Weight.	
	Height.		Width.		Diam.	Face.				
	feet.	inches.	feet.	inches.						inches.	inches.
inches.									Pounds.	
9 x 30	5	0	3	11	5	3	16	7½	36	5000
9 x 24	5	0	3	11	4	9	16	7½	36	4100
9 x 18	5	0	3	11	4	3	16	6½	36	3450
9 x 14	5	0	3	11	3	7	14	5½	36	2875
9 x 11	5	0	3	11	3	3	14	5	36	2550
9 x 8	5	0	3	11	3	0	14	4½	36	2225
6 x 20	4	1	2	8	3	10	10	5½	30	1750
6 x 16	4	1	2	8	3	6	10	5	30	1500
6 x 12	4	1	2	8	3	2	10	4½	30	1350

RICHMOND THREE PAIR HIGH ROLLER MILLS.

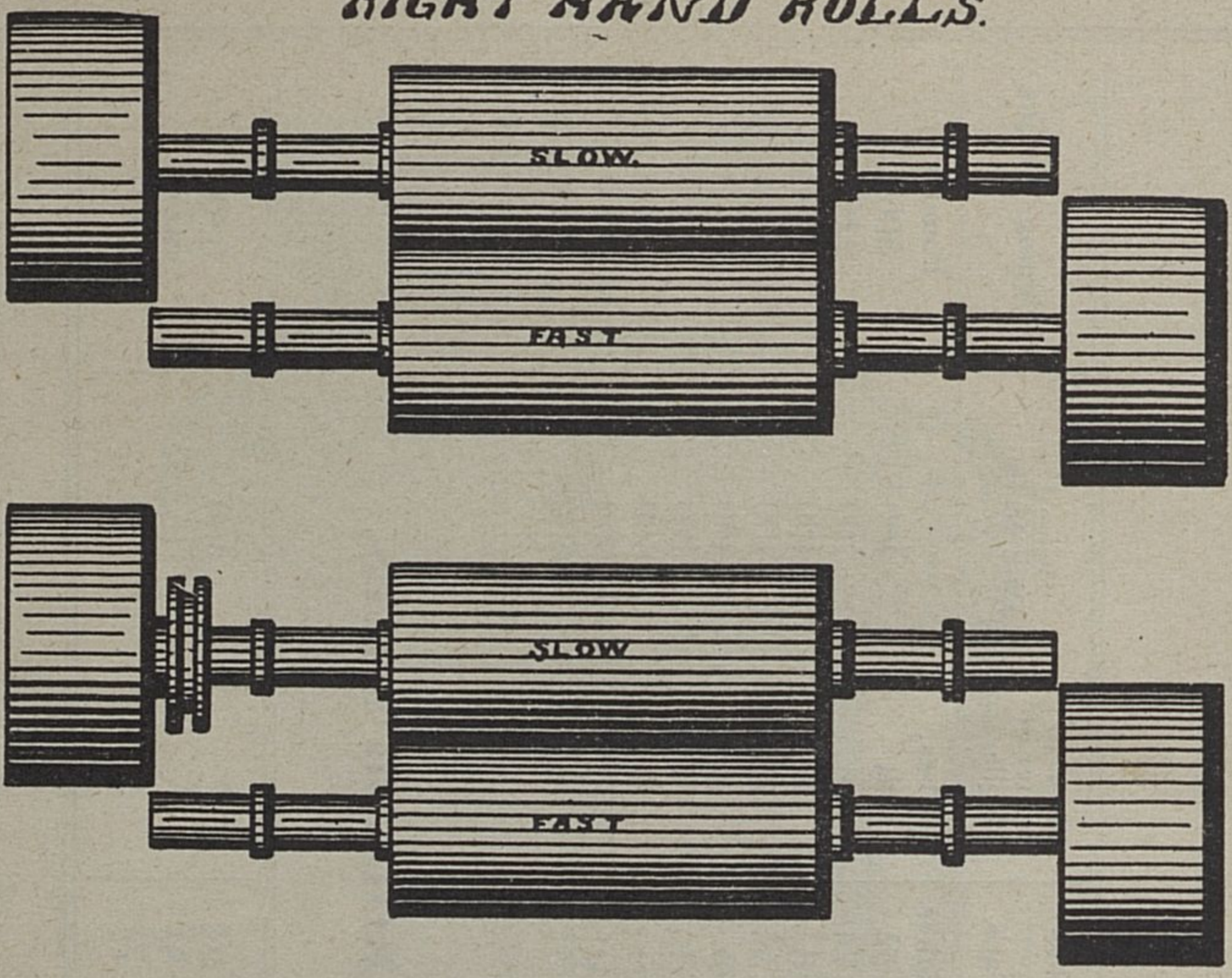
9 x 30	5	9	3	3	5	4	16	9½	..	400	5800
9 x 24	5	9	3	3	4	10	16	8½	..	to	5000
9 x 18	5	9	3	3	4	4	16	7½	..	550	4000

The slow end drive and our Improved Roll Adjustments (on four roll mills) are shown on page 7.

“Right hand” mills may easily be changed to “left hand.” See manner of placing rolls in cut on next page.

RIGHT HAND ROLLS.

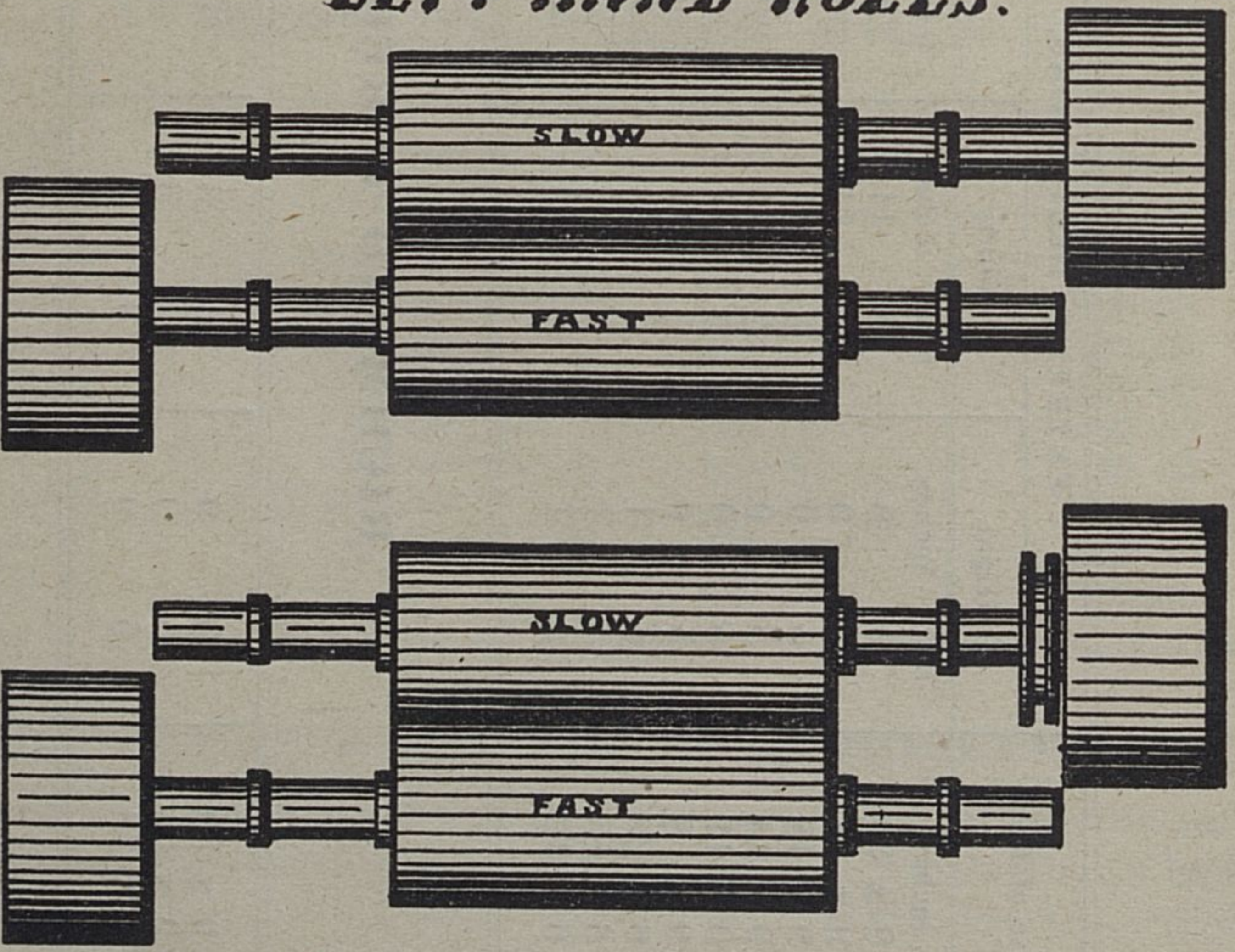
SLOW END.



DRIVE BELT END.

LEFT HAND ROLLS.

DRIVE BELT END.



SLOW END

GRINDING AND CORRUGATING ROLLS.

NET PRICE PER PAIR.

SIZE.	Regrinding Smooth Rolls.	Corrugated Rolls Ground Smooth.	Corrugated Rolls Ground and Recorrugated.	Smooth Rolls Reground and Recorrugated.
6 x 12.....	\$ 6 00	\$ 8 00	\$12 00	\$10 00
6 x 15.....	7 50	9 50	14 00	12 00
6 x 16.....	8 00	10 50	15 00	12 50
6 x 18.....	9 00	12 00	16 00	13 00
6 x 20.....	10 00	13 00	18 00	15 00
7 x 14.....	7 50	9 50	14 00	12 50
7 x 16.....	8 00	10 00	15 00	13 50
7 x 18.....	9 00	12 00	16 00	14 50
7 x 20.....	10 00	13 00	18 00	16 00
7 x 24.....	10 50	13 50	19 50	17 00
9 x 8.....	6 00	8 00	12 00	10 00
9 x 11.....	8 50	10 00	15 00	12 50
9 x 12.....	8 75	10 50	15 50	13 00
9 x 14.....	9 00	11 00	16 00	14 00
9 x 15.....	9 50	12 00	17 00	15 00
9 x 18.....	10 00	13 00	20 00	17 00
9 x 24.....	12 00	16 00	25 00	21 00
9 x 30.....	15 00	20 00	30 00	25 00

See also page 16.

To find cost of corrugating smooth rolls deduct prices in first column from those in last.

Prices for special corrugations given on application.

GRINDING AND CORRUGATING ROLLS.

[CONTINUED.]

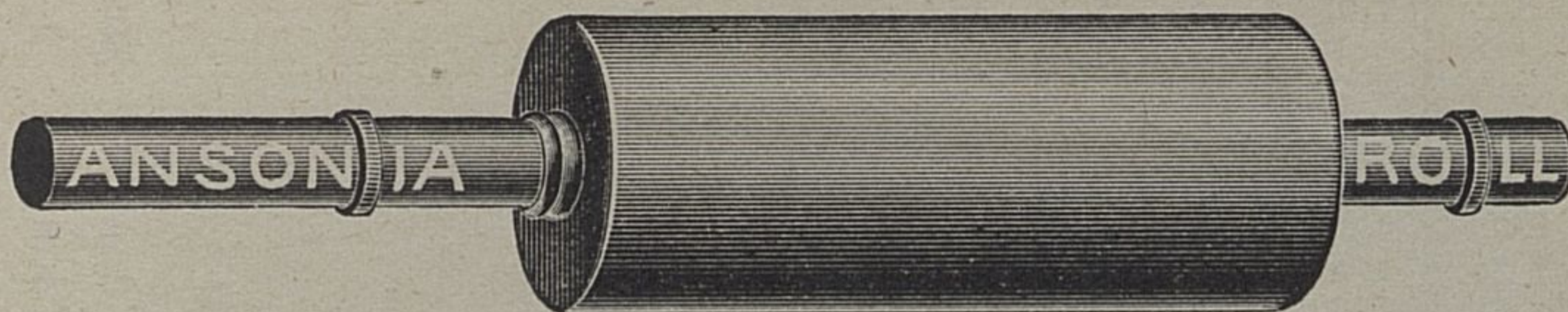
Rolls corrugated two to the inch, with mate roll left smooth, are charged for the same as if both rolls were corrugated.

All rolls must be ground smooth before being corrugated, or recorru-
gated. Dull rolls can not be sharpened without grinding out old corru-
gations and putting them in new.

In sending rolls to us, prepay freight or express charges, box them carefully, so as to protect the shafts or journals, as well as the rolls. Put boxes together with screws, or nail strongly. If sent to us without boxing, we will return them in boxes, and charge for the boxing. No charge for drayage.

Address them plainly to us, and also mark them with your name and address, mailing us bill of lading. Always mail us a sketch showing us how the rolls set in the frame, and state whether they are right or left hand; or paint on the drive end of each roll an arrow showing the direction it runs, and whether it is fast or slow roll. We can put in any desired style of corrugation.

We have a complete plant of the heaviest and best machinery for this class of work, and are prepared to give all orders prompt attention.



CHILLED IRON ROLLS.

NET PRICES PER PAIR.

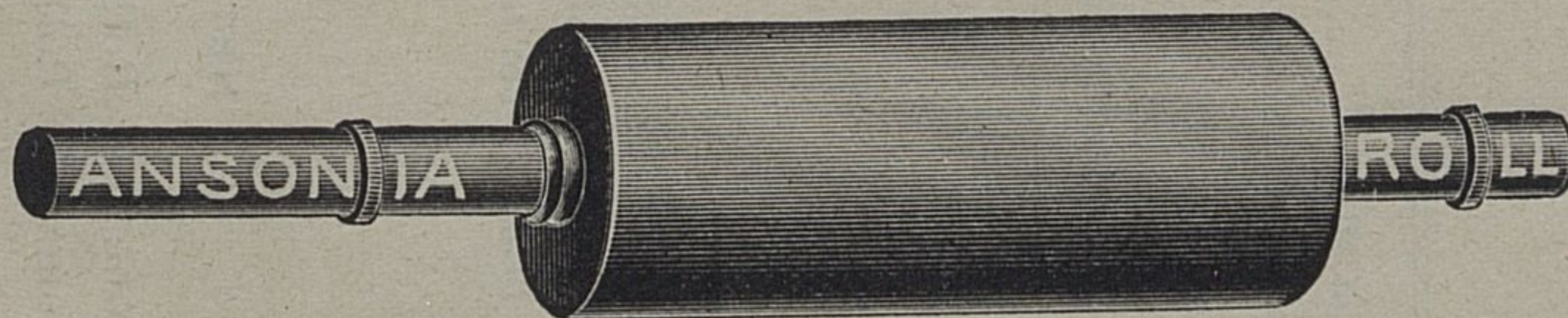
SIZE.	Price, Corrugated.	Price, Smooth.
6 x 12	\$ 71 00	\$ 63 00
6 x 16	85 50	76 50
6 x 20	94 00	84 00
9 x 8	86 00	78 00
9 x 11	90 00	81 00
9 x 14	100 00	90 00
9 x 18	122 00	108 00
9 x 24	144 00	126 00
9 x 30	170 00	150 00

CORN ROLLS.

NET PRICE, EACH.

SIZE.	Corrugated.	Smooth.
9 x 18	\$62 50	\$54 00
9 x 24	75 00	63 00
9 x 30	90 00	75 00

Leveling Plates, each, \$7.00.



FEED ROLLS FOR ROLLER MILLS.

NET PRICES PER ROLL.

Size of Mill.....	6 x 12	6 x 16	6 x 20	9 x 8	9 x 11	9 x 14	9 x 18	9 x 24	9 x 30
Smooth	\$2 00	\$2 50	\$3 00	\$2 00	\$2 50	\$2 75	\$3 00	\$3 75	\$4 50
Corrugated	3 00	3 50	4 00	3 00	3 50	3 75	4 25	5 00	5 75
Corrugated, lengthwise and around.....	3 75	4 25	5 00	3 75	4 25	4 50	5 25	6 00	7 00

AUTOMATIC GATE FEED RIGS FOR ROLLER MILLS.*

NET PRICES PER PAIR OF ROLLS.

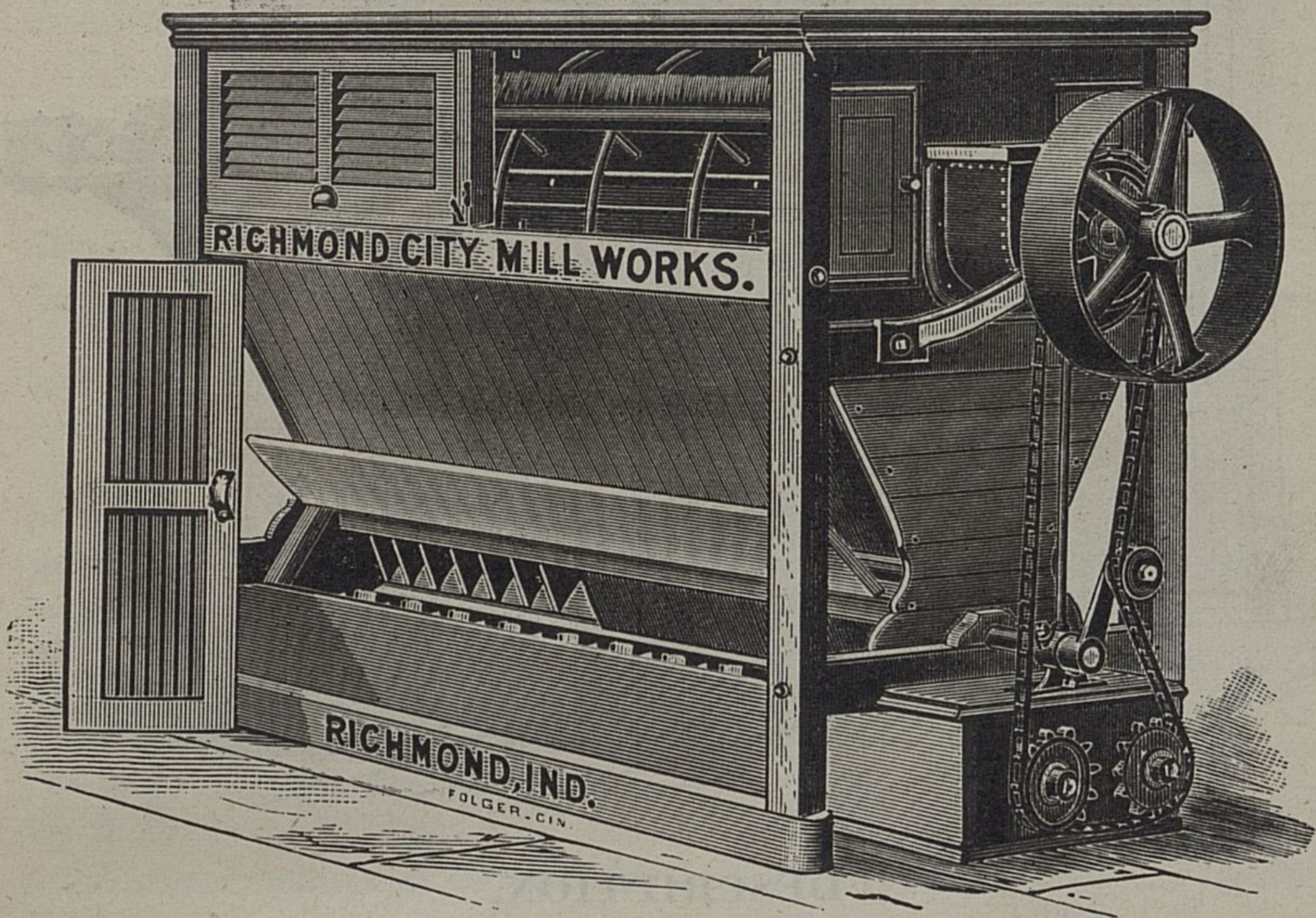
For 6" Mills, Rolls 12" to 20"	\$5 00	For 9" Mills, Rolls 14" to 18"	\$6 00
For 9" Mills, Rolls 8" to 11"	5 00	For 9" Mills, Rolls 24" to 30"	7 50

* Prices do not include Feed Rolls.

STEEL SCRAPERs FOR SMOOTH ROLLS.

NET PRICES PER SET, COMPLETE, INCLUDING BARS, HANGERS, SPRINGS AND ROD.

For one pair Rolls, 8" to 12" long.....	\$4 00	For Single Scraper Bar only, 8" to 12" long.....	\$0 75
For one pair Rolls, 14" to 20" long.....	4 50	For Single Scraper Bar only, 14" to 20" long.....	1 25
For one pair Rolls, 24" to 30" long.....	5 25	For Single Scraper Bar only, 24" to 30" long.....	1 50

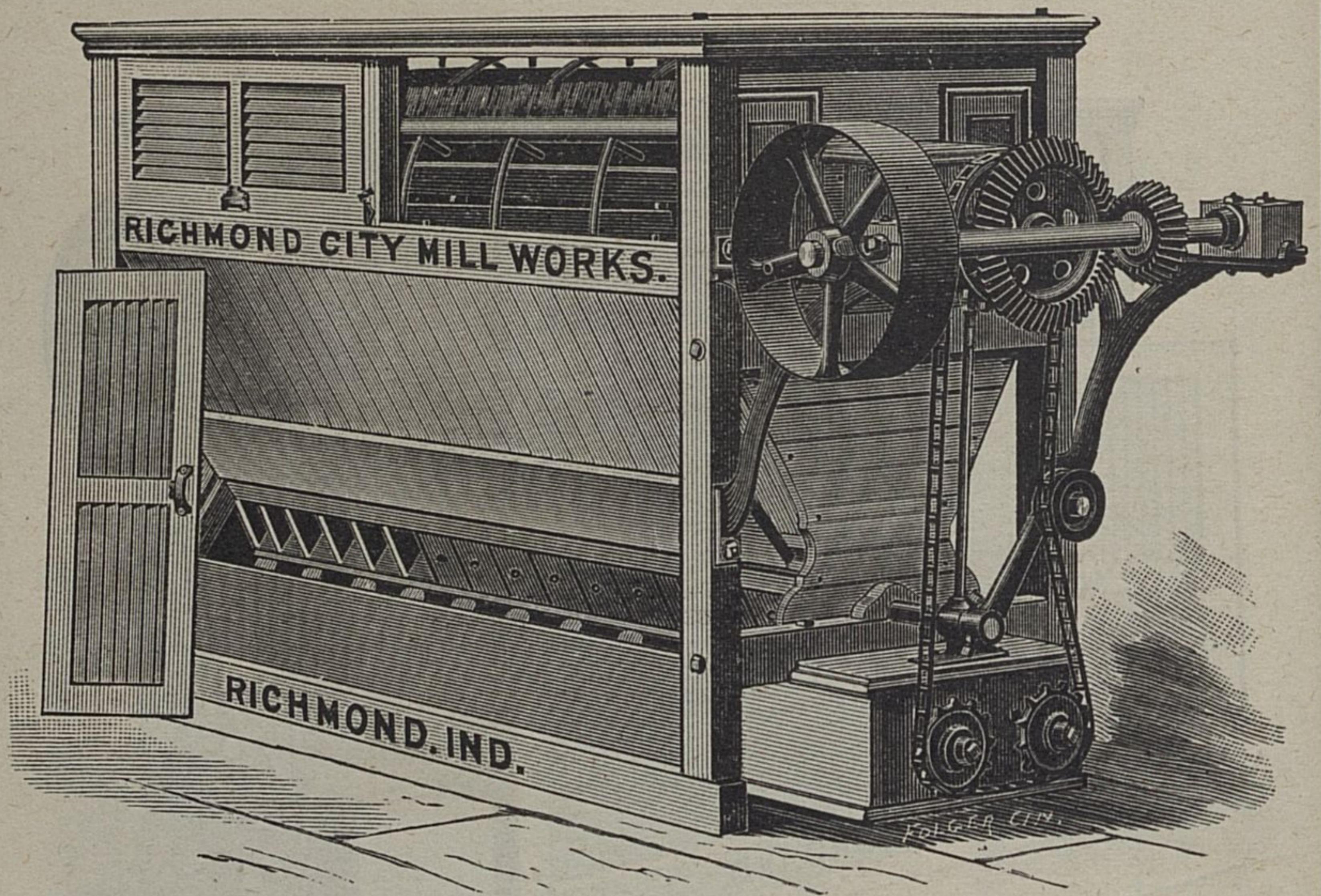


RICHMOND SCALPERS, BOLTERS AND FLOUR DRESSERS.

Following is a brief description of our Round Reel Scalpers, Bolters and Flour Dressers. When so desired we use the same frame and substitute Hexagon Reels for scalping and grading. The Bolting and Scalping Chests are thus uniform in size, style and finish, and present a handsome appearance in a well-equipped mill.

We also make the Richmond Tandem Scalper, consisting of two short round reels placed on one shaft and mounted in a standard Round Reel frame.

These Scalpers are unsurpassed for handling the breaks in mills of moderate capacity. Outside dimensions are same as Flour Dressers of same numbers. See page 22.



DESCRIPTION.

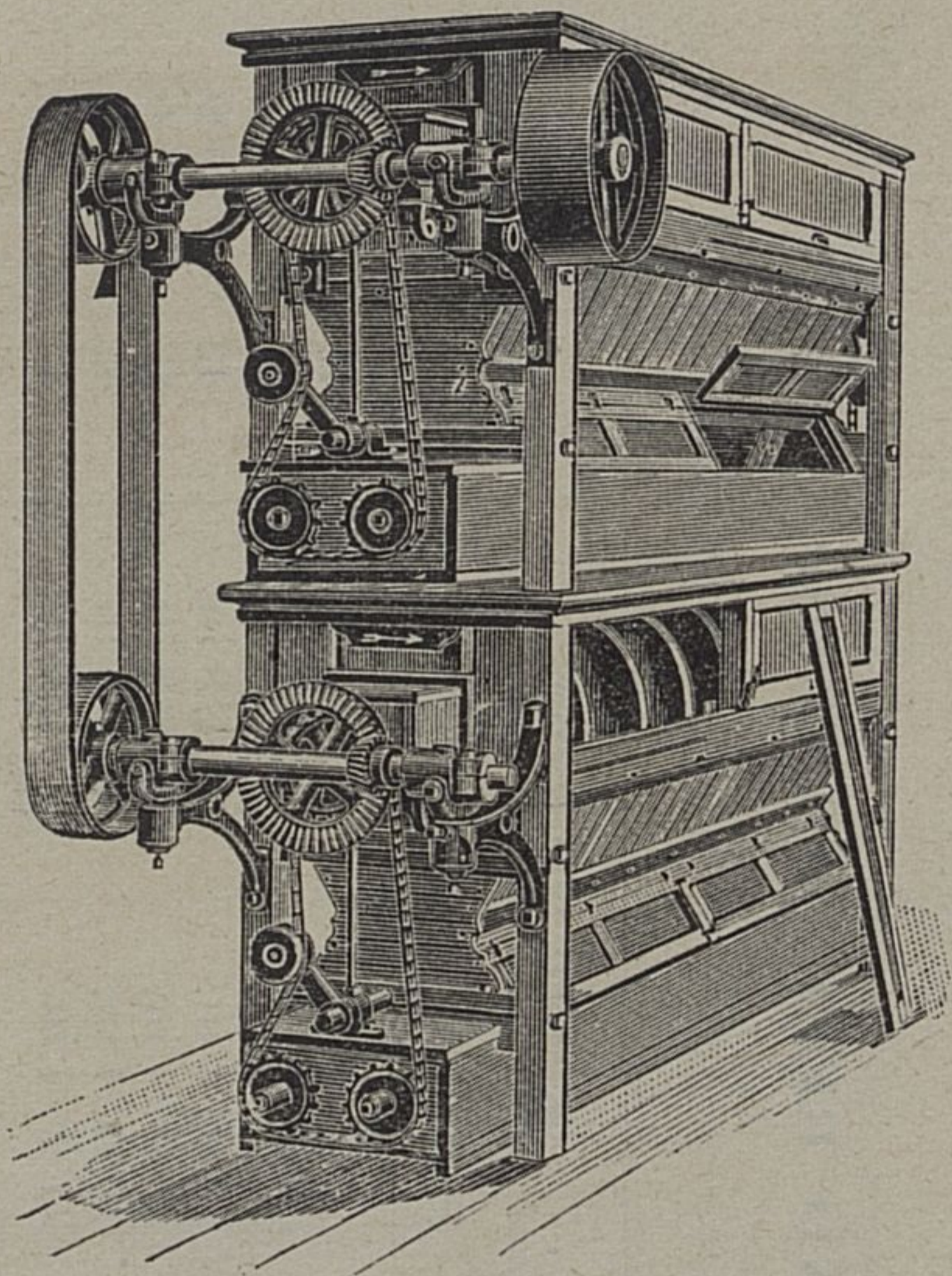
The Chests are built with hard-wood frames, cant boards of poplar, ceiling and doors of white pine, finished in natural colors. The conveyors are placed side by side, and are provided with cut-off valves of our own special design, which never bind nor get out of order, and which do not leak dust or middlings. These valves are hinged to the conveyor partition by means of a concave joint, which never clogs. The ends of valves are furnished with cloth packing, working against galvanized iron partitions, allowing freedom of movement without leakage. The cut-offs are short, permitting very close separations, and extend the entire length of reel.

The conveyor box lids are hung on loose jointed hinges, permitting their instant removal when desired. The conveyors are extended at either end of the chest for convenience in spouting. The central feed tube and central discharge tube for tailings are also extended outside the chest for the same purpose.

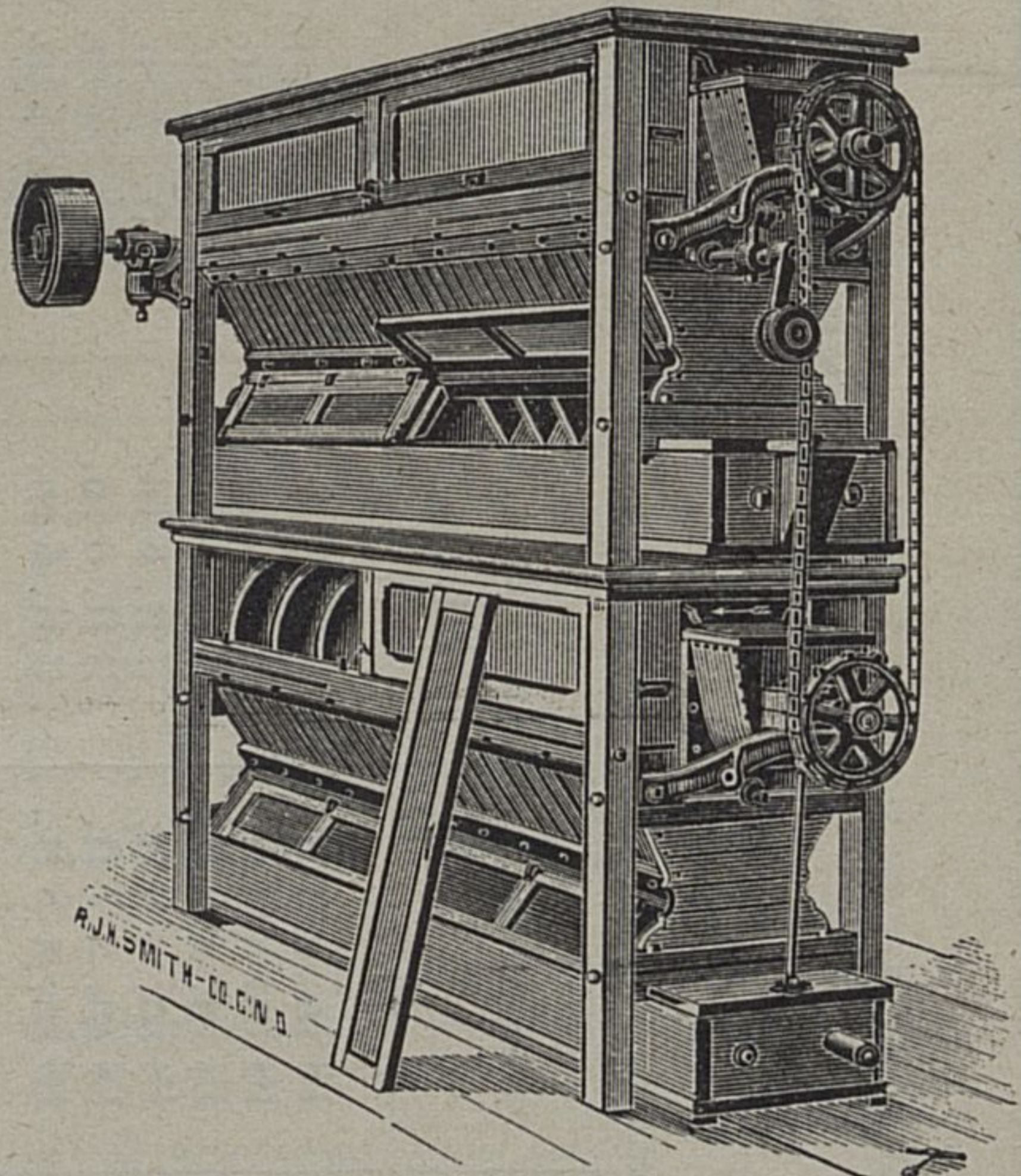
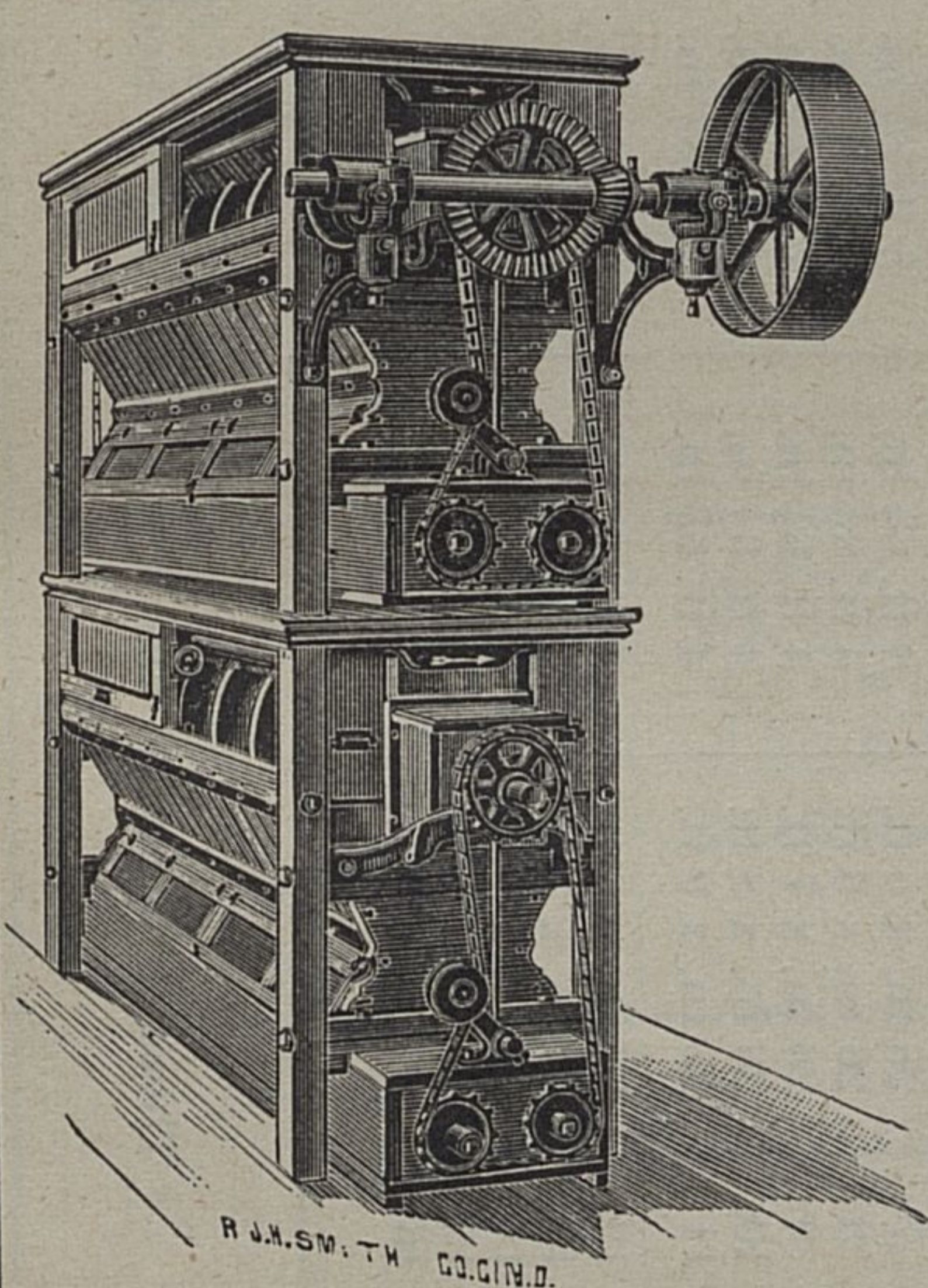
The Reel is very substantially constructed, consisting of a turned steel shaft with cast iron spiders or webs, on which is built a hexagonal drum. Attached to the outside of this drum are longitudinal ribs, which extend to within about one and one-half inches of the cloth covering of the reel. These ribs also receive the studs which support the circular steel bands over which the cloth is stretched. Both the head and tail ends of the reel are closed with solid heads, the inlet and discharge tubes being inserted through dust-tight openings. An ingenious device is attached at the tail

end of the reel, by means of which the cloth can be evenly stretched at any time.

It is not necessary to enter into any extended argument to show that the Round Reel is the ideal flour dresser. They are rapidly displacing the old style Hexagon Reel, and the Centrifugal is a thing of the past. We have given much care, study and experiment to the perfecting of a round reel which will combine the qualities of simplicity, large capacity and clean separations. The evidence of our success in this undertaking is to be found in hundreds of mills throughout the country in which these machines are used, and in the large and increasing demand for them.



Various methods of connecting and driving these machines are shown in cuts on pages 19 to 21. Dimensions and prices on pages 22 and 23.



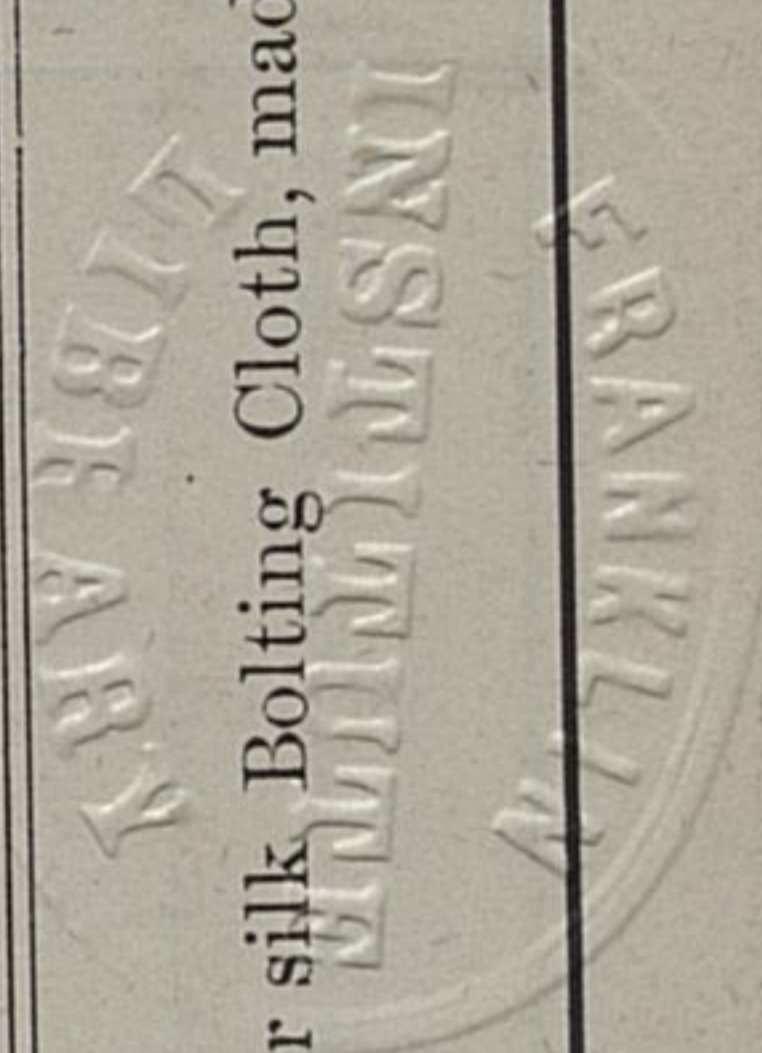
DIMENSIONS RICHMOND ROUND REEL BOLTERS.*

No.	Size of Reel.	SIZE OF FRAME.			LENGTH OVER ALL.		Speeds.	WEIGHT.
		Height.	Length.	Width.	Pulley Drive.	Cross Shaft & Gear.		
1	18 in. x 3 ft.	3 ft. 6 in.	3 ft. 8½ in.	26 in.	6 ft. 4 in.	6 ft. 8 in.	42	500
2	18 in. x 4 ft.	3 ft. 6 in.	4 ft. 8½ in.	26 in.	7 ft. 4 in.	7 ft. 8 in.	42	550
3	18 in. x 5 ft.	3 ft. 6 in.	5 ft. 8½ in.	26 in.	8 ft. 4 in.	8 ft. 8 in.	42	600
4	18 in. x 6 ft.	3 ft. 6 in.	6 ft. 8½ in.	26 in.	9 ft. 4 in.	9 ft. 8 in.	42	650
5	18 in. x 7 ft.	3 ft. 6 in.	7 ft. 8½ in.	26 in.	10 ft. 4 in.	10 ft. 8 in.	42	700
6	18 in. x 8 ft.	3 ft. 6 in.	8 ft. 8½ in.	26 in.	11 ft. 4 in.	11 ft. 8 in.	42	750
7	26 in. x 5 ft.	4 ft. 6½ in.	5 ft. 8½ in.	34 in.	8 ft. 4 in.	8 ft. 8 in.	36	800
8	26 in. x 6 ft.	4 ft. 6½ in.	6 ft. 8½ in.	34 in.	9 ft. 4 in.	9 ft. 8 in.	36	850
9	26 in. x 7 ft.	4 ft. 6½ in.	7 ft. 8½ in.	34 in.	10 ft. 4 in.	10 ft. 8 in.	36	925
10	26 in. x 8 ft.	4 ft. 6½ in.	8 ft. 8½ in.	34 in.	11 ft. 4 in.	11 ft. 8 in.	36	1000
11	26 in. x 9 ft.	4 ft. 6½ in.	9 ft. 8½ in.	34 in.	12 ft. 4 in.	12 ft. 8 in.	36	1075
12	32 in. x 6 ft.	5 ft. 4½ in.	6 ft. 8½ in.	40 in.	9 ft. 4 in.	9 ft. 8 in.	32	1050
13	32 in. x 7 ft.	5 ft. 4½ in.	7 ft. 8½ in.	40 in.	10 ft. 4 in.	10 ft. 8 in.	32	1150
14	32 in. x 8 ft.	5 ft. 4½ in.	8 ft. 8½ in.	40 in.	11 ft. 4 in.	11 ft. 8 in.	32	1250
15	32 in. x 9 ft.	5 ft. 4½ in.	9 ft. 8½ in.	40 in.	12 ft. 4 in.	12 ft. 8 in.	32	1350
16	32 in. x 10 ft.	5 ft. 4½ in.	10 ft. 8½ in.	40 in.	13 ft. 4 in.	13 ft. 8 in.	32	1450

*These dimensions also apply to Hexagon Reel Scalpers, Tandem Scalpers, etc.

PRICE LIST RICHMOND ROUND REELS.

Number.	Size of Reel.	TANDEM.			
		Pulley or Chain Wheel.	Cross Shaft and Gears.	Pulley or Chain Wheel.	Cross Shaft and Gears.
1	18 in. x 3 ft.	\$120 00	\$135 00	\$140 00	\$155 00
2	18 in. x 4 ft.	130 00	145 00	150 00	165 00
3	18 in. x 5 ft.	140 00	155 00	160 00	175 00
4	18 in. x 6 ft.	150 00	165 00	170 00	185 00
5	18 in. x 7 ft.	160 00	175 00	180 00	195 00
6	18 in. x 8 ft.	170 00	185 00	190 00	205 00
7	26 in. x 5 ft.	180 00	195 00	200 00	215 00
8	26 in. x 6 ft.	190 00	205 00	210 00	225 00
9	26 in. x 7 ft.	200 00	215 00	220 00	235 00
10	26 in. x 8 ft.	210 00	225 00	230 00	245 00
11	26 in. x 9 ft.	220 00	235 00	240 00	255 00
12	32 in. x 6 ft.	220 00	240 00	240 00	260 00
13	32 in. x 7 ft.	235 00	255 00	255 00	275 00
14	32 in. x 8 ft.	250 00	270 00	270 00	290 00
15	32 in. x 9 ft.	265 00	285 00	285 00	305 00
16	32 in. x 10 ft.	280 00	300 00	300 00	320 00



Prices include wire or silk Bolting Cloth, made up ready to attach, also pulley or chain wheels, on chest, to drive.



DuFOUR & CO.'S ORIGINAL OLD ANCHOR BRAND BOLTING CLOTH.

PRICE PER YARD, 40 INCHES WIDE.

No.	Standard.	X. Heavy.	XX. Heavy.	GRITZ GAUZE.	
				No.	Equals.
000	\$1 45	\$----	\$1 75	16	0000
00	1 50	----	1 80	18	
0	1 60	----	1 90	20	000
1	1 70	----	2 00	22	
2	1 80	----	2 10	24	
3	1 90	----	2 20	26	00
4	2 00	----	2 30	28	
5	2 10	----	2 40	30	
6	2 20	----	2 50	32	
7	2 30	----	2 60	34	0
8	2 40	2 65	2 80	36	
9	2 50	2 75	3 00	38	
10	2 60	2 90	3 10	40	
11	2 80	3 15	3 40	42	
12	3 20	3 50	3 90	44	1
13	3 50	4 00	4 30	46	
14	3 80	4 25	4 60	48	
15	4 25	4 60	5 00	50	2
16	4 75	5 00	5 25	52	
17	5 25	----	----	54	3
				56	
				58	4
				60	5
				62	
				64	6
				66	
				68	7
				70	8

Grits Gauze, all numbers, \$3.00 per yard.
 Cloths made up for Reels, 25 cents per foot.
 Cloths made up for Purifiers, 15 cents per foot.
 Magnifying Glasses, 50 cents.
 Send for book of blank orders for Bolting Cloths.

MILL SCREEN CLOTHS.

No. 20 GRADE, PLATED STEEL WIRE.

No. Meshes per Inch.	Size Wire.	Price per Square Foot.	No. Meshes.	Size Wire.	Price per Square Foot.
2 x 2	18	\$0 14	16 x 16	28	\$0 18
3 x 3	19	14	18 x 18	29	18
4 x 4	20	15	20 x 20	30	20
5 x 5	21	15	22 x 22	31	22
6 x 6	22	15	24 x 24	32	22
8 x 8	23	15	26 x 26	33	23
9 x 9	24	15	28 x 28	34	23
10 x 10	25	15	30 x 30	35	23
12 x 12	26	15	36 x 36	36	40
14 x 14	27	15	40 x 40	36	45

BRAN DUSTER CLOTH.

No. Meshes.	Price per Square Foot.	No. Meshes.	Price per Square Foot.	No. Meshes.	Price per Square Foot.
30	\$0 43	50	\$0 59	70	\$0 80
35	44	56	68	74	90
40	48	60	68	80	1 05
45	53	64	75		

All standard widths in stock.

We also carry Nos. 18 to 40 mesh, 26 and 56 inches wide, for Round Reel Scalpers.

Eighteen inches is the standard width for Bran Duster Cloths.

Relative Bolting Values of Silk and Wire Cloth.

In using wire cloth it is usually safe to select numbers from two to four meshes (to the inch) coarser than those of Gritz Gauze for the same work. A correct table can not be made, owing to the difference in gauges of wire used, &c. We do not recommend the use of the finer grades, No. 40 mesh being a safe limit for round reels.

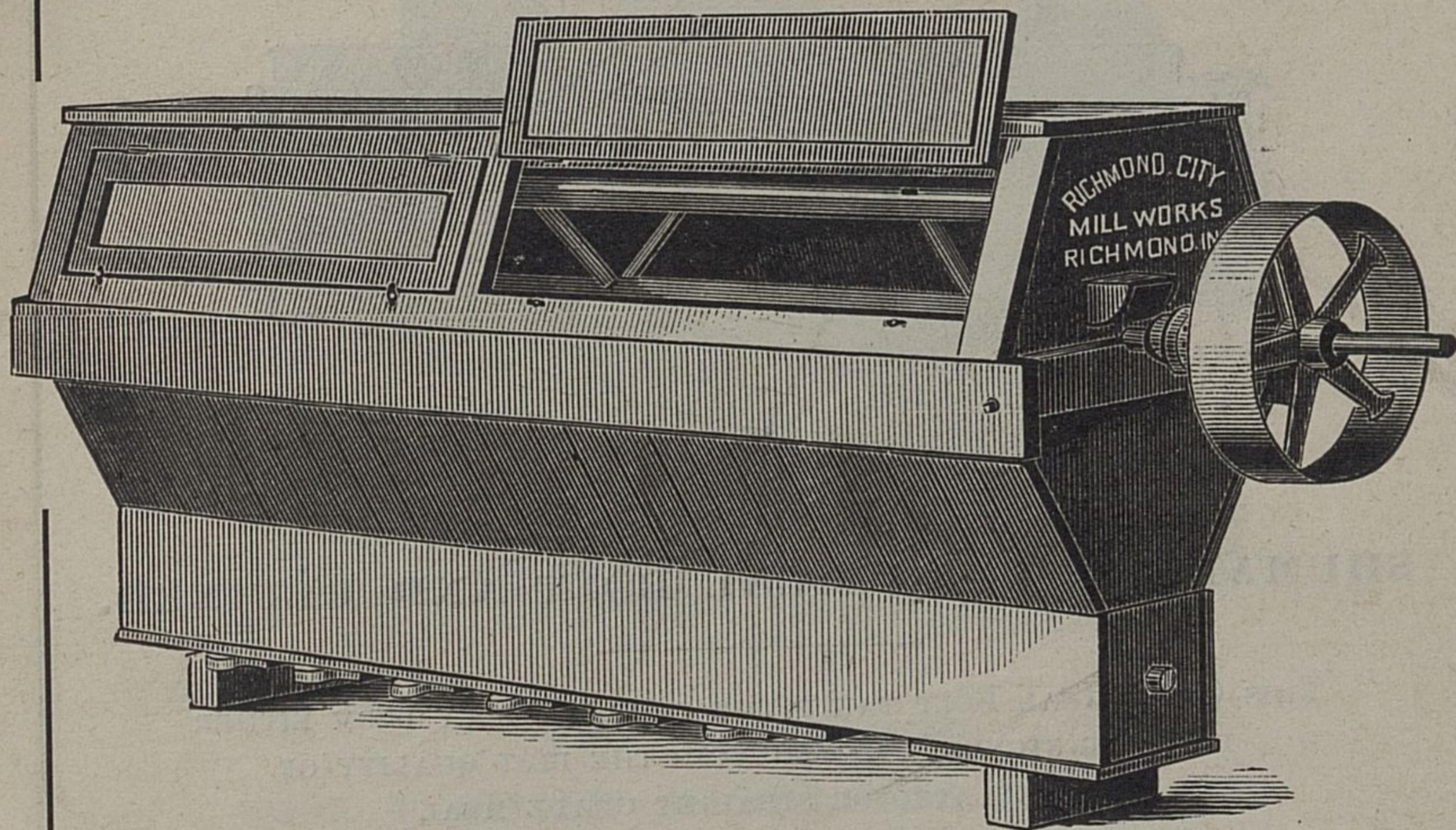
ROUND REEL

BOLTING AND SCALPING CHEST PARTS.

	18-inch.	26-inch.	32-inch.
Reels, complete, 6 feet long*per foot	\$40 00	\$47 50	\$55 00
Each additional foot (over 6 feet)per foot	3 00	3 50	4 25
Reel Shafts †per foot	87	87	87
Reel Frame Plateseach	1 25	3 00	3 75
Reel Shaft Collarseach	50	50	50
Feed Spirals, headeach	1 50	1 50	1 50
Tail Spiralseach	2 50	2 50	2 50
Galvanized Iron Feed Boxeseach	1 25	1 25	1 25
Galvanized Iron Tail Boxeseach	1 75	1 75	1 75
Reel Bandseach	80	90	1 10
Iron End Battenseach	1 00	1 25	1 50
Tapped Lag Pinseach	30	30	30
Cloth Stretcherseach	75	75	75
Reel Supporting Brackets (No. 6)each	3 25	3 25	3 25
Cross Shaft Supporting Bracketseach	6 50	6 75	7 00
No. 70 Bevelsper pair	2 25	2 25	2 25
Hingesper dozen	50	50	50
Door Catchesper dozen	25	25	25
Brace Rodseach	50	50	50
Brace Rod Shoeseach	75	75	75
Brace Rod Plateseach	25	25	25
Brush Holderseach	50	50	50
Reel Brushesper foot	40	40	40
Cut-offsper dozen	2 25	2 25	2 25
Cut-off Partitionsper dozen	2 25	2 25	2 25
Iron Conveyor Spoutseach	75	75	75
Turtle Backseach	50	50	50
Chain Tightener, Arm and Wheeleach	1 50	1 50	1 50
Chain Tightener Shafteach	90	90	90
Wrenchesper set	1 50	1 50	1 50

* These prices include only the Reel ready to put in Chest. Prices of Cloth, Brushes, Chest Fixtures, etc., will be found in this and other tables.

† Reel Shafts are turned, iron or steel, $1\frac{11}{16}$ inches in diameter. They are uniformly 3 feet 1 inch longer than the Reel.



CORN MEAL BOLTING CHEST.

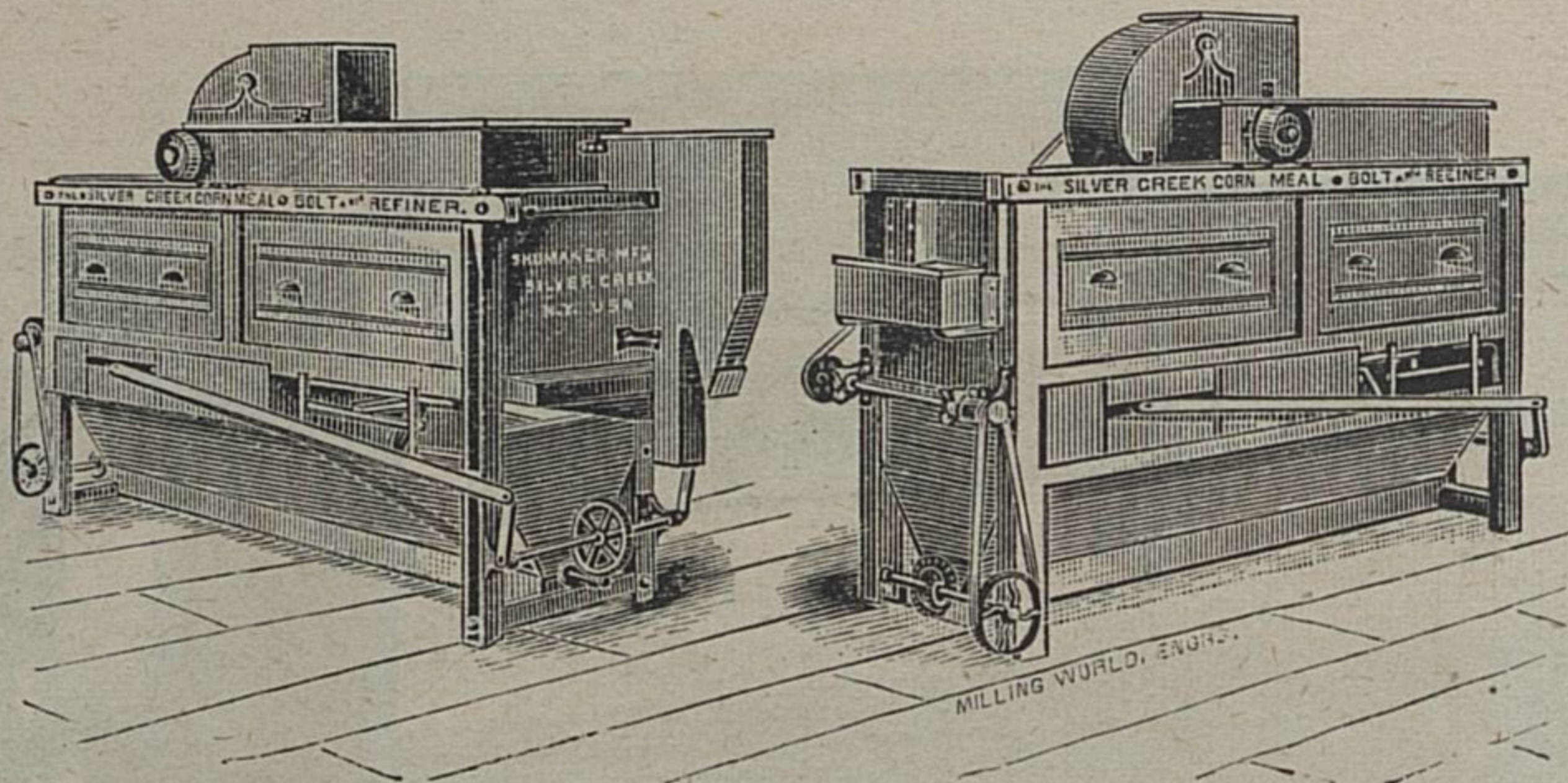
Built in the most substantial manner, of good seasoned timber, neatly finished and varnished. The Reel is square, 24 inches in diameter, and clothed with steel wire cloth 16 to 24 meshes to the inch, as may be ordered.

The Conveyor is driven with chain belt from tail gudgeon on reel shaft. We furnish pulley or chain wheel on gudgeon at head of Chest without extra charge.

PRICE LIST.

No.	Length of Reel.	Dia. of Pulley.	Face of Pulley	Speed of Reel.	Capacity.	Price.
1	5½ feet.	14 in.	4½ in.	35	6 to 8 bu.	\$50 00
2	6 feet.	14 in.	4½ in.	35	8 to 10 bu.	55 00
3	7 feet.	16 in.	4½ in.	35	10 to 15 bu.	65 00
4	8 feet.	18 in.	4½ in.	35	12 to 20 bu.	70 00
5	10 feet.	18 in.	5½ in.	35	15 to 25 bu.	80 00

For prices of Round or Hexagon Reel Corn Meal Bolts, see "Round Reels," page 23. These Reels will be clothed for corn meal, and if ordered with but one conveyor a reduction will be made in price.



SHUMAKER'S CORN MEAL BOLT AND REFINER.

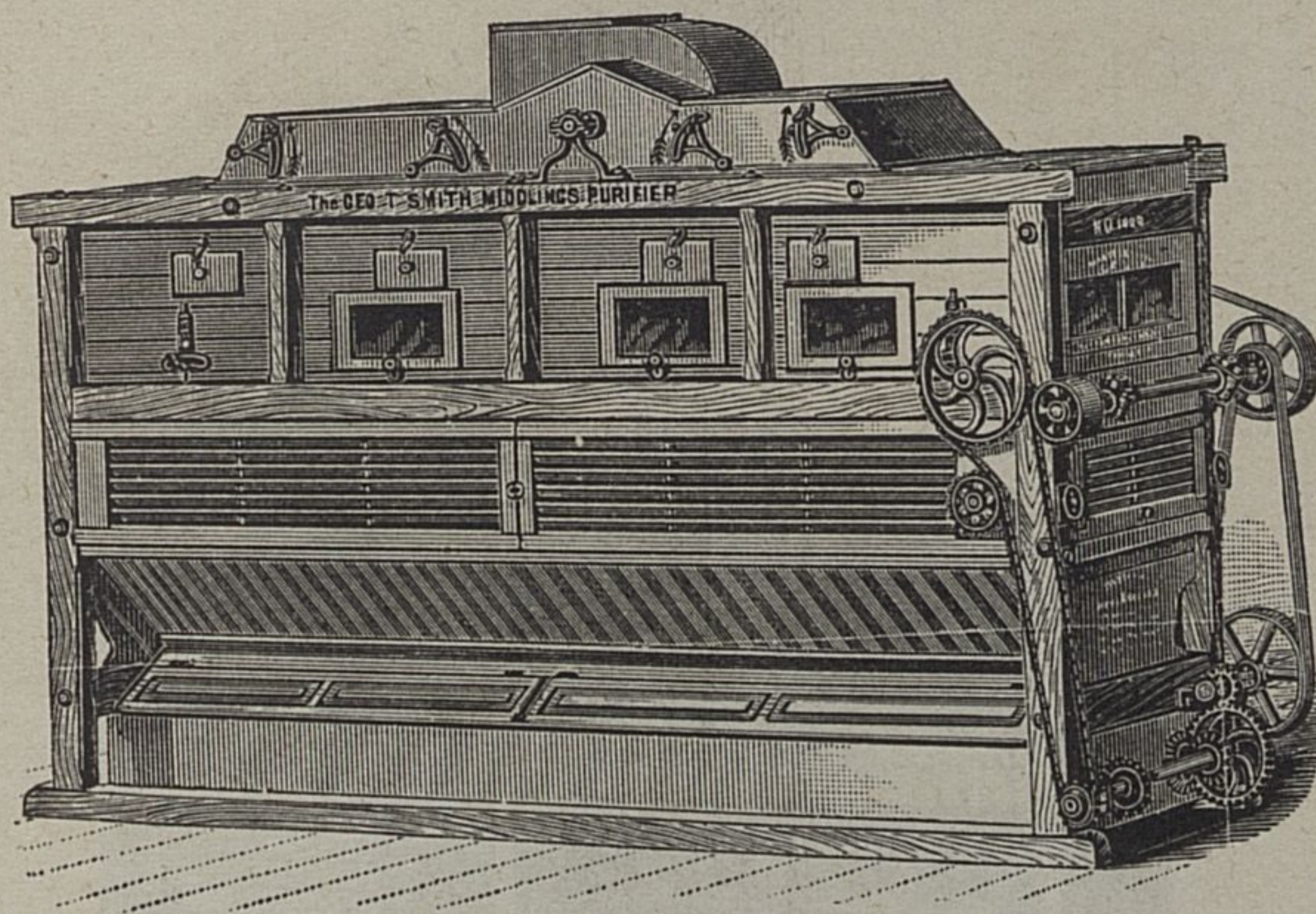
THIS CORN MEAL BOLT TAKES THE CHOP DIRECTLY FROM EITHER ROLLS OR STONES, AND PRODUCES THE BEST QUALITY OF GRANULATED OR STRAIGHT GRADE MEAL AND BREWER'S GRITS.

The principle of this machine is a shaking screen, having within itself facilities for scalping off the bran and separating the fine flour, bran, granulated meal, etc. The meal is then subjected to an air current to carry off the light particles of bran and dust, and thus purify the meal. The grits go off the tail of shaker and drop into an aspirator leg, whereby they are cleaned perfectly. A straight grade meal can also be made by simply closing one slide, thus running the granulated meal in with the flour meal. This machine is simple in its construction, requires but little power, and occupies but a small space in a mill. We furnish interchangeable sieves with each machine, so that the numbers of cloth can be changed to any degree of fineness or coarseness, and it has a brush cloth-cleaning device.

Please remember that it cannot get out of order or fail to do its work, and we positively guarantee it to do its work first-class.

Dimensions and Capacities of Corn Meal Bolt.

No.	Length.	Width.	Height to top of Blower	PULLEY.		Motion per Minute.	Capacity per hour.	Price, with Cloths.
				Diam.	Face			
1	7 ft. 10 in.	2 ft. 8 in.	6 ft. 1 in.	7 in.	3 in.	600	10 bu.	\$175
2	7 ft. 10 in.	3 ft. 8 in.	6 ft. 6 in.	7 in.	3 in.	600	15 bu.	200
3	7 ft. 10 in.	4 ft. 8 in.	6 ft. 9 in.	7 in.	3 in.	600	20 bu.	250
4	9 ft. 4 in.	4 ft. 8 in.	6 ft. 9 in.	8 in.	3 in.	600	30 bu.	325



**THE IMPROVED
GEO. T. SMITH MIDLINGS PURIFIER.**

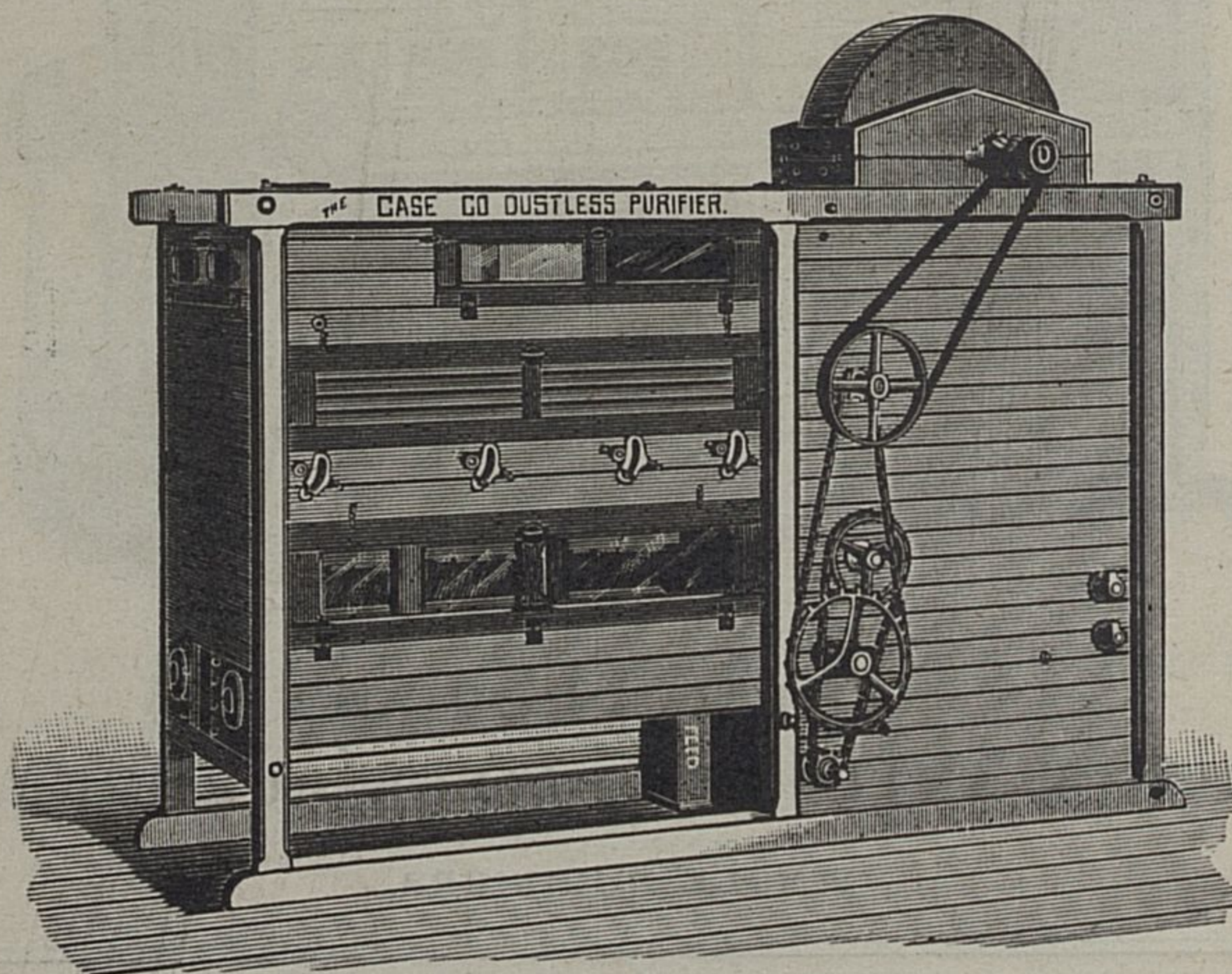
SINGLE PURIFIERS.

Size.	Width of Frame.		Height of Frame.		Extreme Height.		Length of Frame.		Driving Pulley.		Speed.	Price.
	feet	inches	feet	inches	feet	inches	feet	inches	Diam. inches	Face. inches		
00	2	11	5	5	6	9	9	0	6	3	500	\$250
0	2	11	5	5	6	9	10	6	6	3	500	275
1	3	6	5	7½	7	6	10	6	8	4	450	325
2	4	3	6	1	8	0	10	6	8	4	450	375
3	4	3	6	1	8	0	12	6	8	4	450	425
4	4	3	6	1	8	2	14	6	10	4	450	450
5	4	3	6	1	8	2	16	6	10	4	450	475
6	4	6	6	1	8	7	16	6	10	4	450	500

DOUBLE PURIFIERS.

1	4	6	5	5	7	2	10	6	8	4	500	400
2	5	2	5	9	7	5	10	6	8	4	500	450
3	5	2	5	9	7	7	12	6	8	4	500	500

The Smith Middlings Purifier is so well known to the entire milling trade, and has so long been used in all sections of the United States as well as in every country where wheat is grown and milled, that any description of its construction and operation at this late date would be entirely superfluous. No better proof of the superiority of the machine can be conceived than the fact that nearly 20,000 Smith Purifiers are now in every-day use in all parts of the world, and the demand for them is still unabated.



THE CASE AIR BELT SIEVE PURIFIER.

This is a comparatively new machine, but has been thoroughly tested and fills the demand for a good Purifier and Dust Collector combined.

It uses the same air over and over again, excluding all outside dust and smoke, and settles the dust within the machine. The air passes through the cloth in the same manner as in sieve purifiers, and the current is at all times under complete control.

Special circulars giving full and detailed description mailed on application.

AIR BELT SIEVE PURIFIERS.

DIMENSIONS AND PRICE LIST OF SINGLE MACHINES.

No.	SIZE OF FRAME.		Height to top of Fan.	Height to Center of Drive.	SIZE OF CLOTH.		Size of Pulley.	Revol's per Minute.	Weight about pounds	Price.
	Height.	Width.			Upper Sieve.	Lower Sieve.				
0	4' 9"	2' 4"	6' 0 $\frac{1}{2}$ "	4' 11 $\frac{1}{2}$ "	22" x 4' 2"	22" x 2' 7"	8" x 21"	450	780	\$300 00
1	5 1	2 8	6 4 $\frac{1}{2}$ "	5 3 $\frac{1}{2}$ "	26 x 4 2	26 x 2 7	8 x 21 $\frac{1}{2}$ "	450	850	320 00
2	5 5	3 3	6 8 $\frac{1}{2}$ "	5 7 $\frac{1}{2}$ "	30 x 4 2	30 x 2 7	8 x 21 $\frac{1}{2}$ "	450	910	340 00
3	5 9	3 4	7 0 $\frac{1}{2}$ "	5 11 $\frac{1}{2}$ "	34 x 4 2	34 x 2 7	8 x 21 $\frac{1}{2}$ "	450	970	360 00

DIMENSIONS AND PRICE LIST OF DOUBLE MACHINES.

No.	SIZE OF FRAME.		Height to top of Fan.	Height to Center of Drive.	SIZE OF CLOTH.		Size of Pulley.	Revol's per Minute.	Weight about pounds	Price.
	Height.	Width.			Upper Sieve.	Lower Sieve.				
0	4' 9"	3' 6"	6' 0 $\frac{1}{2}$ "	4' 11 $\frac{1}{2}$ "	36" x 4' 2"	36" x 2' 7"	8" x 21"	450	970	\$450 00
1	5 1	4 6	6 4 $\frac{1}{2}$ "	5 3 $\frac{1}{2}$ "	48 x 4 2	48 x 2 7	8 x 21 $\frac{1}{2}$ "	450	1060	500 00

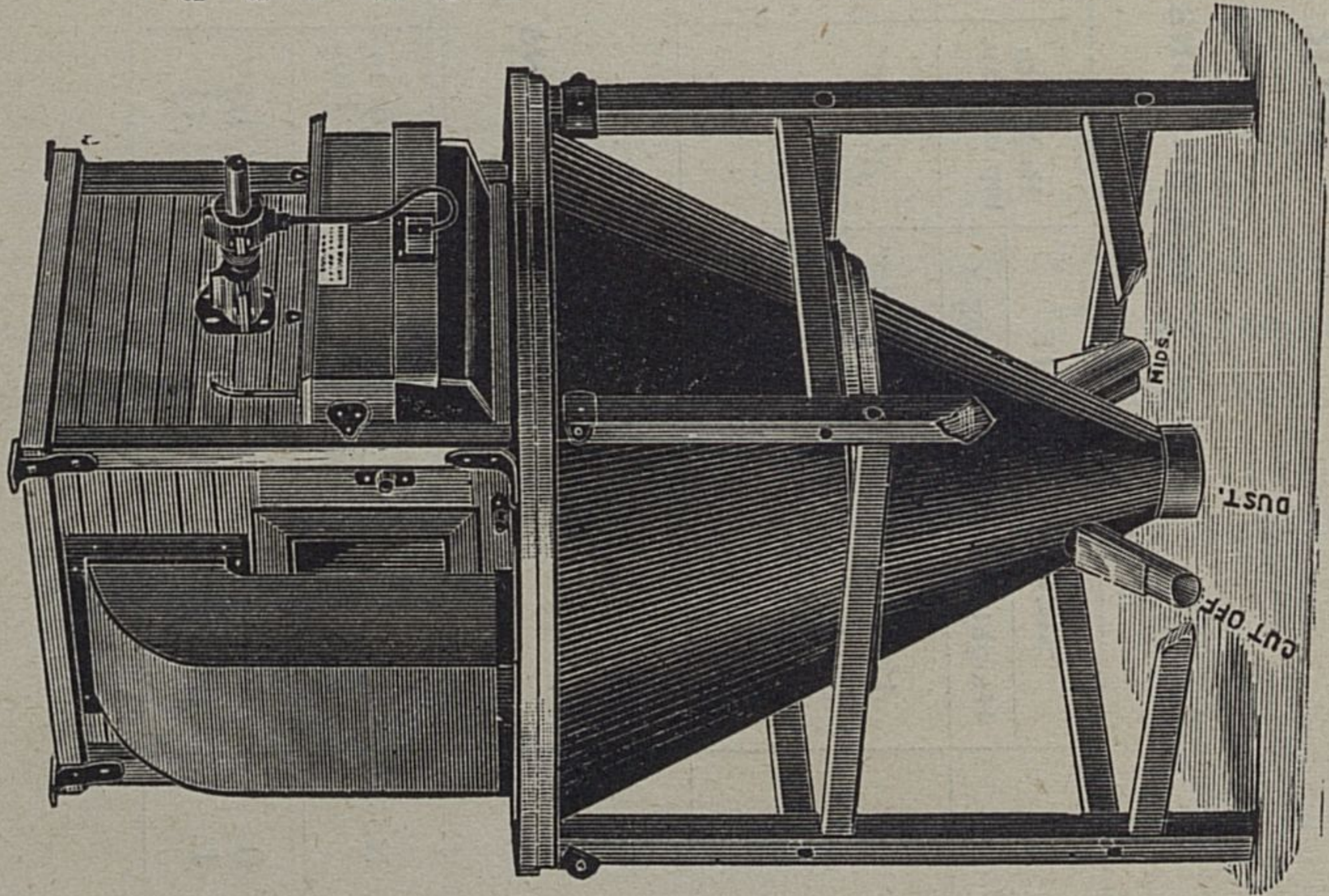
Larger sizes not built double.

THE HOLT DUSTLESS PURIFIER.

The speed of this machine varies from 400 to 700, according to the stock. Coarse stock needs more air and consequently higher speed; fine stock needs less air and slower speed. The fan valve should be from one-third to one-half open, so as not to get too sharp a current, and if fine middlings are taken out with the fan valve open, as stated above, the speed of the machine should be reduced until you get the desired separation.

DIMENSIONS AND PRICE LIST.

No.	Bottom Section.	Middle Section.	Top Section.	Total Height.	Floor Space.	Feed Surface.	PRICE.
1 Single .	ft. 2 9	ft. 1 6	ft. 2 3	ft. 6 6	ft. 5 2	in. 64	\$200 00
1 Double.	2 9	1 6	2 3	6 6	5 2	32 each side	225 00
2 Single .	1 7½	1 8½	2 3	5 7	4 ½	43	150 00
2 Double.	1 7½	1 8½	2 3	5 7	4 ½	21½ each side	175 00
3 Single .	1 7½	1 8½	2 3	5 7	4 ½	28	125 00



No. 2. — EXTERIOR.

Shipping weight from 700 to 900 pounds.

PRICE LIST OF CYCLONE DUST COLLECTORS.

No	Top Section.		Center Section.		Bottom Section.		Total Height		Diam.		Height of Hood		Inlet Opening.	Price for Purifiers.	Price for Wheat Cleaners
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.			
2	1	3	1	8	2	11	5	10	4	0	2	4	8 x 8	\$ 80 00	\$
4	1	6	2	3	2	11	6	8	4	6	2	4	8 x 12	80 00	
5	1	6	2	4	3	6	7	4	4	9	2	8	8x12to10x15	90 00	95 00
6	2	2	3	3	3	6	8	11	5	8	2	8	10x15to12x15	100 00	110 00
7	3	10	4	0	3	6	11	4	6	0	2	10	12x15to12x30	120 00	140 00
8	4	1	4	9	3	6	12	4	6	10	3	0	12x30to15x30	140 00	160 00

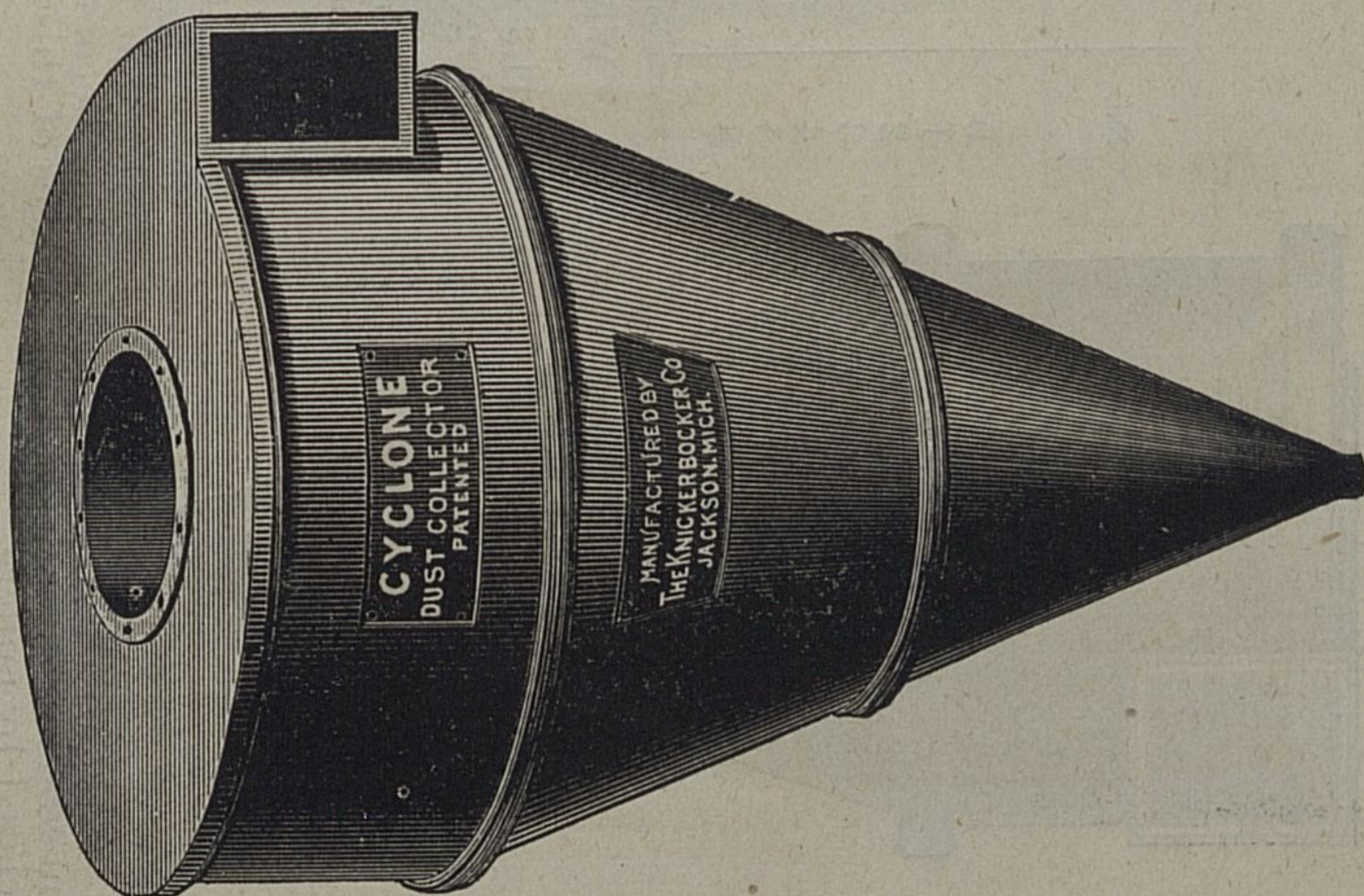
DIRECTIONS FOR ORDERING.

In ordering Cyclone Dust Collectors, be sure to state what they are to be used for and give the name and size of the machines to which they are to be attached; and if for odd machines that are not now manufactured, give the inside dimensions of the fan discharge.

In ordering for suction from rolls, give the size and speed of the fan, and the inside dimensions of the fan discharge; also, state how many sets of rolls, or how many runs of stones are connected with the fan.

Order nothing smaller than No. 5 for wheat cleaners.

Directions for setting furnished on application.



VORTEX DUST COLLECTOR.

DIMENSIONS AND PRICES.

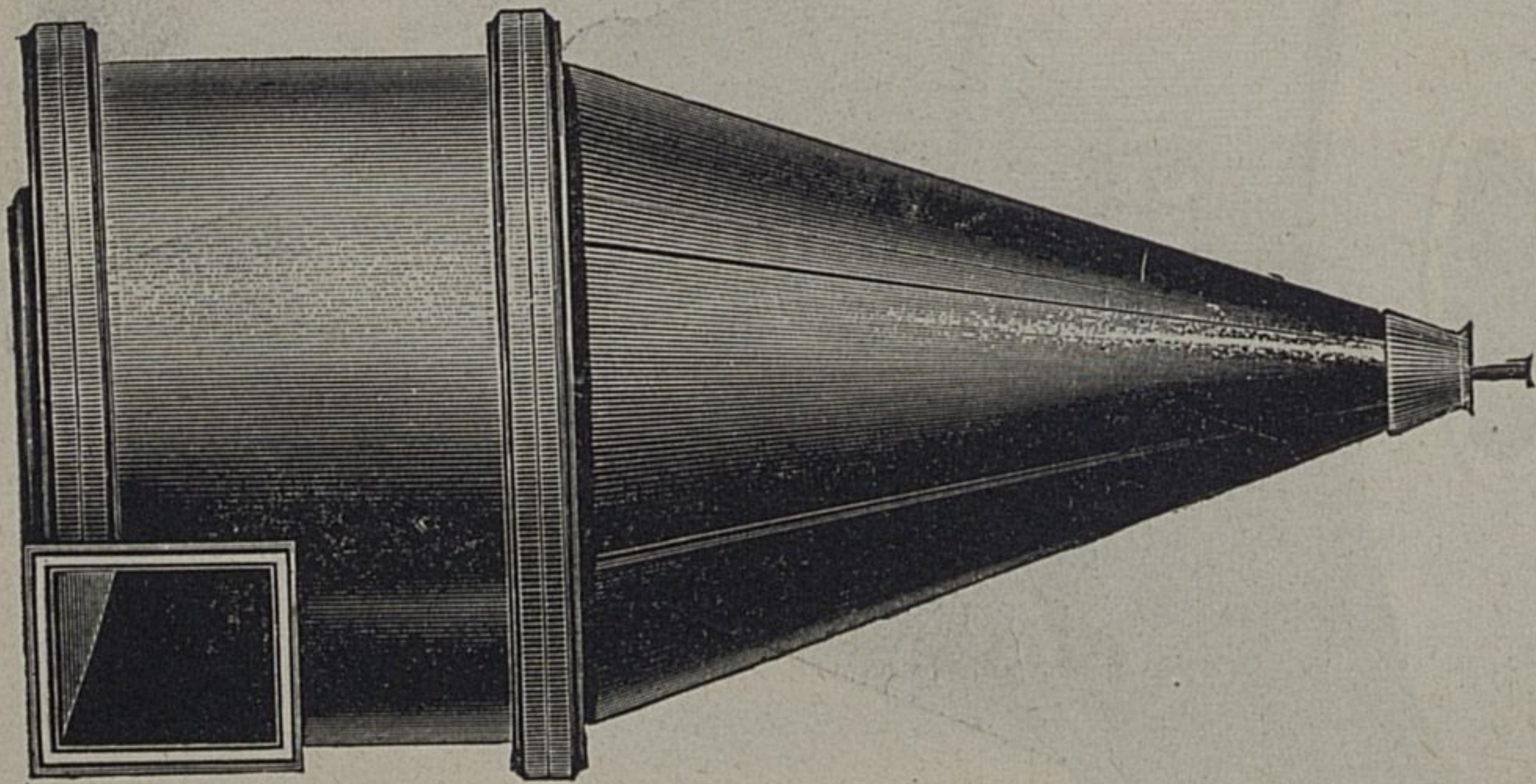
No.	Size Floor Space.		HEIGHT.*		Size Inlet Opening.	PRICE.
	ft.	in.	With Hood.	Without Hood.		
0	3	4	7	5	8 x 10	\$ 75 00
1	3	4 x 3	8	6	10 x 12	80 00
2	4	4 x 3 10	9	1	12 x 16	90 00
3	4	4 x 4	9	11	14 x 18	100 00
4	5	4 10 x 4 10	11	0	15 x 20	110 00
5	5	5 x 5	13	1	15 x 24	125 00
6	6	5 x 6	13	8	17 x 26	140 00

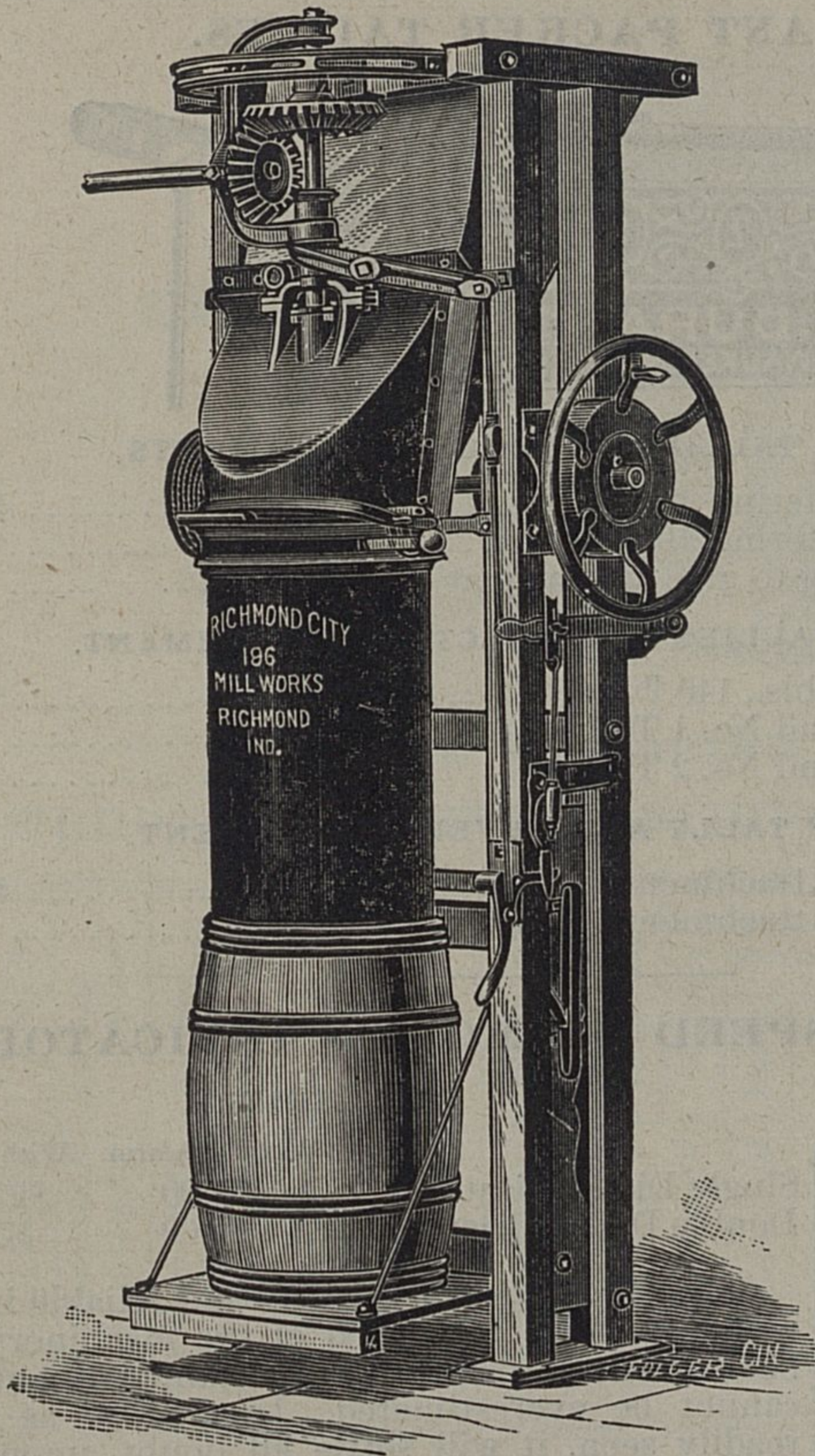
* When discharge spout at top is used, add 18 inches to total height.

The machine consists of a sheet iron cylinder, with an inner cylinder for the discharge of air freed from dust, and a conical hopper or settling chamber underneath, with an opening through which the dust is discharged.

The dust-laden air enters through an opening in the side, at the upper end of the cylinder, and passes through the space between the outer and inner cylinder, which is provided with a spiral through which the air is blown. The dust being heavier than the air, is thrown to the outer casing of the machine by centrifugal force, where it is kept, gradually descending along the case to the conical hopper, and finally through the opening below. The air, meanwhile, relieved of the dust, passes through the discharge opening in the top. It will be seen that there are no parts to become worn, and after the machine is properly connected and regulated it will

need no attention. The advantages of this Collector over those straining the air through cloth will be readily appreciated by millers.





FEATURES.

Can be driven from either side.
 Oscillating babbitted boxes.
 Triple Friction Brake, used on no other Packer.
 Convenience and perfect working of all its adjustments.

RICHMOND FLOUR PACKER.

USED IN ALL THE BEST MILLS.

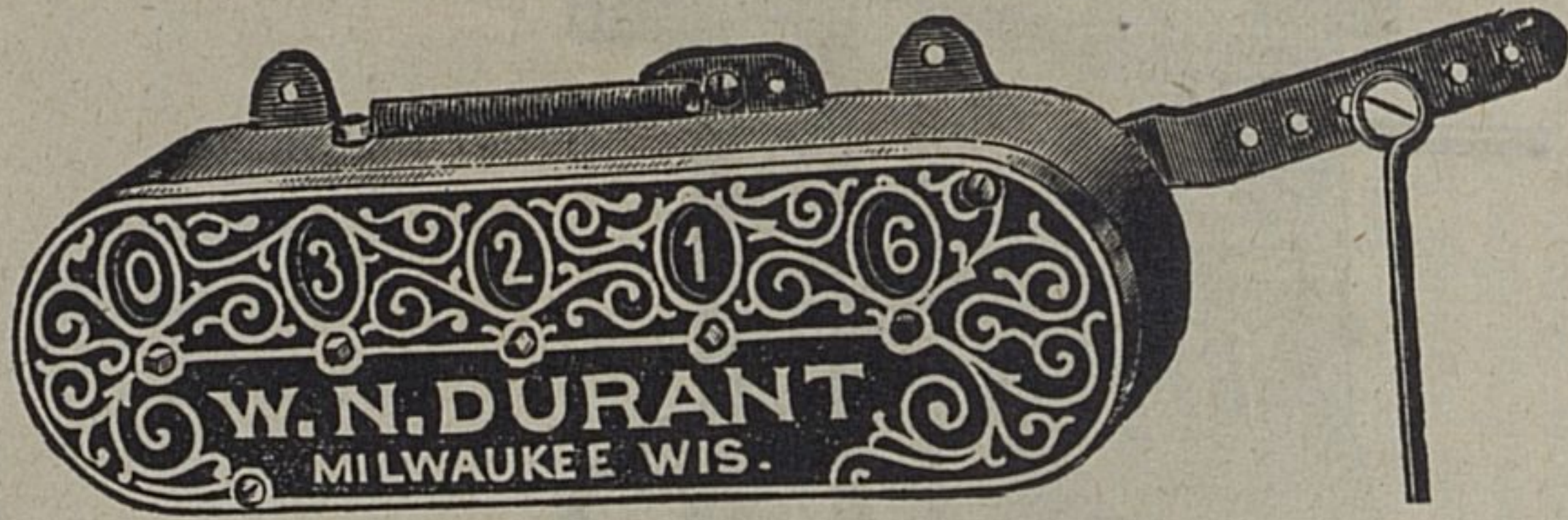
Dimensions.—Height, 8 feet 4½ inches. Distance from floor to center of driving-shaft, 7 feet 8½ inches. Speed of driving-shaft, 125 to 140 revolutions per minute. Diameter of driving-shaft, 1 7/16 inches. Length, 4 feet 3 inches, from center of Packer to end of shaft. Shipping weight, 600 pounds; with full set of tubes, 700 pounds.

Price, with one tube\$100 00
 Extra tubes and augers, each..... 5 00

BRAN PACKERS.

Price.....\$150 00
 Description sent on application.

DURANT PACKER TALLIES.



PRICES OF TALLIES WITHOUT ATTACHMENTS.

No. 1	Four Dials, registering 10,000.....	\$ 8 00
No. 2	Five Dials, registering 100,000.....	10 00
No. 2	With 4-inch gong to give an alarm at each 100	15 00

PRICES OF TALLIES AND FRACTION ATTACHMENT.

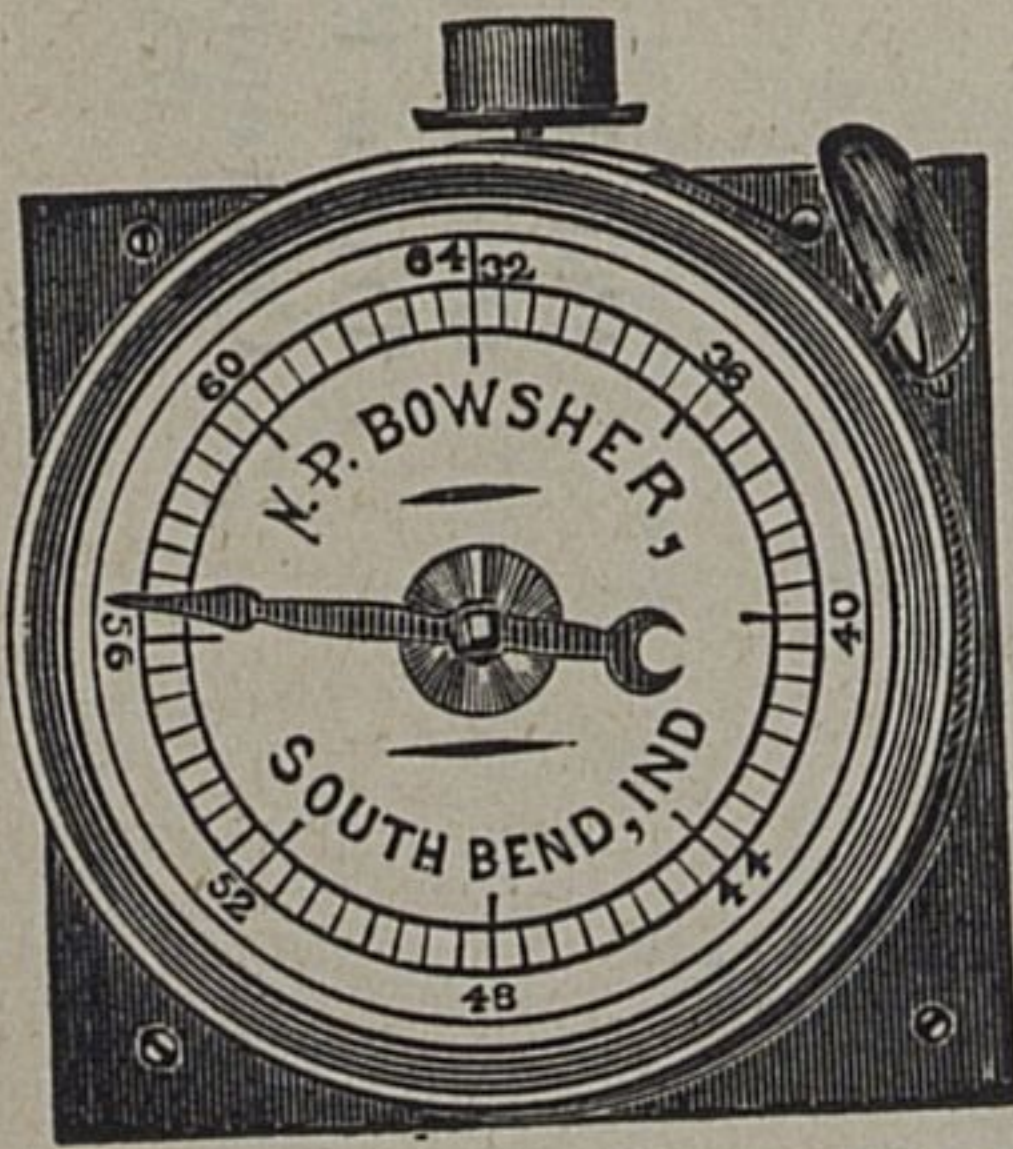
Attachment for $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$ bbls., 140 lb. sacks.....	\$15.00
Attachment complete and No. 1 Tally	23 00
Attachment complete and No. 2 Tally	25 00

PRICES OF TALLY AND LEVER ATTACHMENT.

No. 1 Tally and Lever Attachment	\$ 9 50
No. 2 Tally and Lever Attachment	11 50

BOWSHER'S SPEED OR MOTION INDICATOR.

PRICE LIST.



	Without Alarm.	With Alarm.
Single Dial Indicator.....	\$25 00	\$27 50
Double Dial Indicator.....	30 00	32 50

The advantages of a cheap and reliable instrument by which the speed of the machinery may be determined instantly and certainly, **at a glance**, cannot be overestimated. Located so as to be readily seen, it will settle all doubt among the employes on this important point.

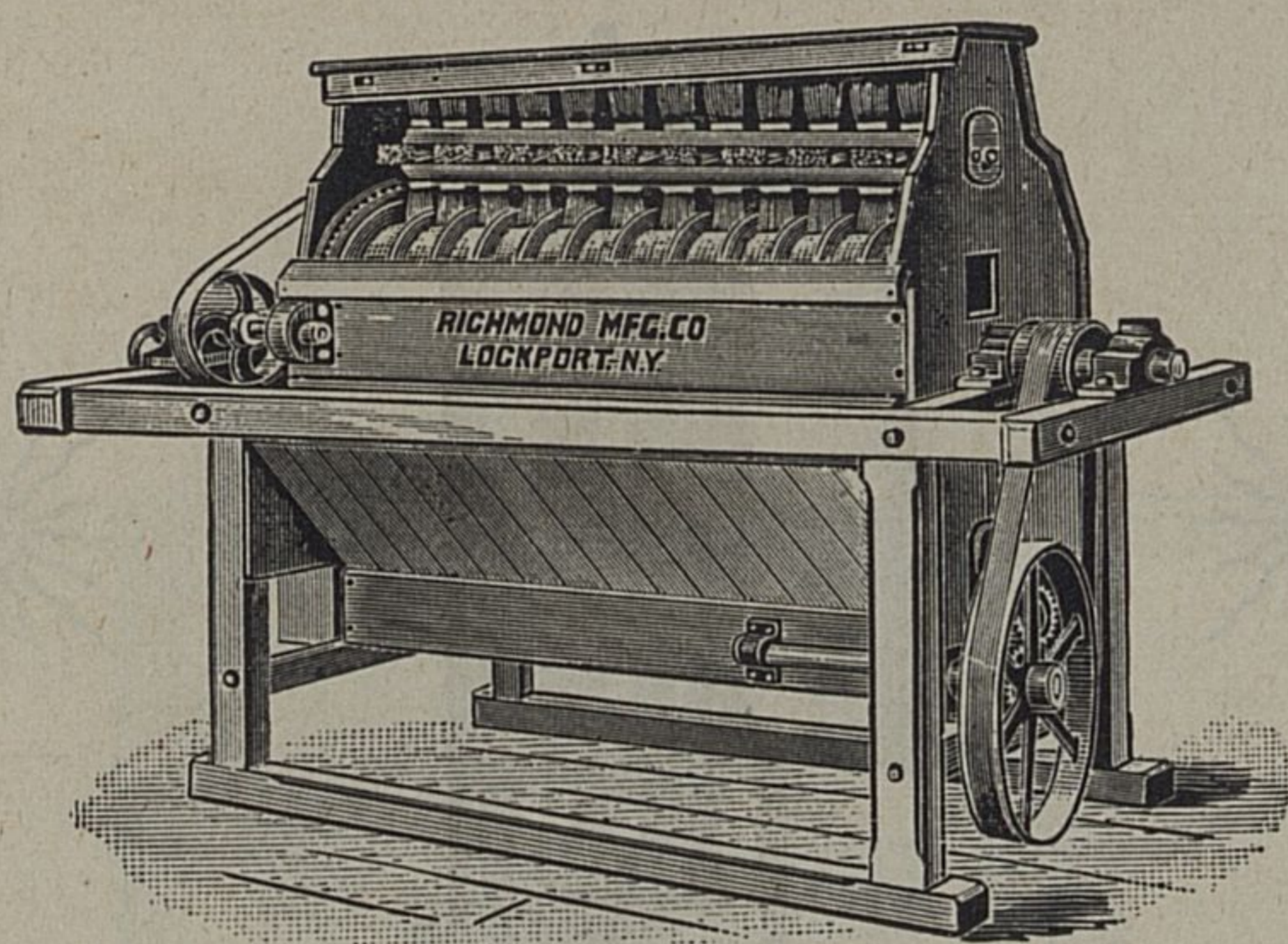
THE ALARM ATTACHMENT is arranged to strike a gong when the speed runs either "too high" or "too low" from a given point, and will continue to ring until the speed is brought within the boundaries given. It requires no attention and is **always ready** to act, though, if for any reason it is ever desired, the hammer can be "hooked back" so as to make it totally inoperative. The attachment is of great value, as it **compels** attention to any material change in the speed.

If the driving shaft is so small or the speed so slow as to make a **driving pulley** necessary, a **split pulley** of proper bore will be supplied **free**.

Any one can put the Indicator up, ready for use, in thirty minutes, without the aid of a millwright.

SPEED INDICATORS.

Nickel Plated, each.....	\$2 00
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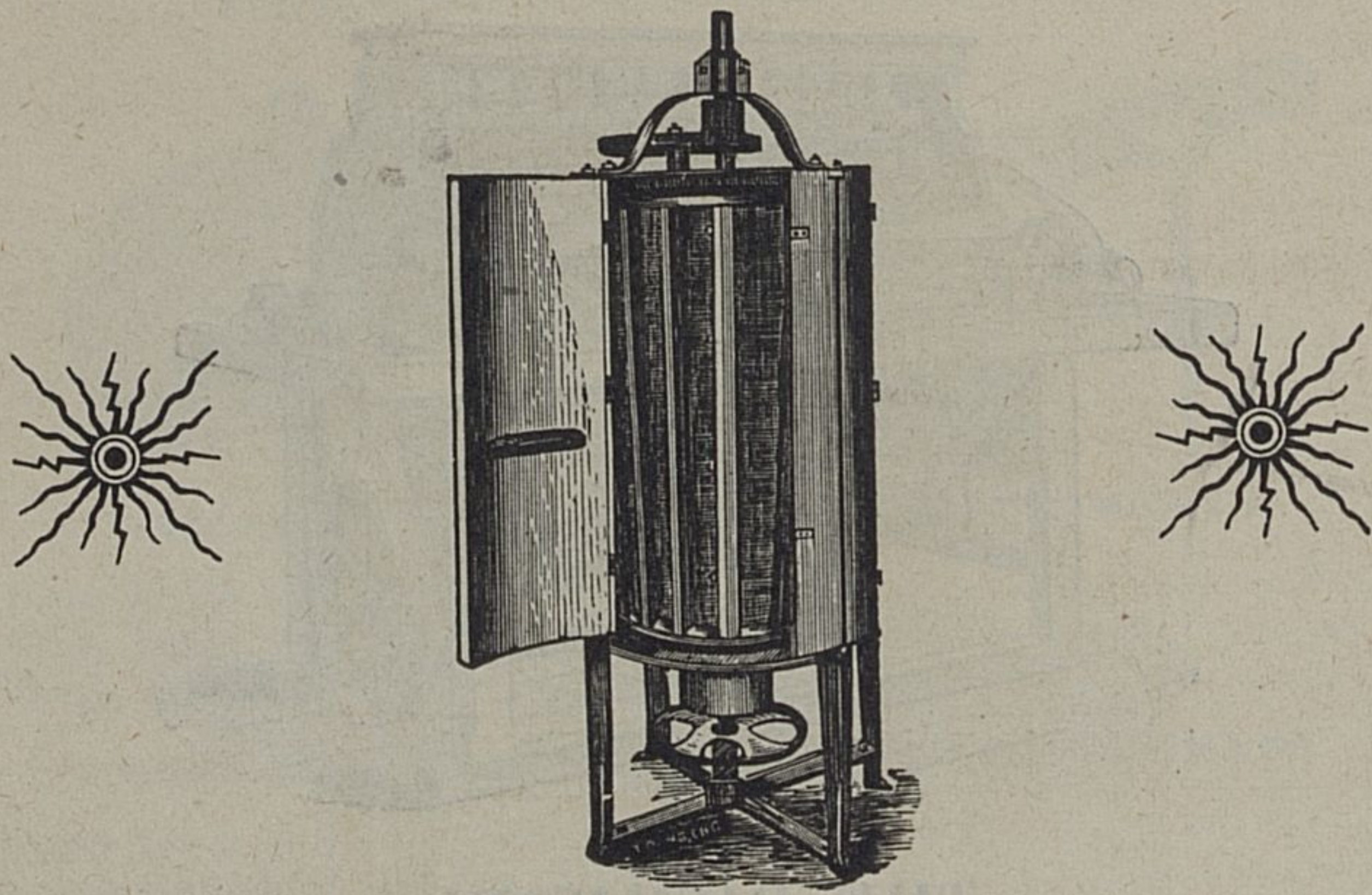
**THE RICHMOND
IMPROVED EMPIRE HORIZONTAL DUSTER.**

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.				Height from Floor to where Material Enters		Height from Floor to Center of Pulley.		SIZE OF PULLEY.		Motion per Minute.	Capacity.	PRICE.	
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.	in.	in.				
0	3	11	2	10	5	2	2	7	X	2	6	2	4	2	1	8	5	450	60	\$175 00
1	3	11	2	10	5	3	3	X	2	6	2	4	2	1	8	5	450	100	200 00	
2	3	11	2	10	6	4	1	X	2	6	2	4	2	1	8	5	450	150	230 00	
3	4	6	3	4	7	4	8	X	3	0	2	10	2	8	10	7	430	225	270 00	
4	4	6	3	4	8	5	4	X	3	0	2	10	2	8	10	7	430	300	300 00	
5	5	4	4	0	8	5	5	X	3	7	3	5	3	0	14	7	400	400	400 00	
6	5	4	4	0	9	6	1	X	3	7	3	5	3	0	14	7	400	500	500 00	
7	5	4	4	0	10	6	9	X	3	7	3	5	3	0	14	7	400	600	600 00	

Two important improvements have recently been added to the Empire Duster which are not found in any other duster. The first is a winged valve placed in the discharge spout, which effectually prevents any air or dust from passing out at the tail of the machine with the offal, and at the same time allows the offal to discharge freely from the machine; the second is a revolving outside brush, which keeps the wire cloth perfectly clean, and much better than can be done by a rapper or a stationary brush, and avoids all objectionable knocking and jarring.

The dusting case is a horizontal cone of wire cloth. The material is fed in at the smaller end of the wire case, and discharges from the machine at the opposite end. The product falls into a conveyor, which conducts it to a discharge spout. Beneath the conveyor are a set of slides, which can be used to divide the product taken out at the tail end of the machine from that taken out at the head. This division can be effected at any point desired, so as to make two or more grades from the duster.

The revolving brushes inside the wire case can be adjusted while the machine is in motion, and moved to or from the wire cloth as may be desired. The wire case revolves slowly, and is kept clean by a revolving outside brush. The machine can be arranged so as to effect one or more separations. When an extra separation is desired, it will be necessary to order one size larger than would be required if the machine was used as a duster only. The duster will run either way.



**THE RICHMOND
IMPROVED NIAGARA UPRIGHT DUSTER.**

DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Space over All.		Height from Floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Day of 24 hours from	PRICE.
	ft.	in.	in.	in.		Diam.	Face.			
1	5	10	36	x 36	14	8	5	400	100	\$200 00
2	6	4	36	x 36	14	8	5	400	150	230 00
3	6	10	36	x 36	14	10	7	375	225	270 00
4	7	4	36	x 36	14	10	7	375	300	300 00
5	7	1	40	x 40	14	14	7	300	400	400 00
6	7	7	40	x 40	14	14	7	300	500	500 00
7	8	1	40	x 40	14	14	7	300	600	600 00

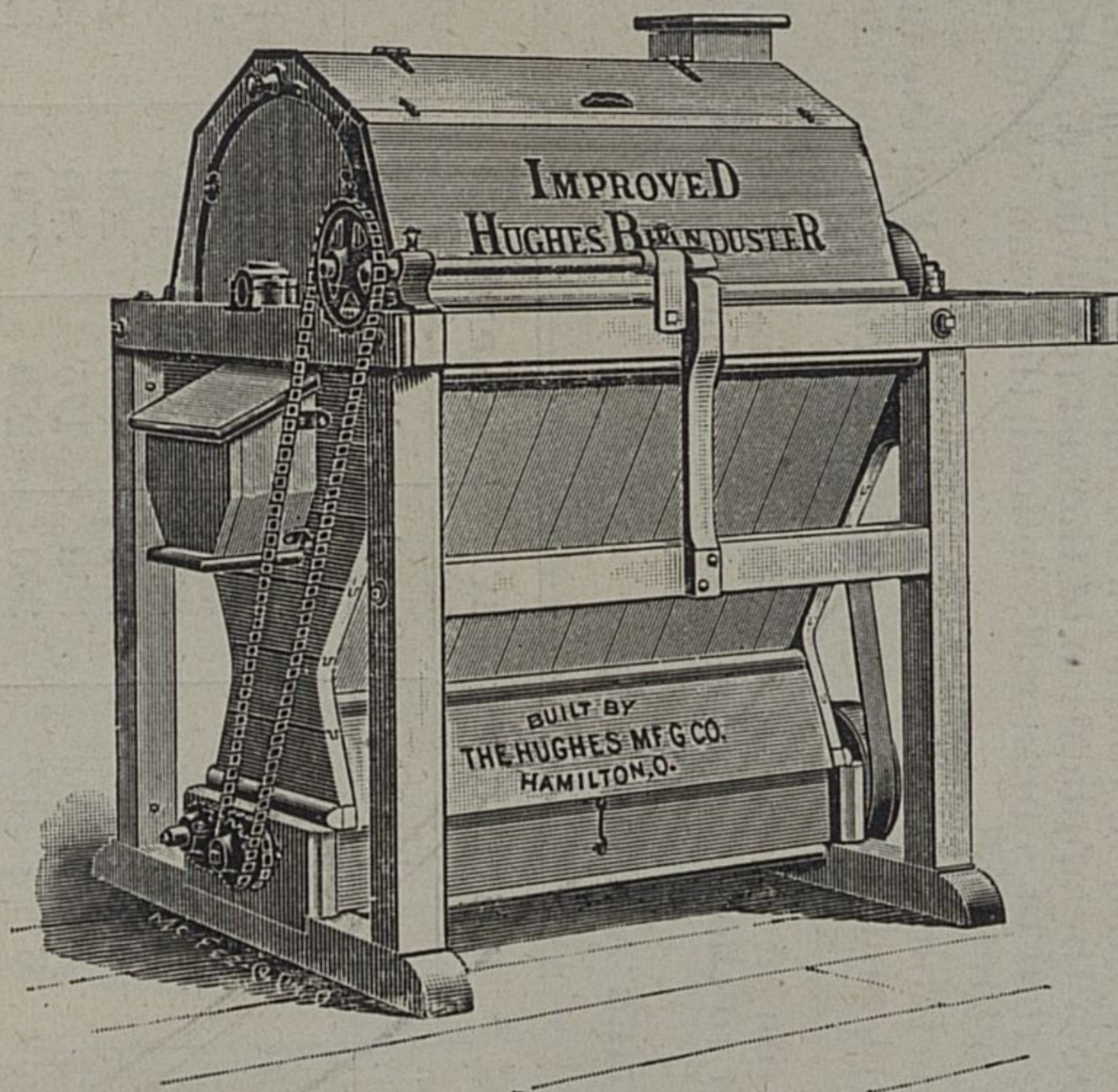
The dusting case is cone-shaped, and revolves slowly, the rapper shown on inside case keeping the wire cloth clean. The brushes can be readily adjusted while the machine is in motion, by turning the wheel at the bottom of the shaft.

The machine can be run from the top, if desired, and will run either way, the only change required being to turn the rapper around.

The dusting case is in three parts, and can be easily taken apart when so desired.

The machine runs at a slow motion, and takes but little power, and performs its work in a thoroughly efficient manner.

It is constructed well and perfectly in all its parts, the very best materials, bristle brushes, etc., being used throughout; and as there are no complications about it, it will run for years without requiring any repairs or any trouble, except oiling and an occasional adjustment of the brushes, which can be done at any time.



THE HUGHES HORIZONTAL DUSTER.

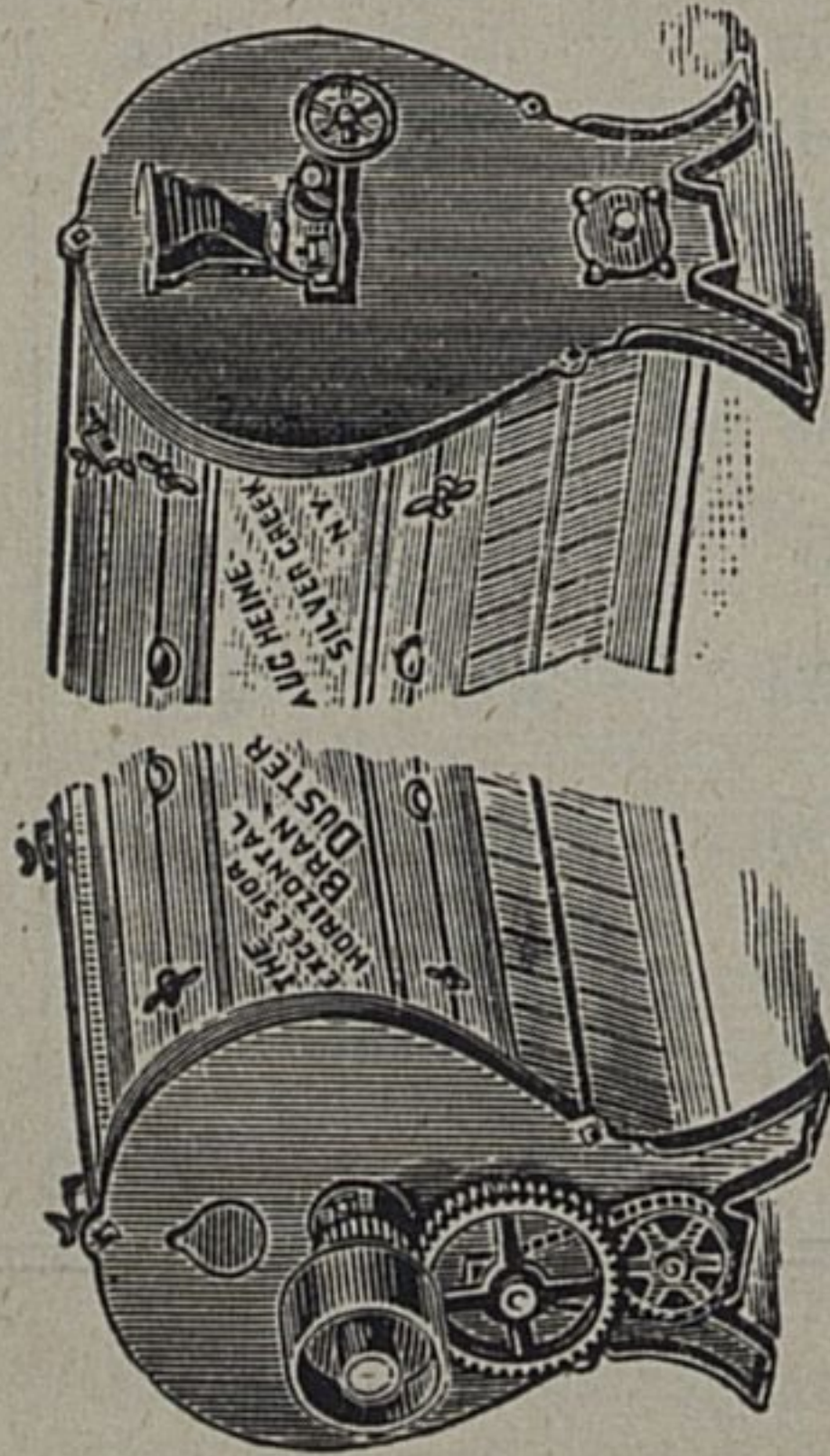
No.	Extreme Height.		Extreme Width.		Extreme Length.		PULLEY.		Speed per Minute.	Capacity.	PRICE.
	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.			
0	4	7	3	1	3	11½	8	4½	425	Bbls. 60	\$175 00
1	4	7	3	1	4	8½	8	4½	425	100	200 00
2	4	10	3	4	4	9	10	5	350	200	250 00
3	4	10	3	4	5	6	10	5	350	300	300 00
4	5	6	3	11	5	7½	12	5½	300	450	400 00
5	5	6	3	11	6	4½	12	5½	300	600	500 00
6	6	0	4	5	7	4	14	8	250	800	650 00
7	6	0	4	5	8	1	14	8	250	1,000	800 00

THE EXCELSIOR BRAN FINISHER.

The construction of this machine is such that the miller is enabled to shave or scrape the bran as severely or lightly as may be desired without in the least straining the wire, because the work is accomplished upon interposed surfaces or ribs. These ribs are corrugated similar to a bran roll, and the action of the machine brings the bran in contact with these corrugated ribs, and a scraping action results from the application of the fast revolving brushes. The result is not dissimilar to that of a bran roll; indeed, the bran is longer at the point of contact than in a bran roll.

The brushes are adjustable, while in motion, at the head of the machine, by means of a hand wheel, and this adjustment is uniform at all points of the brushes.

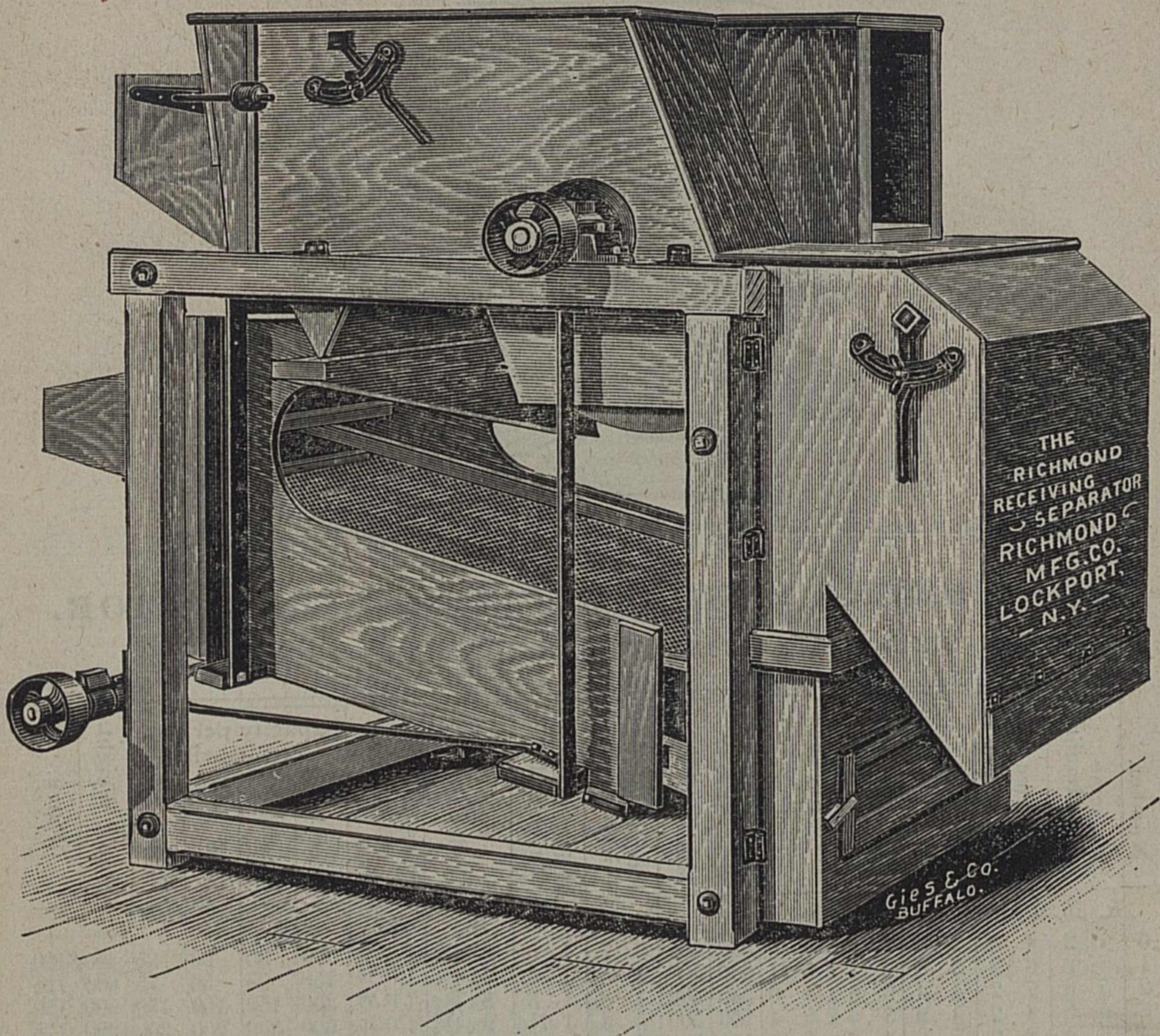
The machine is driven at tail end, unless otherwise ordered, and runs against the sun, *i. e.*, over to the left as you stand facing head or feed end.



SIZES, DIMENSIONS, CAPACITIES AND PRICES.

No.	DIMENSIONS OVER ALL.			Unobstructed Wire Surface. Square feet.	Corrugated Scrap Surface. Square feet.	DRIVING PULLEY.			CAPACITY.*		PRICE.
	Width.	Length.	Height.			Face.	Diam.	Speed.	Min.	Max.	
0	ft. 2	ft. 3	ft. 3	Square feet. 7.14	Square feet. 1.26	in. 4	in. 7	400	40	60	\$190 00
1	ft. 2	ft. 4	ft. 3	Square feet. 8.88	Square feet. 1.58	ft. 4	in. 7	400	60	90	200 00
2	ft. 2	ft. 4	ft. 3	Square feet. 10.64	Square feet. 1.89	ft. 4	in. 7	400	80	125	225 00
3	ft. 2	ft. 5	ft. 3	Square feet. 15.73	Square feet. 3.14	ft. 4	in. 10	350	125	200	260 00
4	ft. 2	ft. 6	ft. 3	Square feet. 18.87	Square feet. 3.76	ft. 4	in. 10	350	175	300	300 00
5	ft. 3	ft. 6	ft. 4	Square feet. 22.84	Square feet. 4.52	ft. 5	in. 12	300	250	350	350 00
6	ft. 3	ft. 7	ft. 4	Square feet. 27.59	Square feet. 5.46	ft. 5	in. 12	300	350	500	450 00
7	ft. 3	ft. 7	ft. 5	Square feet. 33.04	Square feet. 7.28	ft. 6	in. 14	250	450	600	550 00
8	ft. 3	ft. 8	ft. 5	Square feet. 38.74	Square feet. 8.53	ft. 6	in. 14	250	550	800	650 00

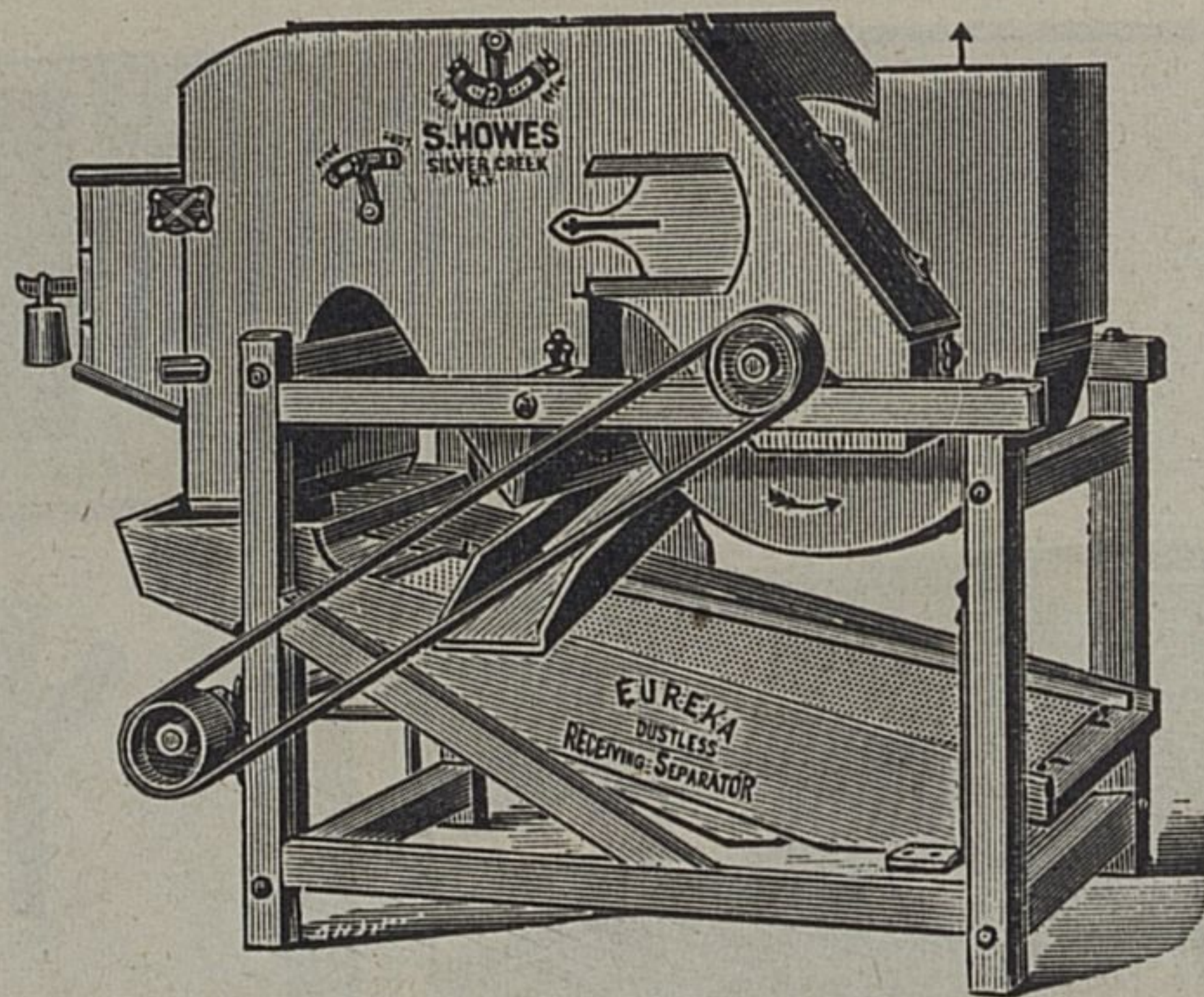
NOTE.—The minimum capacity, as given in the above table, is guaranteed. The maximum capacity can be attained under favorable conditions.



THE RICHMOND EMPIRE RECEIVING SEPARATOR.
 DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Grain Enters.		Height from Floor to Center of Pulley.		SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	PRICE.			
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.						
00	5	3	4	0	6	0	3	8	X	3	2	5	1	4	1	8	5	700	100	\$125 00
0	5	4	4	0	6	6	4	2	X	3	2	5	2	4	1	9	6	700	150	150 00
1	5	4	4	6	6	6	4	2	X	3	8	5	2	4	1	9	6	700	300	175 00
2	5	11	5	0	6	11	4	3	X	4	2	5	6	4	3	10	6	600	600	200 00
3	6	1	5	6	7	5	4	7	X	4	7	5	6	4	4	10	6	600	1000	250 00
4	6	7	6	0	8	4	5	4	X	5	2	5	11	4	10	12	6	600	1500	300 00
5	6	11	6	7	9	2	5	9	X	5	8	6	5	5	0	12	6	600	2000	350 00
6	6	11	7	1	9	2	5	9	X	6	2	6	5	5	0	14	6	600	2500	400 00
7	7	4	7	2	10	3	6	3	X	6	9	6	10	6	2	14	6	600	3000	450 00

The fan shaft is long enough to be pushed through, and the driving pulley placed on the opposite end, if it should be so desired.



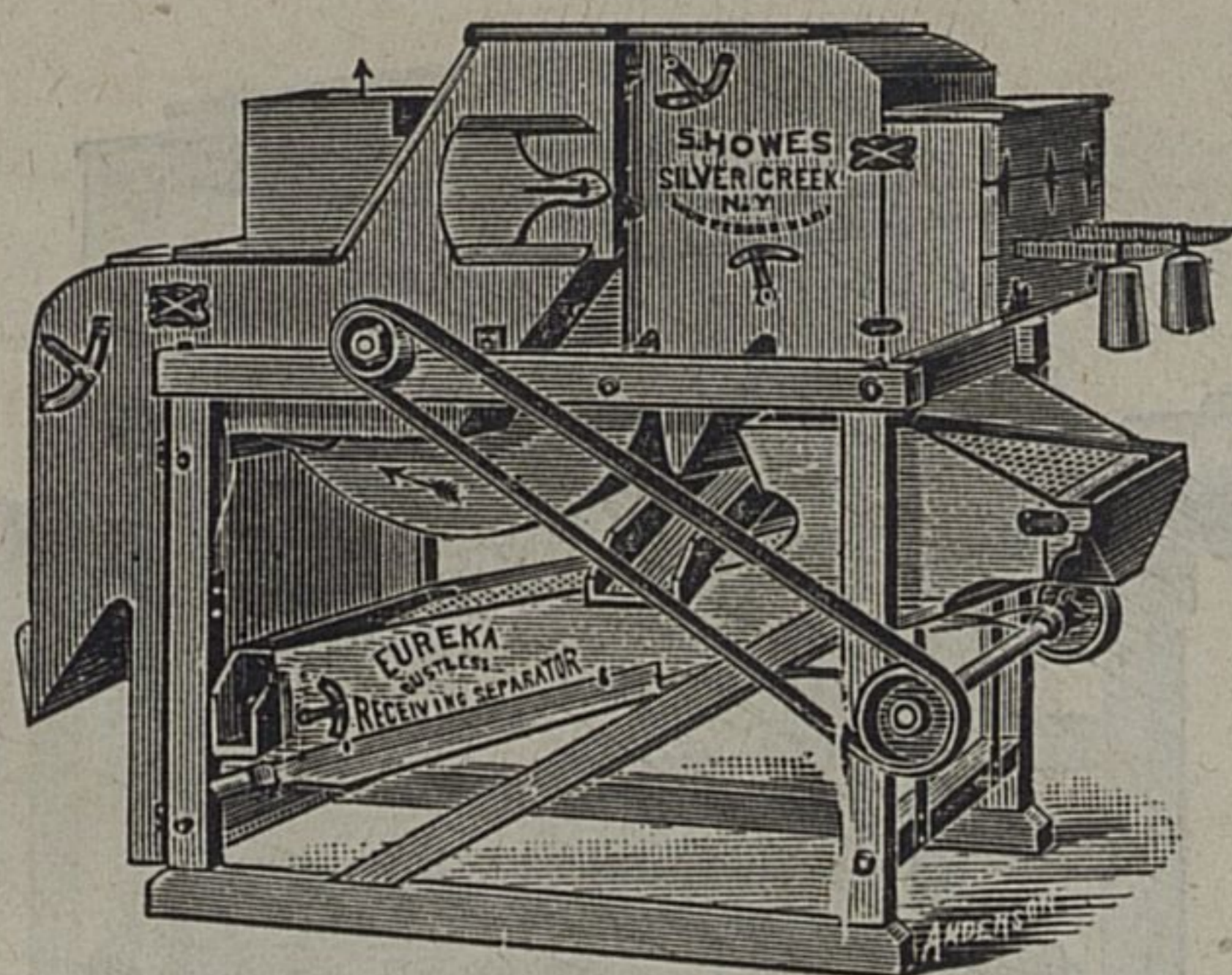
THE EUREKA SINGLE RECEIVING SEPARATOR.

SIZES, CAPACITIES, DIMENSIONS AND PRICES.

Number.	Extreme Height.		Extreme Length.		Extreme Width.		Size on Floor.		Motion of Shaker.	Motion of Fan.	Height to where Grain enters.		Height to Center Drive Pulley.	Size of Drive Pulley.	Diam. of Shaft at ends for Pulley.	Capacity per hour in Bushels.				Ship'g Weight.	PRICE.			
	ft.	in.	ft.	in.	ft.	in.	ft.	in.			ft.	in.				in.	in.	Coarse.	Medium.			Fine.	Barley.	lbs.
0	4	2	4	8	3	3	2	6 x 3	6	550	500	3	7	1	0	6x4 $\frac{1}{2}$	1	7.16	75	35	20	35	400	\$100
1	5	2	6	2	3	6	2	11 x 3	11	550	500	4	5	1	4	7x4 $\frac{1}{2}$	1	11.16	150	75	50	75	600	125
2	5	6	7	2	4	4	3	6 x 4	6	550	500	4	8	1	3	8x4 $\frac{1}{2}$	1	11.16	300	150	100	150	900	150
3	6	5	8	2	4	9	3	9 x 5	4	550	500	5	3	1	7 $\frac{1}{2}$	9x4 $\frac{1}{2}$	1	11.16	600	300	200	300	1200	175
4	6	5	8	2	5	6	4	6 x 5	4	550	500	5	3	1	7 $\frac{1}{2}$	10x5 $\frac{1}{2}$	1	11.16	1000	500	350	500	1450	225
5	6	9	8	6	6	0	5	0 x 5	8	550	500	5	8	1	9	11x5 $\frac{1}{2}$	1	11.16	1500	750	450	700	1800	275
6	6	10	8	6	6	6	5	6 x 5	9	550	500	5	8	1	9	12x5 $\frac{1}{2}$	1	11.16	2000	1000	600	850	2100	325
7	7	0	8	8	7	0	5	11 x 6	0	550	500	6	0	1	10	14x6 $\frac{1}{2}$	1	15.16	2400	1200	800	1000	2300	425

The capacities given in the table are for wheat where ordinary elevator cleaning is to be done, and for this purpose coarse screens are used. If finer and better work is required, screens with finer perforations will be necessary, and this will, necessarily, proportionately reduce the rated capacity. When oats and barley are to be cleaned, the capacities are reduced from one-third to one-half, this reduction in capacity depending upon the condition and quality of the grain and the character of the work required.

The direction of fan discharge may be changed to suit location, but, ordinarily, the direction as shown in cut will meet requirements, and unless otherwise instructed the fan discharge will be so arranged. The machine may be driven either from the fan shaft or from the shaker shaft, as may be most convenient for the purchaser, but as steadiness of motion may be more easily secured if it is driven from the shaker shaft, we always arrange it that way unless otherwise directed. Two sets of screens, of such fineness of perforation as the purchaser may desire, are supplied with each machine.



THE EUREKA DOUBLE RECEIVING SEPARATOR.

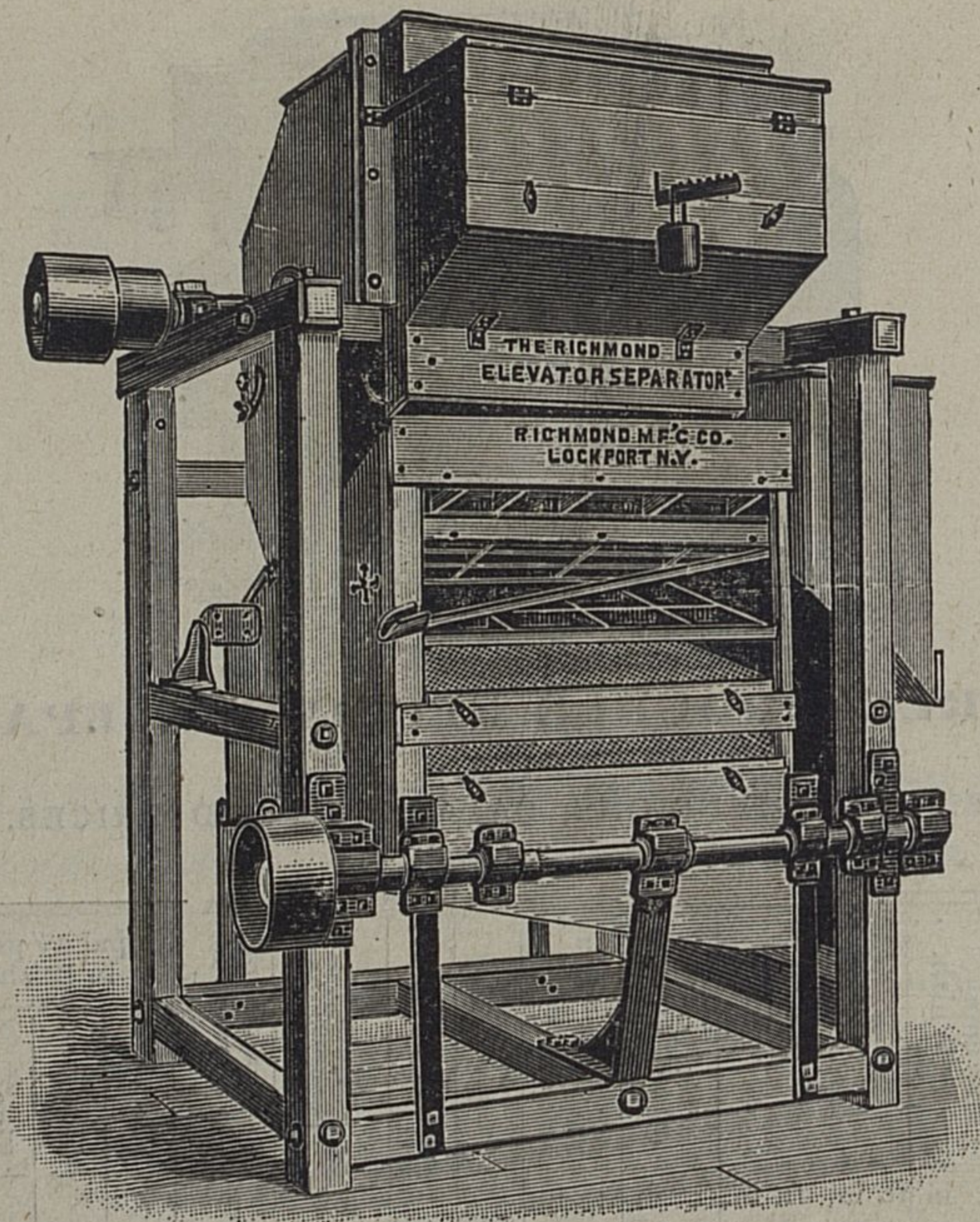
SIZES, DIMENSIONS, CAPACITIES AND PRICES.

Number.	Extreme Height.	Extreme Length.	Extreme Width.	Size on Floor.		Height to Center Pulley.	Height to where Grain enters.	Motion of Shaker.	Motion of Fan.	Pulley Dimensions.	Diameter of Shaft at ends for Pulley.	Capacity per hour in Bushels.				Shipping Wt.	PRICE.
												Coarse.	Medium.	Fine.	Barley.		
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.			in.	in.				lbs.		
1	5 3	6 10	3 8	2 11	4 6	1 6	4 10	550	700	7x4½	1 7-16	150	75	50	75	875	\$150
2	5 9	7 6	4 6	3 8	5 1	1 8	5 4	550	700	8x4½	1 11-16	300	150	100	150	1050	175
3	6 5	8 3	5 1	4 2	5 8	1 10½	5 10	550	700	9x5½	1 11-16	600	300	200	300	1500	200
4	6 5	8 3	5 8	4 10	5 8	1 10½	5 10	550	700	10x5½	1 11-16	1000	500	350	500	1750	250
5	6 10	8 10	6 1	5 3	6 1	1 10½	6 3	550	600	12x5½	1 11-16	1500	750	450	700	2250	300
6	7 0	8 10	6 6	5 8	6 1	1 10½	6 3	550	600	12x6½	1 11-16	2000	1000	600	850	2500	350
7	7 6	9 6	7 0	6 1	6 4	1 10½	6 6	550	600	14x6½	1 15-16	2400	1200	800	1000	2850	450

With this machine we supply two sets of screens of such fineness of perforation as the purchaser may desire, a cockle screen, which, like the wheat screen, is interchangeable. The arrangement for feeding is, as in our regular warehouse separator, automatic, and we strongly recommend the machine as being economical in cost and efficient in operation.

The direction of fan discharge may be changed to suit location, but ordinarily the direction as shown in cut will meet requirements, and unless otherwise instructed the fan discharge will be so arranged. The machine may be driven either from the fan shaft or from the shaker shaft, as may be most convenient for the purchaser, but as steadiness of motion may be more easily secured if it is driven from the shaker shaft, we always arrange it that way unless otherwise directed.

The capacities given in the table are for wheat where ordinary elevator cleaning is to be done, and for this purpose coarse screens are used. If finer and closer work is required, screens with finer perforations will be necessary, and this will, necessarily, proportionately reduce the rated capacity. When oats and barley are to be cleaned, the capacities are reduced from one-third to one-half, this reduction in capacity depending upon the condition and quality of the grain and the character of the work required.



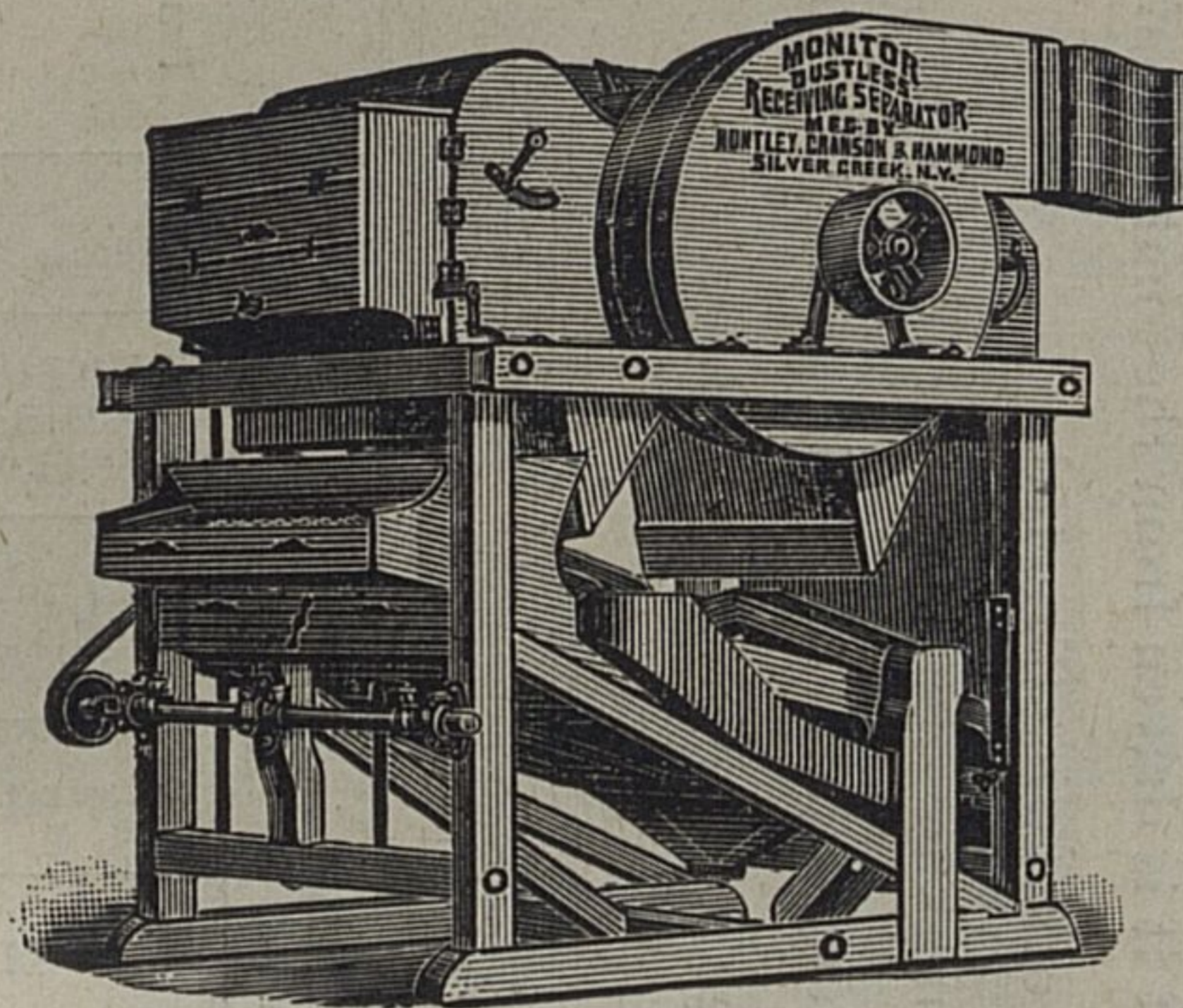
THE RICHMOND ELEVATOR SEPARATOR.

DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Grain enters.		Height from Floor to Center of Pulley.		SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.				PRICE.	
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.		Coarse Sieves.	Medium Sieves.	Fine Sieves.	Sieves for Barley.		
0	7	1	6	0	5	4	3	10 x 4	2	6	8	5	6	9	6	500	300	175	100	150	\$200
1	7	1	6	6	5	4	4	4 x 4	2	6	8	5	6	9	6	500	450	275	175	225	225
2	7	6	7	2	6	0	4	9 x 5	2	6	9	5	10	10	6	500	700	400	250	300	275
3	8	1	7	6	6	10	5	0 x 6	0	7	1	6	2	10	6	500	1000	600	350	450	350
4	8	2	8	4	7	10	5	6 x 7	0	7	5	6	5	12	6	500	1500	800	450	600	450
5	8	4	8	10	8	9	6	0 x 8	0	7	8	6	6	12	6	500	2000	1000	600	800	550
6	9	3	9	8	9	0	6	7 x 8	0	8	8	7	1	14	6	500	2500	1250	700	900	675
7	9	3	10	2	9	0	7	2 x 8	0	8	8	7	1	14	6	500	3000	1500	800	1000	700

The fan shaft is long enough to be pushed through, and the driving pulley placed on the opposite side, if it should be so desired.

When ordering an elevator separator, note the different capacities of the machines, as given upon coarse, medium and fine sieves, and select the sieves suitable for the amount and quality of work you want to do.



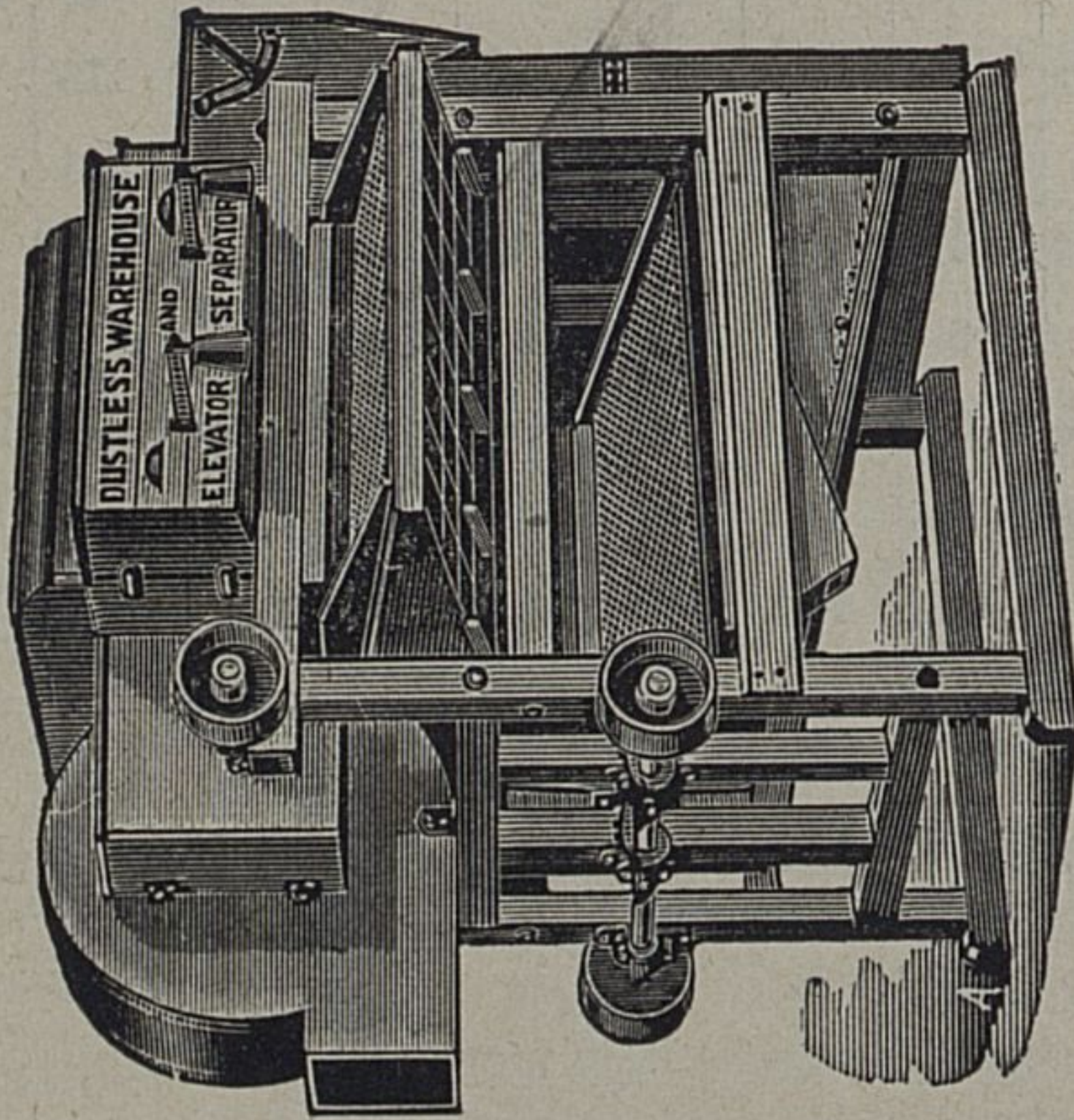
MONITOR WAREHOUSE AND MONITOR RECEIVING SEPARATORS.

TABLE OF DIMENSIONS, CAPACITIES, PRICES, ETC.

Number.	Extreme Height.	Extreme Width.	Extreme Length.	Width on Floor.	Length on Floor.	Height to where Grain enters.	Height to Center of Pulley.	Diameter Pulley.	Face of Pulley.	Motion per Minute.	Capacity per hour in Bushels.			PRICE.
											Fine Screens.	Medium Screens.	Coarse Screens.	
1	4 2 ³ / ₄	3 8	5 3	2 5	4 7	4 10	3 11 ¹ / ₄	7	5	600	50	75	100	\$125
2	6 1 ¹ / ₄	4 4 ¹ / ₂	5 10 ¹ / ₂	3 1 ¹ / ₄	5 3	5 4 ¹ / ₂	4 6 ¹ / ₄	7	5	600	80	100	175	150
3	6 6 ¹ / ₂	5 0	6 4	3 7	5 9	5 9	4 11	8	5	600	150	200	300	175
4	7 1 ¹ / ₂	5 7	6 11	4 2 ¹ / ₂	6 3 ¹ / ₂	6 1 ¹ / ₄	5 3 ¹ / ₂	10	5	600	300	400	600	200
5	7 7	6 3	7 3	4 8	6 8	6 8	5 8	12	5	550	500	800	1000	250
6	8 0	6 9	8 0	5 2	7 4 ¹ / ₂	6 11 ¹ / ₂	6 0	12	6	500	700	1000	1400	350
7	8 5 ¹ / ₂	7 4	8 8	5 6	7 10 ¹ / ₂	6 11 ¹ / ₂	6 4 ¹ / ₂	14	6	500	900	1400	2000	450
8	9 9	7 11	10 2	6 1	9 3	8 8	7 3 ³ / ₄	16	7	500	1200	2000	2500	525

NOTE.—The fan shaft is extended so that it can be driven from either side of the machine.

THE EUREKA WAREHOUSE AND ELEVATOR SEPARATOR.

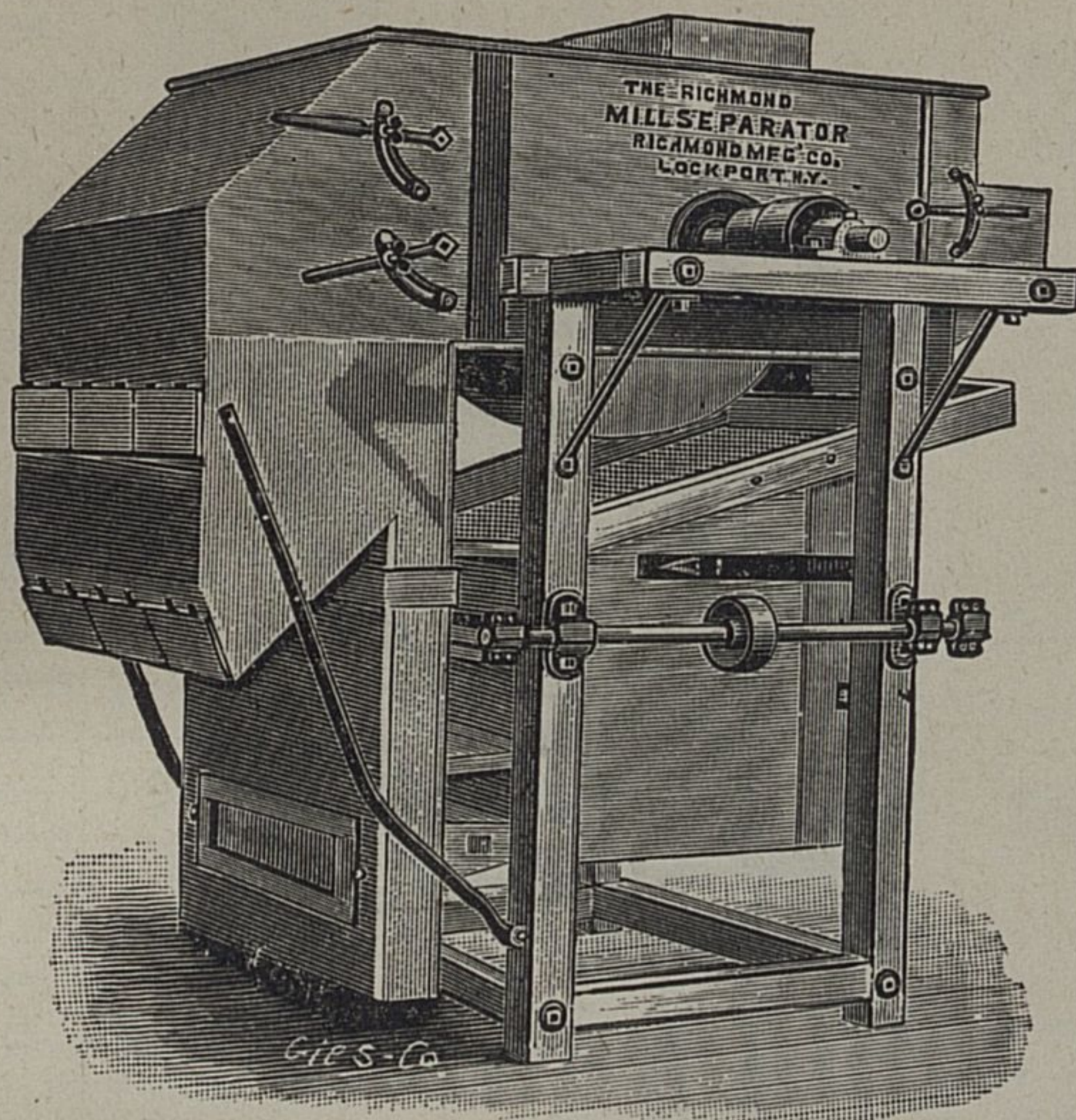


The machine may be driven either from the fan shaft or from the shaker shaft, as may be most convenient for the purchaser, but as steadiness of motion may be more easily secured if it is driven from the shaker shaft, we always arrange it in that way unless otherwise directed.

The direction of fan discharge may be changed to suit location, but, ordinarily, the direction as shown in cut will meet requirements, and unless otherwise instructed the fan discharge will be so arranged.

SIZES, DIMENSIONS, CAPACITIES AND PRICES.

Number.	Extreme Height.		Extreme Length.		Extreme Width.		Size on Floor.		Height to Center Drive Pulley.	Height to where Wheat enters.	Motion per Min. Shaker Shaft.	Motion per Min. Fan Shaft.	Pulley Dimensions, in inches.	Capacity per Hour in Bushels.				Height to Center of Fan Shaft.	Diameter of Shaft at ends for Pulleys.	Shipping Weight.	PRICE.	
	ft.	in.	ft.	in.	ft.	in.	ft.	in.						Coarse.	Medium.	Fine.	Barley.					ft.	in.	lbs.
1	6	6	2	10	3	9	2	10	2	9	550	600	8 x 4 1/2	140	80	50	80	5	1	1	1100	\$175 00
2	7	1	3	8	3	3	3	8	2	11	550	600	8 x 4 1/2	250	140	80	140	5	5	1	1300	200 00
3	7	5	3	7	3	4	3	7	3	1 1/2	550	600	9 x 5 1/2	400	250	150	250	5	8	1	1550	225 00
4	7	4	4	0	0	6	0	0	3	4 1/2	550	600	10 x 5 1/2	600	375	225	375	6	8 1/2	1	1800	275 00
5	8	4	4	6	0	5	0	5	3	5 1/2	550	600	11 x 5 1/2	850	500	300	500	6	5 1/2	1	2100	325 00
6	9	0	5	0	0	5	3	1	3	6	550	600	12 x 5 1/2	1100	600	350	600	7	9	1	2800	375 00
7	9	6	5	2	7	7	0	7	3	9	550	600	14 x 6 1/2	1500	800	450	700	7	5	1	3800	475 00
8	10	1	5	7	7	7	3	1	4	0	550	600	16 x 6 1/2	2000	1000	600	800	7	10 1/2	1	4300	575 00

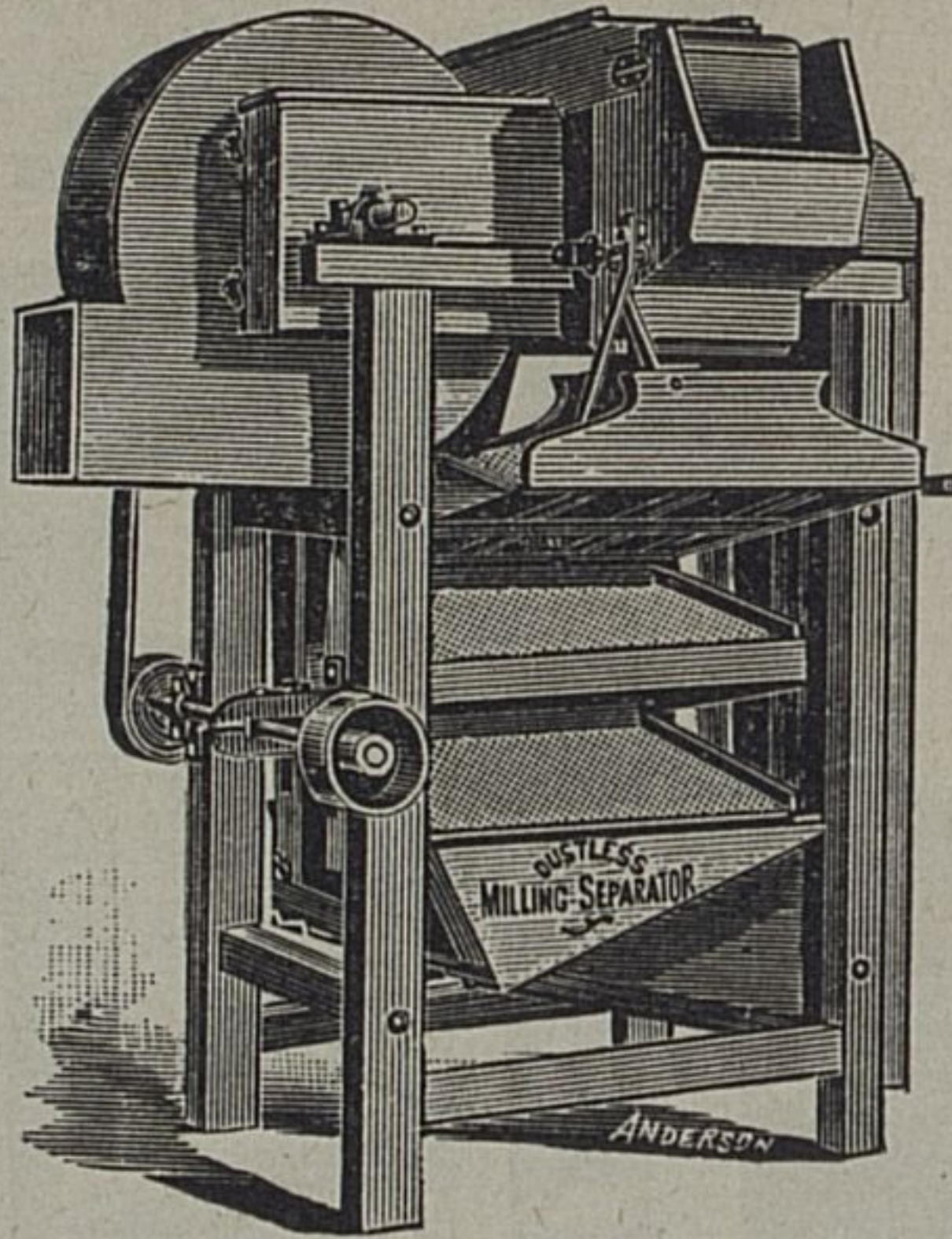


THE RICHMOND IMPROVED MILL SEPARATOR.

DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.	Extreme Width.	Extreme Length.	Space on Floor.		Height where Grain enters.	Height from Floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	PRICE.
				ft.	in.			ft.	in.				Diam.	Face.
00	5 8	4 1	5 0	3 8	x 2 2	4 10	4 3	7	5	700	20 to 30	\$140 00
0	6 3	5 1	5 6	3 9	x 2 2	5 4	4 9	7	5	700	30 to 40	150 00
1	6 5	5 1	6 1	3 9	x 2 8	5 5	4 10	7	5	650	50 to 70	175 00
2	7 2	5 7	6 3	4 3	x 2 8	5 8	5 4	8	5	600	75 to 100	200 00
3	7 4	5 7	6 8	4 4	x 3 2	5 8	5 6	8	5	600	100 to 125	225 00
4	7 8	6 4	7 3	4 10	x 3 2	6 7	5 9	10	5	600	125 to 150	300 00
5	7 8	6 10	7 3	5 4	x 3 2	6 7	5 10	10	5	600	150 to 200	400 00
6	8 1	7 11	7 7	6 5	x 3 2	7 1	6 0	12	6	600	200 to 250	500 00

The fan shaft is long enough to be pushed through, and the driving pulley placed upon the opposite side, if it should be so desired.

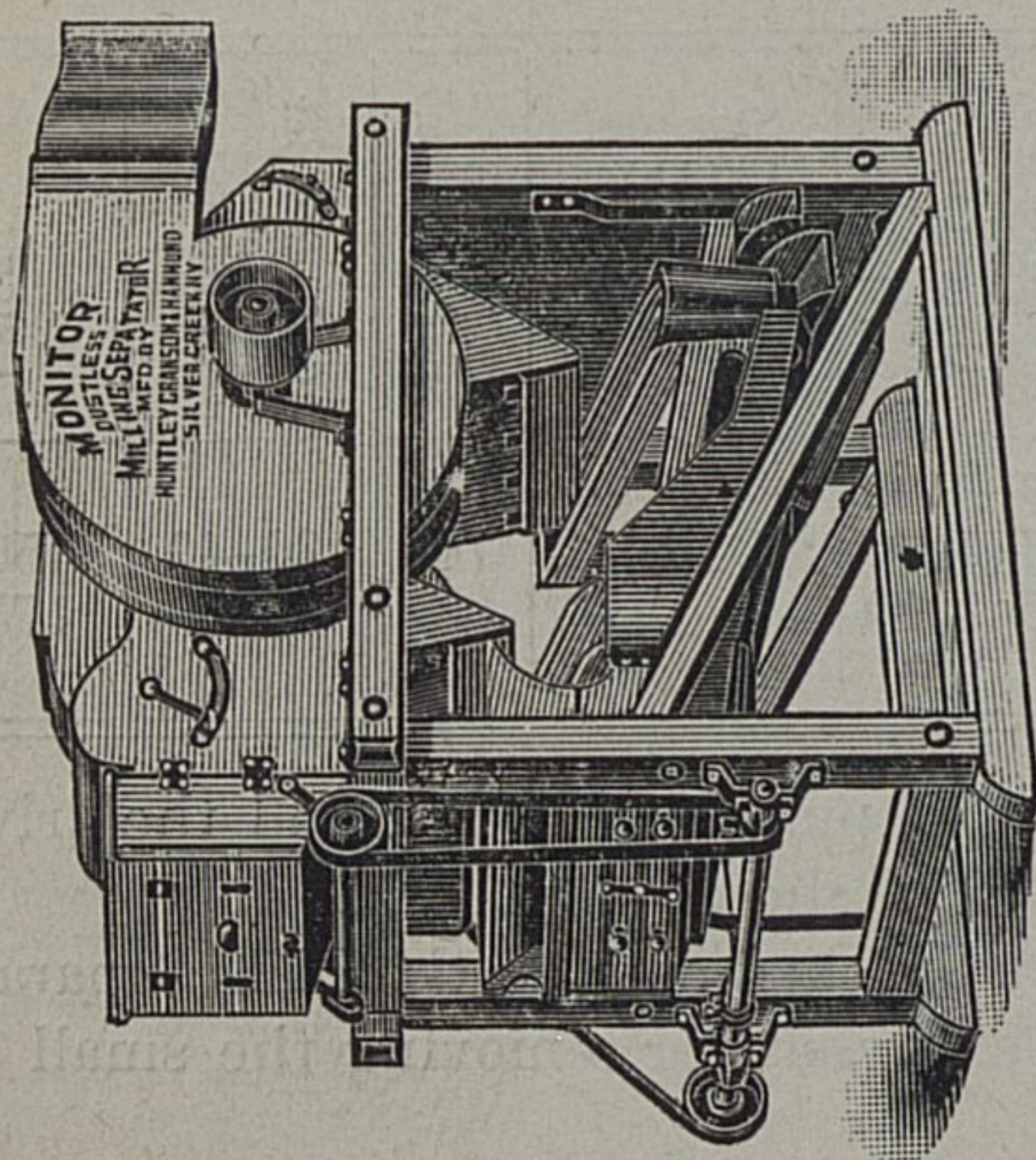


THE EUREKA DUSTLESS MILLING SEPARATOR.

SIZES, DIMENSIONS, CAPACITIES AND PRICES.

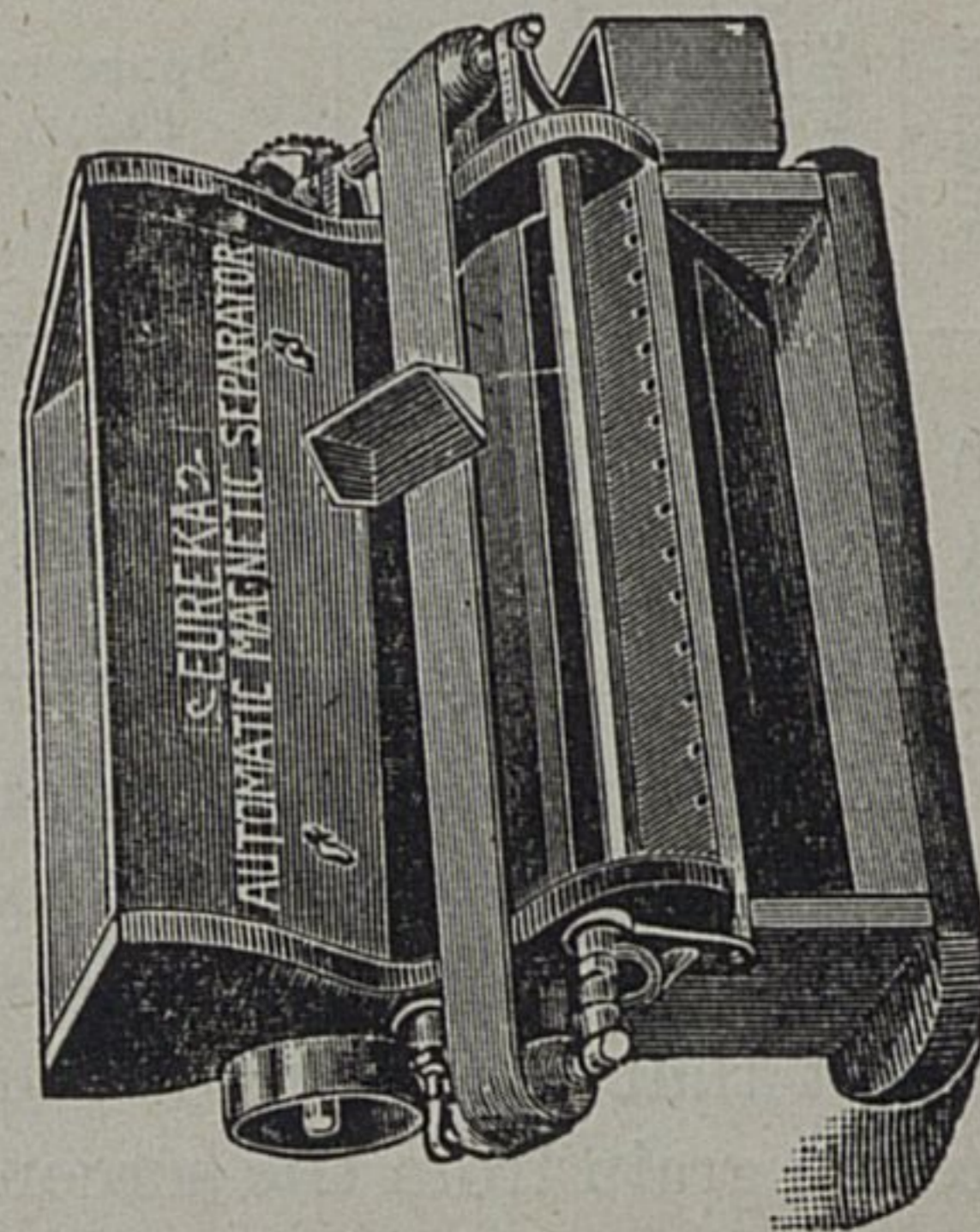
Number.	Extreme Height.		Extreme Length.		Extreme Width.		Size on Floor.		Height to Center Drive Pulley.	Height to where Wheat enters.	Motion per Min. Shaker Shaft.	Motion per Min. Fan Shaft.	Pulley Dimensions, in inches.	Diameter of Shaft at ends for Pulleys	Capacity per Hour in Bushels.	Shipping Wt. lbs.	PRICE.				
	ft.	in.	ft.	in.	ft.	in.	ft.	in.													
1	5	10½	4	10	4	7	2	5 x 3	2	2	6½	5	0	500	700	7 x 5	1	7-16	20-30	700	\$140
1½	6	4½	5	4	4	11	2	7 x 3	6	2	8¾	5	4½	500	675	8 x 5	1	11-16	30-45	950	160
2	6	9½	5	8	5	2	2	10 x 3	10	2	11	5	8	500	690	9 x 5	1	11-16	50-65	1050	175
2½	6	11	6	1	5	7	3	0 x 4	0	3	0	5	11	500	690	9 x 5	1	11-16	70-90	1175	185
3	7	4	6	4	5	10	3	0 x 4	3	3	3	6	3	500	690	9 x 5	1	11-16	100-140	1250	200
4	7	9	6	6	6	2	3	3 x 4	4	3	6	6	8½	500	690	9 x 6	1	11-16	150-200	1400	250
5	9	0	7	0	7	2	4	0 x 5	0	3	4½	7	8	500	700	10 x 7	1	11-16	200-250	1925	300

THE MONITOR DUSTLESS MILLING SEPARATOR.



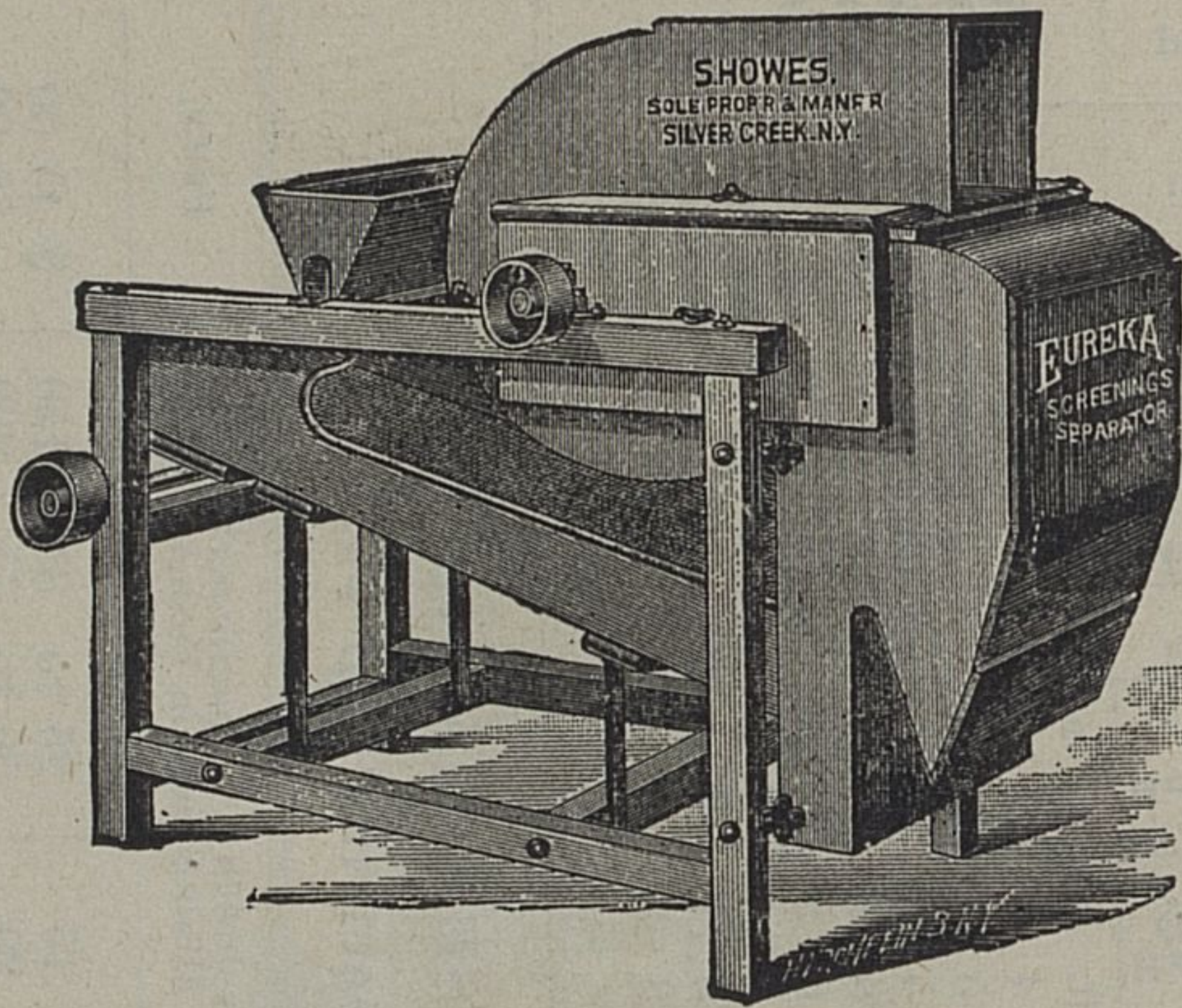
Number.	Extreme Height.	Extreme Width.	Extreme Length.	Width on Floor.	Length on Floor.	Height to where Grain enters.	Height to Center of Pulley.	Diameter of Pulley.	Face of Pulley.	Motion per Minute.	Capacity per Hour in Bushels.	Price.
1	4 2 $\frac{3}{4}$	3 8	4 11 $\frac{1}{2}$	2 5	4 7	4 10	3 11 $\frac{1}{4}$	7	5	600	10-40	\$125
2	6 1 $\frac{1}{4}$	4 4 $\frac{1}{2}$	5 7	3 1 $\frac{1}{4}$	5 3	5 4 $\frac{1}{2}$	4 6 $\frac{1}{4}$	7	5	600	30-75	150
3	6 6 $\frac{1}{2}$	5 0	6 2 $\frac{1}{2}$	3 7	5 9	5 9	4 11	8	5	600	60-120	175
4	7 7 $\frac{1}{2}$	5 7	6 8	4 2 $\frac{1}{2}$	6 3 $\frac{1}{2}$	6 1 $\frac{1}{4}$	5 3 $\frac{1}{2}$	10	5	600	100-200	200
5	7 7	6 3	7 1 $\frac{1}{2}$	4 8	6 8	6 8	5 8	12	6	500	150-300	250
6	8 0	6 9	7 9 $\frac{1}{2}$	5 2	7 4 $\frac{1}{4}$	6 11 $\frac{1}{2}$	6 0	12	6	500	200-400	...
7	8 5 $\frac{1}{2}$	7 4	8 4	5 6	7 10 $\frac{1}{2}$	6 11 $\frac{1}{2}$	6 4 $\frac{1}{2}$	14	6	500	250-500	...
8	9 9	7 11	10 0	6 1	9 3	8 8	7 3 $\frac{3}{4}$	16	7	500	400-800	...

THE EUREKA AUTOMATIC MAGNETIC SEPARATOR.



SIZES, DIMENSIONS, CAPACITIES AND PRICES.

No.	Space occupied by Machine in inches.	Size of Pulley in inches.	Revolution per Minute.	Capacity per hour in bushels.	Gross Weight in lbs.	Price.
0	30 x 17 x 26	6 x 2	15	25 to 35	150	\$ 45 00
1	36 x 17 x 26	6 x 2	20	50 to 75	200	55 00
2	42 x 17 x 26	6 x 2	25	100 to 125	250	65 00
3	53 x 17 x 26	6 x 2	30	150 to 200	300	85 00
4	65 x 17 x 26	6 x 2	25	200 to 300	400	125 00
5	75 x 17 x 26	6 x 2	25	250 to 300	500	180 00



THE EUREKA SCREENINGS SEPARATOR.

TABLE OF DIMENSIONS, ETC.

Entire length over all	5 feet 7 inches
Entire width over all.....	3 feet 7 inches
Entire height over all	4 feet 10 inches
From floor to where grain enters machine	4 feet
Size of drive pulley	6 inches by 4½ inches
Motion of shaker shaft	500 revolutions
Motion of fan shaft.....	600 revolutions
List price	\$125.00

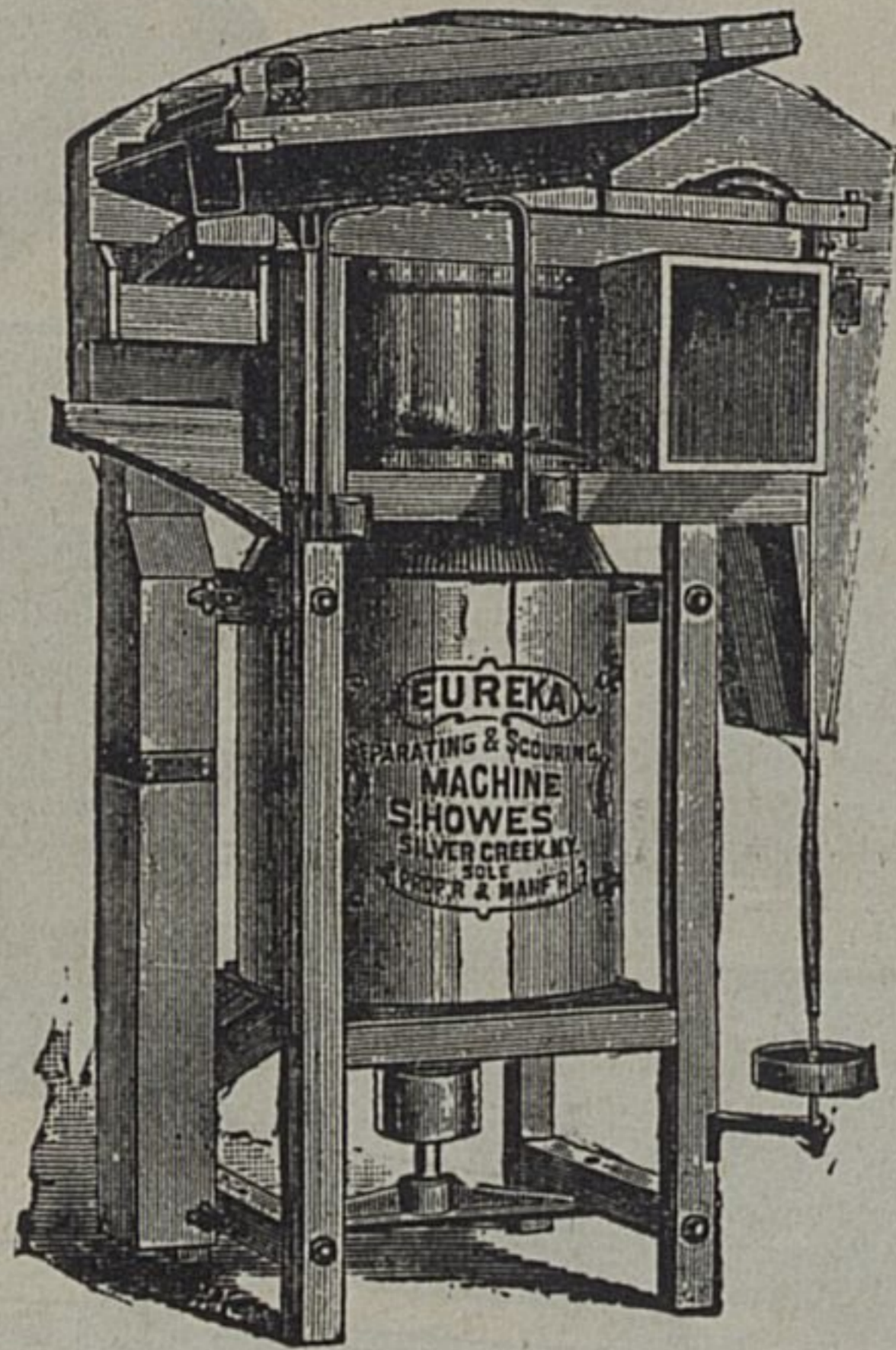
THE RICHMOND IMPROVED SCREENINGS SEPARATOR.

DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Grain enters.	Height from Floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	PRICE.			
	ft.	in.	ft.	in.	ft.	in.	ft.	in.			Diam.	Face.						
0	6	3	5	1	5	6	3	9 x 2	2	5	4	4	9	7	5	700	30-40	\$150 00
1	6	5	5	1	6	1	3	9 x 2	8	5	5	4	10	7	5	650	50-70	175 00

The fan shaft is long enough to be pushed through, and the driving pulley placed upon the opposite side, if it should be so desired.

This machine is made substantially the same as the Mill Separator, except that the sieves are arranged expressly for removing the small and broken grain from the screenings.



THE EUREKA SMUT AND SEPARATING MACHINE.

SIZES, DIMENSIONS, CAPACITIES AND PRICES.

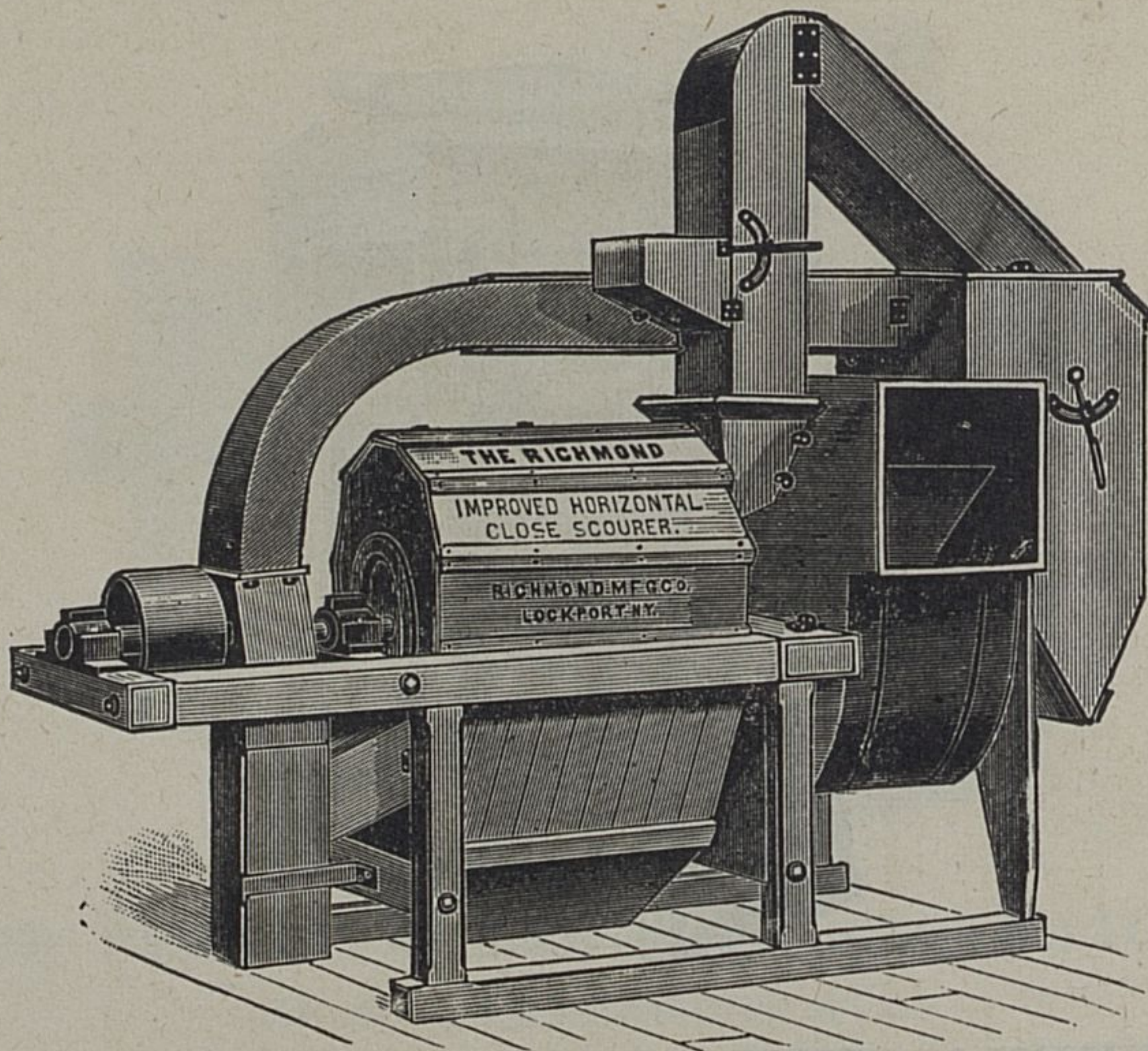
Number.	Extreme Height.		Extreme Length.		Extreme Width.		Size on Floor.		Height to where Grain Falls on Shoe.		Height to where Grain enters, no Shoe.		Motion per Minute.	Height to Center of Drive Pulley.		Size of Pulley in inches.	Diameter of Shafts at ends for Pulleys.	Capacity per Hour in Bushels.	Price, no Shoe with Double Separator.	Price, with Shoe and Double Separator.		
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.		ft.	in.							
0	5	5	4	3	3	4	2	3	2	3	5	2	4	0	700	1	0	6 x 4 1/2	1 7-16	10-15	\$115	\$125
1	6	2	4	7	3	5	2	3	2	3	5	11	5	0	700	1	0	7 x 4 1/2	1 11-16	20-30	130	140
1 1/2	6	9	5	0	3	8	2	6	2	6	6	8	5	6	650	1	0	10 x 5 1/2	1 15-16	30-45	155	165
2	7	0	5	6	4	0	2	9	2	9	6	10	5	9	625	1	2	10 x 5 1/2	1 15-16	50-65	175	199
2 1/2	7	2	6	0	4	4	2	11	2	11	7	2	5	11 1/2	600	1	2	12 x 6 1/2	2 3-16	70-90	215	240
3	8	0	6	6	4	9	3	1	3	1	8	0	6	1	550	1	2	12 x 6 1/2	2 3-16	100-140	240	285

When desired, we attach a shoe and shaker to the machine, which in a machine of small capacity, for custom mills, makes a very complete cleaner in itself. We advise ordering the shoe for the No. 2 1/2, and all smaller sizes, as we can attach it much better than it can be done in a mill. Very few machines of the sizes named are now ordered without the shoe, and where this is done, in nine cases out of ten, the shoe is very soon afterwards ordered.

Machines are built to drive from top or bottom, as desired, and screenings may discharge on same side as, or on opposite side from, the cleaned wheat.

In ordering machines please state ALL particulars—size or number of machine, and whether to run WITH OR AGAINST SUN.

The separating qualities are the same as those of the Upright or the Horizontal Eureka Scouring and Polishing Machine. The Shoe will in no case be attached to this machine unless expressly ordered. The table gives the price of the machine with and without shoe.



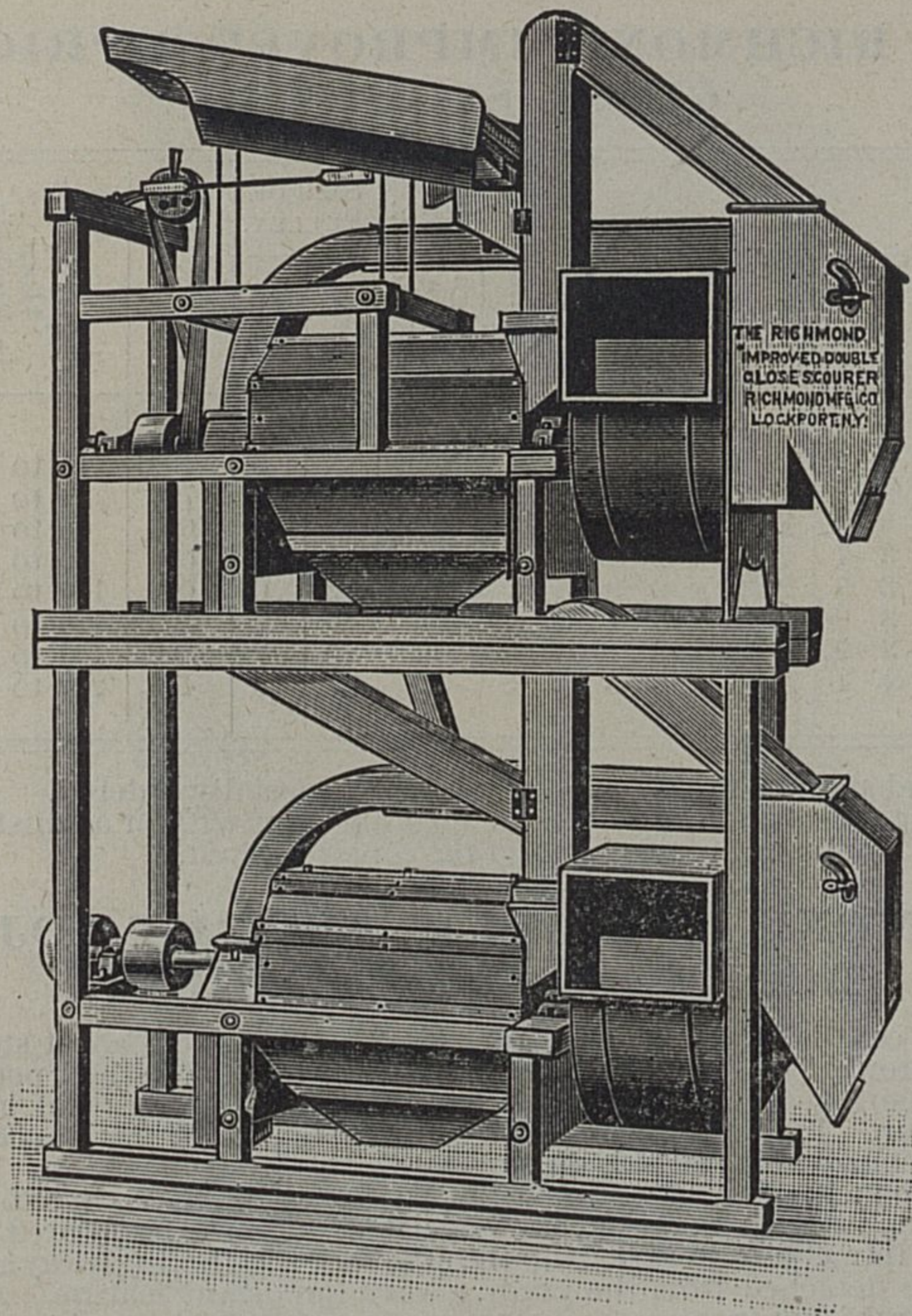
THE RICHMOND IMPROVED HORIZONTAL CLOSE SCOURER.
 DIMENSIONS, CAPACITY AND PRICE, WITH STATIONARY CASE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Grain enters, with Shoe.	Height where Grain enters, without Shoe.	Height from Floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.			
	ft.	in.	ft.	in.	ft.	in.	ft.	in.				Diam	Face.							
0	4	7	2	6	6	4	4	0x2 1	4	7	3	3	1	8	8	5	700	10 to 15	\$145	\$130
1	4	7	2	6	6	8	4	4x2 11	4	7	3	3	1	8	8	5	700	15 to 20	155	140
2	5	4	3	1	7	2	4	8x2 8	5	4	4	2	2	1	8	5	600	25 to 35	170	155
3	5	4	3	1	7	6	5	0x2 8	-----	4	2	2	1	8	5	600	40 to 60	-----	180	
4	6	6	3	6	8	2	5	4x3 0	-----	5	0	2	6	10	6	600	75 to 100	-----	200	
5	7	0	3	8	9	2	6	0x3 4	-----	5	6	2	8	11	6	600	100 to 125	-----	220	
6	7	0	3	8	9	8	6	6x3 4	-----	5	6	2	8	12	6	600	125 to 150	-----	275	
7	7	1	3	10	9	6	6	1x3 5	-----	5	6	2	9	16	7	500	150 to 200	-----	350	
8	7	1	3	10	10	0	6	7x3 5	-----	5	6	2	9	16	7	500	200 to 250	-----	425	

DIMENSIONS, CAPACITY AND PRICE, WITH REVOLVING CASE.

0	5	4	2	10	7	2	6	7x2 7	5	4	3	10	2	1	8	5	700	10 to 15	\$180	\$165
1	5	4	2	10	7	6	6	11x2 7	5	4	3	10	2	1	8	5	700	15 to 20	190	175
2	5	7	3	0	8	2	7	2x2 10	5	7	4	5	2	2	8	5	600	25 to 35	210	195
3	5	7	3	0	8	6	7	6x2 10	-----	4	5	2	2	8	5	600	40 to 60	-----	225	
4	6	7	3	8	9	1	8	1x3 8	-----	5	0	2	8	10	6	600	75 to 100	-----	275	
5	7	1	3	10	10	2	8	10x3 6	-----	5	5	2	11	11	6	600	100 to 125	-----	305	
6	7	1	3	10	10	8	9	4x3 6	-----	5	5	2	11	12	6	600	125 to 150	-----	340	
7	7	6	4	2	10	7	9	2x3 10	-----	5	10	2	11	16	7	500	150 to 200	-----	375	
8	7	6	4	2	11	1	9	8x3 10	-----	5	10	2	11	16	7	500	200 to 250	-----	450	

We do not send shoes with these machines unless specially ordered.
 When ordering, please state whether the machine is to run with or against the sun. In order to determine whether a horizontal machine runs with or against the sun, stand at the feed end of the machine and face the machine; if the machine runs over to your right, it runs with the sun; if to your left, it runs against the sun.



**THE RICHMOND
IMPROVED DOUBLE CLOSE SCOURER.**

DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Grain enters, with Shoe.	Height where Grain enters, without Shoe.	Height from Floor to Center of Lower Pulley	Height from Floor to Center of Upper Pulley	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.							
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.											
0	8	9	2	7	6	9	5	8	x	2	1	8	9	7	6	1	7	5	10	10	6	700	10-15	\$275	\$260
1	8	9	2	7	7	1	6	0	x	2	1	8	9	7	6	1	7	5	10	10	6	700	15-20	295	280
2	10	4	3	0	7	10	6	10	x	2	8	10	4	9	3	2	0	7	2	10	6	600	25-35	325	310
3	10	4	3	0	8	2	7	2	x	2	8	-----	9	3	2	0	7	2	10	6	600	40-60	----	360	

We do not send shoes with these machines unless specially ordered.

When ordering, please state whether the machine is to run with or against the sun. In order to determine whether a horizontal machine runs with or against the sun, stand at the feed end of the machine, and face the machine; if the machine runs over to your right, it runs with the sun; if to your left, it runs against the sun.

The above cut represents machines that run against the sun.

THE RICHMOND IMPROVED UPRIGHT CLOSE SCOURER.

Number.	Extreme Height.		Space over All.				Space on Floor.				Height where Grain enters.		Height from floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.		
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.		Diam.	Face.					in.	in.
1	6	6	5	2	x	2	9	2	1	x	2	1	5	8	11	8	5	700	15 to 20	\$150	\$135
2	6	10	5	2	x	2	9	2	1	x	2	1	6	0	11	8	5	700	25 to 35	160	145
3	7	4	5	10	x	3	3	2	8	x	2	8	6	0	12	10	6	650	40 to 60	-----	180
4	8	3	7	0	x	3	7	2	9	x	2	9	6	7	12	11	6	600	75 to 100	-----	200
5	8	7	7	0	x	3	7	2	9	x	2	9	7	1	12	12	6	600	100 to 125	-----	220
6	8	8	7	6	x	3	9	3	1	x	3	1	7	0	12	16	7	500	125 to 150	-----	275
7	9	2	7	6	x	3	9	3	1	x	3	1	7	6	12	16	7	500	150 to 200	-----	350
8	9	2	7	8	x	4	1	3	6	x	3	6	7	8	12	16	8	450	200 to 250	-----	425

We do not send shoes with these machines unless specially ordered.
When ordering, please state whether the machine runs with or against the sun.
This machine can be built to drive from the top, if desired.

THE RICHMOND IMPROVED UPRIGHT ADJUSTABLE SCOURER AND POLISHER.

The scouring case is made of alternate staves of perforated sheet steel and staves of indented chilled iron. The sheet steel staves, with elongated inclined perforations, are for the purpose of securing the greatest amount of scouring surface, and at the same time thorough ventilation. The indented chilled iron staves are for the purpose of ending the grain while on its course around the scouring case.

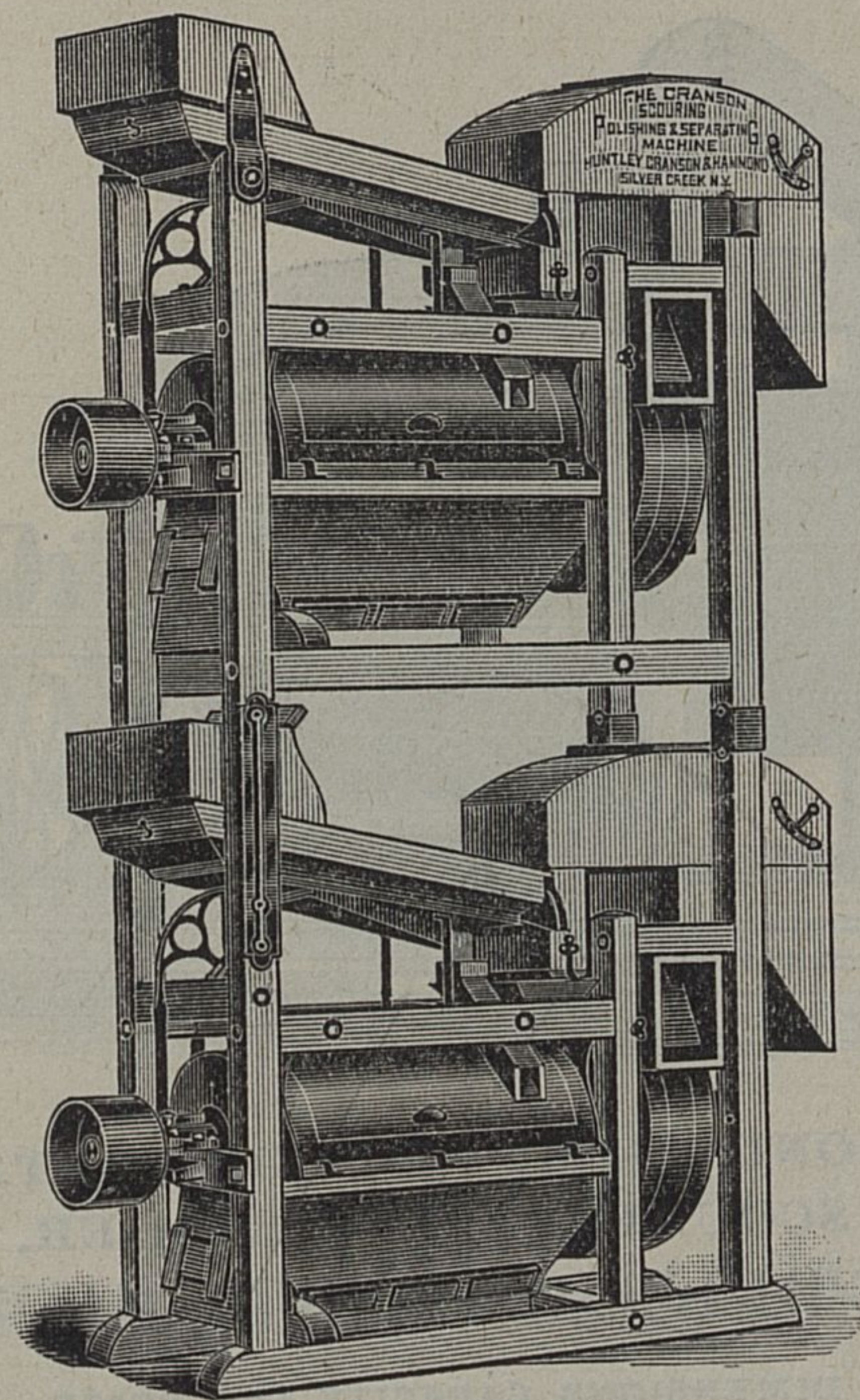
The scouring plates, when in motion, draw a strong current of air into the inside of the scouring case through the open bottom, and expel it through the perforated sheet steel staves, from whence it is immediately carried up into the fan, thus taking away all scourings, etc., as soon as they are detached from the grain, a very important feature. After leaving the scouring case, the grain falls into a second separating spout, which removes, in the usual manner, all impurities that still remain.

The scouring plates being adjustable, places the operation of the machine under the absolute control of the operator, as by means of the rod which projects through the bottom of the machine, the scouring plates can be adjusted to any desired distance from the scouring case, without opening the machine. One revolution of the rod will move the scouring plates one twenty-fourth part of an inch, in a perfectly even manner, to or from the scouring case, as may be desired.

Every bearing about this machine is in plain view, easily accessible, and can not be affected by the suction of the fan in any manner.

Number.	Extreme Height.		Space over All.				Space on Floor.				Height where Grain enters.		Height from floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.		
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.		Diam.	Face.					in.	in.
1	6	6	5	2	x	2	9	2	1	x	2	1	5	8	11	8	5	700	15 to 20	\$190	\$175
2	6	10	5	2	x	2	9	2	1	x	2	1	6	0	11	8	5	700	25 to 35	215	200
3	7	4	5	10	x	3	3	2	8	x	2	8	6	0	12	10	6	650	40 to 60	-----	250
4	8	3	7	0	x	3	7	2	9	x	2	9	6	7	12	11	6	600	75 to 100	-----	300
5	8	7	7	0	x	3	7	2	9	x	2	9	7	1	12	12	6	600	100 to 125	-----	350
6	8	8	7	6	x	3	9	3	1	x	3	1	7	0	12	16	7	500	125 to 150	-----	425
7	9	2	7	6	x	3	9	3	1	x	3	1	7	6	12	16	7	500	150 to 200	-----	500
8	9	2	7	8	x	4	1	3	6	x	3	6	7	8	12	16	8	450	200 to 250	-----	600

We do not send shoes with these machines unless specially ordered.
When ordering, please state whether the machine is to run with or against the sun.
This machine can be built to drive from the top, if desired.

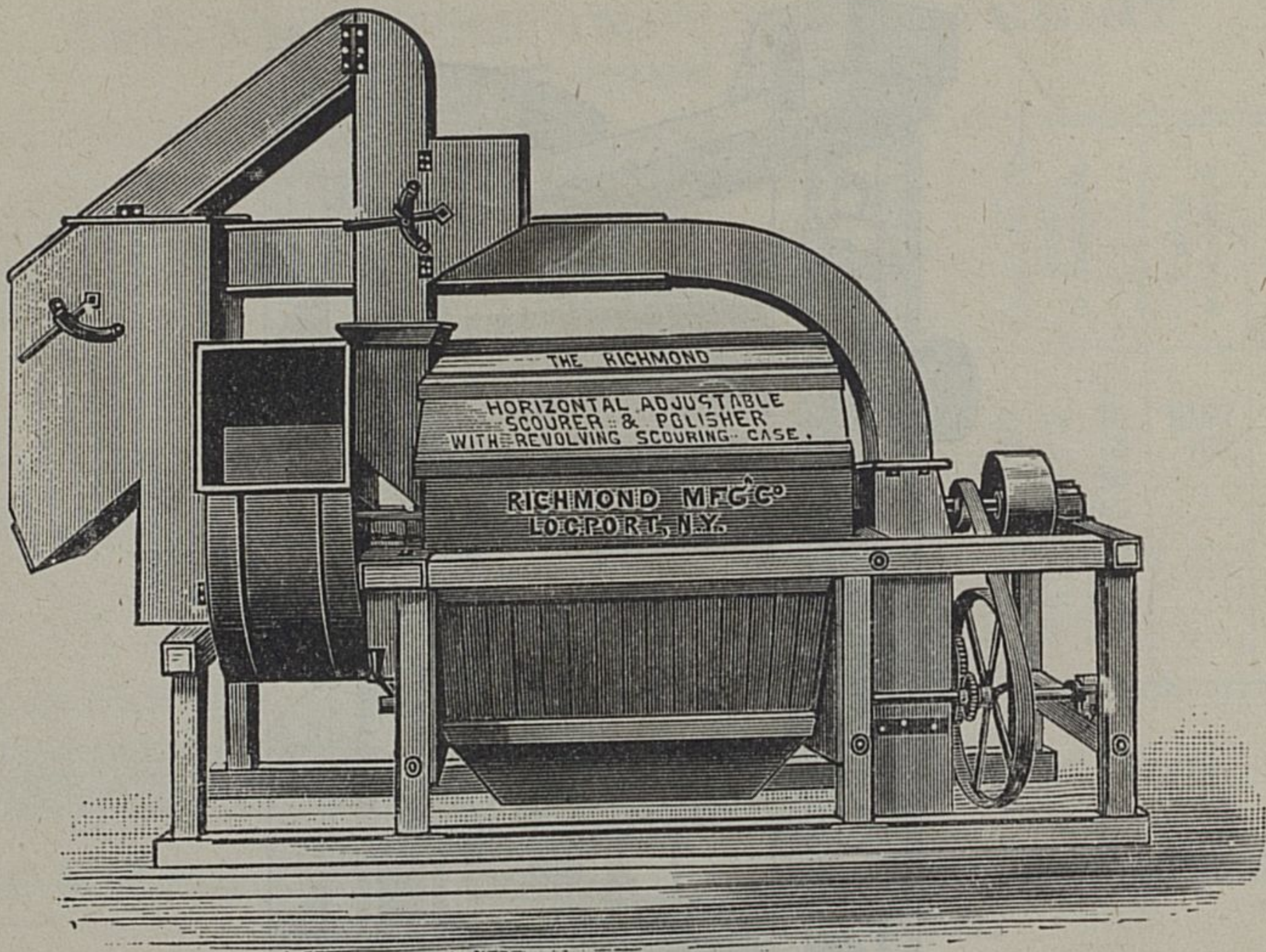


**THE CRANSON
SCOURING, POLISHING AND SEPARATING MACHINE**

TABLE OF DIMENSIONS, CAPACITIES, PRICES, ETC.

Number.	Extreme Height	Extreme Width.	Extreme Length.	Width on Floor.	Length on Floor.	Height where Grain enters.	Height to Center Upper Pulley.	Height to Center Lower Pulley.	Diameter of Pulleys.	Face of Pulleys.	Motion per Minute.	Capacity per Hour in Bushels.	Number of Cubic Feet.	Shipping Weight, boxed.	Price, with Shoe.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	in.	in.					
1	8 6½	2 1½	6 1	1 6½	4 9½	8 5	5 9½	1 5¼	9	6	750	6-15	112	1,000	\$250
2	9 1½	2 3½	6 10	1 8½	5 5½	9 1½	6 2¾	1 6¼	10	6	700	15-30	138	1,200	300
3	10 2	2 6½	7 5	2 ½	5 10½	10 2	6 11	1 9	12	7	650	30-50	194	1,800	400
4	10 7¼	2 7	7 8	2 2	6 0	10 6	7 2	1 9¾	14	7	600	50-65	238	2,200	500
4½	12 2¼	3 4½	8 9	2 3	7 1	12 2¼	8 3½	2 1¾	20	8	500	60-90	334	3,200	600
5	12 2¼	3 4½	8 9	2 3	7 1	12 2¼	8 3½	2 1¾	20	8	500	90-130	334	3,200	700
6	14 4	3 11	10 3	3 2	8 3	14 3	9 8¾	2 6½	24	8	450	130-200	410	5,400	800

This machine may be driven from above or below, and from either end. Fan discharge may be arranged to blow to left or right, as you face hopper end of machine.



**THE RICHMOND IMPROVED HORIZONTAL ADJUST-
ABLE SCOURER AND POLISHER, WITH
REVOLVING SCOURING CASE.**

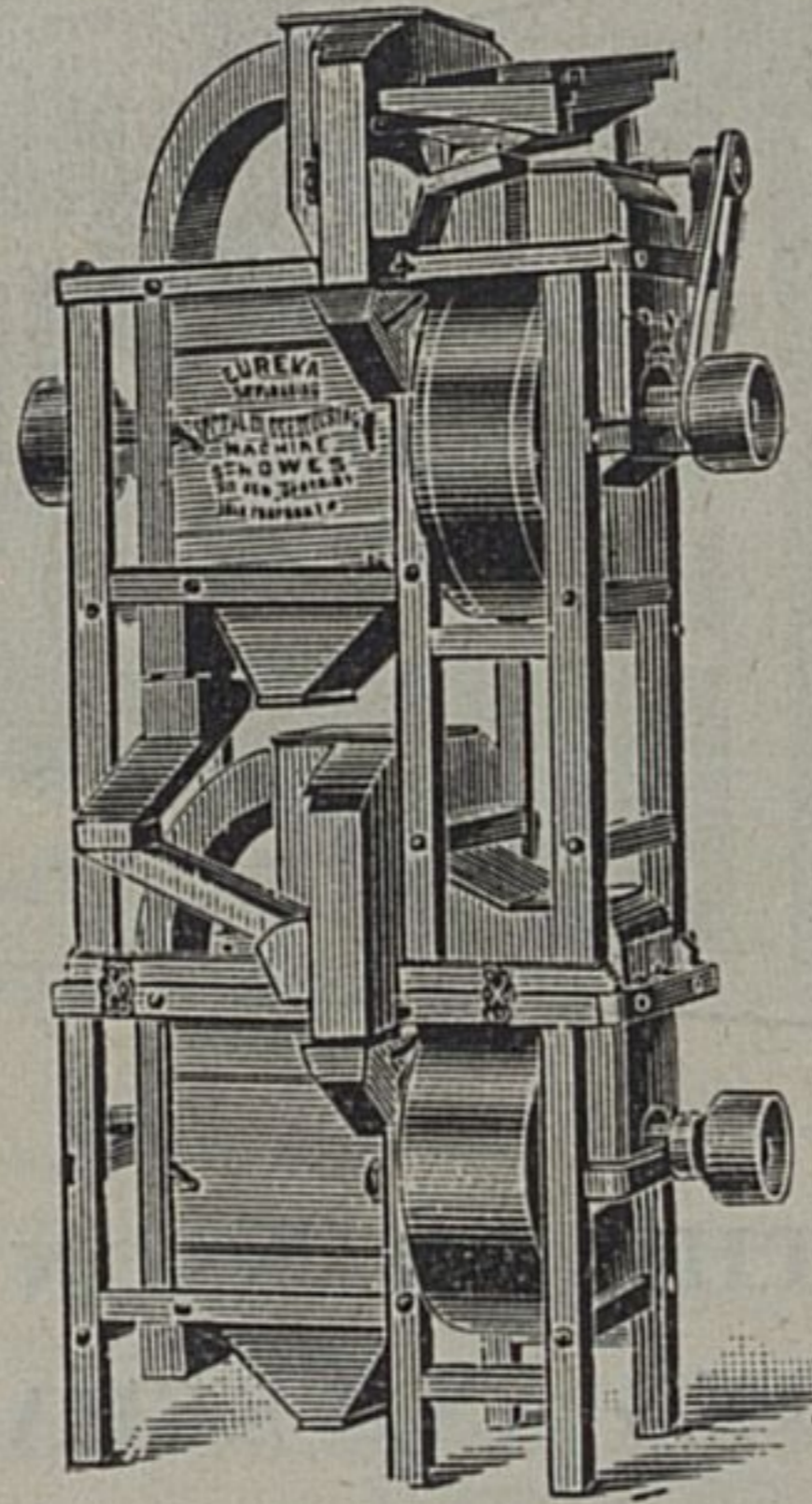
DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Grain enters, with Shoe.	Height where Grain enters, without Shoe.	Height from Floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.				
	ft.	in.	ft.	in.	ft.	in.	ft.	in.				Diam.	Face.								
0	5	4	2	10	7	2	6	7 x 2	7	5	4	3	10	2	1	8	5	700	10-15	\$215	\$200
1	5	4	2	10	7	6	6	11 x 2	7	5	4	3	10	2	1	8	5	700	15-20	240	225
2	5	7	3	0	8	2	7	2 x 2	10	5	7	4	5	2	2	8	5	600	25-35	265	250
3	5	7	3	0	8	6	7	6 x 2	10	-----	-----	4	5	2	2	8	5	600	40-60	-----	300
4	6	7	3	8	9	1	8	1 x 3	8	-----	-----	5	0	2	8	10	6	600	75-100	-----	350
5	7	1	3	10	10	2	8	10 x 3	6	-----	-----	5	5	2	11	11	6	600	100-125	-----	400
6	7	1	3	10	10	8	9	4 x 3	6	-----	-----	5	5	2	11	12	6	600	125-150	-----	450
7	7	6	4	2	10	7	9	2 x 3	10	-----	-----	5	10	2	11	16	7	500	150-200	-----	500
8	7	6	4	2	11	1	9	8 x 3	10	-----	-----	5	10	2	11	16	7	500	200-250	-----	600

We do not send shoes with these machines unless specially ordered.

When ordering, please state whether the machine is to run with or against the sun. In order to determine whether a horizontal machine runs with or against the sun, stand at the feed end of the machine and face the machine; if the machine runs over to your right, it runs with the sun; if to your left, it runs against the sun.

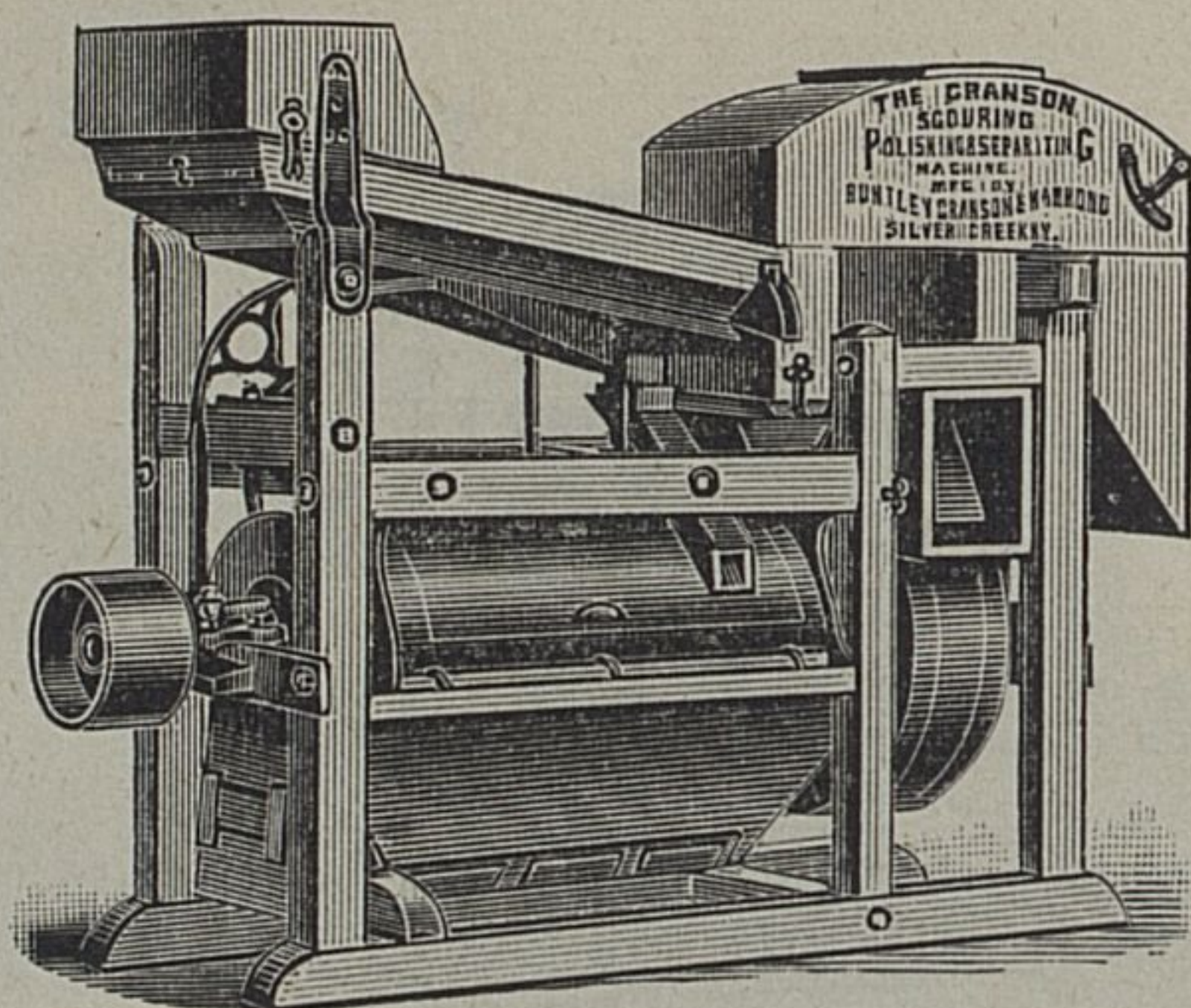
The above cut represents a machine that runs with the sun.



EUREKA TWO-HIGH HORIZONTAL SCOURER.

SIZES, DIMENSIONS, CAPACITIES AND PRICES.

Number.	Extreme Height.		Extreme Length.		Extreme Width.		Size on Floor.		Height from floor to where Grain Falls on Shoe.	Height from floor to where Grain enters, no Shoe.	From floor to center of Pulley, Lower Machine.	From floor to center of Pulley, Upper Machine.	Motion.	Diameter of Shafts at ends for Pulleys.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.					
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.						in.				
0	8	7	5	8	3	6	4	1 x 2	0	8	7	7	8	2 1/2	5	10	700	1 11-16	10-15	\$290	(\$28)	
1	9	11	6	2	3	10	4	4 x 2	3	9	8	8	9	2 4 1/2	6	9	650	1 15-16	20-30	330	320	
1 1/2	10	5	6	7	4	4	4	8 x 2	6	10	2	9	1	2	5	7	1	600	2 3-16	30-40	400	390
2	11	7	7	0	4	8	5	0 x 2	9	11	5	10	3	2	8	8 1/2	550	2 3-16	50-65	465	450	
2 1/2	12	4	7	5	5	1	5	4 x 2	11	12	6	10	10	2	9	8	7	500	2 7-16	70-90	575	550
3	13	1	7	10	5	8	5	8 x 3	1	13	5	11	5	2 11 1/2	9	2	450	2 7-16	100-140	655	610	



**THE CRANSON
SCOURING, POLISHING AND SEPARATING MACHINE
WITH MAGNETIC ATTACHMENT.**

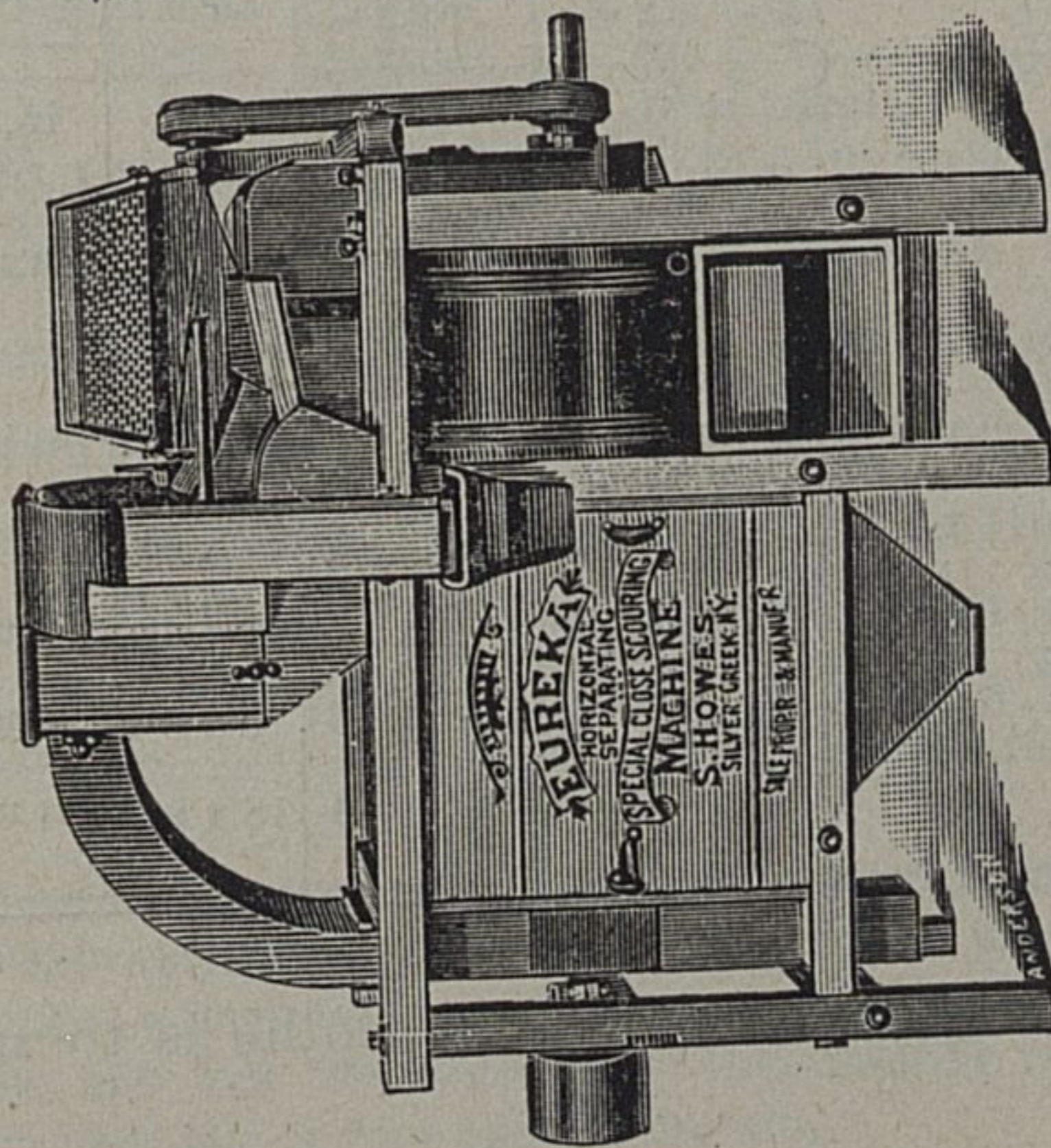
TABLE OF DIMENSIONS, CAPACITIES, PRICES, ETC.

Number.	Extreme Height.	Extreme Width.	Extreme Length.	Width on Floor.	Length on Floor.	Height to where Grain enters.	Height to center of Pulley.	Diameter of Pulley.	Face of Pulley	Motion per Minute.	Capacity per Hour in Bushels.	Number of Cubic Feet.	Shipping Weight, boxed.	Price, with Shoe.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	in.	in.					
1	4 2¼	2 1½	6 0	1 6½	4 9½	4 1	1 5¼	8	5	750	6 to 15	56	500	\$125
2	4 5	2 3½	6 9	1 8	5 5	4 5	1 6¼	8	5	700	15 to 30	69	600	150
3	5 ¼	2 6½	7 4	2 ½	5 10½	5 0	1 9	10	6	650	30 to 50	97	900	200
4	5 4	2 7	7 7	2 2	6 0	5 2	1 9¾	12	6	600	50 to 65	119	1,100	250
4½	6 ½	3 4½	8 8	2 8	7 1	6 ½	2 1½	16	7	500	60 to 90	167	1,600	300
5	6 ½	3 4½	8 8	2 8	7 1	6 ½	2 1½	16	7	500	90 to 130	167	1,600	350
6	7 3	3 11	10 2	3 2	8 3	7 1	2 6½	20	8	450	130 to 200	205	2,700	400

NOTE.—In ordering, state whether machine is to run to right or left, as you stand at and face the hopper end. The fan may also be reversed to blow out either to right or left of machine. The cockle spout can be arranged to discharge on either side of machine. Machine can be driven from either end.

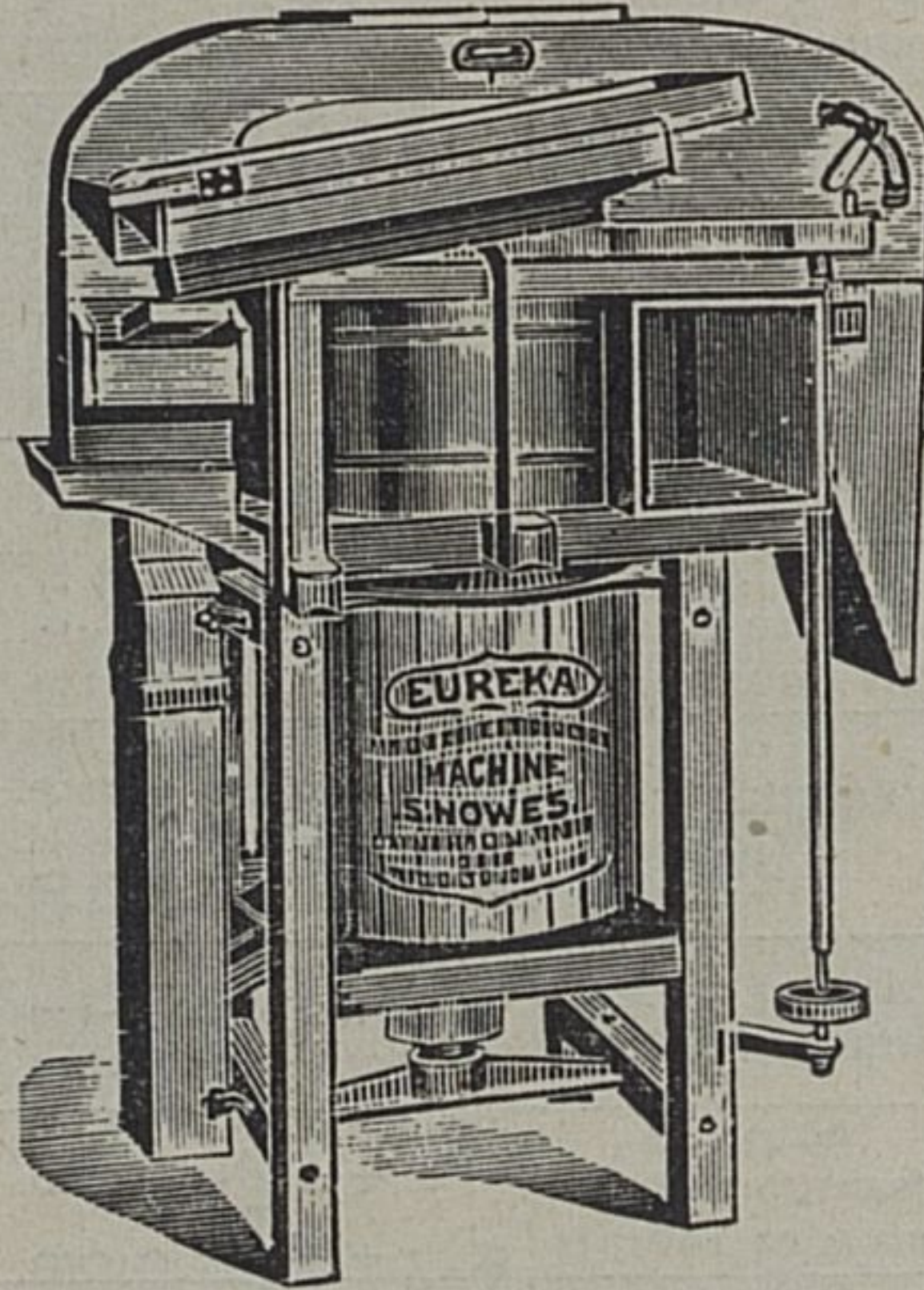
**THE EUREKA ADJUSTABLE HORIZONTAL CLOSE-SCOURING,
POLISHING AND SEPARATING MACHINE.**

SIZES, DIMENSIONS, CAPACITIES AND PRICES.



Number.	Extreme Height with Shoe.	Extreme Height with no Shoe.	Extreme Length.	Extreme Width.	Size on Floor.	Height to where Grain Falls on Shoe.	Height to where Grain enters, no Shoe.	Height to Center Drive Pulley.	Size of Pulleys.	Diameter of Shaft at ends for Pulley.	Motion per Minute.	Capacity per Hour in Bushels.	Shipping Weight.	Price, no Shoe, Double Sep'r.	Price, with Shoe and Dbl. Sep'r.
0	8 4	9	5 8	3 6	4 1 x 2 1 1	4 10	3 8	2 1/2	7 x 5 1/2	1 11-16	700	10-15	800	\$140	\$150
1	5 6	6	0 8	3 10	4 4 x 2 3	5 3	4 4	2 4 1/2	8 x 5 1/2	1 15-16	650	20-30	1000	160	170
1 1/2	5 9	6	7 1	4 4	4 8 x 2 6	5 7	4 6	2 5	10 x 6 1/2	2 3-16	600	30-40	1250	195	205
2	6 3	7	7 1	4 9	5 0 x 2 9	6 0	10 1/2	2 8 1/2	12 x 6 1/2	2 3-16	550	50-65	1500	225	240
2 1/2	6 5	7	15 0	5 1	5 4 x 2 1 1	6 5	1	2 9	14 x 7 1/2	2 7-16	500	70-90	1700	275	300
3	7 7	8	10 6	8 2	5 8 x 3 3	7 0	4	2 1 1	16 x 7 1/2	2 7-16	450	100-140	1900	305	350
4	7 8	8	6 0	6 2	6 1 x 3 3	7 8	8	3 1	18 x 8 1/2	2 7-16	400	150-190	2300	375	---
5	8 1	9 1	9 0	6 5	6 6 x 3 3	8 1	0	3 4	20 x 8 1/2	2 7-16	375	200-250	2500	450	---

In ordering, please state whether shoe is required, and whether machine is to run *with* or *against* sun. To determine this latter, stand at the *blower end*, facing machine, and if top of fan turns to the right, it runs with the sun; if to the left, it runs against the sun. The cut shows a machine running with the sun.

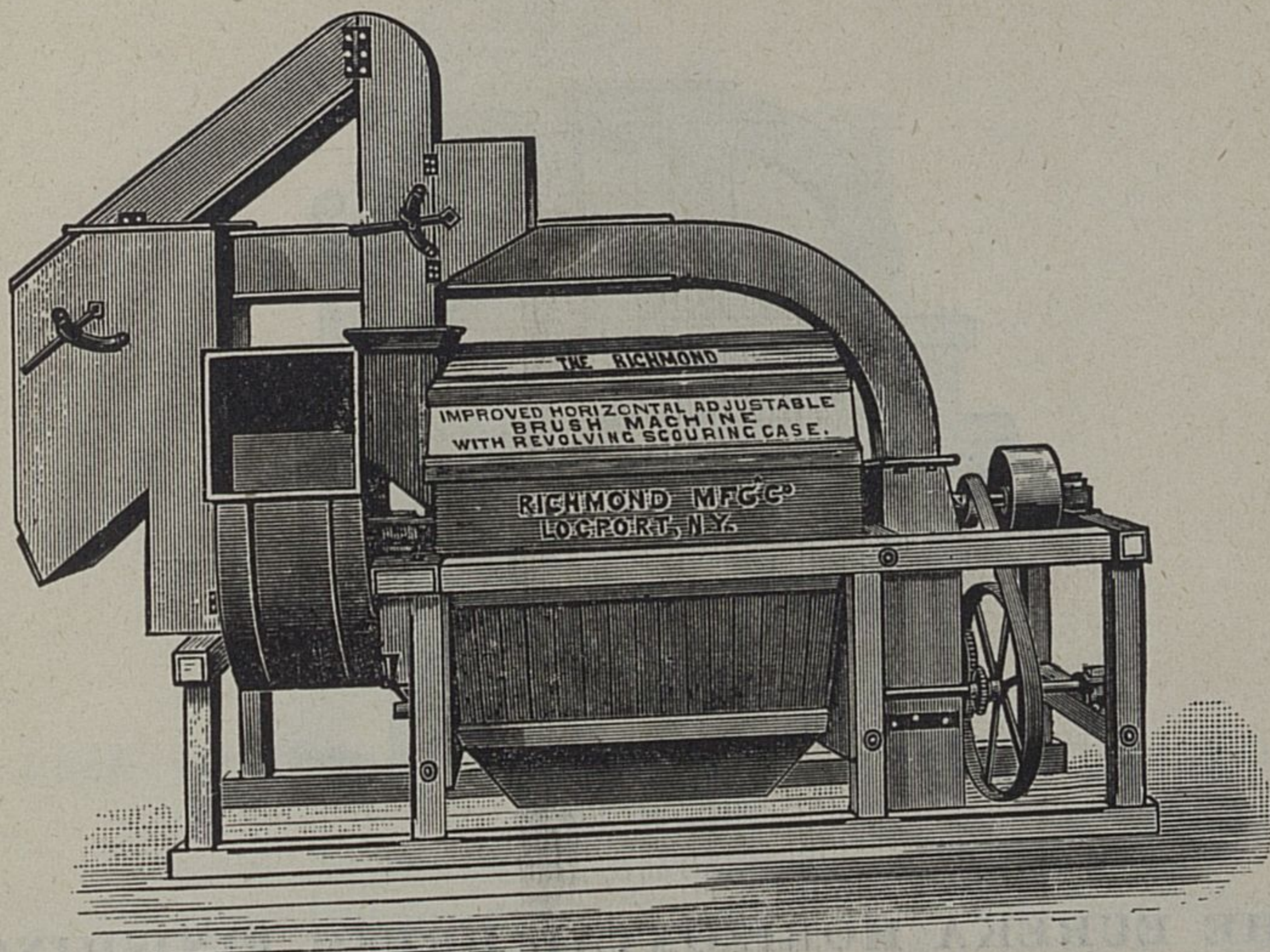


**THE EUREKA ADJUSTABLE
UPRIGHT CLOSE-SCOURING, POLISHING AND
SEPARATING MACHINE.**

SIZES, CAPACITIES, DIMENSIONS AND PRICES.

Number.	Extreme Height.		Extreme Length.		Extreme Width.		Size on Floor.		Height to where Grain falls on Shoe.	Height to where Grain enters, no shoe.	Motion per Minute.	Height to center Drive Pulley.	Sizes of Pulleys.	Diam. of Shaft for Pulley.	Capacity per Hour in Bushels.	Shipping Weight.	Price, no Shoe, Double Sep'r.	Price, with Shoe and Dbl. Sep'r.					
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.		ft.	in.	in.									
0	5	6	4	0	3	0	2	0	2	0	5	3	4	3	650	0	11	6 x 4½	1 7.16	8-12	625	\$140	\$150
1	6	2	4	7	3	5	2	3	2	3	5	11	5	0	600	1	0	7 x 4½	1 11.16	20-30	800	160	170
1½	6	9	5	0	3	8	2	6	2	6	6	8	5	6	550	1	0	10 x 5½	1 15.16	30-45	1000	195	205
2	7	0	5	6	4	0	2	9	2	9	6	10	5	9	525	1	2	10 x 5½	1 15.16	50-65	1200	225	240
2½	7	2	6	0	4	4	2	11	2	11	7	2	5	11½	500	1	2	12 x 6½	2 3.16	70-90	1400	275	300
3	8	0	6	6	4	9	3	1	3	1	8	0	6	1	450	1	2	14 x 6½	2 3.16	100-140	1700	305	350
4	8	5	6	10	4	0	3	6	3	6	-----	6	5	400	1	3	16 x 8½	2 7.16	150-190	-----	375	-----	-----
5	8	10	7	4	4	5	3	9	3	9	-----	6	10	375	1	4	18 x 8½	2 11.16	200-250	-----	450	-----	-----

NOTE.— In ordering, state whether machine is to run with or against the sun.



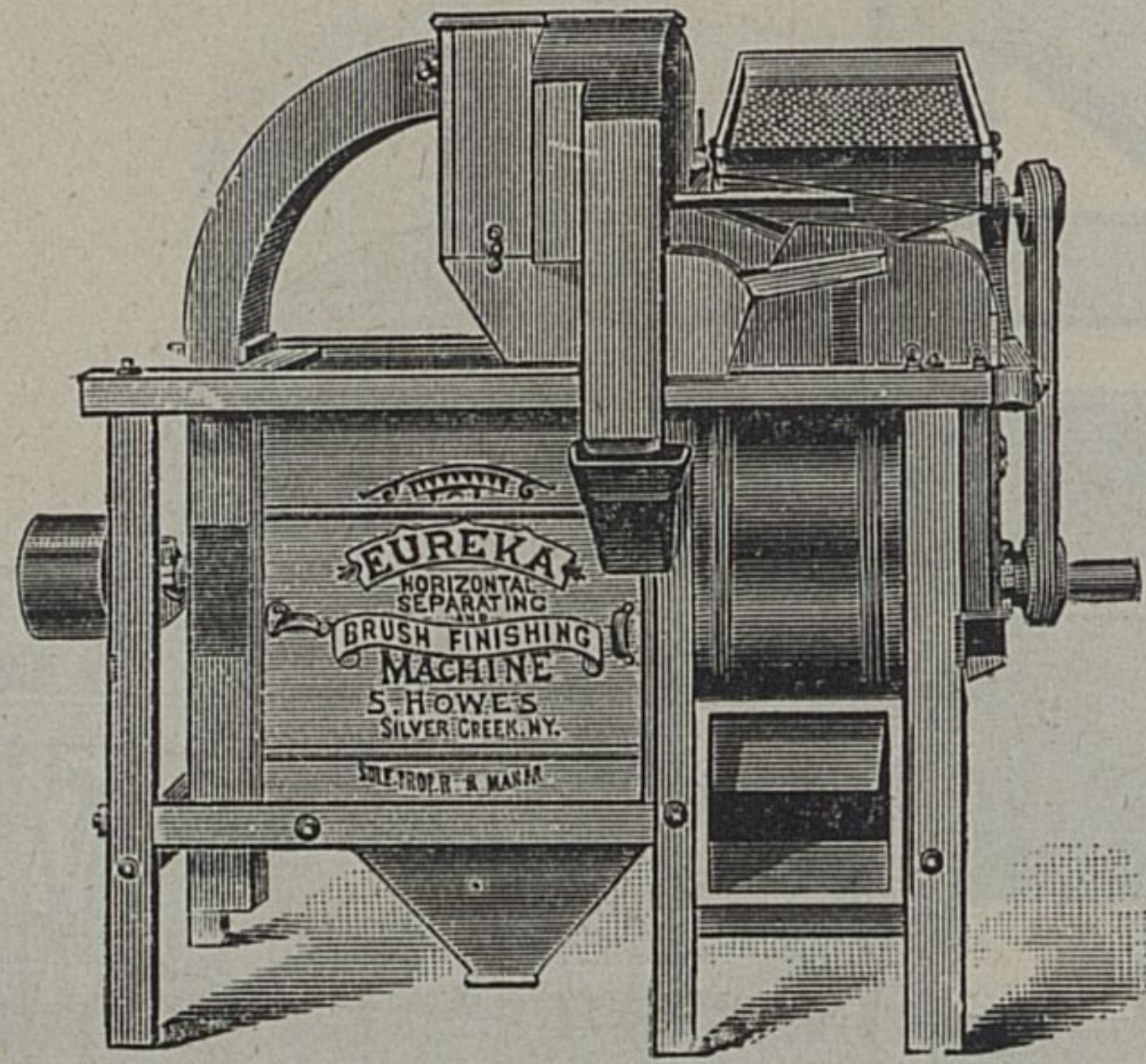
**THE RICHMOND IMPROVED
HORIZONTAL ADJUSTABLE BRUSH MACHINE,
WITH REVOLVING SCOURING CASE.**

DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Grain Enters. with Shoe.	Height where Grain enters, without Shoe.	Height from Floor to Center of Pulley		SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.			
	ft.	in.	ft.	in.	ft.	in.	ft.	in.			ft.	in.	Diam.	Face.							
0	5	4	2	10	7	2	6	7 x 2	7	5	4	3	10	2	1	8	5	700	10-15	\$215	\$200
1	5	4	2	10	7	6	6	11 x 2	7	5	4	3	10	2	1	8	5	700	15-20	240	225
2	5	7	3	0	8	2	7	2 x 2	10	5	7	4	5	2	2	8	5	600	25-35	265	250
3	5	7	3	0	8	6	7	6 x 2	10	-----	-----	4	5	2	2	8	5	600	40-60	-----	300
4	6	7	3	8	9	1	8	1 x 3	8	-----	-----	5	0	2	8	10	6	600	75-100	-----	350
5	7	1	3	10	10	2	8	10 x 3	6	-----	-----	5	5	2	11	11	6	600	100-125	-----	400
6	7	1	3	10	10	8	9	4 x 3	6	-----	-----	5	5	2	11	12	6	600	125-150	-----	450
7	7	6	4	2	10	7	9	2 x 3	10	-----	-----	5	10	2	11	16	7	500	150-200	-----	500
8	7	6	4	2	11	1	9	8 x 3	10	-----	-----	5	10	2	11	16	7	500	200-250	-----	600

We do not send shoes with these machines unless specially ordered.

When ordering, please state whether the machine is to run with or against the sun. In order to determine whether a horizontal machine runs with or against the sun, stand at the feed end of the machine, and face the machine; if the machine runs over to your right, it runs with the sun; if to your left, it runs against the sun.

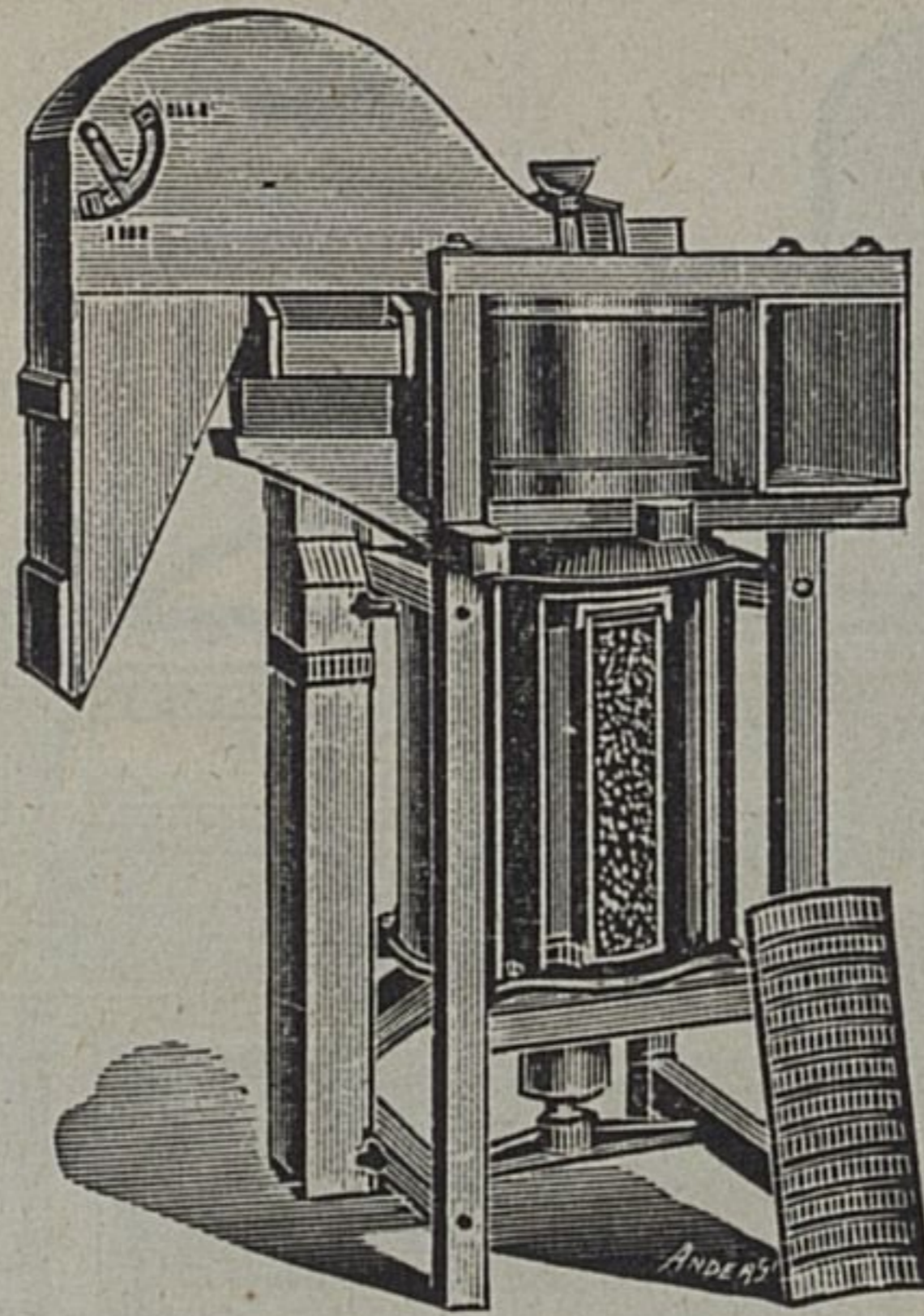


THE EUREKA HORIZONTAL BRUSH FINISHING AND POLISHING MACHINE.

SIZES, DIMENSIONS, CAPACITIES AND PRICES.

Number.	Extreme Height with Shoe.	Extreme Height with no Shoe.	Extreme Length.	Extreme Width.	Size on Floor.		Height to where Grain falls on Shoe.	Height to where Grain enters, no Shoe.	Height to Center Drive Pulley.	Size of Pulley.	Diam. of Shaft at ends for Pulley.	Motion per Minute.	Capacity per Hour in Bushels.	Ship'g Weight.	Price, no Shoe, Double Sep'r.	Price, with Shoe and Dbl. Sep'r.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	in.	in.			lbs.		
0	4 9	-----	5 8	3 6	4 1 x 2 11		4 10	3 8	2 1/2	7x5 1/2	1 11-16	650	10- 15	800	\$175	\$185
1	5 6	-----	6 0	3 10	4 4 x 2 3		5 3	4 4	2 4 1/2	8x5 1/2	1 15-16	600	20- 30	1000	200	210
1 1/2	5 9	-----	6 7	4 4	4 8 x 2 6		5 7	4 6	2 5	10x6 1/2	2 3-16	550	30- 45	1250	250	260
2	6 3	-----	7 1	4 9	5 0 x 2 9		6 0	4 10 1/2	2 8 1/2	12x6 1/2	2 3-16	500	50- 65	1500	300	315
2 1/2	6 5	-----	7 5	5 1	5 4 x 2 11		6 5	5 1	2 9	14x7 1/2	2 7-16	450	70- 90	1700	350	375
3	7 0	6 10	7 10	5 8	5 8 x 3 1		7 0	5 4	2 11	16x7 1/2	2 7-16	400	100-140	1900	400	445
4	7 8	7 6	8 6	6 2	6 1 x 3 6		7 8	5 8	3 1	18x8 1/2	2 7-16	350	150-190	2300	450	-----
5	8 1	7 11	9 0	6 5	6 6 x 3 8		8 1	6 0	3 4	20x8 1/2	2 7-16	325	200-250	2500	500	-----

In ordering, always state whether the machine is to run *with* or *against* the sun. To determine this, stand at the blower end, facing the machine, and if the blower turns over to the right, it runs with the sun; if to the left, against the sun. The cut shows a machine running with the sun. The table on this page gives capacities, dimensions, prices, shipping weights, etc.



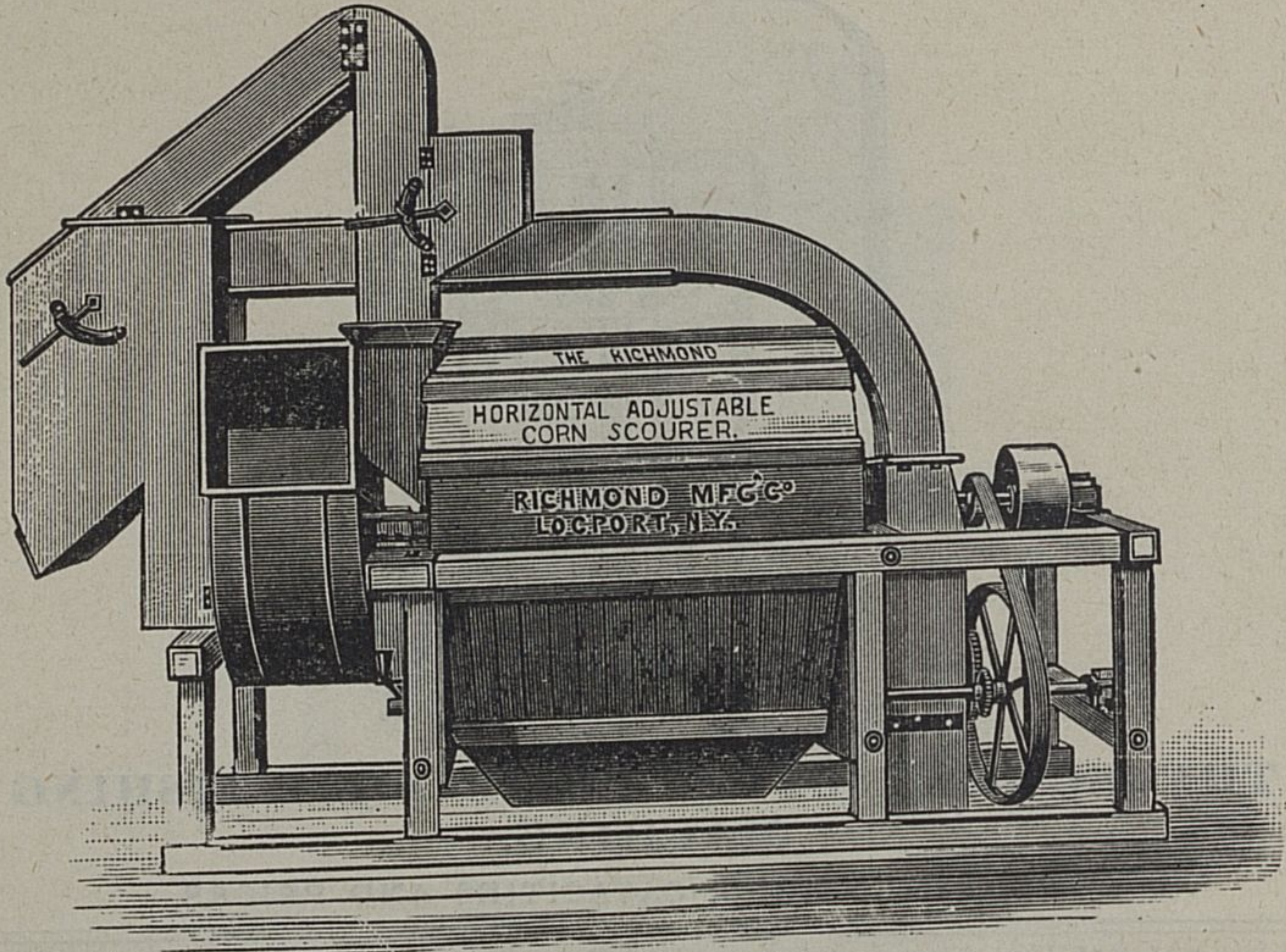
THE EUREKA UPRIGHT BRUSH FINISHING MACHINE.

SIZES, DIMENSIONS, CAPACITIES AND PRICES.

Number.	Extreme Height.		Extreme Length.		Extreme Width.		Space on Floor.		Height to where Grain enters.	Motion per Minute.	Height to Center Drive Pulley.		Size of Pulley.	Diameter of Shaft at ends for Pulleys.	Capacity per Hour in Bushels.	Shipping Wt. lbs.	Price, no Shoe, Double Sep'r.	Price, with Shoe and Dbl. Sep'r.			
	ft.	in.	ft.	in.	ft.	in.	ft.	in.			ft.	in.							in.	in.	
0	5	11	4	3	3	0	2	3x2	3	4	5	700	1	1	7x5 1/2	1	11-16	10-15	700	\$150	\$160
1	6	8	4	7	2	11	2	3x2	3	5	6	700	1	1	7x5 1/2	1	15-16	20-30	800	175	185
1 1/2	7	4	5	0	3	2	2	7x2	7	6	1 1/2	650	1	1	10x5 1/2	2	3-16	30-45	1100	225	235
2	7	8	5	6	3	6	2	8x2	8	6	5 1/2	625	1	1	10x6 1/2	2	3-16	50-65	1250	275	290
2 1/2	8	1	5	8	3	9	3	11x3	11	6	9 1/2	600	1	1	12x6 1/2	2	7-16	70-90	1600	325	350
3	8	7	6	4	3	6	3	2x3	2	7	2	550	1	2	14x7 1/2	2	7-16	100-140	1900	375	420
4	9	1	7	0	4	0	3	6x3	6	7	4 1/2	500	1	2	16x8 1/2	2	11-16	150-190	2100	450	---
5	9	3	7	4	4	5	3	9x3	9	7	5	450	1	2	18x8 1/2	2	11-16	200-250	2300	500	---

THE RICHMOND IMPROVED UPRIGHT ADJUSTABLE BRUSH MACHINE, WITH SHOE.

Number.	Extreme Height.		Space over All.		Space on Floor.		Height where Grain enters.	Height from Floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.
	ft.	in.	ft.	in.	ft.	in.			Diam.	Face.				
1	6	6	5	2x2	9	2	1x2	1	5	8	700	15 to 20	\$190 00	\$175 00
2	6	10	5	2x2	9	2	1x2	1	6	0	700	25 to 35	215 00	200 00
3	7	4	5	10x3	3	2	8x2	8	6	0	650	40 to 60	-----	250 00
4	x	3	7	0x3	7	2	9x2	9	6	7	600	75 to 100	-----	300 00
5	8	7	7	0x3	7	2	9x2	9	7	1	600	100 to 125	-----	350 00
6	x	8	7	6x3	9	3	1x3	1	7	0	500	125 to 150	-----	425 00
7	9	2	7	6x3	9	3	1x3	1	7	6	500	150 to 200	-----	500 00
8	9	2	7	8x4	1	3	6x3	6	7	8	450	200 to 250	-----	600 00



**THE RICHMOND HORIZONTAL CORN SCOURER,
WITH STATIONARY CASE.**

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height to where Grain enters with Shoe.	Height to where Grain enters, without Shoe.	Height from Floor to Center of Pulley.	SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.				
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	Diam.					Face.			
0	4	7	2	6	6	4	4	0 x 2	1	4	7	3	3	1	8	8	5	650	15	\$145 00	\$130 00
1	4	7	2	6	6	8	4	4 x 2	11	4	7	3	3	1	8	8	5	650	20	155 00	140 00
2	5	4	3	1	7	2	4	8 x 2	8	5	4	4	2	2	1	8	5	600	35	170 00	155 00
3	5	4	3	1	7	6	5	0 x 2	8	-----	-----	4	2	2	1	8	5	600	60	200 00	180 00
4	6	6	3	6	8	2	5	4 x 3	0	-----	-----	5	0	2	6	10	6	600	100	225 00	200 00
5	7	0	3	8	9	2	6	0 x 3	4	-----	-----	5	6	2	8	11	6	600	125	255 00	220 00
6	7	0	3	8	9	8	6	6 x 3	4	-----	-----	5	6	2	8	12	6	600	150	365 00	275 00
7	7	1	3	10	9	6	6	1 x 3	5	-----	-----	5	6	2	9	16	7	500	200	440 00	350 00
8	7	1	3	10	10	0	6	7 x 3	5	-----	-----	5	6	2	9	16	7	500	250	515 00	425 00

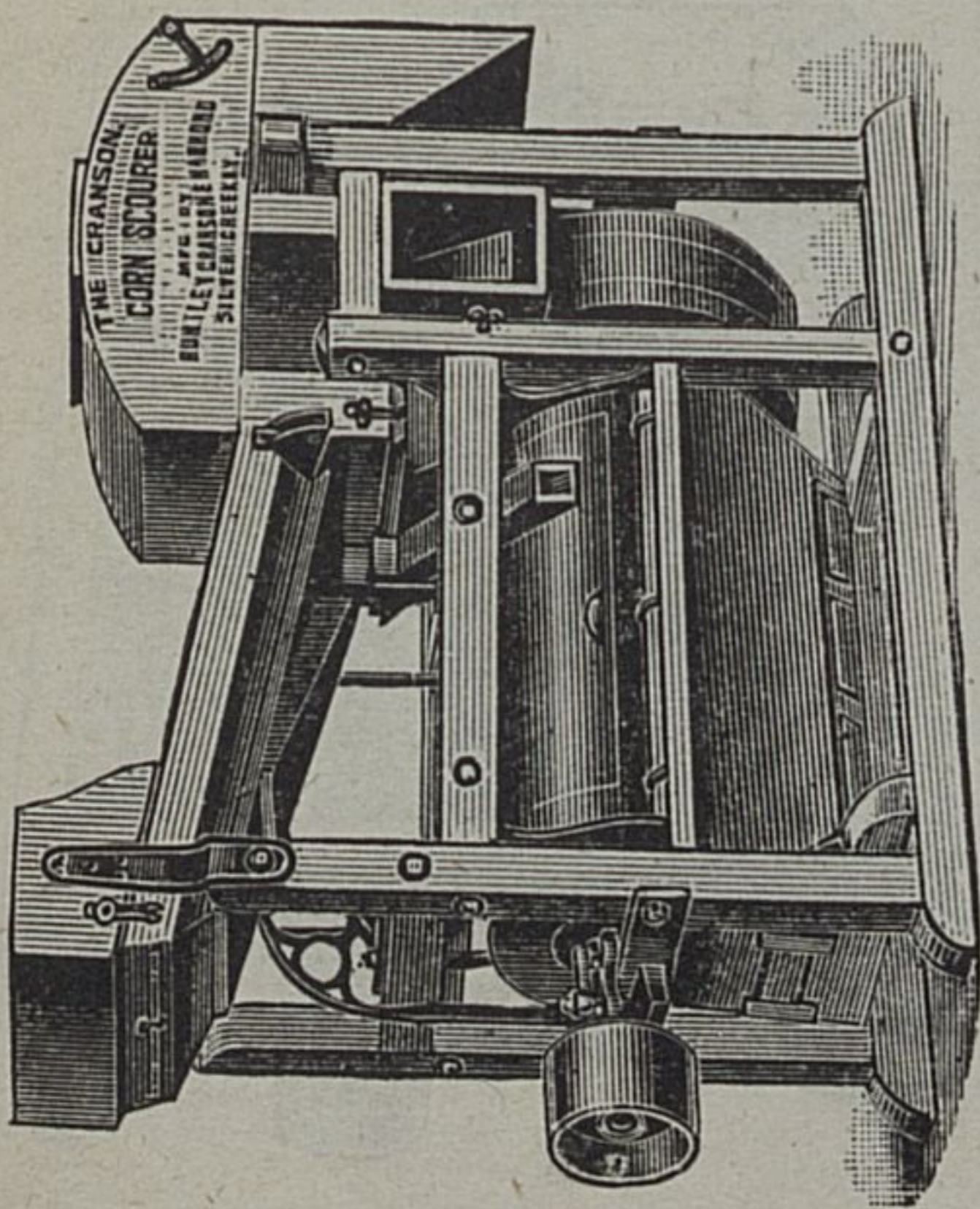
**THE RICHMOND HORIZONTAL ADJUSTABLE CORN SCOURER,
WITH REVOLVING CASE.**

0	5	4	2	10	7	2	6	7 x 2	7	5	4	3	10	2	1	8	5	650	15	\$215 00	\$200 00
1	5	4	2	10	7	6	6	11 x 2	7	5	4	3	10	2	1	8	5	650	20	240 00	225 00
2	5	7	3	0	8	2	7	2 x 2	10	5	7	4	5	2	2	8	5	600	35	265 00	250 00
3	5	7	3	0	8	6	7	6 x 2	10	-----	-----	4	5	2	2	8	5	600	60	320 00	300 00
4	6	7	3	8	9	1	8	1 x 3	8	-----	-----	5	0	2	8	10	6	600	100	375 00	350 00
5	7	1	3	10	10	2	8	10 x 3	6	-----	-----	5	5	2	11	11	6	600	125	435 00	400 00
6	7	1	3	10	10	8	9	4 x 3	6	-----	-----	5	5	2	11	12	6	600	150	540 00	450 00
7	7	6	4	2	10	7	9	2 x 3	10	-----	-----	5	10	2	11	16	7	500	200	590 00	500 00
8	7	6	4	2	11	1	9	8 x 3	10	-----	-----	5	10	2	11	16	7	500	250	690 00	600 00

**THE CRANSON
CORN SCOURING AND POLISHING MACHINE.**

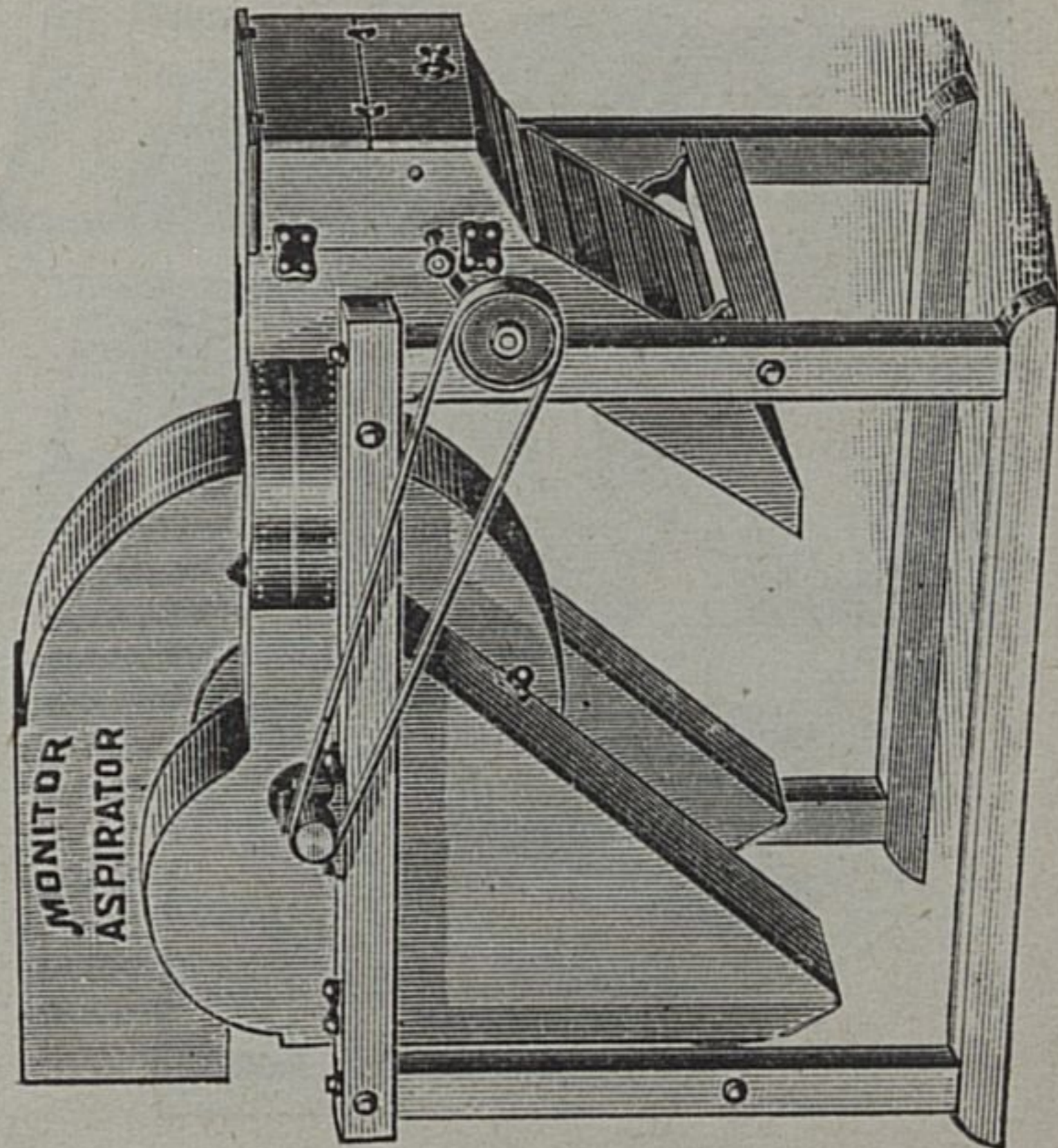
TABLE OF DIMENSIONS, CAPACITIES, PRICES, ETC.

Number.	Extreme Height.	Extreme Width.	Extreme Length.	Width on Floor.	Length on Floor.	Height to where Grain enters.	Height to Center Pulley.	Diameter of Pulley.	Face of Pulley.	Motion per Minute.	Capacity per Hour in Bushels.	No. of Cubic Feet.	Shipping Weight, Boxed.	Price, with Shoe.
3	4 5	2 3 1/2	6 9	1 2	5 5	4 5	1 6 1/4	8	5	700	15 to 30	69	600	\$150
4	5 1/4	2 6 1/2	7 4	2 1/2	5 10 1/2	5 0	1 9	10	6	650	30 to 50	97	900	200
4 1/2	5 1/2	2 7	7 7	2 8	6 0	5 2	1 9 3/4	12	6	600	50 to 65	119	1,100	250
5	6 1/2	3 4 1/2	8 8	2 7	7 1	6 1/2	1 11 1/2	16	7	500	60 to 90	167	1,600	300
6	7 3	3 11	10 2	3 2	8 3	7 1	2 11 1/2	16	8	500	90 to 130	167	1,600	350
							2 6 1/2	20	8	450	130 to 200	205	2,700	400

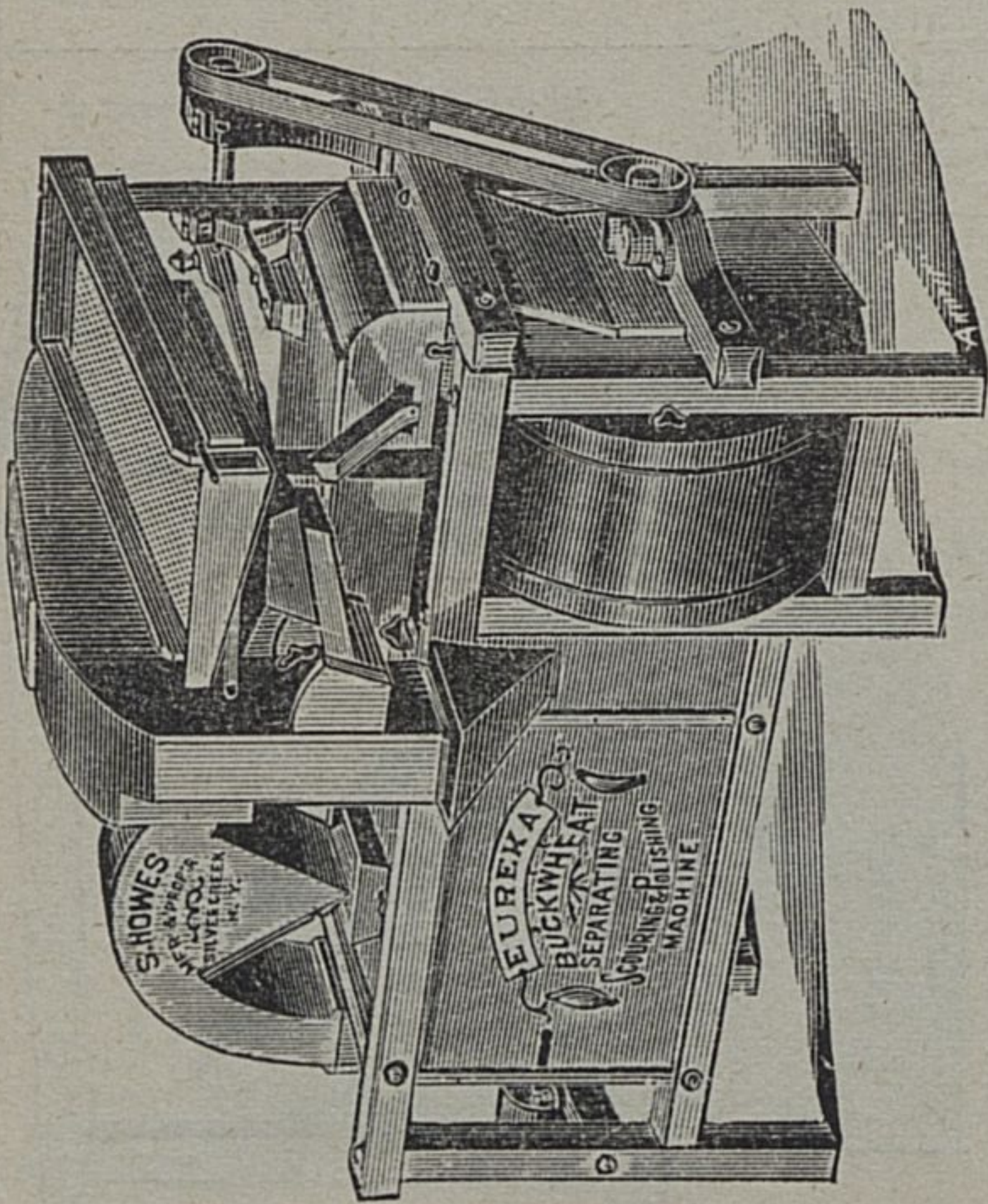


MONITOR ASPIRATOR.

Number.	Extreme Height.	Extreme Width.	Extreme Length.	Width on Floor.	Length on Floor.	Length on Floor.	Height to where Grain enters.	Height to Center of Pulley.	Diameter of Pulley.	Face of Pulley.	Motion per Minute.	Capacity per Hour in Bushels.	Price.
1	2 10	1 11	2 11	1 10	2 3	6 2	2 2	2	5	3	600	10-20	\$ 60
2	3 4	2 4	3 8	2 0	3 3	3 2	2 2	2	5	3	600	30-50	70
3	3 11	2 11	4 1	2 5 1/2	3 3	3 5	2 2	2	6	3	600	75-100	80
4	4 5	3 6	5 5	3 1/2	4 4	4 5	2 2	2	6	3	600	200-300	90
5	5 1	4 4	5 5	3 8	5 5	5 4	3 10 1/2	3 5 3/4	7	3	600	300-600	100
6	5 8 1/2	4 4	6 4	4 3	5 5	5 11	4 4	3 11	8	3	600	800-1000	120

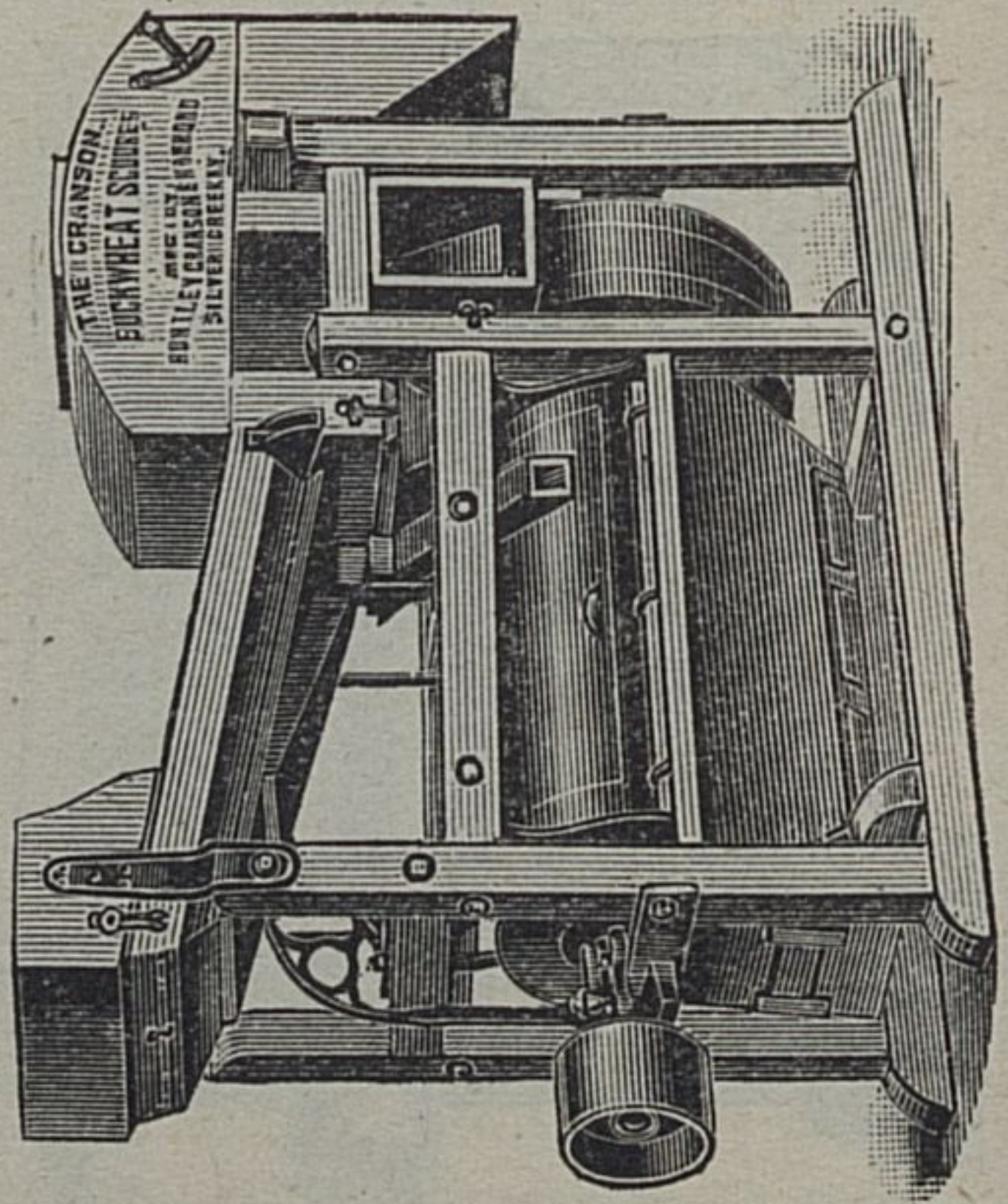


**THE EUREKA BUCKWHEAT SCOURING,
SEPARATING AND POLISHING MACHINE.**



	No. 1.	No. 2.
Extreme Height.....	4 feet 4 inches.	4 feet 10 inches.
Extreme Length.....	5 feet 8 inches.	6 feet 6 inches.
Extreme Width.....	3 feet 6 inches.	4 feet 0 inches.
Distance from Floor to where Grain Falls on Shoe.....	4 feet 2 inches.	4 feet 8 inches.
Distance from Floor to Center of Drive Pulley.....	1 foot 7 inches.	1 foot 10 inches.
Motion per Minute.....	525	500
Pulley Dimensions.....	8 x 5 ¹ / ₄ inches.	10 x 5 ¹ / ₄ inches.
Capacities in Bushels.....	20 to 30	35 to 50
Shipping Weight.....	650 pounds.	850 pounds.
Price.....	\$125	\$150

THE CRANSON BUCKWHEAT SCOURING AND POLISHING MACHINE.



Number.	Extreme Height.	Extreme Width.	Extreme Length.	Width on Floor.	Length on Floor.	Height to where Grain enters.	Height to Center of Pulley.	Diameter of Pulley.	Face of Pulley.	Motion per Minute.	Capacity per Hour in Bushels.	No. of Cubic Feet.	Shipping Weight, Boxed.	Price, with Shoe.
1	4 2 ¹ / ₄	2 1 ¹ / ₂	6 0	1 6 ¹ / ₂	4 9 ¹ / ₂	1 5 ¹ / ₄	1 5 ¹ / ₄	8	5	750	6 to 15	56	500	\$125
2	4 5	2 3 ¹ / ₂	6 9	1 8	5 5	1 6 ¹ / ₄	1 6 ¹ / ₄	8	5	700	15 to 30	69	600	150
3	5 1 ¹ / ₄	2 6 ¹ / ₂	7 4	2 1 ¹ / ₂	5 10 ¹ / ₂	1 9	1 9	10	9	650	30 to 50	97	900	200
4	5 4	2 7	7 7	2 2	6 0	1 9 ³ / ₄	1 9 ³ / ₄	12	9	600	50 to 65	119	1,100	250
4 ¹ / ₂	6 1 ¹ / ₂	3 4 ¹ / ₂	8 8	2 8	7 1	2 1 ¹ / ₂	2 1 ¹ / ₂	16	7	500	60 to 90	167	1,600	300
5	6 1 ¹ / ₂	3 4 ¹ / ₂	8 8	2 8	7 1	2 1 ¹ / ₂	2 1 ¹ / ₂	16	7	500	90 to 130	167	1,600	350
6	7 3	3 11	10 2	3 2	8 3	1	2 6 ¹ / ₂	20	8	450	130 to 200	205	2,700	400

THE RICHMOND BUCKWHEAT CLEANER.

DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Buckwheat enters, with Shoe.		Height where Buckwheat enters, no Shoe.		Height from Floor to Center of Pulley.		SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.				
0	4	7	2	6	6	4	4	0 x 2 1	4	7	3	3	1	8	8	5	650	10 to 15	\$125	\$110
1	4	7	2	6	6	8	4	4 x 2 11	4	7	3	3	1	8	8	5	650	15 to 20	135	120
2	5	4	3	1	7	2	4	8 x 2 8	5	4	4	2	2	1	8	5	550	25 to 35	150	135

THE RICHMOND HORIZONTAL ADJUSTABLE OAT CLIPPER.

DIMENSIONS, CAPACITY AND PRICE, WITH STATIONARY CASE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Space on Floor.		Height where Grain enters, with Shoe.		Height where Grain enters, without Shoe.		Height from Floor to Center of Pulley.		SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price, with Shoe.	Price, without Shoe.
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.				
0	4	7	2	6	6	4	4	0 x 2 1	4	7	3	3	1	8	8	5	650	15	\$145	\$130
1	4	7	2	6	6	8	4	4 x 2 11	4	7	3	3	1	8	8	5	650	20	155	140
2	5	4	3	1	7	2	4	8 x 2 8	5	4	4	2	2	1	8	5	600	35	170	155
3	5	4	3	1	7	6	5	0 x 2 8	-----	-----	5	0	2	6	10	6	600	60	200	180
4	6	6	3	6	8	2	5	4 x 3 0	-----	-----	5	0	2	6	10	6	600	100	225	200
5	7	0	3	8	9	2	6	0 x 3 4	-----	-----	5	6	2	8	11	6	600	125	255	220
6	7	0	3	8	9	8	6	6 x 3 4	-----	-----	5	6	2	8	12	6	600	150	355	275
7	7	1	3	10	9	6	6	1 x 3 5	-----	-----	5	6	2	9	16	7	500	200	440	350
8	7	1	3	10	10	0	6	7 x 3 5	-----	-----	5	6	2	9	16	7	500	250	515	425

WITH REVOLVING CASE.

0	5	4	2	10	7	2	6	7 x 2 7	5	4	3	10	2	1	8	5	650	15	\$215	\$200
1	5	4	2	10	7	6	6	11 x 2 7	5	4	3	10	2	1	8	5	650	20	240	225
2	5	7	3	0	8	2	7	2 x 2 10	5	7	4	5	2	2	8	5	600	35	265	250
3	5	7	3	0	8	6	7	6 x 2 10	-----	-----	4	5	2	2	8	5	600	60	320	300
4	6	7	3	8	9	1	8	1 x 3 8	-----	-----	5	0	2	8	10	6	600	100	375	350
5	7	1	3	10	10	2	8	10 x 3 6	-----	-----	5	5	2	11	11	6	600	125	435	400
6	7	1	3	10	10	8	9	4 x 3 6	-----	-----	5	5	2	11	12	6	600	150	490	450
7	7	6	4	2	10	7	9	2 x 3 10	-----	-----	5	10	2	11	16	7	500	200	590	500
8	7	6	4	2	11	1	9	8 x 3 10	-----	-----	5	10	2	11	16	7	500	250	690	600

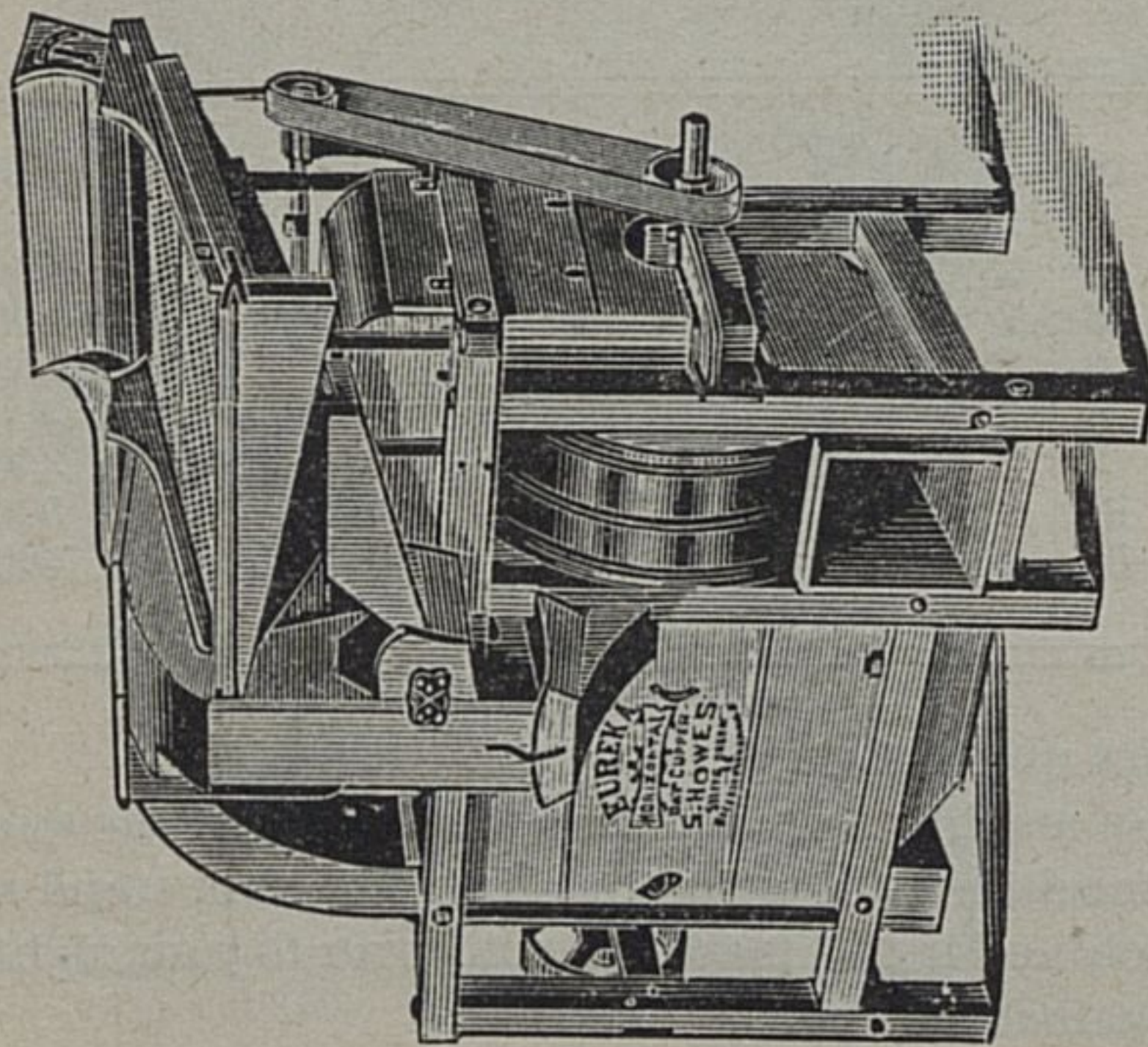
We do not send shoes with these machines unless specially ordered.

When ordering, please state whether these machines are to run with or against the sun. In order to determine whether a horizontal machine runs with or against the sun, stand at the feed end of the machine and face the machine; if the machine runs over to your right, it runs with the sun; if to your left, it runs against the sun.

THE EUREKA OAT CLIPPER.

DIMENSIONS, CAPACITIES AND PRICES.

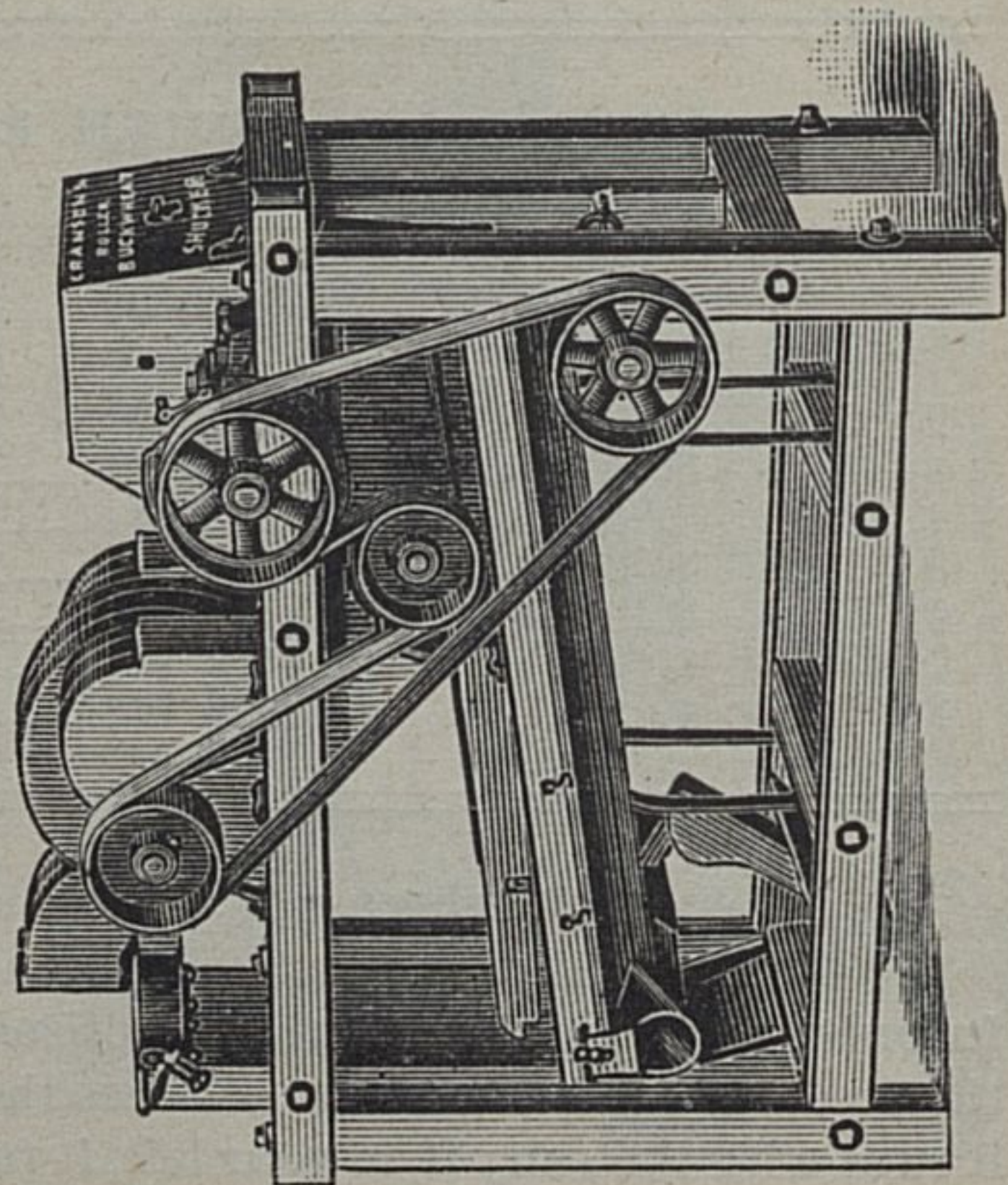
Number.	Extreme Height with Shoe.	Extreme Height no Shoe.	Extreme Length.	Extreme Width.	Size on Floor.	Height to where Grain enters, with Shoe.	Height to where Grain enters, no Shoe.	Height to Center of Drive Pulley.	Pulley I dimensions.	Diameter of Shaft at ends for Pulley.	Motion per Minute.	Capacity per Hour in Bushels.	Shipping Weight.	Price, no shoe, with Dbl. Sep'r.	Price, with shoe and Dbl. Sep'r.
1	5 6	---	6 0	3 10	4 4	5 3	4 4	2 4 1/2	8 X 5 1/2	1 15-16	700	50-60	1000	\$160	\$170
1 1/2	5 9	---	6 7	4 4	8 X 2 6	5 7	4 6	2 5	10 X 6 1/2	2 3-16	700	70-90	1250	195	205
2	6 3	---	7 1	4 9	0 X 2 9	6 0	4 10 1/2	2 8 1/2	12 X 6 1/2	2 3-16	675	100-120	1500	225	240
2 1/2	6 5	---	7 5	5 1	4 X 2 11	6 5	5 1	2 9	14 X 7 1/2	2 7-16	650	125-150	1800	275	300
3	7 10	6 10	7 10	5 5	8 X 3 1	7 10	5 3	2 11	16 X 7 1/2	2 7-16	600	160-200	2200	305	350
4	8 5	7 6	8 6	6 2	1 X 3 3	8 5	7 0	3 1	18 X 8 1/2	2 7-16	550	300-350	2800	375	435
5	8 11	7 11	9 0	6 5	6 X 3 8	8 11	6 0	3 4	20 X 8 1/2	2 7-16	525	400-500	3200	450	525



**THE CRANSON
DUSTLESS ROLLER BUCKWHEAT SHUCKER.**

DIMENSIONS, CAPACITIES AND PRICES.

No.	Length.	Width.	Height.	Size of Pulley.	Revolutions	Capacity per Hour.	Price.
1	5 ft. 0 in.	3 ft. 0 in.	4 ft. 7 1/2 in.	10 X 5 1/4 inches.	550	12 bushels.	\$150 00
2	5 ft. 2 in.	3 ft. 4 in.	4 ft. 10 1/2 in.	12 X 5 1/4	550	20	200 00
3	5 ft. 2 in.	3 ft. 9 in.	5 ft. 0 in.	12 X 5 1/4	550	30	250 00
4	5 ft. 2 in.	4 ft. 1 in.	5 ft. 1 in.	14 X 5 1/4	550	40	300 00



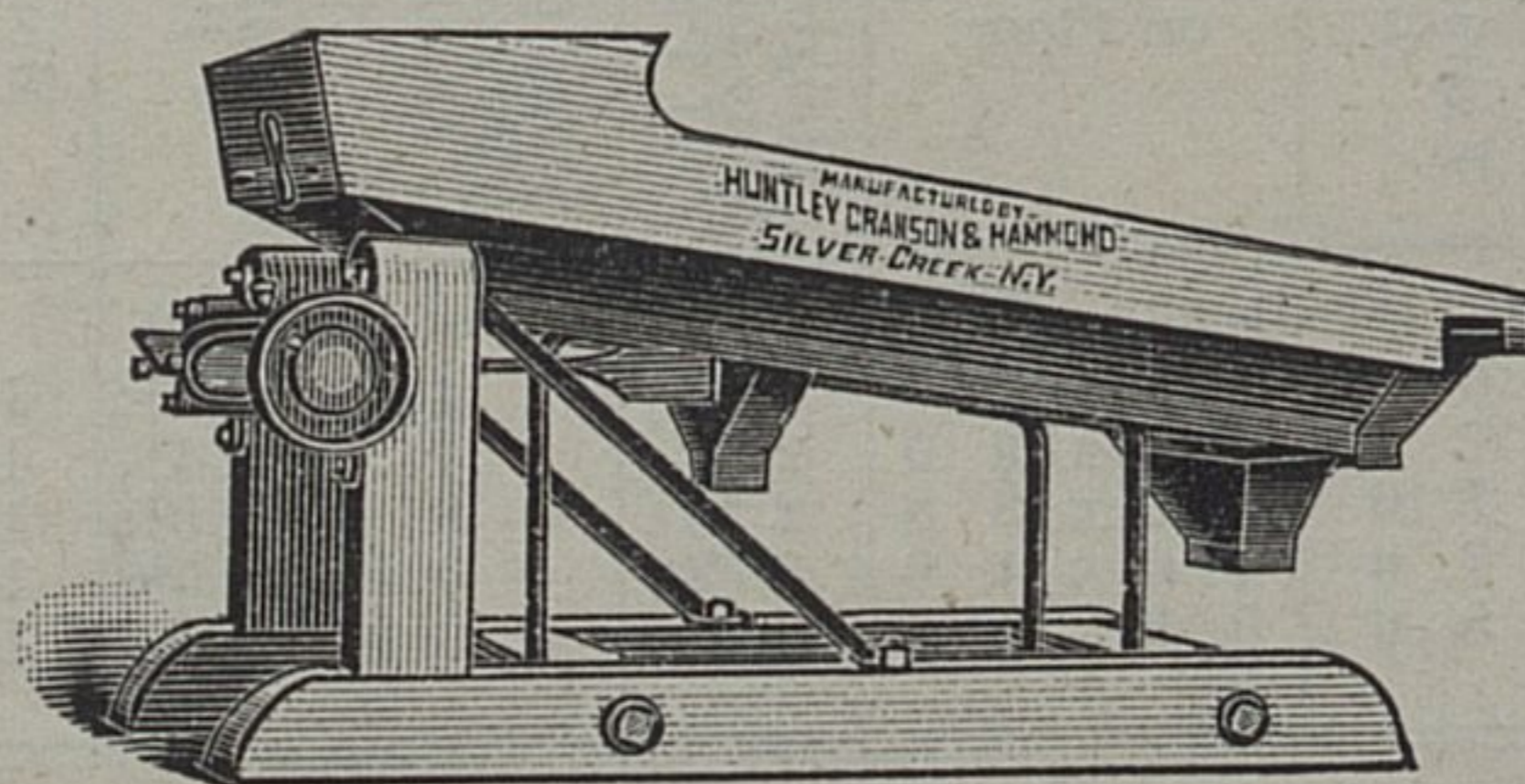
THE RICHMOND ADJUSTABLE BRUSH MALT CLEANER, WITH REVOLVING CASE.

DIMENSIONS, CAPACITY AND PRICE.

Number.	Extreme Height.		Extreme Width.		Extreme Length.		Height where Malt enters.		Height from Floor to Center of Pulley.		SIZE OF PULLEY.		Motion per Minute.	Capacity per Hour in Bushels.	Price.
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.			
4	6	7	3	8	9	1	5	0	2	8	10	6	400	100	\$350 00
5	7	1	3	10	10	2	5	5	2	11	11	6	400	150	400 00
6	7	1	3	10	10	8	5	5	2	11	12	6	400	200	450 00
7	7	6	4	2	10	7	5	10	2	11	16	7	350	250	500 00
8	7	6	4	2	11	1	5	10	2	11	16	7	350	325	600 00
9	7	10	4	7	11	3	6	11	3	2	16	7	300	400	800 00
10	7	10	4	7	11	6	6	11	3	2	16	7	300	500	900 00

When ordering, please state whether the machine is to run with or against the sun. In order to determine whether a horizontal machine runs with or against the sun, stand at the feed end of the machine, and face the machine; if the machine runs over to your right, it runs with the sun; if to your left, it runs against the sun.

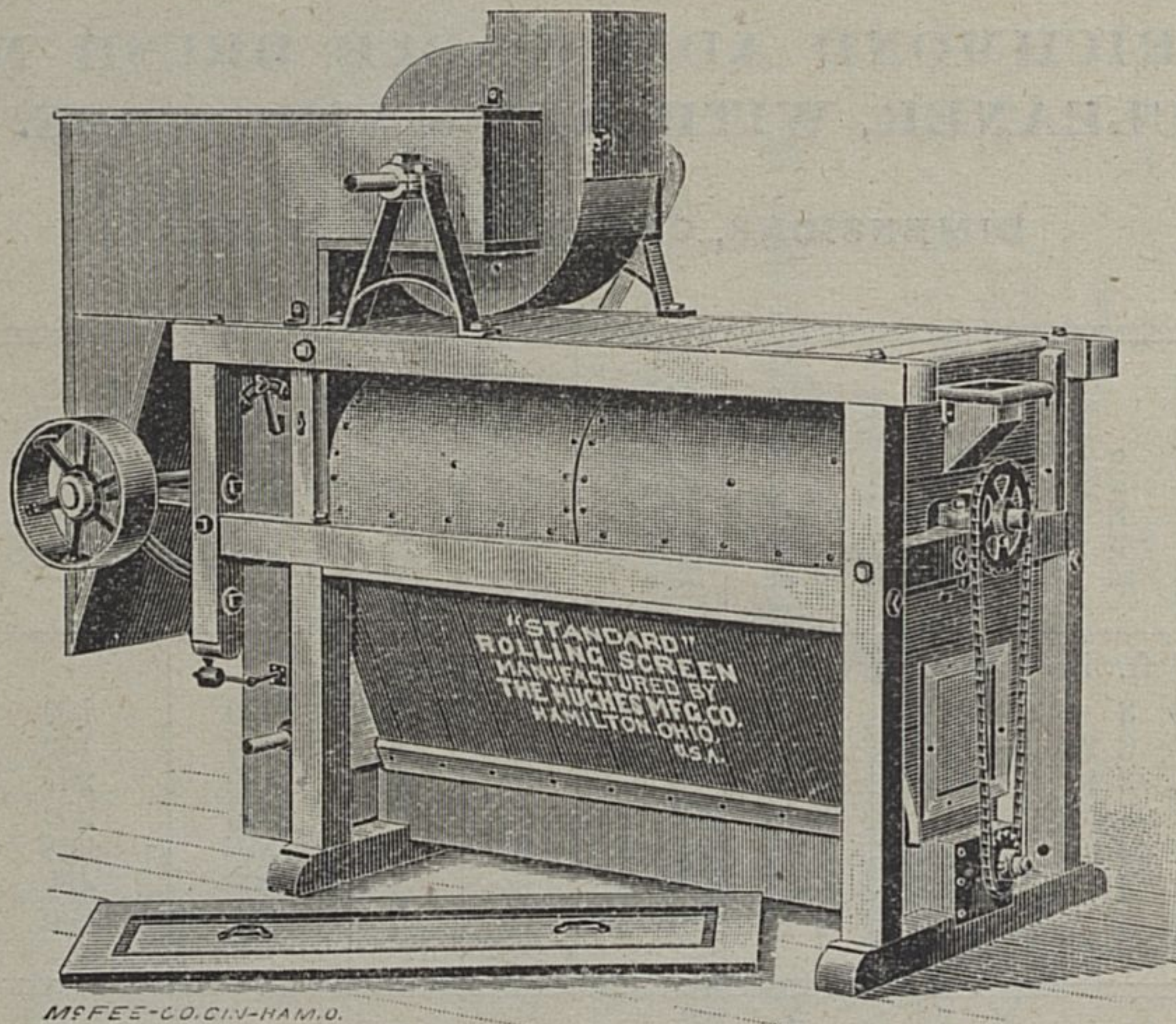
We can build these machines upright if desired.



MONITOR SCALPING AND RECEIVING SHOE.

DIMENSIONS, CAPACITIES AND PRICES.

No.	Length.		Height.		Width.		Size of Pulley.		Motion per Minute.	Capacity, bushels.	Price.
	ft.	in.	ft.	in.	ft.	in.	Diam.	Face.			
1	3	1	1	8	1	8	4	3	600	10 to 15	\$20 00
2	3	7	1	10	1	9	4	3	600	20 to 30	25 00
3	3	8	1	11	2	1	5	4	600	35 to 50	30 00
4	3	9	2	0	2	3	5	4	600	50 to 70	35 00
5	4	4	2	0	2	8	6	4	600	80 to 125	40 00
6	4	6	2	6	3	6	7	5	550	140 to 200	50 00



THE "STANDARD" ROLLING SCREEN.

DIMENSIONS, CAPACITY AND PRICES.

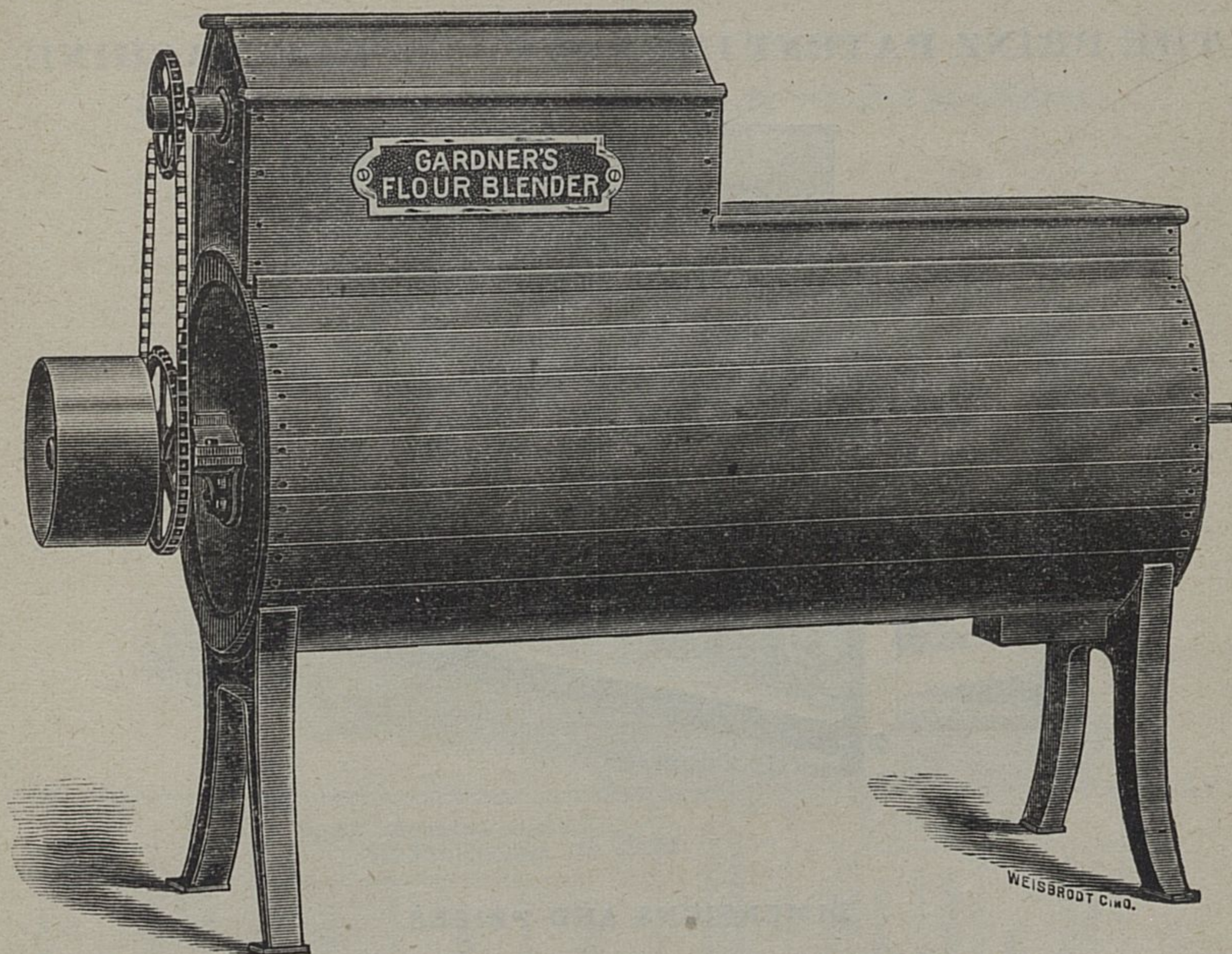
Sizes.	Extreme Height.		Extreme Width.		Extreme Length.		Size on Floor.		Height from Floor to Center of Pulley.	Height where Grain enters Machine.	Size of Pulley.	Motion per Minute.	Capacity per Hour in Bushels.	Price.				
	ft.	in.	ft.	in.	ft.	in.	ft.	in.										
0	6	6	3	6	6	4	4	4	3	0	2	6	3	4	10 x 4½	140	20-30	\$150 00
1	6	6	3	6	7	4	5	4	3	0	2	6	3	4	10 x 4½	140	50-75	200 00
2	7	8	4	2	7	10	5	6	3	8	2	10	3	8	10 x 5½	130	100-150	250 00
3	8	0	4	6	7	6	4	6	4	0	3	2	4	0	12 x 5½	125	175-200	300 00
4	8	0	4	6	8	6	5	6	4	0	3	2	4	0	12 x 5½	125	250-275	350 00

As the wheat enters the screen it is accompanied with a strong current of air, which passes through the center of reel and carries with it all light particles, such as dust, chaff, etc., also scourings, as fast as detached from the grain in revolving, and are drawn direct to the eye of fan.

The Reel proper is covered with perforated metal, with suitable lifters on the inside so as to prevent the grain from sliding back and remaining in a bulk in lower portion of Screen, consequently the air is continually passing through the grain while in motion, and leaves the grain in a smooth and polished condition.

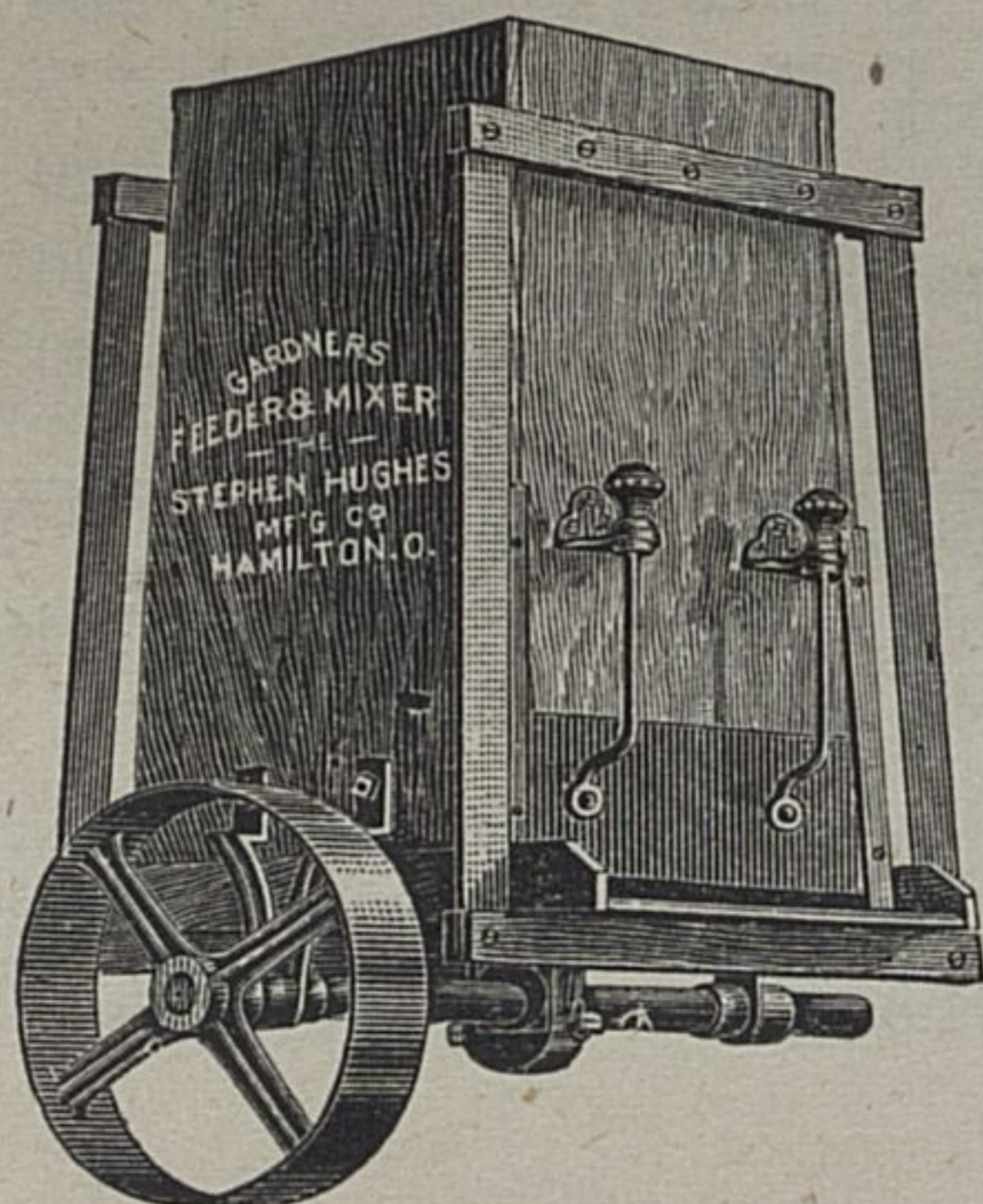
The grain is discharged from tail of Reel into a hopper, where it is held by an automatic feed gate until it spreads the full width of machine. It is then fed out by means of a feed roll in a thin sheet or stream into the separating leg, where it is met with an upward current of air, and by means of the air regulating valve the operator can make as light or as heavy separation of screenings as he desires.

The germs, etc., which fall through the perforations in the Screen are subjected to a current of air which we take in around the outside of Screen, and we here make a separation of dust from the germ, etc., leaving same perfectly free from dust and in a clean condition, to be deposited from conveyor to any place desired.



THE GARDNER FLOUR BLENDER.

Size.	Extreme Length.		Extreme Width.		Extreme Height.		Height to Center of Pulley.	Speed, Revolutions.	Size of Pulley.	Capacity per Hour in Barrels.	Price.
	ft.	in.	ft.	in.	ft.	in.						in.	inches.
D.	5	9	1	4½	3	2	20	50	3½ x 10	4 to 6	\$150
G.	6	3	2	1	4	4	26	50	4½ x 12	10 to 15	200

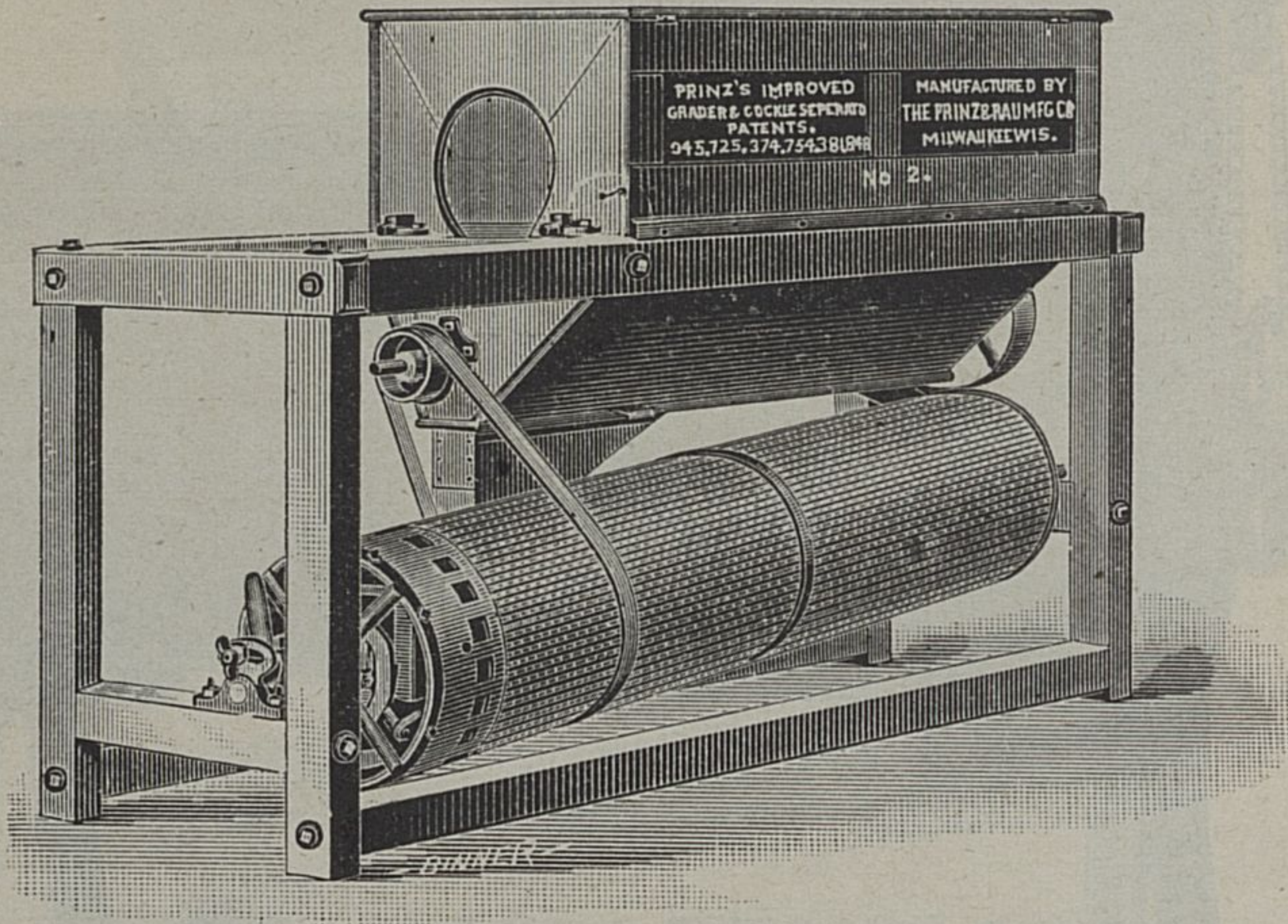


These machines we build to run to right or left. In ordering please state which way they are to run.

THE GARDNER FLOUR FEEDER AND MIXER.

Capacity.....10 pounds to 5 barrels per hour
 Speed.....20 to 30 revolutions
 Size Pulley.....10 inches
 Height.....2 feet 3 inches
 Width.....2 feet
 Length.....1 foot 6 inches
 Price.....\$15.00

THE PRINZ PATENT IMPROVED COCKLE MACHINE.



NO 2.

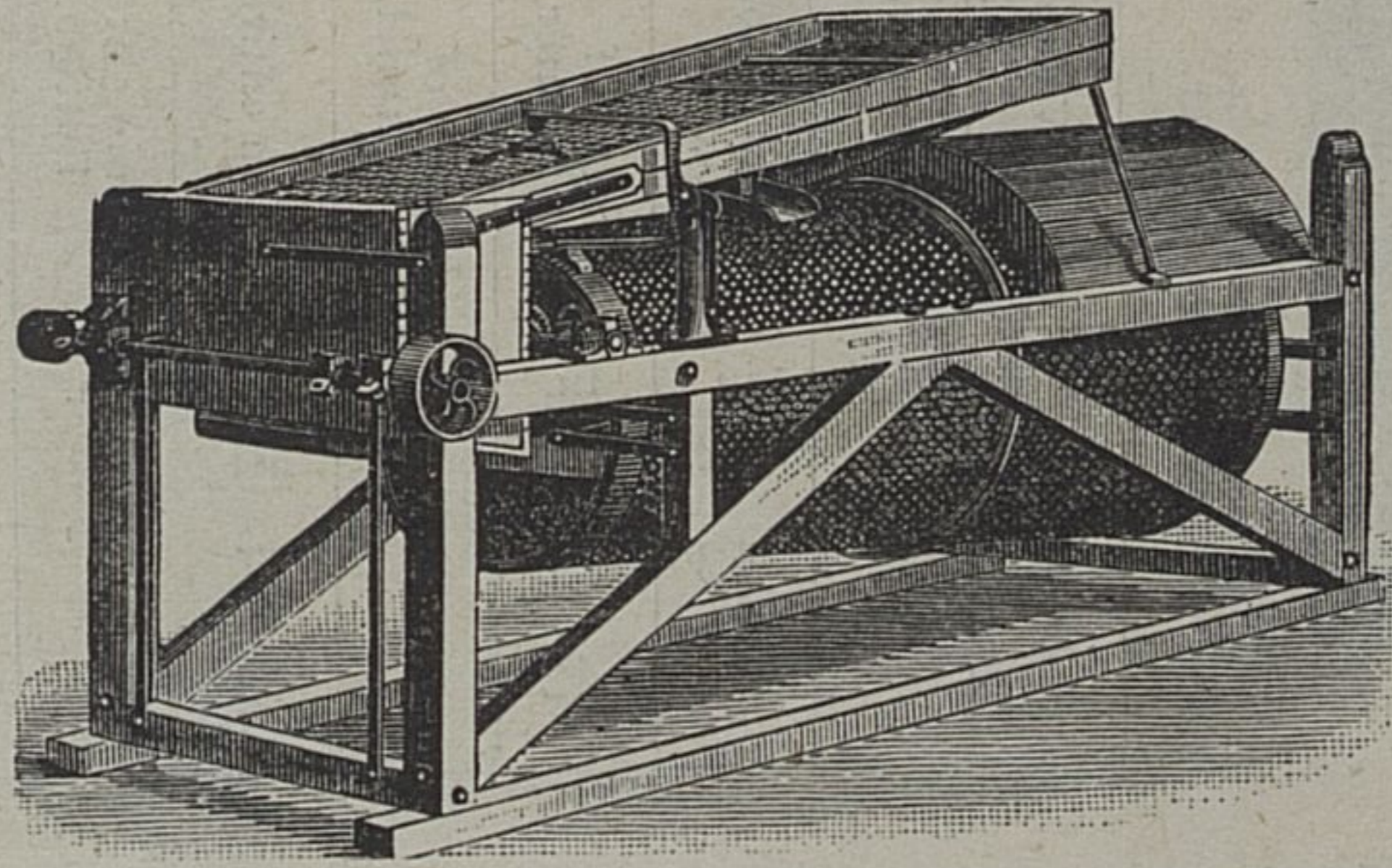
DIMENSIONS AND PRICES.

No. of Machine.	Capacity in bu. per hour	Length over all.		Width over all.		Height over all.		Driving Pulley.	Motion per Minute.	Price.
		ft.	in.	ft.	in.	ft.	in.			
1	16-18	7	2	.....	.....	.....	.....	.....	17-20	\$ 65
1½	18-25	8	2	.....	.....	.....	.....	.....	17-20	85
2	25-35	7	6	2	3	4	6	12 x 3	60	130
2½	35-45	8	6	2	3	4	8	12 x 3	60	155
3	45-70	8	0	3	2	5	0	12 x 4	60	215
3½	60-80	9	0	3	2	5	2	12 x 4	60	230
4	70-110	8	0	3	2	7	0	18 x 4	60	275
4½	100-130	9	0	3	2	7	2	18 x 4	60	320
5	160-190	8	0	5	0	7	8	18 x 4	100	400
5½	190-230	9	0	5	0	7	10	18 x 4	100	480

NOTE.—Nos. 1 and 1½ machines are 16 inches diameter, and the belt goes around the Reel.

ATTENTION.—The above specified capacity is guaranteed in full. The large figures of each machine are for spring wheat and the small figures are for winter wheat.

KURTH'S PATENT COCKLE SEPARATOR.



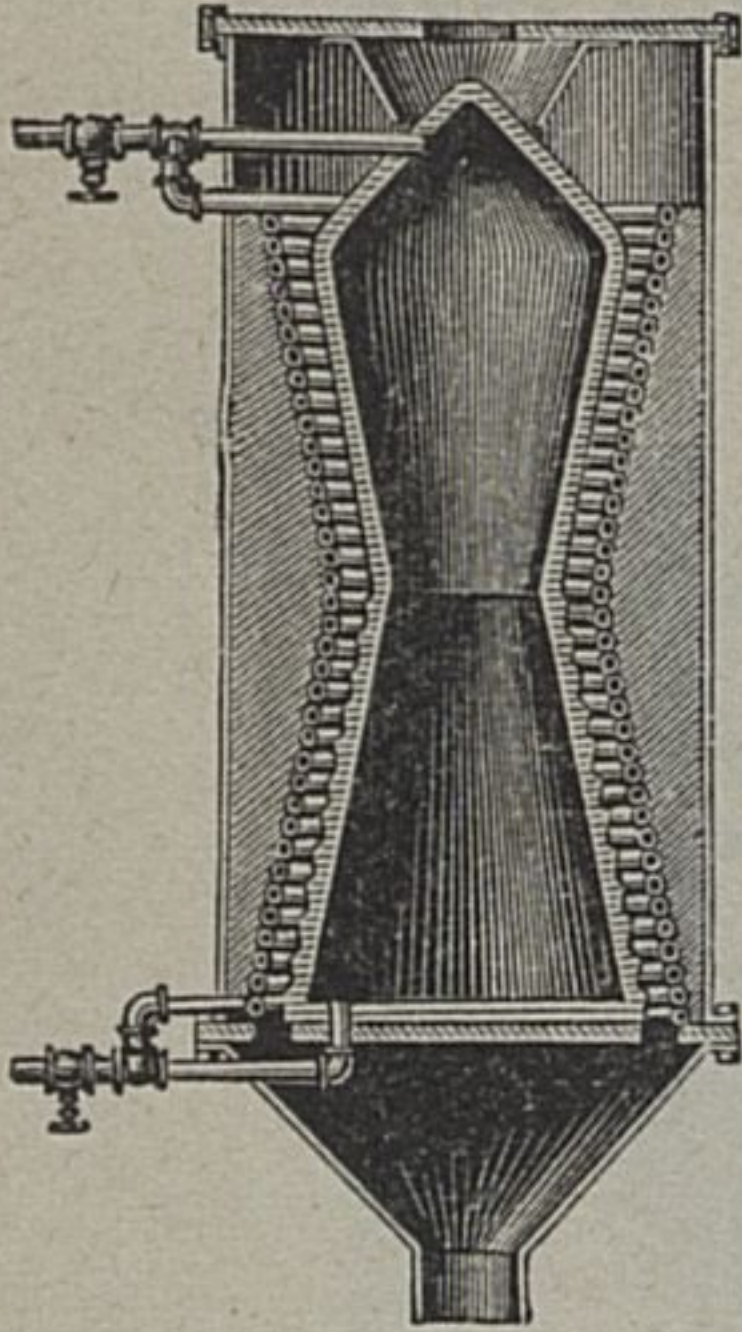
DIMENSIONS, CAPACITY AND PRICE.

Number of Machine.	Capacity per Hour in Bushels.	Space occupied, including All Projections.						Height where Wheat enters.	Driving Pulley.				Price.		
		Height.		Length.		Width.			Distance from floor to Center.		Diameter.	Face.		Revolutions per Minute.	
		ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	in.	in.		
0	90-110	5	10	12	8	5	0	5	10	3	10	8	5	480	\$350
1	60- 75	5	0	10	4	4	4	4	10	3	1	8	5	480	300
2	30- 40	4	5	9	6	4	0	4	5	2	10	8	5	500	250
3	15- 20	4	5	8	6	4	0	4	5	2	10	8	5	500	200
* 4	6- 8	2	4	7	8	.....	.....	.....	.....	.....	.....	.....	.....	20	60

* Reel only, without frame.

A Suction Fan, single or double separation, or only the Oat Separator without the Suction Fan, can be attached to these machines if so desired. For such extras we will quote prices on application.

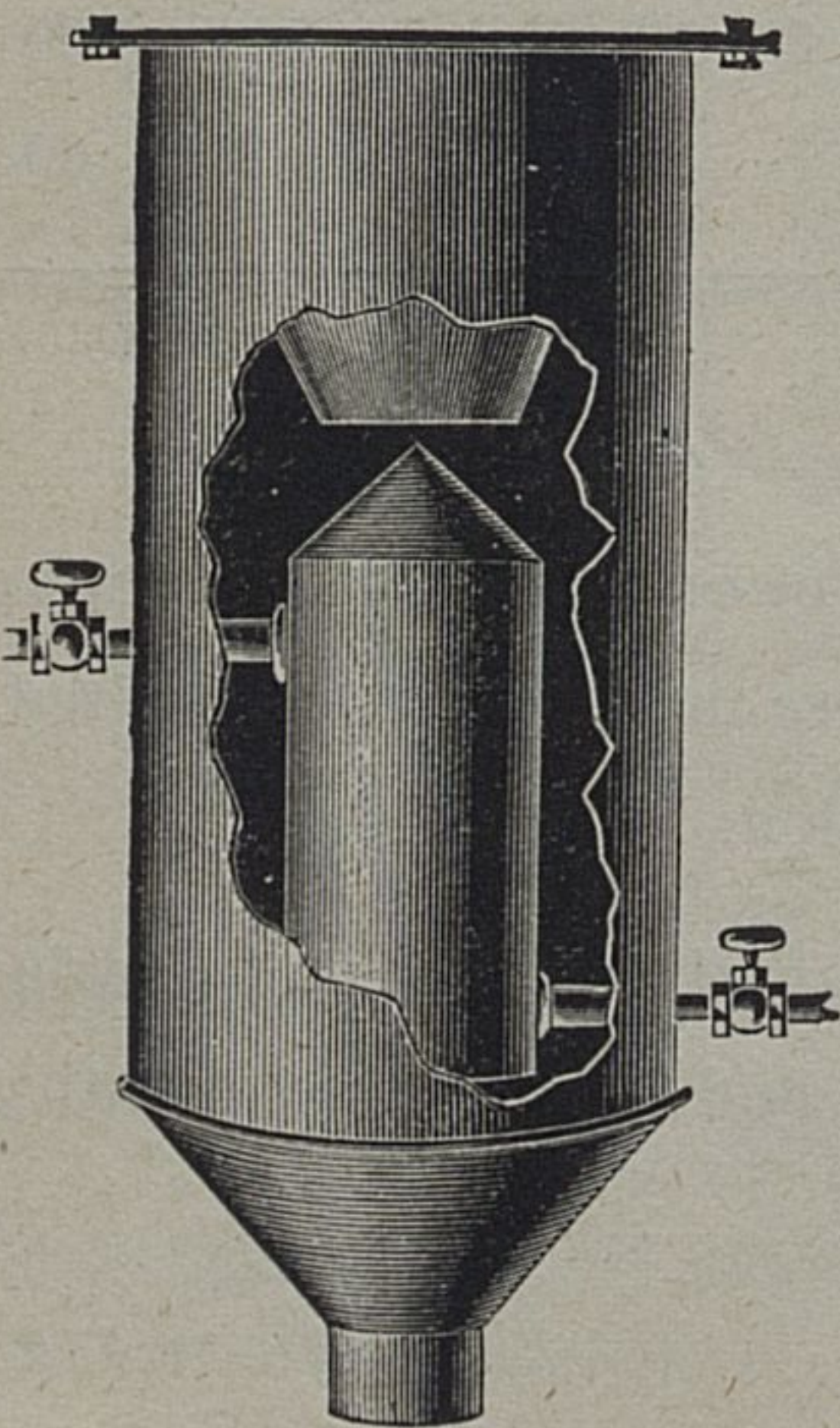
The above named capacities are minimum, and are subject to variation, according to nature of grain and impurities, and comparative quantity of impurities to be removed.

THE WELCH WHEAT HEATER.**DIMENSIONS AND PRICES.**

Number.	Inlet Valve	Exhaust Valve.	Diameter of Heater.	Length of Heater.	Length of Funnel.	Length entire.	Opening at Bottom.	Capacity in Barrels.	Price.
1	in. $\frac{1}{2}$	in. $\frac{3}{8}$	in. 12	in. 21	in. 5	in. $26\frac{1}{2}$	in. 3	60-80	\$ 50
2	in. $\frac{1}{2}$	in. $\frac{3}{8}$	in. 13	in. 22	in. 5	in. 27	in. 3	80-130	60
3	in. $\frac{3}{4}$	in. $\frac{1}{2}$	in. 14	in. 42	in. 6	in. 49	in. $3\frac{1}{2}$	100-200	100

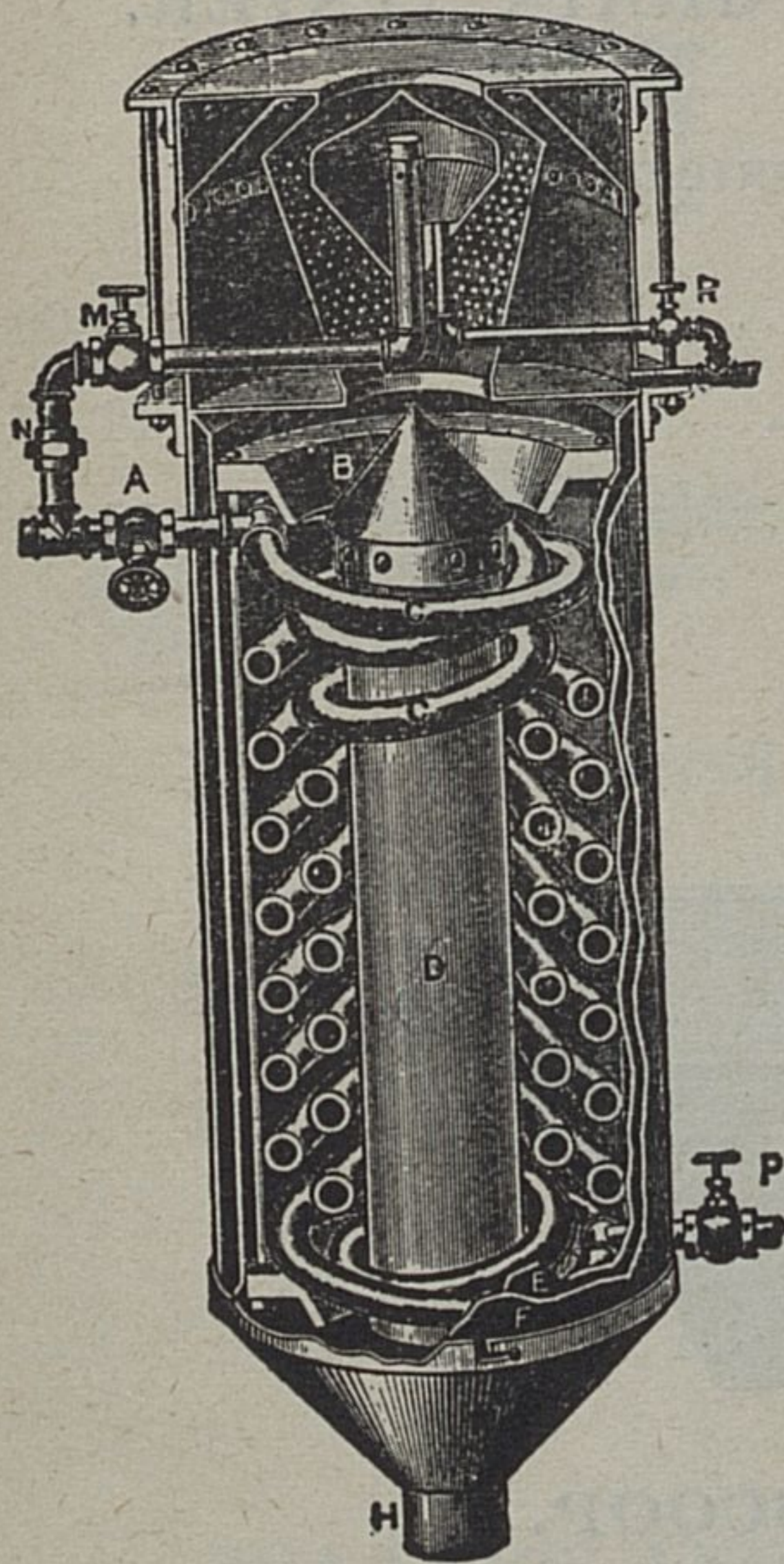
BEALL'S IMPROVED AUTOMATIC WHEAT STEAMER.**DIMENSIONS, CAPACITIES AND PRICES.**

Sizes.	Height over all.	Diameter over all.	Capacity in Barrels for 24 hours.	Price.
0	24 inches.	9 inches.	25 to 75	\$ 50 00
1	26 inches.	10 inches.	75 to 125	70 00
2	30 inches.	11 inches.	125 to 250	85 00
3	36 inches.	13 inches.	250 to 375	100 00

**ACME****WHEAT STEAMER AND HEATER.**

No.	Capacity in Bushels.	Price.
1	6 to 12	\$15 00
2	12 to 18	18 00
3	18 to 25	20 00
4	25 to 40	25 00

BRADEN'S IMPROVED WHEAT HEATER.



Length.	Diameter.	Capacity per Hour in Bushels.	PRICE.	
			With Steamer.	Without Steamer.
in.	in.			
24	10	10 to 15	\$45 00	\$35 00
27	11	20 to 25	50 00	40 00
30	12	30 to 35	55 00	45 00
35	13	45 to 50	65 00	50 00
40	14	50 to 55	75 00	60 00
45	14	60 to 75	.....	75 00
50	16	75 to 80	.....	100 00

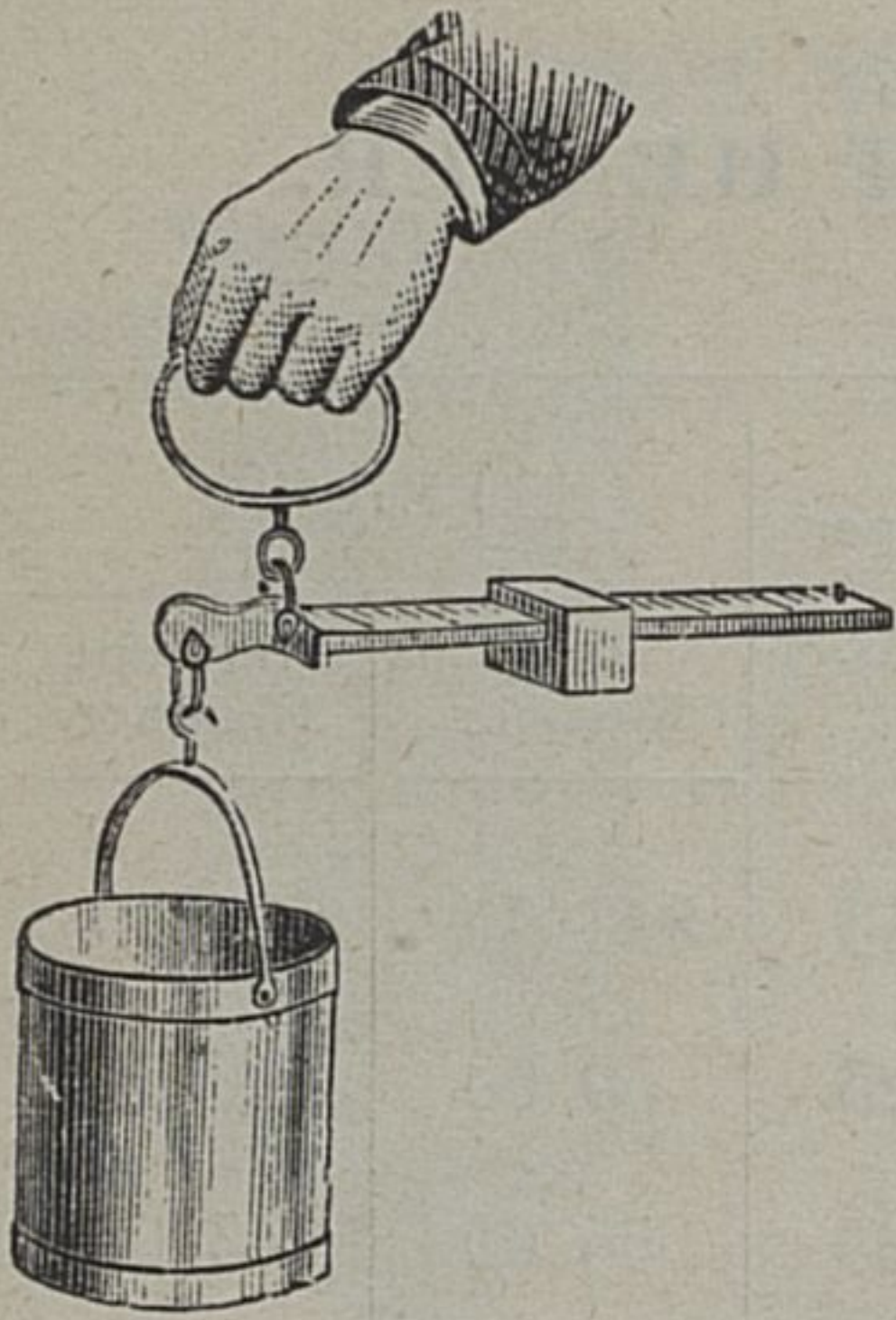
The steaming attachment will add eight to ten inches to the length or height of the heater.

THE GATE CITY STEAM GENERATOR.

No.	Weight.	Price.
0	400 lbs.	\$ 65 00
1	700 lbs.	85 00
2	750 lbs.	95 00
3	800 lbs.	105 00
4	900 lbs,	125 00
5	1,000 lbs.	135 00

These prices include: Hand Pump; all pipe connections between Water Barrel, Pump and Generator; Steam Gauge, Glass Water Gauge, two Gauge Cocks, one Safety Valve, one Blow-off Cock, one Steam Valve, two Cleaning Plugs, one Fusible Plug, one Chimney Elbow, one set Grates, and cast iron base—which forms ash-pan.

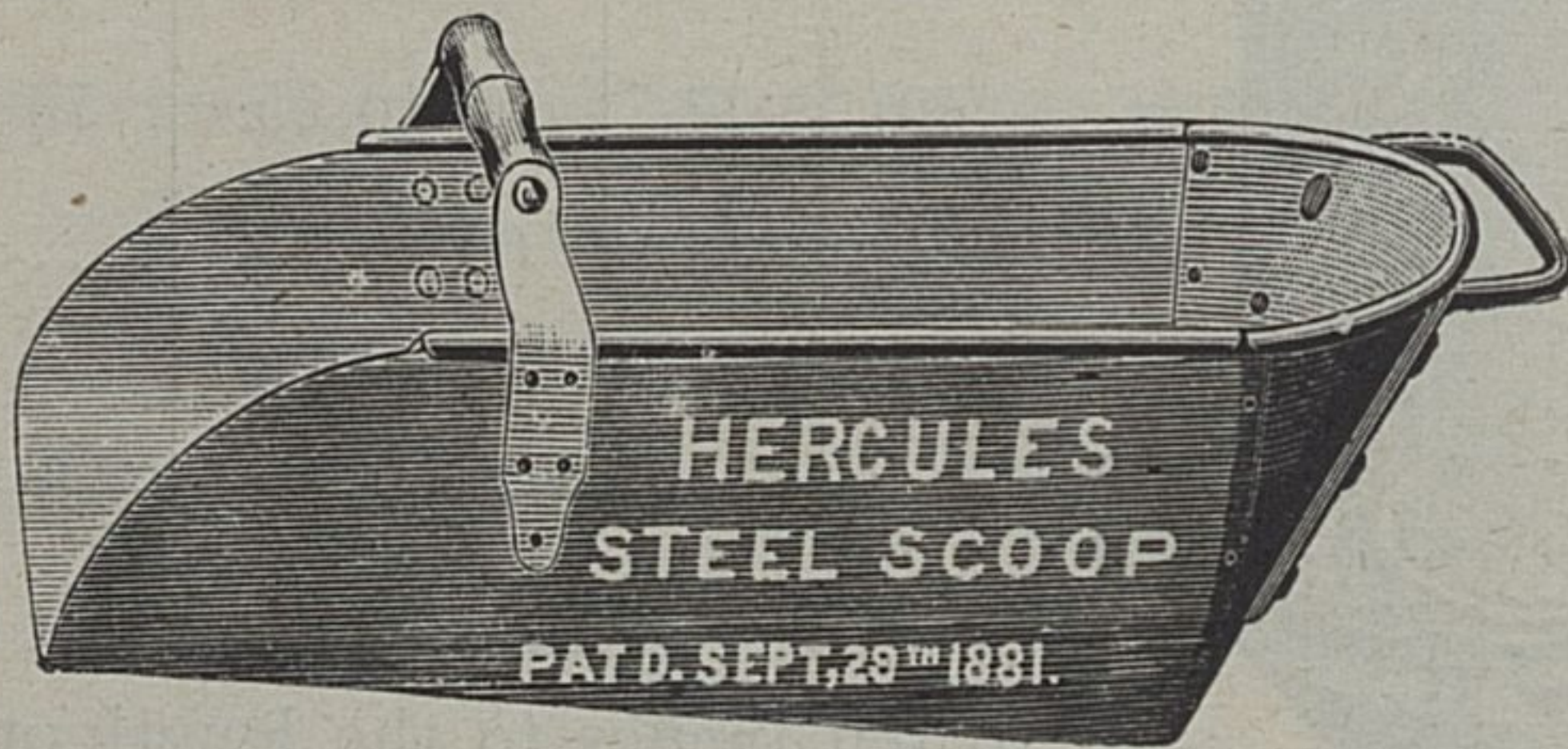
Anything else ordered will be extra.



IMPROVED GRAIN TESTER.

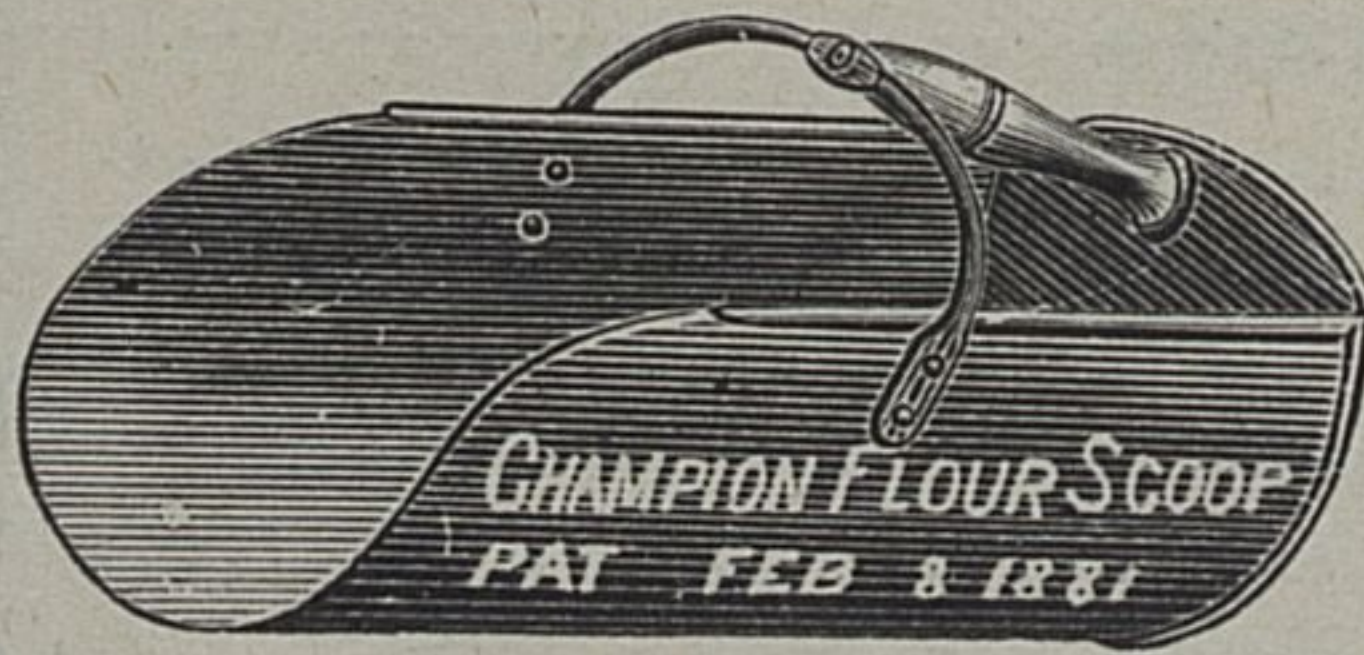
PRICES.

1 Pint	\$13 00
1 Quart	14 00
2 Quarts	15 00



HERCULES STEEL SCOOP.

Bushel Scoop, Net Price.....	\$3 00
Half Bushel Scoop, Net Price	2 50

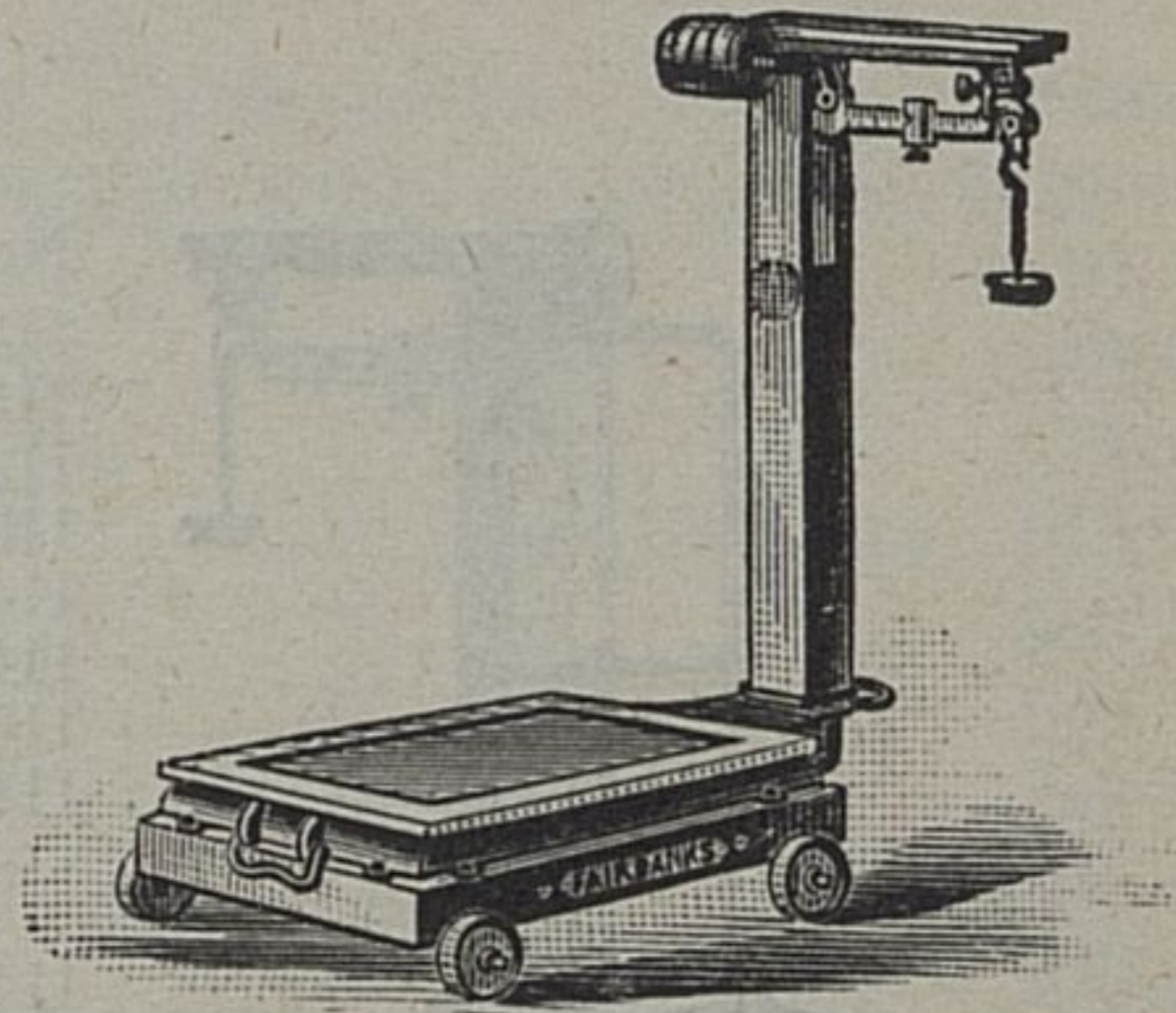
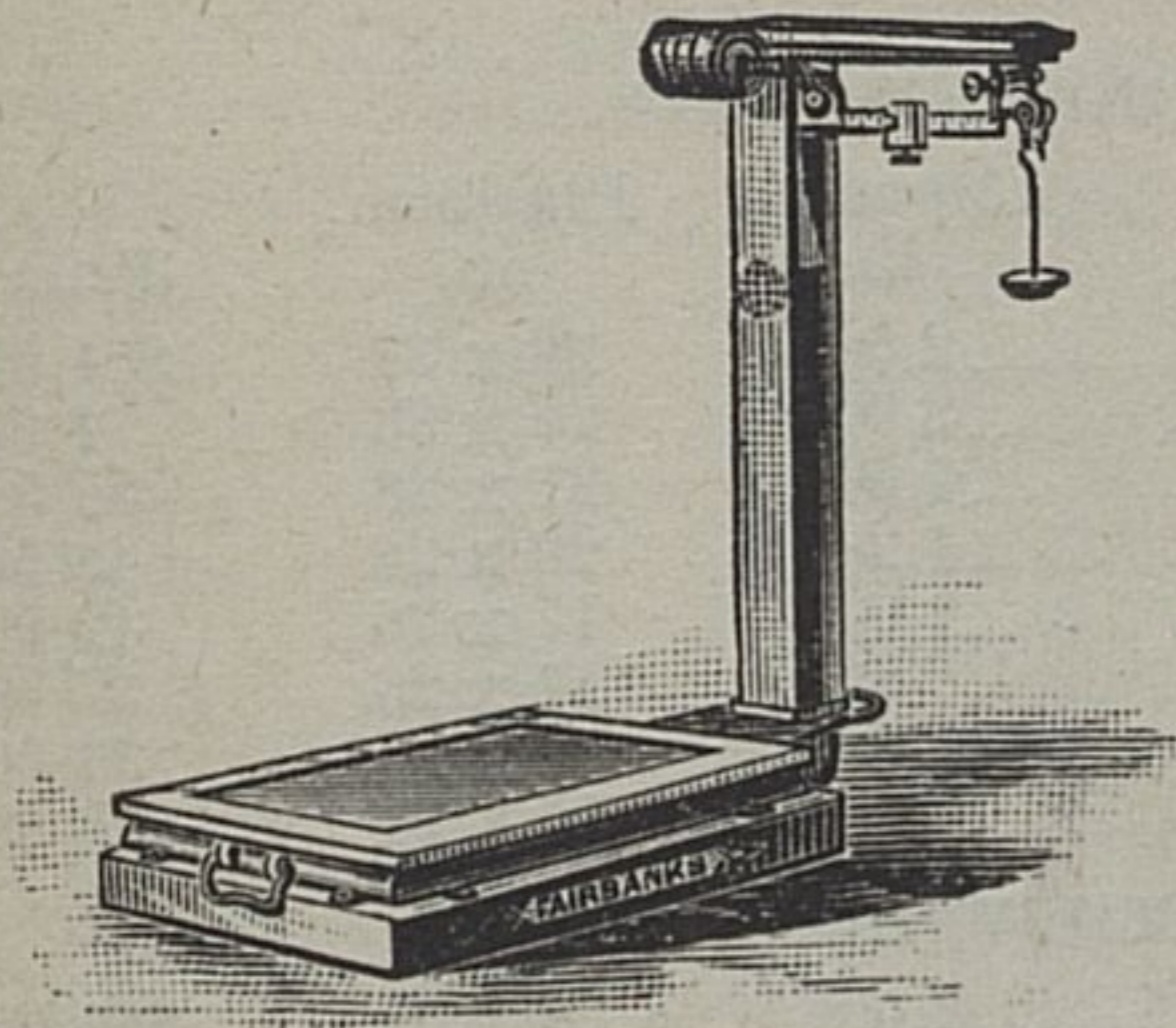


THE CHAMPION FLOUR SCOOP.

	Tin.	Steel.
10 inches, net price	\$ 65	\$ 85
12 inches, net price	75	1 00
14 inches, net price	1 00	1 25

Ordinary Tin Scoops, 25 cents to 50 cents..

FAIRBANK'S STANDARD SCALES.
PORTABLE PLATFORM SCALES.



WITH SLIDING BRASS POISE.

WITHOUT WHEELS.			
No.	Capacity. lbs.	Platform. in.	Price.
1100	2,500	26 x 34	\$80 00
1102	2,000	25 x 33	70 00
1104	1,500	21 x 28	52 00
1106	1,200	20 x 28	45 00
1108	1,000	17 x 26	39 00
1110	800	17 x 26	34 00
1112	600	16 x 25	30 00
1114	400	15 x 21	23 00

WITH WHEELS.			
No.	Capacity. lbs.	Platform. in.	Price.
1116	2,500	26 x 34	\$85 00
1118	2,000	25 x 33	75 00
1120	1,500	21 x 28	56 00
1122	1,200	20 x 28	49 00
1124	1,000	17 x 26	43 00
1126	800	17 x 26	38 00
1128	600	16 x 25	33 00
1130	400	15 x 21	26 00

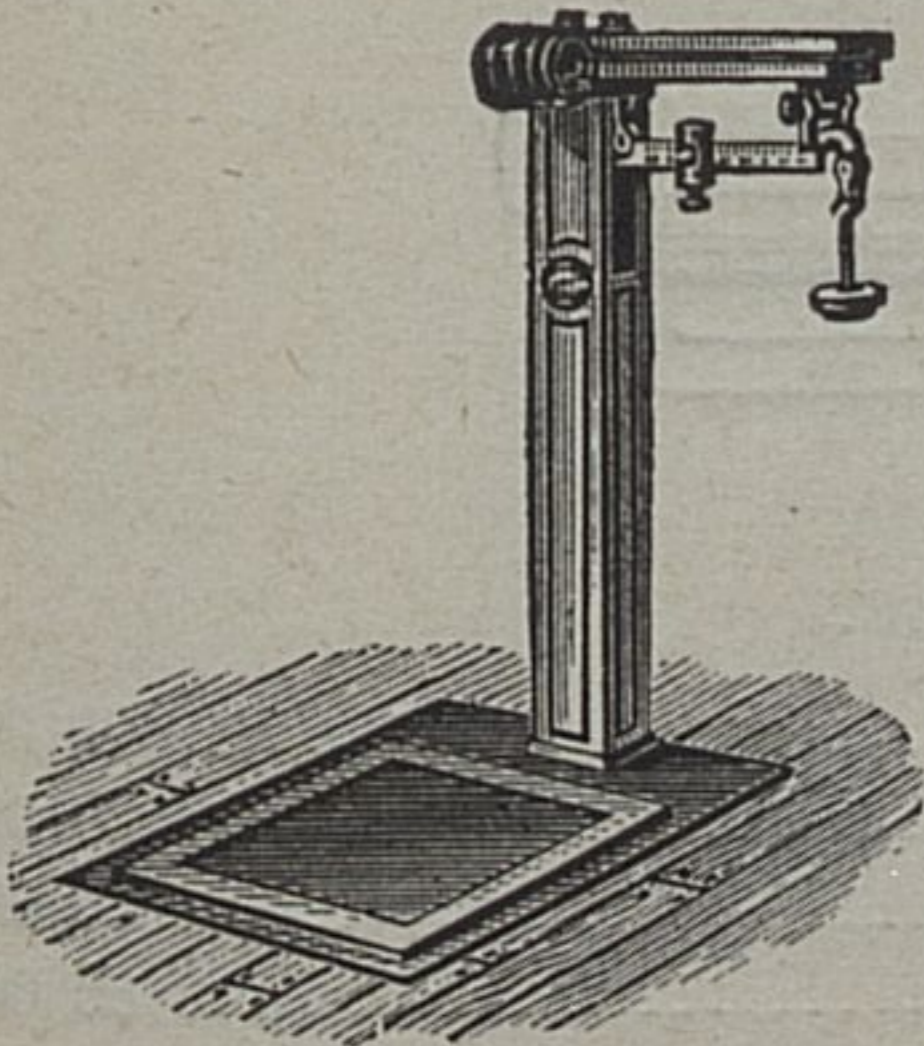
MILLERS' AND GRAIN DEALERS' SCALES.

WITH BRASS SLIDING POISE.

WITHOUT WHEELS.			
No.	Capacity. lbs.	Platform. in.	Price.
1300	1,000	30 x 42	\$68 00
1302	1,200	40 x 42	72 00
1304	1,800	35 x 44	87 00
1306	2,000	35 x 44	91 00
1308	2,200	35 x 44	93 00

WITH WHEELS.			
No.	Capacity. lbs.	Platform. in.	Price.
1310	1,000	30 x 42	\$73 00
1312	1,200	30 x 42	77 00
1314	1,800	35 x 44	94 00
1316	2,000	35 x 44	98 00
1318	2,200	35 x 44	100 00

All excepting the 1,000 lb. Scale have the pillar braced.



DORMANT FLOUR SCALE.

BRASS SLIDING POISE.

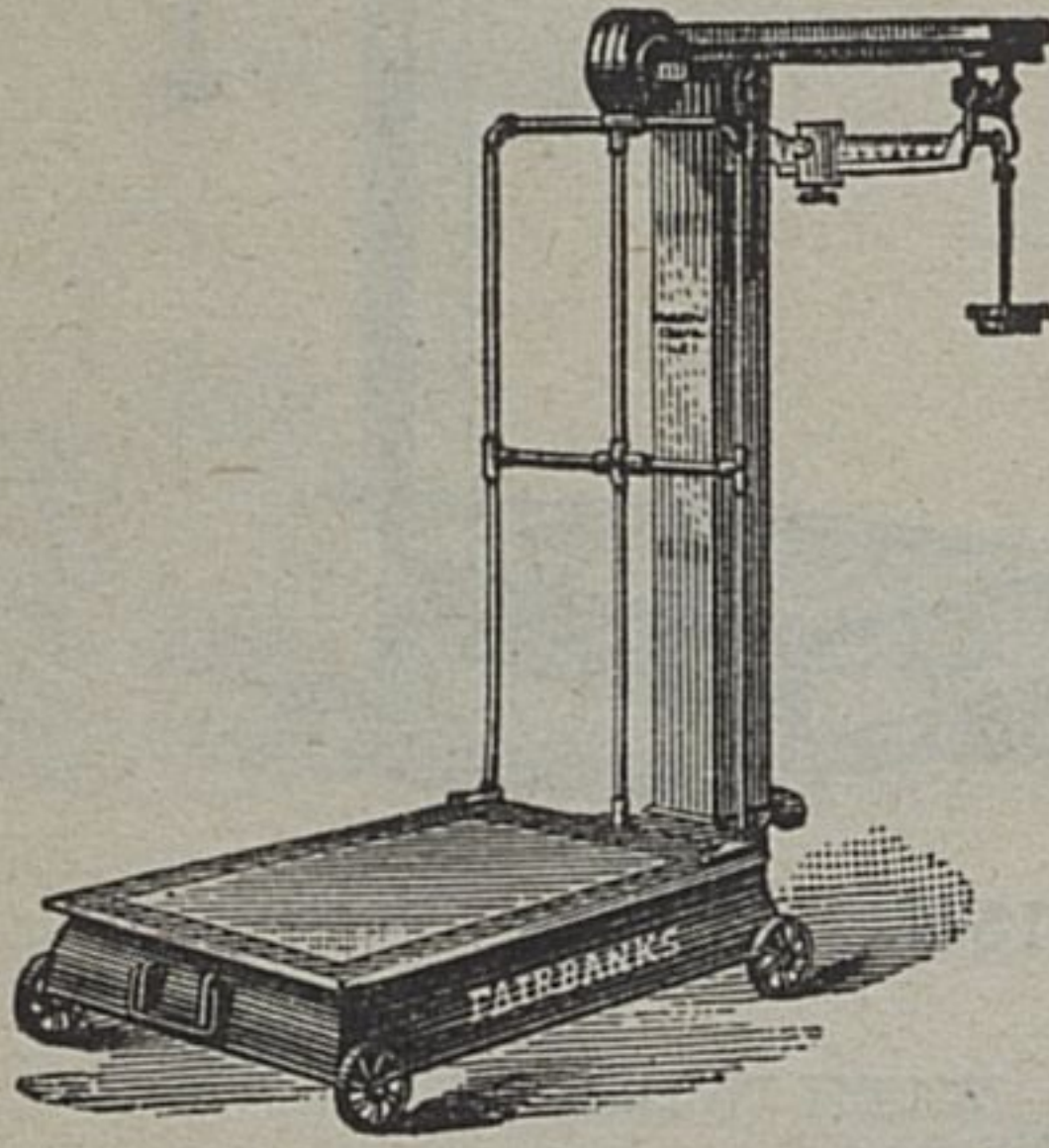
No.	Capacity. lbs.	Platform. in.	Price.
1068	600	16 x 25	\$40 00

FAIRBANK'S STANDARD SCALES.

PORTABLE PLATFORM SCALES.

WITH BAG RACK FOR SUPPORTING SACKS OR BALES.

WITHOUT WHEELS.



No.	Capacity. lbs.	Platform. in.	Price.
1132	2,500	26 x 34	\$81 00
1134	2,000	25 x 33	74 00
1136	1,500	21 x 28	55 50
1138	1,200	20 x 28	48 50
1140	1,000	17 x 26	42 50
1142	800	17 x 26	37 50
1144	600	16 x 25	33 00
1146	400	15 x 21	26 00

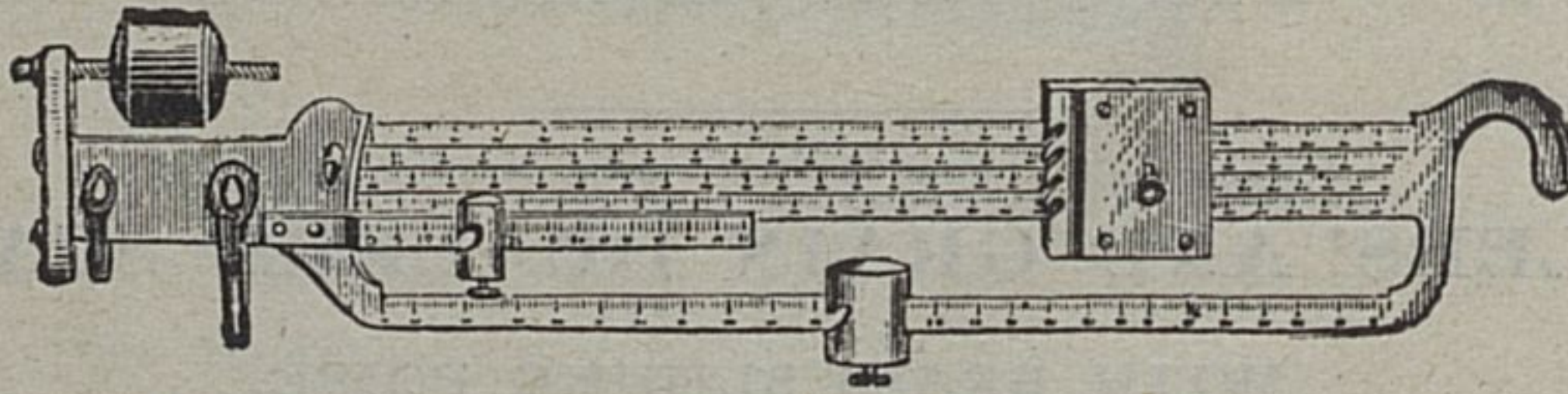
WITH WHEELS.

1148	2,500	26 x 34	\$89 00
1150	2,000	25 x 33	79 00
1152	1,500	21 x 28	59 50
1154	1,200	20 x 28	52 50
1156	1,000	17 x 26	46 50
1158	800	17 x 26	41 50
1160	600	16 x 25	36 00
1162	400	15 x 21	29 00

PATENT COMBINATION GRAIN BEAM.

FOR HOPPER SCALES.

INDICATING IN BUSHELS, WITH TARE BEAM IN POUNDS.



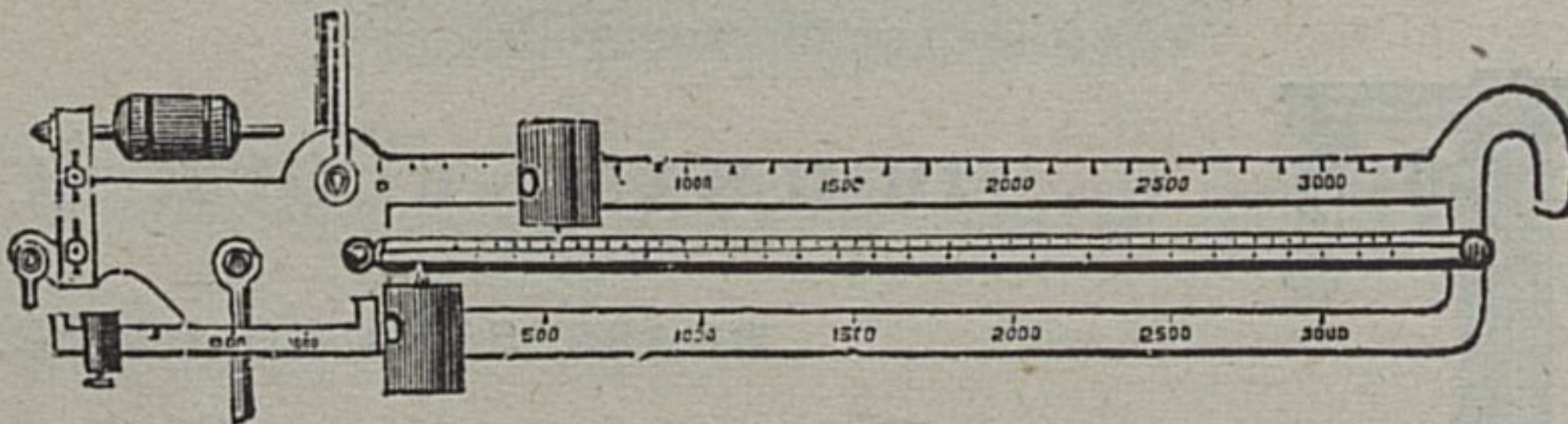
PRICE WHEN ORDERED WITH SCALE.

Extra for 100 Bushel Hopper	\$30 00
“ “ 60 Bushel Hopper	25 00

PATENT COLUMBIA BEAM.

FOR GRAIN, HOPPER OR COAL SCALES.

INDICATING IN BUSHELS AND POUNDS.



PRICE WHEN ORDERED WITH SCALE.

Extra for 100 Bushel Hopper	\$30 00
“ “ 60 Bushel Hopper	25 00
“ “ 6, 8 and 10 Ton Scale	35 00
“ “ 3, 4 and 5 Ton Scale	30 00

FAIRBANK'S STANDARD SCALES.

HOPPER SCALES FOR GRAIN.

WITH BRASS SLIDING POISE.

No.	Capacity, bush.	Platform.	Description.	PRICE.
1606	60	42 x 44 in.	Dormant, with wood pillar,	\$105 00
1610	100	48 x 48 "	" " " "	140 00
1614	125	48 x 48 "	" " " "	160 00
1618	150	48 x 48 "	" " " "	175 00
1608	60	42 x 44 "	" " 2 iron pillars,	125 00
1612	100	48 x 48 "	" " " "	160 00
1616	125	48 x 48 "	" " " "	180 00
1620	150	48 x 48 "	" " " "	195 00
1750	200	6 ft. 2 in. x 6 ft.	" " " "	225 00
1752	300	6 " 2 " x 6 "	" " " "	285 00
1754	350	6 " 2 " x 6 "	" " " "	300 00
1762	400	7 " x 6 " 10 in.	" " " "	320 00
1764	500	7 " x 6 " 10 "	" " " "	350 00
1768	600	8 " 6 " x 8 " 2 "	" " " "	390 00
1770	700	8 " 6 " x 8 " 2 "	" " " "	430 00
1772	800	8 " 6 " x 8 " 2 "	" " " "	475 00
1786	900	8 " x 8 " 3 $\frac{1}{2}$ "	" " " "	525 00
1794	1,000	9 " 6 " x 8 " 10 $\frac{1}{2}$ "	" " " "	600 00

All above prices are exclusive of the Hopper. Sizes from 200 Bushels upward require timber, which is to be furnished by the purchaser. The sizes from 200 to 1,000 Bushels, inclusive, have Patent Adjustable Check Chains and Corner Irons.

HAY AND STOCK SCALES.

No.	Capacity, tons.	Size of Platform.	Distance from Edge of Platform to Beam Rod.	PRICE, Single Beam.	PRICE, Double Beam.
1807	10	22 x 10 ft. 3 $\frac{7}{8}$ in.	2 ft. 1 in.	\$345 00	\$360 00
1842	10	18 x 8 " 3 "	4 " 5 $\frac{1}{2}$ "	330 00	345 00
1844	8	18 x 8 " 3 "	4 " 5 $\frac{1}{2}$ "	300 00	315 00
1846	6	18 x 8 " 3 "	4 " 5 $\frac{1}{2}$ "	275 00	290 00
1924	15	14 x 8 " 4 $\frac{1}{4}$ "	2 " 1 "	390 00	405 00
1926	12	14 x 8 " 4 $\frac{1}{4}$ "	2 " 1 "	320 00	335 00
1928	10	14 x 8 " 4 $\frac{5}{8}$ "	2 " 0 $\frac{3}{4}$ "	300 00	315 00
1930	8	14 x 8 " 4 $\frac{5}{8}$ "	2 " 0 $\frac{3}{4}$ "	275 00	290 00
1932	6	14 x 8 " 4 $\frac{5}{8}$ "	2 " 0 $\frac{3}{4}$ "	250 00	265 00
1934	5	14 x 8 " 4 $\frac{1}{4}$ "	2 " 1 "	225 00	235 00
1936	4	14 x 8 " 4 $\frac{1}{4}$ "	2 " 1 "	200 00	210 00
1982	3	14 x 8 " 0 $\frac{3}{8}$ "	1 " 2 $\frac{1}{8}$ "	175 00	185 00
2032	2	12 x 7 " 5 $\frac{5}{8}$ "	1 " 2 $\frac{7}{8}$ "	145 00	155 00

SCALES REQUIRING SHALLOW PIT.

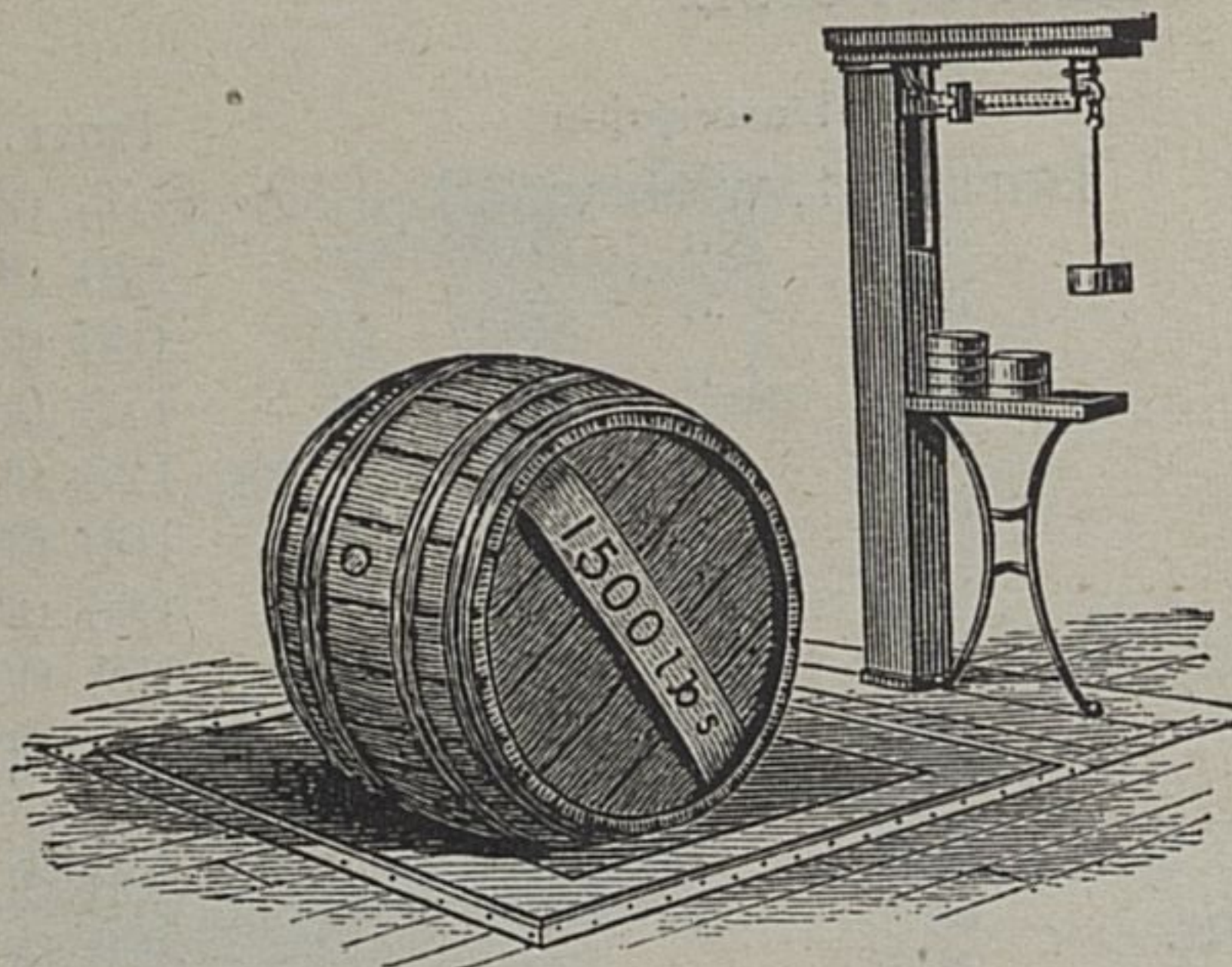
2100	6	22 x 8 ft.	2 ft. 9 in.	\$250 00	\$265 00
2110	6	14 x 8 "	2 " 2 $\frac{1}{2}$ "	225 00	240 00
2112	5	14 x 8 "	2 " 2 $\frac{1}{2}$ "	200 00	210 00
2114	4	14 x 8 "	2 " 2 $\frac{1}{2}$ "	170 00	180 00
2116	3	14 x 8 "	2 " 2 $\frac{1}{2}$ "	145 00	155 00

The sizes of Platforms of these Scales may be varied somewhat from the above dimensions and without adding to the cost of the irons.

All the above prices are exclusive of the cost of timber and foundation, which is to be paid by purchaser.

FAIRBANK'S STANDARD SCALES.

DORMANT WAREHOUSE SCALES.



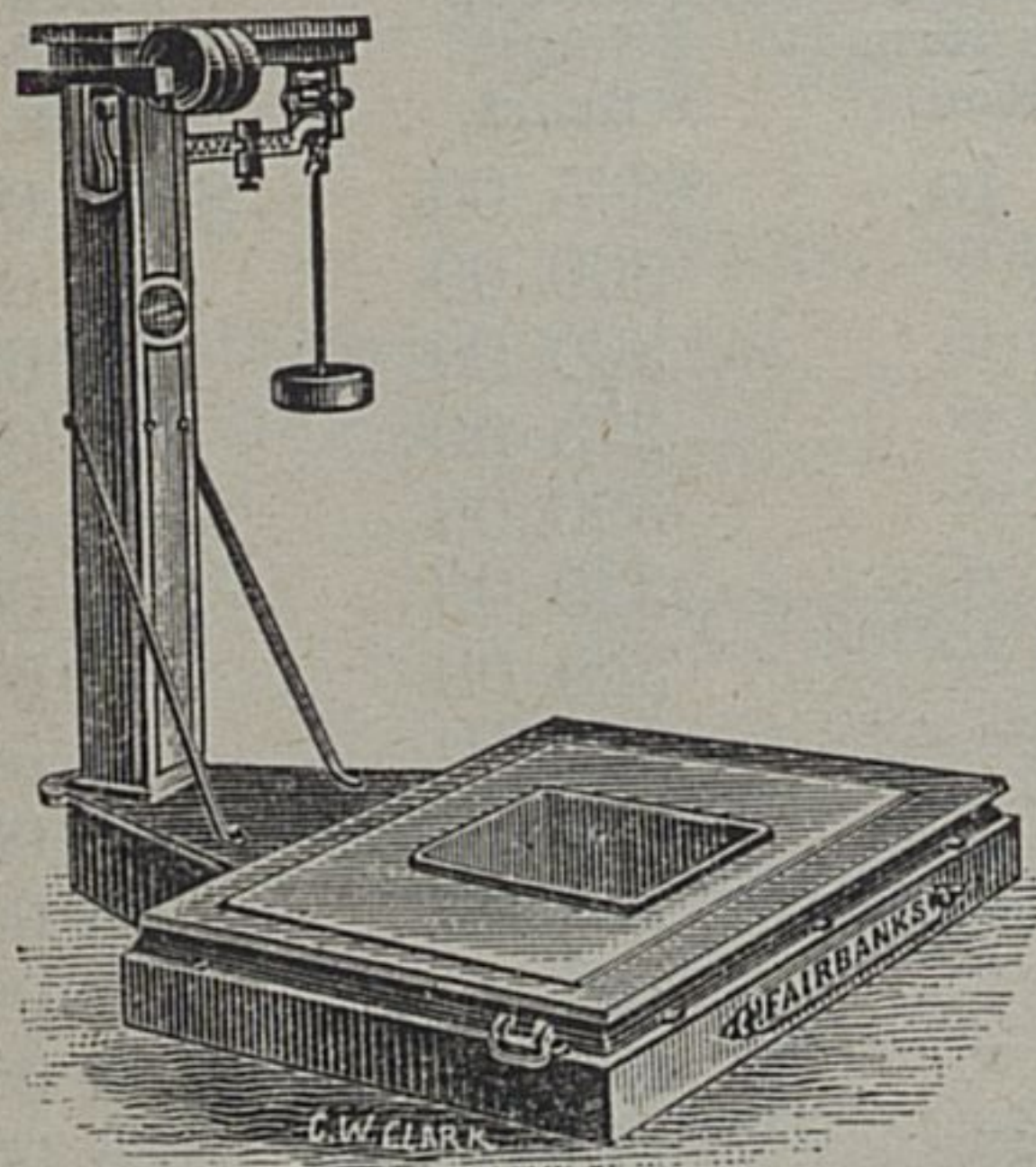
WITH SINGLE WOOD PILLAR,
DROP LEVER AND NOTCHED BEAM,
OR BRASS SLIDING POISE.

No.	Capacity, lbs.	Platform, in.	PRICE.
1026	5,000	48 x 48	\$150 00
1028	3,500	42 x 44	105 00
1030	2,500	37 x 46	92 00
1032	2,000	25 x 34	78 00
1034	1,500	21 x 31	68 00

WITH DOUBLE BEAM.

WITH TWO IRON PILLARS AND BRASS SLIDING POISES.

No.	Capacity, lbs.	Platform, in.	PRICE.
1046	5,000	48 x 48	\$180 00
1048	3,500	42 x 44	133 00
1050	2,500	37 x 46	113 00
1052	3,500	42 x 44	
with extra Long Neck.....			143 00



HOPPER SCALES FOR GRAIN.

WITH SINGLE PILLAR, BRASS SLIDING POISE.

No.	Capacity, bu.	Platform, in.	Description.	PRICE.
1600	30	35 x 44	Portable.	\$84 00
1602	40	35 x 44	"	92 00

The above prices are exclusive of
the Hopper.

FLOUR PACKING SCALE.

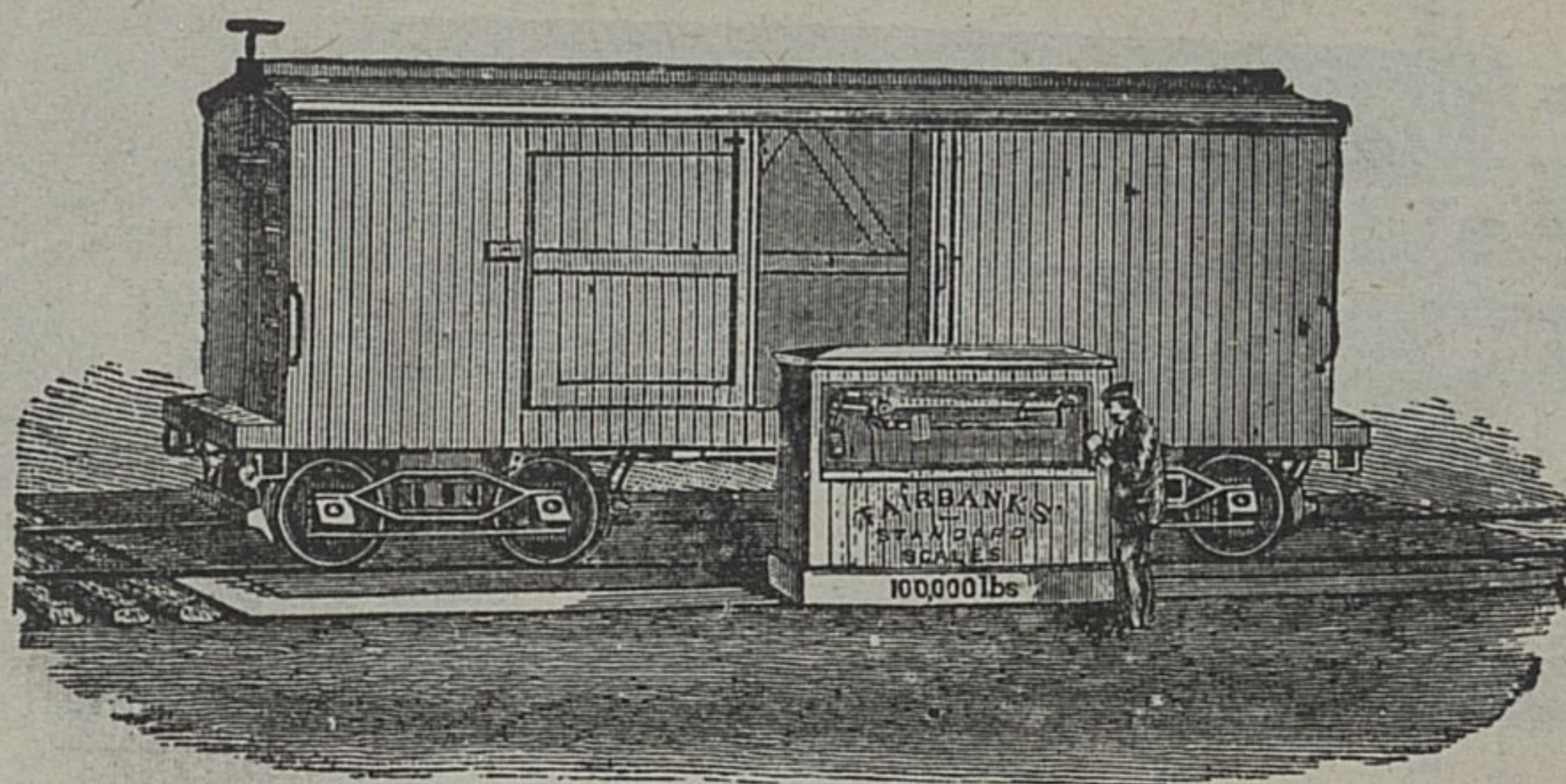
WITH PATENT DROP LEVER AND NOTCHED BEAM.

TO USE UNDER A PRESS.

No.	Capacity, lbs.	Platform, Diameter, in.	PRICE.
1070	248	18	\$50 00

Price of Scale does not include press.

FAIRBANK'S STANDARD SCALES.



IRON FRAME RAILROAD TRACK SCALES.

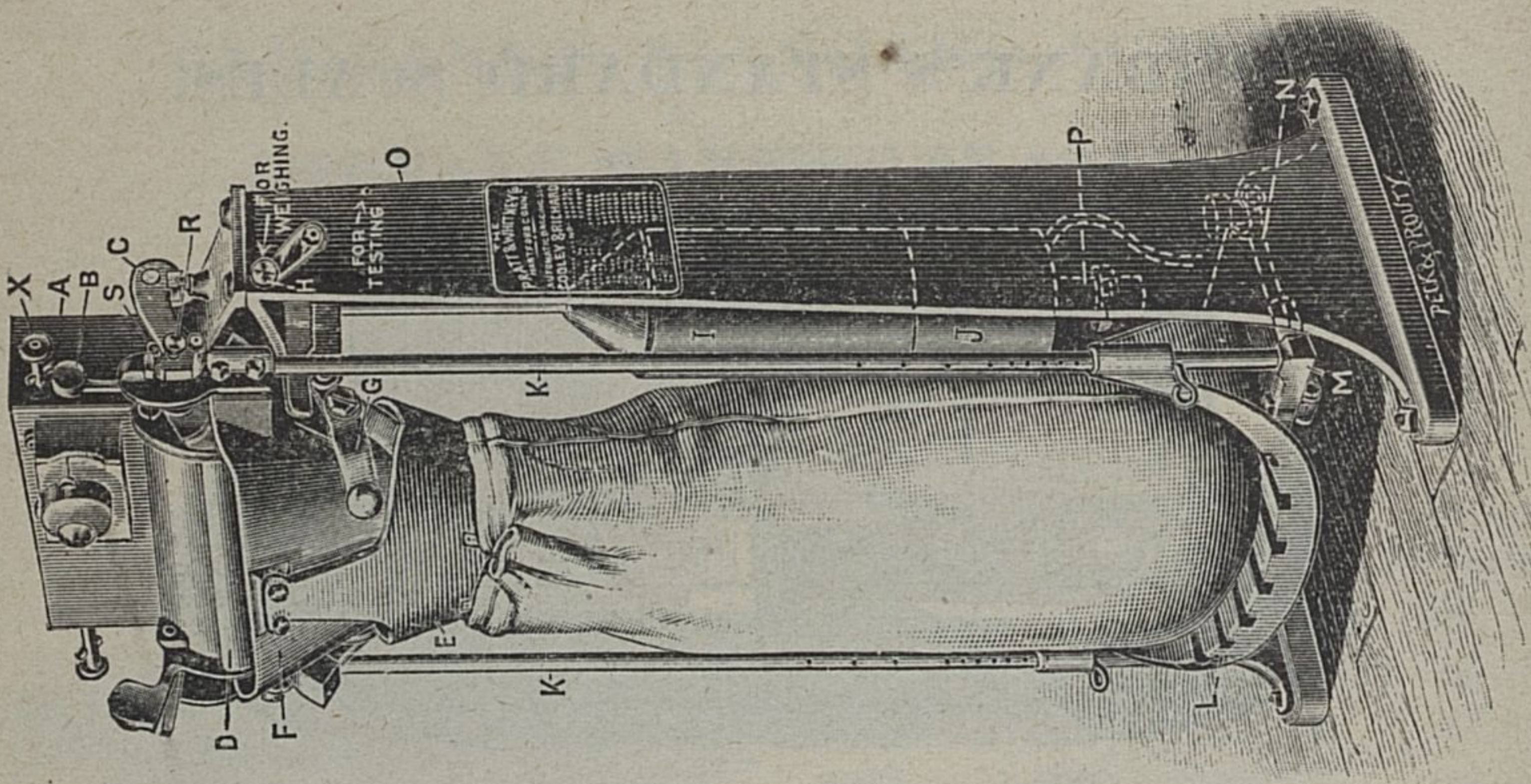
Platform.	Capacity.	Price.	Platform.	Capacity.	Price.
20 feet.....	20 tons	\$ 600 00	34 feet.....	60 tons.....	\$1,050 00
24 "	25 "	700 00	34 "	70 "	1,075 00
26 "	25 "	725 00	34 "	80 "	1,100 00
28 "	30 "	750 00	36 "	30 "	1,000 00
30 "	30 "	875 00	36 "	40 "	1,025 00
30 "	40 "	900 00	36 "	50 "	1,050 00
30 "	50 "	925 00	36 "	60 "	1,075 00
30 "	60 "	950 00	36 "	70 "	1,100 00
30 "	70 "	975 00	36 "	80 "	1,125 00
30 "	80 "	1,000 00	38 "	40 "	1,050 00
32 "	30 "	900 00	38 "	50 "	1,075 00
32 "	40 "	925 00	38 "	60 "	1,100 00
32 "	50 "	950 00	38 "	70 "	1,125 00
32 "	60 "	975 00	38 "	80 "	1,150 00
32 "	70 "	1,000 00	40 "	50 "	1,100 00
32 "	80 "	1,025 00	40 "	60 "	1,125 00
34 "	30 "	975 00	40 "	70 "	1,150 00
34 "	40 "	1,000 00	40 "	80 "	1,175 00
34 "	50 "	1,025 00			

Prices for other modifications will be given upon application. The prices for the above are exclusive of timber and foundation, which are furnished at purchaser's expense.

All the above are furnished with Patent Track Scale Beams, unless otherwise ordered.

Double Beam for Track Scales, extra\$20 00

SUSPENSION TRACK SCALES FURNISHED WHEN REQUIRED.

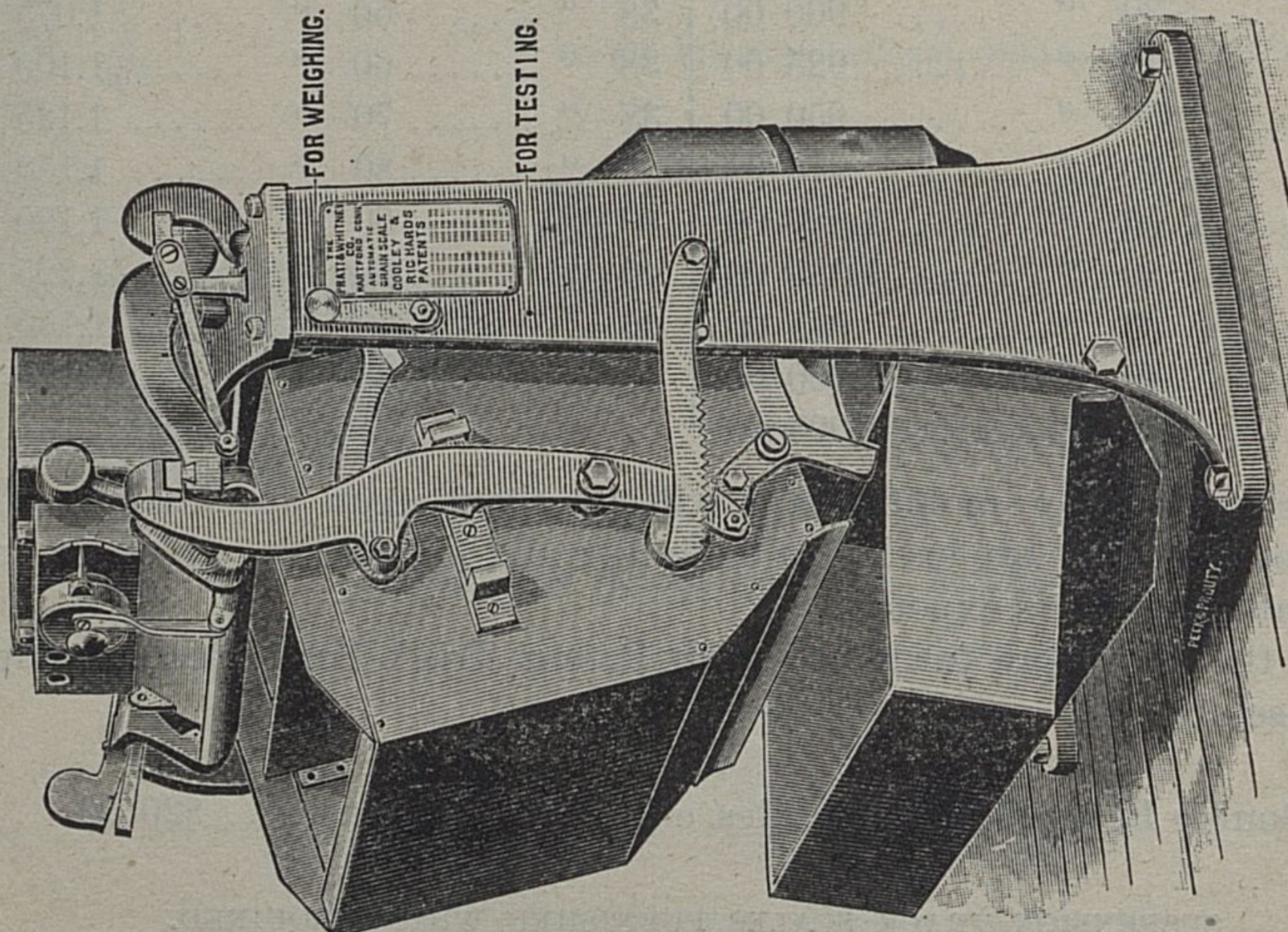


AUTOMATIC BAGGING SCALE.

PRATT & WHITNEY CO.'S AUTOMATIC SCALES.
NET PRICE LIST.

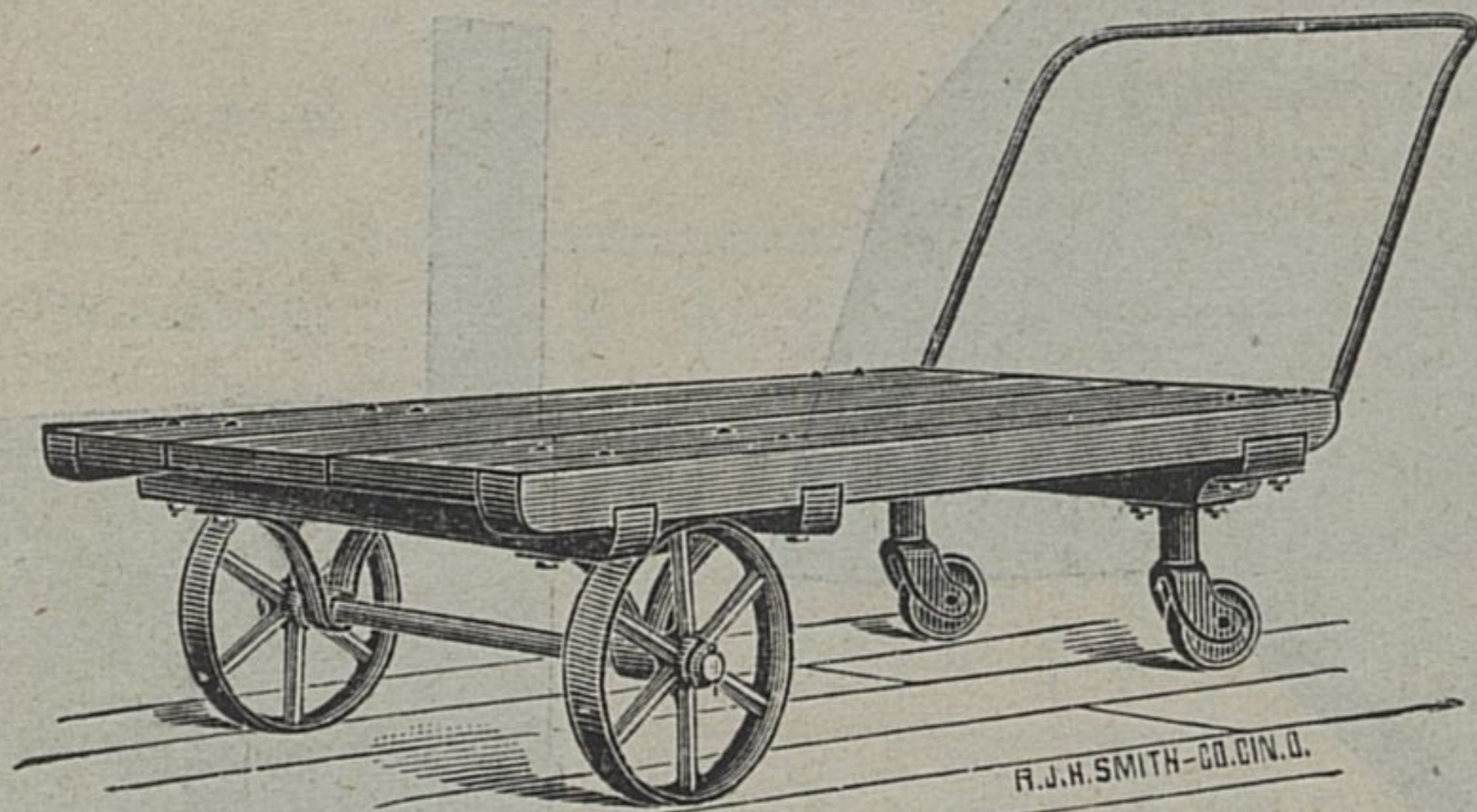
Size of Scale.	Loads discharged per Minute.	Quantity delivered per hour.	Floor Space Required.	Height.	Prices with Register.	Extra for Stop Motion.	Shipping Weight of Scales, without crate.
Half-bushel	5	150 bu.	25 x 23 in.	37 in.	\$150 00	-----	1/2-bu., 475 lbs.
One-bushel	5	300 bu.	28 x 30 in.	47 in.	275 00	\$25 00	1-bu., 850 lbs.
Two-bushel	5	600 bu.	35 x 35 in.	50 in.	450 00	30 00	2-bu., 1080 lbs.
Four-bushel	5	1,200 bu.	42 x 44 in.	63 in.	650 00	35 00	4-bu., 1800 lbs.
1/2-bu. Bran Scale.	5	150 bu.	23 x 25 in.	38 in.	150 00	-----	1/2-bu., 400 lbs.
1-bu. " " "	5	300 bu.	25 x 32 in.	54 in.	275 00	-----	1-bu., 600 lbs.
120 lbs. Bagging "		About 100 bags.	28 x 31 in.	72 in.	300 00	-----	900 lbs.

In ordering, state the kind of grain or other material to be weighed.

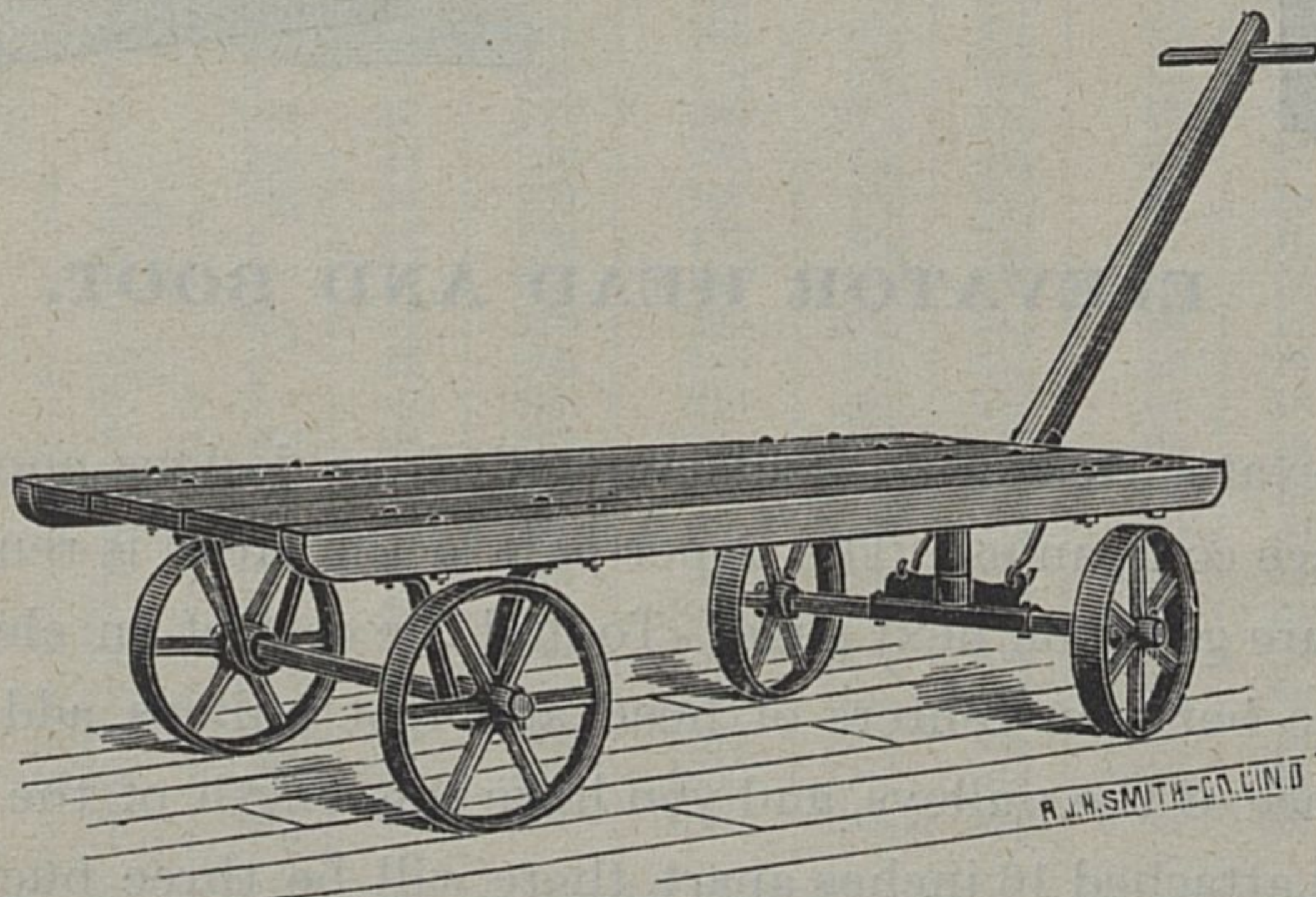


ONE BUSHEL
AUTOMATIC GRAIN SCALE.

TRUCKS.



MILL OR FLOUR TRUCK.

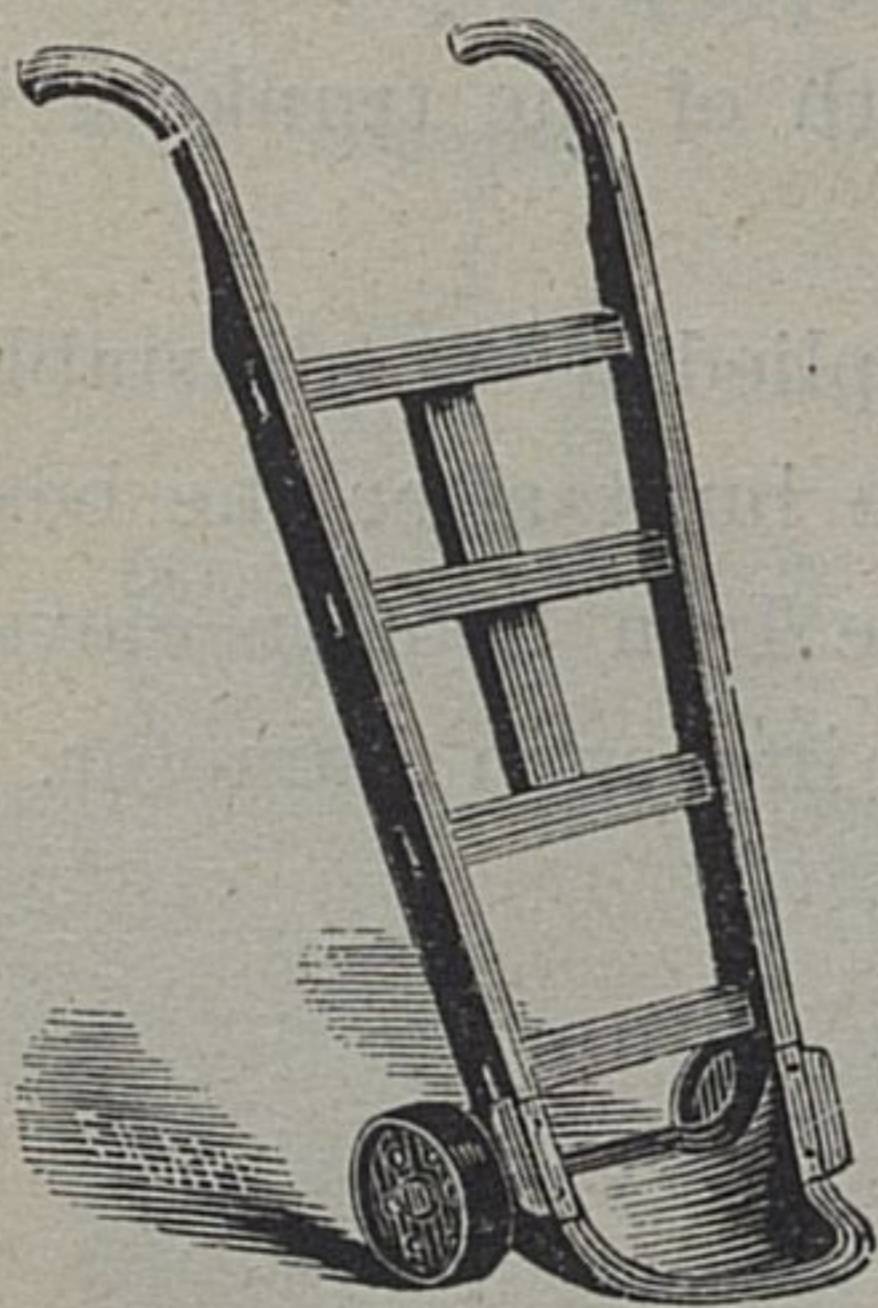


WAGON TRUCK.

PRICES.

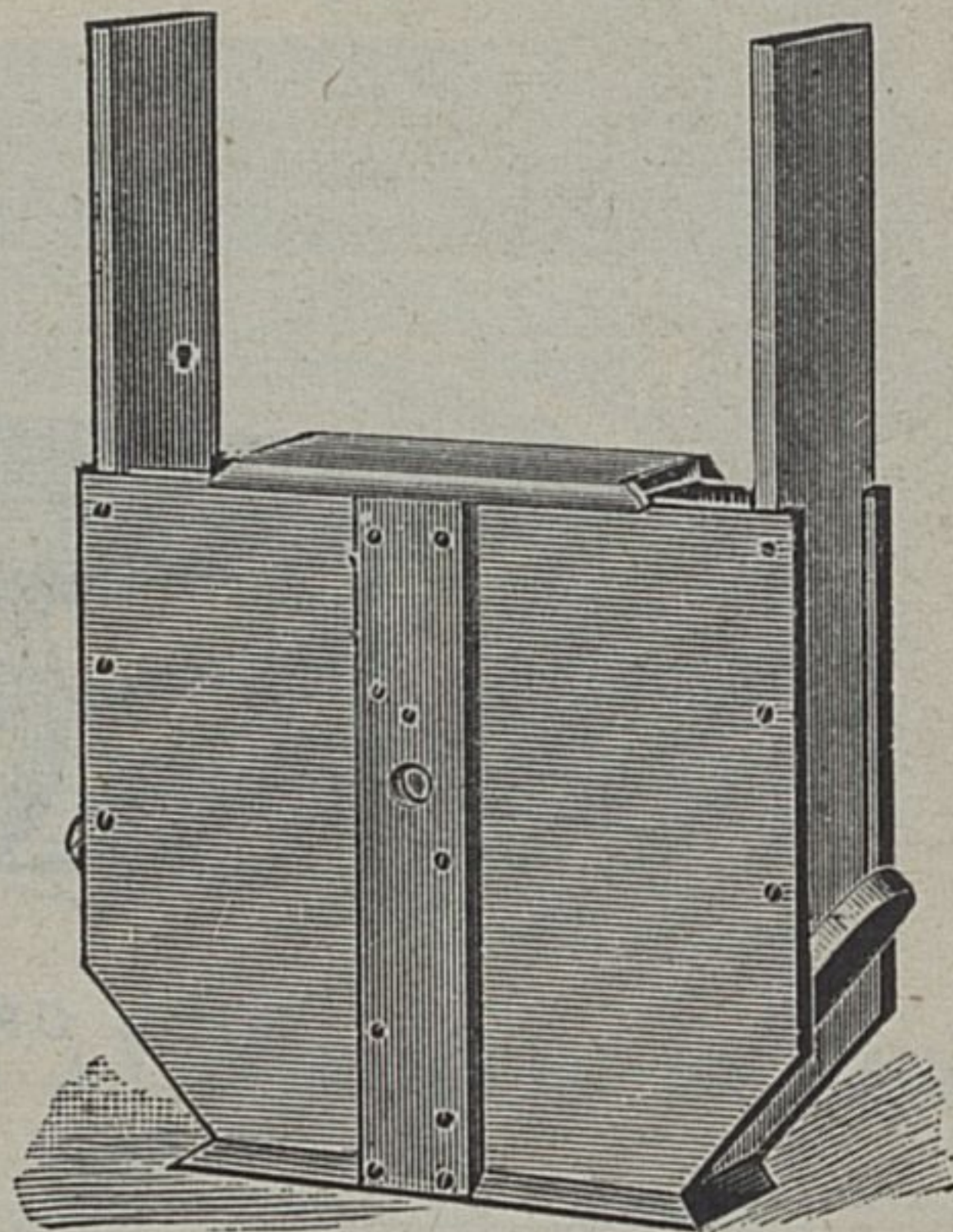
Platform 30 x 48	\$30 00
" 30 x 54	32 50
" 30 x 60	35 00

Wheels, 12 inches diameter.



BAG TRUCK.

Bag Trucks.....	\$ 5 00
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ELEVATOR HEAD AND BOOT.

Our Elevator Heads and Boots are built from designs approved by the fire insurance companies. The upper part of the Head is removable.

Prices are given on next page. To find the cost of an elevator, double the distance between centers of head and foot pulleys, add one-half the circumference of the pulleys, and you have the length of the belt. If the buckets are attached 16 inches apart, there will be three buckets on each four feet of belt, and each bucket requires two bolts. To the prices of belt, buckets and bolts, add the price of Head and Boot, with pulleys, and you have the cost complete, except trunking. The length of the trunking is two feet less than distance between centers.

Our **Cast Iron Adjustable Boots** are supplied with adjustable babbitted boxes, oil tubes and tighteners, and are built after the best approved patterns. We recommend the use of the Iron Boot in elevators where the Head pulley is more than twenty-four inches in diameter.

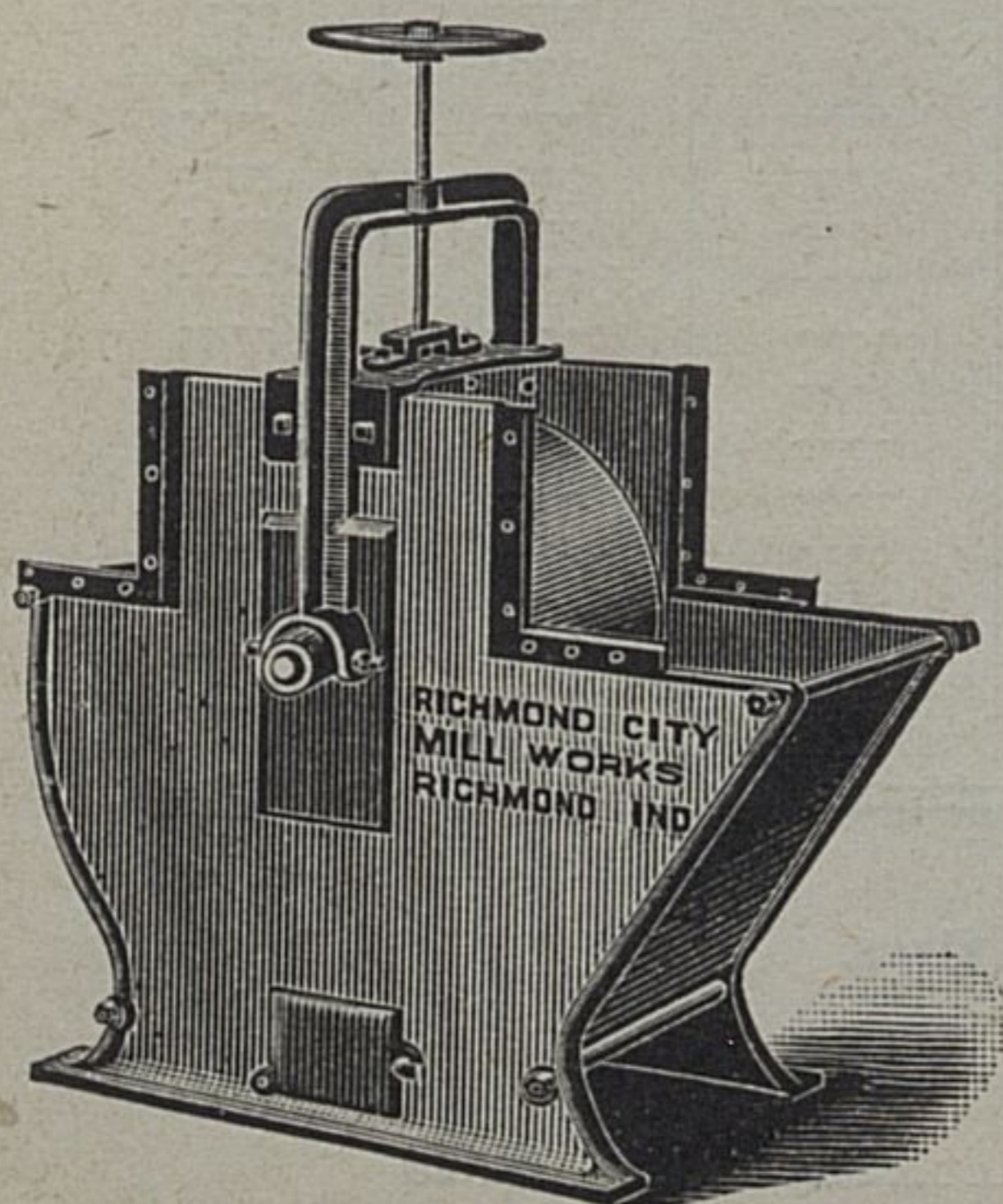


PRICE LIST OF ELEVATOR HEADS, BOOTS AND LEGGING.

TABLE OF SPEEDS AND CAPACITIES.

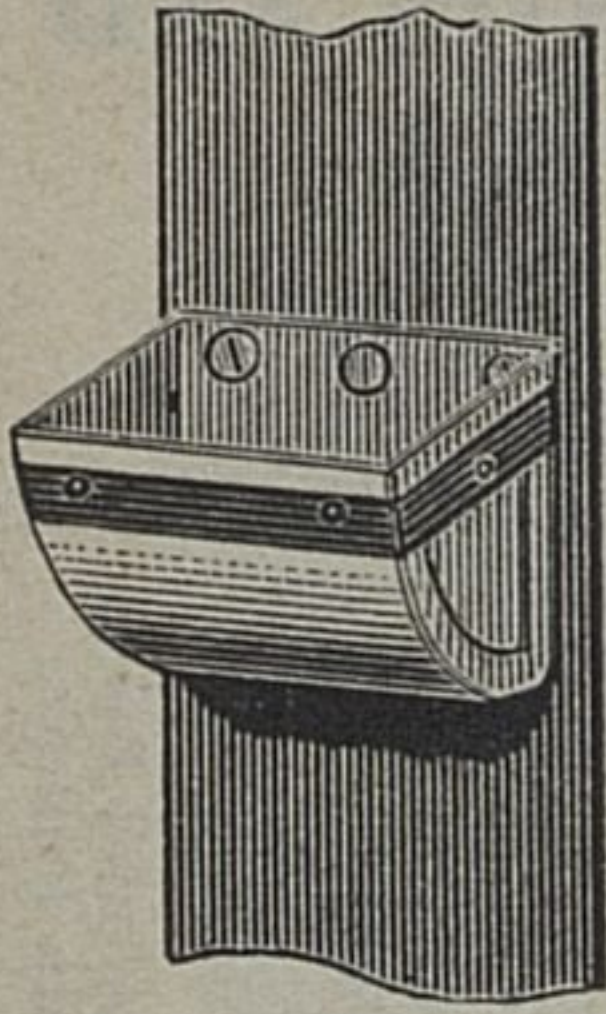
Size of Pulleys.		Width of Belt.	Size of Cup.		Speed.	Belt Speed in feet per minute.	Capacity, Bushels per hour, Cups 16 in. apart.	Size of Legging.		Price per foot, Both Legs.	Price, Head and Boot, without Pulleys.	Price, Head and Boot, with Pulleys.
in.	in.		Width.	Projection.				in.	in.				Front and Back.	Filling.
16	x 4	3 1/2	3	3	52	216	50	6 1/4	4 1/2	\$0 42	\$12 00	\$20 90
16	x 4 1/2	4	3 1/2	3	52	216	62	6 3/4	4 1/2	45	12 50	21 80
16	x 5	4 1/2	4	3	52	216	66	7 1/4	4 1/2	48	13 00	22 80
18	x 4	3 1/2	3	3	47	221	51	6 1/4	4 1/2	42	13 25	23 10
18	x 4 1/2	4	3 1/2	3	47	221	63	6 3/4	4 1/2	45	13 50	23 40
18	x 5 1/2	5	4 1/2	3 1/2	47	221	102	7 3/4	5 1/2	53	14 50	25 90
18	x 6 1/2	6	5 1/2	4	47	221	166	8 3/4	5 1/2	57	15 00	27 50
18	x 7	6 1/2	6	4	47	221	178	9 1/4	5 1/2	60	15 50	28 70
18	x 8	7 1/2	7	4 1/2	47	221	280	10 1/4	5 1/2	63	16 00	29 20
20	x 5	4 1/2	4	3 1/2	44	230	80	7 1/4	5 1/2	51	15 50	27 60
20	x 5 1/2	5	4 1/2	3 1/2	44	230	107	7 3/4	5 1/2	54	16 00	28 50
20	x 6 1/2	6	5 1/2	4	44	230	177	8 3/4	5 1/2	57	16 50	30 00
20	x 7 1/2	7	6	4	44	230	185	9 3/4	5 1/2	62	17 00	32 00
20	x 8 1/2	8	7	4 1/2	44	230	290	10 3/4	5 1/2	66	17 50	33 80
24	x 6 1/2	6	5 1/2	4	42	263	180	8 3/4	5 1/2	57	18 00	35 00
24	x 7 1/2	7	6	4	42	263	215	9 3/4	5 1/2	62	18 50	37 30
24	x 8 1/2	8	7	4 1/2	42	263	328	10 3/4	5 1/2	66	19 00	39 40
24	x 9 1/2	9	8	5	42	263	410	12 3/4	8 1/2	84	19 50	41 70
24	x 10 1/2	10	9	5 1/2	42	263	530	13 3/4	8 1/2	90	20 00	44 20
30	x 10 1/2	10	9	5 1/2	40	314	540	13 3/4	8 1/2	1 12	25 00	57 50
30	x 13	12	11	6	40	314	1029	16 1/4	9 1/2	1 25	27 00	69 00
30	x 14	13	12	6 1/2	40	314	1200	17 1/4	9 1/2	1 35	28 00	73 00
36	x 13	12	11	6	40	376	1232	16 1/4	9 1/2	1 25	32 00	86 60
36	x 14	13	12	6 1/2	40	376	1500	17 1/4	9 1/2	1 35	33 00	91 20
40	x 14	13	12	6 1/2	40	418	1600	17 1/4	9 1/2	1 35	38 00	105 80
40	x 16	15	14	6 1/2	40	418	1800	19 1/4	9 1/2	1 42	39 50	115 70

CAST IRON ADJUSTABLE BOOT.



PRICE LIST.

Size of Bucket.		Size of Pulley.		Price.
in.	in.	in.	in.	
7	x 4 1/2	14	x 9	\$27 00
8	x 5	14	x 10	30 00
9	x 5	16	x 11	33 00
10	x 5 1/2	16	x 12	37 00
11	x 6	18	x 13	40 00
12	x 6	18	x 14	44 00
14	x 6	18	x 16	50 00
16	x 6	20	x 20	65 00
18	x 6	22	x 22	85 00
20	x 6	24	x 24	95 00



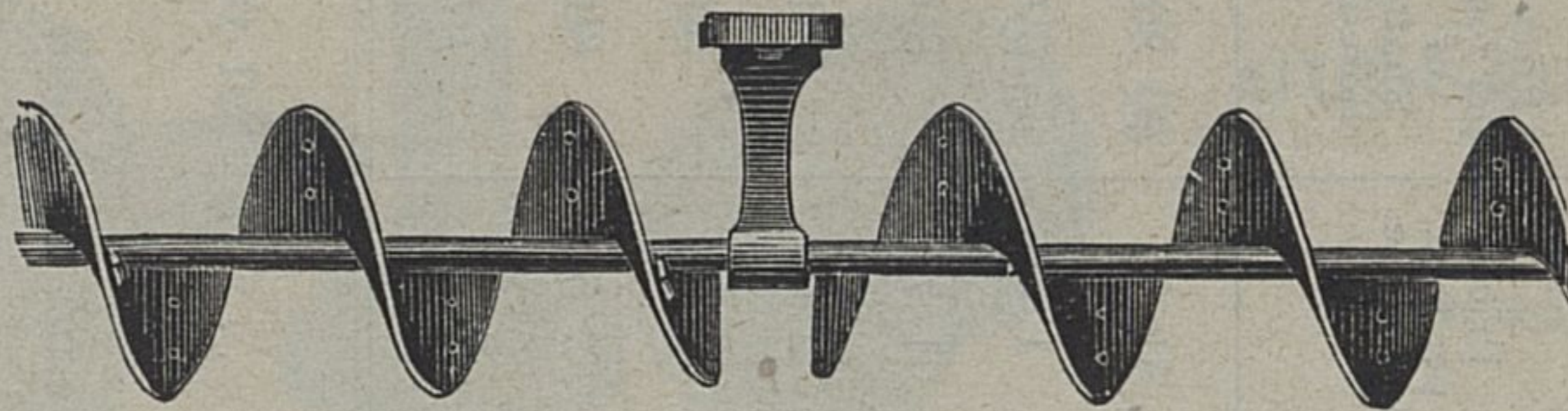
ELEVATOR BUCKETS.

SIZE OF BUCKET.		Capacity, Bushels per hour, 200 ft. per min., Cups 12 in. apart.	SALEM.		AVERY.		TIN.
Width.	Projection.		Suitable for Ordinary Mill and Ele- vator work.	Ear Corn, Corn & Cobs, and Heavy Substances.	Plain.	Corrugated.	Iron Bound.
2	2	21	\$0 05	----	\$0 12	----	\$0 06
2½	2¼	40	05	----	----	----	07
3	2½	59	06	----	----	----	----
3½	2½	69	06	----	----	----	----
3	3	87	07	----	15	----	08
3½	3	102	07	----	18	----	09
4	3	116	08	\$0 20	20	----	11
4½	3	131	08	20	----	----	----
4	3½	159	09	21	----	----	12
4½	3½	179	10	21	22	----	13
5	3½	199	10	22	----	----	----
5	4	229	11	24	24	----	15
5½	4	251	12	25	28	----	16
6	4	274	12	25	34	----	17
7	4½	500	16	26	44	----	----
8	5	670	20	31	54	\$0 54	----
9	5	754	23	33	----	----	----
10	5½	973	29	41	80	80	----
10	6	1220	39	56	----	----	----
11	6	1342	39	57	92	92	----
12	6	1464	40	58	----	----	----
14	6	1708	47	67	----	----	----
16	6	1952	48	71	----	----	----
18	6	2196	60	85	----	----	----
20	6	2440	65	89	----	----	----
10	7	1590	40	60	----	----	----
11	7	1749	45	62	----	----	----
12	7	1908	50	64	----	----	----
14	7	2226	58	74	----	----	----
16	7	2544	65	77	----	----	----
18	7	2862	75	93	----	2 00	----
20	7	3180	79	96	----	2 40	----
16	8	3184	80	98	----	----	----
18	8	3582	85	1 02	----	----	----
20	8	3980	90	1 08	----	----	----
22	8	4378	93	1 11	----	----	----
24	8	4776	97	1 15	----	----	----

Write for prices on special sizes.

Elevator Bolts, per 100 \$1.25

STEEL SPIRAL CONVEYORS.



PATENTED APR. 17-1883.

Outside Diameter, in inches.	Standard Lengths.	Inside Diameter of Hollow Shaft.	Regular Diameter of Projections.	Maximum Capacity per hour. Bushels.	Revolutions per minute.	Price per foot.
3 in.	8 ft.	$\frac{3}{4}$ in.	$\frac{3}{4}$ in.	100	100	\$1 00
4 "	8 "	1 "	1 "	150	100	1 00
6 "	10 "	$1\frac{1}{2}$ "	$1\frac{1}{2}$ "	400	150	1 67
8 "	10 "	$1\frac{1}{2}$ "	$1\frac{1}{2}$ "	800	150	2 00
9 "	10 "	$1\frac{1}{2}$ "	$1\frac{1}{2}$ "	1,000	150	2 00
10 "	10 "	$1\frac{1}{2}$ "	$1\frac{1}{2}$ "	1,400	180	2 80
12 "	12 "	2 "	2 "	2,500	180	2 80
16 "	12 "	2 "	2 "	3,500	225	3 75
16 "	12 "	3 "	3 "	5,000	225	5 08
18 "	12 "	3 "	3 "	6,000	250	6 15

Projection charged for same as Conveyor. The above prices include Couplings, Lining, and Hangers.

See page 88 for directions for ordering.

Our price list includes Linings and Hangers, but when wanted for repairs or extras, we charge as follows:

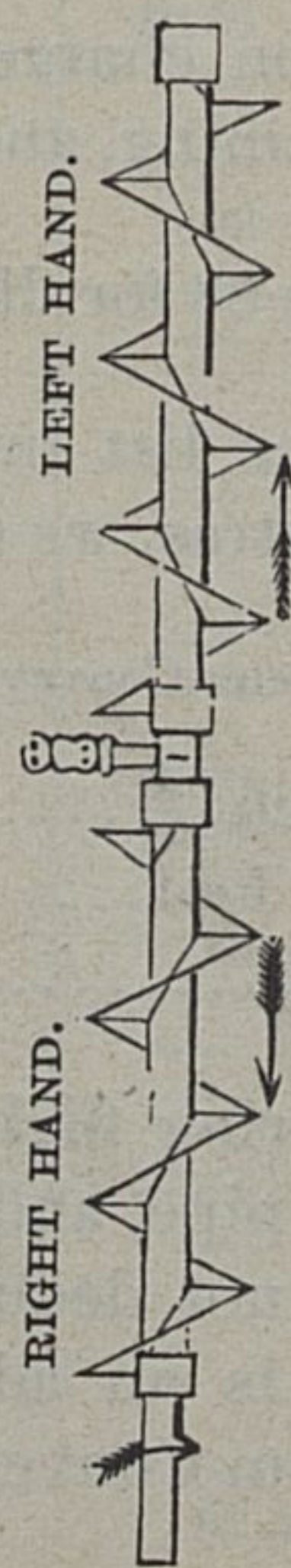
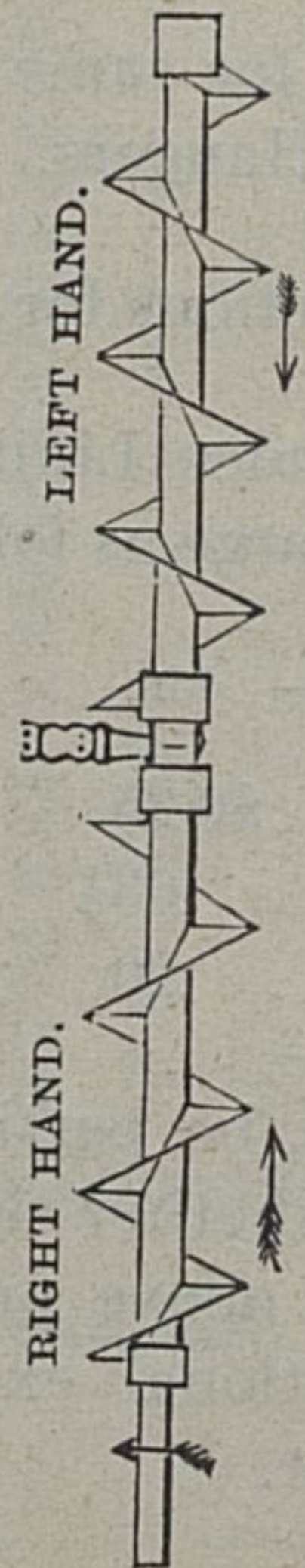
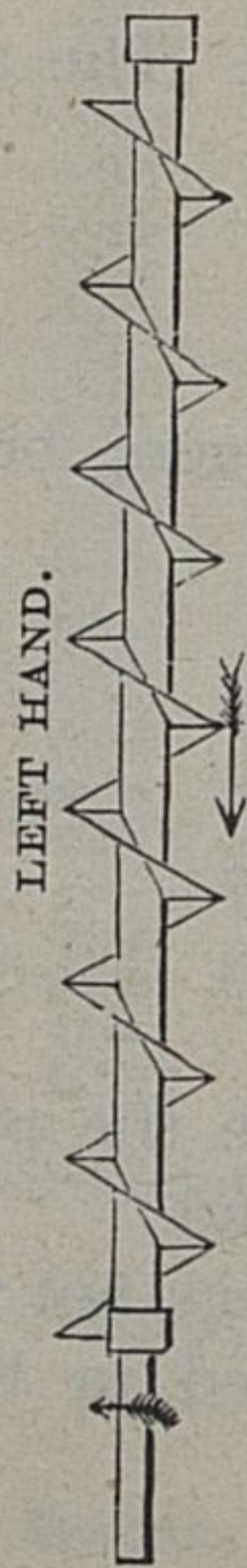
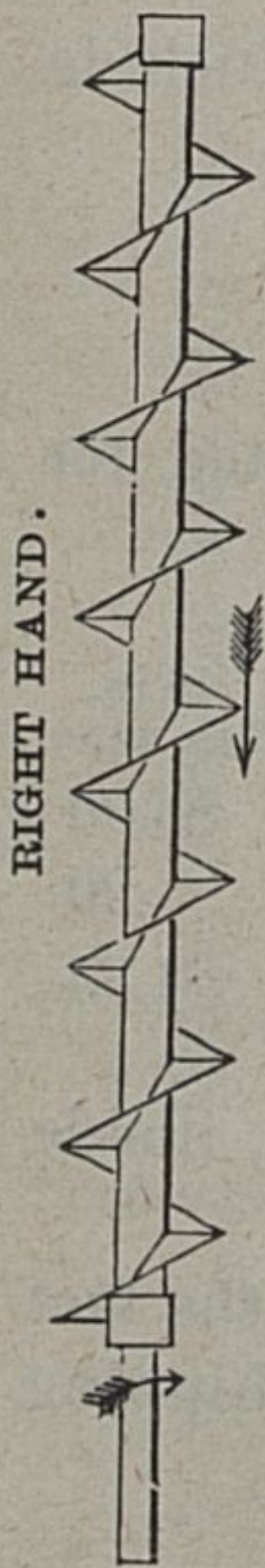
Diameter Conveyor —	4 in.	6 in.	9 in.	12 in.	16 in. 2-in. pipe.	16 in. 3-in. pipe.
Hangers, each.....	\$0.25	\$0.40	\$0.55	\$1.25	\$2.50	\$3.00
Linings, per foot.....	.03 $\frac{1}{2}$	.05	.07	.12	.20	.20
Flights, each.....	.20	.30	.45	.75	1.20	1.35

In ordering flights, be particular to state the pitch of screw, inside diameter of pipe, and whether right or left hand.

We do not deduct above prices for fittings not wanted, from the fact that there is an additional expense incurred in boxing and shipping separate from Conveyor.

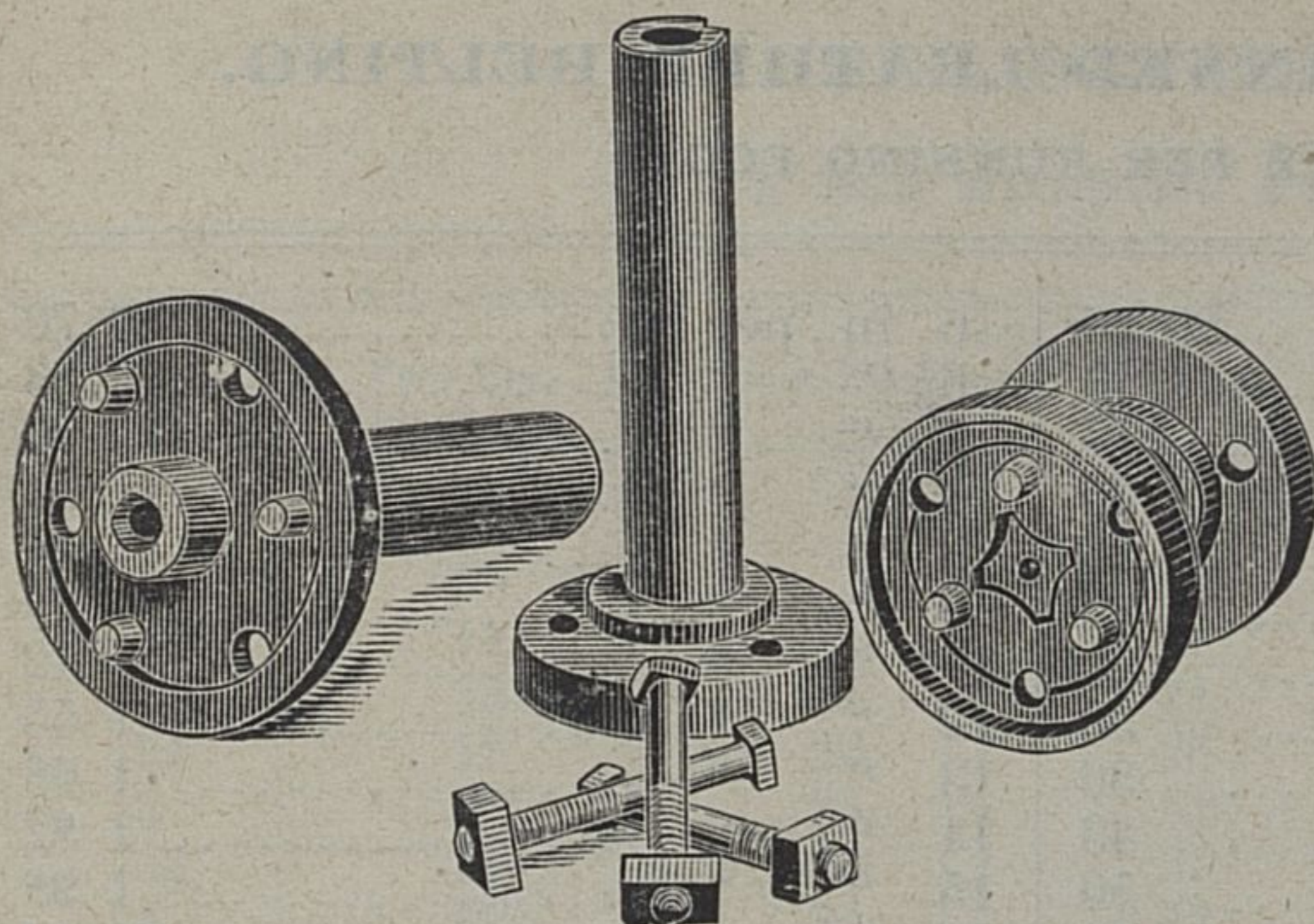
WOOD CONVEYORS.

Size of Shafts. inches.	Size of Flights. inches.	Size of Box, Inside Dimensions. inches.	Size of Con-veyor. inches.	Price per foot, Complete.	Price per foot of Shaft Bored.	Price per foot of Box.
2½	1¼ x 1¼	6 x 6	5	\$1 25	\$0 30	\$0 60
3½	1½ x 1½	7 x 7	6½	1 50	30	75
3½	1¾ x 1¾	8 x 8	7	1 75	30	75
4	2 x 2	9 x 9	8	2 00	40	80
4½	2¼ x 2¼	10 x 10	9	2 25	50	90
5	2½ x 2½	11 x 11	10	2 50	60	1 00
5½	2¾ x 2¾	12 x 12	11	2 75	70	1 10



Conveyor Flights, per 100..... \$1 00

The diagram shows right hand and left hand Conveyor; also, conveying both right hand and left hand. In ordering, please send little sketch, like the diagrams given here, so that no mistakes may occur. Conveyors run by belts will convey either way by crossing the belt. Changing a Conveyor end for end, does not change from right to left hand. In ordering, be sure to give length and diameter of driving ends. The arrows indicate which way the Conveyor turns and which way the material is carried.



GUDGEONS.

PRICES,

Including Bolts.

Diameter of Plate. inches.	Diameter of Journal. inches.	LENGTH OF JOURNAL				
		2 inches.	4 inches	6 inches.	8 inches.	10 inches.
2½	1 ³ / ₁₆	\$1 00	\$1 10	\$1 20	....	....
3	1 ³ / ₁₆	1 10	1 20	1 30	....	....
3	1 ¹¹ / ₁₆	1 20	1 30	1 40	\$1 50	\$1 60
3½	1 ³ / ₁₆	1 30	1 40	1 50	....	....
3½	1 ¹¹ / ₁₆	1 40	1 50	1 60	1 70	1 80
4	1 ⁷ / ₁₆	1 50	1 60	1 70	....	....
4	1 ¹¹ / ₁₆	1 60	1 70	1 80	1 90	2 00
4	1 ¹⁵ / ₁₆	1 70	1 80	1 90	2 00	2 10
4½	1 ⁷ / ₁₆	1 80	1 90	2 00	2 10	2 20
4½	1 ¹¹ / ₁₆	1 90	2 00	2 10	2 20	2 30
4½	1 ¹⁵ / ₁₆	2 00	2 10	2 20	2 30	2 40
5	1 ¹¹ / ₁₆	2 10	2 20	2 30	2 40	2 50
5	1 ¹⁵ / ₁₆	2 20	2 30	2 40	2 50	2 60
5½	1 ¹¹ / ₁₆	2 30	2 40	2 50	2 60	2 70
5½	1 ¹⁵ / ₁₆	2 40	2 50	2 60	2 70	2 80
6	1 ¹¹ / ₁₆	2 50	2 60	2 70	2 80	2 90
6	1 ¹⁵ / ₁₆	2 60	2 70	2 80	2 90	3 00
6	2 ³ / ₁₆	2 70	2 85	3 00	3 15	3 30

COUPLING GUDGEONS, WITH STANDS.

Diameter of Plate.	Diameter of Journal.	Price.
2½ in.....	1 ³ / ₁₆ in. and 1 ⁷ / ₁₆ in.....	\$2 50
3 ".....	1 ³ / ₁₆ " " 1 ⁷ / ₁₆ ".....	2 60
3½ ".....	1 ³ / ₁₆ " " 1 ⁷ / ₁₆ ".....	2 70
4 ".....	1 ⁷ / ₁₆ " " 1 ¹¹ / ₁₆ ".....	2 80
4½ ".....	1 ⁷ / ₁₆ " " 1 ¹¹ / ₁₆ ".....	2 90
5 ".....	1 ¹¹ / ₁₆ " " 1 ¹⁵ / ₁₆ ".....	3 00
5½ ".....	1 ¹¹ / ₁₆ " " 1 ¹⁵ / ₁₆ ".....	3 10
6 ".....	1 ¹¹ / ₁₆ " " 1 ¹⁵ / ₁₆ ".....	3 20

BEST OAK TANNED LEATHER BELTING.
 PRICE PER RUNNING FOOT.

1 in., per ft.....	\$0 10	6 in., per ft.....	\$0 76
1 $\frac{1}{4}$ " "	13	6 $\frac{1}{2}$ " "	83
1 $\frac{1}{2}$ " "	17	7 " "	90
1 $\frac{3}{4}$ " "	20	8 " "	1 02
2 " "	23	9 " "	1 15
2 $\frac{1}{4}$ " "	26	10 " "	1 29
2 $\frac{1}{2}$ " "	30	11 " "	1 42
2 $\frac{3}{4}$ " "	33	12 " "	1 55
3 " "	36	13 " "	1 68
3 $\frac{1}{2}$ " "	43	14 " "	1 82
4 " "	50	15 " "	1 98
4 $\frac{1}{2}$ " "	56	16 " "	2 14
5 " "	63	17 " "	2 31
5 $\frac{1}{2}$ " "	70	18 " "	2 49

Double Belt twice the price of Single.

NOTE.—We sell only the best Oak Tanned Leather. Do not sell the cheap agricultural belt carried by dealers generally.

SOLID COTTON BELTING.
 PRICE PER RUNNING FOOT.

Width. Inches.	Two Ply.	Three Ply.	Four Ply.	Five Ply.	Six Ply.
1	\$0 04	.....	.....	.....	.....
1 $\frac{1}{2}$	05	\$0 07	.....	.....	.....
2	06	09	.....	.....	.....
2 $\frac{1}{2}$	07	11	.....	.....	.....
3	08	13	.....	.....	.....
3 $\frac{1}{2}$	09	15	.....	.....	.....
4	10	16	\$0 21	\$0 34	.....
4 $\frac{1}{2}$	12	18	24	36	.....
5	14	20	26	38	.....
6	18	24	30	42	\$0 46
7	.....	28	34	45	51
8	.....	32	38	50	57
9	.....	36	44	56	66
10	.....	40	50	63	75
12	.....	50	60	75	90
14	.....	62	75	94	1 12
16	.....	75	90	1 12	1 35
18	.....	86	1 00	1 28	1 50
20	.....	96	1 15	1 44	1 72
22	.....	.....	1 35	1 60	1 96
24	.....	.....	.....	1 82	2 14

Any width made to order.

RUBBER BELTING.

PRICE PER RUNNING FOOT.

Width. Inches.	Two Ply.	Three Ply.	Four Ply.	Five Ply.	Six Ply.
1	\$0 07	.....	.....	.....	.....
1 $\frac{1}{4}$	09	...	.....	.....	.....
1 $\frac{1}{2}$	11	.....	.....	.....	.....
2	15	\$0 17	\$0 21	.....	.....
2 $\frac{1}{2}$	18	22	26	.....	.....
3	22	26	31	.....	.....
3 $\frac{1}{2}$	26	30	37	.....	.....
4	30	34	42	.....	.....
4 $\frac{1}{2}$	33	39	47	.....	.....
5	36	43	52	.....	.....
5 $\frac{1}{2}$	40	48	57	.....	.....
6	43	52	62	.....	.....
7	.....	60	73	.....	.....
8	.....	70	84	\$1 05	\$1 26
9	.....	80	95	1 18	1 42
10	.....	90	1 07	1 33	1 60
11	.....	1 00	1 18	1 47	1 77
12	.....	1 08	1 30	1 62	1 95
13	.....	1 18	1 42	1 77	2 13
14	.....	1 28	1 54	1 92	2 31
15	.....	1 38	1 66	2 07	2 49
16	.....	1 50	1 78	2 22	2 67
18	.....	1 70	2 02	2 52	3 03
20	.....	1 90	2 26	2 82	3 39
22	.....	2 12	2 52	3 15	3 78
24	.....	2 36	2 80	3 50	4 20

SMITH'S PATENT BELT FASTENERS.

NET PRICES PER HUNDRED.

No. 4. Single Belts.....\$1 25 | No. 3. Rubber Belts\$1 50
 No. 2. Cotton Belts..... 1 75 | No. 1. Double Leather Belts.. 2 00

Patent Combination Punch.....\$1 25

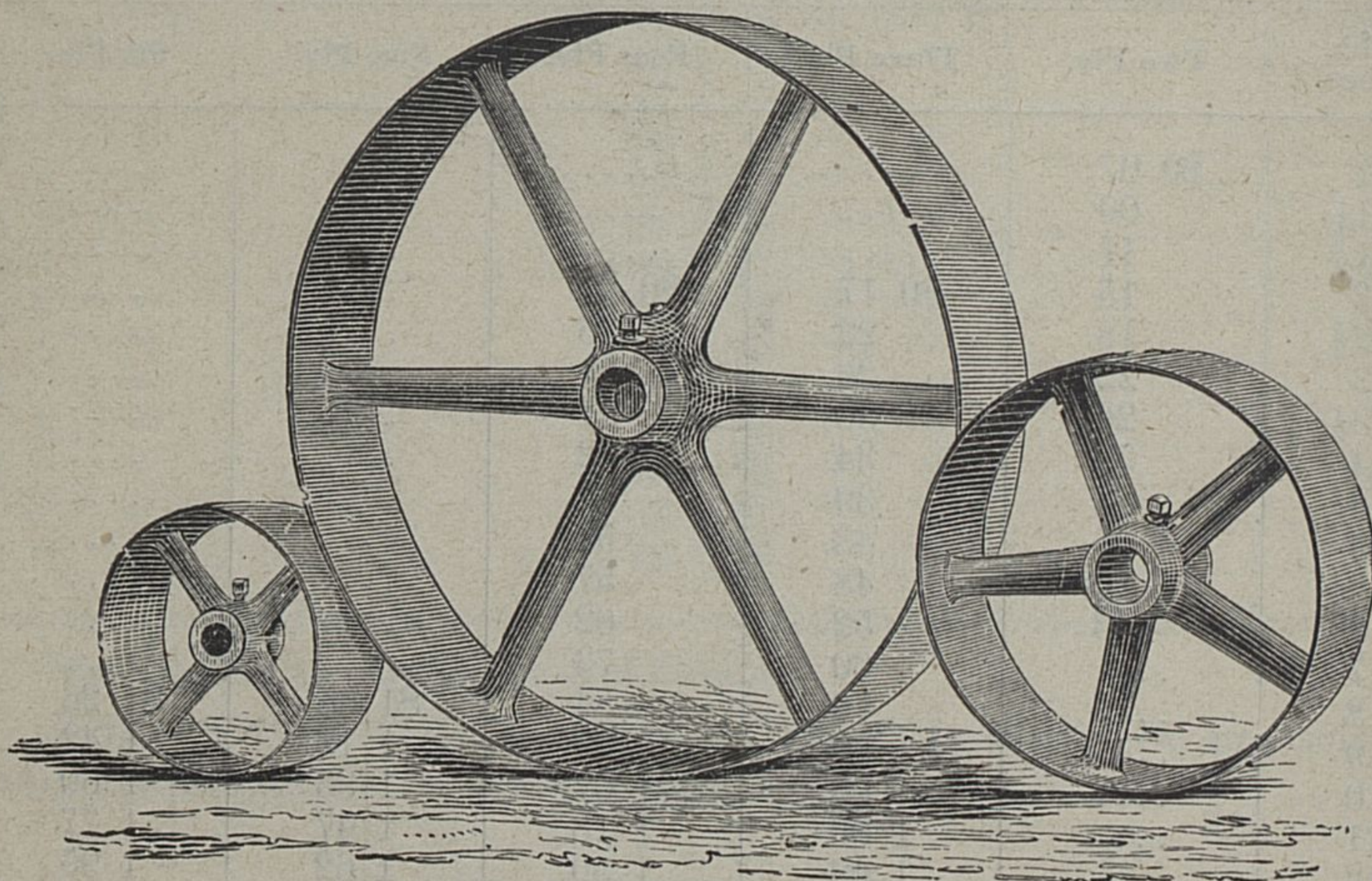
LACE LEATHER.

Best Raw Hide, Per Square Foot.....\$0 30

Belt Punches, each.....25 and 35

Lace Cutters, each 50

STANDARD PULLEY LIST.



For non-shifting Belts, Pulleys should have crowning faces.

For shifting Belts, the Driving Pulleys should have straight faces.

Tight and Loose Pulleys should have crowning faces.

In ordering, state whether Pulley is for single or double Belt.

When ordering Pulleys, be careful to give the following particulars:

Diameter and Face and Bore of Pulley.


If crowning or straight face is required.

Whether key-wayed or set-screwed, or both.

When orders are received for Pulleys and no description given, crowning face will be sent.

Extra charge is made when Pulleys are both key-wayed and set-screwed.

At the end of the Pulley list are to be found the additional prices to be added to the list price for Split Pulleys, Tight and Loose Pulleys, and Flanged Pulleys.

 Wood Pulleys furnished. Prices on application.

IRON PULLEYS.

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.			
6	3	\$1 95	\$2 55	10	6	\$3 40	\$4 55	13	16	\$8 95	\$12 40			
	4	2 10	2 80		7	3 70	5 00		18	10 25	14 00			
	5	2 30	3 10		8	4 05	5 50		20	11 60	15 70			
	6	2 55	3 45		9	4 40	6 00		14	3	2 25	4 20		
	7	2 80	3 80		10	4 75	6 55			4	3 55	4 70		
	8	3 05	4 15		11	5 10	7 10			5	3 90	5 30		
	9	3 30	4 50		12	5 50	7 65			6	4 35	5 95		
	10	3 60	4 85		14	6 35	8 90			7	4 70	6 55		
	11	3 90	5 25		16	7 50	10 05			8	5 20	7 20		
	12	4 20	5 65		11	3	2 70			3 55	9	5 60	7 90	
	7	3	2 10			2 75	4			2 95	3 95	10	6 10	8 60
		4	2 25			3 00	5			3 25	4 40	11	6 55	9 30
5		2 50	3 35	6		3 60	4 90	12		7 05	10 00			
6		2 75	3 70	7		3 95	5 40	14		8 25	11 60			
7		3 00	4 05	8		4 35	5 95	16		9 50	13 25			
8		3 25	4 45	9		4 65	6 45	18	10 90	15 00				
9		3 55	4 85	10		5 05	7 05	20	12 40	16 80				
10		3 85	5 25	11		5 40	7 65	15	3	3 40	4 40			
11		4 20	5 70	12		5 85	8 20		4	3 75	5 00			
12		4 50	6 10	14		6 80	9 50		5	4 15	5 65			
8		3	2 25	2 95		16	7 85		10 75	6	4 60	6 30		
		4	2 45	3 20	12	3	2 85		3 75	7	5 05	6 95		
	5	2 70	3 55	4		3 15	4 20		8	5 50	7 65			
	6	2 95	3 95	5		3 50	4 70		9	5 95	8 40			
	7	3 20	4 35	6		3 85	5 25		10	6 45	9 15			
	8	3 45	4 75	7		4 20	5 80		11	6 95	9 90			
	9	3 80	5 20	8		4 55	6 35		12	7 50	10 70			
	10	4 15	5 70	9		4 95	6 95		14	8 75	12 35			
	11	4 50	6 15	10		5 35	7 55		16	10 10	14 15			
	12	4 80	6 60	11		5 75	8 15	18	11 60	16 00				
	14	5 60	7 75	12		6 20	8 75	20	13 20	17 90				
	9	3	2 40	3 15		14	7 25	10 10	16	3	3 60	4 70		
4		2 60	3 45	16		8 40	11 50	4		3 95	5 30			
5		2 85	3 80	18	9 60	13 00	5	4 40		6 00				
6		3 15	4 25	13	3	3 05	3 95	6		4 90	6 70			
7		3 45	4 65		4	3 35	4 45	7		5 35	7 45			
8		3 75	5 10		5	3 70	5 00	8		5 85	8 20			
9		4 10	5 60		6	4 10	5 60	9		6 30	9 00			
10		4 45	6 10		7	4 45	6 20	10		6 85	9 90			
11		4 80	6 60		8	4 90	6 80	11		7 40	10 60			
12		5 15	7 10		9	5 25	7 45	12		8 00	11 45			
14		5 90	8 30		10	5 70	8 10	14		9 40	13 25			
10		3	2 55		3 35	11	6 15	8 75		16	10 90	15 15		
	4	2 75	3 70		12	6 60	9 40	18	12 55	17 15				
	5	3 05	4 10		14	7 75	10 85	20	14 30	19 15				

Intermediate Sizes at Proportionate Prices.

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches	Face in Inches	Single Belt.	Double Belt.	Double Arm Double Belt.
17	3	\$ 3 80	\$ 5 00		20	3	\$ 4 45	\$ 5 85	
	4	4 20	5 65			4	4 95	6 65	
	5	4 70	6 40			5	5 55	7 55	
	6	5 20	7 15			6	6 20	8 60	
	7	5 70	7 90			7	6 85	9 60	
	8	6 20	8 75			8	7 50	10 60	
	9	6 75	9 60			9	8 15	11 70	
	10	7 30	10 45			10	8 85	12 80	
	11	7 90	11 30			11	9 60	13 90	
	12	8 50	12 25			12	10 40	15 00	
	14	10 05	14 15			14	12 40	17 40	
	16	11 70	16 15			16	14 50	19 80	
	18	18	13 50	18 25			18	16 60	22 40
20		15 40	20 40		20	18 90	25 00	\$28 75	
3		4 00	5 25		22	21 95	27 70	31 85	
4		4 45	5 95		24	24 50	30 60	35 20	
5		4 95	6 75		26	27 25	33 55	38 60	
6		5 50	7 60		28	29 90	36 65	42 15	
7		6 05	8 45		30	32 60	40 95	47 10	
8		6 60	9 30		21	3	4 70	6 15	
9		7 15	10 20			4	5 25	7 00	
10		7 75	11 10			5	5 85	8 00	
11		8 40	12 05			6	6 55	9 10	
12		9 10	13 05			7	7 25	10 20	
14		10 80	15 10			8	7 95	11 30	
16	12 60	17 20		9		8 65	12 45		
18	14 50	19 40		10		9 40	13 65		
20	16 50	21 70		11		10 20	15 85		
19	3	4 25	5 55			12	11 05	16 00	
	4	4 70	6 30			14	13 20	18 55	
	5	5 25	7 15			16	15 45	21 10	
	6	5 85	8 10			18	17 60	23 90	
	7	6 45	9 00		20	20 10	26 65	30 65	
	8	7 05	9 95		22	23 10	29 60	34 05	
	9	7 65	10 95		24	25 70	32 70	37 60	
	10	8 30	11 95		26	28 50	35 80	41 15	
	11	9 00	12 95		28	31 30	39 10	44 95	
	12	9 75	14 00		30	33 95	42 65	49 05	
	14	11 60	16 25		22	3	4 90	6 45	
	16	13 55	18 50			4	5 55	7 40	
	18	15 55	20 90			5	6 15	8 45	
20	17 70	23 35	\$26 85	6		6 90	9 60		
22	20 70	25 80	29 65	7		7 65	10 80		
24	23 40	28 50	32 77	8		8 40	12 00		
26	26 00	31 30	36 00	9		9 15	13 20		
28	28 65	34 20	39 35	10		9 95	14 50		
30	31 30	37 30	42 90	11		10 80	15 75		

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt	Double Belt.	Double Arm Double Belt.
22	12	\$11 70	\$17 00		25	3	\$ 5 70	\$ 7 40	
	14	14 05	19 70			4	6 50	8 65	
	16	16 40	22 40			5	7 25	9 90	
	18	18 75	25 40			6	8 10	11 25	
	20	21 30	28 30	\$32 55		7	8 95	12 70	
	22	24 25	31 50	36 25		8	9 90	14 15	
	24	27 00	34 80	40 00		9	10 85	15 60	
	26	29 75	38 10	43 85		10	11 85	17 10	
	28	32 60	41 60	47 85		11	12 90	18 60	
	30	35 30	45 20	52 00		12	14 05	20 05	
23	3	5 15	6 70		14	16 65	23 25		
	4	5 80	7 75		16	19 35	26 60		
	5	6 50	8 90		18	22 15	30 10		
	6	7 25	10 10		20	25 00	33 60	\$38 65	
	7	8 05	11 40		22	28 05	37 45	43 05	
	8	8 85	12 70		24	30 95	41 20	47 40	
	9	9 65	14 00		26	33 85	45 05	51 80	
	10	10 50	15 35		28	37 75	49 10	56 95	
	11	11 45	16 65		30	39 70	53 25	61 10	
	12	12 40	18 00		26	3	6 00	7 80	
	14	14 85	20 85			4	6 90	9 15	
	16	17 35	23 75			5	7 65	10 45	
	18	19 85	26 90			6	8 60	11 90	
	20	22 50	29 95	34 45		7	9 45	13 40	
	22	25 40	33 45	38 45		8	10 55	14 90	
	24	28 20	36 90	42 45		9	11 50	16 40	
26	31 00	40 40	46 45	10		12 60	18 00		
28	33 90	44 10	50 70	11	13 75	19 60			
30	36 65	48 00	55 20	12	15 00	21 10			
24	3	5 40	7 00		14	17 65	24 55		
	4	6 10	8 15		16	20 40	28 10		
	5	6 85	9 35		18	23 30	31 80		
	6	7 65	10 65		20	26 30	35 55	40 85	
	7	8 45	12 00		22	29 40	39 75	45 70	
	8	9 30	13 40		24	32 40	43 45	50 00	
	9	10 20	14 80		26	35 40	47 40	54 50	
	10	11 10	16 20		28	38 40	51 55	59 25	
	11	12 10	17 65		30	41 45	55 80	63 85	
	12	13 15	19 00		27	3	6 35	8 25	
	14	15 70	22 00			4	7 30	9 60	
	16	18 30	25 10			5	8 15	11 00	
	18	21 00	28 40			6	9 05	12 50	
	20	23 75	31 70	36 45		7	10 00	14 10	
	22	26 55	35 40	40 70		8	11 10	15 65	
	24	29 50	39 00	44 95		9	12 20	17 25	
26	32 30	42 70	49 10	10		13 35	18 90		
28	35 10	46 60	53 60	11	14 60	20 60			
30	38 00	50 70	58 35	12	15 90	22 20			

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.
27	14	\$18 60	\$25 80		30	3	\$ 7 60	\$ 9 60	
	16	21 45	29 60			4	8 55	11 10	
	18	24 50	33 55			5	9 45	12 70	
	20	27 55	37 50	\$43 10		6	10 55	14 55	
	22	30 70	41 70	47 95		7	11 75	16 20	
	24	33 85	45 70	52 55		8	13 00	18 00	
	26	36 95	50 75	58 35		9	14 30	19 80	
	28	40 05	54 00	62 10		10	15 75	21 60	
	30	43 10	58 40	67 20		11	17 15	23 50	
28	3	6 75	8 70			12	18 60	25 50	
	4	7 70	10 10			14	21 55	29 70	
	5	8 50	11 55			16	24 70	34 20	
	6	9 50	13 15			18	28 00	38 70	
	7	10 60	14 80			20	31 40	43 25	\$49 75
	8	11 70	16 40			22	34 80	47 80	54 95
	9	12 90	18 05			24	38 20	52 40	60 25
	10	13 10	19 80			26	41 60	56 95	65 45
	11	15 45	21 60			28	45 00	61 50	70 70
	12	16 85	23 30		30	48 45	66 10	76 00	
	14	19 55	27 10		31	3	8 05	10 00	
	16	22 50	31 10			4	8 95	11 65	
	18	25 65	35 25			5	9 95	13 40	
	20	28 80	39 45	45 35		6	11 10	15 30	
	22	32 00	43 75	50 30		7	12 35	17 10	
	24	35 25	47 90	55 10		8	13 70	19 00	
	26	38 50	52 15	60 00		9	15 10	21 50	
	28	41 70	56 50	65 00		10	16 55	22 70	
30	44 85	60 90	70 05	11		18 05	24 70		
29	3	7 25	9 15			12	19 55	26 75	
	4	8 10	10 60			14	22 60	31 15	
	5	9 00	12 15			16	25 85	35 80	
	6	10 00	13 85		18	29 25	40 50		
	7	11 15	15 50		20	32 75	45 35	52 15	
	8	12 35	17 15		22	36 10	49 90	57 40	
	9	13 60	18 85		24	39 75	54 60	62 80	
	10	14 90	20 70		26	43 25	59 30	68 20	
	11	16 30	22 60		28	46 80	64 05	73 65	
	12	17 70	24 40		30	50 35	68 00	78 20	
	14	20 55	28 40		32	3	8 45	10 45	
	16	23 60	32 60			4	9 40	12 20	
	18	26 80	37 00			5	10 45	14 10	
	20	30 10	41 40	47 60		6	11 65	16 05	
	22	33 40	45 80	52 65		7	12 95	17 90	
	24	36 70	50 15	57 70		8	14 40	19 85	
	26	40 05	54 60	62 80		9	15 90	22 20	
	28	43 35	59 00	67 85		10	17 40	23 85	
30	46 55	63 45	73 00	11		19 00	25 00		

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches	Face in Inches	Single Belt.	Double Belt.	Double Arm Double Belt.
32	12	\$20 55	\$28 00		35	3	\$ 9 90	\$12 30	
	14	23 70	32 65			4	10 90	14 10	
	16	27 05	37 45			5	12 10	16 20	
	18	30 55	42 30			6	13 50	18 40	
	20	34 15	47 45	\$54 50		7	15 00	20 60	
	22	38 40	52 00	59 80		8	16 60	22 75	
	24	41 35	56 85	65 35		9	18 25	24 90	
	26	44 95	61 70	70 90		10	19 95	27 20	
	28	48 60	66 65	76 65		11	21 75	29 50	
	30	52 25	70 90	81 55		12	23 50	31 80	
33	3	8 90	11 00		14	27 00	37 05		
	4	9 90	12 80		16	30 65	42 35		
	5	11 00	14 80		18	34 40	47 70		
	6	12 25	16 80		20	38 30	53 75	\$61 80	
	7	13 60	18 80		22	42 35	58 30	66 95	
	8	15 05	20 80		24	46 10	63 65	73 20	
	9	16 70	22 85		26	50 40	68 90	79 25	
	10	18 25	24 95		28	54 00	74 40	85 55	
	11	19 90	27 10		30	57 95	79 60	91 55	
	12	21 50	29 25		36	3	10 40	12 75	
	14	24 80	34 10			4	11 40	14 75	
	16	28 25	39 05			5	12 65	16 95	
	18	31 80	44 10			6	14 10	19 20	
	20	35 50	49 55	56 95		7	15 70	21 45	
	22	39 70	54 10	62 30		8	17 35	23 70	
	24	42 90	59 05	67 90		9	19 10	26 00	
	26	46 65	64 10	73 70		10	20 85	28 30	
	28	50 40	69 20	79 60		11	22 70	30 70	
	30	54 15	73 80	84 85		12	24 50	33 10	
	34	3	9 40	11 60		14	28 10	38 55	
4		10 40	13 50		16	31 85	44 00		
5		11 50	15 50		18	35 70	49 50		
6		12 90	17 60		20	39 70	55 90	64 30	
7		14 35	19 70		22	43 70	60 40	69 45	
8		15 85	21 75		24	47 70	65 80	75 70	
9		17 55	23 85		26	51 75	71 30	82 00	
10		19 10	26 10		28	55 80	76 90	88 45	
11		20 85	28 30		30	59 85	82 55	94 95	
12		22 50	30 50		38	4	12 55	16 25	
14		25 90	35 60			5	13 95	17 15	
16		29 45	40 70			6	15 60	21 05	
18		33 10	45 90			7	17 95	23 45	
20		36 95	51 65	59 40		8	19 05	25 90	
22		41 05	56 20	64 60		9	20 90	28 35	
24		44 50	61 30	70 50		10	22 80	30 80	
26		48 35	66 50	76 45		11	24 75	33 35	
28		52 20	71 80	82 55		12	26 65	35 95	
30		56 05	76 70	88 20		14	30 50	41 65	

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.
38	16	\$34 45	\$ 49 15		42	18	\$44 20	\$ 61 00	
	18	38 50	58 50			20	49 00	67 60	\$ 77 75
	20	42 80	59 80	\$68 75		22	54 00	74 30	85 45
	22	47 10	65 05	74 80		24	59 00	81 00	93 15
	24	51 45	70 85	81 45		26	64 00	87 70	100 85
	26	55 80	76 75	88 25		28	69 00	92 45	108 60
	28	60 20	82 75	95 15		30	74 00	101 20	116 40
	30	64 55	88 75	102 05		32	79 00	108 00	124 20
	32	68 95	94 80	109 00		34		114 75	131 95
	34		100 85	115 95		36		121 50	139 70
	36		106 95	123 00		38		128 25	147 50
	38		113 10	130 05		40		135 00	155 30
	40		119 20	137 10					
40	4	13 70	17 75		44	4	16 25	21 00	
	5	15 30	19 60			5	18 20	23 90	
	6	17 10	22 90			6	20 25	26 85	
	7	18 90	25 45			7	22 30	29 75	
	8	20 80	28 10			8	24 45	32 70	
	9	22 75	30 70			9	26 60	35 65	
	10	24 75	33 30			10	28 80	38 65	
	11	26 80	36 05			11	31 10	41 80	
	12	28 80	38 75			12	33 40	44 90	
	14	32 90	44 80			14	37 90	51 60	
	16	37 10	52 65			16	42 70	58 50	
	18	41 35	57 50			18	47 55	65 50	
	20	45 90	63 70	73 25		20	52 60	72 50	83 45
	22	50 55	69 70	80 15		22	58 00	79 50	91 40
	24	55 25	75 90	87 30		24	63 30	86 65	99 65
	26	59 90	82 20	94 55		26	68 60	93 80	107 85
	28	64 60	88 60	101 90		28	74 00	100 95	115 10
	30	69 25	94 95	109 10		30	79 30	108 20	124 45
	32	73 95	101 40	116 60		32	84 70	115 50	132 80
	34		107 80	124 00		34		122 70	141 10
36		114 20	131 35	36		129 90	149 40		
38		120 70	138 80	38		137 20	157 80		
40		127 15	146 20	40		144 50	166 15		
42	4	14 90	19 30		46	4	17 65	22 75	
	5	16 70	22 05			5	19 70	25 80	
	6	18 60	24 80			6	21 85	28 90	
	7	20 55	27 55			7	24 05	32 00	
	8	22 55	30 30			8	26 35	35 15	
	9	24 60	33 05			9	28 60	38 35	
	10	26 70	35 85			10	30 95	41 55	
	11	28 85	38 75			11	33 40	44 90	
	12	31 00	41 60			12	35 80	48 20	
	14	35 30	47 95			14	40 60	55 30	
	16	39 70	54 40			16	45 70	62 60	
				18	50 90	70 00			

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches	Face in Inches	Single Belt.	Double Belt.	Double Arm Double Belt.
46	20	\$56 30	\$77 40	\$89 00	50	24	\$76 85	\$104 10	\$119 70
	22	62 00	84 80	97 50		26	83 20	112 60	129 50
	24	67 60	92 30	106 15		28	89 60	121 25	139 45
	26	73 30	99 90	114 90		30	96 00	129 90	149 40
	28	79 00	107 55	123 70		32	102 50	138 60	158 80
	30	84 60	115 20	132 50		34		147 40	169 50
	32	90 30	123 00	141 45		36		156 10	179 50
	34		130 70	150 30		38		164 90	189 65
	36		138 40	159 15		40		173 80	199 85
	38		146 20	168 10					
	40		154 00	177 00					
	48	4	19 00	24 50			52	5	24 50	31 85
5		21 20	27 70		6	27 10		35 65	
6		23 50	31 00		7	29 65		39 30	
7		25 85	34 30		8	32 30		43 00	
8		28 25	37 65		9	35 00		46 75	
9		30 65	41 05		10	37 75		50 50	
10		33 15	44 45		11	40 50		54 35	
11		35 70	48 00		12	43 40		58 15	
12		38 20	51 50		14	49 20		66 45	
14		43 30	59 00		16	55 30		75 05	
16		48 70	66 70		18	61 75		83 80	
18		54 20	74 50		20	68 10		92 50	106 40
20		60 00	82 30	94 65	22	74 80		101 30	116 50
22		66 00	90 10	103 60	24	81 70		110 30	126 85
24		72 00	98 00	112 70	26	88 40		119 30	137 20
26		78 00	106 00	121 90	28	95 20		128 40	147 65
28		84 00	114 15	131 25	30	102 05		137 65	158 20
30		90 00	122 30	140 65	32	109 00		146 80	168 80
32		96 00	130 50	150 05	34			156 10	179 50
34			138 70	159 50	36			165 30	190 10
36		146 90	168 95	38		174 70	200 90		
38		155 10	178 35	40		184 10	211 70		
40		163 30	187 80						
50	5	22 80	29 75		54	5	26 20	33 95	
	6	25 30	33 30			6	28 90	37 90	
	7	27 75	36 80			7	31 65	41 80	
	8	30 25	40 30			8	34 40	45 70	
	9	32 80	43 85			9	37 20	49 65	
	10	35 45	47 45			10	40 05	53 60	
	11	38 10	51 15			11	43 00	57 55	
	12	40 80	54 80			12	46 00	61 50	
	14	46 20	62 70			14	52 20	70 25	
	16	52 00	70 85			16	58 70	79 25	
	18	57 95	79 15			18	65 50	88 50	
	20	64 00	87 40	100 50		20	72 20	97 70	112 35
	22	70 40	95 70	110 50		22	79 30	107 00	123 05
						24	86 50	116 50	133 95
				26	93 60	126 00	144 90		
				28	100 85	135 60	155 95		

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.
54	30	\$108 15	\$145 30	\$167 10	60	6	\$ 34 80	\$ 46 00	
	32	115 50	155 00	178 25		7	37 50	50 00	
	34		167 00	189 40		8	40 35	54 10	
	36		174 50	200 65		9	43 45	58 35	
	38		184 30	212 95		10	46 85	62 75	
	40		194 20	223 35		11	50 45	67 30	
	56	6	30 85	40 65			12	54 20	72 00
7		33 55	44 50			14	61 80	82 55	
8		36 30	48 50			16	69 60	92 15	
9		39 25	52 55			18	77 50	103 50	
10		42 25	56 60			20	85 50	114 45	\$131 60
11		45 45	60 75			22	93 95	125 45	144 25
12		48 75	65 00			24	102 50	136 50	157 00
14		55 40	74 35			26	111 00	147 65	169 80
16		62 30	83 55			28	119 50	158 80	182 60
18		69 50	93 50			30	128 20	169 90	195 40
20		76 60	103 25	119 75		32	137 00	181 00	208 15
22		84 15	113 10	130 05		34		192 10	220 90
24		91 80	123 15	141 60		36		203 20	233 60
26		99 40	133 20	153 20		38		214 30	246 55
28		107 05	143 20	164 70		40		225 40	259 20
30		114 80	153 50	176 50	62	6	36 70	48 30	
32		122 50	163 70	188 25		7	39 75	52 65	
34			173 80	199 85		8	42 85	57 10	
36			184 00	211 60		9	45 85	61 65	
38			194 30	233 45		10	49 75	66 30	
40		204 60	235 30	11		53 55	71 10		
58	6	32 80	43 25			12	57 40	76 00	
	7	35 50	47 20			14	65 40	86 95	
	8	38 35	51 30			16	73 50	97 25	
	9	41 35	55 45			18	81 60	108 70	
	10	44 55	59 65		20	90 30	120 35	138 40	
	11	47 95	64 00		22	99 05	131 85	150 60	
	12	51 50	68 50		24	108 00	143 20	164 70	
	14	58 60	78 45		26	116 80	155 15	178 40	
	16	65 90	87 85		28	125 70	166 85	191 85	
	18	73 50	98 50		30	134 70	178 50	205 30	
	20	81 00	108 85	125 20	32	143 80	190 00	218 50	
	22	89 05	119 25	137 15	34		201 80	232 00	
	24	97 15	129 80	149 25	36		213 50	245 50	
	26	105 20	140 40	161 45	38		225 10	258 55	
	28	113 25	150 90	173 55	40		236 80	272 30	
	30	121 50	161 70	185 95	64	6	38 60	50 60	
	32	129 50	172 40	198 25		7	41 90	55 35	
	34		182 90	210 35		8	45 35	60 10	
	36		193 50	222 50		9	48 30	64 95	
	38		204 30	234 95		10	52 75	69 90	
40		215 00	247 25						

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	
64	11	\$ 56 65	\$ 74 90		68	20	\$105 15	\$138 35	\$159 10	
	12	60 70	80 00			22	115 10	151 50	174 25	
	14	69 10	91 35			24	124 90	165 00	189 75	
	16	77 50	102 35			26	134 90	178 05	204 75	
	18	85 80	113 85			28	145 00	191 35	220 05	
	20	95 10	126 25	\$145 20		30	155 15	204 60	235 30	
	22	104 25	138 30	159 05		32	165 40	218 00	250 70	
	24	113 50	150 90	173 55		34		231 30	266 00	
	26	122 70	162 65	187 05		36		244 60	281 30	
	28	131 90	174 90	201 15		38		258 00	296 70	
	30	141 85	187 10	215 20		40		271 30	312 00	
	32	150 60	199 00	228 55		70	6	45 10	58 40	
	34		211 50	243 25			7	49 20	63 85	
	36		223 80	257 35			8	53 30	69 25	
	38		235 95	271 30			9	57 40	75 00	
40		248 25	285 30	10	61 70		80 70			
66	6	40 50	53 00		11		66 05	86 40		
	7	44 20	58 05		12		70 60	92 40		
	8	47 95	63 15		14		80 05	104 85		
	9	51 80	68 30		16	89 60	117 65			
	10	55 75	73 50		18	99 50	130 80			
	11	59 80	78 75		20	110 40	144 55	166 25		
	12	64 00	84 00		22	120 80	158 25	182 00		
	14	72 70	95 75		24	130 70	172 50	198 40		
	16	81 50	107 55		26	141 20	185 95	213 85		
	18	90 50	119 50		28	151 80	199 75	239 70		
	20	99 95	132 15	152 05	30	162 45	213 60	245 65		
	22	109 45	144 80	166 50	32	173 20	227 50	261 60		
	24	119 00	157 50	181 10	34		241 30	277 50		
	26	128 60	170 20	195 70	36		255 15	293 40		
	28	138 20	182 95	210 40	38		269 10	309 45		
30	147 85	195 70	225 05	40		282 90	325 35			
32	157 50	208 50	239 80	72	6	47 50	61 00			
34		221 30	254 50		7	51 75	66 75			
36		234 10	269 20		8	56 00	72 55			
38		246 90	283 95		9	60 30	78 40			
40		259 70	298 65		10	64 70	84 30			
68	6	42 80	55 70			11	69 25	90 30		
	7	46 70	60 95			12	74 00	96 50		
	8	50 60	66 25			14	83 75	109 45		
	9	54 60	71 60		16	93 70	122 75			
	10	58 70	77 10		18	104 00	136 50			
	11	62 90	82 55		20	115 70	150 60	173 20		
	12	67 30	88 20		22	126 50	165 00	189 75		
	14	76 30	100 25		24	136 50	179 50	207 40		
	16	85 50	112 55		26	147 55	193 85	222 90		
	18	95 00	125 10		28	158 65	208 20	239 45		

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

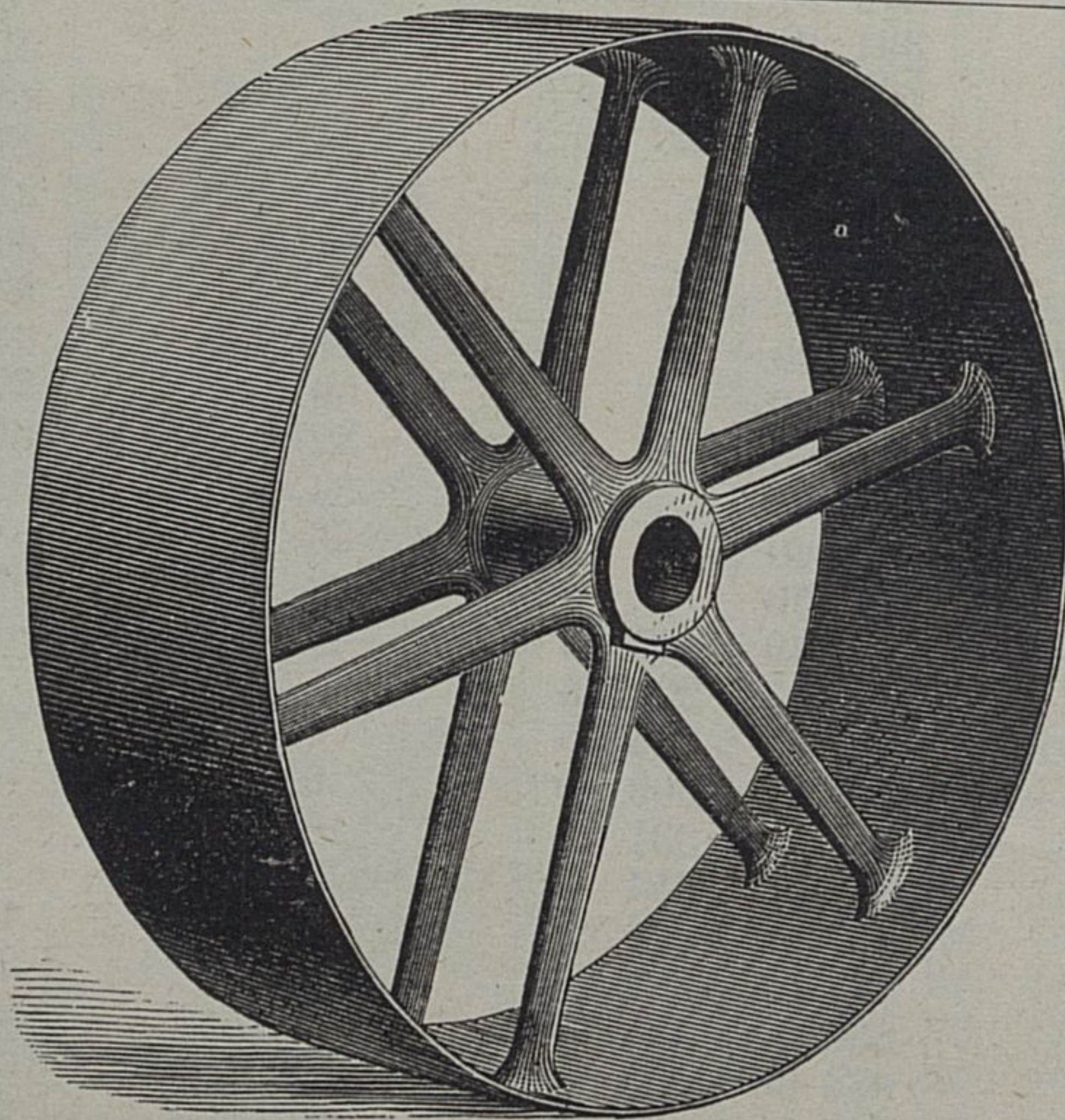
Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.
72	30	\$169 80	\$222 60	\$256 00	78	10	\$ 74 70	\$ 95 90	
	32	181 00	237 00	272 55		11	79 80	102 85	
	34		251 40	289 10		12	85 00	110 00	
	36		265 80	305 65		14	95 65	124 50	
	38		280 20	322 25		16	106 65	139 25	
	40		294 60	338 80		18	118 00	154 50	
74	8	58 90	75 75		20	130 30	170 30	\$195 85	
	9	63 40	81 90		22	142 65	186 10	214 00	
	10	68 00	88 50		24	155 00	202 00	232 30	
	11	72 75	94 80		26	167 45	217 95	250 65	
	12	77 60	101 00		28	179 95	233 95	269 05	
	14	87 65	114 45		30	192 45	249 95	287 45	
	16	98 00	128 25		32	205 00	266 00	305 90	
	18	108 60	142 50		34		282 00	324 30	
	20	120 50	157 10	180 65	36		298 00	342 70	
	22	131 85	172 00	197 80	38		314 00	361 10	
	24	143 00	187 00	215 05	40		330 00	379 50	
	26	154 15	201 85	232 10	80	8	67 65	85 95	
	28	165 75	216 75	249 25		9	72 80	92 90	
	30	177 30	231 70	266 45		10	78 00	99 85	
	32	189 00	246 60	283 60		11	83 30	106 95	
	34		261 60	300 85		12	88 60	114 30	
	36		276 50	317 95		14	99 85	129 50	
	38		291 40	335 10		16	111 40	144 95	
40		306 40	352 30	18		123 30	160 80		
76	8	61 80	79 05			20	136 00	177 10	203 65
	9	66 50	85 50			22	148 75	193 40	222 40
	10	71 30	92 70			24	161 50	210 00	241 50
	11	76 25	99 30			26	174 25	226 25	260 20
	12	81 30	105 50		28	187 15	242 85	279 30	
	14	91 60	119 45		30	200 05	259 35	298 25	
	16	102 30	133 75		32	213 00	276 00	317 40	
	18	113 30	148 45		34		292 50	336 35	
	20	125 40	163 70	188 25	36		309 10	355 45	
	22	137 25	179 00	205 85	38		325 70	374 55	
	24	149 50	194 50	223 70	40		342 20	383 55	
	26	160 75	209 85	241 30	82	8	70 65	89 55	
	28	172 85	225 35	259 15		9	75 90	96 70	
	30	184 85	240 80	276 90		10	81 30	103 85	
	32	197 00	256 30	294 75		11	86 80	111 15	
	34		271 80	312 55		12	92 30	118 65	
	36		287 20	330 30		14	104 05	134 50	
	38		302 60	348 00		16	116 20	150 65	
40		318 20	366 00	18		128 60	167 10		
78	8	64 75	82 35			20	141 70	183 90	211 50
	9	69 70	89 10			22	154 85	200 70	230 80
						24	168 00	218 00	250 70

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt	Double Belt.	Double Arm Double Belt.
82	26	\$181 15	\$234 65	\$269 85	96	8		\$177 10	
	28	194 45	251 75	289 50		9		125 85	
	30	207 65	268 80	309 10		10		134 75	
	32	221 00	286 00	328 90		11		143 85	
	34		303 10	348 55		12		153 00	
	36		320 20	368 20		14		172 10	
	38		337 40	388 00		16		191 75	
	40		354 50	407 65		18		212 50	
84	8	73 65	93 25		20		233 00	\$267 95	
	9	79 10	100 50		22		254 50	292 70	
	10	84 65	107 85		24		276 00	317 40	
	11	90 30	115 35		26		297 00	341 55	
	12	96 00	123 00		28		318 00	365 70	
	14	108 35	139 60		30		339 50	390 45	
	16	121 00	156 40		32		361 00	415 15	
	18	134 00	173 50		34		382 30	439 65	
	20	147 45	190 75	219 35	36		403 60	464 15	
	22	160 95	208 10	239 30	38		424 90	488 65	
	24	174 50	225 50	259 30	40		446 25	513 15	
	26	188 05	243 05	279 50	102	8		130 75	
	28	201 65	260 65	299 75		9		140 70	
	30	215 30	278 30	320 05		10		150 75	
	32	229 00	296 00	340 40		11		160 85	
	34		313 70	360 75		12		171 00	
36		331 40	381 10	14			192 00		
38		349 10	401 45	16			213 40		
40		366 80	421 80	18			233 50		
90	8		104 75		20		256 25	294 70	
	9		112 80		22		279 05	320 90	
	10		121 00		24		302 00	347 30	
	11		129 40		26		324 95	373 70	
	12		138 00		28		347 95	400 15	
	14		155 60		30		370 95	426 60	
	16		173 40		32		394 00	453 10	
	18		191 50		34		417 10	479 65	
	20		210 70	242 30	36		440 20	506 25	
	22		230 05	264 55	38		463 30	532 80	
	24		249 50	286 95	40		486 40	559 35	
	26		268 95	309 30	108	8		144 35	
	28		288 45	331 70		9		154 75	
	30		307 95	354 15		10		165 35	
	32		327 50	376 65		11		176 10	
	34		347 00	399 05		12		187 00	
36		366 50	421 50	14			209 50		
38		386 00	443 90	16			232 50		
40		405 50	466 30	18			256 00		
				20		280 20	322 25		

BORED, TURNED AND BALANCED, WITH SET SCREWS OR KEY SEATS.

Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	Diam. in Inches.	Face in Inches.	Single Belt.	Double Belt.	Double Arm Double Belt.	
108	22		\$304 55	\$350 25	114	32		\$462 00	\$531 30	
	24		329 00	378 35		34		488 60	562 00	
	26		353 35	406 35		36		515 20	592 50	
	28		377 80	434 45		38		541 80	623 10	
	30		402 35	462 70		40		568 40	653 70	
	32		427 00	491 05		120	8		172 85	
	34		451 60	519 35			9		184 60	
	36		476 20	547 65			10		196 55	
	38		500 80	575 90			11		208 65	
	40		525 40	604 20			12		221 00	
114	8		159 45		14			246 10		
	9		170 75		16			271 75		
	10		182 10		18			298 00		
	11		193 50		20			325 90	374 80	
	12		205 00		22			353 80	406 90	
	14		228 40		24		382 50	439 90		
	16		252 45		26		410 80	473 40		
	18		277 00		28		439 20	505 10		
	20		303 00	348 50	30		467 60	537 75		
	22		329 50	379 40	32		496 00	575 40		
	24		356 00	409 40	34		524 40	603 10		
	26		382 30	439 60	36		552 80	635 70		
	28		408 70	470 00	38		581 20	668 40		
30		435 30	500 60	40		609 60	701 00			



For pulleys exceeding ten feet in diameter, and for odd sizes, write for prices.

ADDITIONAL PRICE TO BE ADDED TO LIST PRICE FOR
TIGHT AND LOOSE PULLEYS (PER PAIR),
 AND
FINISHED FLANGE PULLEYS (EACH).

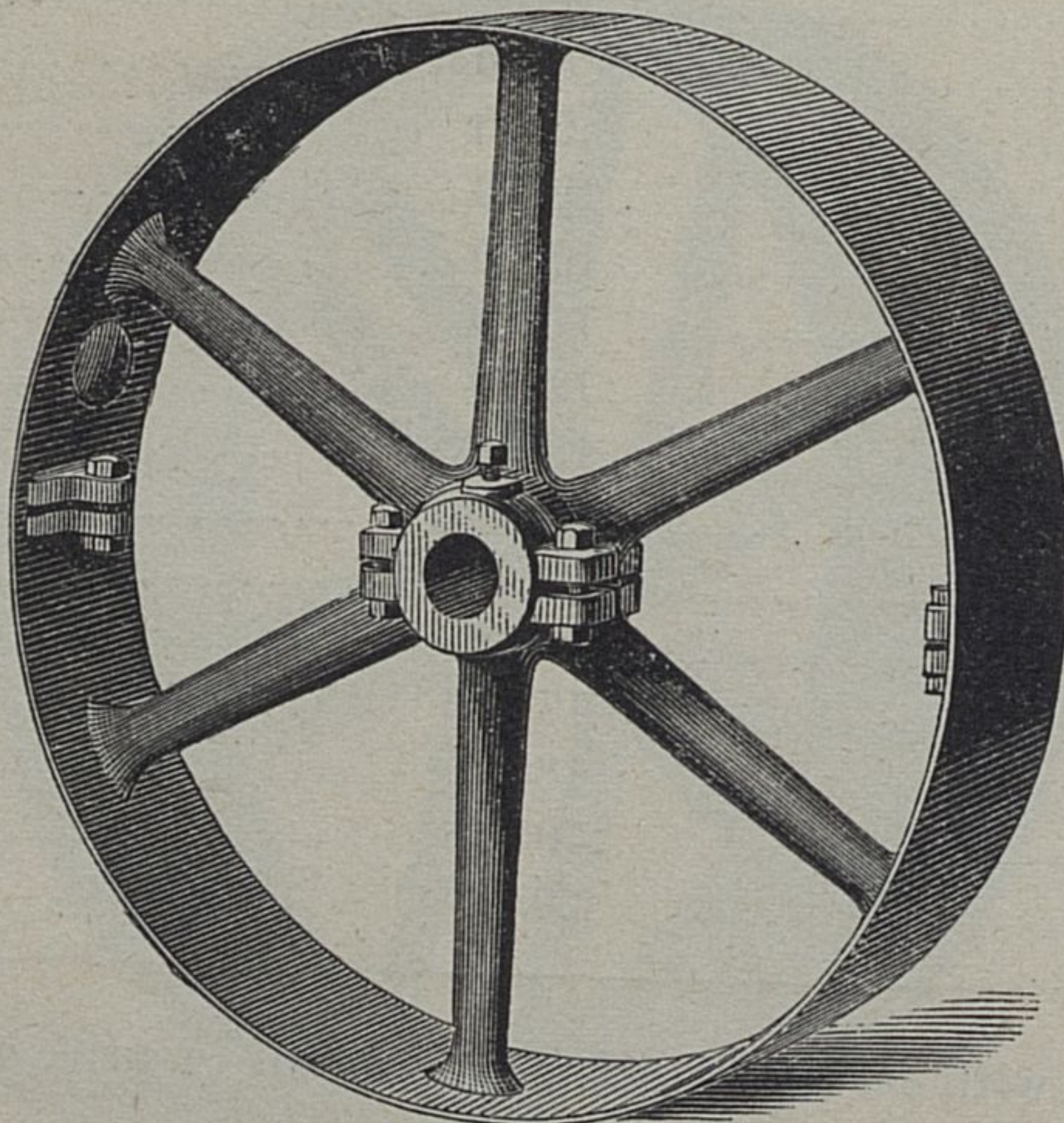
Diameter in Inches.	PRICE. Tight and Loose Pulleys.	PRICE. Flanged Pulleys.
6 to 8.....	\$1 60	\$4 65
9 to 10.....	1 95	5 20
11 to 12.....	2 30	5 75
13 to 14.....	2 65	6 30
15 to 16.....	3 00	7 15
17 to 18.....	3 30	8 00
19 to 20.....	3 70	8 80
21 to 22.....	4 05	9 90
23 to 24.....	4 40	11 00
25 to 26.....	4 75	12 10
27 to 28.....	5 10	13 75
29 to 30.....	5 45	15 40
31 to 32.....	5 80	17 05
33 to 34.....	6 15	18 70
35 to 36.....	6 50	20 35
37 to 40.....	7 20	23 10
41 to 44.....	7 90	26 40
45 to 48.....	8 60	29 70
49 to 52.....	9 30	33 00
53 to 56.....	10 00	36 30
57 to 60.....	10 70	40 70
61 to 66.....	11 70	46 20
67 to 72.....	12 70	51 70
73 to 78.....	13 70	57 20
79 to 84.....	14 70	62 70
85 to 90.....	15 70	68 20
91 to 96.....	16 70	73 70
97 to 102.....	17 70	79 70
103 to 108.....	18 70	85 80
109 to 114.....	19 70	91 30
115 to 120.....	20 70	96 80

For Pulleys with *one* flange add only one-half of price given above.

For Pulleys with *three* flanges add one-half *more* than price given above.

ADDITIONAL PRICE TO BE ADDED TO LIST PRICE FOR FINISHED SPLIT PULLEYS.

Diameter in Inches.	Face in inches.	Price.	Diameter in inches.	Face in inches.	Price.
8 to 10	2 to 3	\$ 1 30	31 to 36	11 to 14	\$ 9 80
	4 to 6	1 75		15 to 20	13 00
	7 to 10	2 15		21 to 30	19 00
	11 to 14	3 10	37 to 47	3 to 4	6 50
	15 to 20	4 00		5 to 6	7 50
11 to 18	2 to 3	1 50		7 to 10	9 90
	4 to 6	2 20		11 to 14	13 50
	7 to 10	2 85	15 to 20	18 00	
	11 to 14	4 00	21 to 30	27 00	
	15 to 20	5 25	31 to 40	37 00	
19 to 23	3 to 4	2 65	48 to 60	5 to 6	10 00
	5 to 6	3 40		7 to 10	13 00
	7 to 10	4 05		11 to 14	18 00
	11 to 14	5 60		15 to 20	25 00
	15 to 20	7 30		21 to 30	34 50
	21 to 30	11 00		31 to 40	48 00
24 to 30	3 to 4	3 60	61 to 84	7 to 10	20 00
	5 to 6	4 40		11 to 14	26 00
	7 to 10	5 40		15 to 20	35 00
	11 to 14	7 25		21 to 30	48 00
	15 to 20	10 00		31 to 40	64 00
	21 to 30	14 00		85 to 120	11 to 14	38 00
31 to 36	3 to 4	4 50	15 to 20		53 50
	5 to 6	5 60	21 to 30		70 00
	7 to 10	6 75	31 to 40		90 00



SPLIT PULLEY.

FLANGES FOR WOOD PULLEYS.

INSIDE SURFACES TURNED, HUBS BORED, AND SET-SCREWED OR KEY-SEATED.

Size of Shaft.	Diameter of Plate in inches	Price per Pair.	Size of Shaft.	Diameter of Plate in inches	Price per Pair.
1 $\frac{7}{16}$ } 1 $\frac{11}{16}$ } 1 $\frac{15}{16}$ }	6	\$2 00	2 $\frac{15}{16}$ } 3 $\frac{3}{16}$ }	14	\$ 5 50
2 $\frac{3}{16}$ } 2 $\frac{7}{16}$ }	8	2 50	3 $\frac{7}{16}$ } 3 $\frac{11}{16}$ }	18	10 00
2 $\frac{1}{16}$ }	10	3 50	3 $\frac{15}{16}$ }		

WOOD OR LAG-SCREWS, WITH SQUARE HEADS.

PRICE PER 100.

Length in inches.	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$ and $\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
1 $\frac{1}{2}$	\$2 70	\$3 10	\$4 00	\$ 4 30	.....	.....	.....	.....
2	2 90	3 30	4 25	4 60	\$ 6 50	.....	.....	.....
2 $\frac{1}{2}$	3 10	3 50	4 50	4 90	6 90	\$10 00	.....	.....
3	3 30	3 70	4 75	5 20	7 30	10 50	\$15 00	.....
3 $\frac{1}{2}$	3 50	3 90	5 00	5 50	7 70	11 00	15 75	\$21 60
4	3 70	4 10	5 25	5 80	8 10	11 50	16 50	22 50
4 $\frac{1}{2}$	3 90	4 30	5 50	6 10	8 50	12 00	17 25	23 40
5	4 10	4 50	5 75	6 40	9 00	12 50	18 00	24 25
5 $\frac{1}{2}$	4 30	4 70	6 00	6 70	9 30	13 00	18 75	25 25
6	4 50	4 90	6 25	7 00	19 70	13 50	19 50	26 25
7	.....	.....	6 75	7 60	10 50	14 50	21 00	28 25
8	.....	.....	7 25	8 20	11 30	15 50	22 50	30 25
9	.....	.....	7 75	8 80	12 10	16 50	24 00	32 25
10	.....	.....	.....	9 40	12 90	17 50	25 50	34 25
11	.....	.....	.....	10 00	13 70	18 50	27 00	36 25
12	.....	.....	.....	10 60	14 50	19 50	28 50	38 25

WROUGHT AND CAST WASHERS.

Prices quoted upon application.

MACHINE BOLTS.

MANUFACTURERS' STANDARD LIST.

PRICE PER HUNDRED, WITH SQUARE HEADS AND NUTS.

Diam	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$ and $\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
1½	\$2 80	\$3 20	\$3 60	\$ 4 60	\$ 5 00	\$ 7 20	\$10 50	\$14 90	\$22 00
2	2 90	3 35	3 80	4 90	5 30	7 70	11 10	15 80	23 10
2½	3 00	3 50	4 00	5 20	5 60	8 20	11 70	16 60	24 20
3	3 10	3 65	4 20	5 50	5 90	8 70	12 30	17 50	25 30
3½	3 20	3 80	4 40	5 80	6 20	9 20	12 90	18 30	26 40
4	3 30	3 95	4 60	6 10	6 50	9 70	13 50	19 20	27 50
4½	3 40	4 10	4 80	6 40	6 80	10 20	14 10	20 00	28 60
5	3 50	4 25	5 00	6 70	7 10	10 70	14 70	20 90	29 70
5½	3 60	4 40	5 20	7 00	7 40	11 20	15 30	21 70	30 80
6	3 70	4 55	5 40	7 30	7 70	11 70	15 90	22 60	31 90
6½	3 80	4 70	5 60	7 60	8 00	12 20	16 50	23 40	33 00
7	3 90	4 85	5 80	7 90	8 30	12 70	17 10	24 30	34 10
7½	4 00	5 00	6 00	8 20	8 60	13 20	17 70	25 10	35 20
8	4 10	5 15	6 20	8 50	8 90	13 70	18 30	26 00	36 30
9	.....	.....	6 60	9 10	9 50	14 75	19 50	27 70	38 50
10	.....	.....	7 00	9 70	10 10	15 75	20 70	29 40	40 70
11	.....	.....	7 40	10 30	10 70	16 75	21 90	31 10	42 90
12	.....	.....	7 80	10 90	11 30	17 75	23 10	32 80	45 10
13	.....	.....	.....	.....	11 90	18 75	24 30	34 50	47 30
14	.....	.....	.....	.....	12 50	19 75	25 50	36 20	49 50
15	.....	.....	.....	.....	13 10	20 75	26 70	37 90	51 70
16	.....	.....	.....	.....	13 70	21 75	27 90	39 60	53 90
17	.....	.....	.....	.....	14 30	22 75	29 10	41 30	56 10
18	.....	.....	.....	.....	14 90	23 75	30 30	43 00	58 30
19	.....	.....	.....	.....	15 50	24 75	31 50	44 70	60 50
20	.....	.....	.....	.....	16 10	25 75	32 70	46 40	62 70

Bolts with Hexagon Heads or Hexagon Nuts, 10 per cent. extra.

With both Hexagon Heads and Hexagon Nuts, 20 per cent. extra.

All Bolts are cut with United States Standard Thread, unless otherwise ordered.

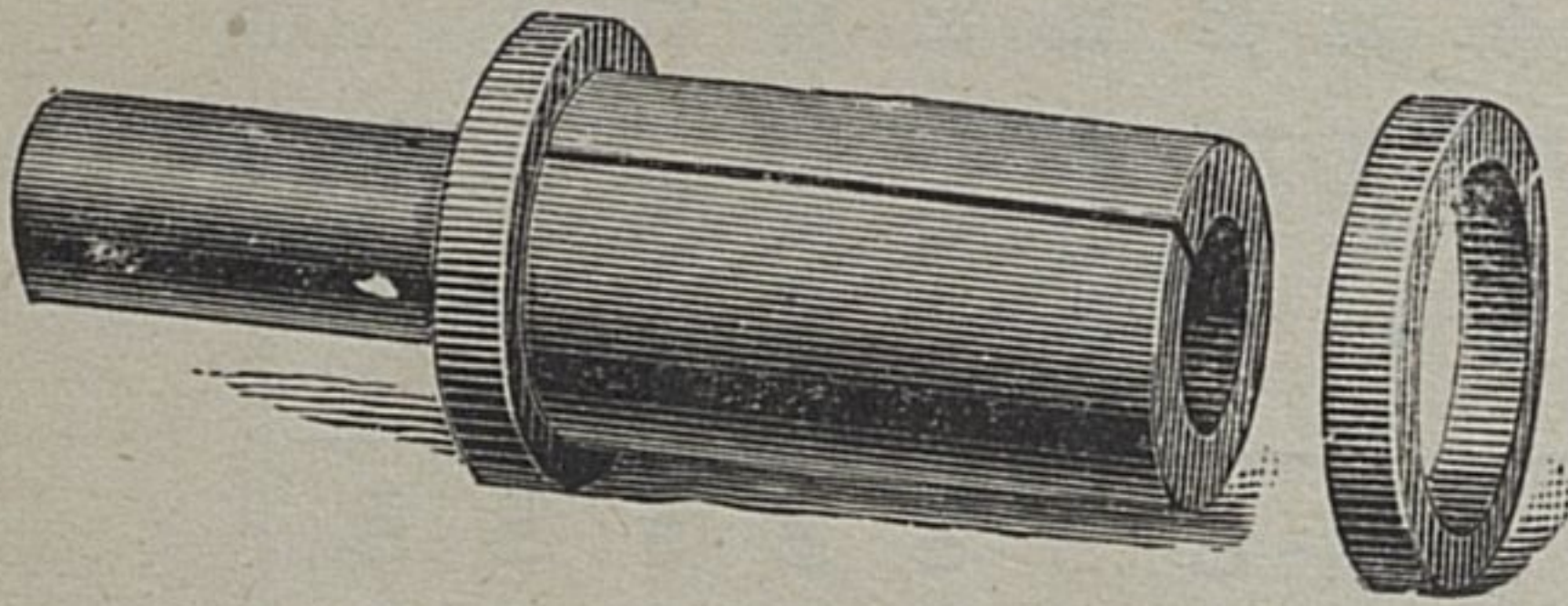
Bolts of irregular shape or style, made to order, will be charged extra at our discretion.

PRICE LIST POWER CONNECTIONS.

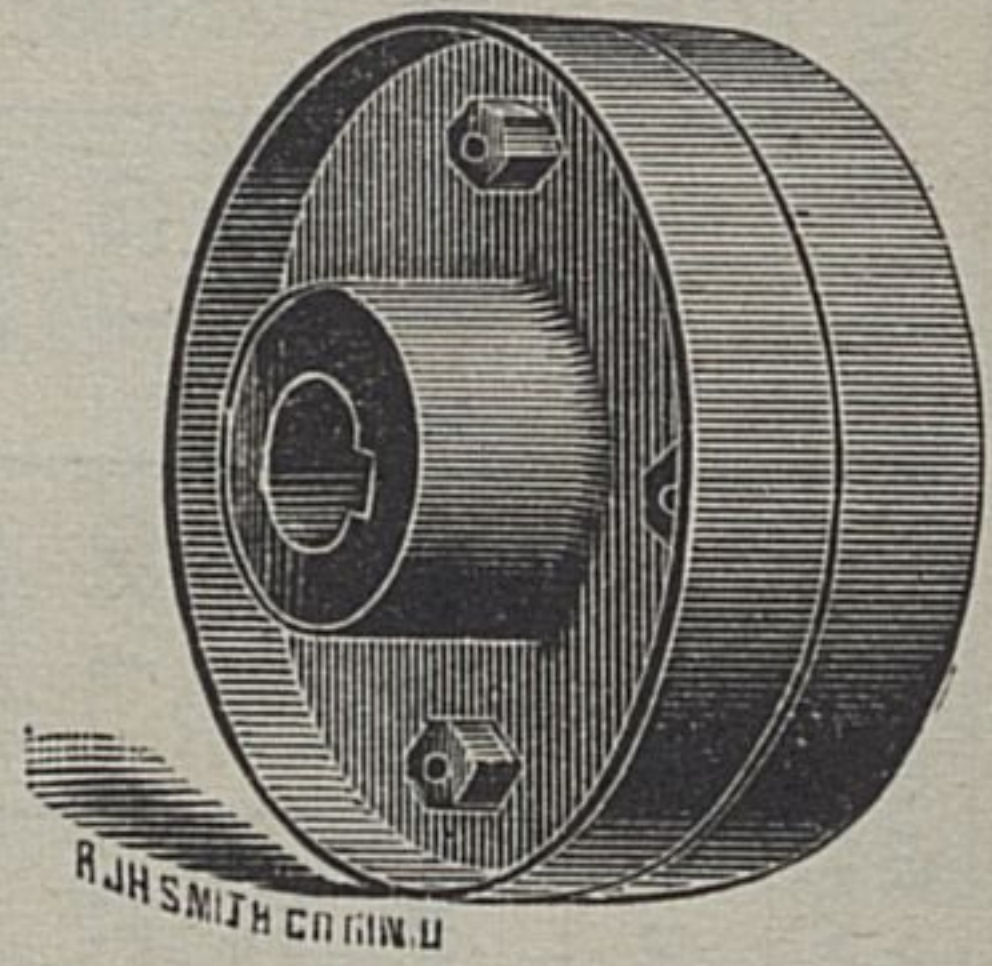
Size in inches.	Shafting.	COLLARS.		SHAFT COUPLINGS.							PILLOW BLOCKS AND UPRIGHT BOXES.		POST HANGERS.		Size in inches.
		Ring.	Set Screw	Plate	Flange.	Ring.	Clutch.	Com-pression.	Cog.	Rigid.	Ad-justable	Rigid.	Ad-justable.		
1 ³ / ₁₆	\$0 75	\$0 80	\$0 70	\$ 5 50	\$ 6 75	\$ 5 50	\$ 5 00	\$ 5 50	\$2 50	\$ 2 00	\$ 3 75	\$ 3 75	\$ 4 50	1 ³ / ₁₆	
1 ⁷ / ₁₆	80	1 00	75	5 75	7 00	5 75	5 25	5 75	2 75	2 25	4 00	4 00	4 80	1 ⁷ / ₁₆	
1 ¹¹ / ₁₆	87	1 20	80	6 30	7 90	6 30	5 75	6 30	3 00	2 75	4 80	4 80	5 25	1 ¹¹ / ₁₆	
1 ¹⁵ / ₁₆	1 05	1 40	85	7 00	8 75	7 50	6 50	7 00	3 25	3 25	5 50	5 50	6 50	1 ¹⁵ / ₁₆	
2 ³ / ₁₆	1 25	1 60	90	7 50	9 40	7 50	7 00	7 50	.....	3 75	7 00	7 00	7 30	2 ³ / ₁₆
2 ⁷ / ₁₆	1 50	1 80	95	8 75	11 00	8 75	7 75	8 75	.....	4 50	9 00	9 00	8 90	2 ⁷ / ₁₆
2 ¹¹ / ₁₆	1 80	2 00	1 05	10 00	12 50	10 00	8 25	10 00	.....	5 25	11 50	11 50	10 90	2 ¹¹ / ₁₆
2 ¹⁵ / ₁₆	2 15	2 20	1 20	11 50	14 35	11 50	9 00	11 50	.....	6 00	15 00	15 00	13 30	2 ¹⁵ / ₁₆
3 ³ / ₁₆	2 60	2 40	1 35	13 75	17 20	13 75	9 50	13 75	.....	7 00	18 00	18 00	16 20	3 ³ / ₁₆
3 ⁷ / ₁₆	2 95	2 75	1 50	16 00	20 00	16 00	11 50	16 00	.....	8 50	22 00	22 00	19 40	3 ⁷ / ₁₆
3 ¹¹ / ₁₆	3 45	3 00	1 65	19 00	23 50	19 00	12 50	19 50	.....	9 25	25 00	25 00	23 00	3 ¹¹ / ₁₆
3 ¹⁵ / ₁₆	4 00	3 30	1 80	22 00	27 50	22 00	13 50	22 00	.....	10 50	28 00	28 00	27 00	3 ¹⁵ / ₁₆
4 ⁷ / ₁₆	5 30	3 90	2 00	30 00	36 00	30 00	15 50	30 00	.....	13 50	35 00	35 00	35 00	4 ⁷ / ₁₆
4 ¹⁵ / ₁₆	6 90	4 75	2 40	55 00	60 00	55 00	20 00	55 00	.....	16 00	40 00	40 00	.....	4 ¹⁵ / ₁₆

Prices given are for plain Shafting. Key Seats, Toes for Uprights, etc., extra.
Cuts showing Collars, Couplings, Boxes and Hangers on pages 110 and 11.

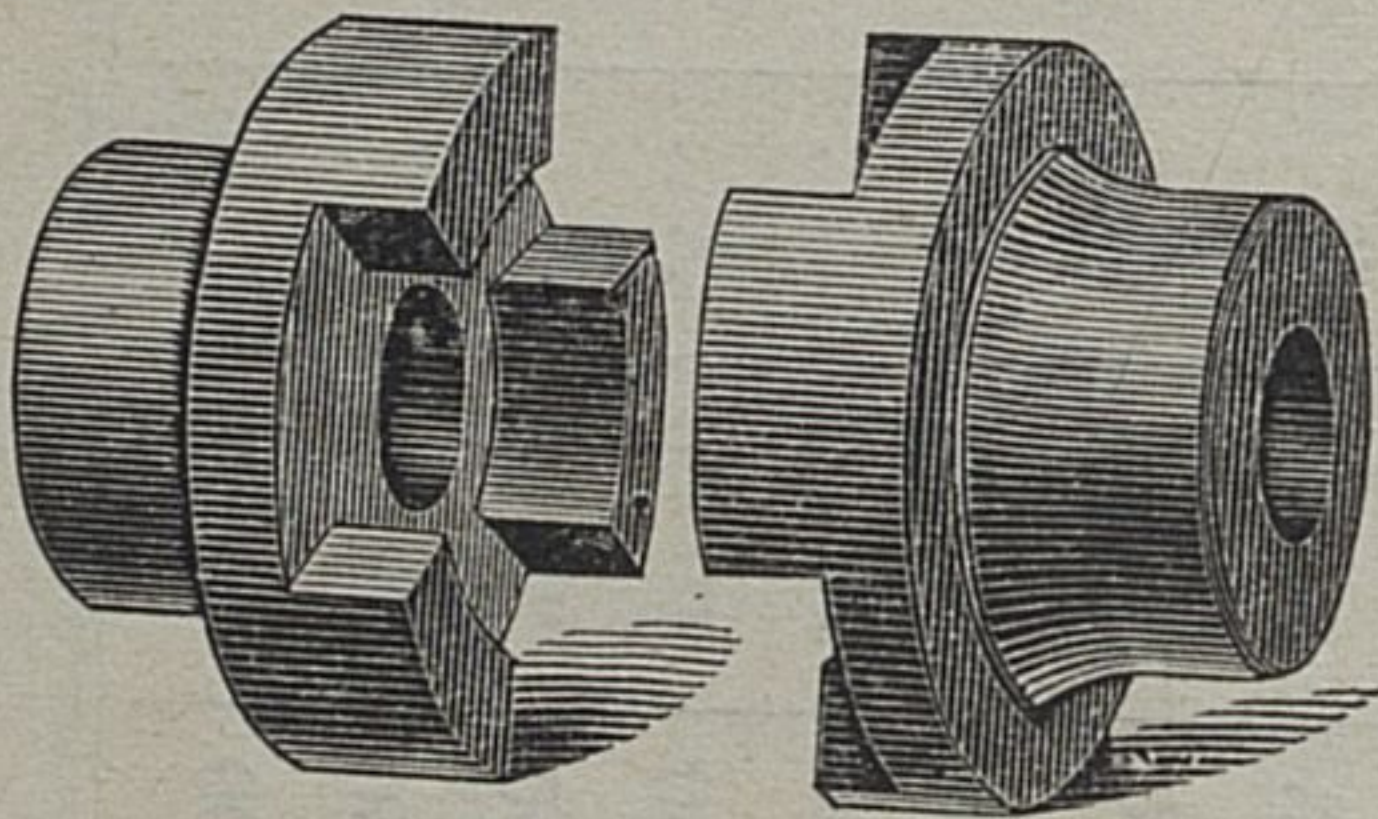
SHAFT COUPLINGS.



RING.



FLANGE.



CLUTCH.

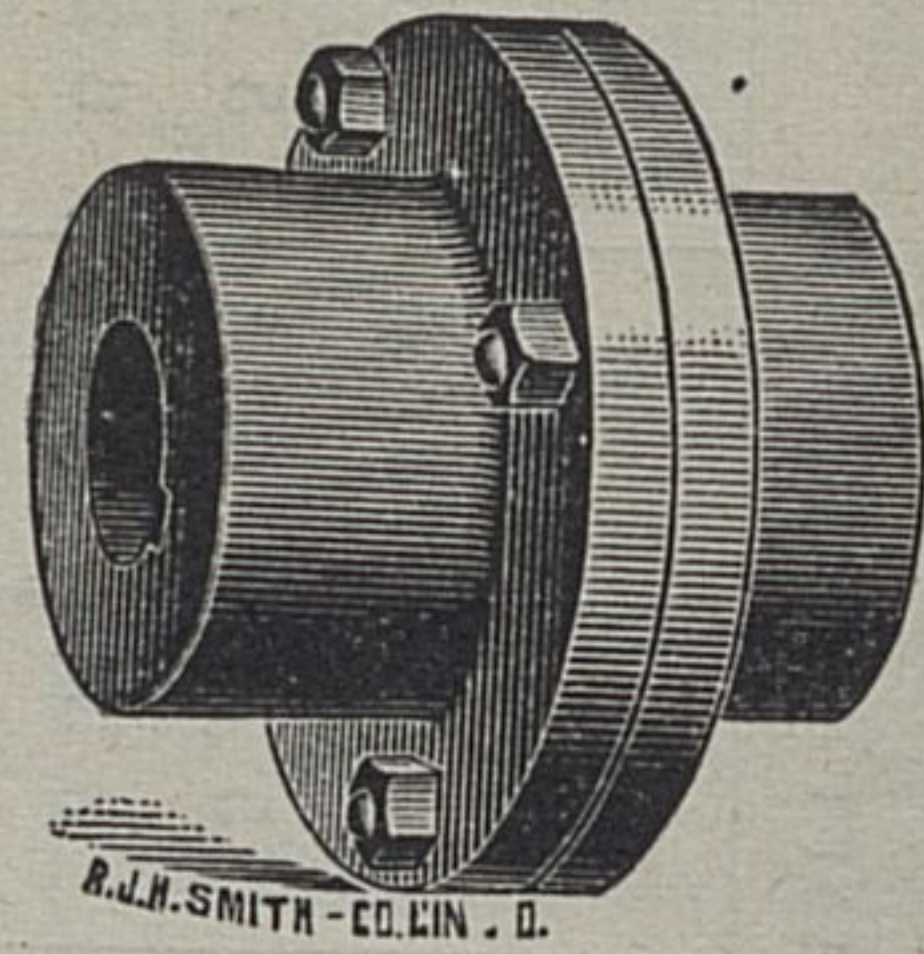
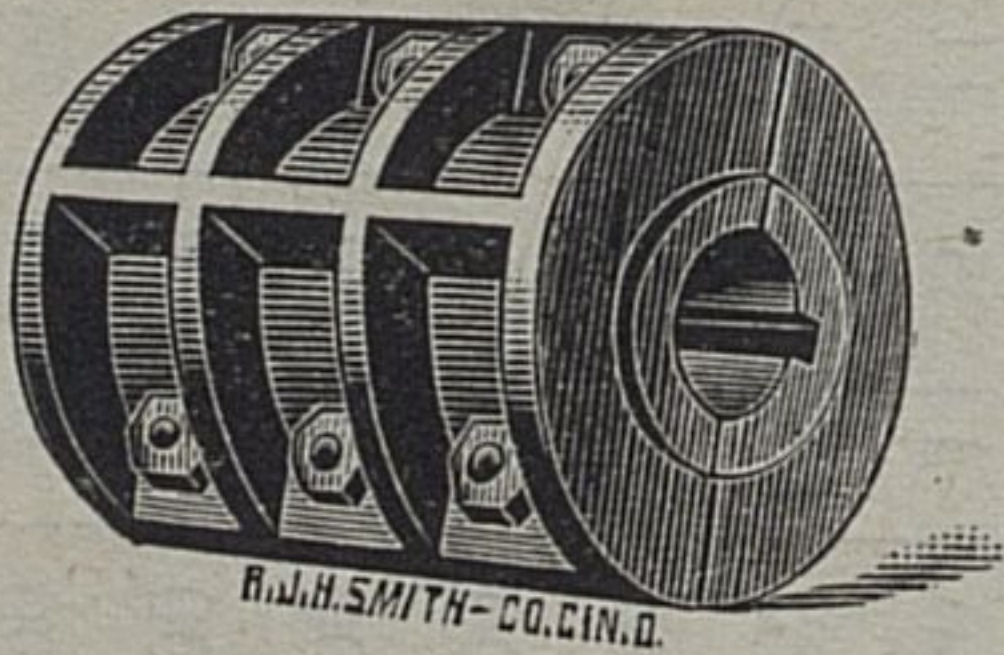
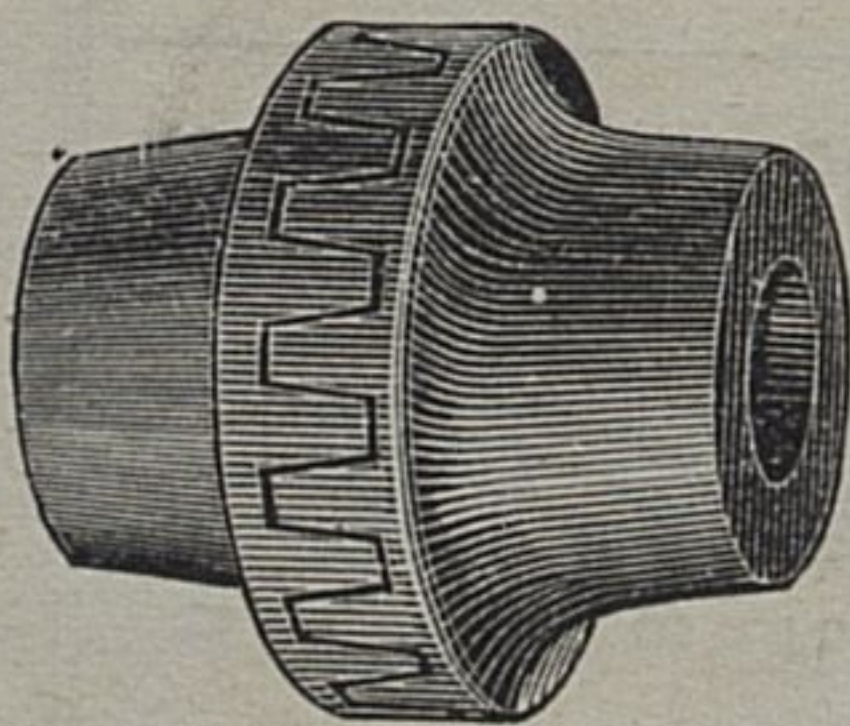


PLATE.

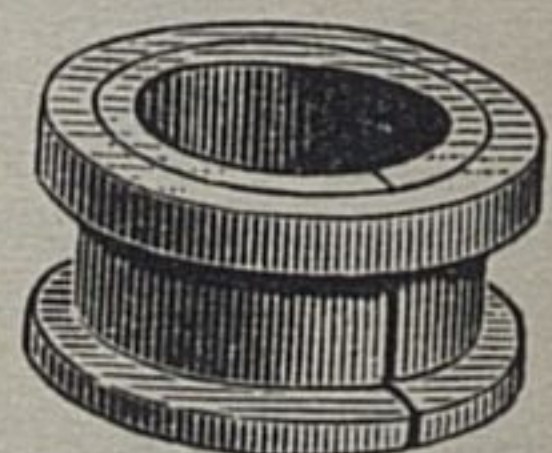
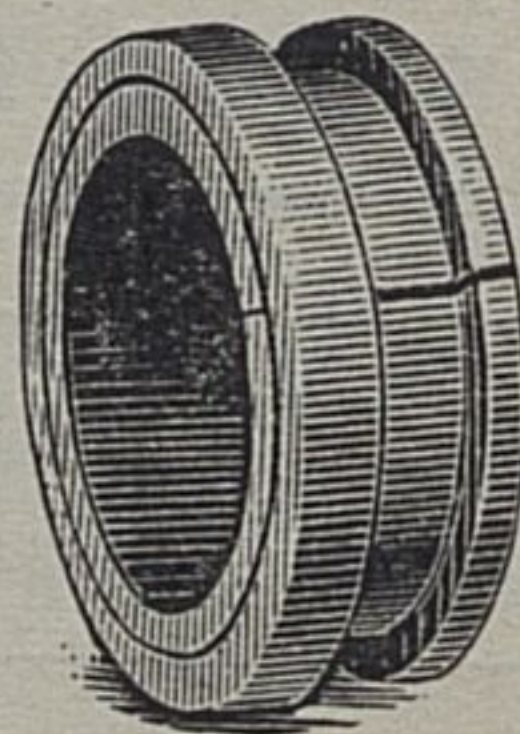


COMPRESSION.

COLLARS.

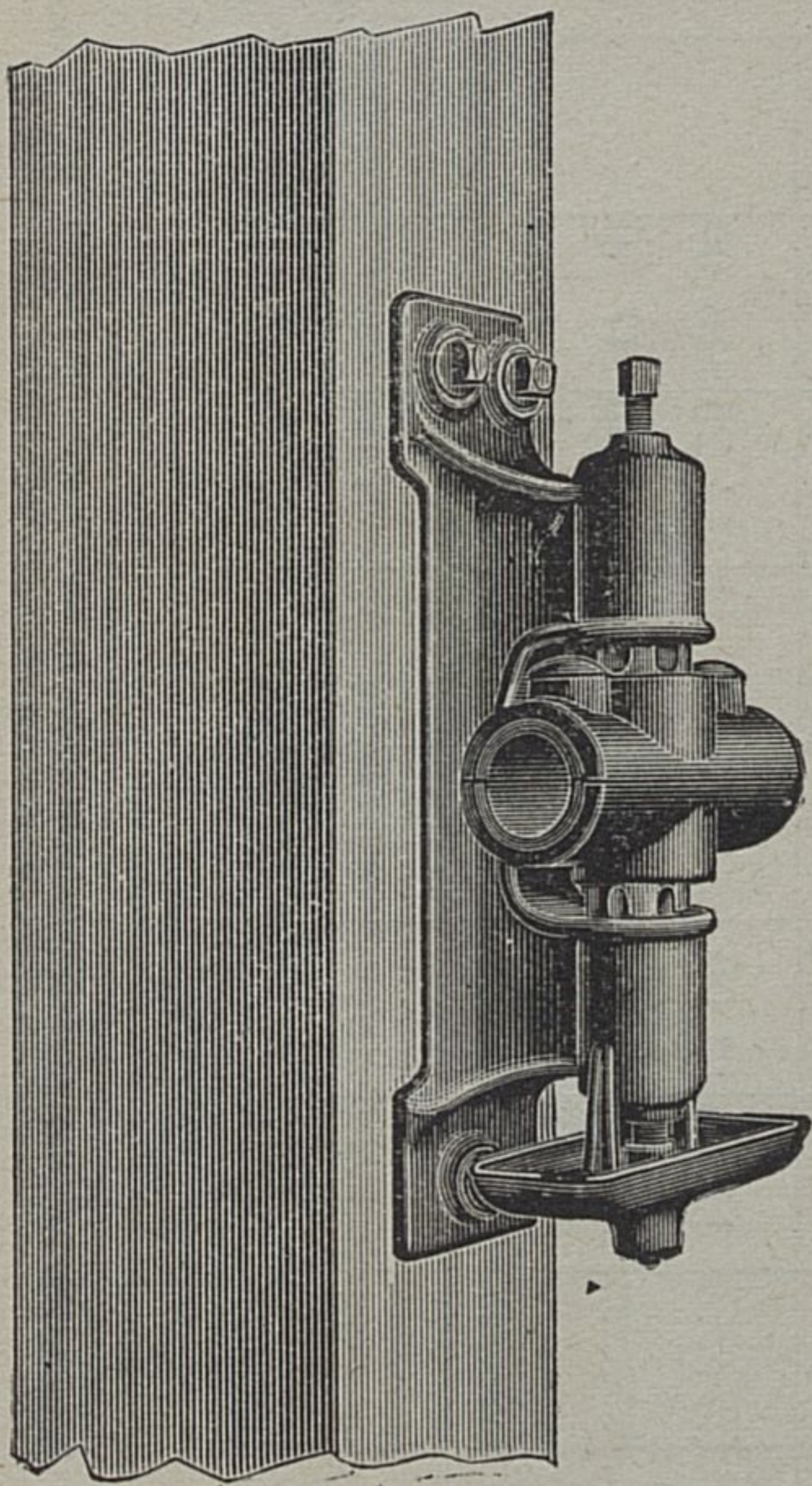


COG.

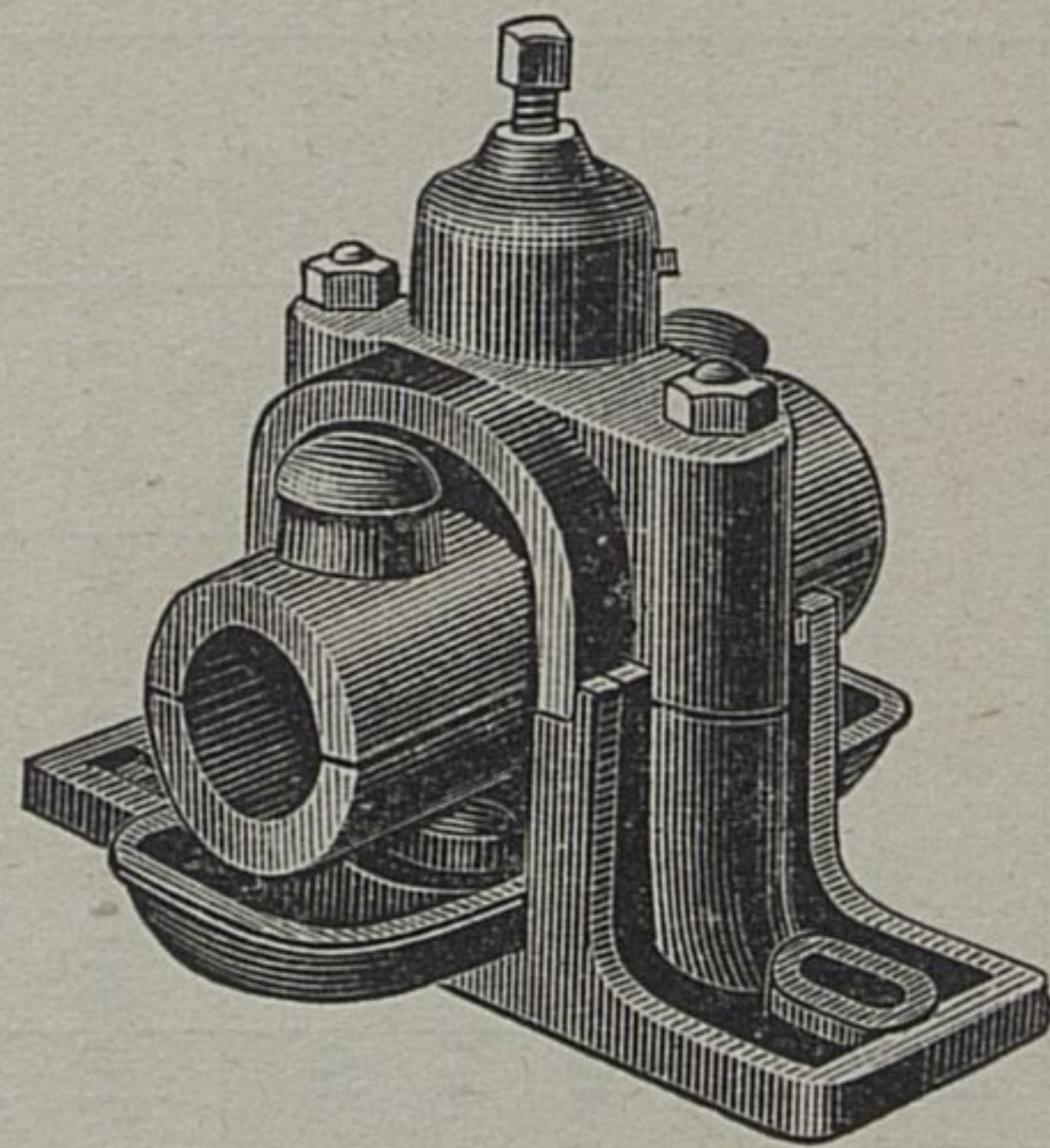


POST HANGERS.

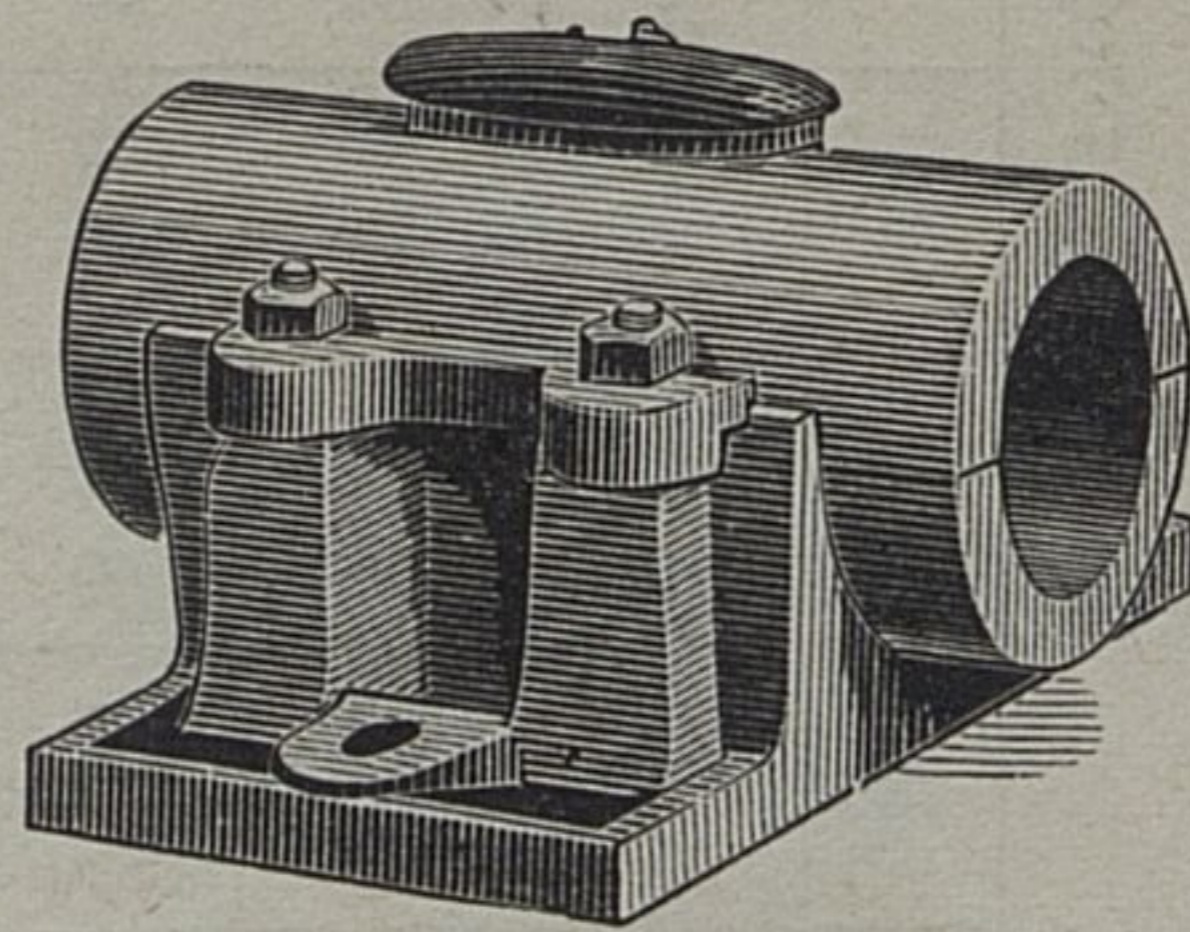
PILLOW BLOCKS.



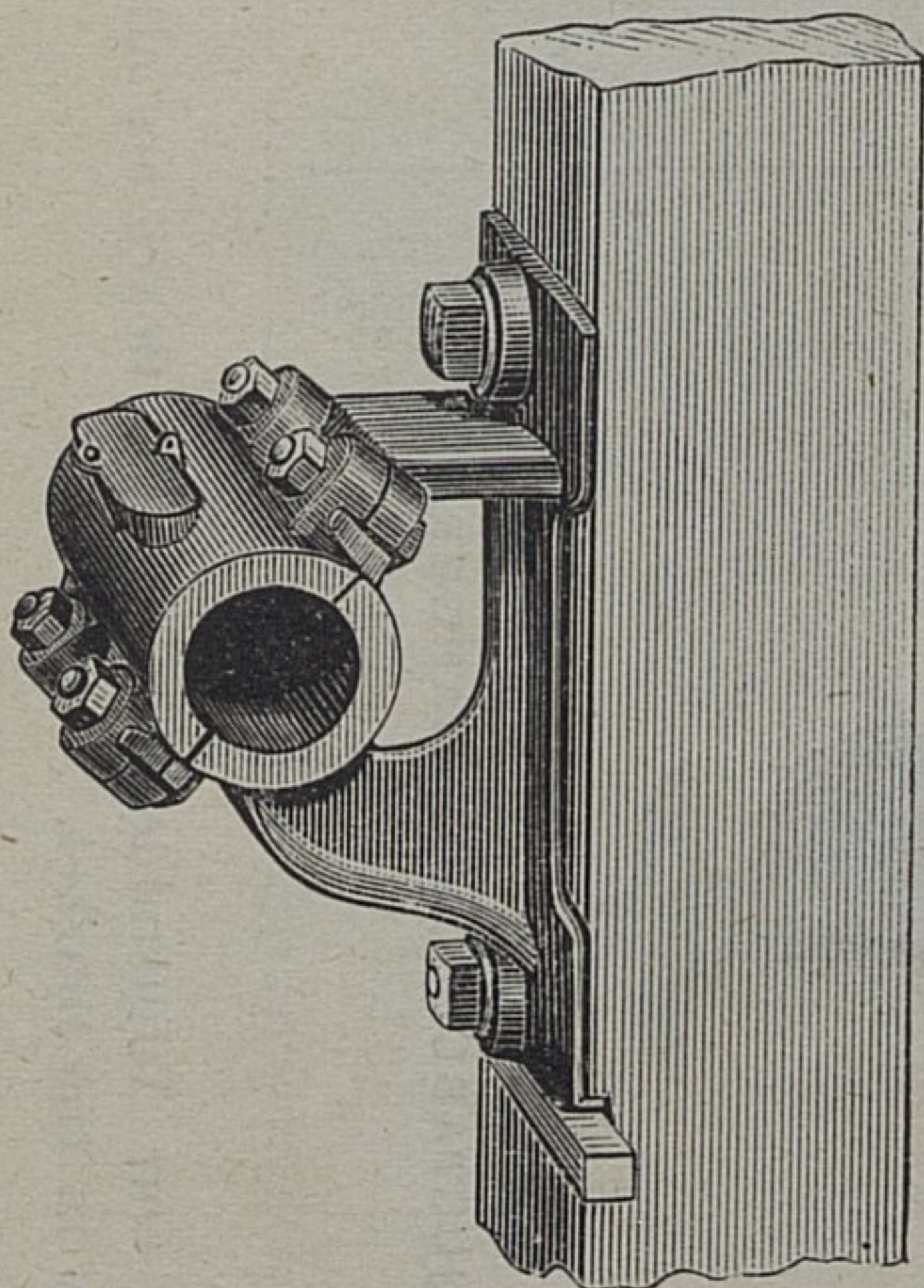
ADJUSTABLE.



ADJUSTABLE.

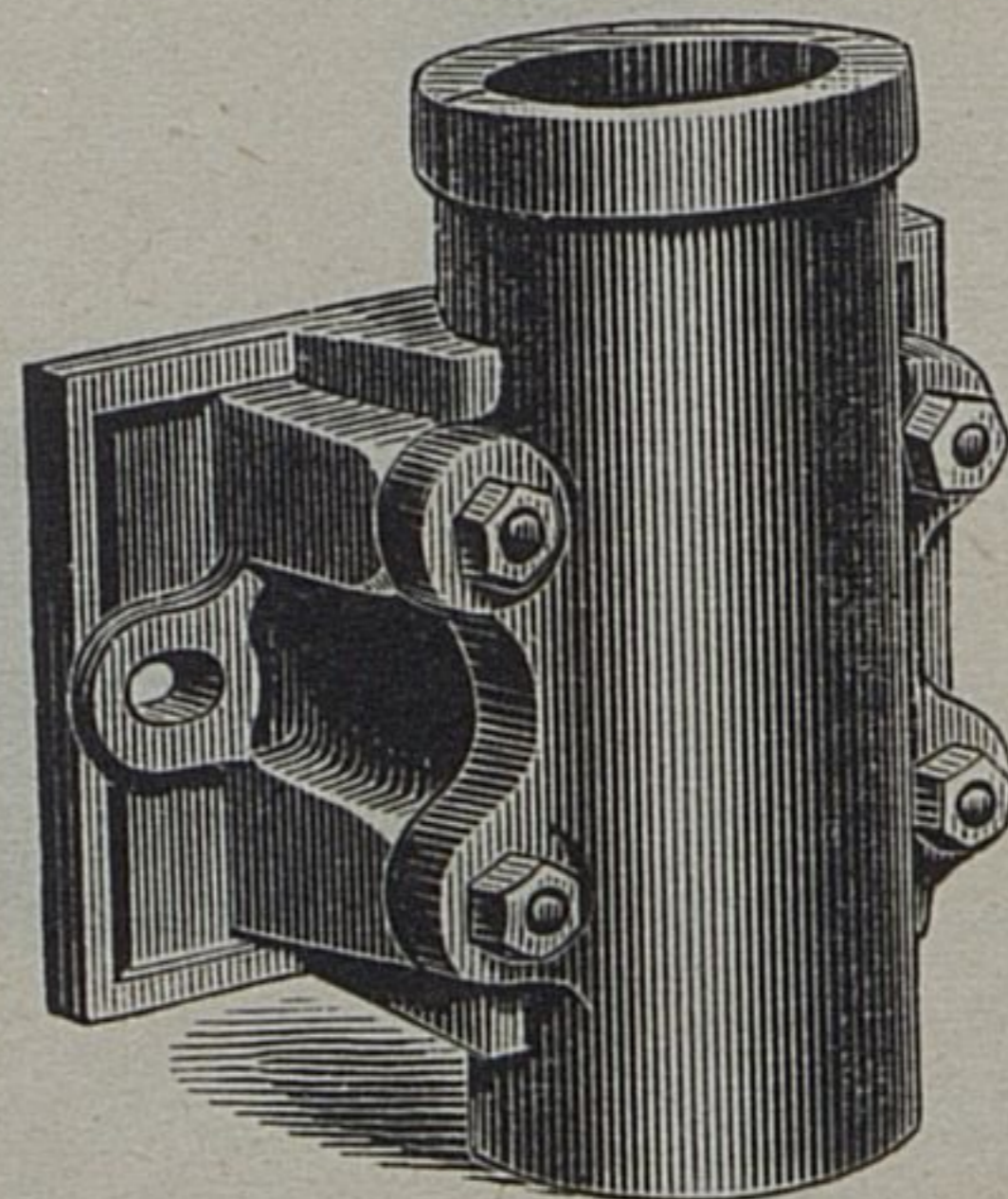


RIGID.



RIGID.

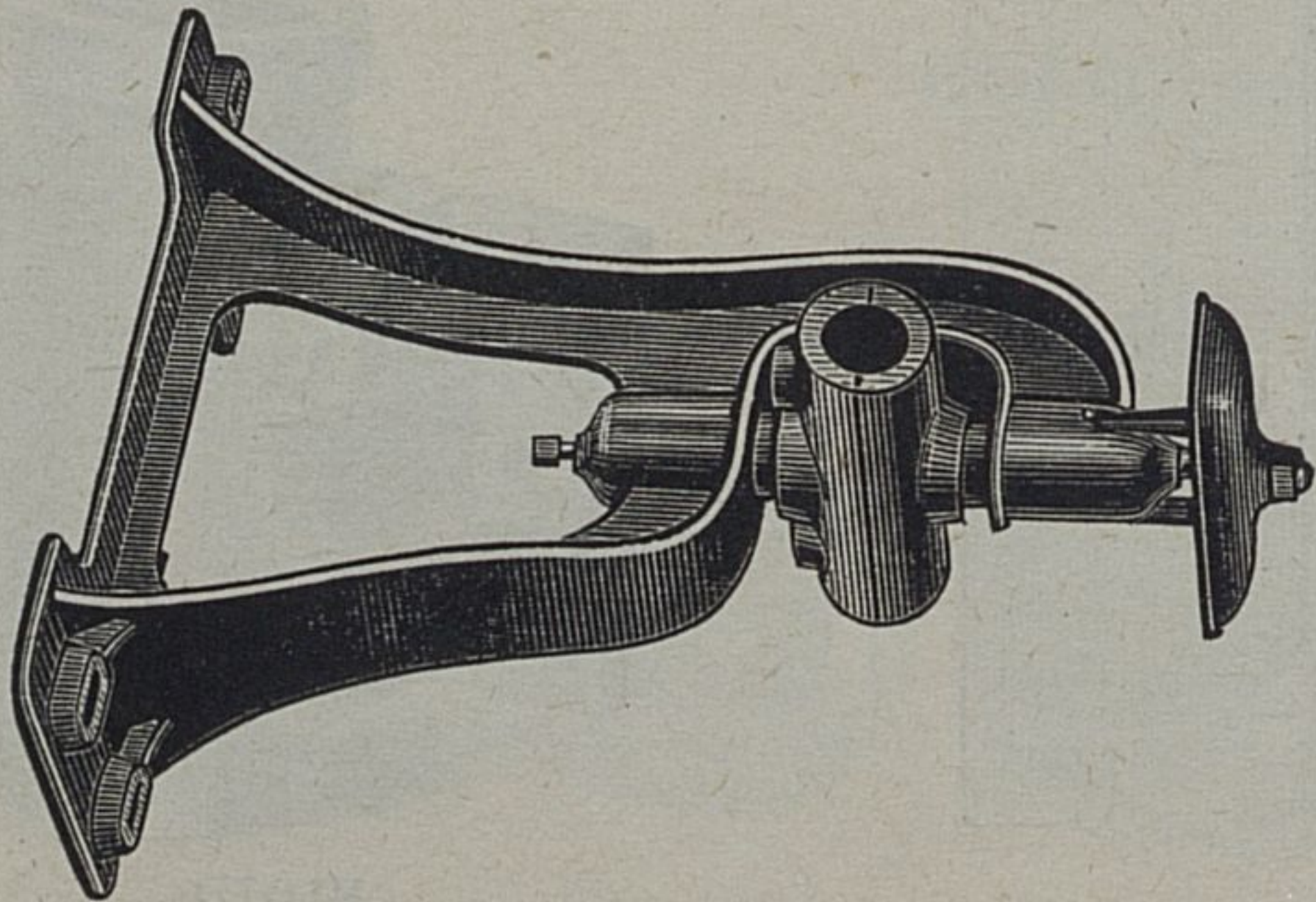
UPRIGHT BOXES.



RIGID.

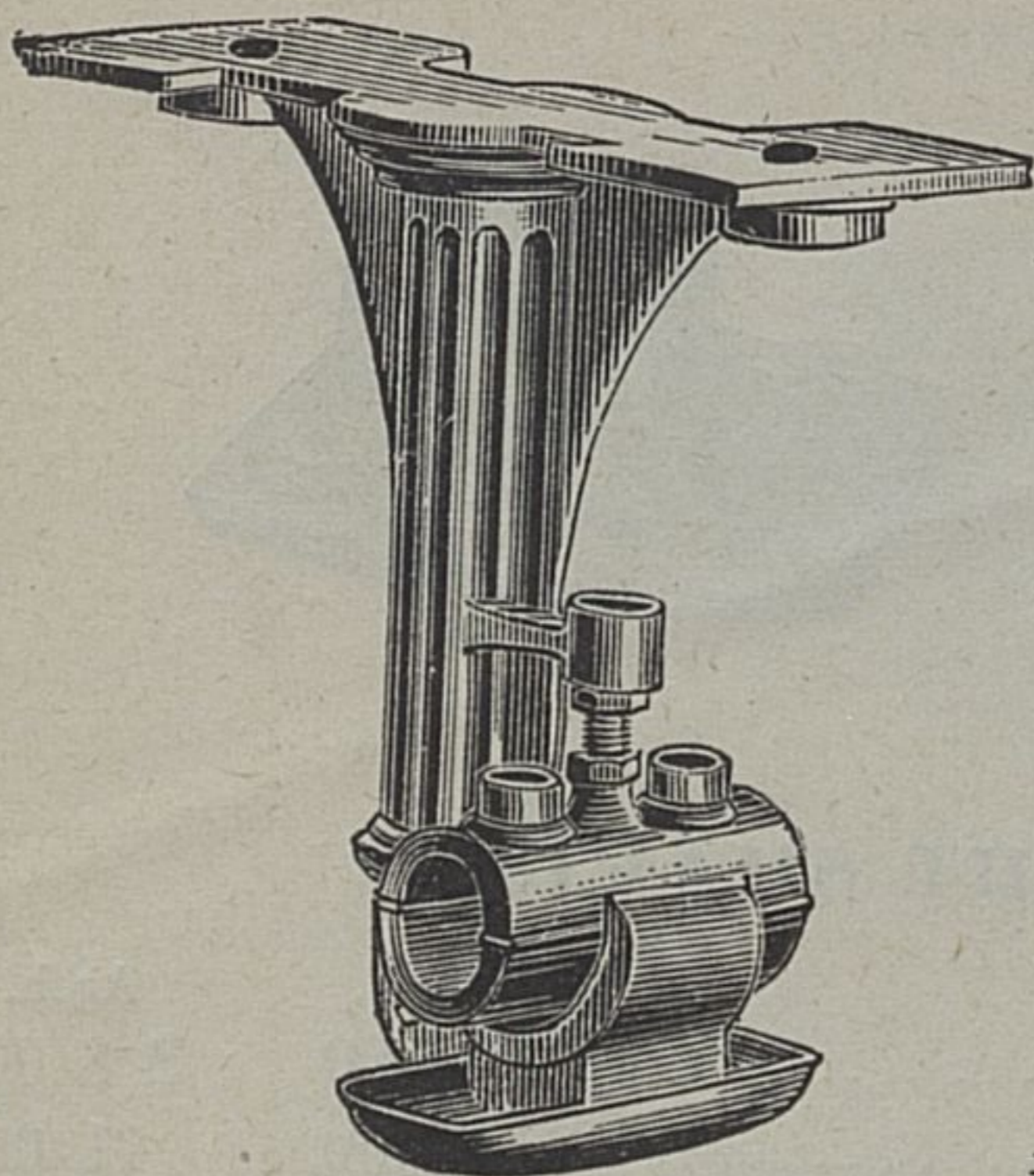
ADJUSTABLE DROP HANGERS.

Diameter of Shaft in inches.	DROP IN INCHES.									
	10	12	14	16	18	20	22	24	30	36
$1\frac{7}{16}$	\$5 00	\$5 40	\$5 80	\$6 20	\$6 80	\$7 40	.....	.....	.....	.....
$1\frac{11}{16}$	6 00	6 40	6 80	7 20	7 80	8 40	.....	.....	.....	.....
$1\frac{5}{8}$	7 00	7 40	7 80	8 20	8 80	9 40	.....	.....	.....	.....
$1\frac{15}{16}$	.....	7 80	8 30	8 90	9 50	10 10	\$10 70	\$11 30	.....	.....
$2\frac{3}{16}$	.....	8 25	9 00	9 75	10 50	11 25	12 00	12 75	.....	.....
$2\frac{7}{16}$	.....	9 50	10 25	11 00	11 75	12 00	12 75	13 50	.....	.....
$2\frac{7}{16}$	.....	.....	.....	11 75	12 00	12 75	.....	14 25	\$16 00	.....
$2\frac{1}{8}$	.....	.....	.....	12 50	13 75	14 50	.....	15 50	17 50	.....
$2\frac{5}{16}$	.....	.....	.....	13 50	14 25	15 00	.....	17 00	19 00	.....
$3\frac{7}{16}$	.....	.....	.....	.....	.....	22 00	.....	25 00	30 00	\$36 00
$3\frac{1}{2}$	.....	.....	.....	.....	.....	27 00	.....	30 00	35 00	41 00



ADJUSTABLE DROP HANGER.

Our Adjustable Hangers and Boxes are all made from new and improved patterns, and are not surpassed by any in the market.

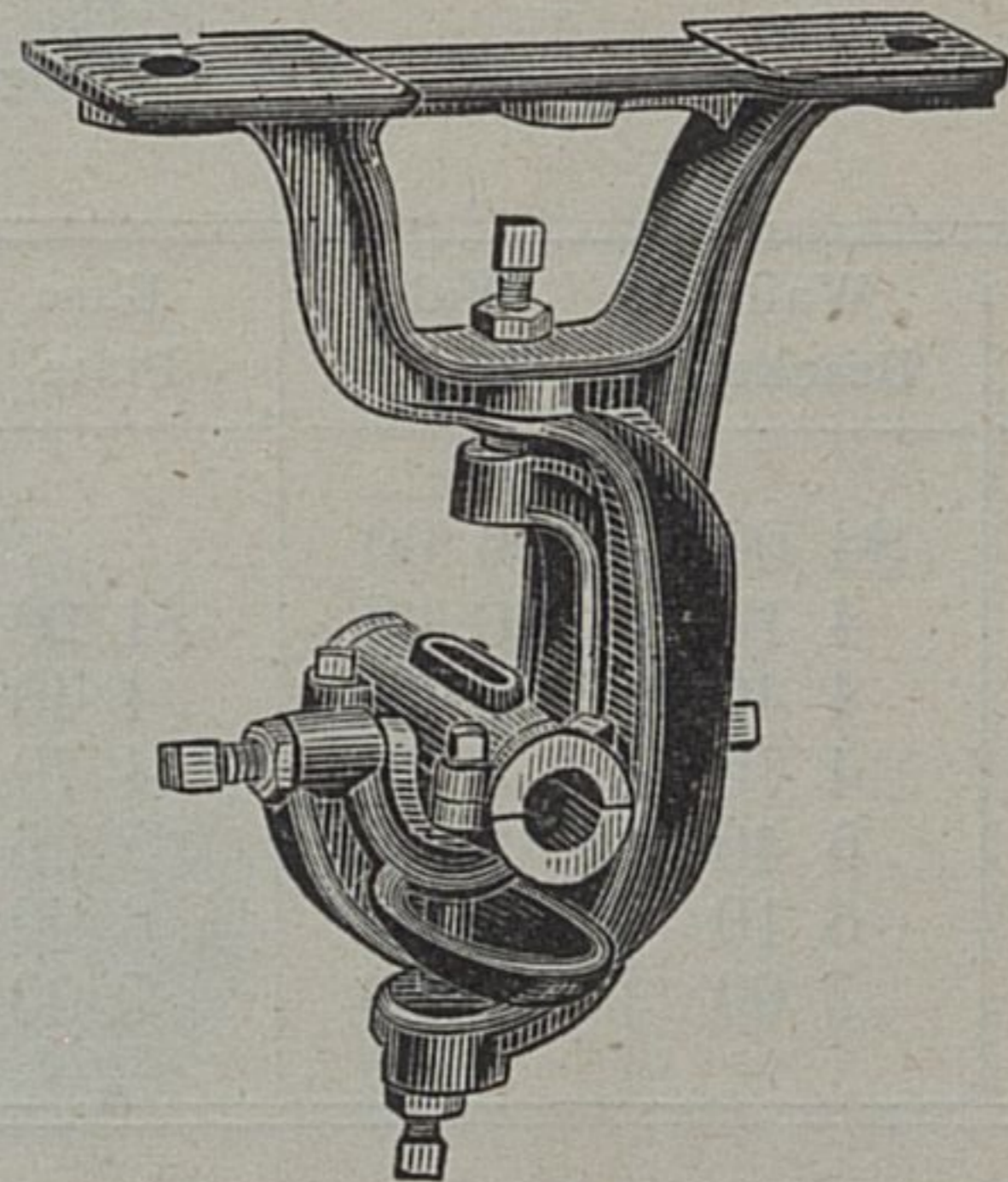
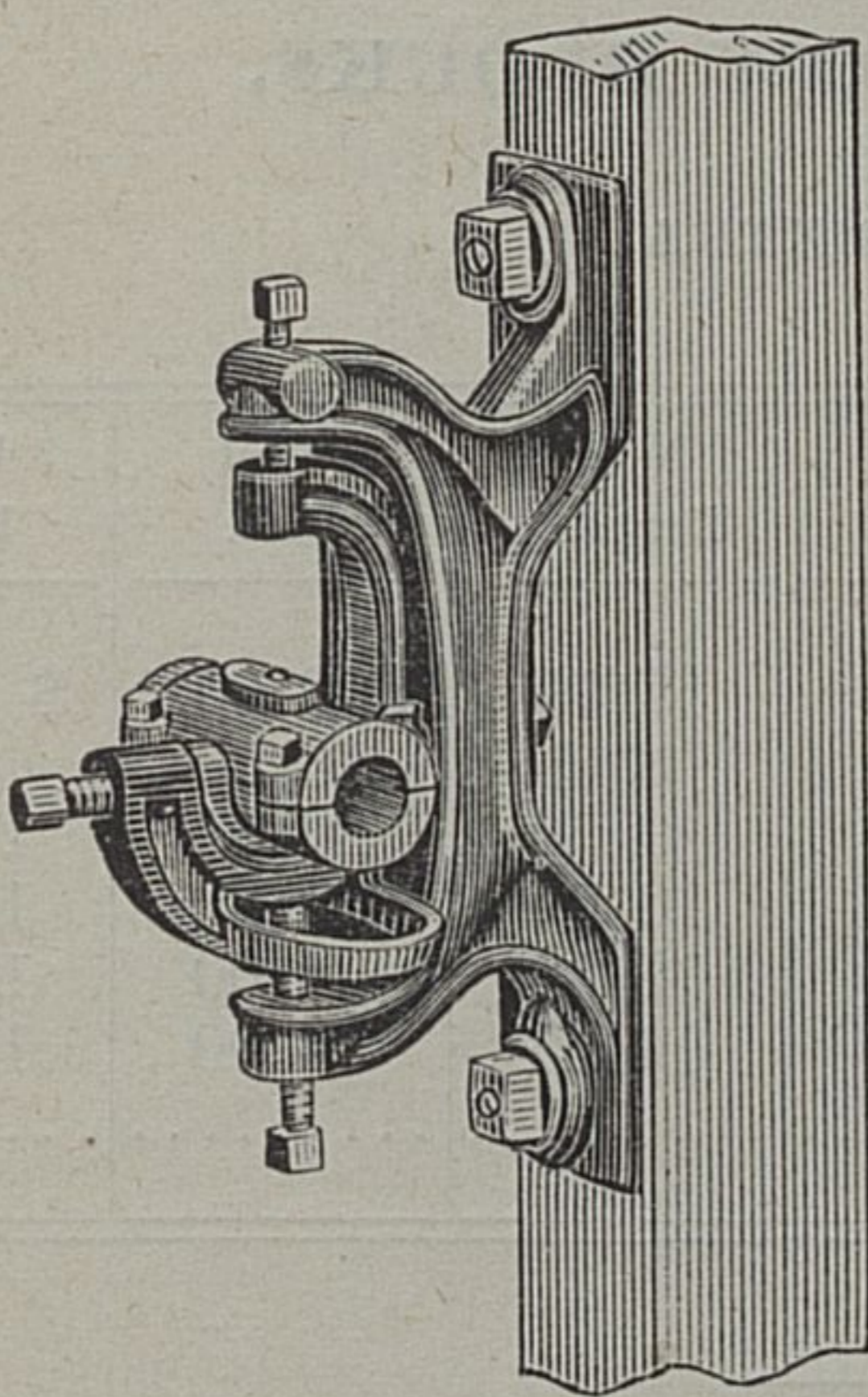


RIGID DROP HANGERS.

PRICE LIST.

Diameter of Shaft.	DROP OF HANGER, IN INCHES.				
	10	12	14	16	18
Inches.					
$1\frac{7}{16}$	\$4 00	\$4 50	.....	.....	.....
$1\frac{11}{16}$	4 50	5 00	.....	.....	.....
$1\frac{15}{16}$	.....	5 50	\$6 00	\$6 50	\$7 00
$2\frac{3}{16}$	.....	6 00	6 50	7 00	7 50
$2\frac{7}{16}$	.....	7 00	7 50	8 00	8 50
$2\frac{11}{16}$	.....	8 00	8 50	9 00	9 50
$2\frac{15}{16}$	.....	.....	.....	10 00	11 00

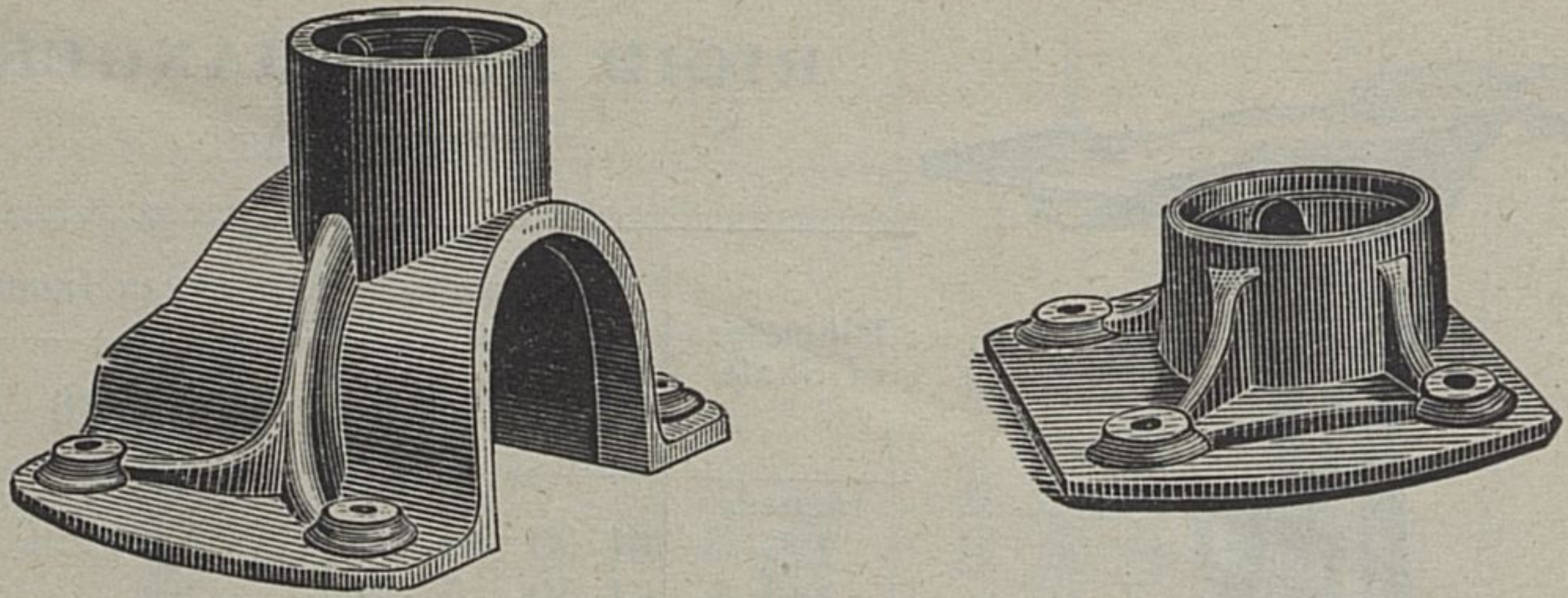
PATENT ADJUSTABLE DROP AND POST HANGERS.



PRICE LIST.

For Shaft $1\frac{7}{16}$ inches diameter.....	\$8 00
For Shaft $1\frac{11}{16}$ inches diameter.....	8 50
For Shaft $1\frac{15}{16}$ inches diameter.....	9 00

These are very handsome patterns. We make only the three sizes given. The Drop Hangers are all 10-inch drop.



STEPS FOR UPRIGHT SHAFTS.

	Plain.	Arch.
For Shafts $1\frac{7}{16}$, $1\frac{11}{16}$ and $1\frac{15}{16}$	\$ 4 00	\$ 8 00
For Shafts $2\frac{3}{16}$, $2\frac{7}{16}$ and $2\frac{11}{16}$	7 00	11 00
For Shafts $2\frac{15}{16}$, $3\frac{3}{16}$ and $3\frac{7}{16}$	10 00	14 00
For Shafts $3\frac{15}{16}$ and $4\frac{7}{16}$	14 00	18 00

WALL BRACKET, WALL BOX FRAME, BASE PLATE, OR SHOE FOR PILLOW BLOCKS.

PRICES.—BOXES EXTRA.

Size.	Wall Bracket.	Wall Box.	Base Plate.	Size.	Wall Bracket.	Wall Box.	Base Plate.
$1\frac{7}{16}$	\$4 00	\$6 00	.....	$3\frac{3}{16}$	\$7 75	\$16 00	\$ 8 10
$1\frac{11}{16}$	4 10	6 60	\$4 20	$3\frac{7}{16}$	8 60	16 00	9 20
$1\frac{15}{16}$	4 40	6 60	4 40	$3\frac{15}{16}$	9 50	20 00	10 30
$2\frac{3}{16}$	4 75	8 00	4 70	$4\frac{7}{16}$	10 50	20 00	11 40
$2\frac{7}{16}$	5 40	8 00	5 25	$4\frac{11}{16}$	12 50	34 00	13 60
$2\frac{11}{16}$	6 10	12 00	6 00	$4\frac{15}{16}$	14 25	34 00	15 80
$2\frac{15}{16}$	7 00	12 00	7 00	.....	.....	.....	.....

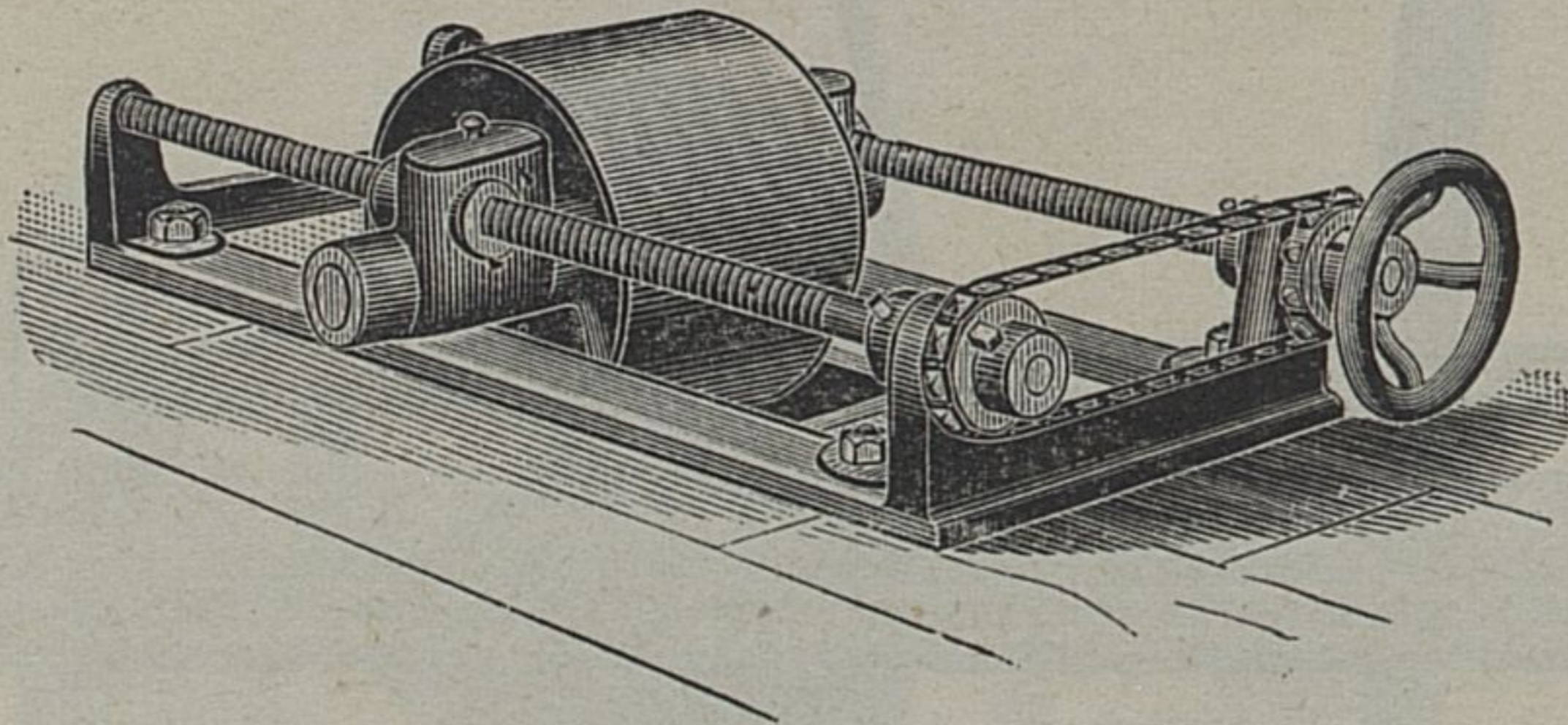
WOOD JOURNAL BOXES.

MADE OF BEST SEASONED SUGAR MAPLE.

PRICE, WITHOUT BOLTS.

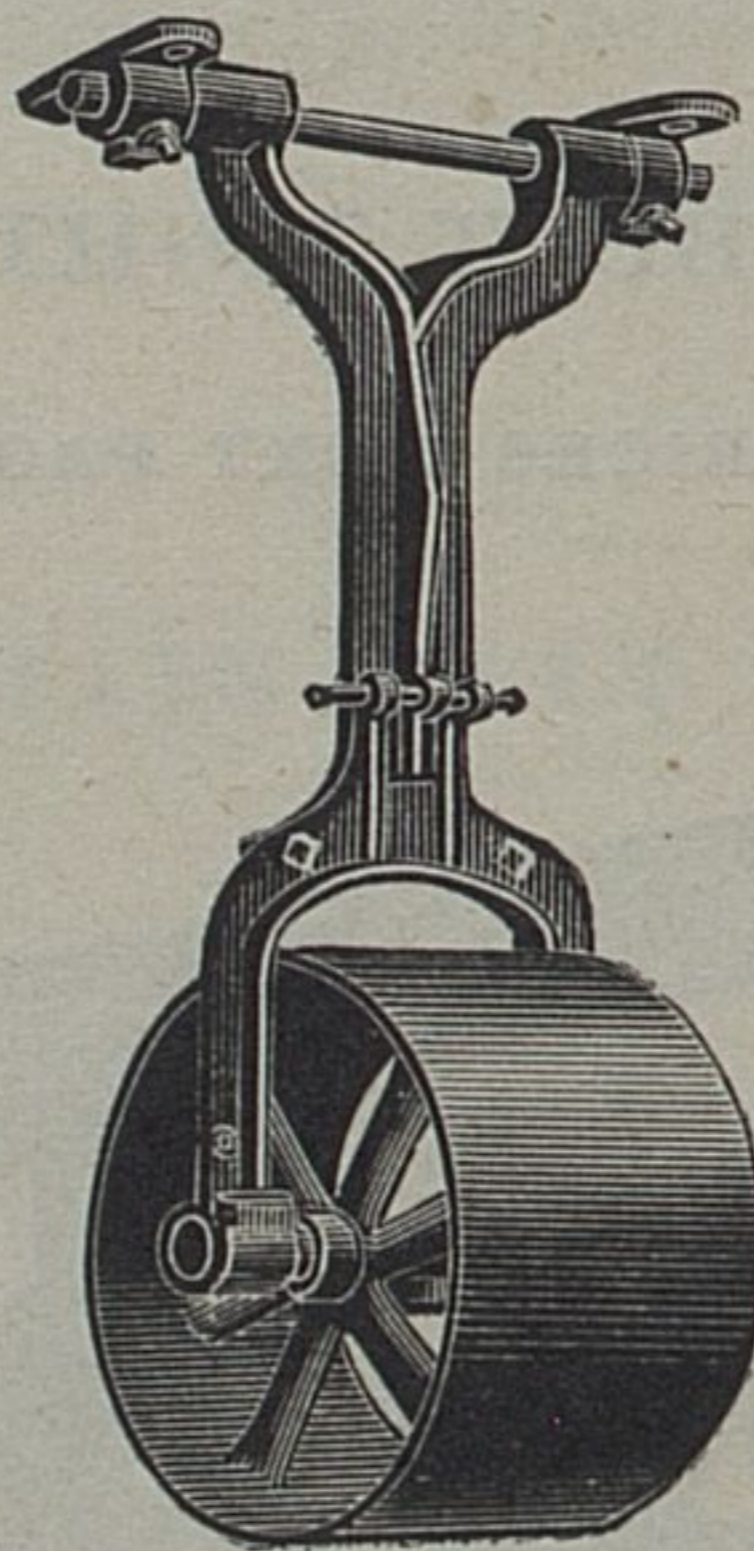
For Shaft $1\frac{7}{16}$	\$0 70	For Shaft $2\frac{3}{16}$	\$1 00
For Shaft $1\frac{11}{16}$	80	For Shaft $2\frac{7}{16}$	1 10
For Shaft $1\frac{15}{16}$	90	For Shaft $2\frac{11}{16}$	1 20

FLOOR TIGHTENER.



PRICE.

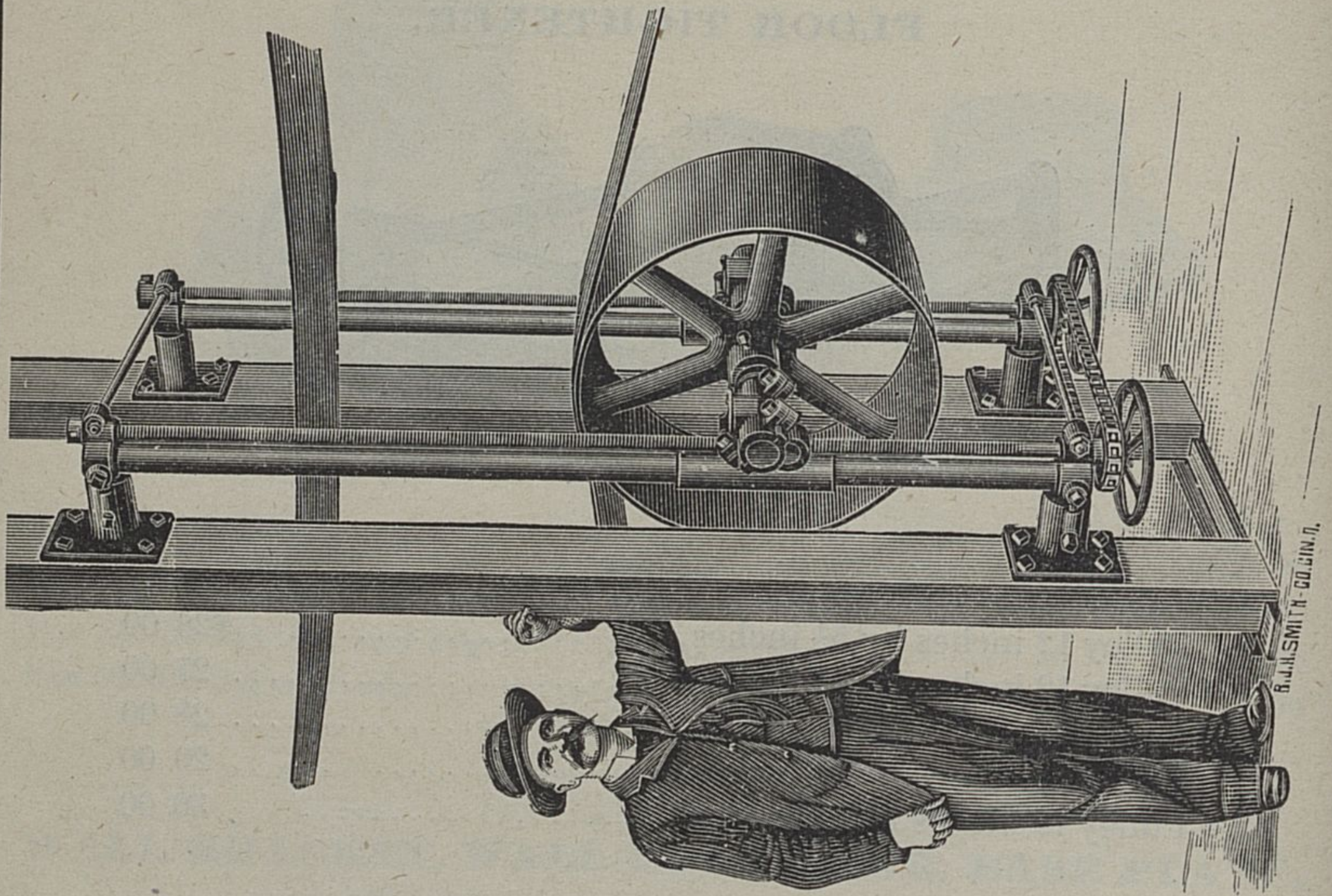
Pulley 12 inches by 5½ inches.....	\$26 00
Pulley 12 inches by 6½ inches.....	27 00
Pulley 12 inches by 7½ inches.....	28 00
Pulley 12 inches by 8½ inches.....	29 00
Pulley 12 inches by 9½ inches.....	30 00



ADJUSTABLE TIGHTENER.

PRICE.

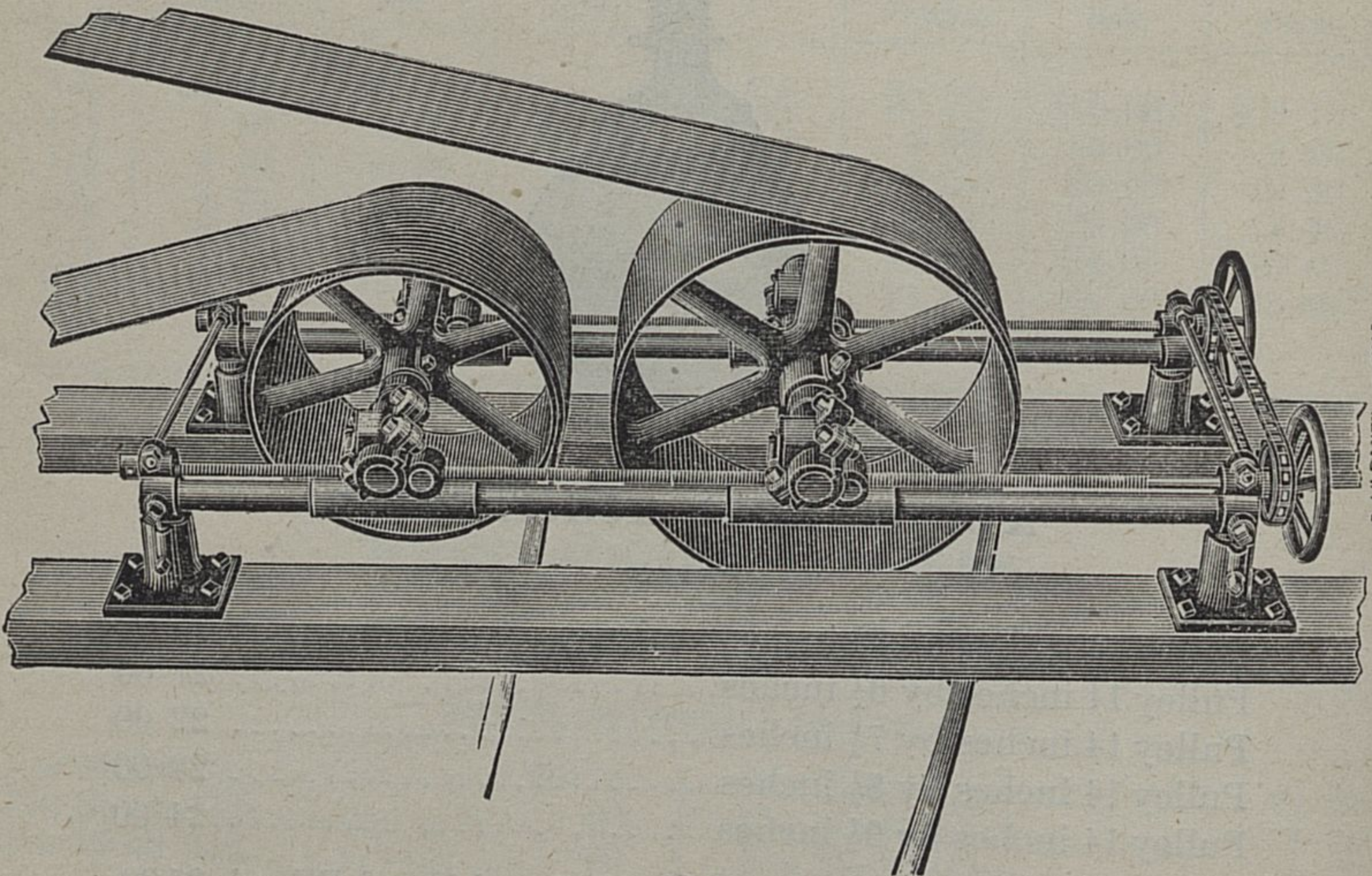
Pulley 14 inches by 5½ inches.....	\$20 00
Pulley 14 inches by 6½ inches.....	21 00
Pulley 14 inches by 7½ inches.....	22 00
Pulley 14 inches by 8½ inches.....	23 00
Pulley 14 inches by 9½ inches.....	24 00
Additional for Spool, with Pawl, Ratchet and Hand Wheel, \$5.00.	



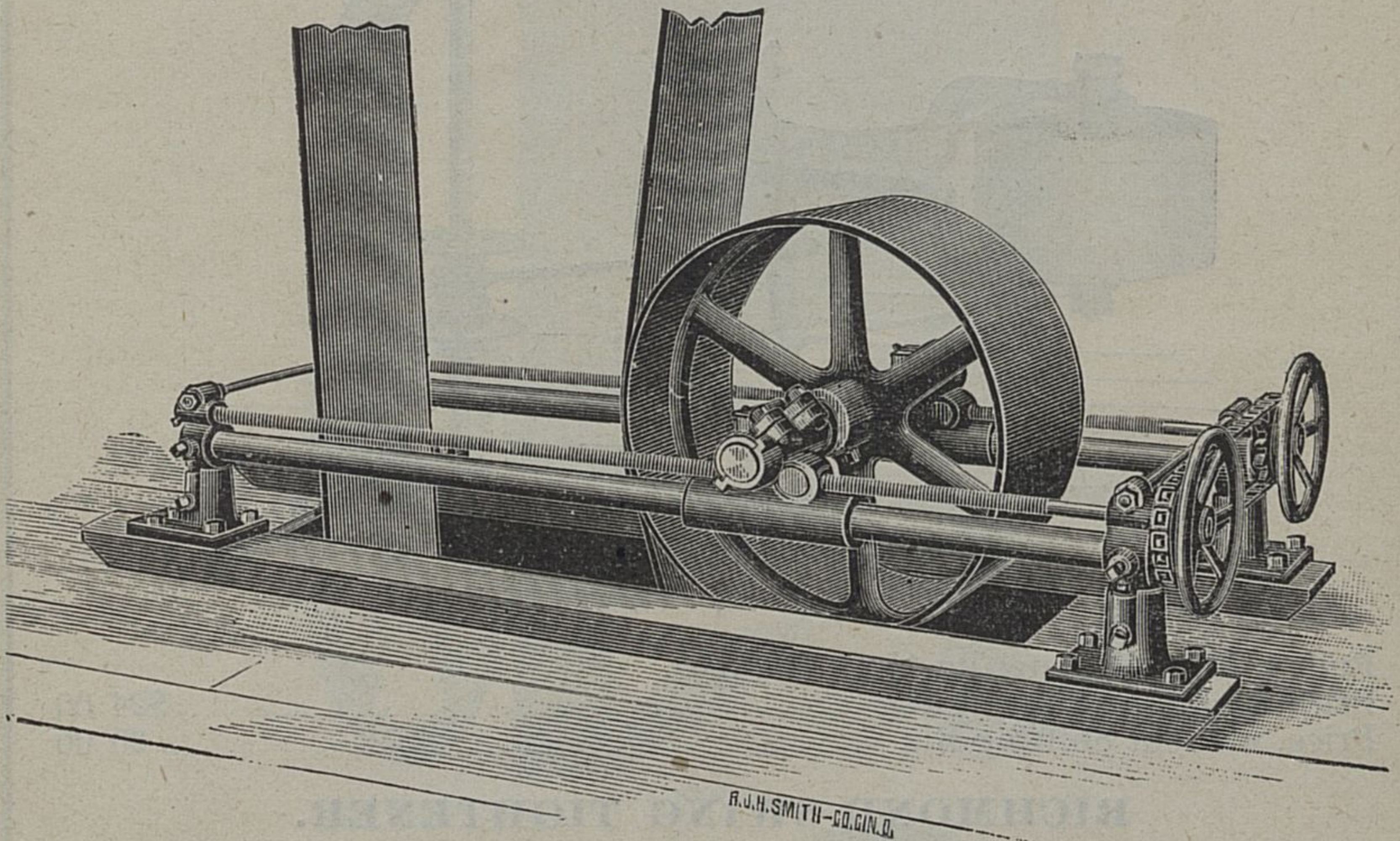
B. J. H. SMITH - CO. CINCINNATI, O.

MAIN BELT TIGHTENERS.

PRICES NEXT PAGE.



B. J. H. SMITH - CO. CINCINNATI, O.



RICHMOND MAIN BELT TIGHTENER.

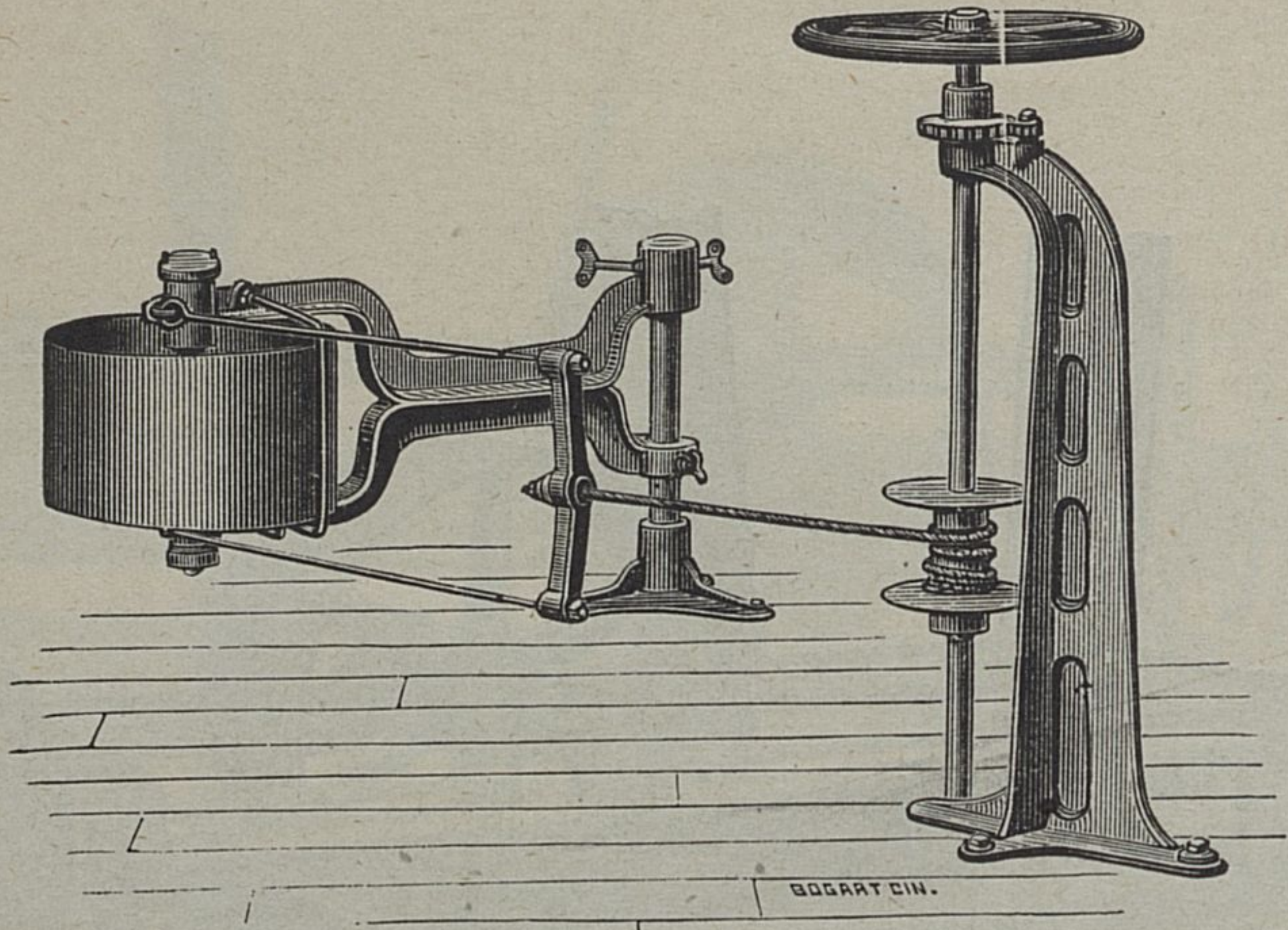
Price, Single Pulley.

30 in. x 12 in.....	\$100 00
30 in. x 14 in.....	107 00
30 in. x 16 in.....	115 00
30 in. x 18 in.....	125 00
30 in. x 20 in.. ..	135 00
30 in. x 22 in.....	145 00
36 in. x 24 in.....	155 00
36 in. x 30 in.....	175 00
36 in. x 36 in.....	200 00

Price, Two Pulleys.

24 in. and 30 in. x 12 in....	\$130 00
24 in. and 30 in. x 14 in....	140 00
24 in. and 30 in. x 16 in....	150 00
24 in. and 30 in. x 18 in....	165 00
24 in. and 30 in. x 20 in....	180 00
24 in. and 30 in. x 22 in....	195 00
30 in. and 36 in. x 24 in....	230 00
30 in. and 36 in. x 30 in....	275 00
30 in. and 36 in. x 36 in....	325 00

RICHMOND BELT TIGHTENER.



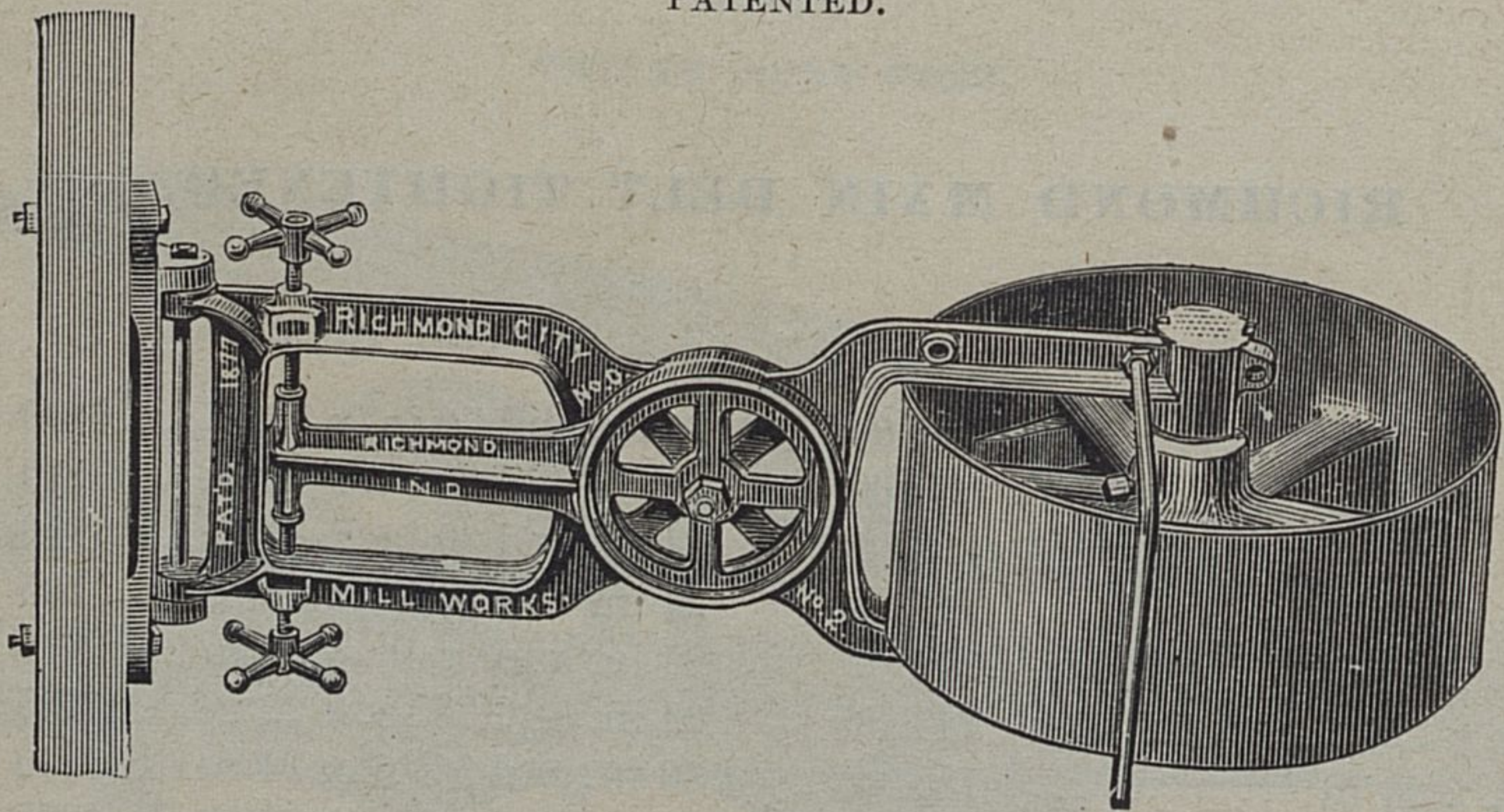
Pulley 12 in. diameter by $4\frac{1}{2}$ to 7 in. face.

Price, including Shifting Rig \$24 00

Price, without Shifting Rig 20 00

RICHMOND SWING TIGHTENER.

PATENTED.

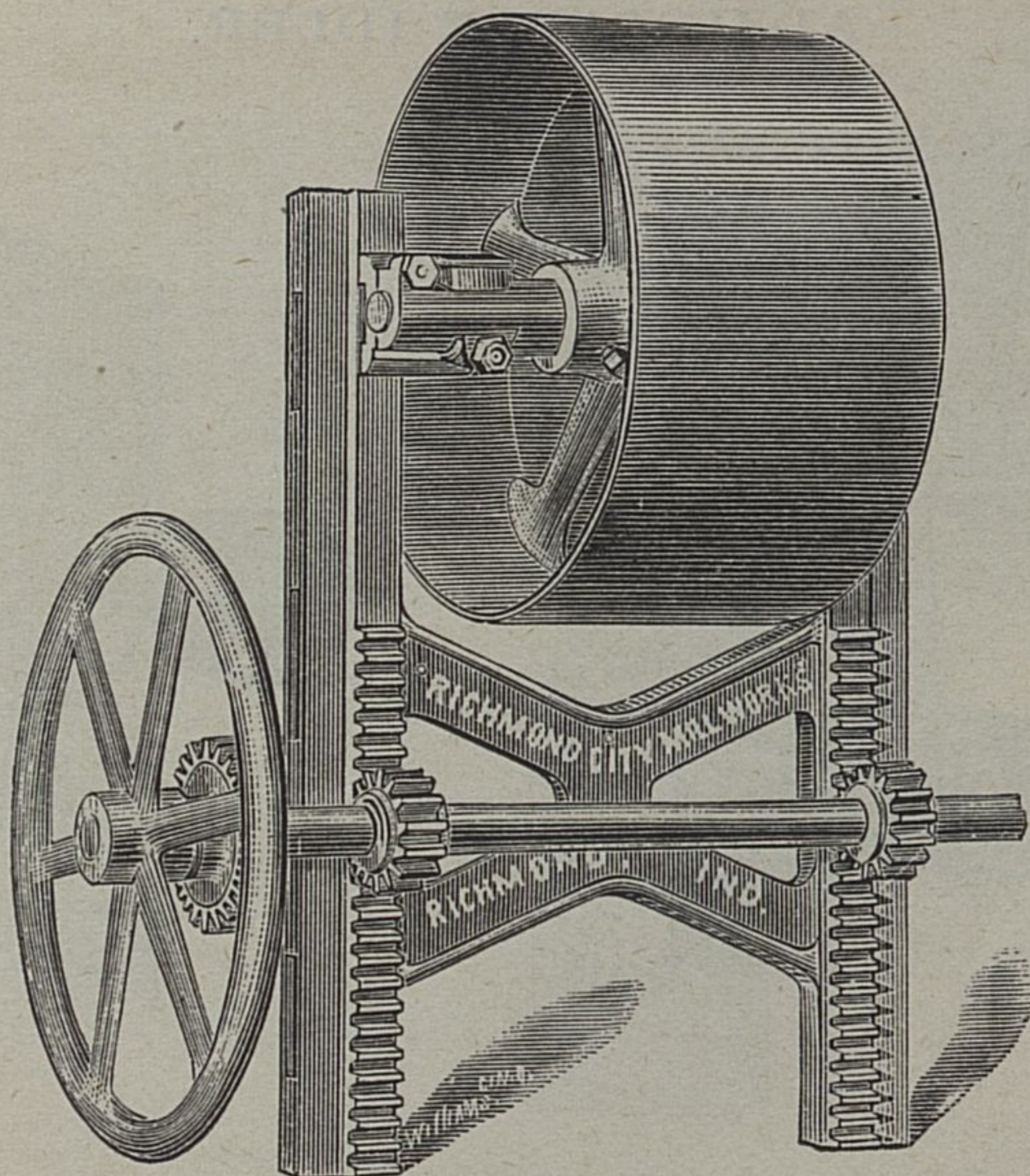


PRICE LIST. (Complete, including Shifting Rig.)

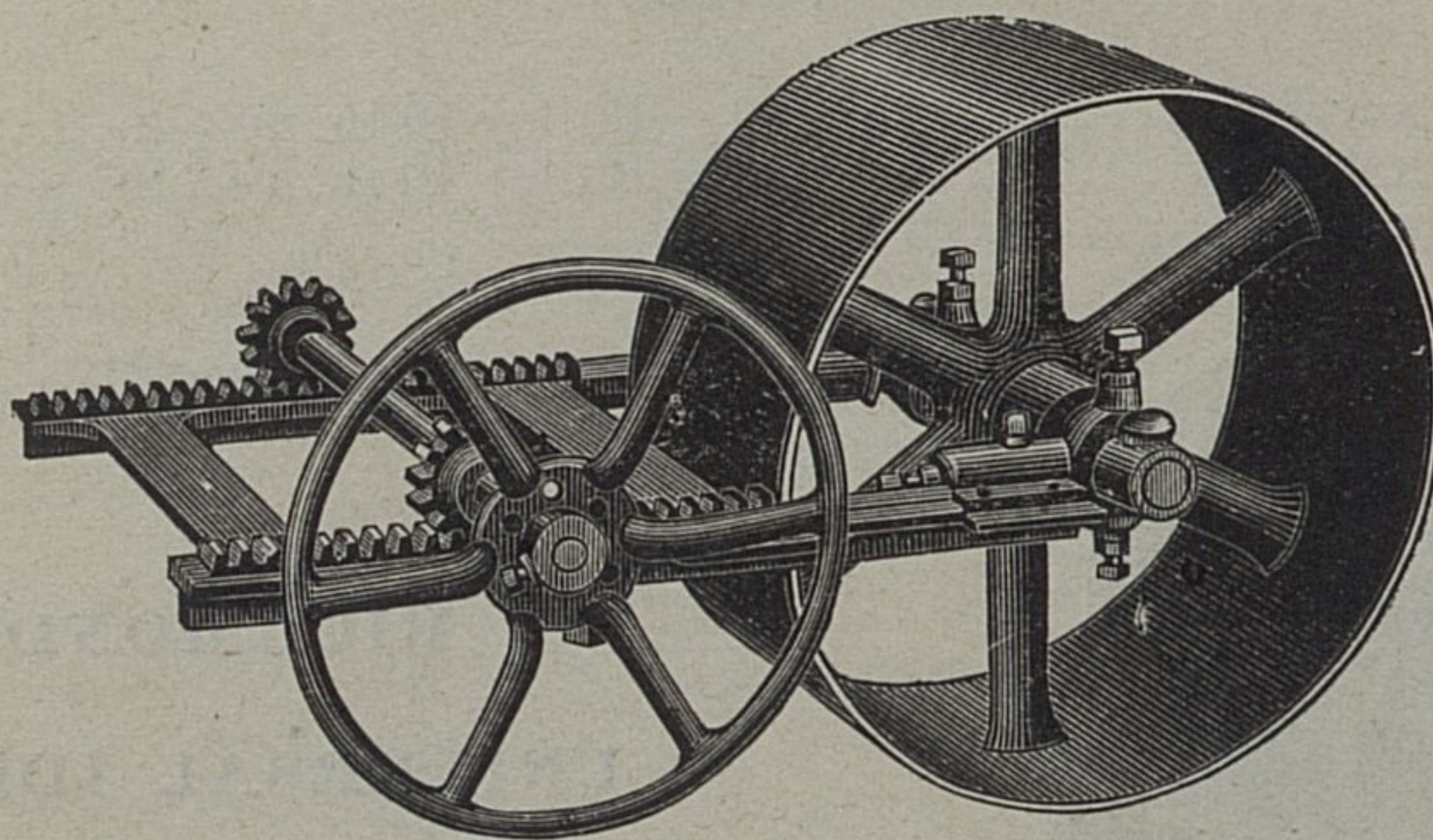
No. 1.	Pulley 20 in. diameter x 7 in. face	\$35 00
No. 2.	Pulley 20 in. diameter x 9 in. face	37 50
No. 3.	Pulley 20 in. diameter x 11 in. face	40 00
No. 4.	Pulley 20 in. diameter x 13 in. face	42 50
No. 5.	Pulley 20 in. diameter x 15 in. face	45 00
No. 6.	Pulley 20 in. diameter x 19 in. face	47 50
No. 7.	Pulley 20 in. diameter x 21 in. face	50 00

The best and most completely adjustable Swing Tightener manufactured.

REEL BELT TIGHTENERS.



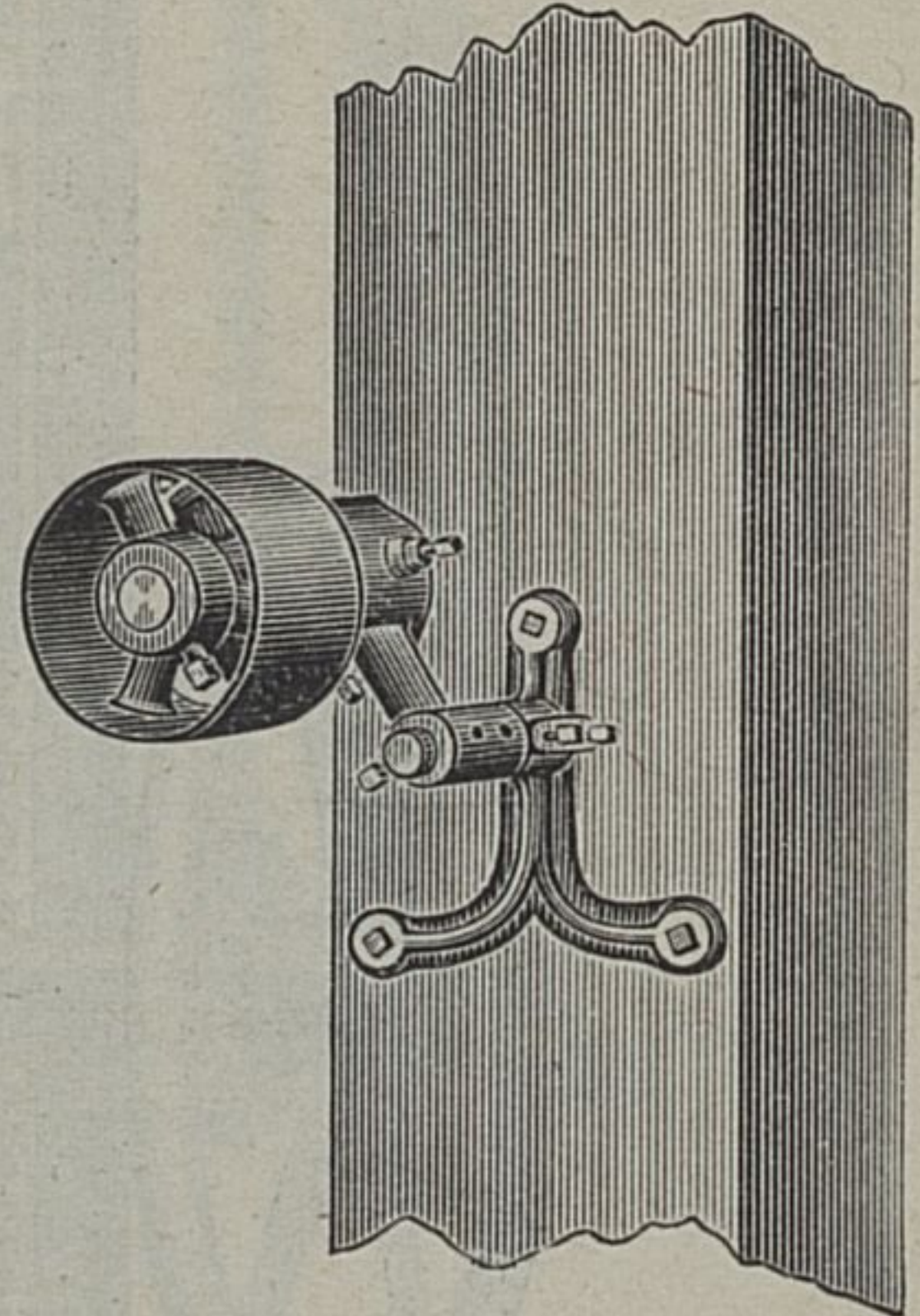
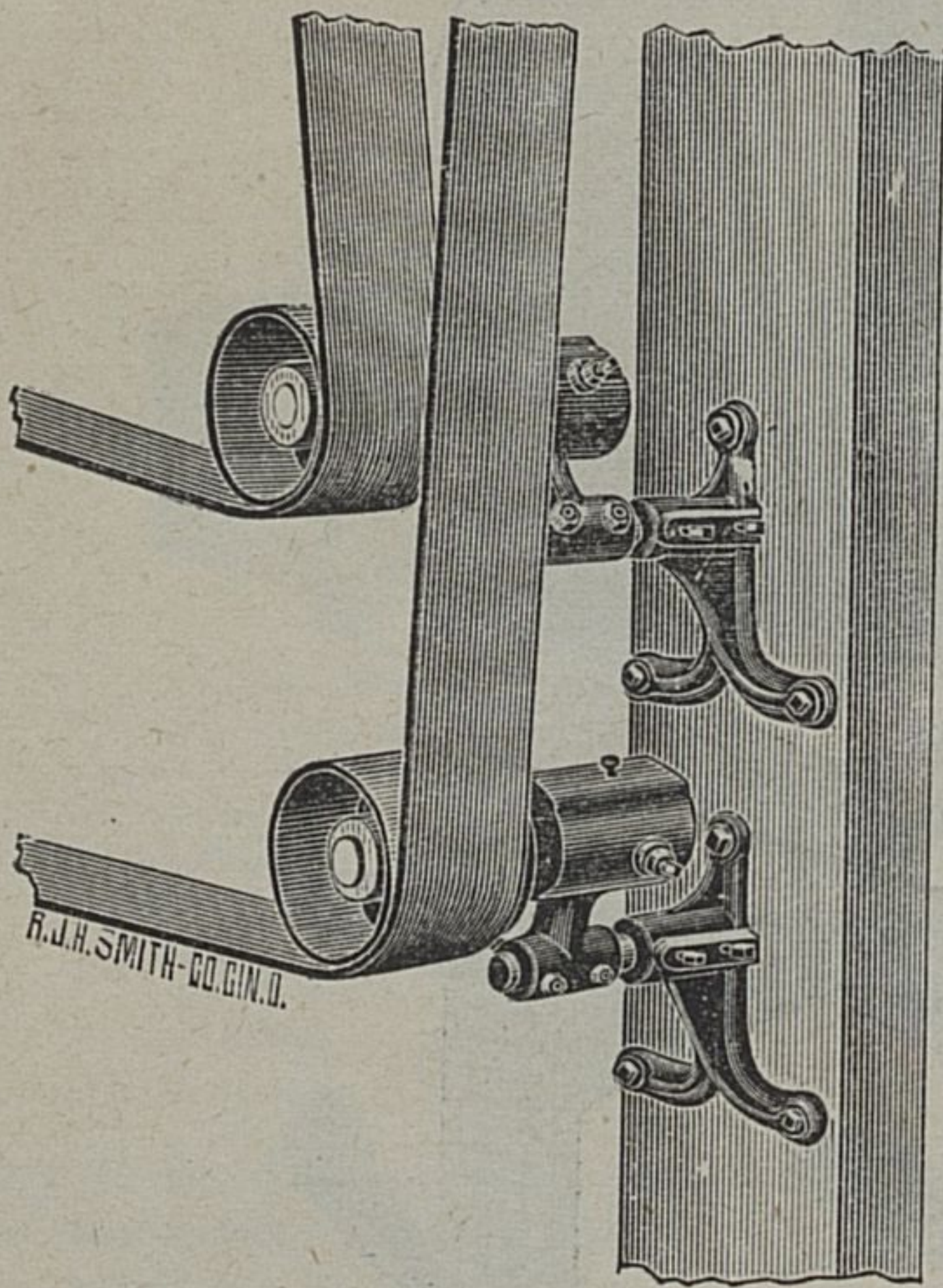
RIGID.



ADJUSTABLE.

Number.	Size of Pulley.	Price.	
1	20 x 11 inches.	\$30 00	Rigid Boxes.
2	20 x 13 inches.	32 50	
3	20 x 15 inches.	35 00	
4	24 x 11 inches.	37 50	Self-Adjusting Boxes.
5	24 x 13 inches.	40 00	
6	30 x 15 inches.	45 00	
7	30 x 18 inches.	50 00	
8	30 x 24 inches.	60 00	

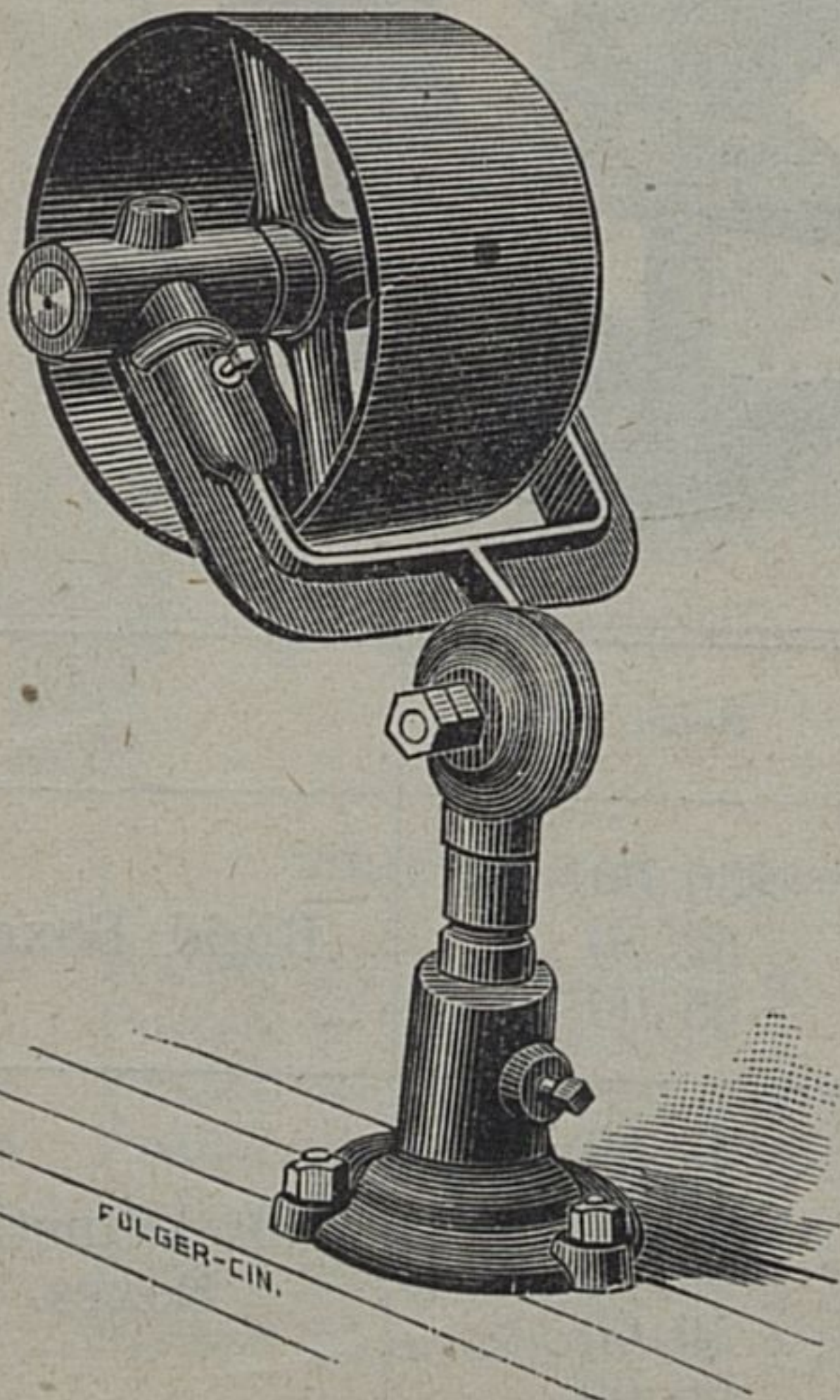
ADJUSTABLE IDLER.



PRICE.

Pulley 8 in. x 3½ in.....	\$8 00
Pulley 8 in. x 4½ in.....	8 50
Pulley 8 in. x 5½ in.....	9 00

Pulley 10 in. x 6½ in.....	\$ 9 50
Pulley 10 in. x 7½ in.....	10 00

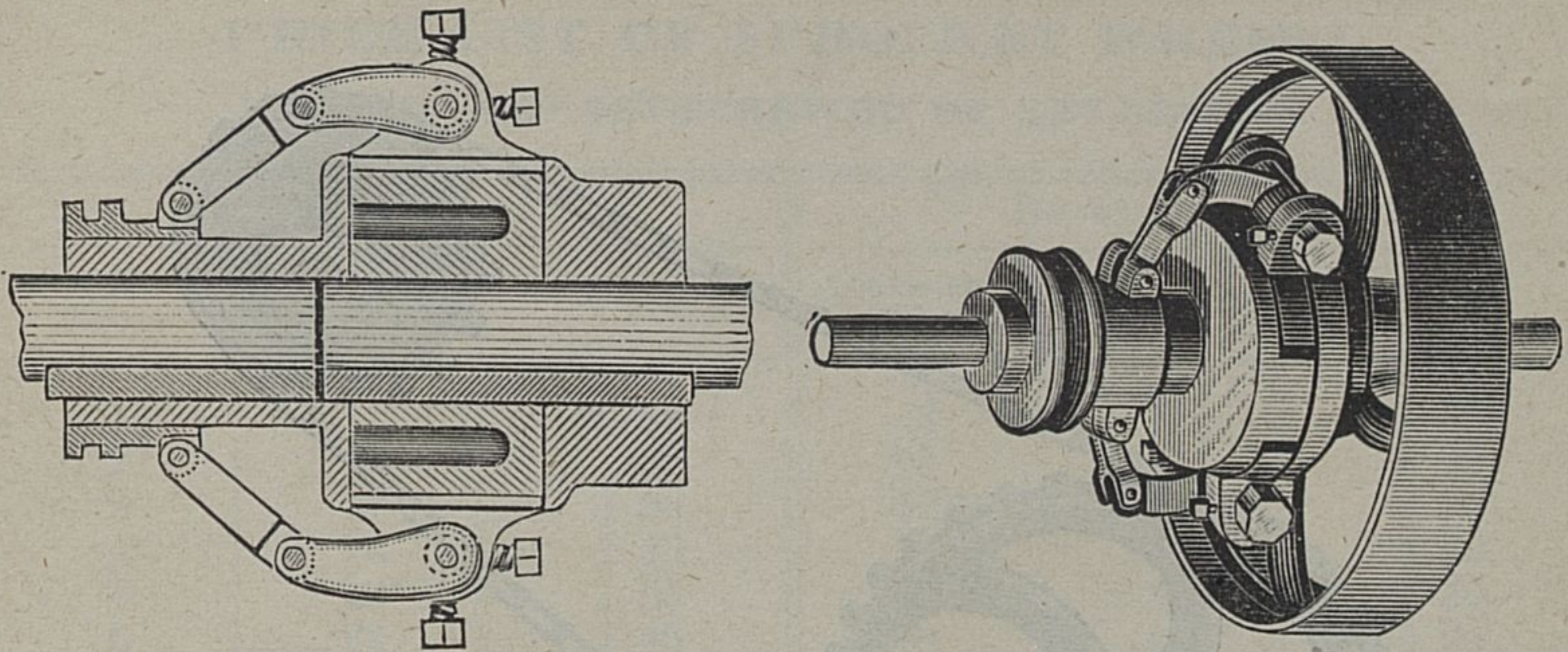


**RICHMOND
UNIVERSAL IDLER.**

PRICE LIST.

Pulley 12 x 5½ inches	\$15 00
Pulley 12 x 6½ inches	16 00
Pulley 12 x 7½ inches	17 00





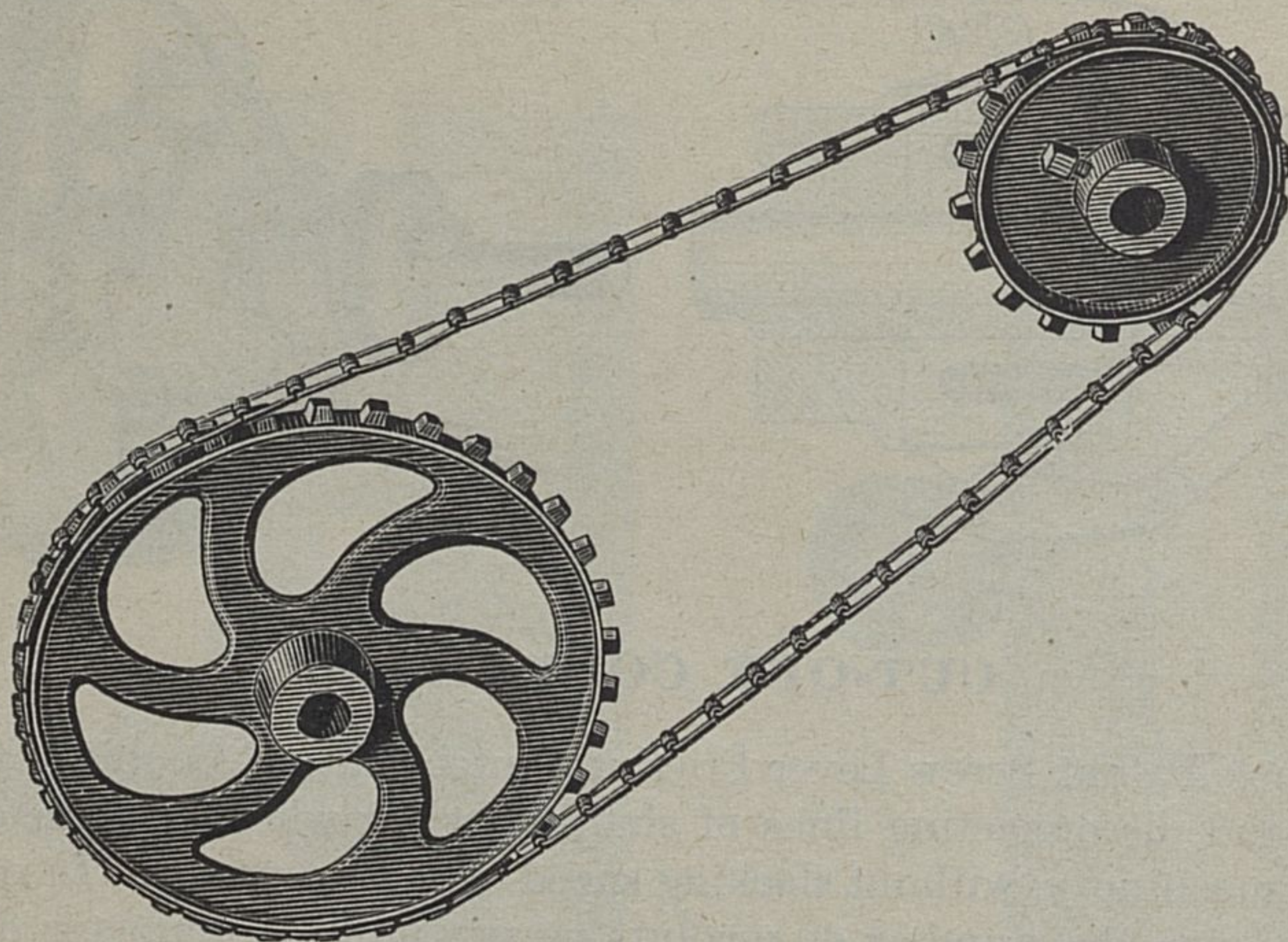
CUT-OFF COUPLINGS.

Barnes' Patent Screw Lever Friction Clutch Cut-off Coupling for connecting and disconnecting lines of shafting, water wheels, steam engines or other machinery, without slacking speed or motive power. In ordering Clutches, give the number of revolutions per minute, diameter of shaft, and horse power, as near as possible.

PRICE LIST.

Diameter of Drum.	Face of Drum.	Size of Shaft Equal to Power of Clutch.	Horse Power Developed at 100 Revolutions per Minute.	Horse Power Developed at 150 Revolutions per Minute.	Horse Power Developed at 200 Revolutions per Minute.	Price of Clutch, without Shippers.
5						\$ 35 00
6	3	$1\frac{9}{16}$	9.5	14.	18.	45 00
7	$3\frac{1}{2}$	$1\frac{11}{16}$	14.	18.	22.	60 00
8	4	$1\frac{5}{8}$	21.5	27.5	33.	75 00
9	$4\frac{1}{2}$	$2\frac{3}{16}$	31.	40.	47.	90 00
10	5	$2\frac{5}{8}$	37.	47.	56.	110 00
11	$5\frac{1}{2}$	$2\frac{7}{8}$	43.	55.	65.	130 00
12	6	$2\frac{11}{16}$	58.	74.5	88.	150 00
13	$6\frac{1}{2}$	$2\frac{15}{16}$	76.	97.5	115.	175 00
14	7	$3\frac{3}{16}$	97.	124.	147.	200 00
15	$7\frac{1}{2}$	$3\frac{5}{8}$	121.5	155.5	184.	225 00
16	8	$3\frac{7}{8}$	136.	174.	206.	250 00
18	8	$3\frac{11}{16}$	150.	192.5	228.	275 00
20	8	$3\frac{15}{16}$	183.	234.	277.	300 00
22	8	$4\frac{3}{16}$	220.	281.5	334.	325 00
24	8	$4\frac{7}{16}$	262.	335.5	397.	350 00
26	8	$4\frac{11}{16}$	308.	395.5	468.	400 00
28	8	5	361.	462.	547.	465 00
30	8	$5\frac{3}{16}$	418.	536.	635.	545 00

Prices of Multiband Friction Clutch Pulleys quoted on application.



DETACHABLE LINK BELTING.

NET PRICE LIST.

Number.	Price Per Foot.	Links Per Foot.	Working Strain in Pounds.	Approximate Leather Belting.
25	.08	13.3	75	1 in. Single.
33	.07	8.6	200	2 in. Single.
34	.08	8.6	225	2½ in. Single.
35	.08	7.4	250	2½ in. Single.
45	.09	7.4	350	3½ in. Single.
52	.12	8.0	500	4 in. Single.
55	.12	7.4	450	4 in. Single.
57	.12	5.2	600	6 in. Single.
67	.16	5.2	700	7 in. Single.
77	.18	5.2	800	8 in. Single.

We carry the above in stock, and have patterns for wheels to correspond (see tables, next page).

We are constantly adding new patterns, and are prepared to furnish all standard numbers of chain and attachments, and all sizes of wheels, at lowest prices.

PRICE LIST OF SPROCKET WHEELS.

BORED, AND SET-SCREWED OR KEY-SEATED.

No. 25.			No. 42.— CONTINUED.		
Diameter in inches.	No. Teeth.	Price.	Diameter in inches.	No. Teeth.	Price.
1 3/4	7	\$0 80	8	18	\$1 95
2	8	85	10	23	2 30
3	11	1 00	12	28	2 80
4	14	1 10	14	32	3 20
5	19	1 35	16	36	3 50
6	21	1 45	18	41	4 00
8	28	1 80	20	46	4 50
10	35	2 10	No. 52.		
Nos. 33, 34.			Diameter in inches.	No. Teeth.	Price.
Diameter in inches.	No Teeth.	Price.	4	8	\$1 20
4	9	\$1 15	6	13	1 65
6	14	1 65	7	14	1 75
7 1/2	16	1 80	8	17	2 05
8	18	1 95	10	21	2 50
10	23	2 35	12	27	3 15
12	27	2 60	16	34	4 00
14	34	3 20	20	42	5 00
Nos. 35, 45, 55.			Nos. 57, 67, 77.		
Diameter in inches.	No. Teeth.	Price.	Diameter in inches.	No. Teeth.	Price.
3	6	\$1 00	6	8	\$1 70
4	8	1 25	8	11	2 15
4 1/2	9	1 35	10	13	2 50
6	12	1 65	12	16	3 05
7	13	1 75	14	19	3 65
8	16	2 05	16	22	4 25
10	20	2 45	18	25	5 00
12	23	2 80	20	28	5 75
14	27	3 30	24	33	7 00
16	31	3 70	30	41	9 00
18	35	4 20	Additional Price to be added to List Price for SPLIT SPROCKET WHEELS.		
20	39	4 65	Diameter.	No. of Link Belt.	Price.
24	46	5 50	6 to 12	25 to 52	\$1 70
No. 42.				57 to 77	1 85
Diameter in inches.	No. Teeth.	Price.	14 to 24	25 to 52	2 35
4	9	\$1 20		57 to 77	2 50
5	12	1 40	16 to 36	25 to 52	2 90
6	14	1 60		57 to 77	3 20
7	16	1 80			



HOWE'S SAMPLE CASE.

Approved by the Postoffice Department.

NET PRICE LIST.

		Per Doz.	Per 100
No. 1.	Size, $\frac{1}{2}$ in. x $1\frac{7}{8}$ in..	\$0 36	\$2 50
No. 2.	Size, $\frac{3}{4}$ in. x $2\frac{3}{8}$ in..	48	3 20
No. 3.	Size, 1 in. x $3\frac{3}{4}$ in..	60	4 00

FLOUR TRYERS.

Nickel Plated, net	\$0 25
Steel, Plated (large), net	1 00
Ivory, best, net	\$1 50 to 2 50

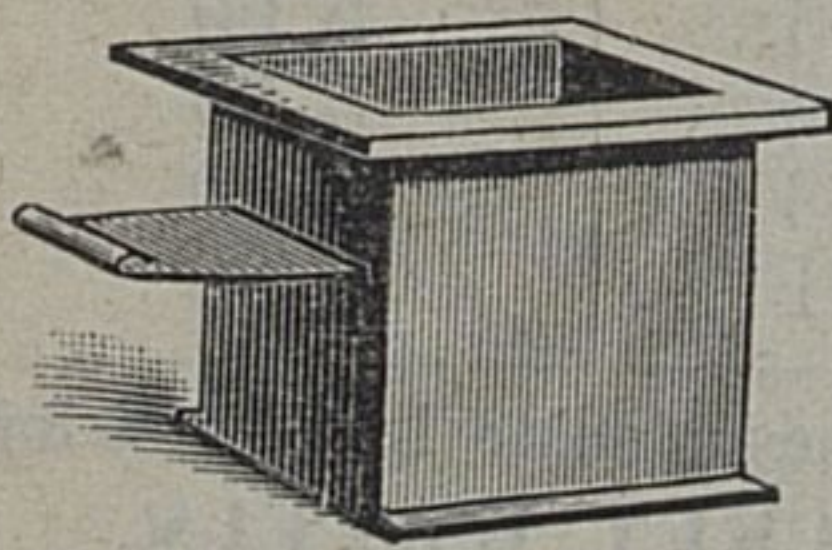
ANGLE IRONS.

45° and 90°, per 100	\$3 00
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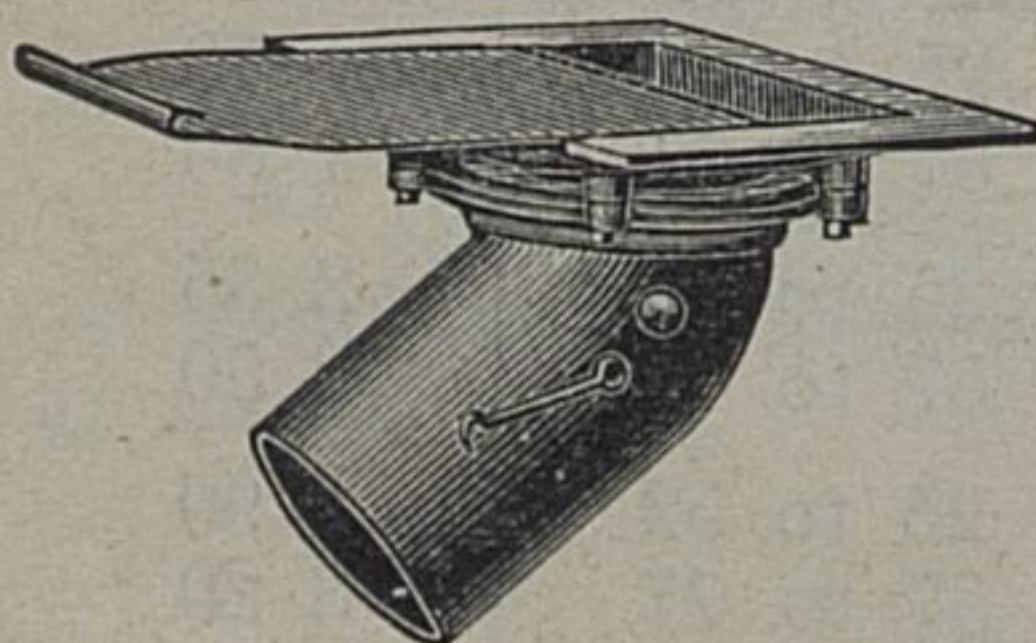
MAGNETS.

10 inches long, each	\$1 00
In gangs of four or more, extra	75

HOPPER BOTTOMS AND SLIDES.



5 inch	\$10 00
6 inch	11 00
7 inch	12 00
8 inch	13 50

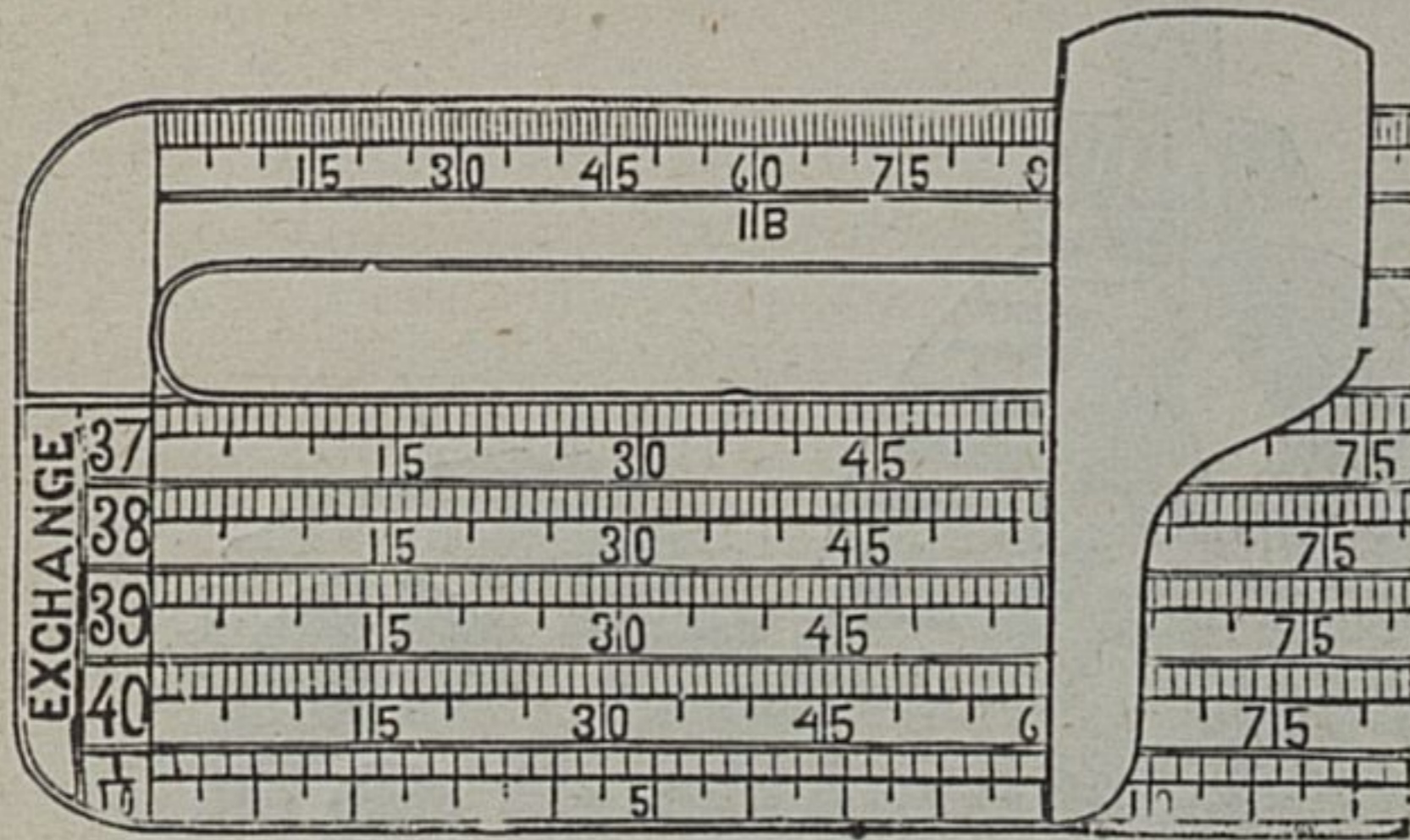


TURN HEADS.

6 inch	\$8 00
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For larger sizes write for prices.

DEAL'S TOLL AND EXCHANGE RULE.



Can be attached to the receiving scales or put at the most convenient point in the mill.

The cut shows a section of the **Miller's Toll and Exchange Rule.** This Rule is made of wood, and so graduated as to show at a glance how much flour to give in exchange for a given quantity of wheat. It is so graduated that exchange can be taken from one pound to six

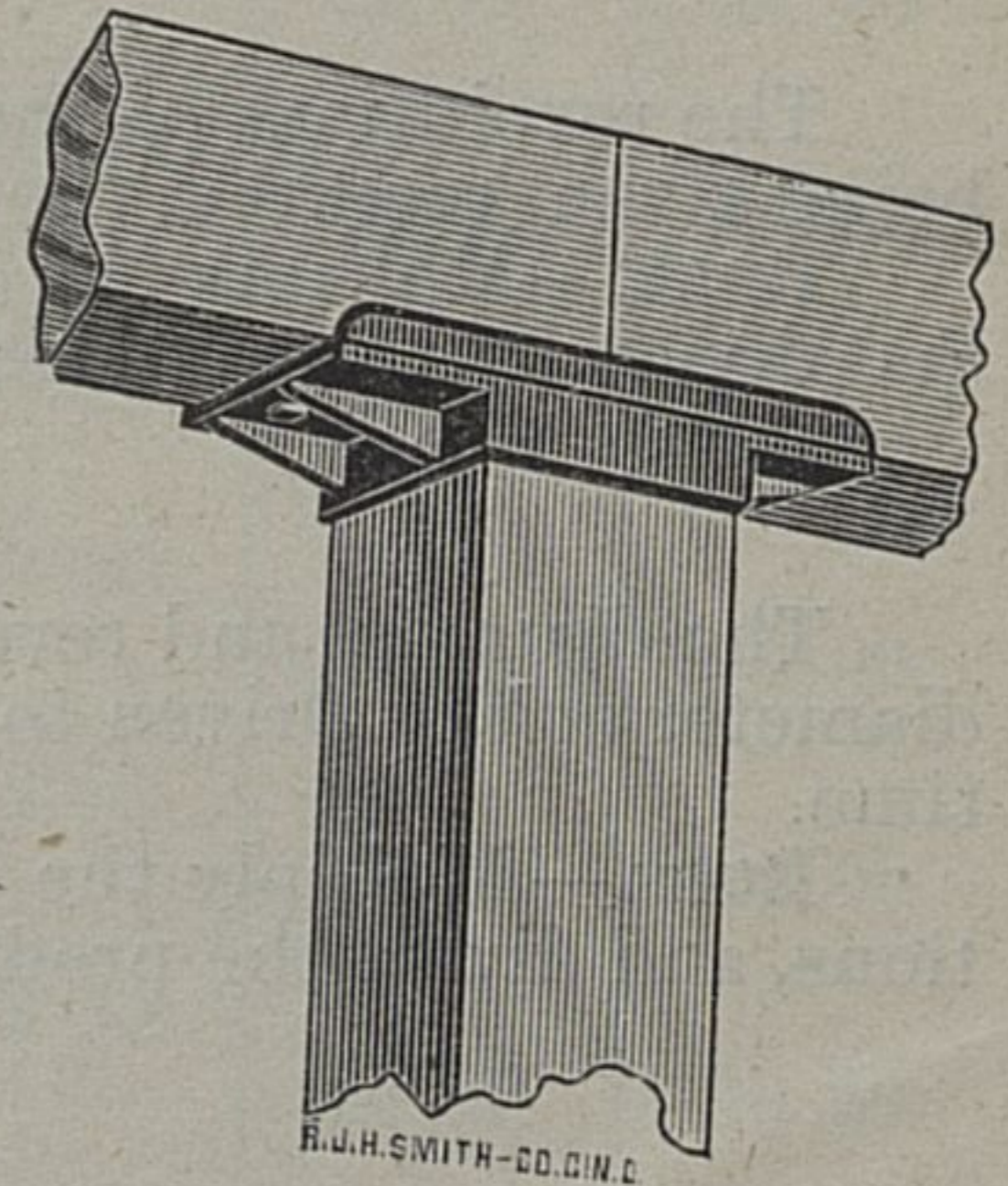
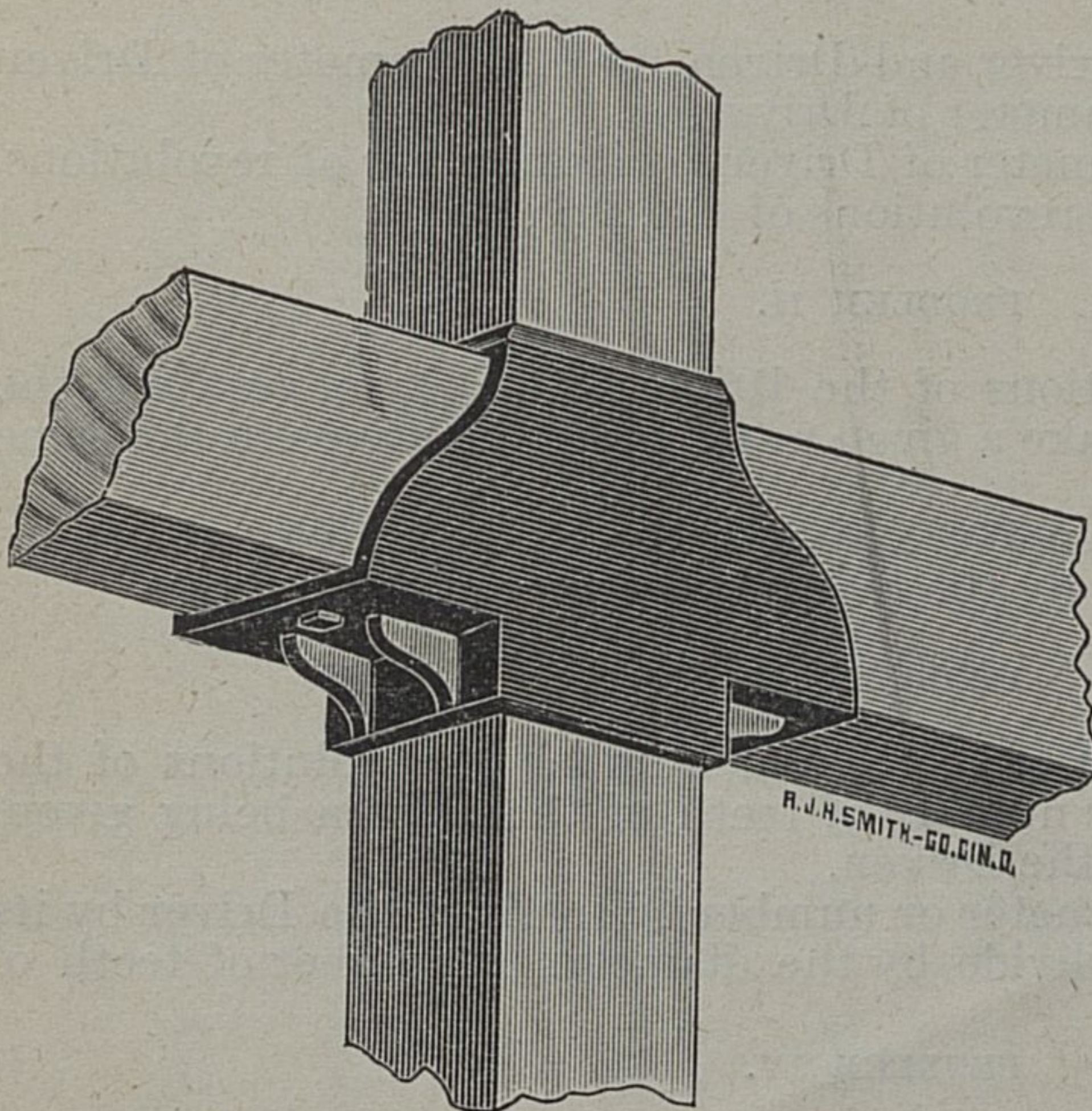
hundred pounds. This is as necessary and convenient for every miller to have as a wood rule is to a dealer in lumber; for by its use a miller saves the time in figuring his exchange, and is less liable to mistakes. By referring to the cut, which merely shows one end of the Rule, the whole being two feet long by two and three-fourths inches wide, its utility and convenience will be apparent. **Price, \$2.00.**

TESTING SIEVES.

With 16 or 18 changes of Silk, net.....\$5 00

DUSTING BRUSHES.

Best, 10-inch, net .. \$1 00

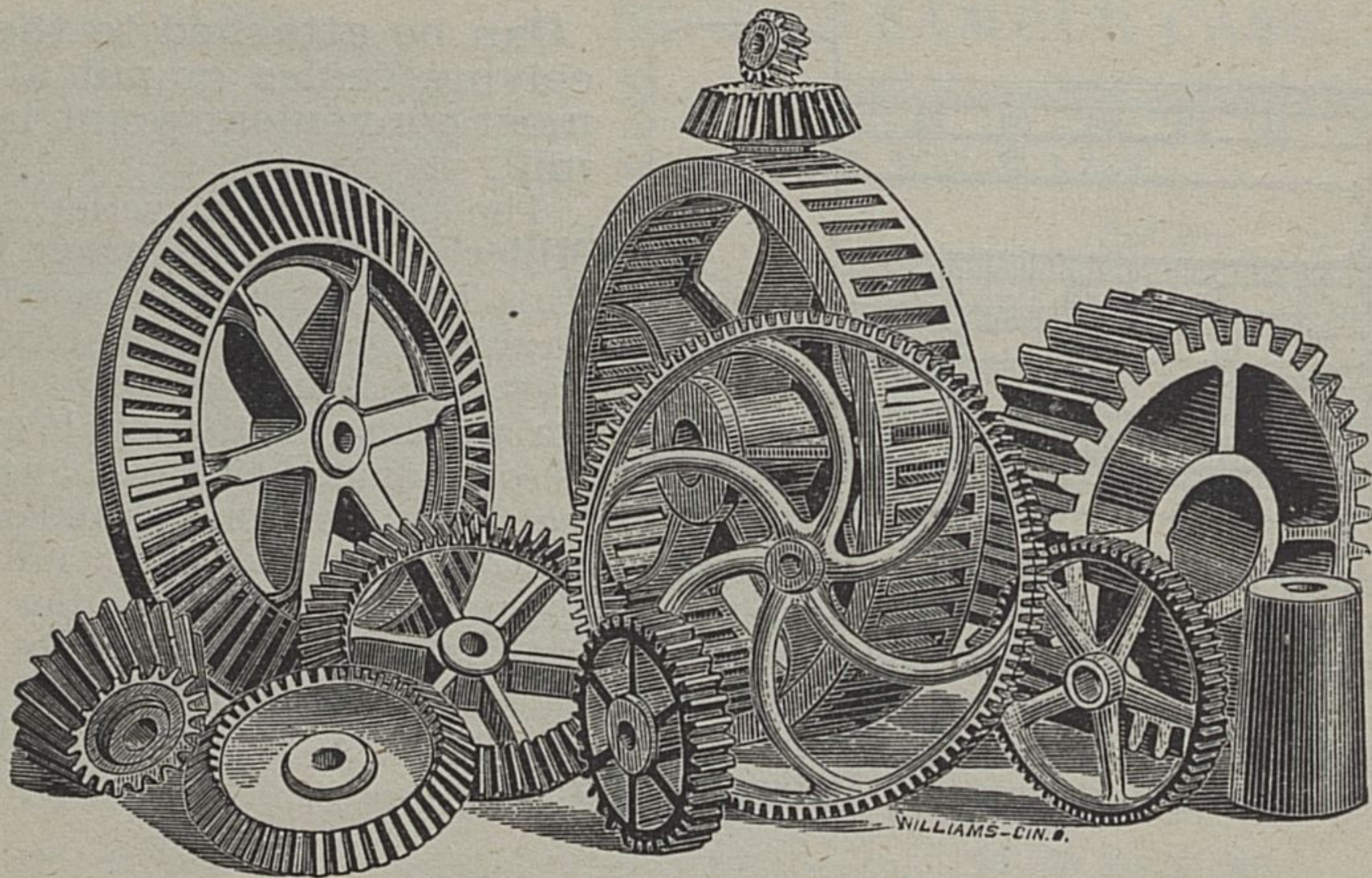


CORBELS.

Iron Corbels for wood posts in mill buildings, preventing settling of floors.

In addition to those shown in above cuts, we have several other patterns, and can furnish anything wanted in this line. Prices on application.

MILL GEARING.



Rules for Calculating the Speed of Gears or Pulleys.

In calculating for Gears, multiply or divide by the number of teeth, as may be required. In calculating for Pulleys, multiply or divide by their diameter in inches.

The Driving Wheel is called the *Driver*, and the Driven Wheel the *Driven*.

PROBLEM I.

The revolutions of the Driver and Driven, and the diameter of Driven being given, required, the diameter of Driver.

RULE.—Multiply the diameter of Driven by its number of revolutions, and divide by the number of revolutions of the Driver.

PROBLEM II.

The diameter and revolutions of the Driver being given, required, the diameter of the Driven to make a given number of revolutions in the same time.

RULE.—Multiply the diameter of the Driver by its number of revolutions, and divide the product by the required number of revolutions.

PROBLEM III.

The diameter or number of teeth, and number of revolutions of the Driver, with the diameter or number of teeth of the Driven being given, required, the revolutions of the Driven.

RULE.—Multiply the diameter or number of teeth of the Driver by its number of revolutions, and divide by the diameter or number of teeth of the Driven.

PROBLEM IV.

The diameter of Driver and Driven, and the number of revolutions of Driven being given, required, the number of revolutions of the Driver.

RULE.—Multiply the diameter of Driven by its number of revolutions, and divide by the diameter of the Driver.

CORE BEVEL WHEELS.

We furnish these Gears in the rough or finished, as may be desired. The price list is for finished Gears. They are bored, key-ways cut, turned true, wheels filled with hardwood cogs, and the cogs of wheels and pinions are accurately spaced and dressed on gear cutting machine.

PRICE LIST.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Back.	Depth of Eye.	PRICE, FINISHED.		
							Pinions.	Wheels.	Pairs.
40 {	30	$1\frac{1}{4}$	3	12	$1\frac{3}{16}$	$3\frac{1}{4}$	\$14 00	\$12 00	\$26 00
	31	$1\frac{1}{4}$	3	12.40	$1\frac{5}{16}$	$3\frac{1}{4}$			
49 {	34	$1\frac{1}{4}$	3	13.60	$1\frac{3}{8}$	$3\frac{1}{2}$	16 50	14 00	30 50
	35	$1\frac{1}{4}$	3	14	$2\frac{3}{8}$	4			
1 {	28	$1\frac{1}{2}$	4	13.44	$1\frac{3}{4}$	$5\frac{1}{4}$	16 50	28 00	44 50
	44	$1\frac{1}{2}$	4	21.12	$3\frac{1}{4}$	$5\frac{1}{4}$			
2 {	32	$1\frac{1}{2}$	4	15.36	2	$5\frac{1}{4}$	19 50	27 00	46 50
	44	$1\frac{1}{2}$	4	21.12	$3\frac{1}{4}$	$5\frac{1}{4}$			
3 {	39	$1\frac{1}{2}$	4	18.72	$2\frac{1}{2}$	$5\frac{1}{4}$	25 00	23 50	48 50
	40	$1\frac{1}{2}$	4	19.20	$2\frac{1}{4}$	$5\frac{1}{4}$			
25 {	20	$1\frac{1}{2}$	4	9.60	$1\frac{1}{4}$	$5\frac{1}{4}$	12 50	43 00	55 50
	61	$1\frac{1}{2}$	4	29.28	$4\frac{1}{8}$	$5\frac{1}{4}$			
42 {	20	$1\frac{1}{2}$	4	9.60	$1\frac{1}{4}$	$5\frac{1}{4}$	12 50	34 50	47 00
	51	$1\frac{1}{2}$	4	24.48	$5\frac{1}{4}$	$5\frac{1}{4}$			
45 {	21	$1\frac{1}{2}$	4	10.08	$1\frac{3}{8}$	$5\frac{1}{4}$	13 50	34 50	48 00
	51	$1\frac{1}{2}$	4	24.48	$3\frac{3}{4}$	$5\frac{1}{4}$			
46 {	21	$1\frac{1}{2}$	4	10.08	$1\frac{1}{2}$	$5\frac{1}{4}$	13 50	27 00	40 50
	43	$1\frac{1}{2}$	4	20.64	$3\frac{1}{2}$	$5\frac{1}{4}$			
4 {	31	$1\frac{3}{4}$	5	17.36	$2\frac{1}{8}$	$6\frac{1}{4}$	25 00	40 50	65 50
	46	$1\frac{3}{4}$	5	25.76	$3\frac{1}{2}$	6			
5 {	37	$1\frac{3}{4}$	5	20.72	$2\frac{7}{8}$	$6\frac{1}{4}$	29 50	40 50	70 00
	46	$1\frac{3}{4}$	5	25.76	3	6			
6 {	45	$1\frac{3}{4}$	5	25.20	$3\frac{3}{4}$	$6\frac{1}{4}$	38 00	40 50	78 50
	46	$1\frac{3}{4}$	5	25.76	$2\frac{1}{2}$	6			
7 {	39	$1\frac{3}{4}$	5	21.84	$2\frac{1}{8}$	$6\frac{1}{4}$	36 50	58 50	95 00
	59	$1\frac{3}{4}$	5	33.04	$3\frac{1}{2}$	$6\frac{1}{2}$			

PRICE LIST CORE BEVEL WHEELS.—Continued.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Back.	Depth of Eye.	PRICE, FINISHED.		
							Pinions.	Wheels.	Pairs.
8 {	32	$1\frac{3}{4}$	5	17.92	$1\frac{3}{4}$	$6\frac{1}{4}$	\$25 50		
	59	$1\frac{3}{4}$	5	33.04	$3\frac{7}{8}$	$6\frac{1}{2}$		58 50	\$ 84 00
38 {	36	$1\frac{3}{4}$	5	20.16	$2\frac{5}{8}$	6	28 00		
	37	$1\frac{3}{4}$	5	20.72	$2\frac{1}{4}$	$6\frac{1}{4}$		30 00	58 00
44 {	18	$1\frac{3}{4}$	5	10.08	$\frac{3}{4}$	$5\frac{1}{4}$	15 00		
	53	$1\frac{3}{4}$	5	29.68	4	$5\frac{3}{4}$		50 00	65 00
14 {	47	$1\frac{3}{4}$	6	26.32	$3\frac{3}{8}$	$7\frac{1}{2}$	48 00		
	48	$1\frac{3}{4}$	6	26.88	$3\frac{3}{8}$	8		50 50	98 50
28 {	56	$1\frac{3}{4}$	6	31.36	3	$7\frac{1}{2}$	58 50		
	57	$1\frac{3}{4}$	6	31.92	$3\frac{1}{2}$	$7\frac{1}{2}$		58 50	117 00
32 {	47	$1\frac{3}{4}$	6	26.32	$2\frac{7}{8}$	$7\frac{1}{2}$	48 00		
	59	$1\frac{3}{4}$	6	33.04	$3\frac{1}{2}$	$7\frac{1}{2}$		64 00	112 00
33 {	35	$1\frac{3}{4}$	6	19.60	2	$7\frac{1}{2}$	34 00		
	69	$1\frac{3}{4}$	6	38.64	$4\frac{5}{8}$	$7\frac{1}{2}$		83 00	117 00
34 {	29	$1\frac{3}{4}$	6	16.24	$4\frac{5}{8}$	$7\frac{1}{2}$	27 50		
	69	$1\frac{3}{4}$	6	38.64	$1\frac{7}{8}$	$7\frac{1}{2}$		83 00	110 50
39 {	32	$1\frac{3}{4}$	6	17.92	$2\frac{1}{8}$	$7\frac{1}{2}$	30 00		
	59	$1\frac{3}{4}$	6	33.04	$4\frac{3}{8}$	$7\frac{1}{2}$		64 00	94 00
29 {	43	2	6	27.52	$3\frac{1}{8}$	8	50 00		
	65	2	6	41.60	5	$8\frac{1}{2}$		91 50	141 50
30 {	49	2	6	31.36	$3\frac{3}{8}$	8	59 00		
	65	2	6	41.60	$4\frac{5}{8}$	$8\frac{1}{2}$		91 50	150 50
31 {	36	2	6	23.04	3	8	40 50		
	54	2	6	34.56	5	$8\frac{1}{2}$		72 00	112 50
35 {	40	2	6	25.60	$3\frac{5}{16}$	8	46 00		
	54	2	6	34.56	$4\frac{5}{8}$	$8\frac{1}{2}$		72 00	118 00
36 {	31	2	6	19.84	$2\frac{1}{2}$	8	36 00		
	65	2	6	41.60	$5\frac{3}{4}$	$8\frac{1}{2}$		91 50	127 50
37 {	22	2	6	14.08	$1\frac{5}{8}$	$7\frac{1}{2}$	32 00		
	65	2	6	41.60	$5\frac{1}{2}$	$7\frac{1}{2}$		91 50	123 50
43 {	47	2	6	30.08	$3\frac{1}{2}$	$8\frac{1}{2}$	53 00		
	48	2	6	30.72	$3\frac{1}{4}$	$8\frac{1}{2}$		62 00	115 00

PRICE LIST CORE BEVEL WHEELS.—Continued.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Back.	Depth of Eye.	PRICE, FINISHED.		
							Pinions.	Wheels.	Pairs.
41 {	50	2	7	32	$3\frac{1}{8}$	8	\$ 64 00		
	51	2	7	32.64	$3\frac{1}{8}$	$8\frac{1}{2}$		\$ 75 00	\$139 00
16 {	55	$2\frac{1}{4}$	8	39.60	$3\frac{1}{16}$	9	91 00		
	56	$2\frac{1}{4}$	8	40.32	3	$9\frac{1}{2}$		107 00	198 00
24 {	46	$2\frac{1}{4}$	7	33.12	$3\frac{1}{16}$	9	60 00		
	60	$2\frac{1}{4}$	7	43.20	4	$8\frac{1}{2}$		107 00	167 00
47 {	59	$2\frac{1}{2}$	10	47.25	$5\frac{1}{2}$	$10\frac{3}{4}$	135 00		
	60	$2\frac{1}{2}$	10	48	$6\frac{3}{4}$	11		185 00	320 00
48 {	47	$2\frac{9}{16}$	8	38.64	$3\frac{1}{4}$	$9\frac{1}{2}$	120 00		
	66	$2\frac{9}{16}$	8	52.80	$4\frac{1}{2}$	$9\frac{1}{2}$		170 00	290 00

In ordering single wheels, always give the pattern number, or the number of cogs, pitch and face of match wheel.

We are constantly adding new patterns, and are prepared to furnish almost anything wanted, whether in our own lists or not.

—

REMEMBER.

No bevel wheel will run well with a pinion of another pattern number; nor will a bevel wheel run with a miter or spur wheel, although the pitch and face may be the same.

—

Our patterns are new, strong and well proportioned.



BEVEL GEAR.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Back.	Depth of Eye.	PRICES, BORED AND KEY-WAY CUT, OR SET-SCREWED.		
							Pinions.	Wheels.	Pairs.
40 {	20	3/4	1 1/4	4	.....	.....	\$1 25		
	25		1 1/4	5	.....	.....		\$1 25	\$2 50
33 {	20	3/4	1 3/4	4.80	.....	.....	1 25		
	40		1 3/4	9.60	.....	.....		1 90	3 15
70 {	17	3/4	1 3/4	4.08	1/2	.....	1 25		
	69		1 3/4	16.56	2 1/4	2 1/2		3 75	5 00
69 {	17	3/4	1 3/4	4.08	1/2	2 1/4	1 25		
	51		1 3/4	12.24	1 3/4	2 1/4		2 15	3 40
68 {	42	3/4	2 1/4	10.08	1	2 3/4	2 80		
	65		2 1/4	15.60	1 7/8	2 3/4		3 45	6 25
42 {	48	3/4	2	11.56	1 1/8	2 1/4	2 90		
	69		2	16.52	1 5/8	2 1/4		3 40	6 30
45 {	14	3/4	1 3/4	3.35	.....	.....	1 25		
	42		1 3/4	10.08	.....	.....		2 75	4 00
46 {	47	3/4	2	11.28	1 1/4	2 1/4	2 75		
	55		2	13.20	1 1/2	2 1/4		2 80	5 55
44 {	27	3/4	2	6.48	.....	.....	1 90		
	53		2	12.72	.....	.....		2 80	4 70
47 {	34	3/4	2	8.16	.....	.....	2 00		
	50		2	12	.....	.....		2 75	4 75
48 {	48	3/4	1 3/4	11.52	1 7/16	2 1/2	2 50		
	54		1 3/4	19.96	1 9/16	2 1/2		2 80	5 30
50 {	30	3/4	1 1/2	7.20	.....	.....	1 55		
	41		1 1/2	9.84	.....	.....		1 90	3 45
*49 {	48	3/4	1 3/4	11.52	.....	.....	3 45		
	54		1 3/4	19.96	.....	.....		2 80	6 25
1 {	35	1	2 3/4	11.20	.....	.....	3 10		
	50	1	2 3/4	16	1 5/16	3		4 40	7 50
2 {	15	1	2 1/2	4.80	.....	.....	1 60		
	60	1	2 1/2	19.20	3 5/16	3 1/2		5 65	7 25
3 {	26	1	2 1/2	8.32	.....	.....	3 15		
	66	1	2 1/2	21.12	2 1/4	.....		6 10	9 25
4 {	25	1	2 1/2	8	.....	.....	3 15		
	90	1	2 1/2	28.80	2 3/4	.....		11 00	14 15
5 {	32	1	2 1/4	10.24	2 1/8	.....	3 65		
	46	1	2 1/4	14.72	1 1/2	.....		4 25	7 90
6 {	30	1	2 1/2	9.60	.....	.....	3 40		
	50	1	2 1/2	16	2 1/8	.....		4 50	7 90

* No. 49 Pinion is a compound Bevel and Spur.

PRICE LIST BEVEL GEAR. — Continued.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Back.	Depth of Eye.	PRICES, BORED AND KEY-WAY CUT, OR SET-SCREWED.		
							Pinions.	Wheels.	Pairs.
7 {	28	1	2½	8.96	.....	.....	\$3 10		
	57	1	2½	18.24	2½	.....				$6 25	$9 35
16 {	20	1	2½	6.40	.....	.....	2 25		
	60	1	2½	19.20	2⅙	2¾				5 65	7 90
32 {	32	1	2⅛	10.24	.....	.....	2 80		
	52	1	2⅛	16.64	1⅙	2½				4 15	6 95
34 {	32	1	2	10.24	.....	.....	2 75		
	40	1	2	12.80			
37 {	12	1	1¾	3.84	1 00		
	39	1	1¾	12.48	.....	.....				2 75	3 75
38 {	45	1	2¾	14.40	.....	.....	4 10		
	51	1	2¾	16.32	1¼	2¾				5 00	9 10
39 {	36	1	2¾	11.52	.....	.....	3 45		
	48	1	2¾	15.36	1⅜	3			
41 {	37	1	2¾	11.84	1⅜	3¼	3 75		
	60	1	2¾	19.20	1⅜	3¼				5 65	9 40
17 {	45	1⅛	3	16.20	.....	.....	6 50		
	46	1⅛	3	16.56	2⅜	4¼				6 75	13 25
18 {	14	1⅛	2½	5.04	.....	.....	1 55		
	49	1⅛	2½	17.64	2¼	2¾				6 85	8 40
35 {	25	1⅛	2¾	9	.....	.....	2 80		
	44	1⅛	2¾	15.84	2¾	4				4 50	7 30
36 {	34	1⅛	3	12.24	.....	.....	3 75		
	40	1⅛	3	14.40	2⅛	3¾				5 00	8 75
43 {	20	1⅛	1⅞	7.20	.....	.....	1 90		
	30	1⅛	1⅞	10.80	.....	.....				2 75	4 65
51 {	54	1¼	2¾	21.60	1¾	3⅜	8 50		
	61	1¼	2¾	24.40	2½	3⅜				9 40	17 90
52 {	49	1¼	2¾	19.60	1¼	3⅜	7 25		
	61	1¼	2¾	24.40	2½	3⅜				9 40	16 65
53 {	45	1¼	2¾	18	1¾	3⅜	6 25		
	61	1¼	2¾	24.40	2⅝	3⅜				9 40	15 65
54 {	40	1¼	2¾	16	1⅙	3⅜	6 00		
	61	1¼	2¾	24.40	2⅝	3⅜				9 40	15 40

PRICE LIST BEVEL GEAR. — Continued.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter, in inches.	Back.	Depth of Eye.	PRICES, BORED AND KEY-WAY CUT, OR SET-SCREWED.		
							Pinions.	Wheels.	Pairs.
55 }	38	$1\frac{1}{4}$	$2\frac{3}{4}$	15.20	$1\frac{1}{2}$	$3\frac{1}{4}$	\$5 60		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$2\frac{7}{8}$	$3\frac{1}{4}$		\$9 40	\$15 00
56 }	35	$1\frac{1}{4}$	$2\frac{3}{4}$	14	$1\frac{1}{2}$	$3\frac{1}{4}$	4 75		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$2\frac{7}{8}$	$3\frac{1}{4}$		9 40	14 15
57 }	30	$1\frac{1}{4}$	$2\frac{3}{4}$	12	$\frac{3}{4}$	$3\frac{1}{4}$	4 15		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{1}{8}$	$3\frac{1}{4}$		9 40	13 55
58 }	27	$1\frac{1}{4}$	$2\frac{3}{4}$	10.80	$\frac{11}{16}$	$3\frac{1}{4}$	3 75		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{1}{8}$	$3\frac{1}{4}$		9 40	13 15
59 }	24	$1\frac{1}{4}$	$2\frac{3}{4}$	9.60	$\frac{3}{4}$	$3\frac{1}{4}$	3 40		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{1}{4}$	$3\frac{1}{4}$		9 40	12 80
60 }	22	$1\frac{1}{4}$	$2\frac{3}{4}$	8.80	$\frac{3}{4}$	$3\frac{1}{4}$	3 00		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{1}{4}$	$3\frac{1}{4}$		9 40	12 40
61 }	20	$1\frac{1}{4}$	$2\frac{3}{4}$	8	$\frac{3}{4}$	$3\frac{1}{4}$	2 85		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{5}{8}$	$3\frac{1}{4}$		9 40	12 20
62 }	18	$1\frac{1}{4}$	$2\frac{3}{4}$	7.20	$\frac{3}{4}$	$3\frac{1}{4}$	2 75		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{5}{8}$	$3\frac{1}{4}$		9 40	12 15
63 }	17	$1\frac{1}{4}$	$2\frac{3}{4}$	6.80	.....	.....	2 60		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{5}{8}$	$3\frac{1}{4}$		9 40	12 00
64 }	15	$1\frac{1}{4}$	$2\frac{3}{4}$	6	.....	.....	2 50		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{5}{8}$	$3\frac{1}{4}$		9 40	11 90
65 }	14	$1\frac{1}{4}$	$2\frac{3}{4}$	5.60	$\frac{1}{4}$	$2\frac{13}{16}$	2 50		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{5}{8}$	$3\frac{1}{4}$		9 40	11 90
66 }	13	$1\frac{1}{4}$	$2\frac{3}{4}$	5.20	$\frac{1}{4}$	$2\frac{13}{16}$	2 50		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{5}{8}$	$3\frac{1}{4}$		9 40	11 90
67 }	12	$1\frac{1}{4}$	$2\frac{3}{4}$	4.80	$\frac{3}{16}$	$2\frac{13}{16}$	2 40		
	61	$1\frac{1}{4}$	$2\frac{3}{4}$	24.40	$3\frac{5}{8}$	$3\frac{1}{4}$		9 40	11 80

SPUR GEAR.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Price, each.
1	48	$\frac{5}{8}$	$1\frac{1}{2}$	9.60	\$ 1 65
2	67	$\frac{5}{8}$	$1\frac{1}{2}$	13.40	2 00
3	80	$\frac{5}{8}$	$1\frac{1}{2}$	16	2 20
4	56	$\frac{5}{8}$	$1\frac{1}{2}$	11.20	1 90
21	30	$\frac{5}{8}$	$1\frac{1}{2}$	6	1 25
22	38	$\frac{5}{8}$	$1\frac{1}{2}$	7.60	1 60
42	40	$\frac{5}{8}$	$1\frac{1}{2}$	8	1 65
50	20	$\frac{5}{8}$	$1\frac{1}{2}$	4	1 25
26	48	$\frac{3}{4}$	$1\frac{1}{2}$	11.52	2 25
30	37	$\frac{3}{4}$	$1\frac{1}{2}$	8.88	2 00
32	64	$\frac{3}{4}$	$1\frac{1}{2}$	15.36	4 50
38	30	$\frac{3}{4}$	$1\frac{1}{2}$	7.20	1 75
39	41	$\frac{3}{4}$	$1\frac{1}{2}$	9.84	2 50
5	85	$\frac{3}{4}$	$1\frac{3}{4}$	20.40	5 25
6	100	$\frac{3}{4}$	$1\frac{3}{4}$	24	5 75
7	110	$\frac{3}{4}$	$1\frac{3}{4}$	26.40	7 80
8	142	$\frac{3}{4}$	$1\frac{3}{4}$	34.08	10 50
27	48	$\frac{3}{4}$	$1\frac{3}{4}$	11.52	3 00
31	13	$\frac{3}{4}$	$1\frac{3}{4}$	3.12	1 25
41	25	$\frac{3}{4}$	$1\frac{3}{4}$	6	1 50
19	54	$\frac{3}{4}$	$1\frac{5}{8}$	12.96	3 00
20	49	$\frac{3}{4}$	$2\frac{1}{2}$	11.76	3 00
23	14	1	2	4.48	1 25
18	82	1	$2\frac{1}{4}$	26.24	11 00
44	113	1	$2\frac{1}{4}$	36.16	15 00
43	13	1	$2\frac{1}{2}$	4.16	2 50
45	40	1	$2\frac{1}{2}$	12.80	9 00
46	30	1	$2\frac{1}{2}$	9.60	6 50
47	24	1	$2\frac{1}{2}$	7.68	4 50
48	20	1	$2\frac{1}{2}$	6.40	4 50
37	100	$1\frac{1}{4}$	3	40	30 00
33	35	$1\frac{1}{4}$	$3\frac{1}{4}$	14	7 50
34	26	$1\frac{1}{4}$	$3\frac{1}{4}$	10.40	6 50
35	23	$1\frac{1}{4}$	$3\frac{1}{4}$	9.20	6 00
36	21	$1\frac{1}{4}$	$3\frac{1}{4}$	8.40	6 00
28	64	$1\frac{3}{8}$	$2\frac{3}{4}$	28.16	18 00
29	26	$1\frac{3}{8}$	$2\frac{3}{4}$	11.44	8 00
40	19	$1\frac{3}{8}$	3	8.36	7 00
24	28	$1\frac{1}{2}$	4	13.44	11 00
25	67	$1\frac{1}{2}$	4	32.16	30 00

MITER GEAR.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Price, each.
1	30	$\frac{1}{2}$	$1\frac{1}{2}$	4.80	\$ 1 00
3	30	$\frac{3}{4}$	$1\frac{1}{4}$	7.20	1 00
20	25	$\frac{3}{4}$	$1\frac{1}{2}$	6	1 25
22	41	$\frac{3}{4}$	$1\frac{1}{2}$	9.84	1 60
18	54	$\frac{3}{4}$	$1\frac{5}{8}$	12.96	3 00
*18	54	$\frac{3}{4}$	$1\frac{5}{8}$	12.96	5 25
2	31	$\frac{3}{4}$	$1\frac{3}{4}$	7.44	1 60
21	50	$\frac{3}{4}$	2	12	2 60
23	25	$\frac{7}{8}$	2	7	1 50
8	43	$\frac{7}{8}$	$2\frac{1}{4}$	12.04	3 00
7	28	1	$1\frac{3}{4}$	8.96	2 00
4	44	1	2	14.08	3 60
5	38	1	$2\frac{1}{2}$	12.16	3 75
6	50	1	$2\frac{1}{2}$	16	5 50
24	20	$1\frac{1}{8}$	$2\frac{1}{4}$	7.20	1 80
10	45	$1\frac{1}{4}$	$2\frac{3}{4}$	18	6 50
19	54	$1\frac{1}{4}$	$3\frac{1}{4}$	21.60	9 00
14	46	$1\frac{1}{2}$	$3\frac{1}{2}$	22.08	10 00

* No. 18 Compound Miter and Spur.

CORE SPUR WHEELS.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Price, each. Filled and Finished.
5	40	2	6	25.60	\$ 64 00
6	44	2	6	28.16	75 00
8	52	2	6	33.28	87 00
9	56	2	6	35.84	96 50
10	60	2	6	38.40	101 50
11	66	2	6	42.24	114 00
13	72	2	6	46 08	124 50
14	78	2	6	49.92	141 50
16	84	2	6	53.76	158 50
17	88	2	6	56.32	167 50
21	112	2	6	71.68	180 00
18	67	1 $\frac{3}{4}$	5	37.52	60 00

STONE PINIONS.

SPUR.

Cogs Dressed on Gear Cutter.

No. Pattern.	No. Cogs.	Pitch.	Face.	Diameter in inches.	Price, each. Finished.
1	19	2	7	12.16	\$ 25 50
2	21	2	7	13.44	28 00
3	24	2	7	15.36	31 00
4	27	2	7	17.28	34 00
5	30	2	7	19.20	37 00
6	33	2	7	21.12	44 00
7	36	2	7	23.04	52 00
8	39	2	7	24.96	54 00
9	42	2	7	26.88	56 50
10	44	2	7	28.16	60 00
11	48	2	7	30.72	67 50
13	54	2	7	34.56	74 00
15	60	2	7	38.40	87 00
17	66	2	7	42.24	100 00
18	22	1 $\frac{3}{4}$	5	12.32	17 00
19	18	1 $\frac{3}{4}$	5	10.08	14 50
20	66	1 $\frac{3}{4}$	5	36.96	61 50

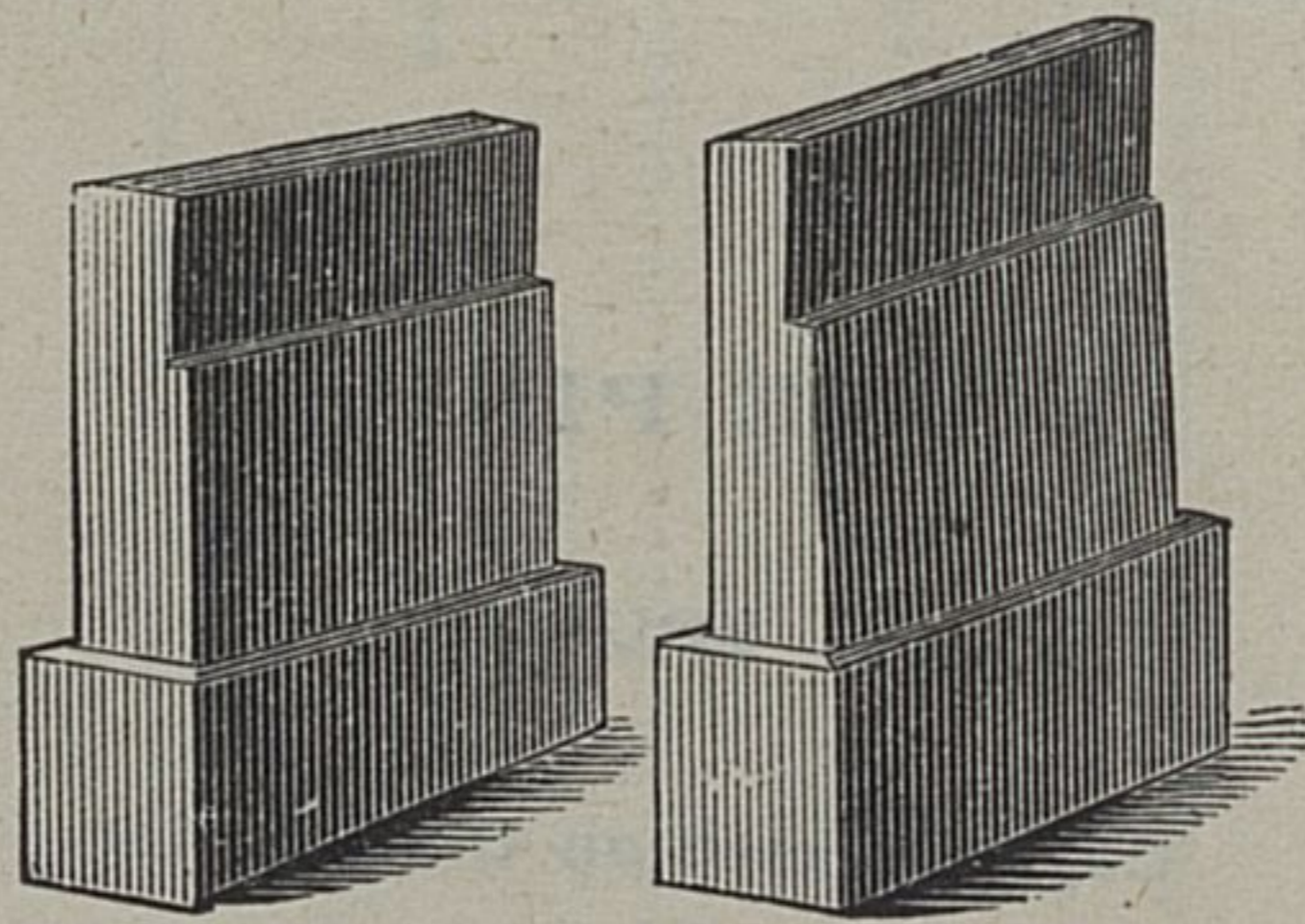
GEAR CUTTING.

Cogs in either Bevel or Spur Gearing, accurately spaced and cut on our Mammoth Gear Cutter.

PRICE LIST.

Prices include Dressing, Spacing, and Truing up ends of Teeth.

Size on Face.	Price, One Side.	Price, Both Sides.	Size on Face.	Price, One Side	Price, Both Sides.
3 inches.	\$0 22	\$0 35	8 inches.	\$0 45	\$0 60
4 "	25	37	9 "	50	75
5 "	28	42	10 "	60	85
6 "	30	45	11 "	70	95
7 "	35	52	12 "	75	1 00



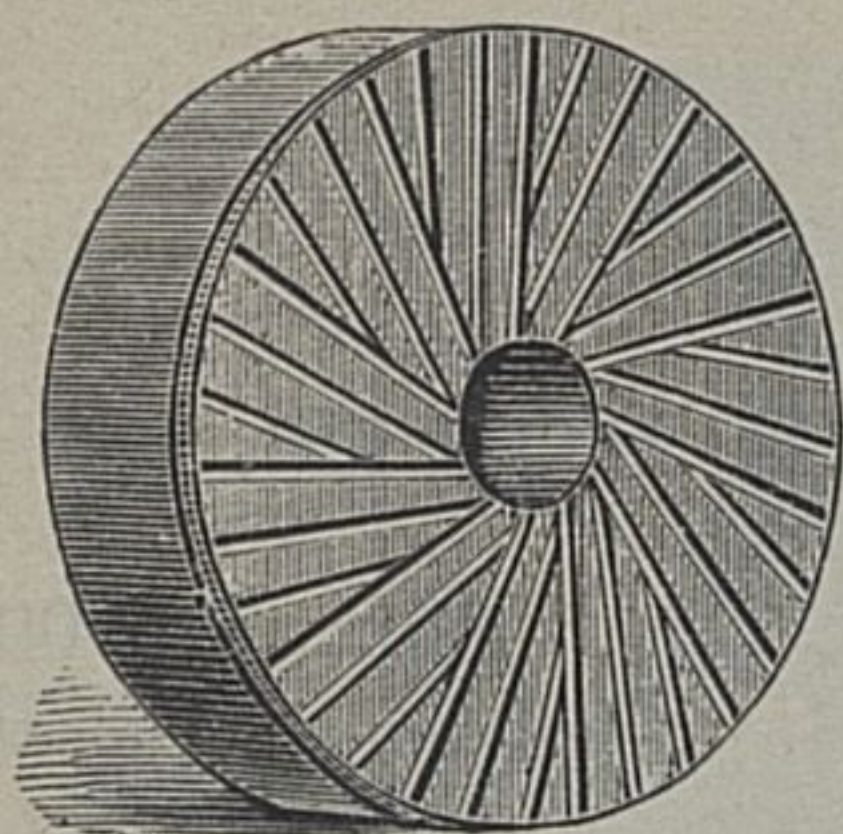
SUGAR, MAPLE OR HICKORY COGS.

THOROUGHLY SEASONED.

Size.	Price, per Cog. 1½ to 1¾ inch Pitch.	Price per Cog. 1⅞ to 2 inch Pitch.	Price, per Cog. 2¼ inch Pitch.	Price, per Cog. 2½ to 2¾ inch Pitch.
4 inch face.	\$0 08	\$0 10	\$0 12	\$0 14
5 " "	10	12½	15	17½
6 " "	12	15	18	21
7 " "	14	17½	21	24½
8 " "	16	20	24	28
9 " "	18	22½	27	31½
10 " "	20	25	30	35
11 " "	22	27½	33	38½
12 " "	24	30	36	42

Price for Driving, Keying, Spacing and Dressing, 6 cents per inch on face of Cog.

Keys for Cogs, 4 to 8-inch Face, each.....\$0 2
 " " " 10 to 12-inch Face, each..... 2½



MILL STONES.

PRICE LIST, PER PAIR.

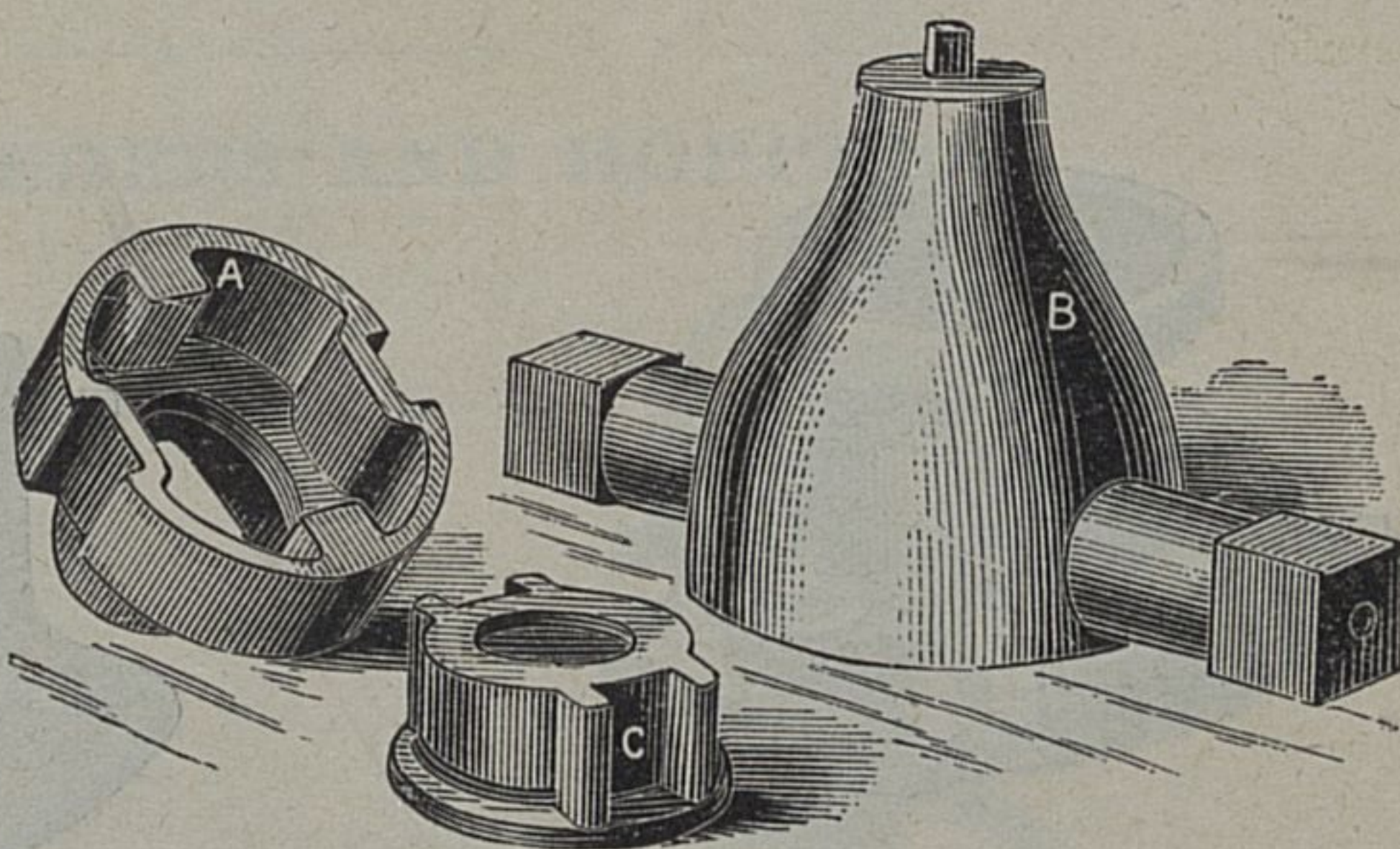
DIAMETER.	NEW QUARRY.		ESOPUS.	
	Faced.	Faced and Furrowed.	Faced.	Faced and Furrowed.
18-inch Under Runner.	\$ 45 00	\$ 50 00	\$ 40 00	\$ 45 00
20 " " "	55 00	60 00	45 00	50 00
24 " " "	82 50	90 00	72 50	80 00
30 " " "	115 00	125 00	100 00	110 00
36 " " "	180 00	195 00	160 00	175 00
42-inch Upper Runner.	315 00	335 00	265 00	285 00
48 " " "	350 00	380 00	280 00	320 00

Prices do not include Mill Bush and Driving Irons.

Write for prices of Old Quarry Burrs.

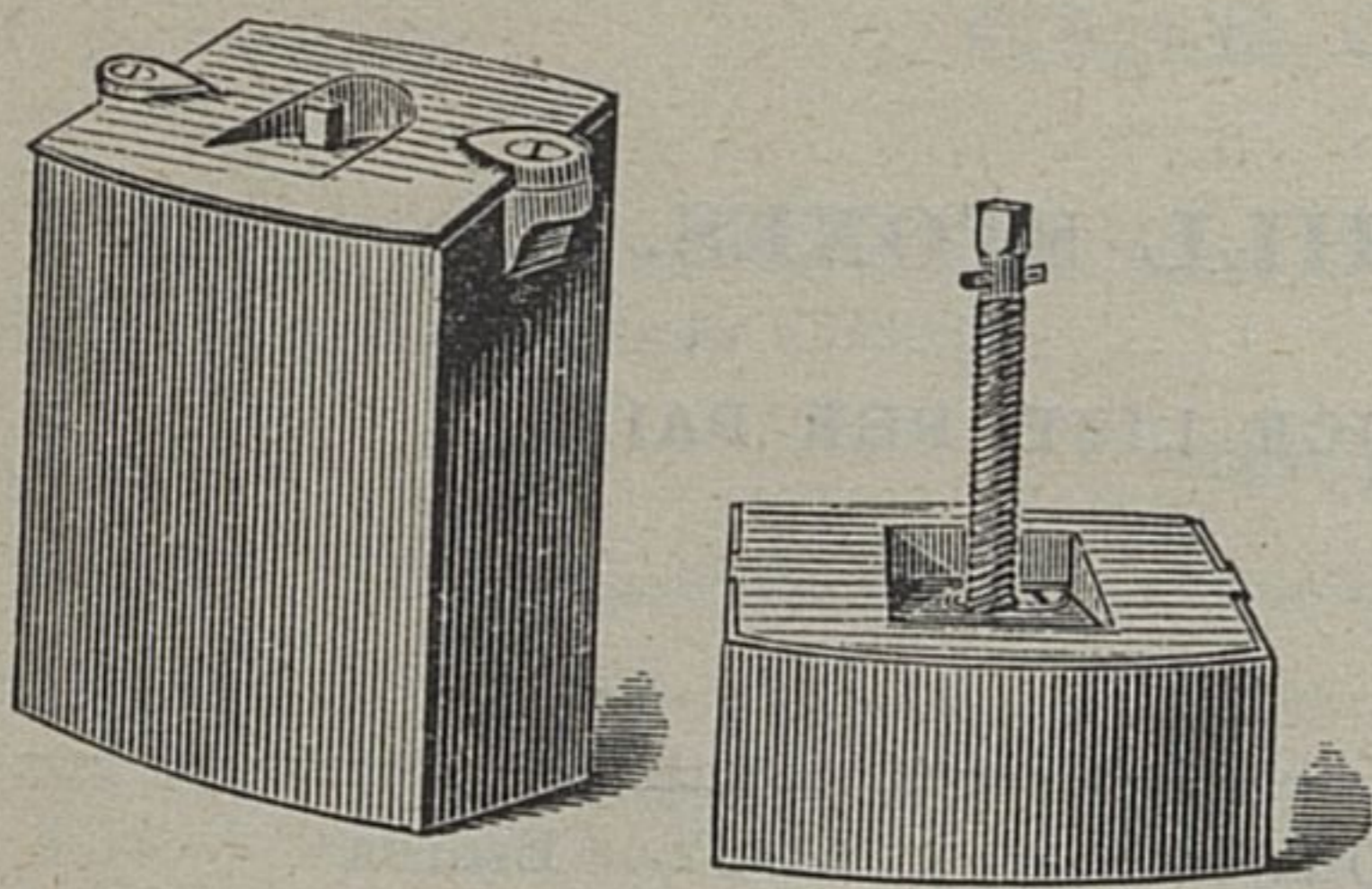
**SELF - ADJUSTING
MILL IRONS.**

Including Cone Bail, Driver,
and Adjusting Ring.



Diam. of Eye.	Price, Cone Bail.	Price, Driver.	Price, Ring.	Price, Complete.
8½	\$6 75	\$5 25	\$1 35	\$13 35
10	7 35	6 00*	2 00	15 35
12	8 00	6 75*	2 70	17 45
14	8 65	6 75*	4 00	19 45

Drivers marked * are made of cast steel. All others cast iron.



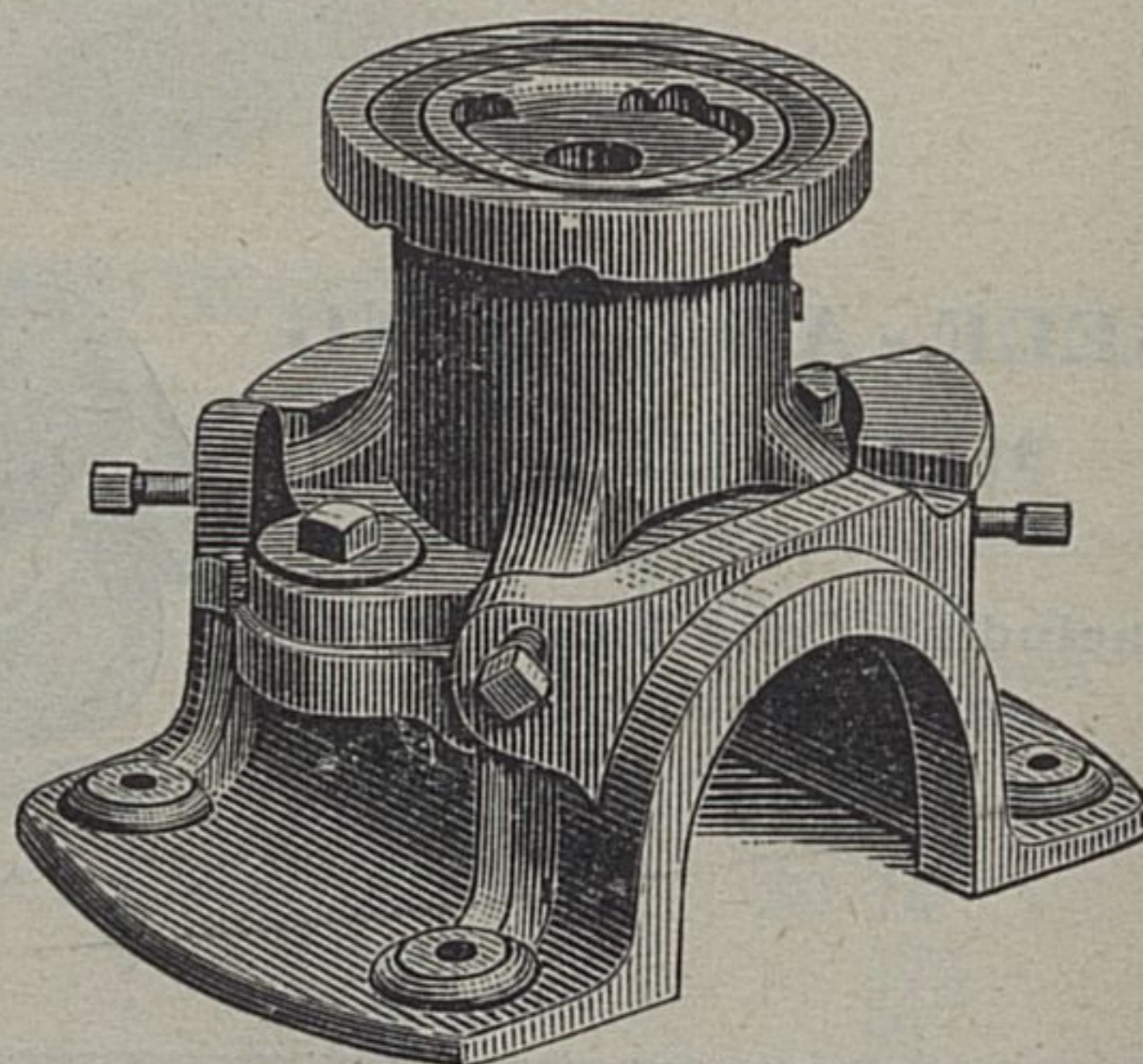
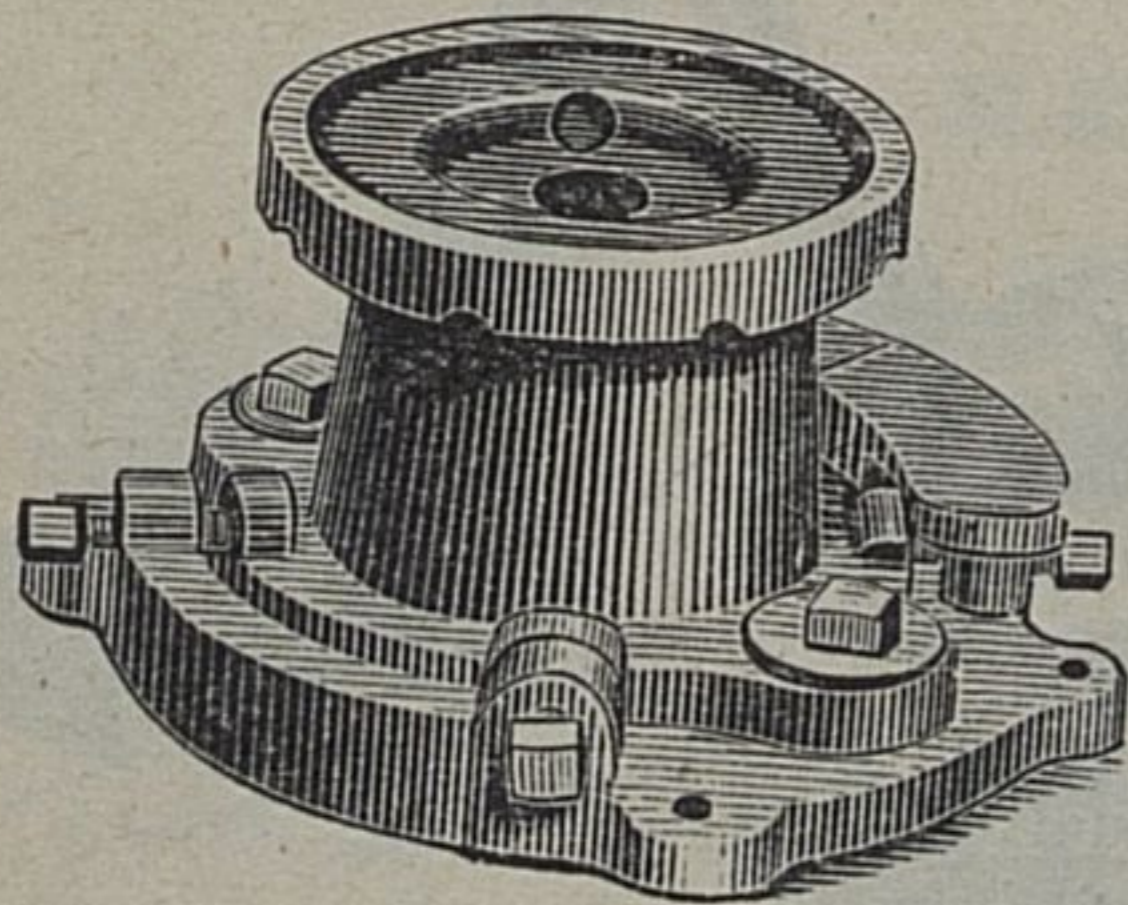
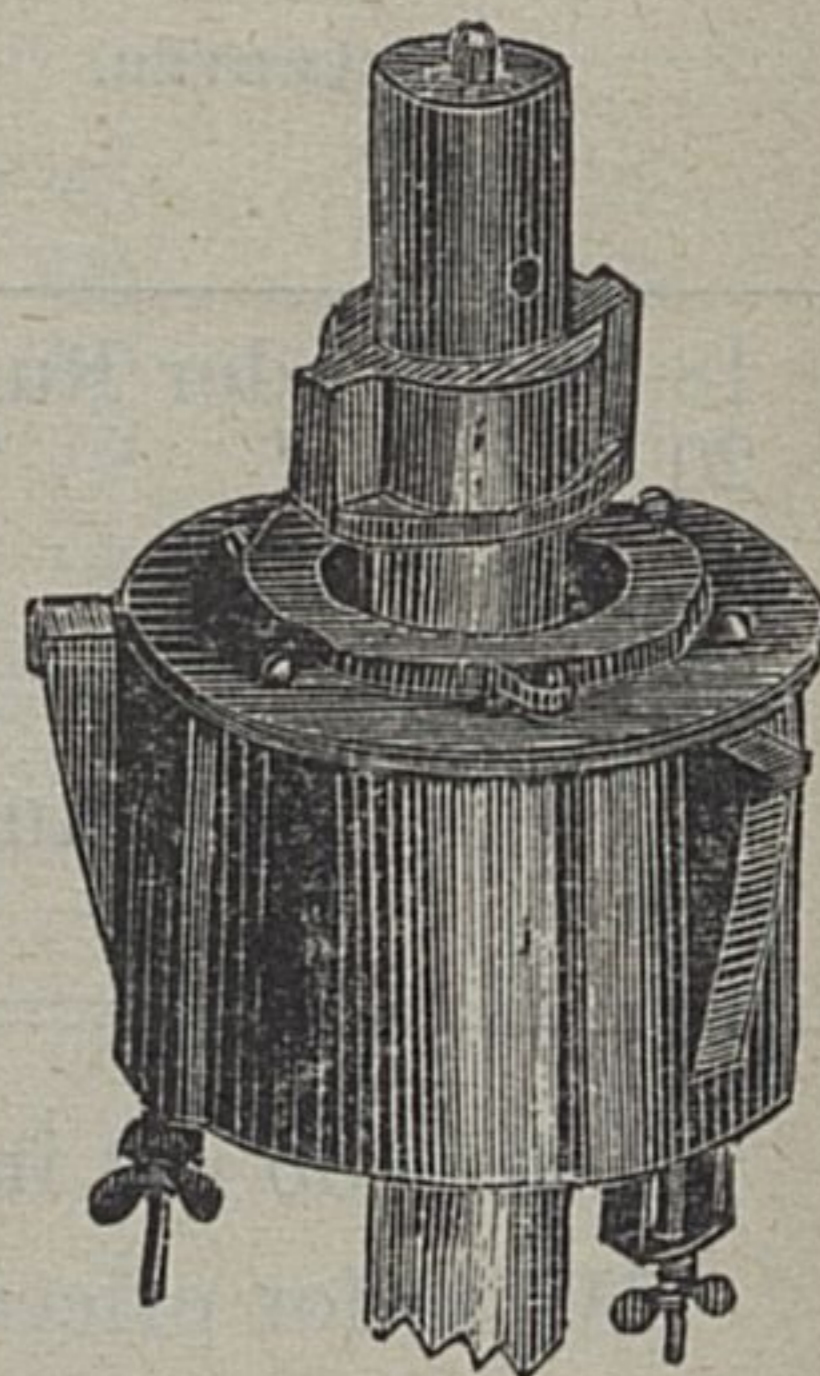
BALANCE BOXES.

Double Box, each.....\$ 3 00
 Per set of five..... 13 50

IMPROVED MILL BRUSH.

SELF-OILING, WITH ADJUSTING SCREW BELOW.

Size of Bush.	Size of Spindles.	Price.
8½ inches.	3 inches and under.	\$13 25
10 "	3½ " "	14 35
12 "	4½ " "	16 60
14 "	4½ " "	18 00

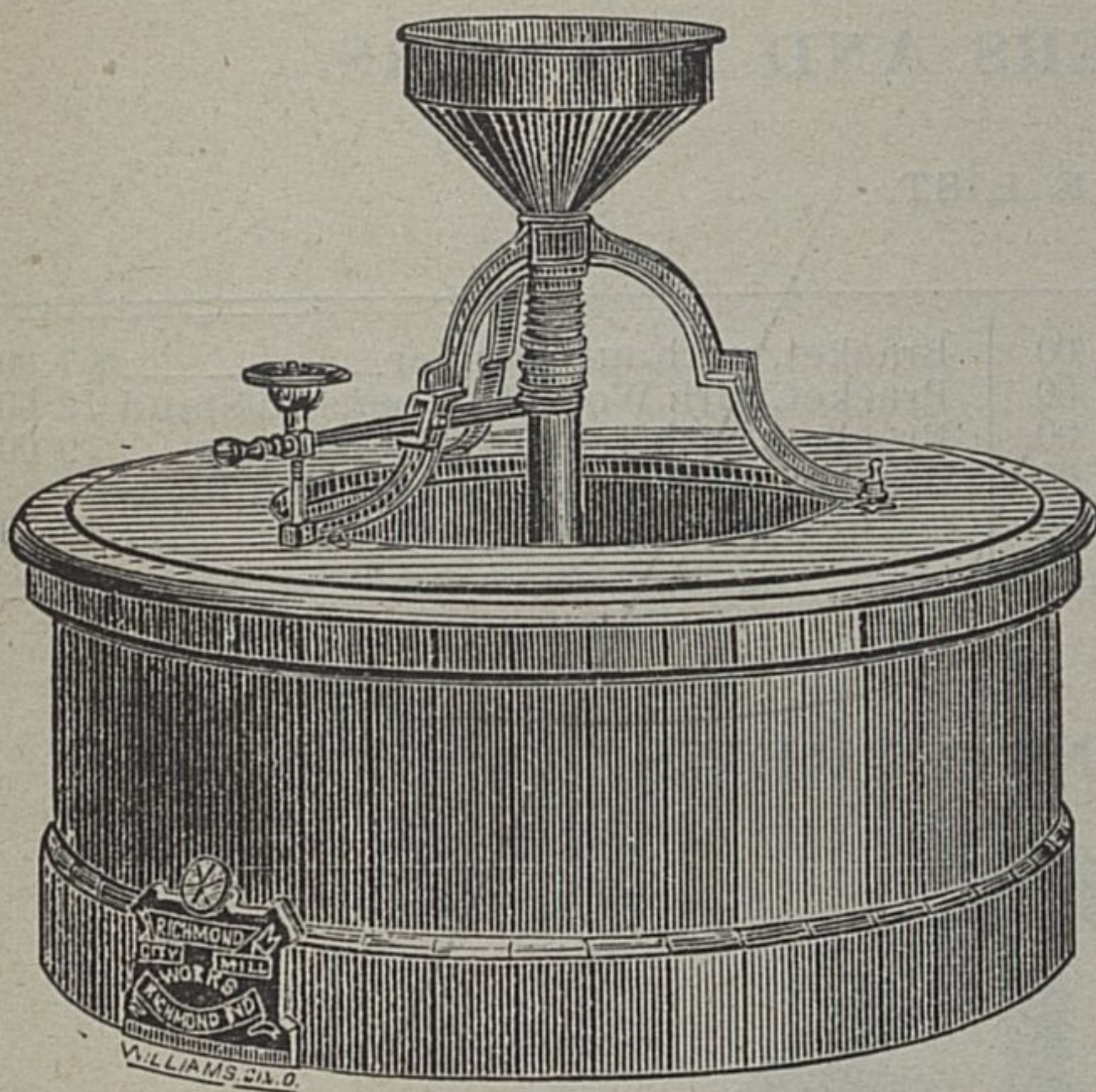


SPINDLE STEPS.

Adjustable Metal Lined Step, for 20 inch Mills.....\$12 00
 Adjustable Tram Step, for 1⅜ inch Toe..... 16 00
 Adjustable Tram Step, for 1⅞ and 1⅞ inch Toe..... 19 00
 Tram Arched or Tunnel Steps..... 22 00

COPPER LINED SPINDLE STEPS.

For 2⅜ to 2⅞ inch Spindles.....\$25 00
 For 3⅜ to 4⅞ inch Spindles..... 35 00



MILL HOOPS.

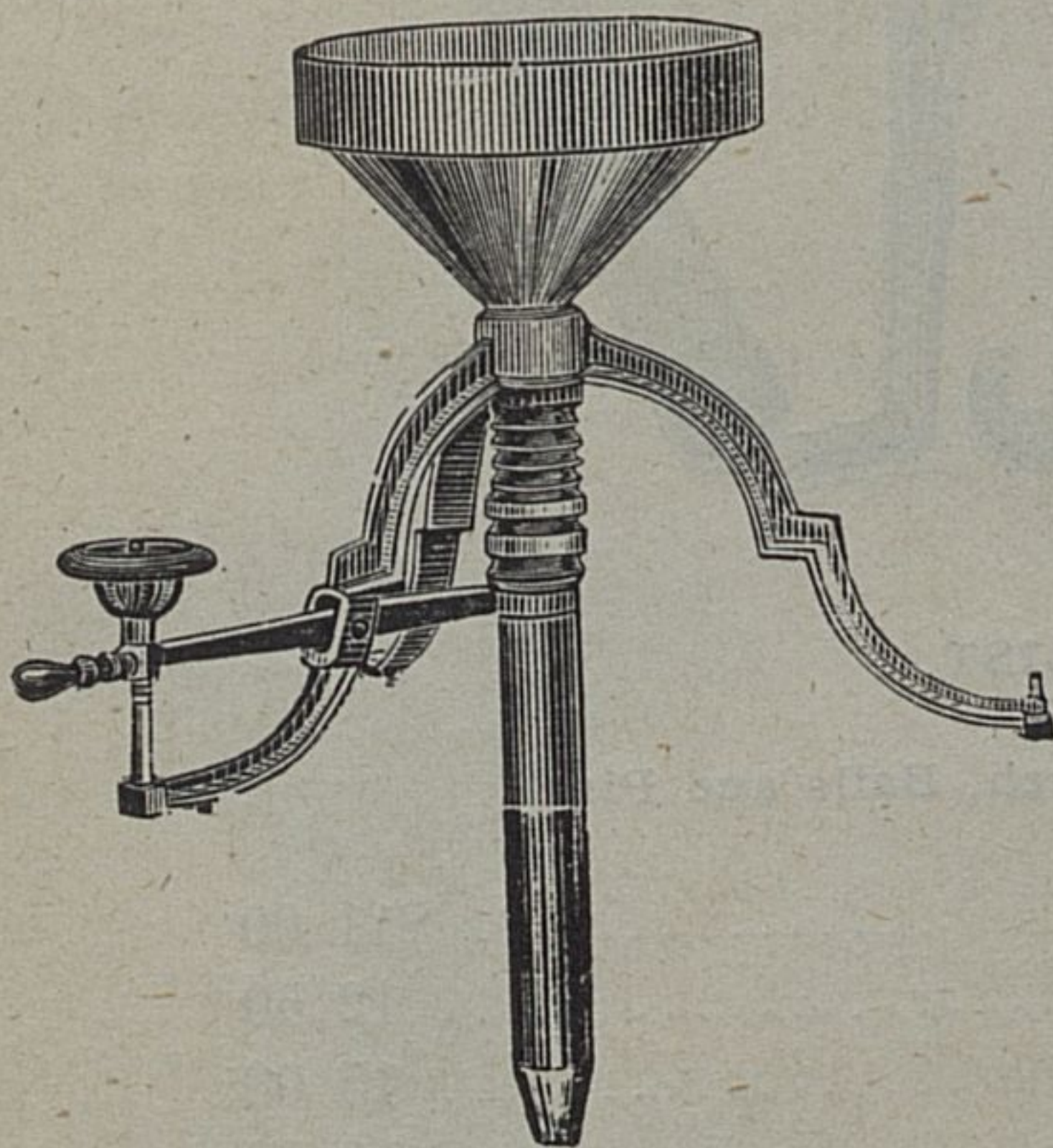
The Hoop is made of the best material, the head being put together of two thicknesses glued up, the joints grooved and hard wood tongued. The staves are tongued and grooved, and held together by two iron bands $1\frac{1}{4}$ wide by $\frac{3}{16}$ thick. The bands are then covered with walnut. The front block over spout is made of iron and bronzed. The whole neatly varnished, and inside thoroughly painted.

PRICE LIST.

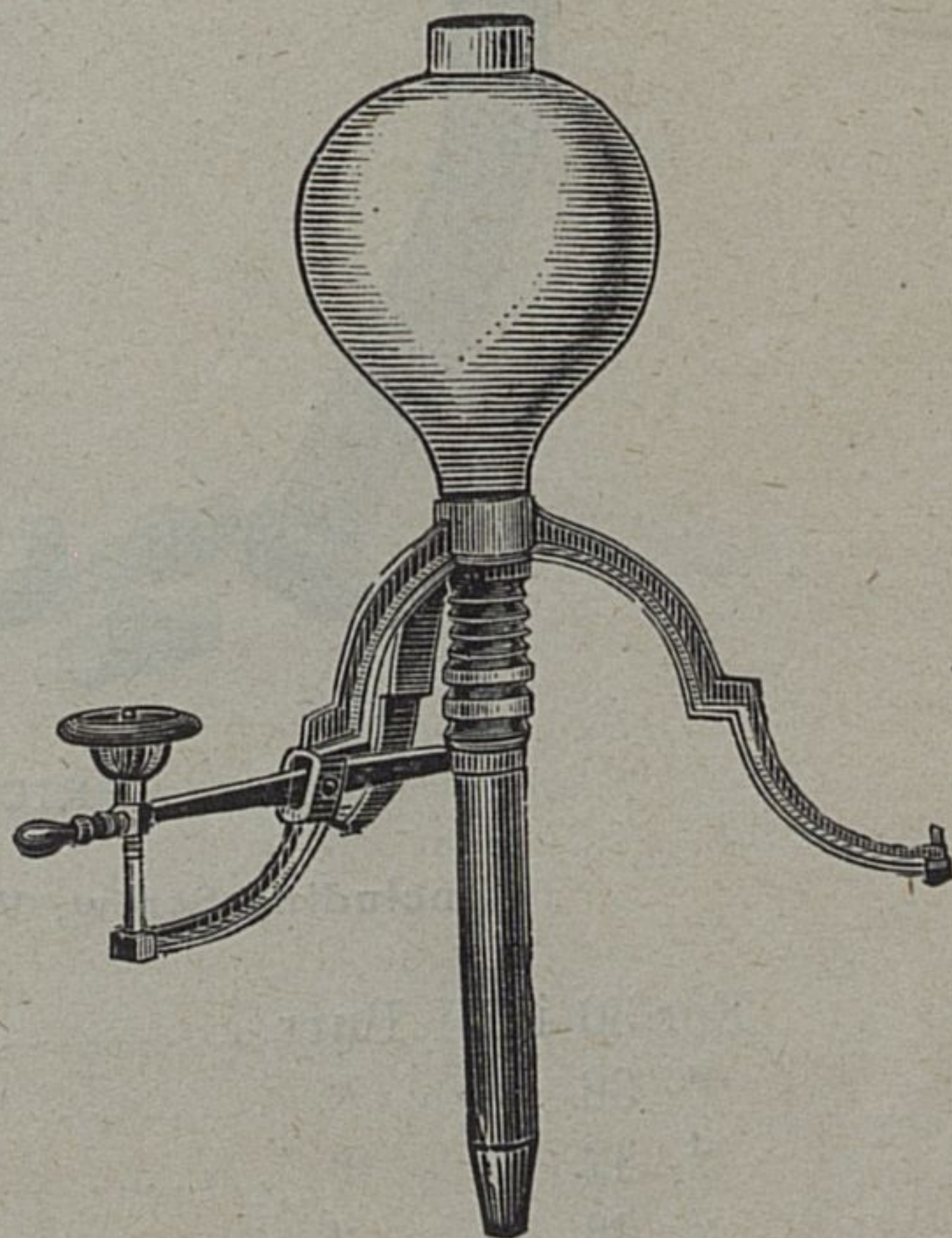
Size.	Price, Walnut Finish.	Price, Poplar Finish.	Size.	Price, Walnut Finish.	Price, Poplar Finish.
For 36 in. Burrs	\$18 00	\$17 25	For 48 in. Burrs	\$22 00	21 00
For 42 in. Burrs	20 00	19 00	For 54 in. Burrs	25 00	23 50

For alternate Walnut and Pine Staves, add 10 per cent. to price of Walnut Finish.

SILENT FEEDERS AND HOPPERS.



Tripod Feeder (Brass Hopper).



Tripod Feeder (Glass Globe).

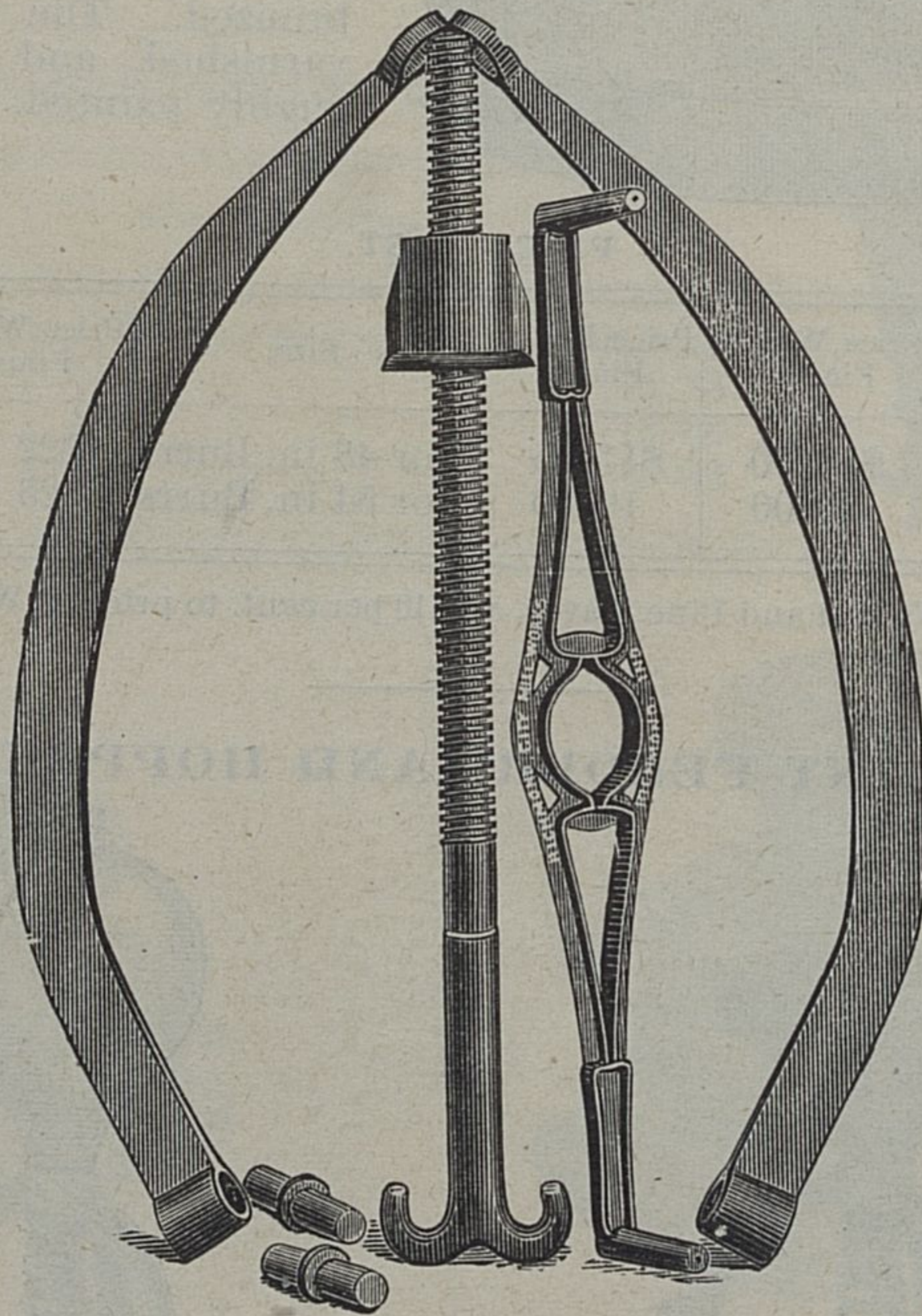
See Price List Next Page.

SILENT FEEDERS AND HOPPERS.

PRICE LIST.

Tripod, with Brass Hopper.....	\$24 00	Bracket, without Hopper.....	\$ 7 00
Tripod, with Glass Globe.....	24 00	Bracket, with Wood Hopper and Stand	12 00
Tripod, New Style, Glass Hopper.....	16 00	Bracket, with Iron or Tin Hopper.....	9 00
Tripod, New Style, Glass Globe.....	16 00	Bracket, with Brass Hopper and Nickel-Plated Hand Wheel.....	12 50
Tripod, New Style, Iron or Tin Hopper	15 00		

HOISTING SCREWS.



PRICE LIST.

Including Screw, Wrench, Bails and Pin.

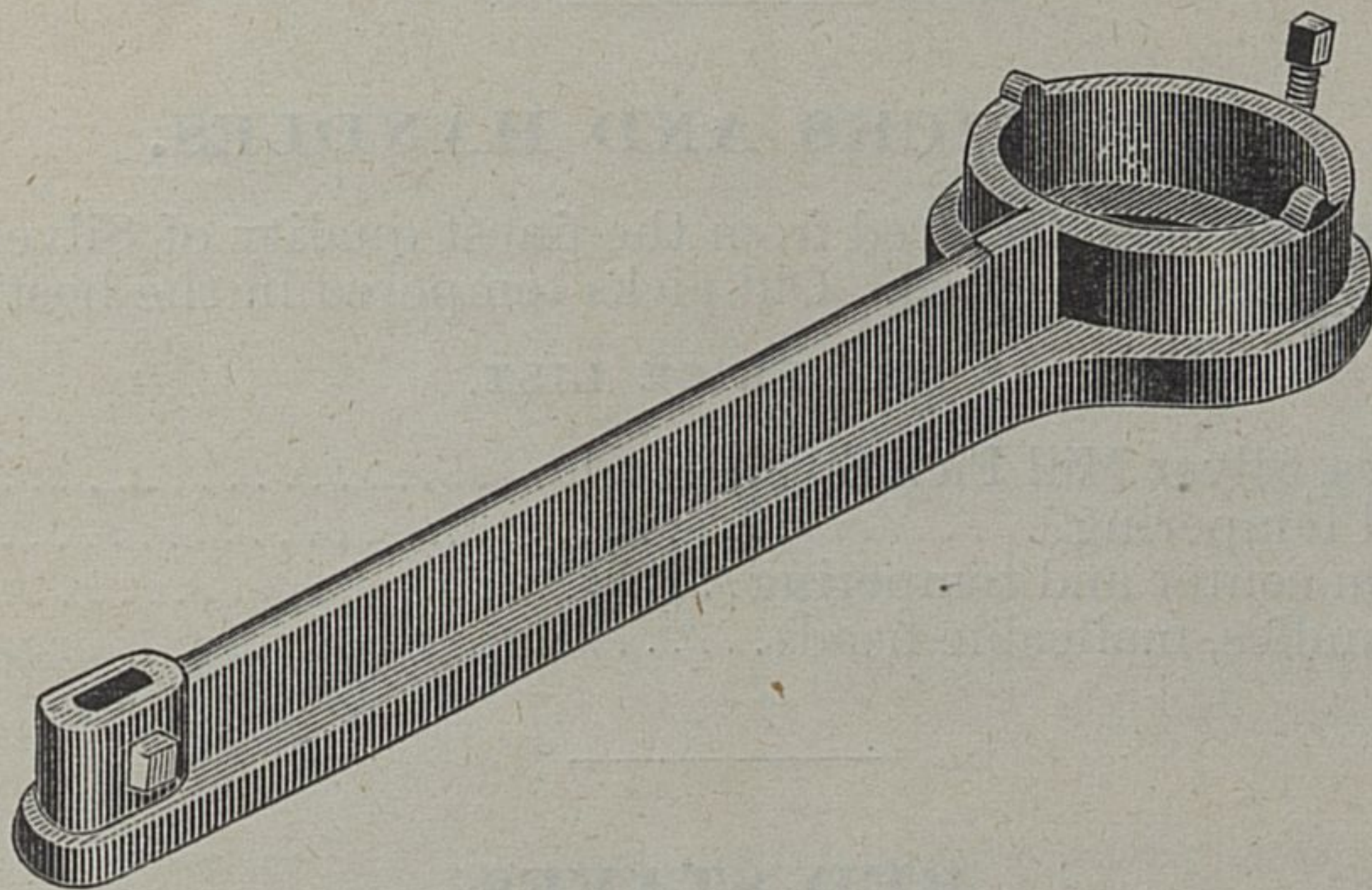
For 30 inch Burr.....	\$11 00
“ 36 “ “	12 50
“ 42 “ “	15 00
“ 48 “ “	18 00
“ 54 “ “	20 00

WROUGHT IRON MILL SPINDLES.

WITH STEEL COCKHEAD AND TOE INSERTED.

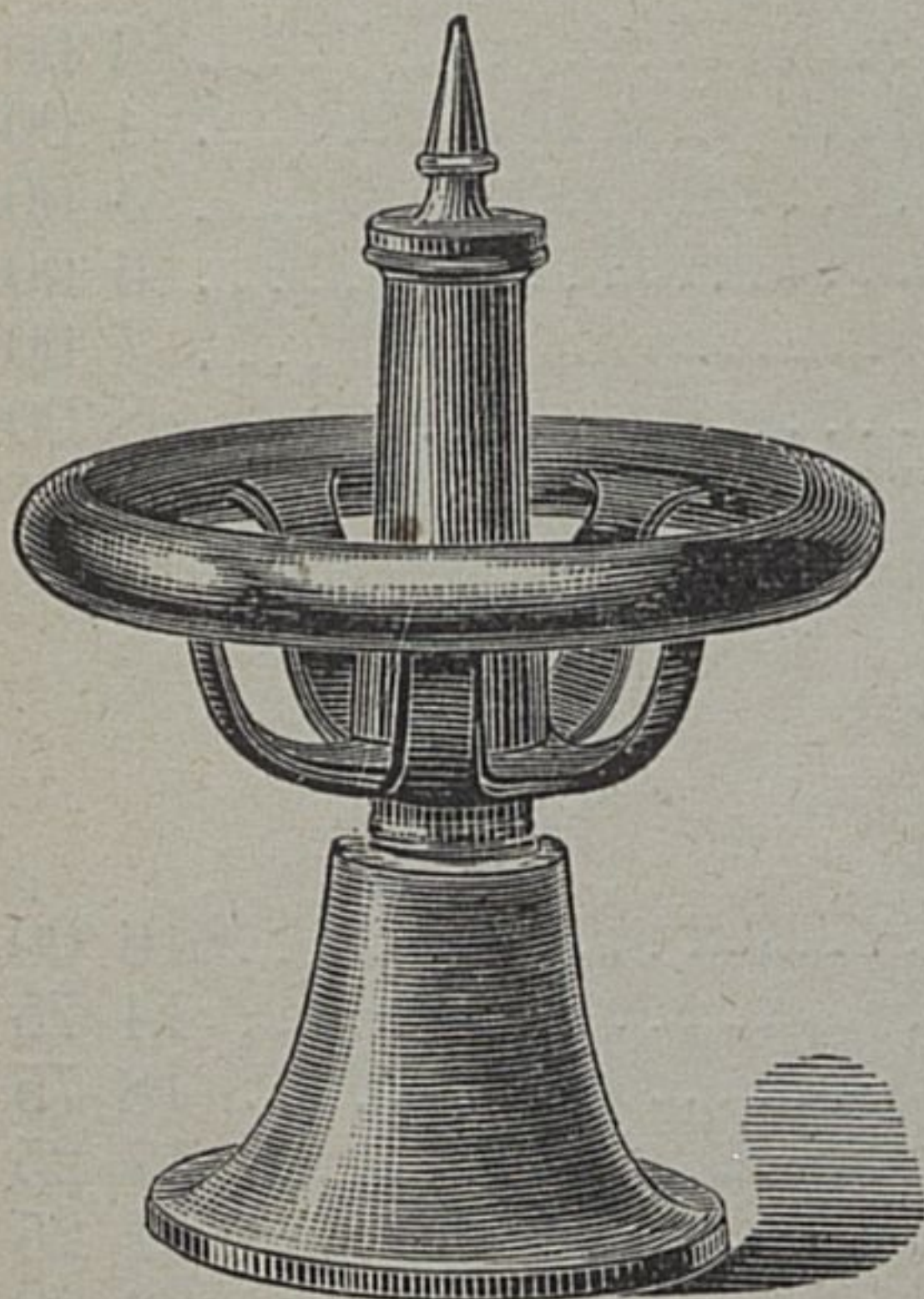
Diameter of Spindle.	Diameter of Toe.	Length of Spindle.	Price.
$2\frac{11}{16}$ inches.	$1\frac{3}{16}$ inches.	4 feet.	\$16 00
$2\frac{15}{16}$ "	$1\frac{3}{16}$ or $1\frac{7}{16}$ inches.	5 "	20 00
$3\frac{3}{16}$ "	$1\frac{7}{16}$ inches.	6 "	25 00
$3\frac{7}{16}$ "	$1\frac{7}{16}$ "	7 "	33 00
$3\frac{15}{16}$ "	$1\frac{11}{16}$ "	8 "	47 00
$3\frac{15}{16}$ "	$1\frac{11}{16}$ "	10 "	52 00

In ordering, give exact distance from top of bridge tree to face of bed stone.



LIGHTER LEVERS.

Each.....\$3 00 to \$5 50.

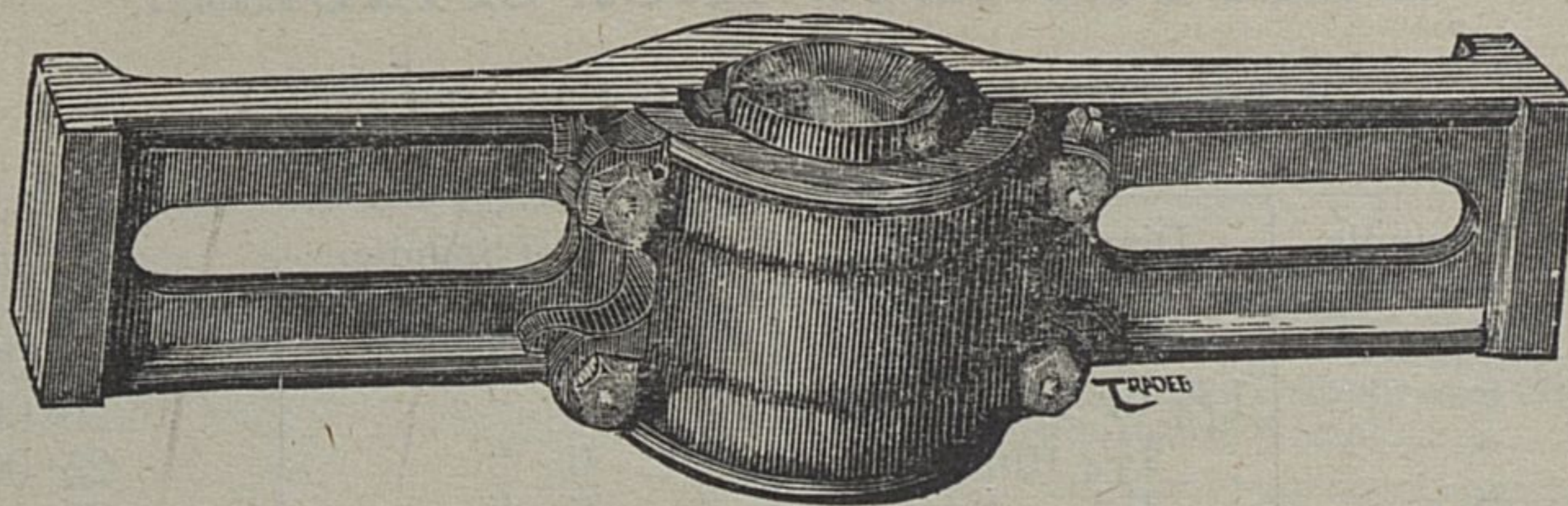


LIGHTER SCREWS.

PRICE LIST.

Including Cap, Stand, Wheel and Stem.

Plain.....	\$ 6 00
Plain, with Basket Wheel Turned.....	7 00
Basket Wheel and Cap Turned.....	8 00
" " " " Nickel-Plated...	12 00



PATENT SELF-ADJUSTING COLLAR BEAM.

USED ON ALL OUR UNDER RUNNER PORTABLE MILLS.

Price, fitted for any Spindle, each.....\$20 00

MILL PICKS AND HANDLES.

Our Picks are manufactured from the finest quality of Silver Mill Pick Steel, and are fully guaranteed. Old picks tempered in the best manner.

NET PRICE LIST.

Assorted sizes, Silver Mill Pick Steel, per lb.....	\$0 60
Dressing and tempering.....	25
Drawing from center and tempering.....	35
Mill Pick Handles, malleable heads.....	1 00

RED STAFFS.

Glued up of five thicknesses of the best seasoned cherry lumber, carefully fitted and finished in neat style, varnished and boxed.

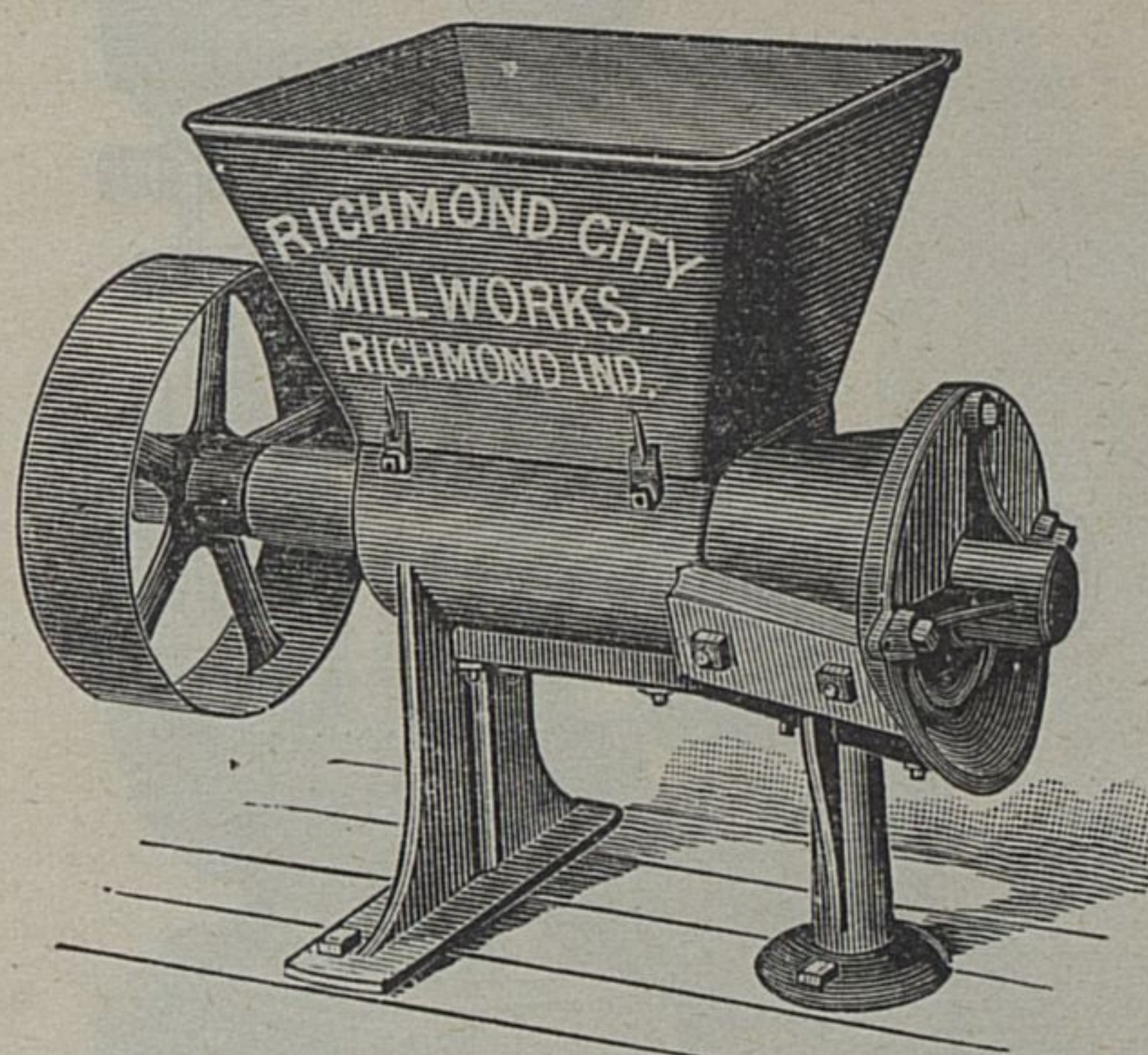
PRICE LIST.

For 20-inch Burr.....	\$3 00
For 30-inch Burr.....	4 00
For 36-inch Burr.....	5 00
For 42-inch Burr.....	6 00
For 48-inch Burr.....	7 00
For 54-inch Burr.....	8 00

PROOF STAFFS.

PRICE LIST.

3½ feet long, with Spirit Level.....	\$16 00
3½ feet long, without Spirit Level.....	14 75
4 feet long, with Spirit Level.....	18 75
4 feet long, without Spirit Level.....	17 25
4½ feet long, with Spirit Level.....	21 25
4½ feet long, without Spirit Level.....	20 00



RICHMOND COB CRUSHER.

This Crusher is designed to fully meet the growing demand for a machine that will rapidly, and with little power, crush corn and cobs to such a degree of fineness that they may be fed into Burr Stone Mills or Rolls, and be by them ground to any required degree of fineness.

ADVANTAGES.

That this Crusher possesses many important advantages over other machines of like nature, will be apparent when we call attention to the following points of superiority:

First. It requires but little power. Most corn and cob Crushers require from six to ten horse-power, while this may be run successfully with one to two horse-power.

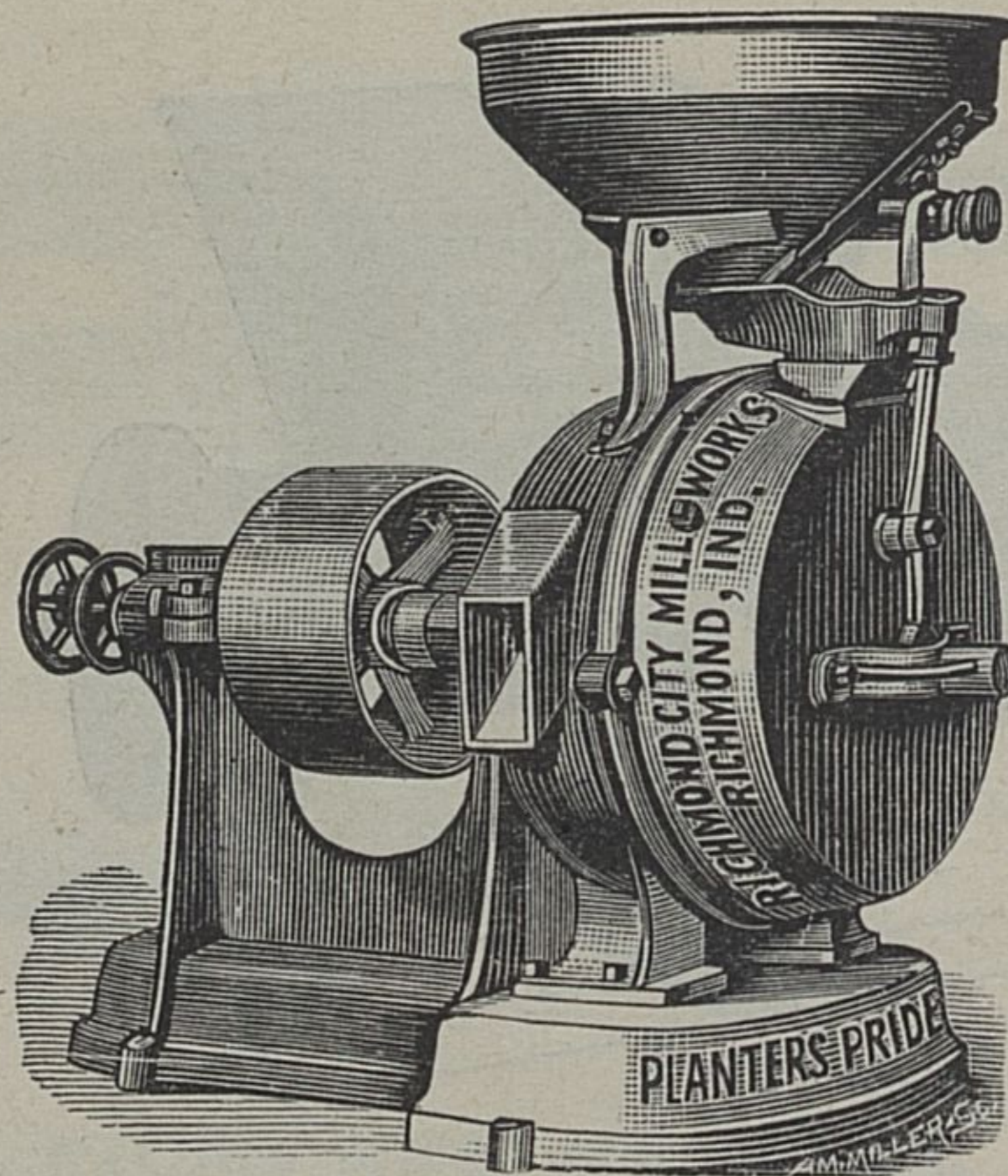
Second. Being a horizontal machine, it may be driven with a straight belt from any ordinary portable or stationary steam engine, or from the tumbling-rod of a "horse-power."

Third. It is a complete machine in itself. Most cheap Crushers require extra expense in providing hopper, pulley, or gearing, for driving, etc. Our Crusher when shipped is complete, and ready to bolt down and attach belt.

Fourth. All parts are interchangeable, and may be replaced at slight expense. The machine, however, is so simple and substantial in its construction that it will run for years without additional expense for repairs.

DIMENSIONS, ETC.

Floor space, 16 x 32 inches.	
Extreme height, 16 inches.	Pulley, 12 x 5 inches.
Speed, 400 to 600.	Shipping weight, 240 lbs.
Capacity, 20 to 25 bushels ear corn per hour.	
Crusher may be driven from either end.	
Price..... \$30 00.	



THE PLANTER'S PRIDE 18-INCH FRENCH BURR PORTABLE CORN AND FEED MILL.

This mill (except the stones, which are of the best selected French burr stock,) is built of iron and steel, and is very compact. The burrs are 18 inches in diameter, and are banded, faced, furrowed and put in perfect balance. They are contained within an iron hoop, the back half of which is accurately fitted and bolted to the bed plate and front pedestal in such a manner as to bring the face of the bed stone exactly in tram with the spindle.

The bed stone is cemented in the front half of the hoop, or case, which is held in position by bolts passing through rubber springs, which yield when any hard substance, such as nails or pebbles, passes in with the grain, thus preventing breakage.

The bed plate has two pedestals, cast solid, on the tops of which are the boxes or bearings for the spindle to run in.

The spindle is made of the best quality of machinery steel, with extra long babbitt metal bearings, and large oil cups with hinged covers. It is also provided with a relief coil spring, by which the runner stone is drawn back from contact with the bed stone when it is desired to stop the feed. The toe of the spindle is provided with a patent oiler, by which all tendency to heating is obviated.

The mill is neatly finished, painted and varnished, and loaded on the cars at the works free of charge. Tie or fastening bolts are sent with each mill, and it is only necessary to bolt it down, attach the belt, and it is ready for business.

We guarantee every mill sold.

DIMENSIONS.

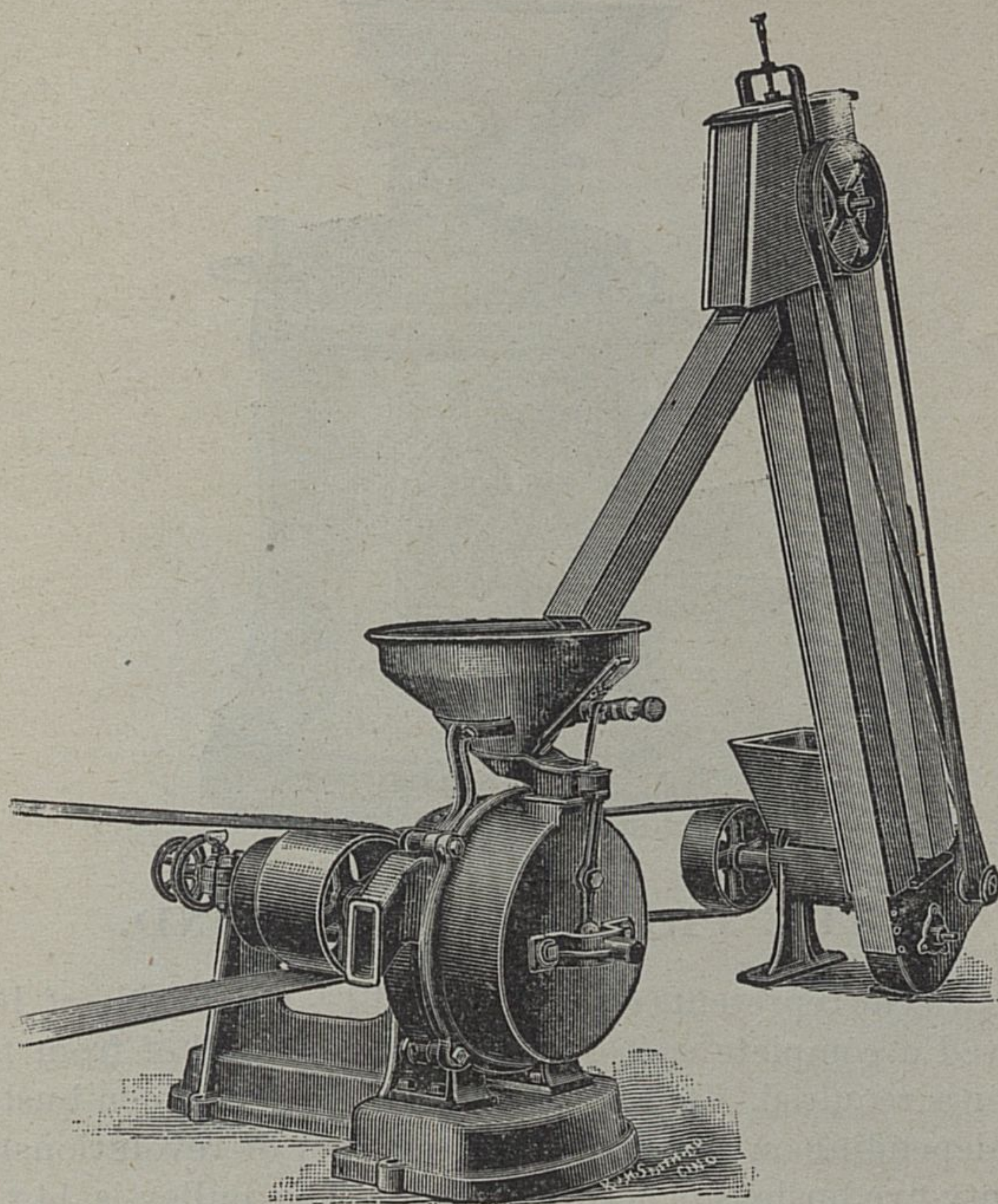
Length, 40 in. Width, 28 in. Height, 42 in. Pulley, 12 x 7.

Capacity, 10 to 20 bu. corn; 15 to 30 bu. feed per hour.

Speed, 500 to 800. Horse power required, 4 to 6. Weight, 700 lbs.

Price.....\$130.00

Sieve Bolter, extra.....\$20.00



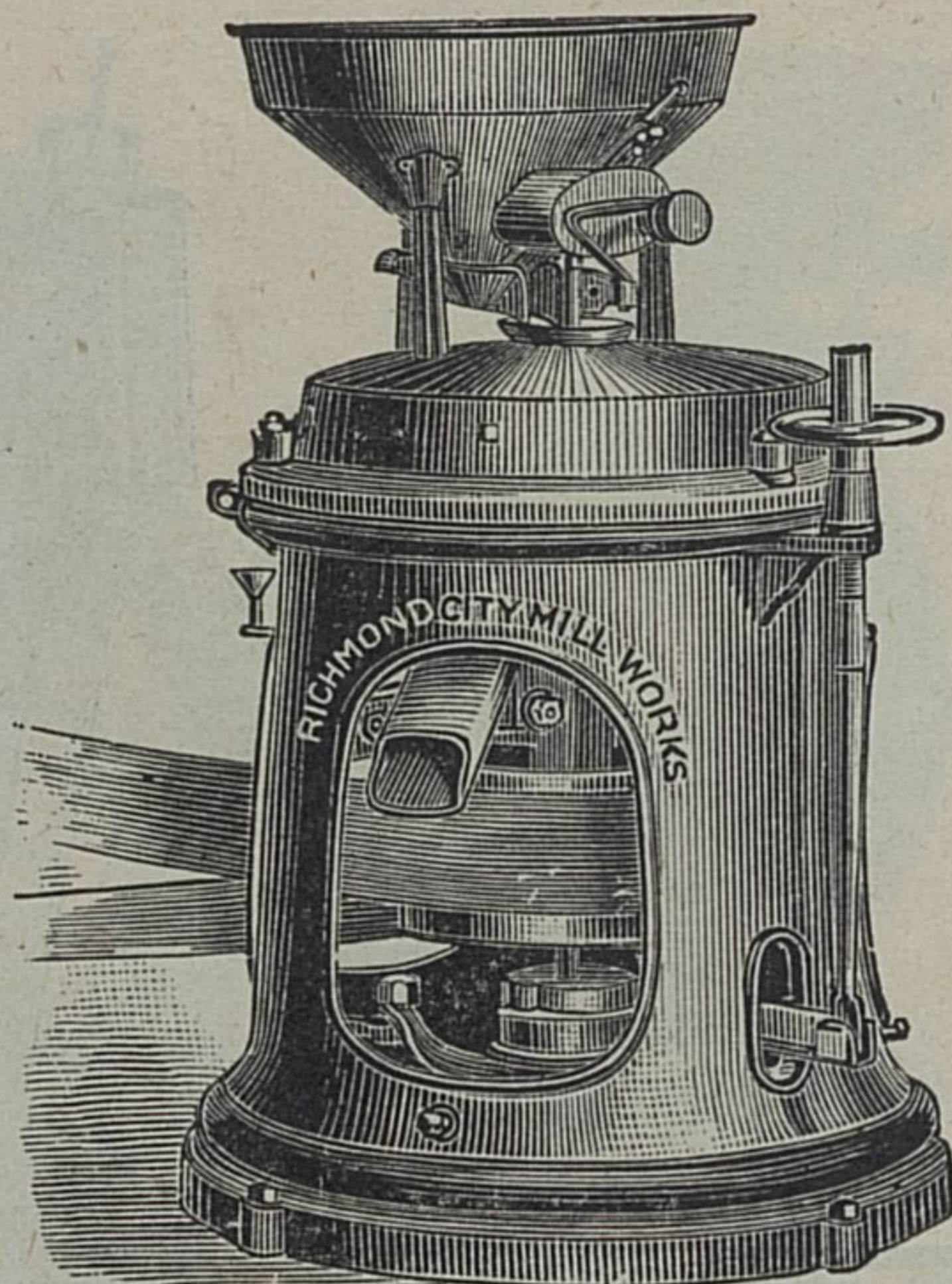
**COMBINATION CRUSHER, ELEVATOR, AND MILL,
FOR FEED GRINDING.**

This combination consists of one of our Planters' Pride French Burr Mills (special), a Richmond Cob Crusher, and an Elevator connecting the two. They are all driven by one belt connecting with power. The ear corn is shoveled into the Crusher hopper, where it is reduced to about the size of a grain of corn; it is then discharged directly into the Elevator, and delivered to the Mill, where it can be ground to any degree of fineness. Spouts may be arranged so that oats or any other kind of grain may be fed to the French Burr Mill and mixed in grinding with the corn and cob meal.

The mill should be run at not less than 600 revolutions per minute, and will grind twenty to twenty-five bushels of Feed per hour at this speed. The pulley on Mill is 12 inches in diameter, 7-inch face.

PRICE LIST.

Cob Crusher.....	\$ 30 00
Elevator.....	30 00
Mill.....	140 00
For Combination, including belt to drive Crusher.....	200 00



THE PRIDE OF RICHMOND.

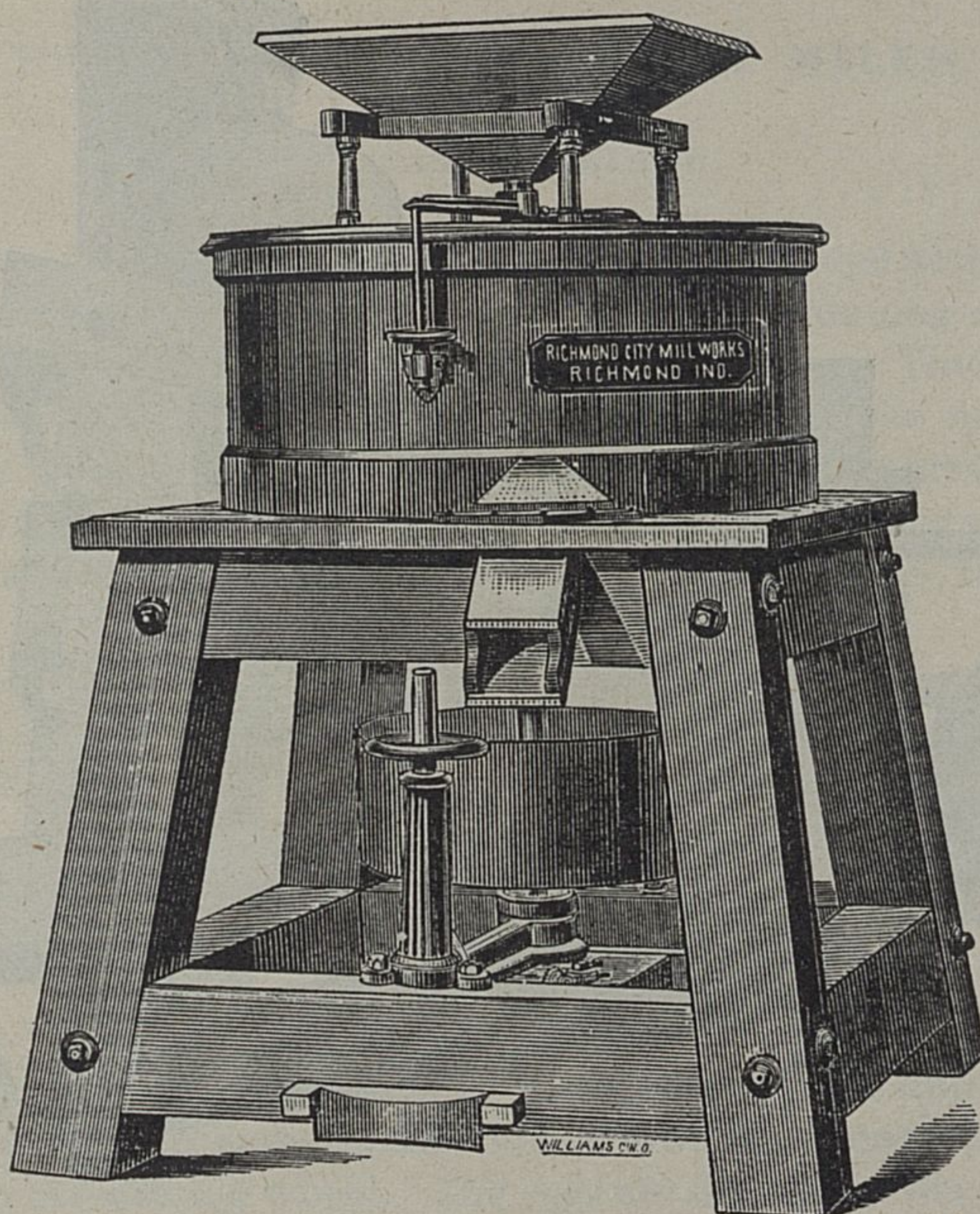
The above cut represents our 20-inch mill—the “Pride of Richmond.” It has proved a complete success, where a small mill of from four to six-horse power is required. Its capacity is from four to fifteen bushels of corn per hour (depending on the power and number of revolutions), and from ten to twenty-five bushels of feed per hour. The pulley is 14 x 7, and the mill should be run not less than 350 revolutions per minute, and may be run up to 800 or more.

The burrs are of the best French burr stock, and selected with the same care as those in the larger mills. The husk is of iron, cast in one piece. It is turned perfectly true to receive the upper or bed stone cap or frame. This cap is also turned true, and is provided with hinges, whereby the mill may be opened for examination or for dressing the stone. The bed stone and cap is held in position by bolts passing through rubber springs, which yield when any hard substance, such as nails or pebbles, passes in with the grain, thus preventing breakage.

The spindle is made of the best wrought iron, with inserted steel cock-head and toe, supported by patent collar beam. The tram pot or step is adjustable with three tram screws. The runner stone has our improved self-adjusting driving irons, with hardened steel cock-eye inserted, and is banded, faced, furrowed, and put in perfect running and standing balance before leaving the works. The delivery spout may be easily changed to either side, to suit the location of the mill.

In ordering, state which way the mill is to run— with or against sun.

Price, Pulley Mill.....	\$150 00
Price, Double Geared.....	190 00



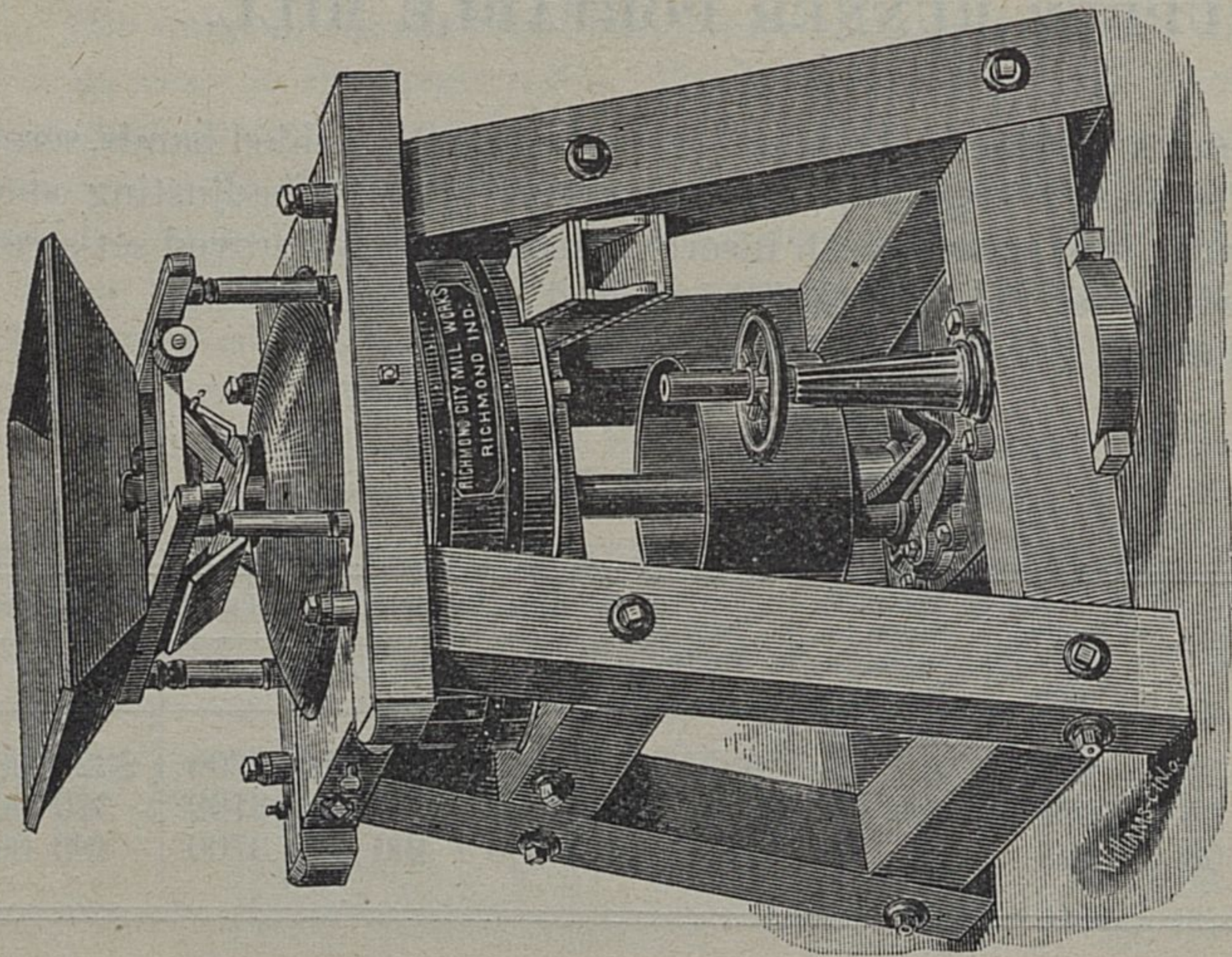
UPPER RUNNER PORTABLE MILL.

The stones are made of the best French burr, with welded bands, screw adjustable balance boxes, improved cone bail with self-adjusting steel driver, wrought iron spindle with inserted steel points, improved set-screw step, finished lighter rig, adjustable bush, and improved feed rig.

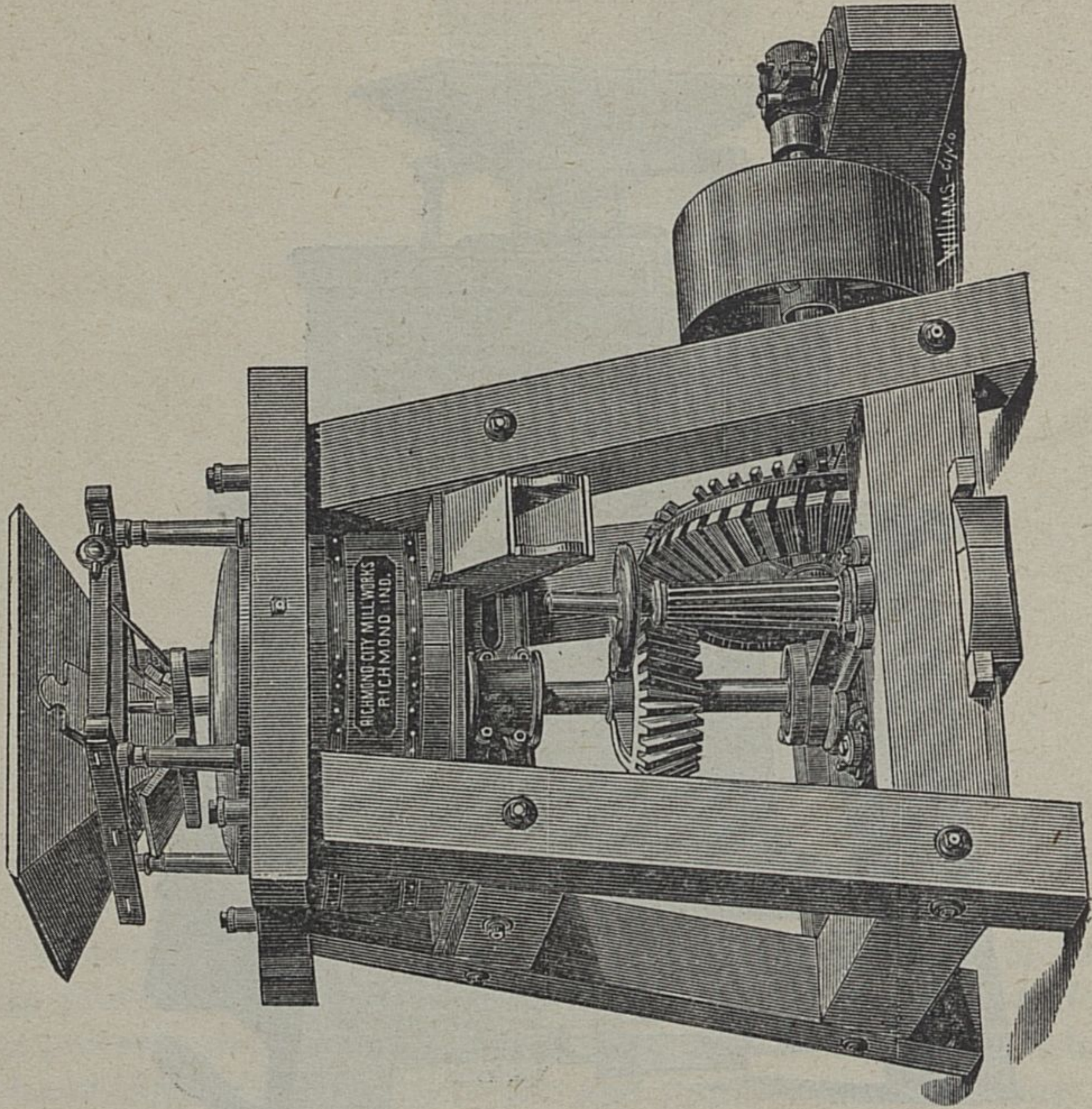
A substantial, first-class mill in every particular.

DIMENSIONS AND PRICES.

Diameter Stone.	Size on Floor.	Distance Floor to Center of Pulley.	Height Floor to Top of Hopper.		Size of Pulley.	PULLEY MILLS.		DOUBLE GEARED.	
			ft.	in.		Wt.	Price.	Wt.	Price.
in. 30	in. 51 x 51	in. 22½	6	4	20 x 9½	2000	\$260 00	2300	\$320 00
36	55 x 55	22½	6	4	24 x 9½	2800	300 00	3100	370 00
42	63 x 63	24½	6	8	30 x 11½	3300	400 00	3700	480 00



PULLEY MILL.



DOUBLE GEARED.

PATENT UNDER RUNNER MILLS.

PATENT UNDER RUNNER MILLS,

FOR FAST GRINDING.

The stones are made of the best French burr, banded with iron having welded joints, and the runner is placed in perfect running and standing balance, having our improved self-adjusting drive irons. The bed-stone is firmly placed in the top frame, it being connected with the main husk by heavy hinges, thus making it convenient to separate the burrs for dressing. The frame is held down by four bolts passing through rubber springs, which yield when any hard substance comes between the burrs, thus avoiding damages.

The spindle is of wrought iron, with inserted steel toe and cock-head, supported at the neck by patent collar beam, and resting in our improved set screw mill step. The lighter lever, rod, wheel, and washer are neatly finished and easily adjusted.

Esopus Stones used when preferred.

DOUBLE GEARED.

The description of Single Geared Mill applies to this mill, except that in place of pulley on spindle, the mill is **double geared**, wood cogs being used in the driving wheel. The cogs are dressed on our Gear Cutter, and work perfectly and with little wear.

DIMENSIONS.

Diameter Stone.	Size on Floor.	Distance Floor to Center of Pulley.	Height Floor to Top Hopper.	Size of Pulley.	Revolutions per minute.
24 in.	43 in. x 43 in.	21½ in.	5 ft. 6 in.	16 x 8½	325 to 400
30 "	51 " x 51 "	22½ "	5 " 9 "	20 x 9½	300 to 350
36 "	55 " x 55 "	22½ "	5 " 9 "	24 x 10½	275 to 325

PRICE LIST.

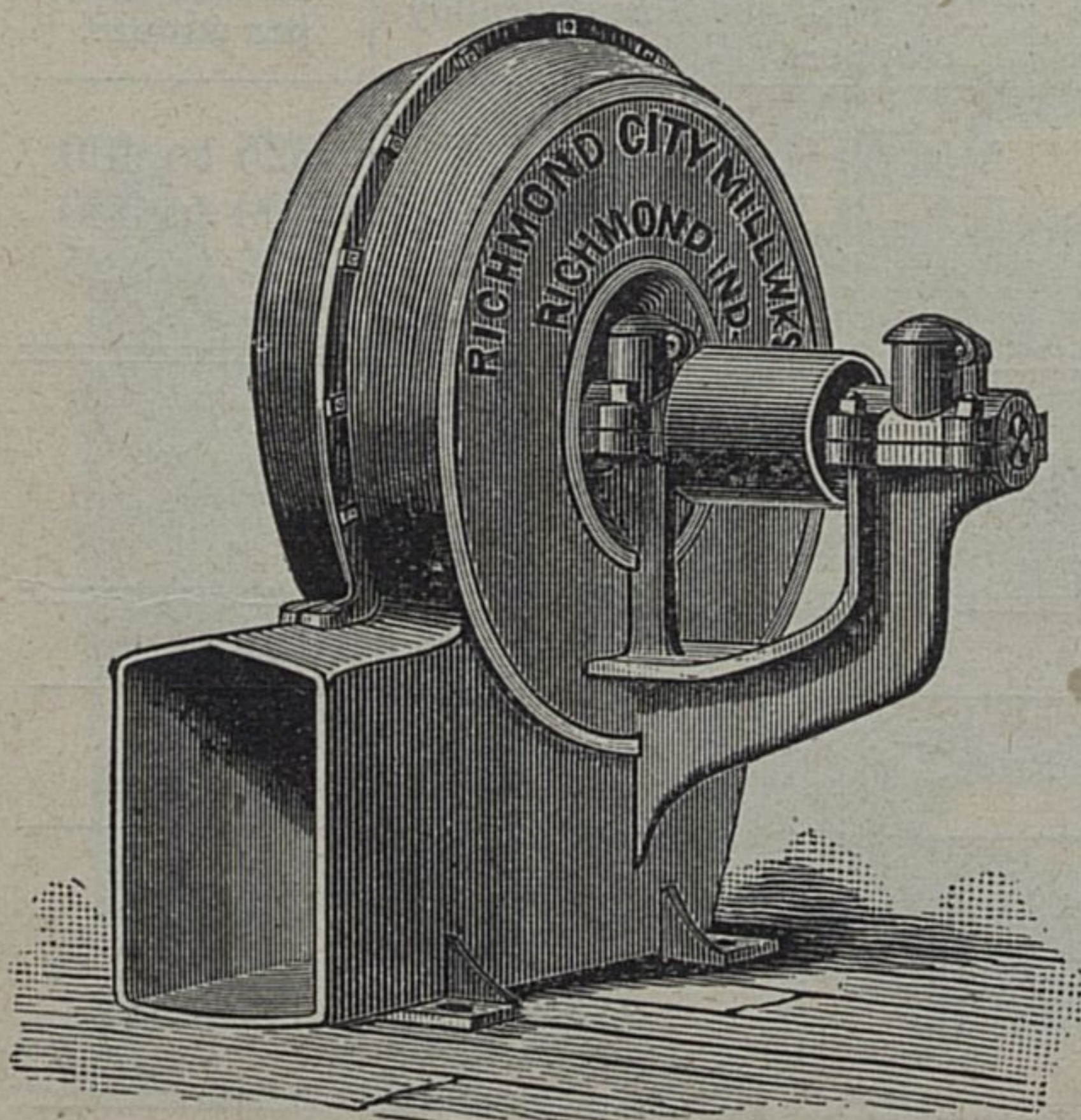
Diameter Stone.	PULLEY MILLS.		DOUBLE GEARED.	
	Weight.	Price.	Weight.	Price.
24 inches.	1300	\$185 00	1600	\$235 00
30 "	1800	230 00	2100	290 00
36 "	2400	300 00	2750	365 00

MOSHER BAG HOLDER.

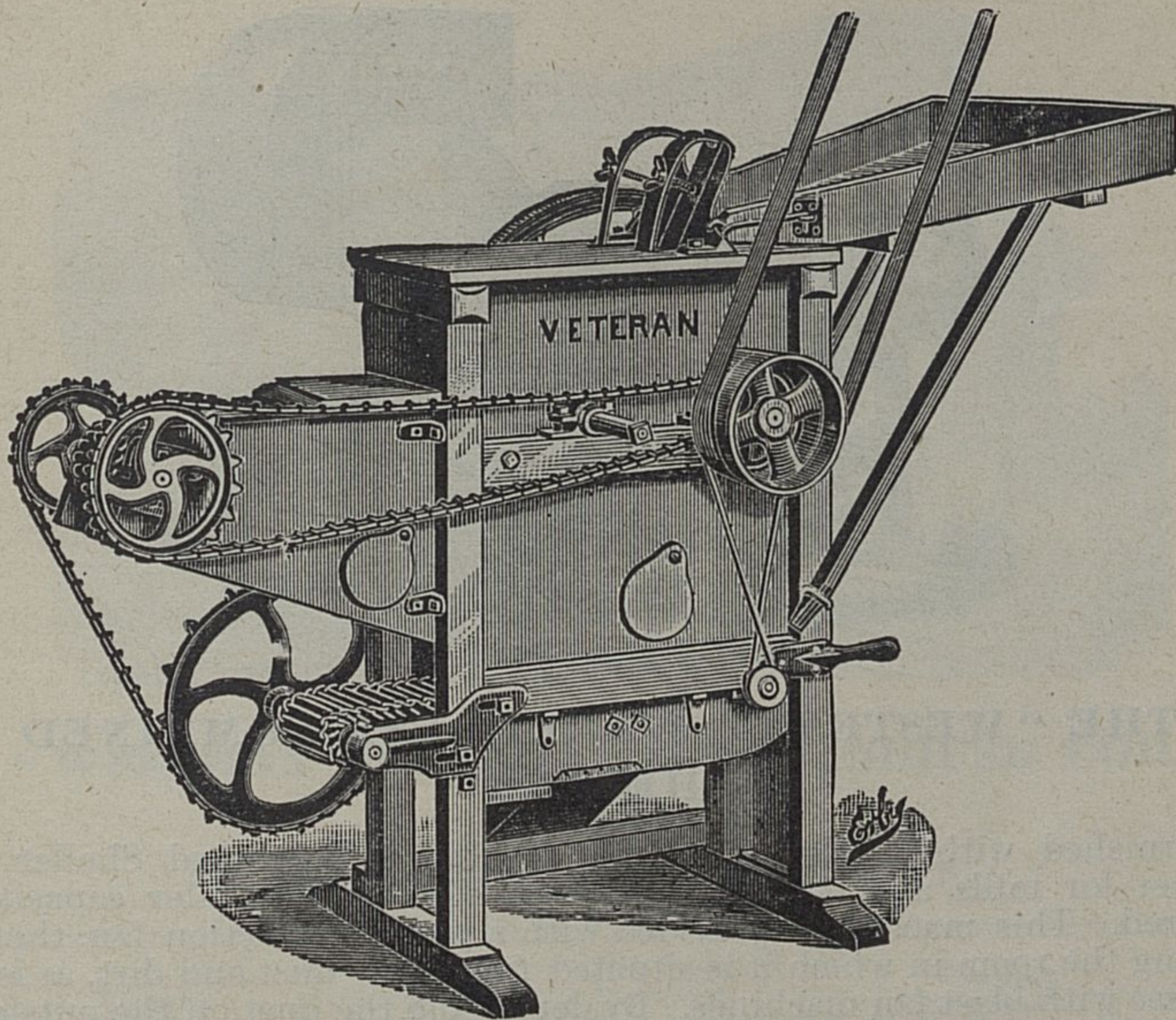


Price.....\$5.00, Net.

RICHMOND EXHAUST FAN.



	No. 1.	No. 2.
Diam. of Shell.	16 in.	22 in.
“ Inlet	5 “	8 “
Size of Outlet.	4 x 6 in.	5 x 9 in.
Speed.....	{ 1000 to 1500	{ 800 to 1300
Pulley { Diam. Face..	{ 3 in. 2 1/4 “	{ 4 1/2 in. 3 1/2 “
Price.....	\$25 00	\$40 00



Veteran Sheller with Pulley and Special Cleaning Attachment.

THE VETERAN SHELLER.

This Sheller has been before the public thirty years, and not only holds its own, but if a steadily increasing trade is a safe criterion, it is growing in popularity. A great favorite with custom millers, it is also well known and largely used by the farmers and stock-feeders of every corn-growing state in the Union.

As shown by the cut on this page the Veteran is a Two-Hole Feed table machine. Its capacity ranges from 250 to 350 bushels per day, according to power, speed, and the regularity of the feed.

It has our **Revolving** Wire Cob Rake for separating the cobs from the shelled corn, and a good strong fan for removing chaff and dust.

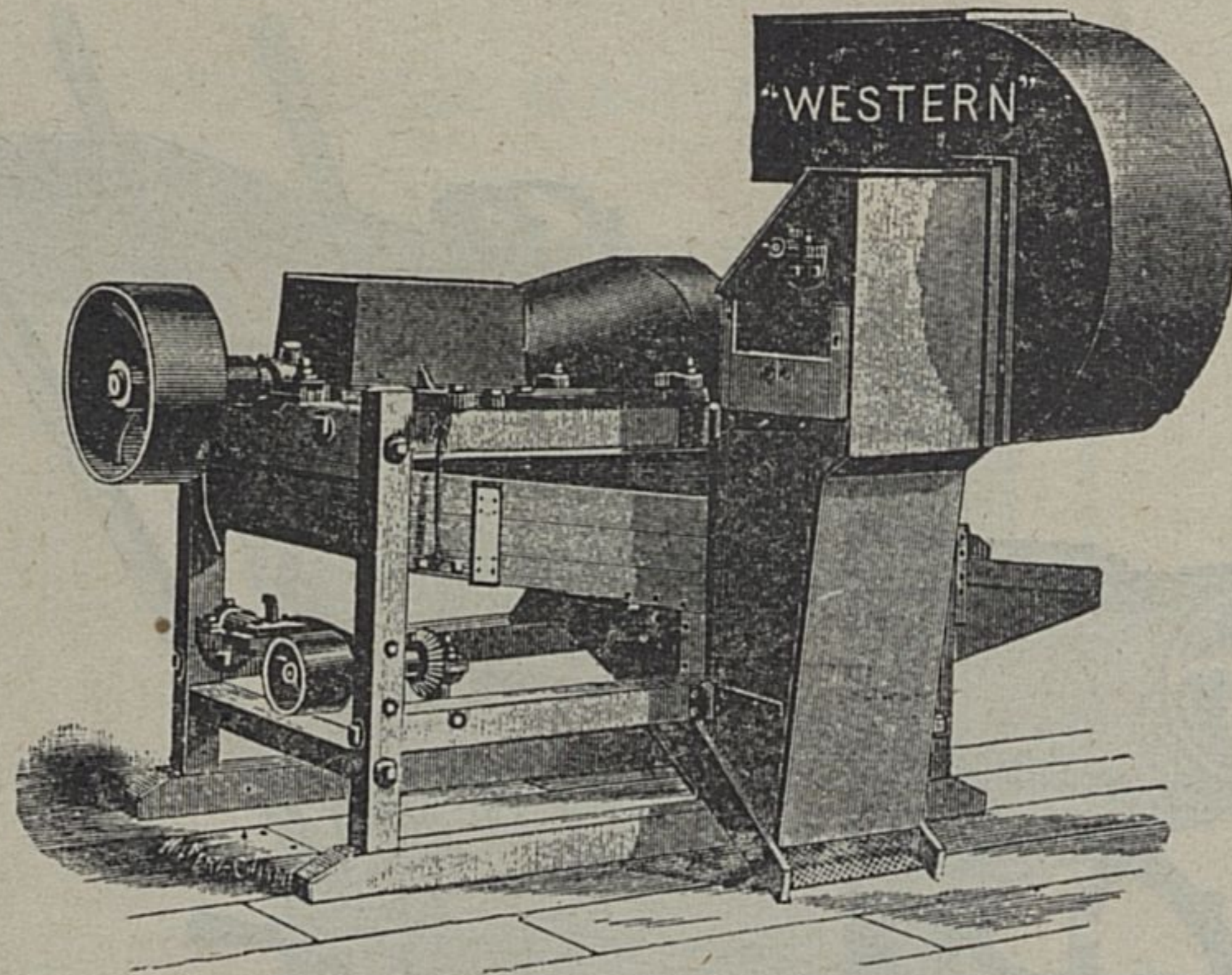
When not otherwise specified, we fit for power with band wheel 8 inches in diameter (4½ inch face) on balance-wheel shaft, and this band wheel should have from 350 to 450 revolutions per minute.

When so ordered, we furnish a band wheel 16½ inches in diameter, with face for 3-inch belt, on crank shaft of Sheller, which should have from 80 to 100 revolutions per minute.

PRICES.

With Table, Crank, and Fan.....	\$28 00
With Table, Crank, Fan, and Band Wheel	29 50

Shipping Weight, 260 lbs.



THE "WESTERN" WAREHOUSE COMBINED SHELLER

Is furnished without elevators, thus making a Combined Sheller and Cleaner for mills and elevators, where a sheller of smaller capacity is required. This machine is provided with a powerful suction fan, thereby keeping the room in which it is situated free from dust and dirt, as is not the case with blast fan machines. By depositing the dust on the outside of the building, we very greatly add to the comfort of owners and operatives, and the general appearance of the room in which the machine is situated.

DIMENSIONS, CAPACITY, AND PRICE.

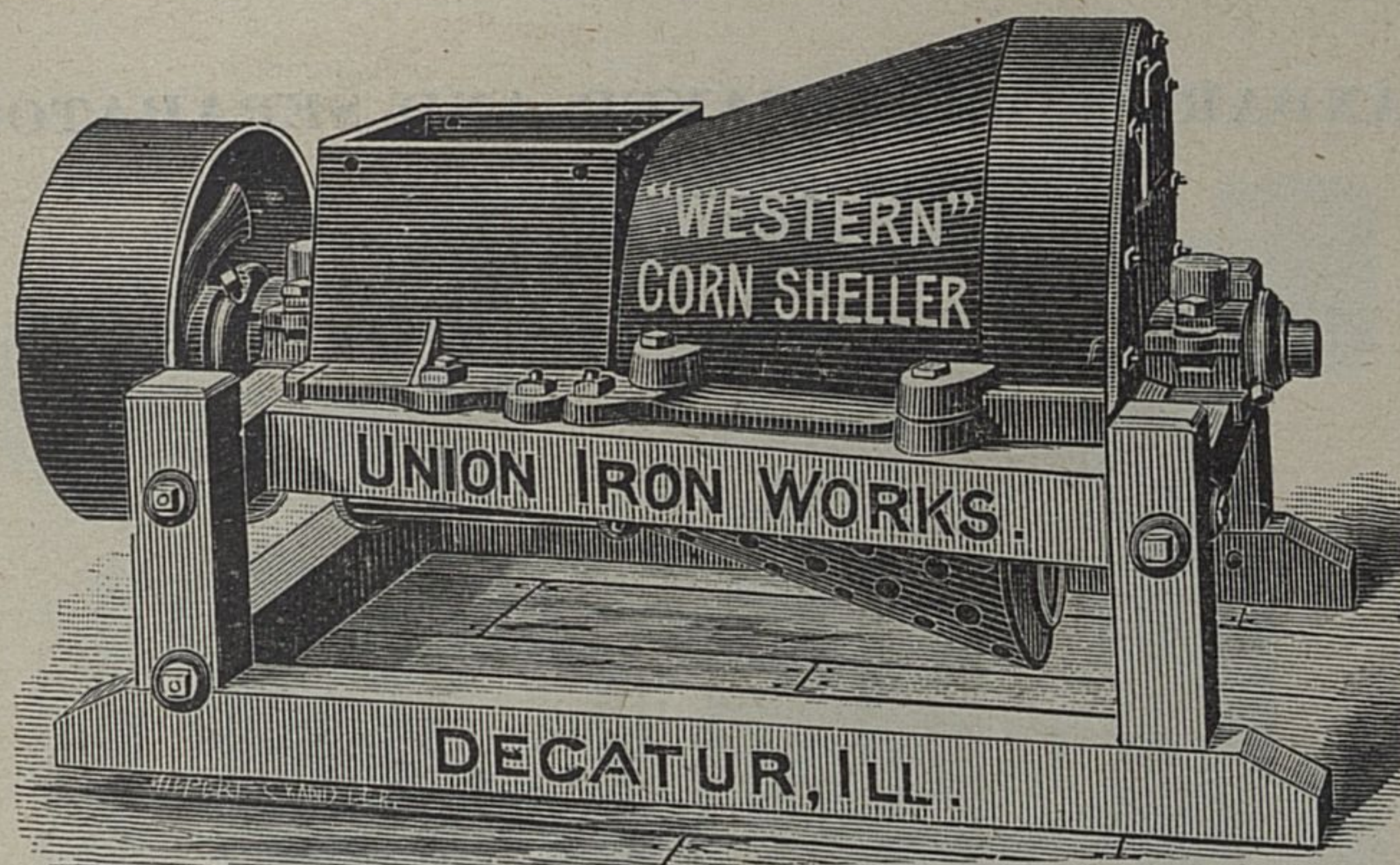
No.	Extreme Height over Fan.	Height of Hopper.	Space on Floor over all.	Size Pulley in Inches		Revolutions per Minute.	Capacity per Hour in Bushels.	PRICE.
				Diam.	Face			
3	5 ft. 10	4 ft. 4	8 ft. 0 x 5 ft. 4	20	6	500	250 to 350	\$ 250 00
4	5 ft. 5	3 ft. 8	7 ft. 9 x 4 ft. 10	16	6	500	200 to 250	225 00
4½	4 ft. 9	3 ft. 0	6 ft. 7 x 4 ft. 4	10	6	600	150 to 200	200 00
5	4 ft. 8	2 ft. 11	6 ft. 6 x 4 ft. 3	10	6	600	125 to 150	180 00

"WESTERN" MILL SHELLER.

In offering to the public the "WESTERN" MILL SHELLER, we do so feeling that we fill a long-felt want for a perfect machine of small capacity. It is *simple, strong, durable, self-feeding, dustless, easily adjusted* to suit different conditions of corn, can be *changed* to run in *either* direction by simply throwing one wheel out and another in gear. The hopper is *reversible*. Shells the corn *clean* from the cob and *cleans* it perfectly with a suction fan, is small (see dimensions), runs at low speed, requires but little power, and is, in every respect, the best *mill sheller* in the market.

Extreme height, 3 ft. 9 in. Space on floor, 4 ft. 4 in. x 26 in. Pulley, 8 x 5 in. Speed, 600. Weight, 600 lbs. Capacity, 60 to 75 bushels per hour.

Price... ..\$100.00.



“WESTERN” SEPARATE WAREHOUSE CORN SHELLER.

DIMENSIONS, CAPACITY, AND PRICE.

No.	Extreme Height.	Space on Floor over all.	Size Pulley in Inches.		Revolutions per Minute	Capacity per Hour in Bushels.	PRICE.
			Diam.	Face.			
0	3 ft. 1/2	7 ft. 6 x 3 ft. 10	26	12	360	1100 to 1400	\$ 235 00
1	2 ft. 3	6 ft. 8 x 3 ft. 2	24	10	475	900 to 1100	200 00
1 1/2	2 ft. 3	4 ft. 10 x 3 ft. 2	20	10	475	700 to 900	185 00
2	2 ft. 1 1/2	4 ft. 7 x 3 ft. 2	20	8	475	500 to 700	150 00
3	2 ft. 1 1/2	4 ft. 6 x 2 ft. 9	20	7	500	300 to 400	125 00
4	1 ft. 8	4 ft. 4 x 2 ft. 5	16	6	500	200 to 300	100 00
4 1/2	1 ft. 7	4 ft. 2 x 2 ft. 3	12	6	600	150 to 200	95 00
5	1 ft. 6	4 ft. 1 x 2 ft. 1	12	6	600	125 to 150	90 00

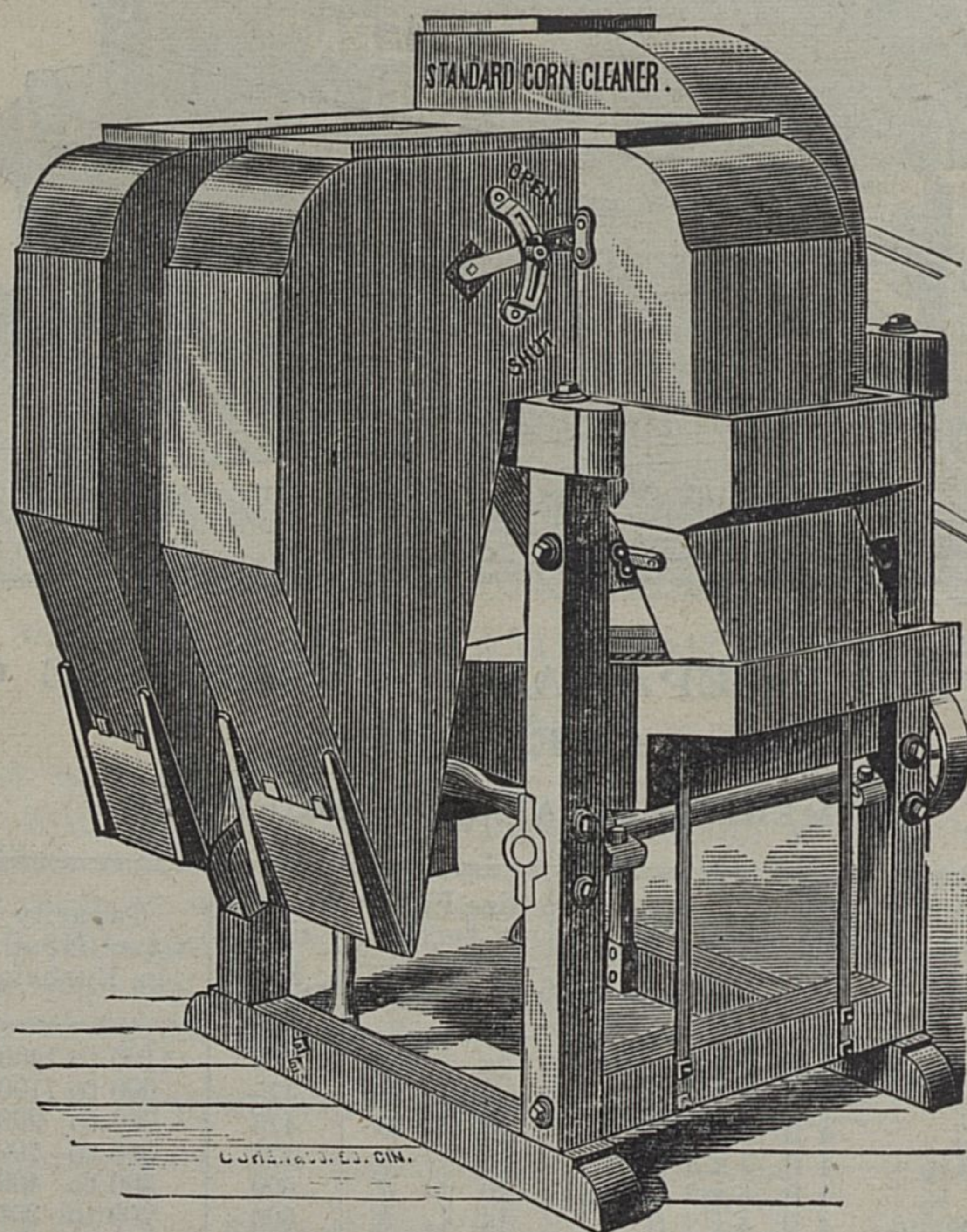
“WESTERN” CORN CLEANER.

DIMENSIONS, CAPACITY, AND PRICE.

For No.	Extreme Height	Space on Floor over all.	Size Wheel on Screen.	Revolutions per Minute.	Size Pulleys on Fan.		Revolutions per Minute	Capacity per Hour in Bushels	PRICE.
					Diam.	Face.			
0	5 ft. 8	15 ft. 6 x 5 ft. 0	30	22	6	6	475	1100 to 1400	\$ 250 00
1	5 ft. 8	14 ft. 4 x 5 ft. 0	30	22	6	6	475	900 to 1100	200 00
1 1/2	5 ft. 4	13 ft. 6 x 4 ft. 8	30	22	6	6	475	700 to 900	190 00
2	5 ft. 4	12 ft. 8 x 4 ft. 8	30	22	6	6	475	500 to 700	150 00
3	5 ft. 4	12 ft. 0 x 4 ft. 8	30	22	6	6	475	300 to 400	140 00
4	4 ft. 8	12 ft. 0 x 4 ft. 2	24	25	6	5	500	200 to 300	130 00
4 1/2	4 ft. 8	10 ft. 10 x 4 ft. 2	20	25	6	5	525	150 to 200	125 00
5	4 ft. 8	9 ft. 10 x 4 ft. 2	20	25	6	5	550	125 to 150	120 00

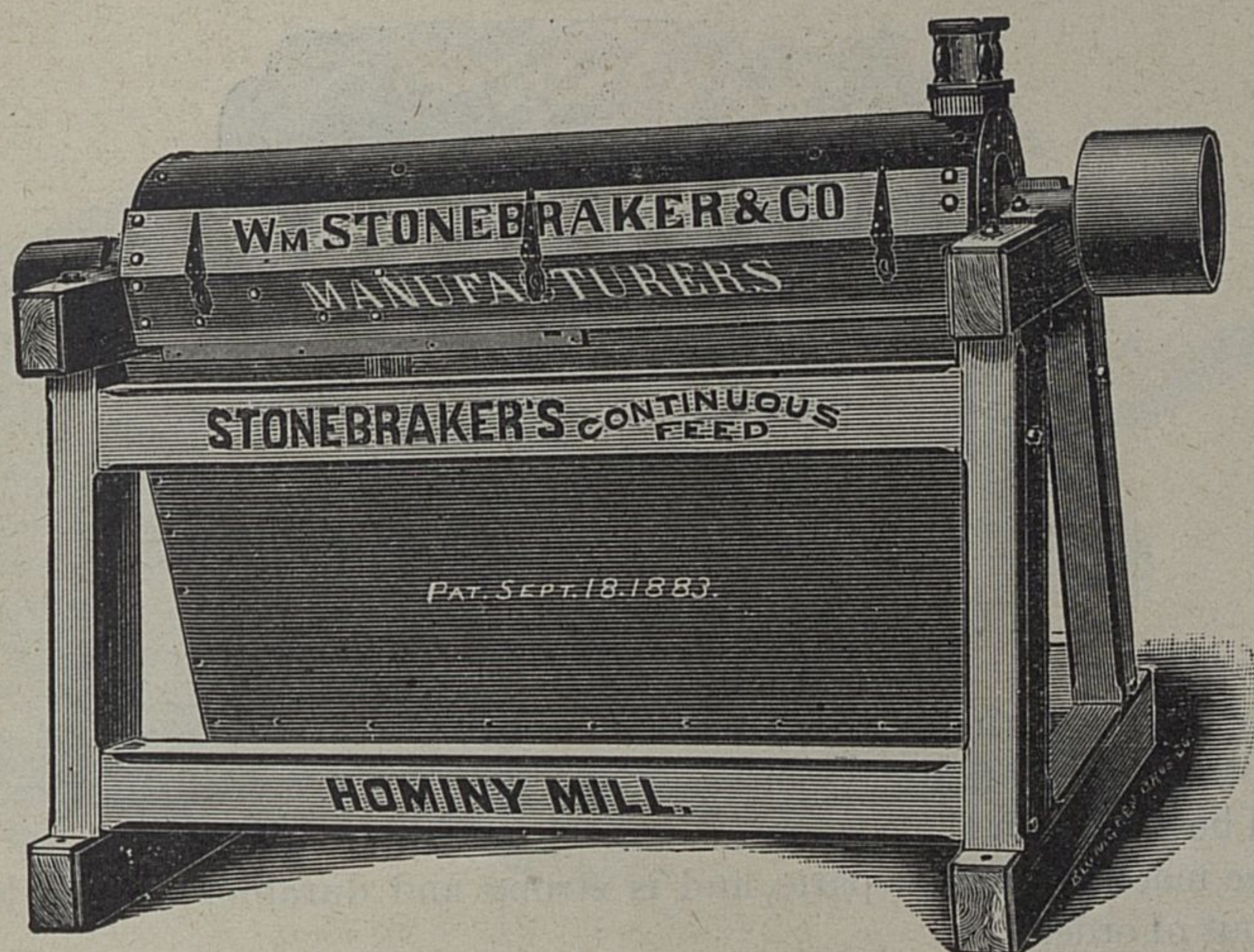
NOTE.— Full directions are sent with each machine, stating how it should be set and operated, and we urge a strict compliance with such directions in order to get the best results.

STANDARD CORN CLEANER AND SEPARATOR.



The corn can be led from any direction to hopper fitted to main trunk; flowing or feeding through hopper, it falls through first suck spout, where all light substances, such as chaff, straw, dust, etc., are removed, the dust and chaff being conveyed directly to fan and discharged to dust room, or from building, the heavy and valuable particles being dropped free from dust; from suck spout the corn falls in shoe; here, anything coarser than corn, such as sticks, straw, stones, nails, etc., are thrown off; passing through the upper screen, the corn is again spread out and flows over a large surface of sand or cockle screen; the cockle, sand, small seed, etc., being spouted away, the corn is led into last separating suck spout, when a most perfect separation can be obtained, the light and broken grain, etc., being carried over, as in first separation, and deposited free of dust, for low grade feed or other purposes.

NUMBER.	CAPACITY.	REVOLUTIONS.	PRICE.
1	25 to 30	500	\$ 75 00
2	50 to 60	500	100 00



**THE STONEBRAKER
CONTINUOUS FEED HOMINY MILL.**

DIMENSIONS AND NET PRICES.

No. of Mill.	Floor Space.	Height	Diam. of Cylinder.	Drive Pulley.	Revolutions of Shaft.	Capacity per hour. bushels.	Net Price.
1	4 ft. 6 in. x 7 ft. 6 in.	6 ft.	14 in.	10x8 in.	760 to 800	13 to 16	\$225 00
2	4 ft. 6 in. x 8 ft. 6 in.	6 ft.	14 in.	10x8 in.	760 to 800	18 to 25	250 00
3	3 ft. 10 in. x 6 ft. 4 in.	4 ft 6 in.	14 in.	10x8 in.	760 to 800	20 to 25	150 00
4	5 ft. 10 in. x 6 ft. 4 in.	4 ft. 6 in.	14 in.	10x8 in.	760 to 800	40 to 50	285 00

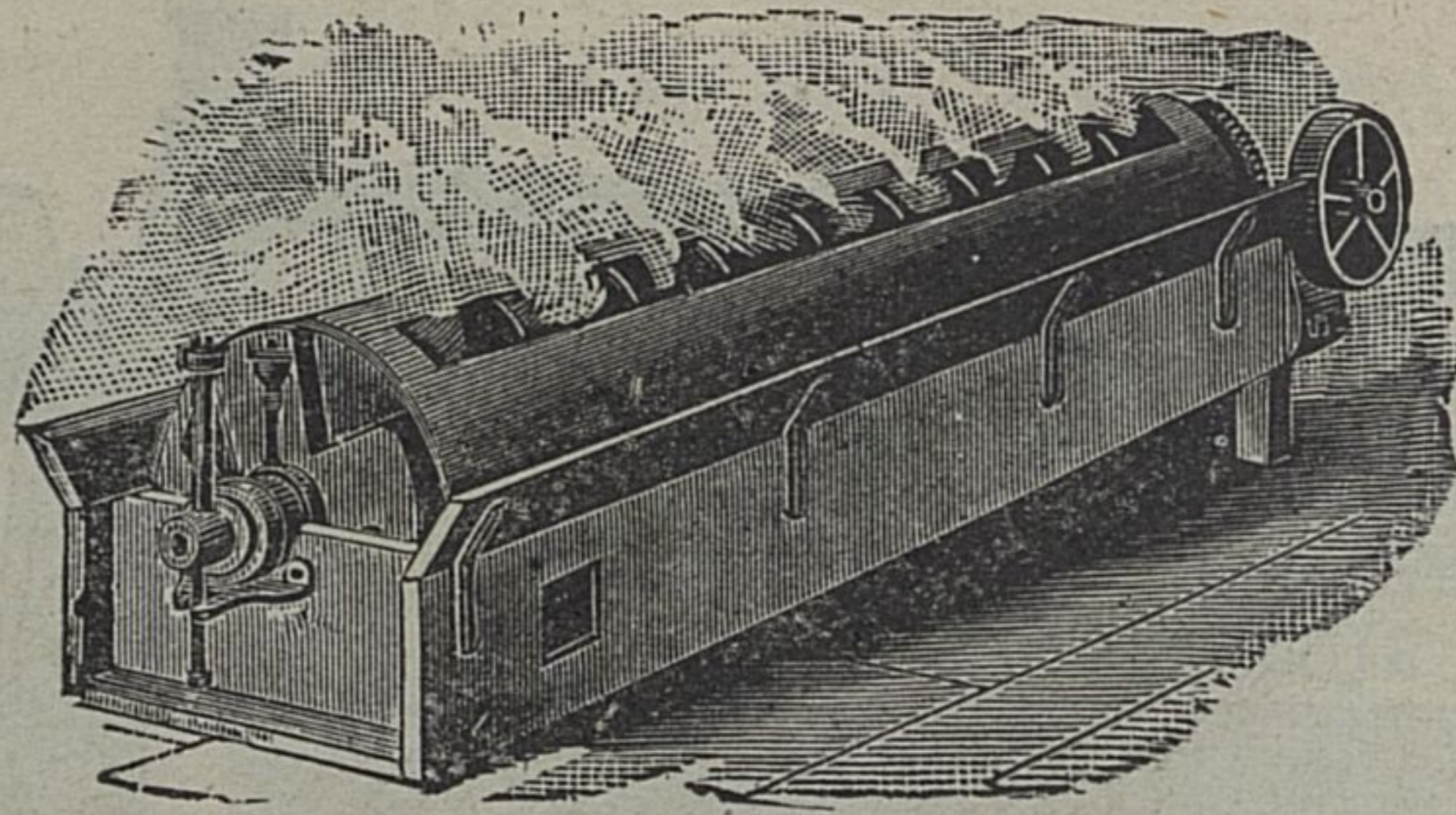
No. 1 Mill takes the corn from Sheller and finishes the hominy ready for market without the assistance of any other cleaning, separating or polishing machinery. This Mill makes three separations, gradings, hominy, blowings, and feed, and is continuous in its feed and discharge.

No. 2 makes four separations, separating the hull and chaff from the heart, and has greater capacity.

No. 3 acts as a Degerminator, and is used by millers who already have reels or other cleaning machinery.

No. 4 is a Double Cylinder Continuous Feed Mill, intended for and especially recommended to brewers, distillers, large millers, cerealine and flake hominy manufacturers, and those who make germless meal, grits, corn flour and hominy.

Full description of these machines sent on application.



CUTLER'S STEAM DRYER.

For drying corn meal, oat meal, hominy, grits, corn goods of every description, and all fine substances. Used and recommended by the largest and best mills in the country.

The machine has few parts, and is strong and durable, and not liable to get out of order.

The drying cylinder is made entirely of iron. It is automatic in its operation, requiring little or no attention; dries the most delicate substance thoroughly, without injuring the appearance or flavor.

Does not increase the fire risk. Furnished at low price. Cost of operating small.

The only Steam Dryer that has been in successful operation TWENTY YEARS.

The only Steam Dryer with steam pipes with solid ends.

The only Steam Dryer with steam pipes attached at one end only.

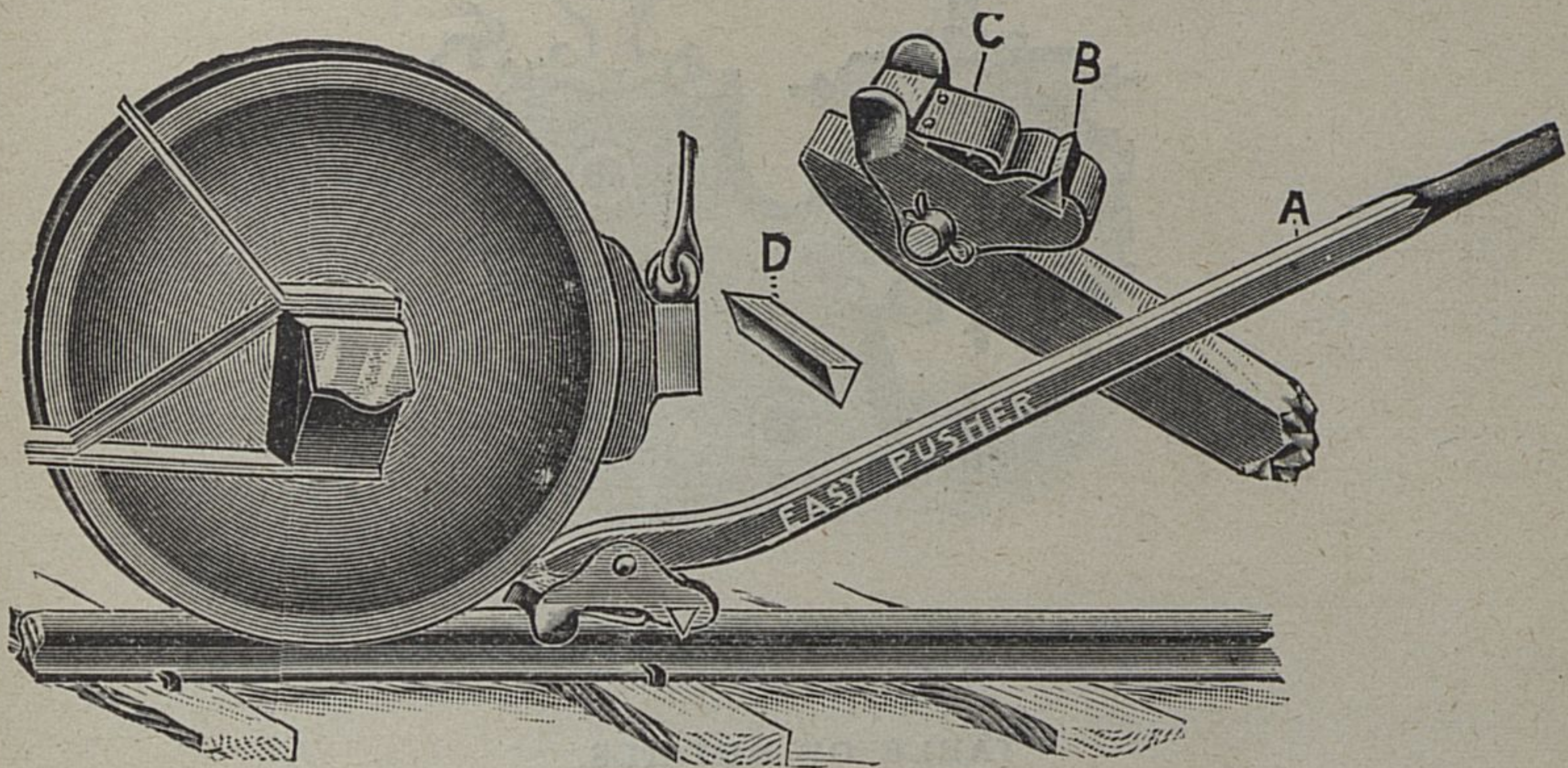
The only Steam Dryer with only one working steam-joint or stuffing box.

The only Steam Dryer in which every positive liability of leakage and damage from expansion and contraction of its parts is obviated.

The only Steam Dryer that has a system of positive circulation by which steam must move constantly through every pipe.

DIMENSIONS OF DRYER AND PRICE LIST.

No.	Length, feet.	Width, feet.	Height, feet.	Number of Pipes	Length of Pipes.	Capacity, Meal. Bu. per hour.	Size of Pulley, inches.	Speed of Pulley per minute.	Weight, lbs.	Diameter of Cylinder, inches.	Size of Supply Pipe.	Price.
0	12 $\frac{1}{6}$	1 $\frac{1}{2}$	2	10	10	15	20x2	65	1,000	12	$\frac{3}{4}$	\$175
1	12 $\frac{1}{3}$	2 $\frac{1}{3}$	2 $\frac{1}{3}$	16	10	25	20x3 $\frac{1}{2}$	75	1,200	16	$\frac{3}{4}$	250
2	14 $\frac{1}{4}$	2 $\frac{1}{2}$	3 $\frac{1}{3}$	34	12	50	24x4	85	2,100	22	$\frac{3}{4}$	425
3	14 $\frac{1}{2}$	3 $\frac{1}{3}$	4	52	12	80	30x5	80	4,000	32	1	700



THE EASY PUSHER

Is constructed of the very best material. The bar is steel and tempered at the point, so as not to wear. The "heel" is malleable and the triangular "bit" is made of the finest tool steel.

As shown in the cut the heel has lugs extending downward on both sides of the rail so as to hold it firmly in position and prevent it slipping sideways, and the triangular bit or steel marked "B" cuts into the rail when pressure is applied and prevents slipping backward, even though the rail is icy, greasy, or wet.

This bit can be inverted until the three points are dull, and then sharpened.

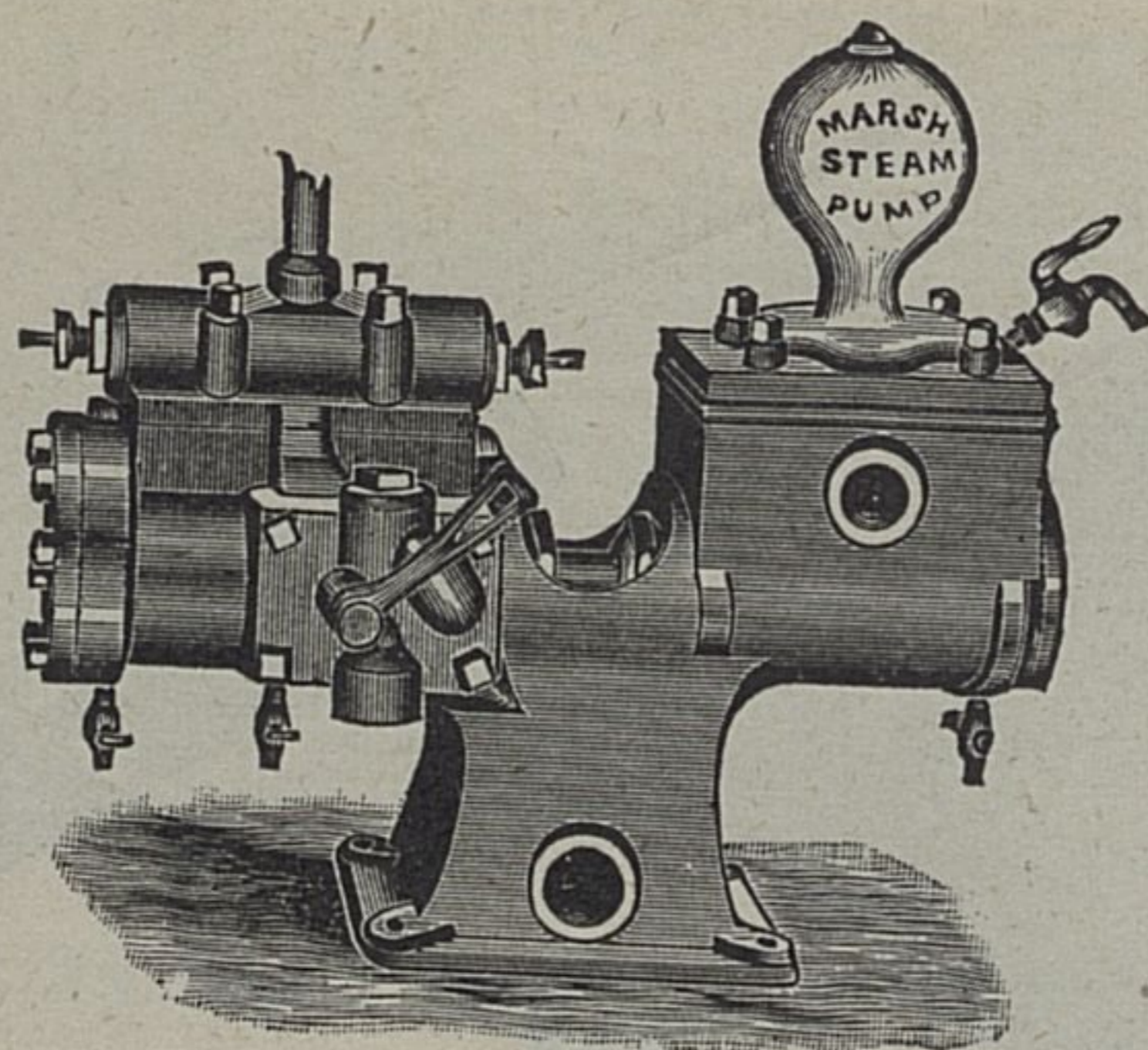
When the pressure is released the steel spring, marked "C," lifts the sharp steel bit from the rail, thus saving it from being dulled, by sliding over the rail when following the wheel.

Total weight of Pusher, 20 pounds. Length, 5½ feet.

Net price, \$5.00 each, F. O. B. cars factory.

One extra triangular steel sent with each complete Pusher.

Triangular Steels — Regular price 35 cents, 3 for \$1.00.



MARSH STEAM PUMP.

TABLE OF DETAILS.

NOTE—Capacity at ordinary speed. Measurement in inches.	BOILER FEED PUMPS.					
	B.	BB.	C.	D.	E.	F.
Diameter of Steam Cylinder	2½	3	4	5	5	6
Diameter of Water Cylinder	1¾	1¾	2¾	3	3	3⅝
Length of Stroke	2	2½	3	3½	6	8
Size of Steam Pipe	¼	⅜	⅜	½	½	¾
Size of Exhaust Pipe	⅜	½	½	¾	¾	1
Size of Suction Pipe	¾	1	1¼	1½	2	2
Size of Discharge Pipe	½	¾	¾	1	1¼	1½
Strokes per Minute	200-350	175-300	150-250	140-200	130-180	125-160
Gallons per Stroke .....	.015	.0208	.0702	.110925	.1836	.3574
Gallons per Minute	3.33	6.66	10.83	16.66	25	45
Gallons per Hour	200	400	650	1000	1500	2700
Maximum Horse Power Guaranteed ..	20	35	60	100	150	250
Floor Space, in inches	7x12	8x16	10x21	11x23	10x32	13x37
Weight	23 lb	50 lb	100 lb	140 lb	250 lb	350 lb
Price	\$30	\$50	\$75	\$100	\$150	\$200

NOTE.—We have one of these pumps in constant use in our works, and can fully recommend it.

STANDARD TUBULAR BOILERS.

WITH DOMES. FOR SINGLE SETTING.

DIMENSIONS.

Rated Horse Power....	15	20	25	30	35	40	45
Size of Boiler.....	36x8	36x10	36x12	40x12	42x12	46x12	48x12
Diameter of Tubes.....	3''	3''	3''	3''	3''	3''	3''
Estimate Number.....	15 L	20 L	25 L	30 L	35 L	40 L	45 L

PRICE LIST.

On board cars at factory.

Subject to change without notice.

Boiler, with Smoke Box Extension.....	\$124.00	\$141.00	\$158.00	\$185.00	\$205.00	\$227.00	\$261.00
Smoke Head Door and Saddle.....	4.50	4.50	4.50	5.50	6.00	7.00	8.00
Front, Class B.....	10.00	10.00	10.00	11.00	11.50	12.50	13.00
Grate Bars.....	5.50	6.00	6.50	10.00	10.50	11.50	12.00
Grate Bearing Bars....	1.25	2.25	2.25	2.25	3.25	3.25	4.00
Back Stand.....	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Back Arch Plate.....	1.50	1.50	1.50	1.75	1.75	1.75	1.75
Soot Pit Door and Frame	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Safety Valve.....	3.50	3.50	6.00	6.00	6.00	8.00	8.00
Steam Gauge.....	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Water Gauge and Cons.	3.00	3.00	3.00	3.00	3.00	4.00	4.00
Gauge Cocks.....	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Whistle and Pipe.....	4.00	4.00	4.00	4.00	4.00	5.00	5.00
Blow-off Cock.....	2.50	2.50	2.50	3.25	3.25	3.25	3.25
Check Valve.....	.60	.60	.75	.75	.75	1.25	1.25
Stop Valve.....	.65	.65	.90	.90	.90	1.30	1.30
Guy Rods.....	2.50	2.50	2.75	3.50	3.50	3.50	3.50
Smoke Stack & Damper	20.50	20.50	26.00	32.00	36.00	36.00	38.00
Above named Boiler and Fixtures.....	192.50	211.00	237.15	277.40	303.90	333.80	372.55

The above mentioned fixtures are all that are furnished.
Anything else ordered will be charged for extra.
See Catalogue for full description.

EXTRAS.

Steam, Exhaust and Feed Pipe.....	\$17.00	\$18.50	\$22.00	\$24.00	\$24.00	\$28.00	\$28.00
1 Foot Additional Stack and Guys....	1.00	1.00	1.00	1.10	1.25	1.25	1.25
Buck Stays and Bolts...	12.00	12.00	12.00	13.75	13.75	15.00	15.00

STANDARD TUBULAR BOILERS.

WITH DOMES. FOR SINGLE SETTING.

DIMENSIONS.

Rated Horse Power....	55	60	70	75	85	100	125
Size of Boiler.....	52x14	54x14	54x16	60x14	60x16	66x16	72x16
Diameter of Tubes.....	3½"	3½"	4"	3½"	4"	4"	4"
Estimate Number.....	55 M	60 M	70 N	75 M	85 N	100 N	125 N

PRICE LIST.

On board cars at factory.

Subject to change without notice.

Boiler, with Smoke Box Extension.....	\$320.00	\$352.00	\$400.00	\$431.00	\$475.00	\$578.00	\$693.00
Smoke Head Door and Saddle.....	9.00	10.00	10.00	12.00	12.00	13.00	15.00
Front, Class C.....	19.00	20.00	20.00	21.50	21.50	23.50	25.00
Grate Bars.....	13.00	13.50	15.00	17.00	18.00	23.00	27.00
Grate Bearing Bars.....	4.50	4.50	5.25	6.25	6.25	7.00	7.00
Back Arch Plates.....	2.25	2.25	2.25	2.75	2.75	3.25	3.75
Soot Pit Door and Frame	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Safety Valve.....	10.25	10.25	10.25	13.00	15.00	15.00	18.00
Steam Gauge.....	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Water Gauge and Cons.	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Gauge Cocks.....	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Whistle and Pipe.....	5.00	5.00	5.00	6.00	6.00	6.00	6.00
Blow-Off Cock.....	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Check Valve.....	1.55	1.55	1.55	1.55	1.55	1.55	1.55
Stop Valve.....	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Guy Rods.....	5.00	5.00	5.00	5.00	5.00	6.00	8.00
Smoke Stack & Damper	40.00	40.00	40.00	48.00	48.00	73.00	81.00
Above named Boiler and Fixtures.....	447.55	482.05	532.30	582.05	629.05	767.30	903.30

The above mentioned fixtures are all that are furnished.

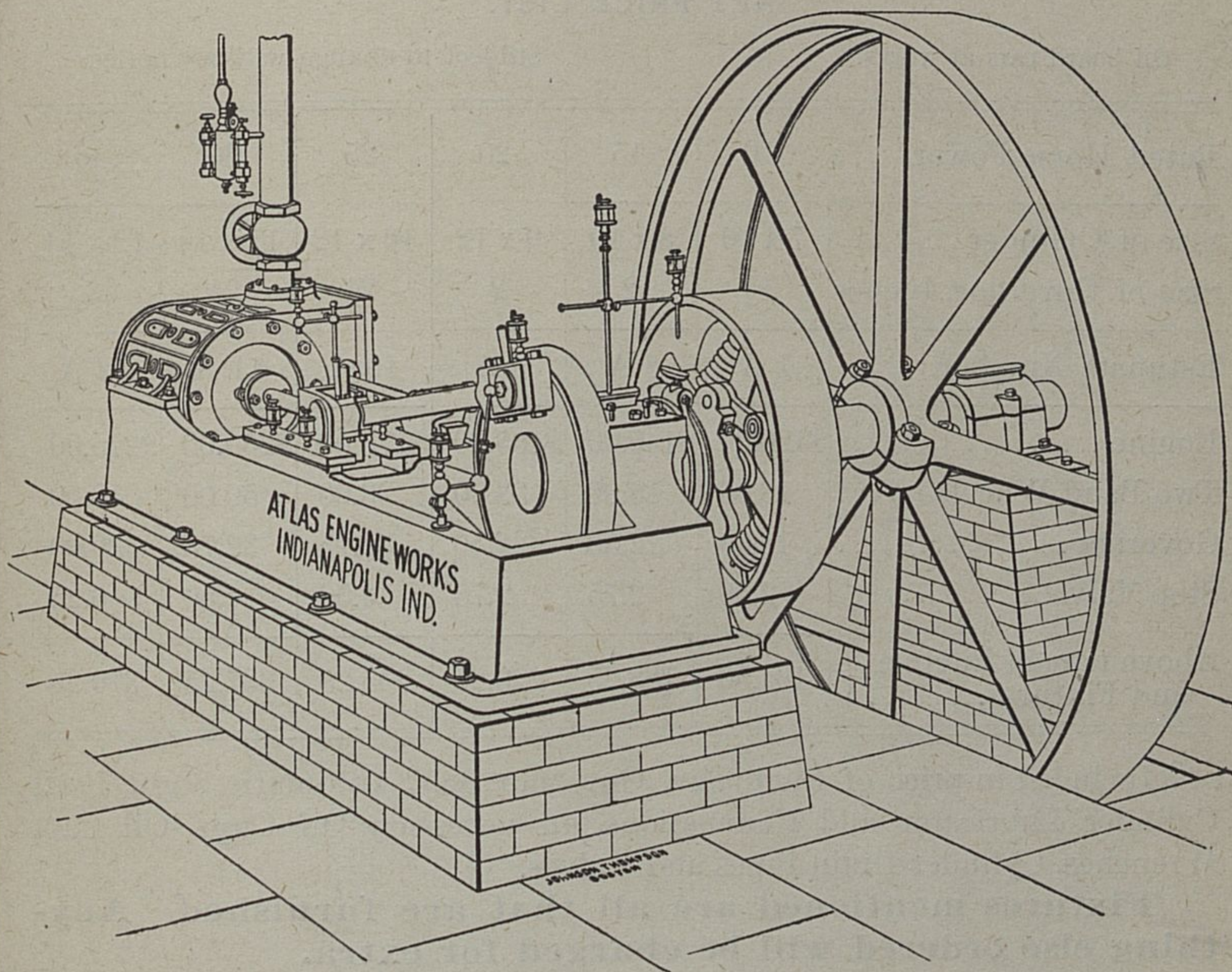
Anything else ordered will be charged for extra.

Six Wings are included in price of Boiler.

See Catalogue for full description.

EXTRAS.

Steam Exhaust and Feed Pipe.....	35.00	35.00	45.00	45.00	45.00	52.00	52.00
1 Foot Additional Stack and Guys....	1.35	1.35	1.35	1.50	1.50	2.00	3.00
Buck Stays and Binder Bolts.....	16.75	16.75	24.00	16.75	24.00	31.00	31.00



ATLAS ENGINES.

We have handled the Atlas Engine in our business for many years and can fully recommend it. For economy and durability we do not think it is excelled by any engine manufactured and sold at same price.

The prices given in the following pages are net cash F. O. B. at factory.

For prices on other styles send for special price list.

Prices are subject to change without notice.

PLAIN SELF-CONTAINED ENGINES.

CENTER CRANK

NET PRICE LIST.

On board cars at works.

Subject to change without notice

Rated Horse Power.....	10	15	20	25	30	40
Size of Cylinder.....	7 x 10	8 x 10	9 x 12	10 x 12	11 x 14	12 x 14
Size of Governor, Inches	1½	2	2	2½	2½	3
Estimate Number.....	7 A	8 A	9 A	10 A	11 A	12 A
Engine	\$126.00	\$145.00	\$165.00	\$175.00	\$250.00	\$275.00
Two Band Wheels	18.00	18.00	33.00	33.00	50.00	50.00
Governor.....	18.50	22.50	22.50	32.75	32.75	39.00
Stop Valve.....	2.00	2.75	2.75	4.50	4.50	6.25
Above named Engine and Fixtures.....	164.50	188.25	223.25	245.25	337.25	370.25

Included in price of Engine are Governor Belt, Automatic Sight Feed Cylinder Lubricator and Connections, all necessary Oil Cups, Oil Can, Wrenches, Cylinder Drain Pipes and Valves.

Fixtures mentioned are all that are furnished. Anything else ordered will be charged for extra.

Price of Engine does not include any Steam, Water and Exhaust Pipe, Foundation Bolts or Anchor Bars.

Motion, whether Over or Under, must be stated in order for Engine. See Catalogue for full description.

EXTRAS.

Rated Horse Power.....	10	15	20	25	30	40
Size of Injectors.....	No. 30	No. 30	No. 40	No. 40	No. 50	No. 60
Price of Two Injectors...	\$20.00	\$20.00	\$25.00	\$25.00	\$30.00	\$40.00
Sub-Base.....	35.00	35.00	50.00	50.00	67.00	67.00
Foundation Bolts & Bars	3.00	3.00	5.00	5.00	8.00	8.00
Link Motion.....	40.00	40.00	45.00	45.00	50.00	50.00
Ginning Band Wheel....	14.00	14.00	27.00	27.00	41.00	41.00
Ginning Pulley.....	4.00	4.00	6.00	6.00	9.00	9.00

AUTOMATIC SELF-CONTAINED ENGINES.

CENTER CRANK.

NET PRICE LIST.

On board cars at works.

Subject to change without notice.

Size of Cylinder.....	7 x 10	8 x 10	9 x 12	10 x 12	11 x 14	12 x 14
Estimate Number.....	7 B	8 B	9 B	10 B	11 B	12 B
Engine	\$260.00	\$285.00	\$335.00	\$360.00	\$435.00	\$515.00

Included in price of Engine are two Band Wheels, Stop Valve, Automatic Sight Feed Cylinder Lubricator and Connections, Bracket Wipe Oilers for Cross Head Pin and Crank Pin, Drip Oiler for Eccentric, and Special Oilers for Main Bearings, Valve Cross Head and Main Cross Head Guide Caps, Oil Can, Wrenches, Cylinder Drain Pipes and Valves.

Fixtuers mentioned are all that are furnished. Anything else ordered will be charged for extra.

Price of Engine does not include any Steam, Water and Exhaust Pipe, Foundation Bolts or Anchor Bars.

If Band Wheels or Stop Valve are not wanted, deduct for same at prices named in price list for Plain Self-Contained Engines.

Motion, whether Over or Under, must be stated in order for Engine.

EXTRA FINISHED ENGINES.—When special finish is wanted, the work will be done according to a standard now adopted, and charged for as per list below.

See Catalogue for full description.

EXTRAS.

Size of Cylinder.....	7 x 10	8 x 10	9 x 12	10 x 12	11 x 14	12 x 14
Extra Finish.....	\$30.00	\$30.00	\$30.00	\$30.00	\$40.00	\$40.00
Size of Injectors.....	No. 40	No. 40	No. 50	No. 60	No. 70	No. 80
Price of Two Injectors..	\$25.00	\$25.00	\$30.00	\$40.00	\$45.00	\$55.00
Sub-Base	35.00	35.00	50.00	50.00	67.00	67.00
Foundation Bolts & Bars	3.00	3.00	5.00	5.00	8.00	8.00

TABLE OF "CLASS A" GIRDER ENGINES.

BUCKEYE AUTOMATIC.

Size.		Revolutions per Minute.	HORSE POWER AT 80 TO 90 LBS. BOILER PRESSURE.			NET PRICE.
Bore in Inches.	Stroke in Inches.		Standard Rating, 40 lbs M. E. P	Economical Range of Power, 30 to 50 lbs M. E. P.	Maximum Rating, 60 lbs. M. E. P.	
10	18	170	48 H. P.	36 to 60 H. P.	72 H. P.	\$1000
11	20	160	61 "	45 " 76 "	91 "	1050
12	22	145	73 "	55 " 90 "	110 "	1200
13	20	155	83 "	62 " 104 "	124 "	.....
13	24	130	84 "	63 " 105 "	125 "	1400
14 $\frac{1}{4}$	26	125	105 "	78 " 130 "	157 "	1625
15 $\frac{1}{4}$	24	130	115 "	86 " 144 "	172 "	.....
15 $\frac{1}{4}$	28	115	118 "	88 " 147 "	177 "	1800
16 $\frac{1}{2}$	30	110	142 "	106 " 177 "	213 "	2025
17 $\frac{1}{2}$	32	105	163 "	122 " 204 "	244 "	2275
20	36	100	228 "	170 " 285 "	342 "	2975
22	40	95	290 "	217 " 362 "	435 "	3700
24	44	90	360 "	270 " 450 "	540 "	4875
26 $\frac{1}{2}$	48	85	455 "	340 " 570 "	680 "	6225
28 $\frac{1}{2}$	52	80	536 "	400 " 670 "	804 "	7775
31	56	75	640 "	480 " 800 "	960 "	9375
33	56	75	726 "	540 " 900 "	1087 "	9725

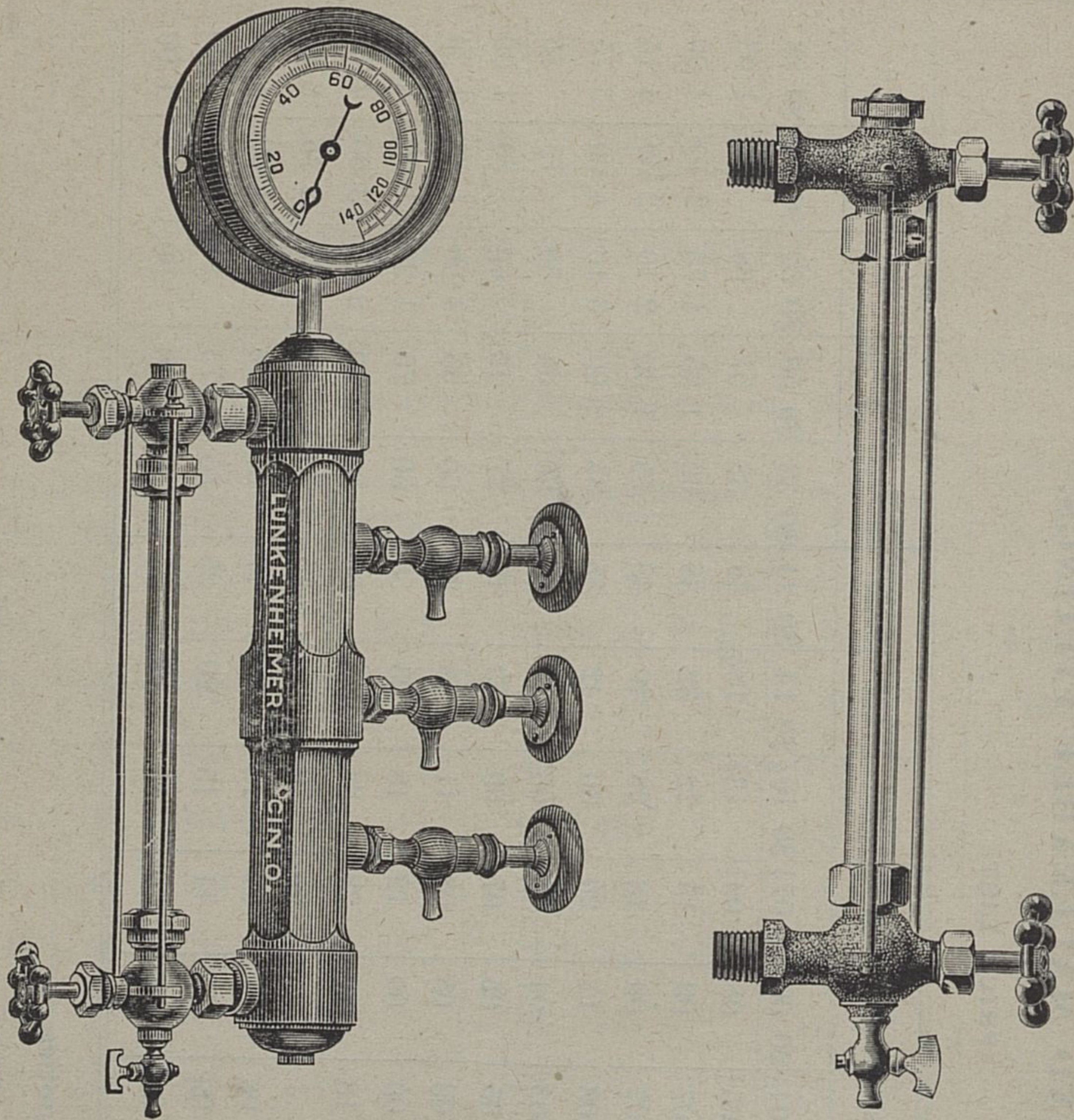
IRON PIPE AND MALLEABLE FITTINGS.

PRICE LIST.

SIZE.	INCHES,	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Iron Pipe, black.....per ft.,	\$0	04	\$0	04	\$0	04 1/2	\$0	06	\$0	07 1/2	\$0	10 1/2	\$0	14
Iron Pipe, gal.....	"	05	05	05 1/2	08	09 1/2	13 1/2	18 1/2	28	38	57	68	88	1 03
Elbows, R. H.....each,	"	05	05	07	09	15	22	32	38	60	1 25	1 75	2 10	4 00
Tees.....	"	05	05	07	09	18	28	40	48	75	1 40	2 10	2 50	4 15
Crosses.....	"	....	06	08	11	20	30	42	55	85	2 00	3 10	4 00	5 75
Plugs.....	"	....	03	03	04	05	06	13	13	20	35	50	75	85
Bushings.....	"	....	....	05	06	07	09	13	17	27	42	60	80	1 00
Caps.....	"	....	03	03	05	08	11	15	22	30	65	1 00	1 10	1 30
Reducers.....	"	....	....	06	09	12	18	25	36	50	75	1 20	1 50	2 00
Unions.....	"	....	15	18	20	28	34	46	60	80	1 50	2 10	3 00	4 00
Flange Unions.....	"	....	..	....	....	65	70	85	1 15	1 50	1 75	2 25	2 75	3 15
Nipples, short.....	"	05	05	06	07	09	10	14	17	25	56	75	1 00	1 25
Nipples, long.....	"	07	07	09	10	11	15	20	25	35	75	95	1 25	1 60
Couplings.....	"	05	05	06	07	10	13	17	21	28	40	60	80	1 00

Prices of pipe subject to change without notice.

Prices of Cast Iron Fittings and Malleable Fittings not listed, sent on application.



WATER GAUGES.

3 Rod, Part Finished, Bronzed Body,	$\frac{1}{2}$ glass,	$\frac{3}{8}$ in. pipe.....	\$ 3 50
3 " " " " " "	" " " " " "	" " " " " ".....	4 00
3 " All " " " " "	" " " " " "	" " " " " ".....	5 00
3 " Part " Bronzed Body,	" " " " " "	" " " " " ".....	8 50
3 " All " " " " "	" " " " " "	" " " " " ".....	10 00
No. 1 Combination: Round Iron Column, Tapped $\frac{1}{2}$ -in. Pipe, 11 inches from centres, furnished with one 3-rod Part Finished Gauge, $\frac{5}{8}$ x $9\frac{3}{8}$ Glass, three $\frac{3}{8}$ Regrinding Comp. Gauge Cocks and two Brass Unions.....			
			13 50
No. 2 Combination: Fluted Iron Column, Tapped $\frac{1}{2}$ -in. Pipe, 13 inches from centres, furnished with one 3-rod Part Finished Gauge, $\frac{5}{8}$ x $11\frac{3}{8}$ Glass, three $\frac{3}{8}$ Regrinding Comp. Gauge Cocks and two Brass Unions.....			
			15 00

STEAM GAUGES.

$3\frac{1}{2}$ inch Deal, Iron Case, each.....	\$ 8 00
5 " " " " " ".....	12 00
6 " " " " " ".....	15 00
8 " " " " " ".....	25 00

SIGHT FEED LUBRICATOR.

Superior in quality and finish, substantial and well proportioned, and suitable for first-class engines. Full directions are sent with every cup. Shanks of $\frac{1}{8}$ and $\frac{1}{2}$ Pint Seniors are threaded for $\frac{3}{8}$ inch pipe. Every cup warranted.

PRICE LIST.

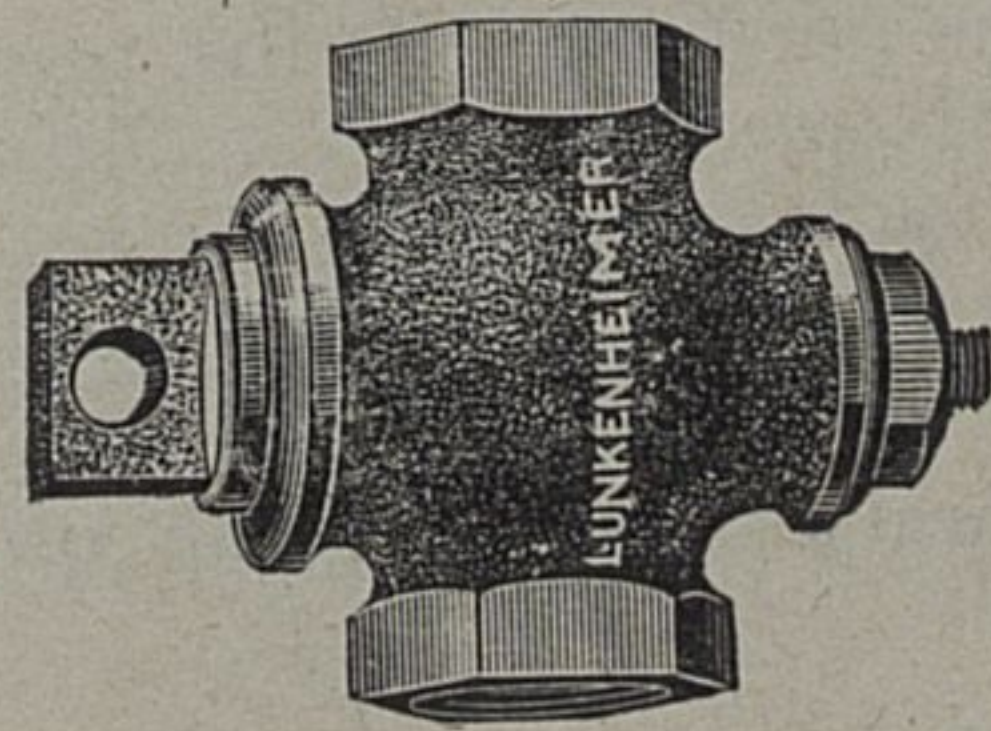
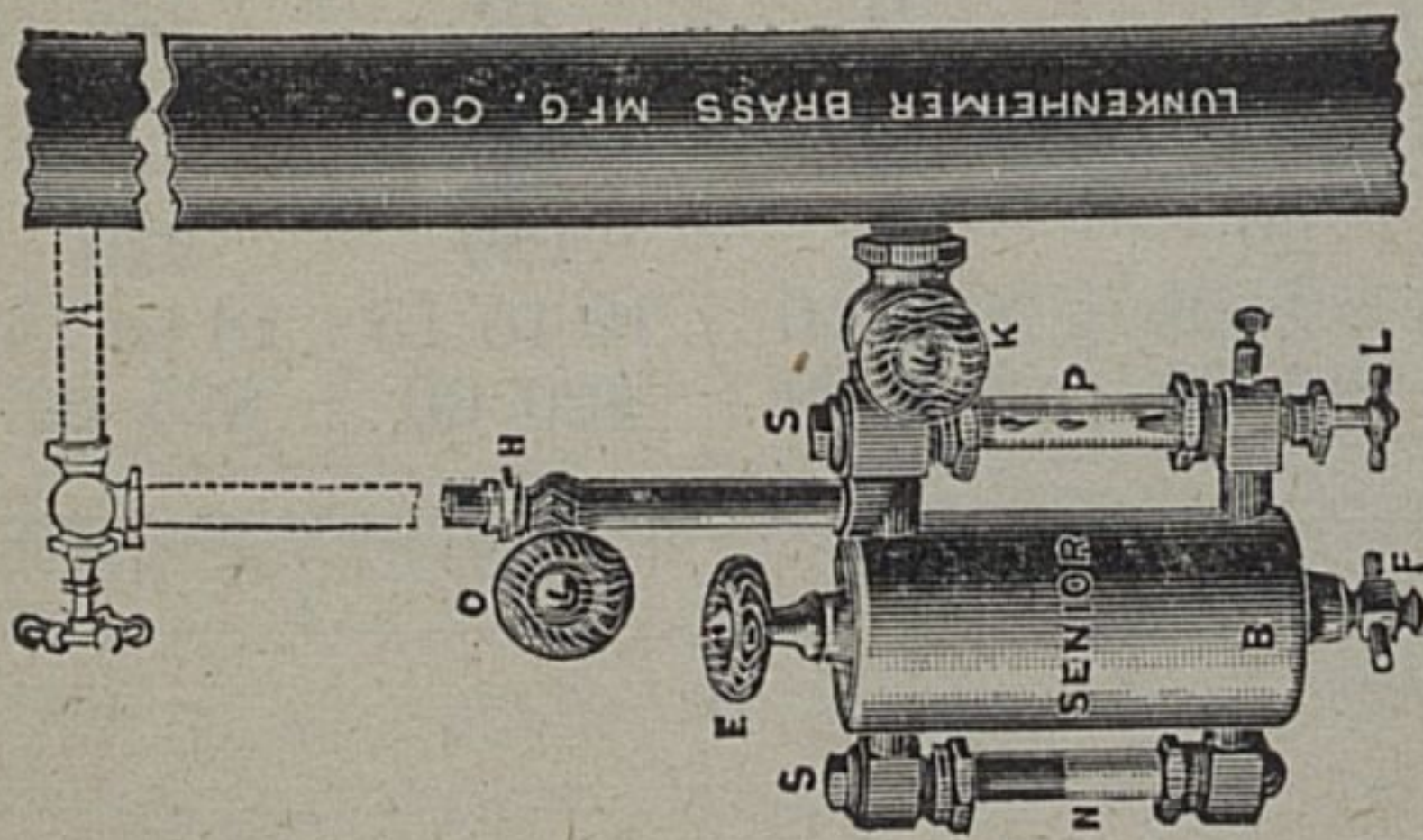
Size	$\frac{1}{8}$ Pt.	$\frac{1}{2}$ Pt.	$\frac{3}{4}$ Pt.	1 Pt.	1 $\frac{1}{2}$ Pt.	1 Qt.	$\frac{1}{2}$ Gal.	1 Gal.
Finished Brass.....each	\$15.00	\$17.00	\$20.00	\$22.00	\$25.00	\$28.00	\$38.00	\$60.00
Nickel Plated.....each	17.00	19.00	22.50	25.00	28.50	32.00	43.00	65.00

STEAM COCK.

Made of the best steam metal, well ground in, and warranted to be the best in the market. Where a cock of superior quality is wanted, we recommend its use.

PRICE LIST.

Size.....inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Flat or Square H'd, Medium	\$0.70	\$0.70	\$0.75	\$1.10	\$1.50	\$3.75	\$4.80	\$7.25	\$14.00	\$20.00	\$36.00	\$50.00
Flat or Square H'd, Heavy..	.....	.80	.95	1.30	1.90	4.50	5.75	9.00	17.00	25.00	.....	.....





CODY OILER.

A reliable air-tight oil-cup for shafting. It is provided with a set-screw to regulate feed. One filling will last for months. It is also made with wood shank and loose wire feed.

PRICE LIST.

	No. 1.	No. 2.	No. 3.
Diameter inches,	1 $\frac{3}{4}$	2	2 $\frac{1}{2}$
Price, each	\$0 50	\$0 55	\$0 60
Extra Glasses	10	10	10

Shanks are threaded $\frac{3}{8}$ inch on point, 16 threads to the inch.

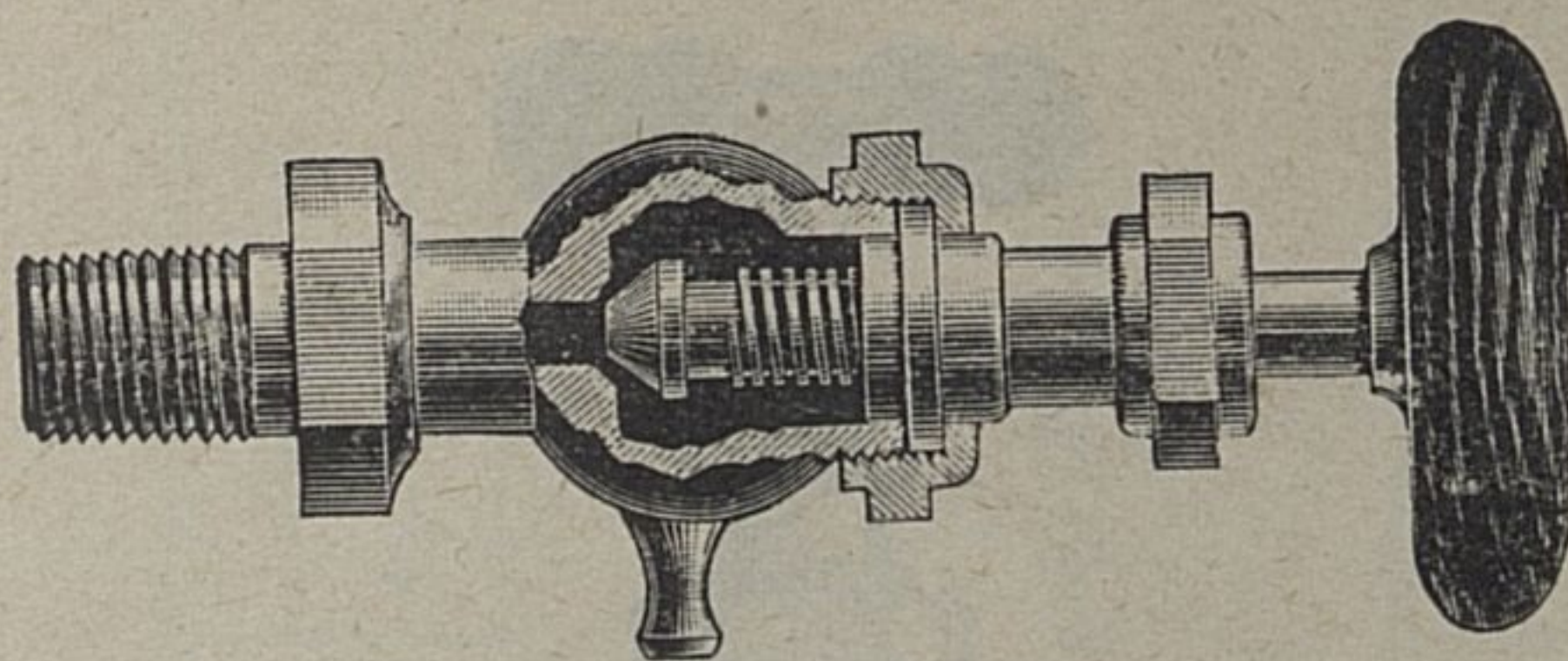
STEAM JET PUMP.

Size of Pump.	Suction Pipe.	Discharge Pipe	Steam Pipe.	Capacity, Gallons per minute	Price, Brass Jets.
$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	8 to 10	\$ 8 00
1	1	1	$\frac{1}{2}$	12 to 15	10 00
1 $\frac{1}{4}$	1 $\frac{1}{4}$	1 $\frac{1}{4}$	$\frac{1}{2}$	15 to 20	12 00
1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	$\frac{3}{4}$	25 to 30	15 00
2	2	2	$\frac{3}{4}$	30 to 40	Iron, B. Mounted, } \$18 00

HANCOCK INSPIRATORS.

No. of Inspirator	7 $\frac{1}{2}$	8 $\frac{3}{4}$	10	12 $\frac{1}{2}$
Size, Suction and Feed Connections	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
Size, Steam Connections	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$
Gallons per hour — 60 lbs. pressure	60	85	120	220
Horse Power	6 to 8	8 to 10	10 to 15	18 to 25
Price, each	\$16 00	\$18 00	\$20 00	\$25 00

Larger sizes quoted on application.

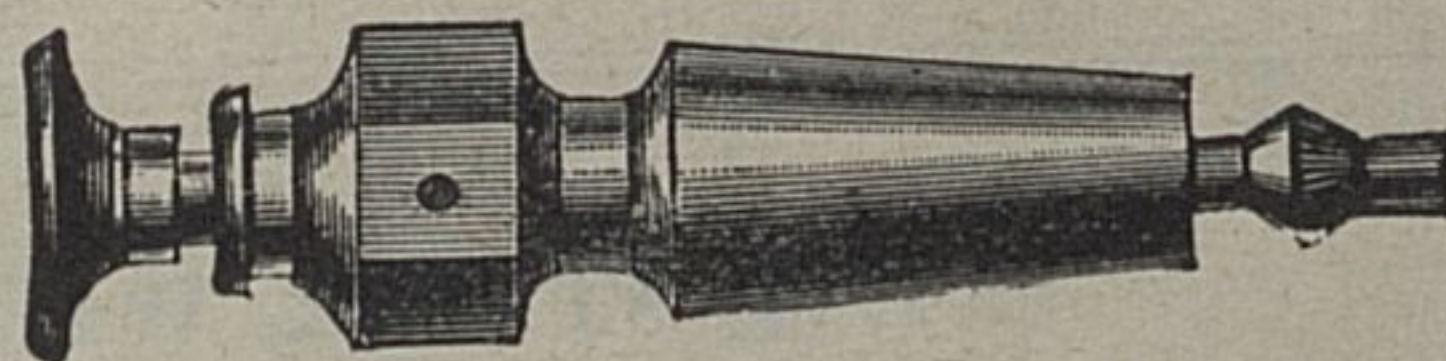


REGRINDING GAUGE COCK.

COMPRESSION GAUGE COCKS.

PRICE LIST.

Number	0	1	2
Size Blank Shank.....inches	$\frac{5}{8}$	$\frac{3}{4}$	1
Cut for Pipe Thread.....inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Patent Regrinding Compression Gauge Cocks	\$1 05	\$1 30	\$2 20
Wood or Iron Handle Soft Seat Compression Gauge Cocks.....}	80	90	1 00
Wood or Iron Handle Soft Seat Compression Gauge Cock, with Stuffing Box.. }	1 10	1 20	1 30



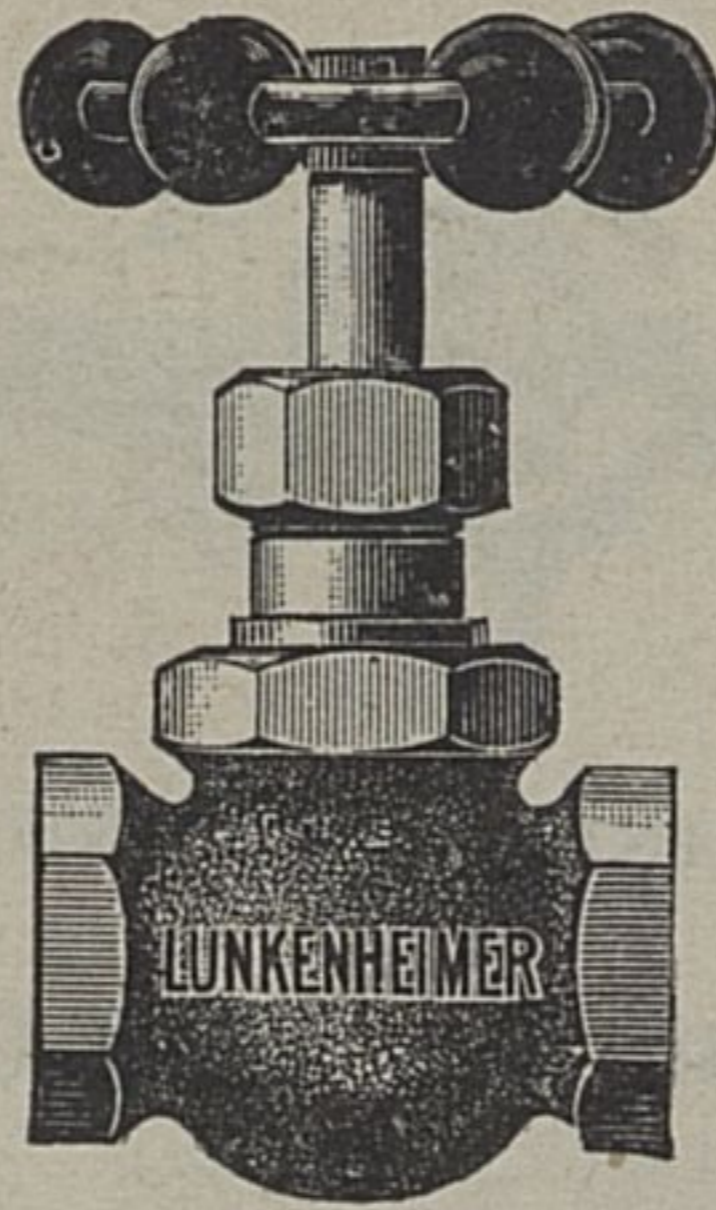
MISSISSIPPI GAUGE COCK.

PRICE LIST.

Number.....	1	2	3	4
Size Blank Shank.....inches	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
Cut for Pipe Thread.....inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
Price	\$0 75	\$1 00	\$1 25	\$1 50

GONG BELLS.

Diameter, inches	4	5	6	7	8	10	12	13
Price	\$2 75	\$3 25	\$3 90	\$5 00	\$6 00	\$8 00	\$14 00	\$20 00

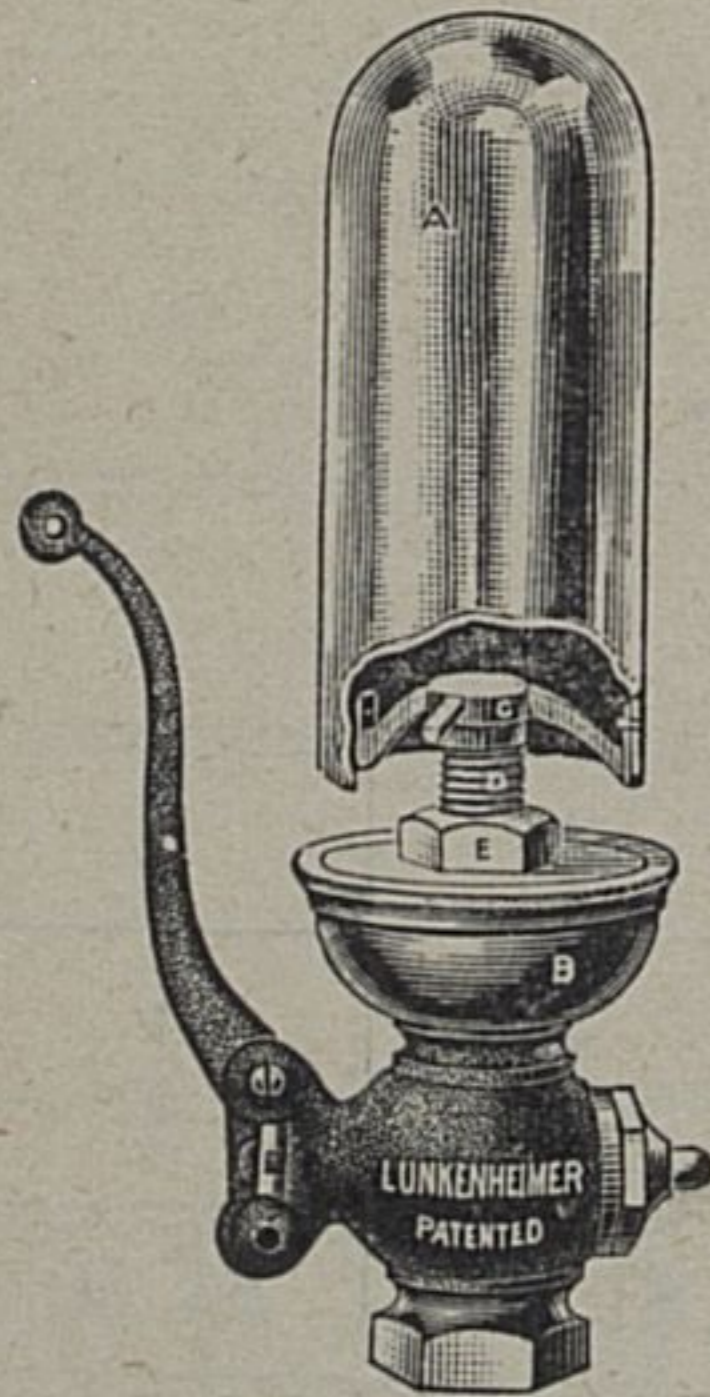


**PATENT
RE-GRINDING GLOBE AND ANGLE VALVES.**

Heavy, substantial valves of a superior quality, made from a special steam composition. When worn in the seat, they can be re-ground, thus making them as good as new. They are extensively used on government work, steamboats, locomotives, in rolling mills, refineries, and the U. S. Navy on cruisers.

PRICE LIST.

Size.....inches,	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Each.....	70	70	85	1.15	1.45	2.00	2.80	3.90	6.20	12 00	16.50



NEW STYLE WHISTLE.

The bell is dome shaped at its upper end, and at its lower securely supported by a three-armed spider, the stem of which is adjustably screwed into the whistle base and fastened by a jam nut. Owing to this construction the lower edge of the bell is always exactly in line with the slot in the base through which the steam escapes, therefore insuring best results and a perfectly clear and loud tone. The bell is raised or lowered, to suit the steam pressure, by screwing it up or down, and when properly set is fastened by a jam nut.

PRICE LIST.

Diameter....in	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10
Pipe Thread, in	1/4	1/4	3/8	1/2	3/4	3/4	1	1 1/4	1 1/2	1 1/2	2	2 1/2
Each	3.50	3.75	4.00	4.75	6.50	8.00	11 00	14 00	22 00	30.00	80 00	175.00

Bells on long bell whistles are about three times the diameter. Prices on application.

GATE VALVE.

Heavy pattern and best material and the discs provided with a ball joint. They are thoroughly tested and guaranteed, and are more particularly intended for high pressures, from 75 to 150 pounds.

PRICE LIST.—BRASS.

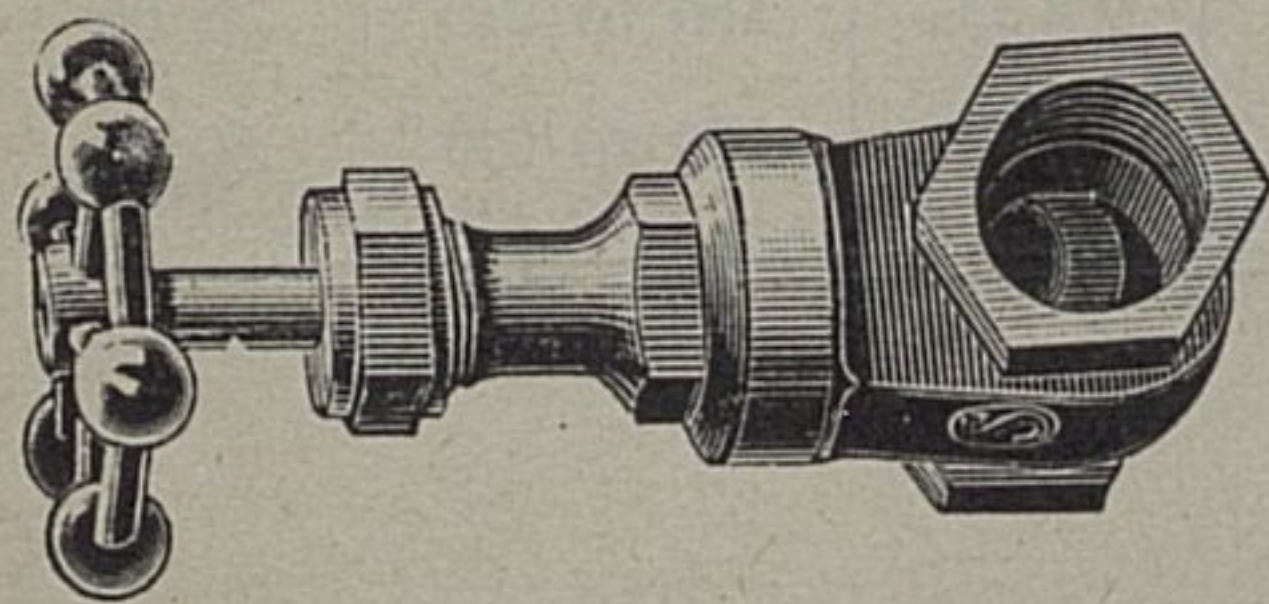
Size.....	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Each.....	\$1 00	\$1 00	\$1 20	\$1 75	\$2 50	\$3 50	\$5 00	\$7 50	\$14 00	\$19 50

THE "LUNKEN" GATE VALVE.

This is a new and superior valve. It has a straight, full, unobstructed passage and is provided with a renewable seat and disk.

PRICE LIST.

Size.....	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
BRASS—Screw Ends.....each	\$1 20	\$1 25	\$1 40	\$1 80	\$2 50	\$3 50	\$5 00	\$7 50	\$14 00	\$20 00
Renewable Seats and Seat Wrenches.....each	08	10	12	16	22	30	40	50	75	1 00
Distance, End to End.....inches	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	$2\frac{1}{8}$	$2\frac{3}{8}$	$2\frac{5}{8}$	$2\frac{7}{8}$	$3\frac{3}{4}$	4



THE WOODWARD FRICTION WATER WHEEL GOVERNOR.

The Woodward Governor is a quick working governor and will operate the gate in one-third the time usually required by a pawl governor, as the motion is constant and not intermittent. A slow working governor will allow as much variation for a time as if no governor was attached, and, if heavy machinery is constantly being thrown off and on, the speed will be wrong the larger part of the time.

The Woodward Governor acts on the smallest variation in speed and will give satisfactory results with the most sensitive machinery.

It is as simple as a water wheel governor can be made without sacrifice of desirable features, and has no pawls, ratchets or levers to get out of order.

The friction surfaces are thoroughly protected from oil and dirt, and will run for years without attention.

It is convenient to attach on account of the small space required and the adjustable pulley arm, and can be placed in positions where it would be extremely difficult, if not impossible, to connect any other.

It has a convenient speeder, allowing the speed to be changed at any time without trouble.

It can be depended on to do its duty under all circumstances without the services of a skilled mechanic to keep it in order.

DIMENSIONS AND PRICES.

No.	To regulate wheels about	Height, Inches.	Length	Width.	Weight.	Shipping weight about	Driving Pulley.	Speed.	Price.
1	50 in. and over	32	32	17	240	340	10 x 2½	116 to 130	\$125 00
2	25 in. to 50 in.	30	30	14	160	250	8 x 2	120 to 135	100 00
3	15 in. to 25 in.	24	24	11	105	160	6 x 1½	180 to 215	75 00
4	15 in. and under	20	18	8	60	90	6 x 1¼	200 to 240	50 00

JAMES LEFFEL WATER WHEELS.

It is not necessary to describe these wheels, they having been manufactured and used for thirty years.

Special circulars describing the new SAMSON wheel will be sent on application.

NEW PRICE LIST.

These prices are for wheels under ordinary heads. The larger ones being adapted in weight and strength to heads ranging from 6 to 16 feet. The medium sizes to heads of 14 to 30 feet, and the small ones to head pressures of 25 to 50 feet. Under lower heads the wheels may be made of less weight and strength. If higher heads are used, the wheels should be made stronger at additional expense.

In all instances where the conditions of power, pressure, and kind of work are unusual, we should be consulted and permitted to build the wheel of such strength, and change in design, as we think best suited to the situation.

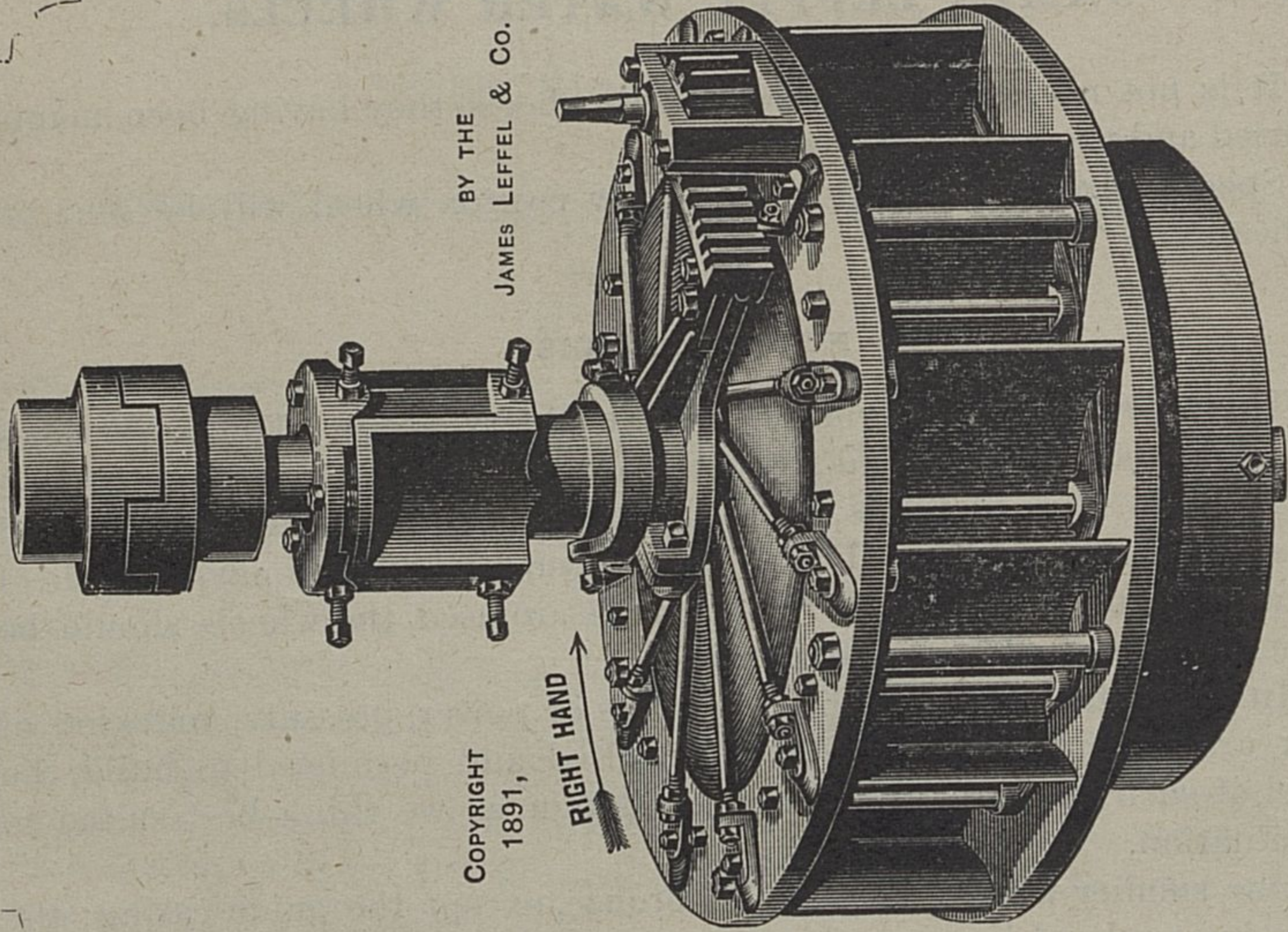
Our smaller wheels are made of bronze, except the guide casing; the gates are made of iron, steel, or bronze, as we may deem best suited to each case. The larger sizes are frequently made with steel gates, for high heads and great strength and power.

SAMSONS.		SPECIALS.		STANDARDS.		GLOBE CASES.	
Size.	Price.	Size	Price.	Size.	Price.	Size.	Price.
20	\$ 250	23	\$ 235	8 $\frac{3}{4}$	\$ 135	8 $\frac{3}{4}$	\$ 80
23	270	26 $\frac{1}{2}$	275	10	140	10	85
26	310	30 $\frac{1}{2}$	315	11 $\frac{1}{2}$	145	11 $\frac{1}{2}$	90
30	370	35	350	13 $\frac{1}{4}$	150	13 $\frac{1}{4}$	100
35	455	40	400	15 $\frac{1}{4}$	135	15 $\frac{1}{4}$	115
40	565	44	450	17 $\frac{1}{2}$	155	17 $\frac{1}{2}$	130
45	700	50	580	20	180	20	150
50	860	56	750	23	210	23	175
56	1050	61	850	26 $\frac{1}{2}$	250		
62	1270	66	975	30 $\frac{1}{2}$	290		
68	1520	74	1250	35	330		
74	1800	87	1625	40	375		
				44	415		
				48	480		
				56	700		
				61	800		
				66	905		
				74	1180		
				87	1550		

Write us for Discounts from these prices.

CYLINDRICAL CASES.

Prices furnished for all sizes on application.

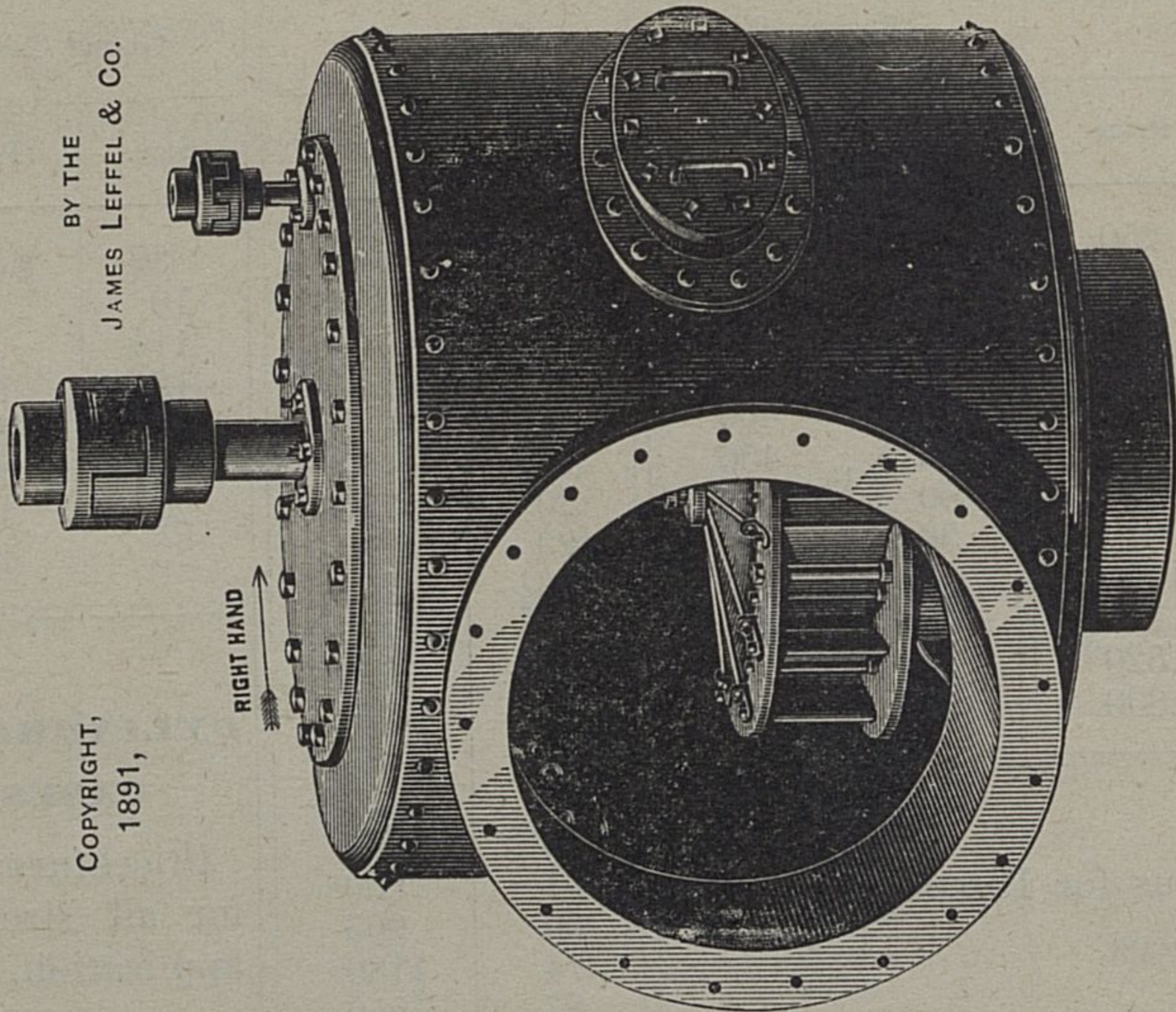


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SPECIAL JAMES LEFFEL TURBINE.

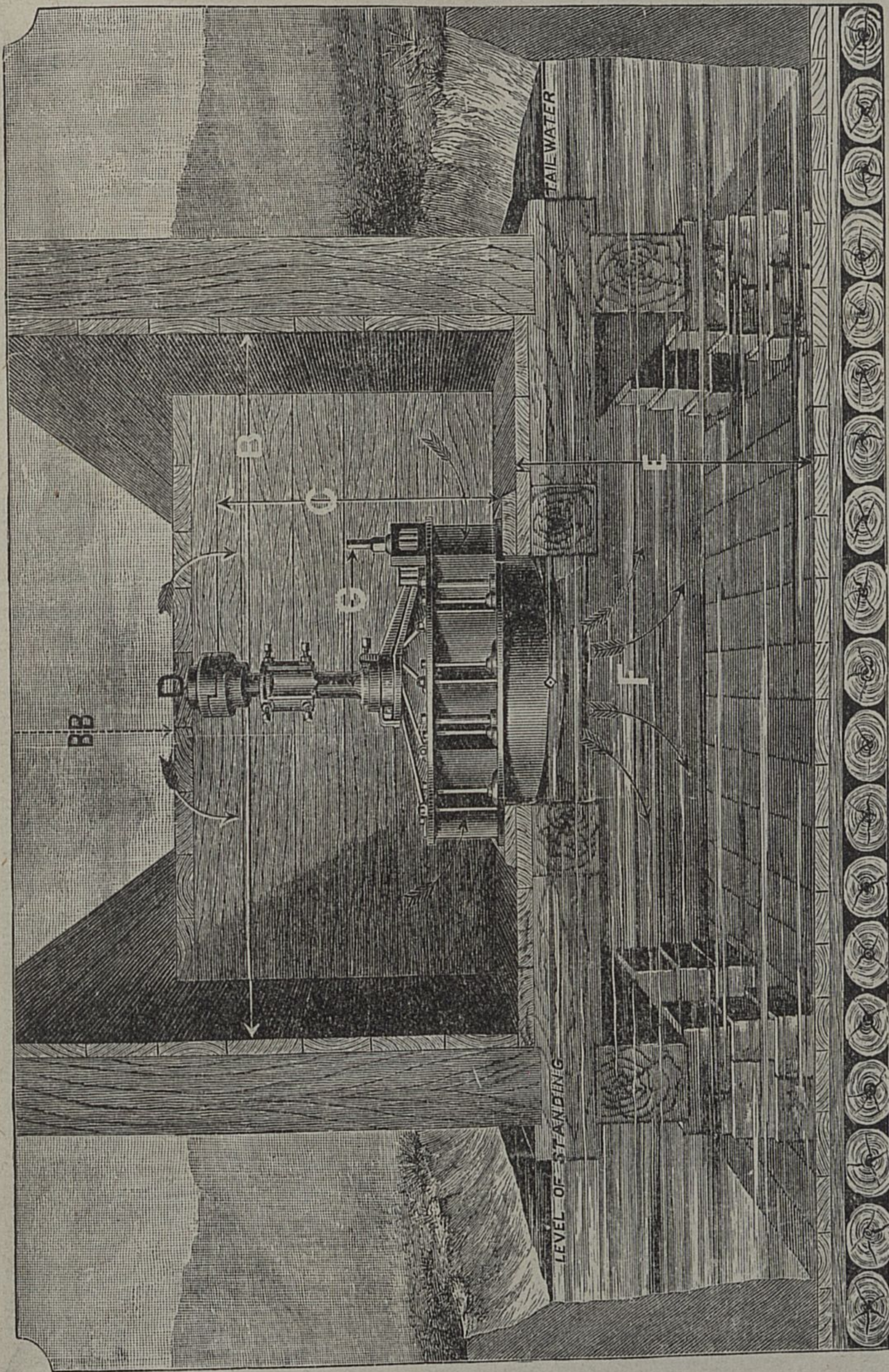


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IMPROVED CYLINDER CASING.



FLUME, PENSTOCK AND PIT ARRANGEMENT.

OLD RELIABLE AND IMPROVED JAMES LEFFEL WATER WHEELS.

Table of Wheel, Penstock and Flume Dimensions.

NOTE.—All measurements are given in inches.
 A.—Diameter of Standard and Special Water Wheels.
 A.A.—Diameter of entire casing of Water Wheel.
 B.—Size of square or rectangular Penstock where wheel sets; and width of flume leading water to wheel.
 B.B.—Depth of water flowing in flume leading to wheel.
 C.—Shaft from floor of penstock to center of coupling.
 D.—Diameter of bore of upper half coupling.
 E.—Depth of pit from floor where wheel sets to floor of pit, when the water discharges at one side.
 E.E.—Depth of pit from floor where wheel sets to floor of pit, when the water discharges at two sides.
 F.—Diameter of hole in floor of flume for wheel cylinder.
 G.—Distance between centers of gate rod and wheel shaft.
 H.—Diameter of cylindrical wood penstock containing water wheel.

I.—Diameter of round, short, wood pipes feeding cylindrical wood penstocks.

The illustration on page 91, and dimensions in this table, apply to both standard and special wheels. The measurements for the inflowing water, the size of penstock where wheel rests, and the outflowing water at pit, have been estimated upon a basis of a loss of three to four per cent. of the head when using the specials. If parties desire a slower speed for entrance and discharge water, and wish to prevent a part of the loss of head taken into account above, they can adopt larger dimensions for the flume, penstock and pit, thereby reducing the velocity and friction of the water before and after acting upon the wheel. We do not think it advisable to construct the work with less space dimensions than we have given in this table for the use of the special wheels.

A	AA	B	BB	C	D	E	EE	F	G	H	I
10	15	24	8	16	1 1/8	24	24	13	6 1/2	24	14
11 1/2	16	24	9	17	1 1/8	24	24	14	7 1/4	26	16
13 1/4	19	24	10	18	1 3/8	24	24	17	8 1/2	28	18
15 1/4	22	28	12	22	1 7/8	26	26	18	10 1/8	30	20
17 1/2	25	32	14	25	2	28	28	21	11 3/8	36	24
20	28	36	18	28	2 1/8	30	30	23	13 1/8	40	28
23	33	42	24	35	2 5/8	32	32	27	14 7/8	50	36
26 1/2	38	48	28	38	2 7/8	36	36	31	17 1/4	58	42
30 1/2	43	56	30	40	3 1/8	40	36	35	19 3/8	66	48
35	49	64	36	44	4 3/8	44	38	40	22 1/4	76	56
40	57	74	42	46	4 3/8	48	40	45	25 1/4	84	64
44	60	80	46	50	4 3/8	52	40	50	27 3/8	92	70
48	68	84	50	57	5 3/8	52	42	53	31 1/8	94	76
50	69	94	54	63	5 3/8	60	44	55	32 1/2	104	82
56	79	104	58	68	5 7/8	64	46	62	36	120	90
61	83	118	66	68	5 7/8	70	48	67	37 1/2	130	96
66	89	136	72	70	5 7/8	74	50	72	40 1/2	138	106
74	100	150	76	75	6	80	52	80	46	160	114
87	118	168	94	82	6 1/2	96	54	95	53 3/4	180	138

This Table is Specially arranged for The James Leffel Water Wheel. Copyright, 1891, by The James Leffel & Co

Style & Size of Water Wheel.	HEAD in Feet	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
STANDARD 8 3/4	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
STANDARD 10	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
STANDARD 11 1/2	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
STANDARD 13 1/4	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
STANDARD 15 1/4	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
STANDARD 17 1/2	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
STANDARD 20	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
STANDARD 23	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
SPECIAL 26 1/2	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
STANDARD 30 1/2	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8
SPECIAL 35	Horse Power																					
	Cubic Feet Revolutions	1 1/2	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/8	2 1/2	2 3/8	2 1/2	2 3/4	3	3 3/8	3 3/8	3 3/8	4 1/4	4 5/8	5	5 1/4	5 1/4	5 7/8

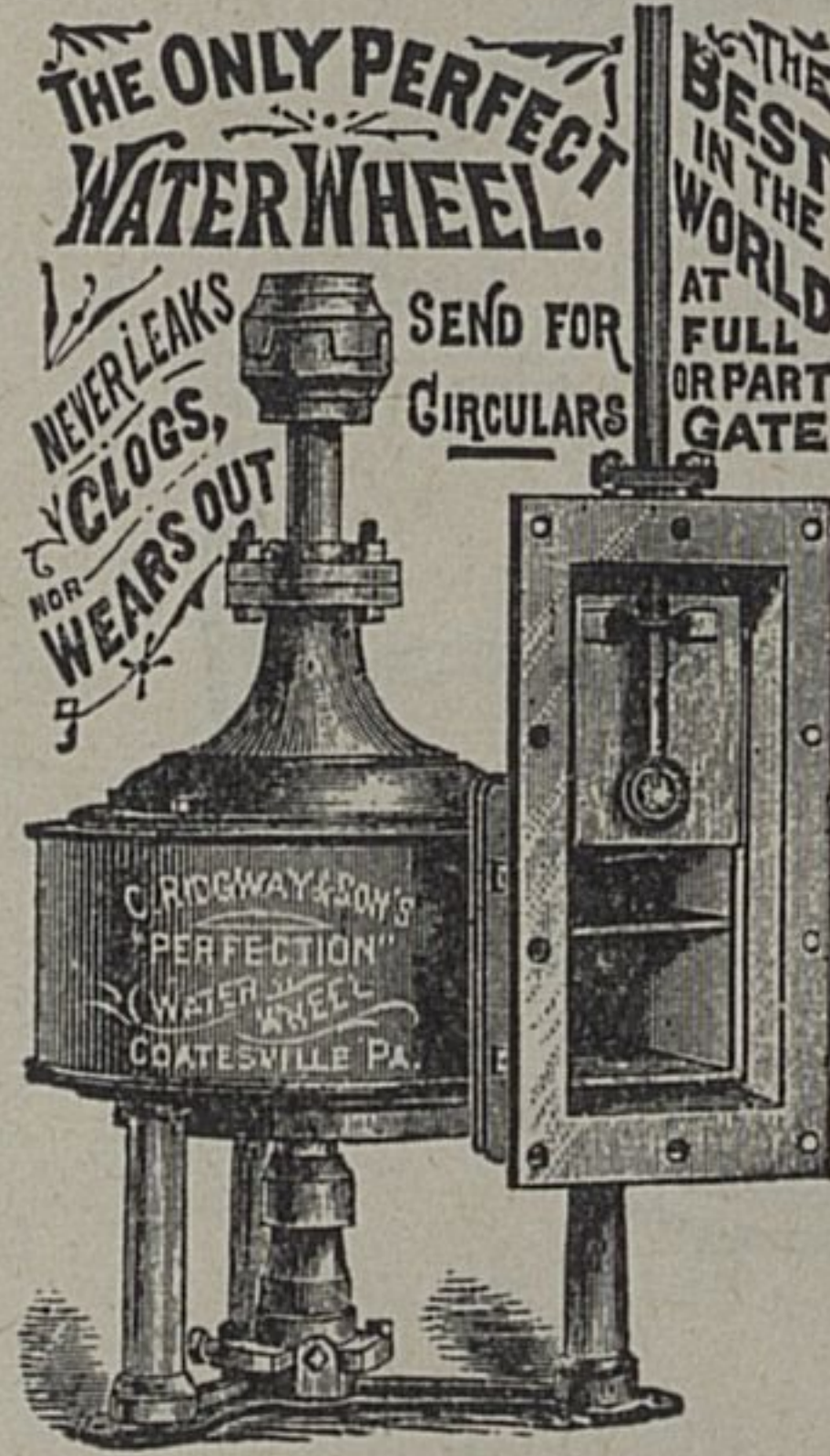


This Table is Specially arranged for The James Leffel Water Wheel. Copyright, 1891, by The James Leffel & Co.

Size & Style of Water Wheel.	HEAD in Feet 0/100	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STANDARD 40 SPECIAL.	Horse Power																				
	Cubic Feet	1106	1390	1580	1715	1817	1915	2022	2125	2212	2309	2392	2464	2547	2620	2703	2794	2844	2903	2974	3044
STANDARD 44 SPECIAL.	Horse Power																				
	Cubic Feet	1580	2022	2264	2437	2607	2738	2907	3045	3212	3354	3476	3581	3672	3792	3897	4024	4139	4246	4354	4462
STANDARD 48 SPECIAL.	Horse Power																				
	Cubic Feet	2212	2401	2633	2869	3081	3265	3412	3562	3739	3889	4017	4150	4305	4424	4564	4723	4898	5073	5248	5423
STANDARD 50 SPECIAL.	Horse Power																				
	Cubic Feet	111/2	16	21 1/2	27	33	39	46	53	60 1/2	68	76	84 1/2	93	102	111	120	130	140	150	160
STANDARD 56 SPECIAL.	Horse Power																				
	Cubic Feet	1824	2022	2260	2437	2607	2738	2907	3045	3186	3305	3430	3560	3670	3792	3897	3991	4108	4225	4342	4460
STANDARD 61 SPECIAL.	Horse Power																				
	Cubic Feet	2528	2844	3160	3476	3792	4108	4424	4740	5056	5372	5688	6004	6320	6636	6952	7268	7584	7900	8216	8532
STANDARD 66 SPECIAL.	Horse Power																				
	Cubic Feet	231/2	33	43	54	66	79	92	106	121	137	153	170	187	205	223	242	261	280	299	318
STANDARD 74 SPECIAL.	Horse Power																				
	Cubic Feet	4424	4929	5372	5823	6241	6671	7015	7354	7689	7972	8261	8553	8848	9108	9374	9646	9900	10176	10452	10728
STANDARD 87 SPECIAL.	Horse Power																				
	Cubic Feet	2844	3634	4108	4599	5099	5599	6099	6599	7099	7599	8099	8599	9099	9599	10099	10599	11099	11599	12099	12599



“PERFECTION” WATER WHEEL.



This is a favorite wheel in many localities. The manufacturers claim the following advantages:

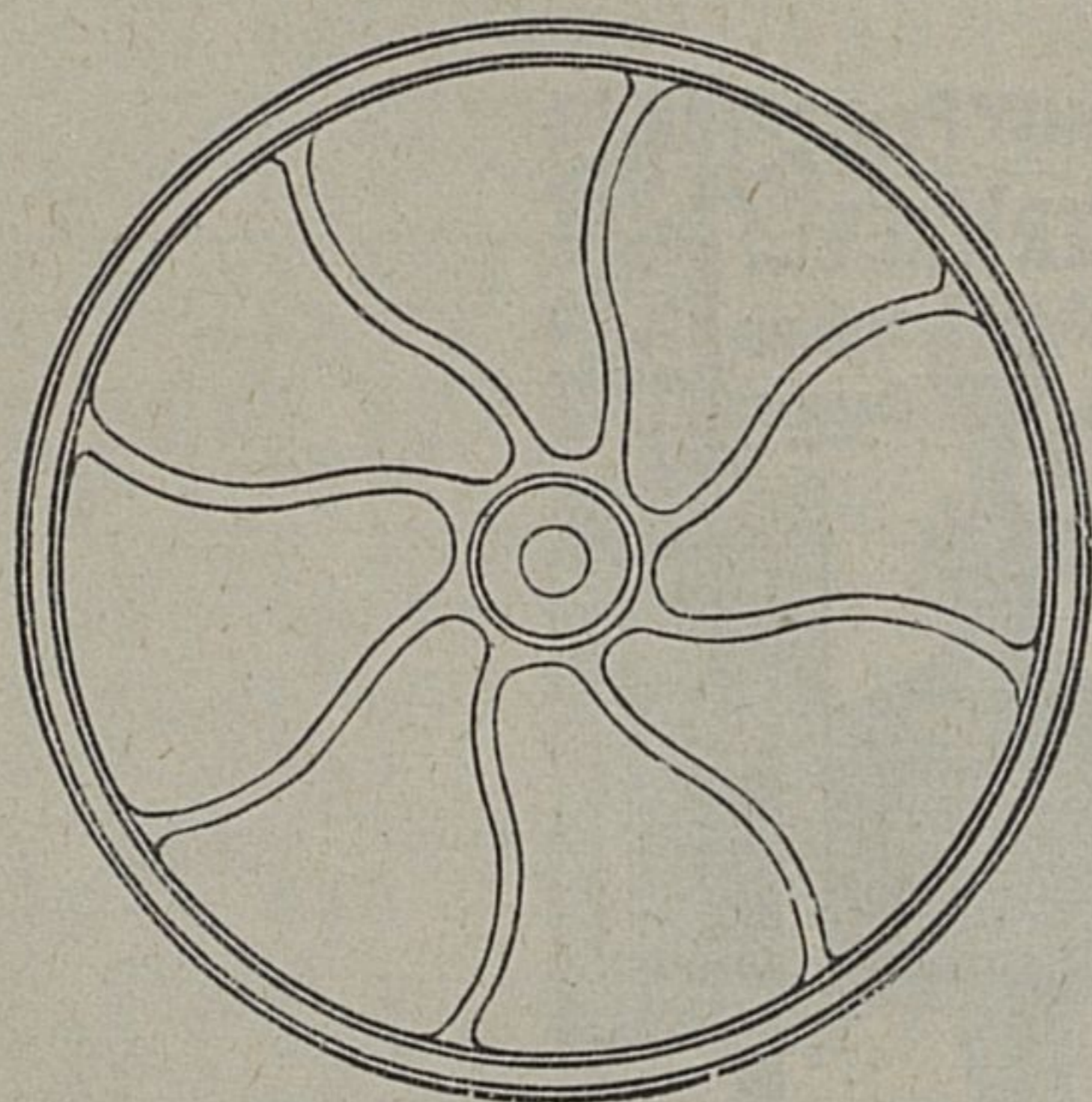
- 1st. A great saving in the use of water.
- 2d. A perfectly tight gate, that permits no waste of water.
- 3d. Simplicity and durability.
- 4th. It will not clog or freeze.
- 5th. It needs no penstock.

PRICES :

6 inch wheel.....	\$ 75 00	21 inch wheel.....	\$225 00
8 " "	95 00	24 " "	285 00
10 " "	115 00	27 " "	315 00
12 " "	125 00	30 " "	365 00
14 " "	140 00	36 " "	425 00
16 " "	165 00	42 " "	500 00
18 " "	190 00	48 " "	625 00

SUBJECT TO DISCOUNT.

Circulars and pamphlets giving full description and tables sent on application.



TRANSMISSION OF POWER BY WIRE ROPE.

The use of a round endless-wire rope running at a great velocity in a grooved sheave, in place of a flat belt running on a flat-faced pulley, constitutes the transmission of power by wire ropes. The distance to which this can be applied ranges from fifty feet up to about three miles. It commences at the point where a belt becomes too long to be used profitably, and can then be extended almost indefinitely.

On page 183 a table of horse-powers is presented. It embraces every case that will ordinarily arise in practice, and one can readily select that combination which will suit his own case, especially if the driving machinery already exists. Where there is a choice between a small wheel and fast speed, or a larger wheel with slower speed, it is recommended to take the larger wheel. The range in the size of wire ropes used is small; it varies only from $\frac{3}{8}$ -inch diameter to $1\frac{1}{8}$ -inch diameter in a range of 3 to 250 horse-power. The ropes are the cheapest part of a transmission, and the cost of renewal is very small.

When placing wheels, special care must be taken to set the wheel shafts at right-angles to the line of transmission, and also to set the wheels true on the shafts, otherwise the wheels will wobble and cause the rope to jerk. When possible, the use of guide-wheels or supporting-wheels should be avoided, as each one adds to the wear on the rope, and also diminishes the power slightly.

TABLE OF TRANSMISSION OF POWER BY WIRE ROPES.

Diameter of wheel in feet.	Number of revolutions.	Trade Number of rope.	Diameter of rope.	Horse-Power.	Price of rope, per foot.	Diameter of wheel in feet.	Number of revolutions.	Trade Number of rope.	Diameter of rope.	Horse-Power.	Price of rope, per foot.	
3	80	23	$\frac{3}{8}$	3	\$0.09	9	100	{ 20	{ $\frac{9}{16}$ $\frac{5}{8}$	{ 58		
3	100	23	$\frac{3}{8}$	$3\frac{1}{2}$					{ 19			{ 60
3	120	23	$\frac{3}{8}$	4			9	120	{ 20	{ $\frac{9}{16}$ $\frac{5}{8}$		{ 69
3	140	23	$\frac{3}{8}$	$4\frac{1}{2}$					{ 19			{ 73
4	80	23	$\frac{3}{8}$	4			9	140	{ 20	{ $\frac{9}{16}$ $\frac{5}{8}$		{ 82
4	100	23	$\frac{3}{8}$	5					{ 19			{ 84
4	120	23	$\frac{3}{8}$	6			10	80	{ 19	{ $\frac{5}{8}$ $\frac{11}{16}$		{ 64
4	140	23	$\frac{3}{8}$	7					{ 18			{ 68
5	80	22	$\frac{7}{16}$	9			10	100	{ 19	{ $\frac{5}{8}$ $\frac{11}{16}$		{ 80
5	100	22	$\frac{7}{16}$	11					{ 18			{ 85
5	120	22	$\frac{7}{16}$	13			10	120	{ 19	{ $\frac{5}{8}$ $\frac{11}{16}$		{ 96
5	140	22	$\frac{7}{16}$	15		.09 $\frac{1}{2}$			{ 18			{ 102
6	80	21	$\frac{1}{2}$	14			10	140	{ 19	{ $\frac{5}{8}$ $\frac{11}{16}$		{ 112
6	100	21	$\frac{1}{2}$	17					{ 18			{ 119
6	120	21	$\frac{1}{2}$	20			12	80	{ 18	{ $\frac{11}{16}$ $\frac{3}{4}$		{ 93
6	140	21	$\frac{1}{2}$	23	.10			{ 17		{ 99		
7	80	20	$\frac{9}{16}$	20		12	100	{ 18	{ $\frac{11}{16}$ $\frac{3}{4}$	{ 116		
7	100	20	$\frac{9}{16}$	25				{ 17		{ 124		
7	120	20	$\frac{9}{16}$	30		12	120	{ 18	{ $\frac{11}{16}$ $\frac{3}{4}$	{ 140		
7	140	20	$\frac{9}{16}$	35	.12 $\frac{1}{2}$			{ 17		{ 149		
8	80	19	$\frac{5}{8}$	26		12	120	16	$\frac{7}{8}$	173		
8	100	19	$\frac{5}{8}$	32								
8	120	19	$\frac{5}{8}$	39		14	80	{ 8	{ 1	{ 141		
8	140	19	$\frac{5}{8}$	45	.15			{ 7	{ $1\frac{1}{8}$	{ 148		
9	80	{ 20	{ $\frac{9}{16}$ $\frac{5}{8}$	{ 47	.16 $\frac{1}{2}$	14	100	{ 8	{ 1	{ 176		
		{ 19		{ 48					{ 7	{ $1\frac{1}{8}$	{ 185	

11-16 in.
\$0.16 $\frac{1}{2}$

$\frac{3}{4}$ in.
.18

.23

1 in.
.29

$1\frac{1}{8}$ in.
.36

The above table gives the power produced by Patent Rubber-lined Wheels and Wire Belt Ropes, at various speeds.

Horse-powers given in this table are calculated with a liberal margin for any temporary increase of work.

SHEAVES FOR TRANSMISSION OF POWER.

Filled with rubber, bored, set-screwed or key-seated, balanced and painted.

2 ft. diam., for carriers.....	\$10 00	7 ft. diam.....	\$ 80 00
2 $\frac{1}{2}$ " " " "	16 00	8 " "	100 00
3 " "	20 00	9 " "	125 00
4 " "	28 00	10 " "	200 00
5 " "	42 00	12 " "	280 00
6 " "	65 00		

COMPLETE ROLLER MILLS.

On pages 186, 187 and 188 we present cuts representing very simple, convenient and complete outfits and arrangements of machinery for mills of from 25 to 100 barrels capacity in twenty-four hours. We are prepared to furnish on short notice drawings and bill of materials for buildings, and drawings and estimates for machinery, for any of these outfits.

100-BARREL MILL OUTFIT.

Page 186

Includes the following machinery:—

One 11 in. x 16 in. Automatic Engine.

One 54 in. x 14 ft. Steel Tubular Boiler.

Four Double 9 in. x 18 in. Richmond Roller Mills.

Two No. 10 Richmond Tandem Scalpers.

Two No. 10 Richmond Hexagon Scalpers.

Eight No. 10 Richmond Round Reel Flour Dressers.

One Purifier with Dust Collector.

One No. 2 Horizontal Bran Duster.

One Richmond Flour Packer.

One Milling Separator.

One Double Wheat Scourer.

One Wheat Heater.

One Custom Hand Packer for Flour.

One Custom Hand Packer for Feed.

One Six Roller Corn Mill.

One Corn Meal Bolt.

Necessary connecting machinery.

Iron work, Elevators, Conveyors and Belts.

COMPLETE ROLLER MILLS.**50 TO 60 - BARREL MILL OUTFIT.**

Page 187 includes:—

One 9 in. x 14 in. Automatic Engine.

One 42 in. x 12 ft. Steel Tubular Boiler.

Four Double 6 in. x 16 in. Richmond Roller Mills.

One No. 6 Richmond Tandem Scalper.

Two No. 6 Richmond Hexagon Scalpers.

Seven No. 6 Richmond Round Reel Flour Dressers.

One No. 0 Horizontal Bran Duster.

One Purifier with Dust Collector.

One Richmond Flour Packer.

One Double Wheat Scourer.

Necessary Connecting Machinery, Iron Work, Elevators, Conveyors,
and Belts.

25 TO 35 - BARREL MILL OUTFIT.

Page 188 includes:—

One 8 in. x 12 in. Automatic Engine.

One 36 in. x 12 ft. Steel Tubular Boiler.

Three Double 6 in. x 12 in. Richmond Roller Mills.

One No. 5 Richmond Tandem Scalper.

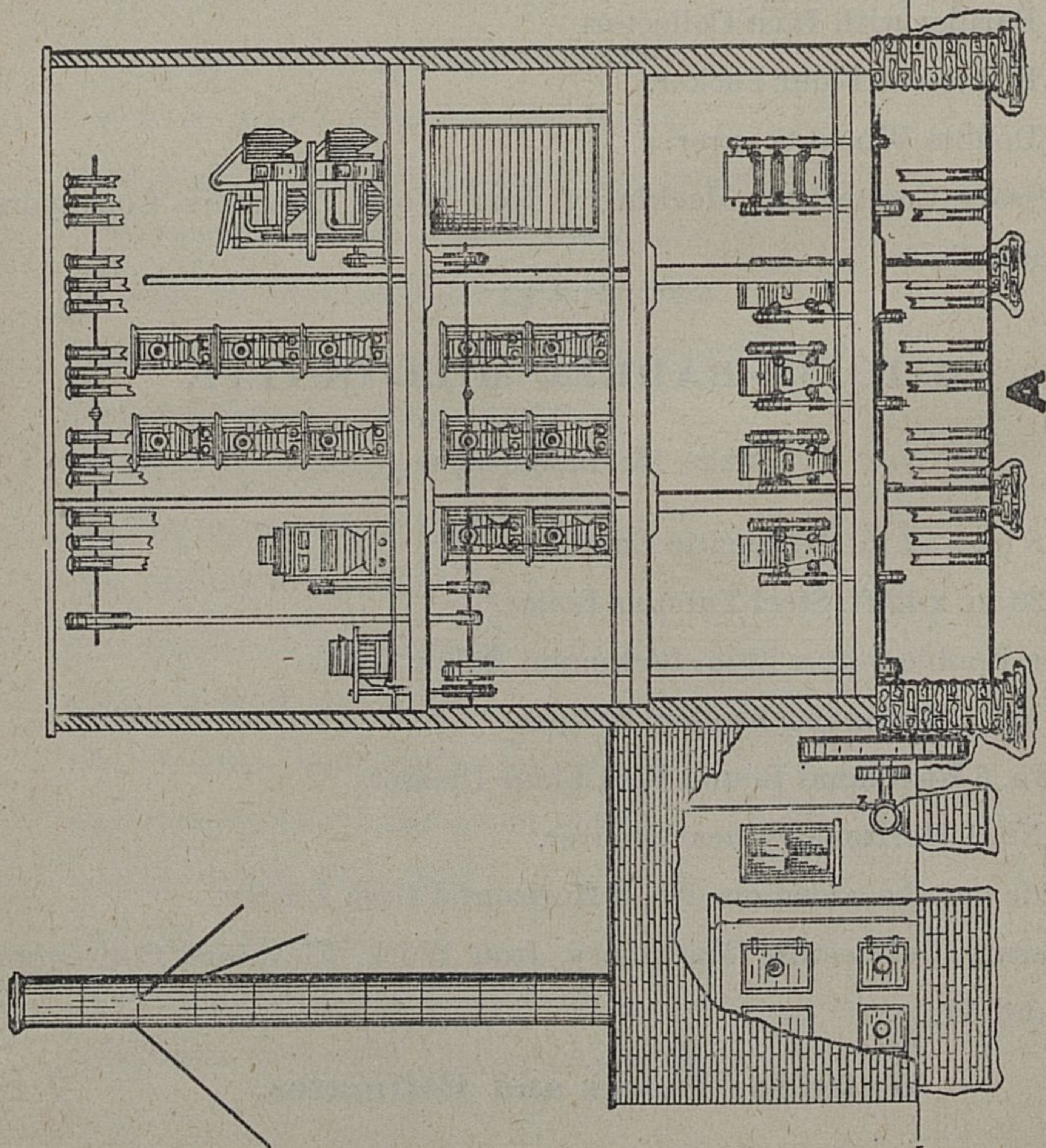
Six No. 5 Richmond Round Reel Flour Dressers.

One No. 1 Horizontal Wheat Scourer.

To this may be added one No. 0 Horizontal Bran Duster.

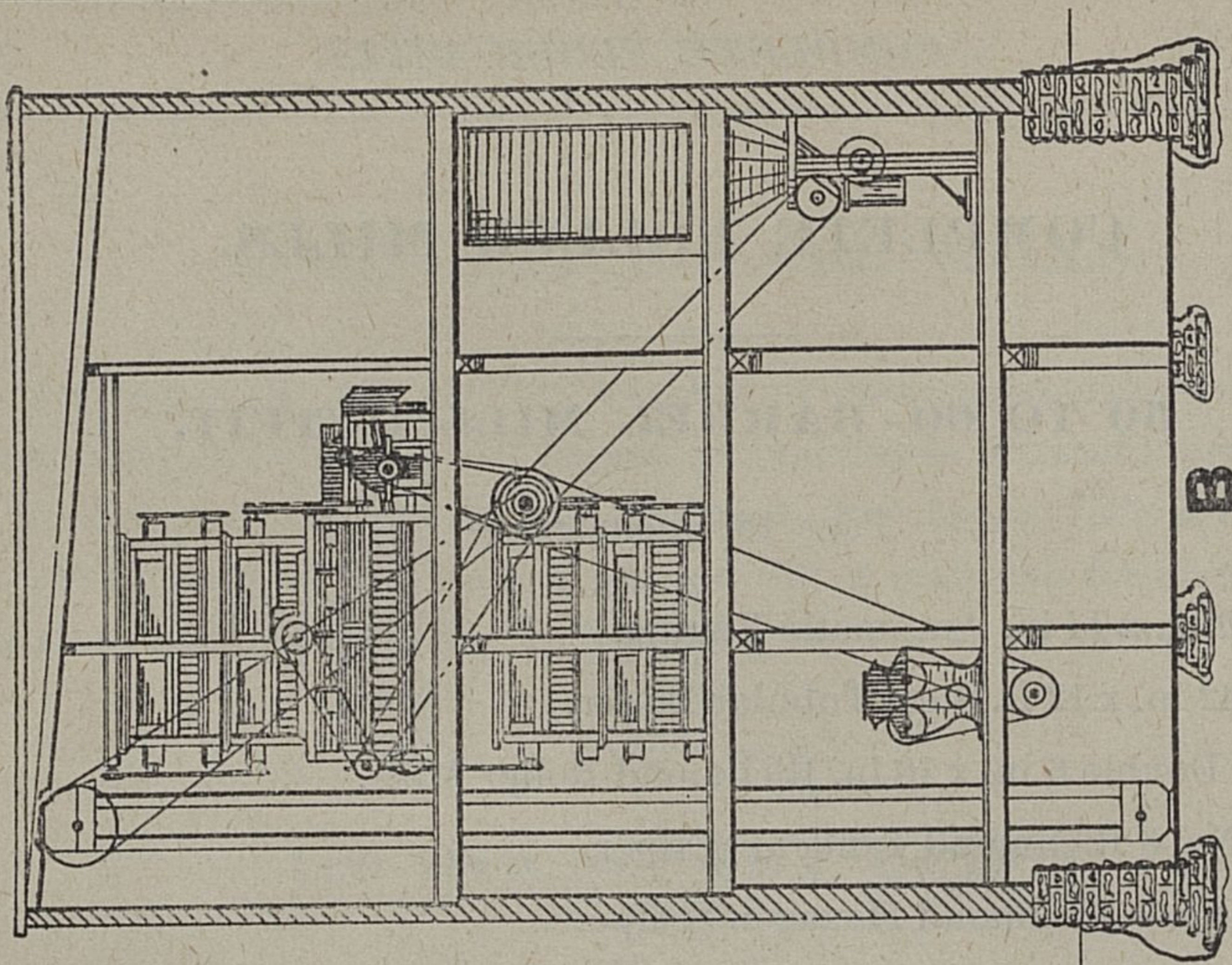
Necessary Connecting Machinery, Iron Work, Elevators, Conveyors,
and Belts.

Write for Prices and Estimates.

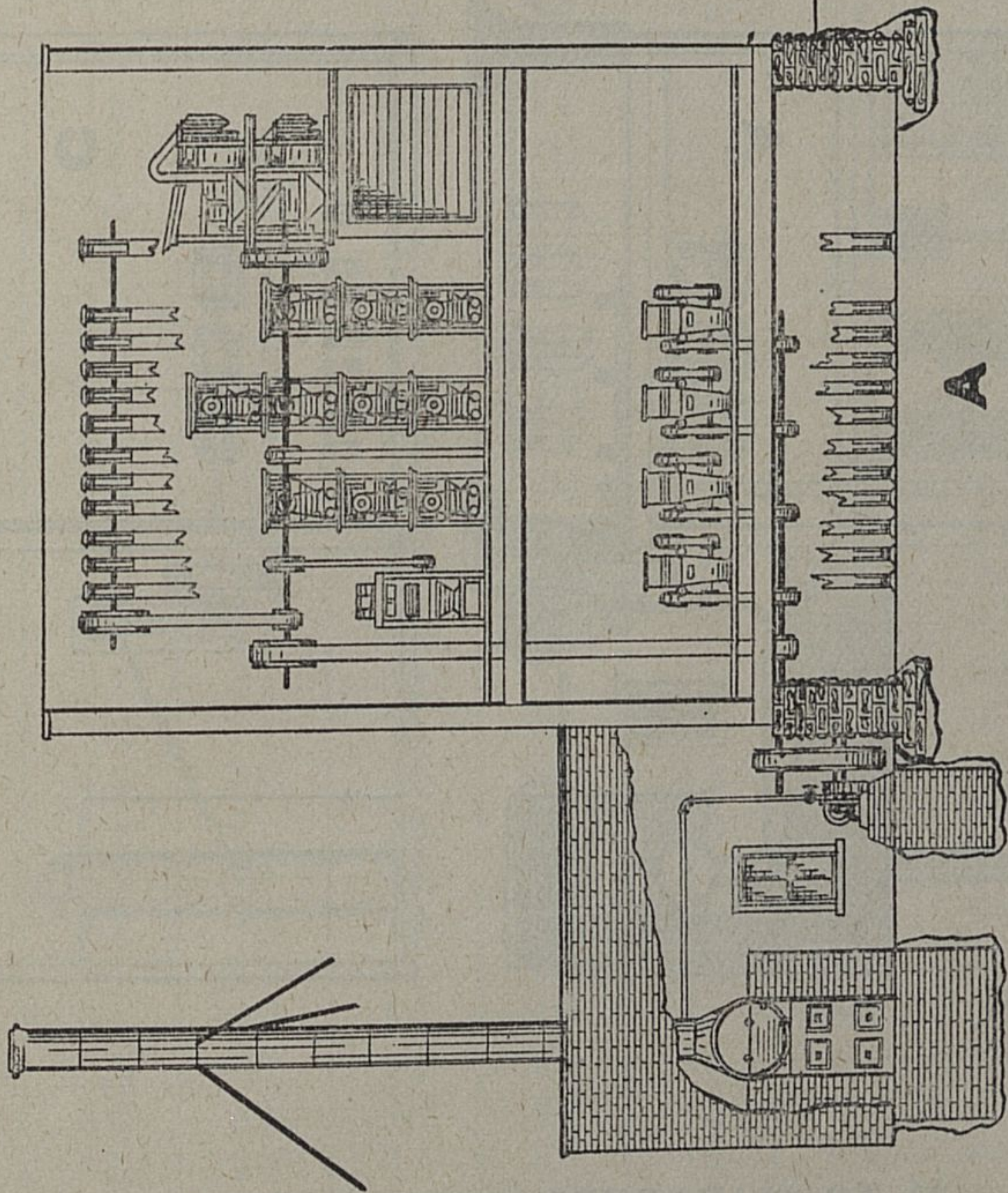


Side Elevation.

100 - BARREL ROLLER MILL AND CORN ROLLS.

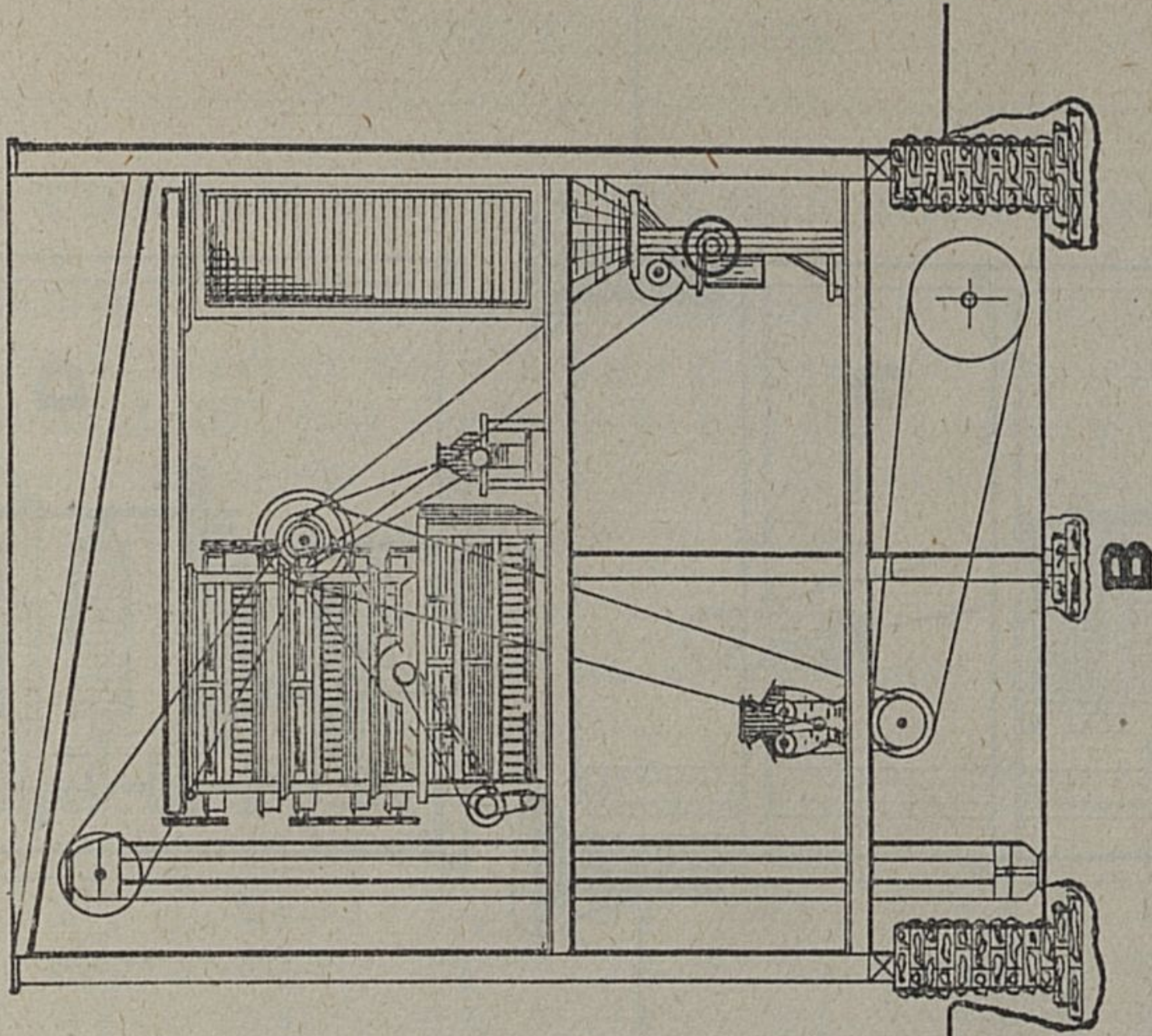


End Elevation.

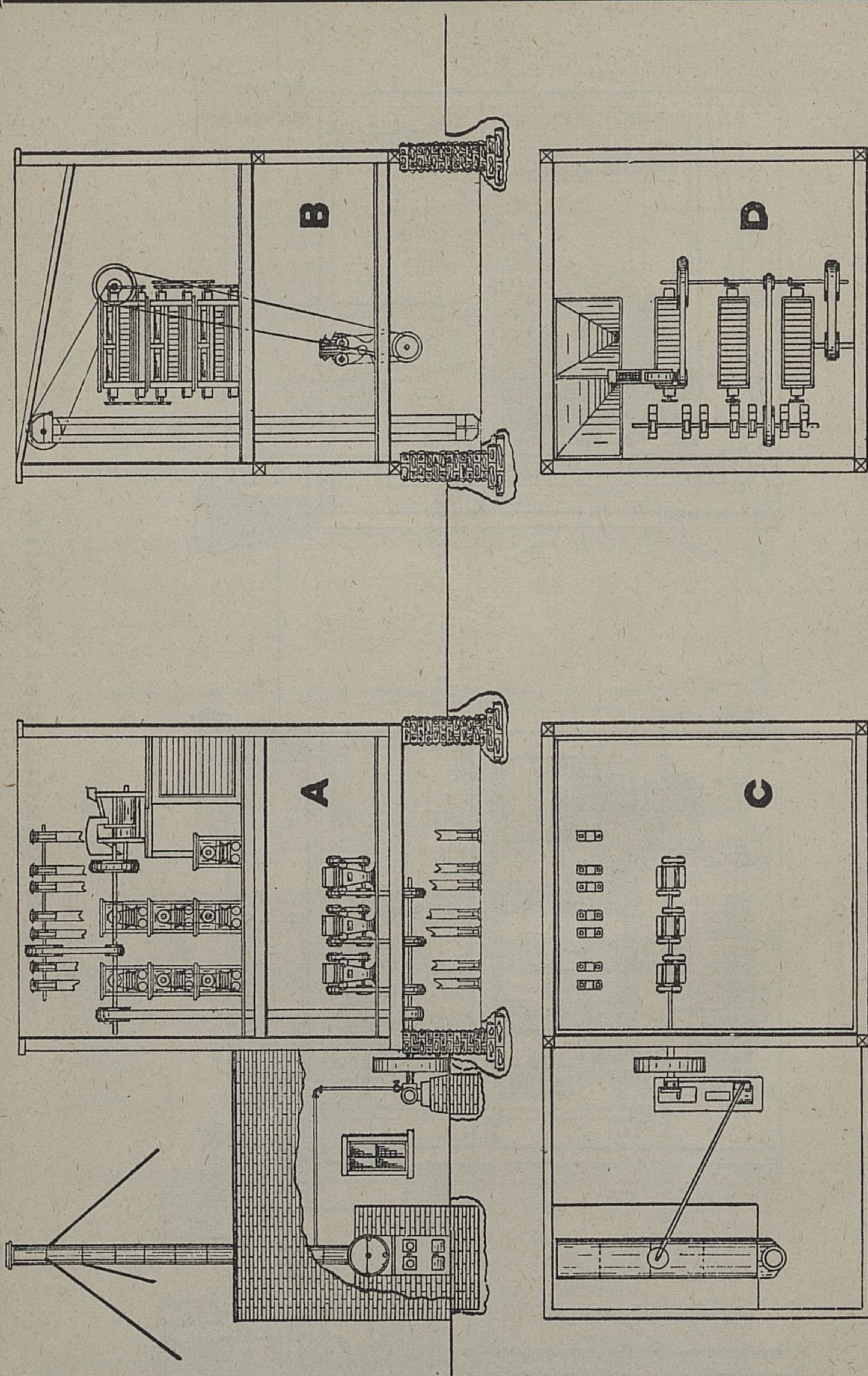


Side Elevation.

50 TO 60 - BARREL ROLLER MILL.



End Elevation.



A—Side Elevation. B—End Elevation. C and D—Floor Plans.

25 TO 35 - BARREL ROLLER MILL.

TRANSMISSION TABLES.—SHAFTING.

Applicable to well supported line shafting from which power is taken at intervals by small or medium sized pulleys. *Not applicable to prime movers (head shafts), jack shafts, or to line shafts, carrying gears or extra large pulleys.* Such shafts should be from $\frac{1}{4}$ in. to 1 in. larger, according to circumstances, than the sizes given in the tables.

H. P.	DOUBLE SAFETY.—Number of Revolutions per Minute.							
	80	100	125	150	175	200	250	300
5	$2\frac{1}{4}$	$2\frac{3}{16}$	$2\frac{1}{8}$	2	$1\frac{15}{16}$	$1\frac{7}{8}$	$1\frac{13}{16}$	$1\frac{3}{4}$
6	$2\frac{7}{16}$	$2\frac{1}{4}$	$2\frac{3}{16}$	$2\frac{1}{8}$	2	$1\frac{15}{16}$	$1\frac{7}{8}$	$1\frac{13}{16}$
7	$2\frac{9}{16}$	$2\frac{7}{16}$	$2\frac{1}{4}$	$2\frac{3}{16}$	$2\frac{1}{8}$	$2\frac{1}{16}$	2	$1\frac{15}{16}$
8	$2\frac{5}{8}$	$2\frac{9}{16}$	$2\frac{7}{16}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{3}{16}$	$2\frac{1}{8}$	2
9	$2\frac{3}{4}$	$2\frac{5}{8}$	$2\frac{1}{2}$	$2\frac{3}{8}$	$2\frac{5}{16}$	$2\frac{1}{4}$	$2\frac{3}{16}$	$2\frac{1}{16}$
10	$2\frac{7}{8}$	$2\frac{3}{4}$	$2\frac{5}{8}$	$2\frac{1}{2}$	$2\frac{7}{16}$	$2\frac{5}{16}$	$2\frac{1}{4}$	$2\frac{1}{8}$
11	$2\frac{15}{16}$	$2\frac{13}{16}$	$2\frac{5}{8}$	$2\frac{9}{16}$	$2\frac{1}{2}$	$2\frac{3}{8}$	$2\frac{5}{16}$	$2\frac{3}{16}$
12	$3\frac{1}{8}$	$2\frac{7}{8}$	$2\frac{3}{4}$	$2\frac{11}{16}$	$2\frac{9}{16}$	$2\frac{7}{16}$	$2\frac{3}{8}$	$2\frac{5}{16}$
13	$3\frac{3}{16}$	3	$2\frac{7}{8}$	$2\frac{3}{4}$	$2\frac{5}{8}$	$2\frac{1}{2}$	$2\frac{7}{16}$	$2\frac{3}{8}$
14	$3\frac{3}{16}$	$3\frac{1}{8}$	$2\frac{15}{16}$	$2\frac{7}{8}$	$2\frac{11}{16}$	$2\frac{5}{8}$	$2\frac{9}{16}$	$2\frac{7}{16}$
15	$3\frac{3}{8}$	$3\frac{1}{8}$	$2\frac{15}{16}$	$2\frac{7}{8}$	$2\frac{3}{4}$	$2\frac{11}{16}$	$2\frac{5}{8}$	$2\frac{7}{16}$
16	$3\frac{3}{8}$	$3\frac{3}{16}$	$3\frac{1}{8}$	$2\frac{15}{16}$	$2\frac{13}{16}$	$2\frac{3}{4}$	$2\frac{5}{8}$	$2\frac{9}{16}$
17	$3\frac{7}{16}$	$3\frac{5}{16}$	$3\frac{3}{16}$	3	$2\frac{7}{8}$	$2\frac{13}{16}$	$2\frac{11}{16}$	$2\frac{9}{16}$
18	$3\frac{1}{2}$	$3\frac{3}{8}$	$3\frac{3}{16}$	$3\frac{1}{8}$	$2\frac{15}{16}$	$2\frac{13}{16}$	$2\frac{3}{4}$	$2\frac{5}{8}$
20	$3\frac{5}{8}$	$3\frac{3}{8}$	$3\frac{1}{4}$	$3\frac{1}{8}$	$3\frac{1}{16}$	$2\frac{15}{16}$	$2\frac{13}{16}$	$2\frac{11}{16}$
25	$3\frac{13}{16}$	$3\frac{5}{8}$	$3\frac{1}{2}$	$3\frac{7}{16}$	$3\frac{5}{16}$	$3\frac{3}{16}$	$3\frac{1}{8}$	$2\frac{15}{16}$
30	$4\frac{1}{8}$	$3\frac{15}{16}$	$3\frac{3}{4}$	$3\frac{11}{16}$	$3\frac{1}{2}$	$3\frac{5}{16}$	$3\frac{1}{4}$	$3\frac{1}{8}$
35	$4\frac{5}{16}$	$4\frac{1}{8}$	$3\frac{15}{16}$	$3\frac{3}{4}$	$3\frac{5}{8}$	$3\frac{9}{16}$	$3\frac{7}{16}$	$3\frac{5}{16}$
40	$3\frac{5}{16}$	$3\frac{3}{16}$	$2\frac{15}{16}$	$2\frac{11}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{1}{4}$	$2\frac{1}{8}$
45	$3\frac{7}{16}$	$3\frac{3}{16}$	$2\frac{15}{16}$	$2\frac{3}{4}$	$2\frac{5}{8}$	$2\frac{1}{2}$	$2\frac{3}{8}$	$2\frac{3}{16}$
50	$3\frac{1}{2}$	$3\frac{5}{16}$	$3\frac{1}{8}$	$2\frac{15}{16}$	$2\frac{11}{16}$	$2\frac{5}{8}$	$2\frac{7}{16}$	$2\frac{1}{4}$
55	$3\frac{11}{16}$	$3\frac{3}{8}$	$3\frac{3}{16}$	3	$2\frac{7}{8}$	$2\frac{11}{16}$	$2\frac{1}{2}$	$2\frac{3}{8}$
60	$3\frac{3}{4}$	$3\frac{1}{2}$	$3\frac{1}{4}$	$3\frac{1}{8}$	$2\frac{7}{8}$	$2\frac{3}{4}$	$2\frac{9}{16}$	$2\frac{7}{16}$
70	$3\frac{15}{16}$	$3\frac{5}{8}$	$3\frac{7}{16}$	$3\frac{1}{4}$	$3\frac{1}{8}$	$2\frac{7}{8}$	$2\frac{11}{16}$	$2\frac{9}{16}$
80	$4\frac{1}{16}$	$3\frac{13}{16}$	$3\frac{9}{16}$	$3\frac{7}{16}$	$3\frac{1}{4}$	$3\frac{1}{8}$	$2\frac{7}{8}$	$2\frac{11}{16}$
90	$4\frac{1}{4}$	4	$3\frac{3}{4}$	$3\frac{1}{2}$	$3\frac{5}{16}$	$3\frac{3}{16}$	$2\frac{15}{16}$	$2\frac{3}{4}$
100	$4\frac{7}{16}$	$4\frac{1}{4}$	$3\frac{7}{8}$	$3\frac{11}{16}$	$3\frac{3}{8}$	$3\frac{1}{4}$	$3\frac{1}{8}$	$2\frac{7}{8}$
120	$4\frac{7}{8}$	$4\frac{7}{16}$	$4\frac{1}{8}$	$3\frac{13}{16}$	$3\frac{5}{8}$	$3\frac{1}{2}$	$3\frac{1}{4}$	$3\frac{1}{8}$
140	5	$4\frac{5}{8}$	$4\frac{1}{4}$	4	$3\frac{13}{16}$	$3\frac{11}{16}$	$3\frac{7}{16}$	$3\frac{1}{4}$
160	$5\frac{1}{4}$	$4\frac{15}{16}$	$4\frac{7}{16}$	$4\frac{1}{4}$	4	$3\frac{13}{16}$	$3\frac{9}{16}$	$3\frac{5}{16}$
180	$5\frac{7}{16}$	$5\frac{1}{8}$	$4\frac{3}{4}$	$4\frac{1}{2}$	$4\frac{1}{4}$	4	$3\frac{3}{4}$	$3\frac{1}{2}$
200	$5\frac{3}{4}$	$5\frac{3}{8}$	$4\frac{15}{16}$	$4\frac{5}{8}$	$4\frac{1}{2}$	$4\frac{1}{4}$	$3\frac{7}{8}$	$3\frac{5}{8}$
250	$6\frac{1}{16}$	$5\frac{3}{4}$	$5\frac{1}{4}$	5	$4\frac{5}{8}$	$4\frac{7}{16}$	$4\frac{1}{8}$	$3\frac{13}{16}$

TABLE SHOWING NUMBER OF FEET IN BILL STUFF AND LUMBER.

SIZE.	LENGTH IN FEET.														
	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
2 x 4	8	9	11	12	13	15	16	17	19	20	20	20	20	20	20
2 x 6	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
2 x 8	16	19	21	24	27	29	32	35	37	40	43	46	49	52	55
2 x 10	20	23	27	30	33	37	40	43	47	50	53	57	60	64	68
2 x 12	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
2 x 14	28	33	37	42	47	51	56	61	65	70	75	79	84	89	93
3 x 4	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
3 x 6	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
3 x 8	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
3 x 10	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
3 x 12	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
3 x 14	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140
3 x 16	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
4 x 4	16	19	21	24	27	29	32	35	37	40	43	46	49	52	55
4 x 6	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
4 x 8	32	37	43	48	53	59	64	69	75	80	85	90	95	100	105
6 x 6	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
6 x 8	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
8 x 8	64	75	85	96	107	117	129	139	149	160	173	181	192	203	213
8 x 10	80	93	107	120	133	147	160	173	187	200	213	227	240	253	267
8 x 12	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320
10 x 10	100	117	133	150	167	183	200	217	233	250	267	283	300	317	333
10 x 12	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400
12 x 12	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480

HORSE POWER BELTING

WILL TRANSMIT WITH SAFETY

Width of Belt in Inches.	Horse Power per 100 feet Velocity of Belt.		Width of Belt in Inches.	Horse Power per 100 feet Velocity of Belt.	
	Single Belt.	Double Belt.		Single Belt.	Double Belt.
1	.09	.18	12	1.09	2.18
2	.18	.36	14	1.27	2.55
3	.27	.55	16	1.45	2.91
4	.36	.73	18	1.64	3.27
5	.45	.91	20	1.82	3.64
6	.55	1.09	22	2.00	4.00
7	.64	1.27	24	2.18	4.36
8	.73	1.46	28	2.55	5.09
9	.82	1.64	32	2.91	5.82
10	.91	1.82	36	3.27	6.55
11	1.00	2.00	40	3.64	7.27

In the calculations for horse power in the above table, the belt is assumed to run about horizontally, the semi-circumference of smaller pulley has been considered as the ordinary arc contact of belt. Any reduction of this contact will make approximate proportional reduction of horse power.

CAPACITY OF CISTERNS,

IN GALLONS, FOR EACH 10 INCHES IN DEPTH.

Diam. in Feet.	Gallons.	Diam. in Feet	Gallons.	Diam. in Feet.	Gallons.	Diam. in Feet	Gallons.
2	19.5	5½	148.1	9	396.56	15	1101.6
2½	30.5	6	176.25	9½	461.4	20	1958.4
3	44.6	6½	206.85	10	489.6	25	3059.9
3½	59.97	7	239.88	11	592.4	30	4406.4
4	78.33	7½	275.4	12	705.	35	5990.
4½	99.14	8	313.33	13	827.4	40	7831.
5	122.4	8½	353.72	14	959.6		

SIMPLE INTEREST RULES.

FOUR PER CENT.— Multiply the principal by the number of days to run; cut off the right hand figure and divide by 9.

FIVE PER CENT.— Multiply by number of days and divide by 72.

SIX PER CENT.— Multiply by number of days; cut off the right hand figure and divide by 6.

SEVEN PER CENT.— Compute the interest for six per cent and add one-sixth.

EIGHT PER CENT.— Multiply by number of days and divide by 45.

NINE PER CENT.— Multiply by number of days; cut off the right hand figure and divide by 4.

TEN PER CENT.— Multiply by number of days and divide by 36.

WEIGHT OF VARIOUS PRODUCTS.

	Lbs. per Bushel.		Lbs. per Bushel.
Wheat.....	60	Hungarian grass seed.....	50
Corn (shelled).....	56	Broom-corn seed.....	52
Corn (on the cob).....	70	Sorgham seed.....	40
Rye.....	56	Corn-meal.....	50
Barley.....	48	Bran.....	20
Buckwheat (in Pennsylvania)...	50	Beans.....	60
Buckwheat (in Kentucky).....	52	Onions (in Penn. and Ky.).....	57
Buckwheat (in Massachusetts)..	48	Onions (in Massachusetts).....	52
Oats (in Ills. and Mass.).....	32	Salt, Turks Island.....	76
Oats (in Ohio).....	33	Salt, Syracuse.....	56
Oats (in Kentucky).....	33½	Salt, Liverpool.....	50
Oats (in Maine and Penn.).....	30	Potatoes.....	60
Clover seed.....	60	Peas.....	64
Flax seed.....	56	Dried apples (in Pennsylvania)..	22
Timothy seed.....	45	Dried apples (in Illinois).....	24
Hemp seed.....	48	Dried peaches (in Pennsylvania).	33
Bluegrass seed.....	14	Dried peaches (in Illinois).....	32
Red-top seed.....	14		

Barrel Flour weighs.....	196 pounds.
Barrel Salt weighs.....	280 pounds.
Barrel Beef weighs.....	200 pounds.
Barrel Pork weighs.....	200 pounds.
Barrel Fish weighs.....	200 pounds.
Keg Powder.....	= 25 pounds.
Stone of Lead or Iron.....	= 14 pounds.
Pig of Lead or Iron.....	= 21½ stone.
Anthracite Coal — broken, cubic foot averages.....	54 pounds.
Anthracite Coal — a ton, loose, occupies.....	40 to 43 cubic feet.
Bituminous Coal — broken, cubic foot averages.....	49 pounds.
Bituminous Coal — a ton, loose, occupies.....	43 to 48 cubic feet.
Cement, (Hy.) Rosendale.....	bushel = 70 pounds.
Cement, (Hy.) Louisville.....	bushel = 62 pounds.
Cement, (Hy.) Portland.....	bushel = 96 pounds.
Gypsum, ground.....	bushel = 70 pounds.
Lime, loose.....	bushel = 70 pounds.
Lime, well shaken.....	bushel = 80 pounds.
A cable's length.....	= 240 yards.
A cord of wood.....	= 128 cubic feet.
1 hand.....	= 4 inches.
1 span.....	= 9 inches.

TELEGRAPHIC CIPHER.

Instructions and Queries.

At what price can you furnish?.....	America.
At what price and how soon can you furnish?.....	Asia.
Quote your lowest price for.....	Africa.
Ship immediately by freight.....	Atlantic.
Ship immediately by express.....	Hustle.
Answer by wire.....	Aback.
Answer by mail.....	Abed.

Roller Mills.

9 by 30 Four Roller Mill.....	Eagle.
9 by 24 Four Roller Mill.....	Early.
9 by 18 Four Roller Mill.....	Earth.
9 by 14 Four Roller Mill.....	Easy.
6 by 20 Four Roller Mill.....	Eddy.
6 by 16 Four Roller Mill.....	Eden.
6 by 12 Four Roller Mill.....	Edge.
9 by 30 Six Roller Corn Mill.....	Egg.
9 by 24 Six Roller Corn Mill.....	Elbow.
9 by 18 Six Roller Corn Mill.....	Embark.
Smooth.....	Smooth.
Corrugations.....	Cuts.

NOTE.—In ordering mills with corrugated rolls add two words to designate number of corrugations to the inch, as “eighteen cuts,” etc.

Scalpers and Bolters.

Tandem Scalpers.....	Gage.
Hexagon Scalpers.....	Gala.
Round Reel Flour Dressers.....	Gallant.
Pulley or Chain Drive.....	Gallop.
Cross Shaft and Gears.....	Game.

NOTE.—Order by number as given on page 22 of this price list. Instructions for clothing should follow at once by mail, with size of Pulley or size and number of Chain Wheel for drive.

(Continued on Next Page.)

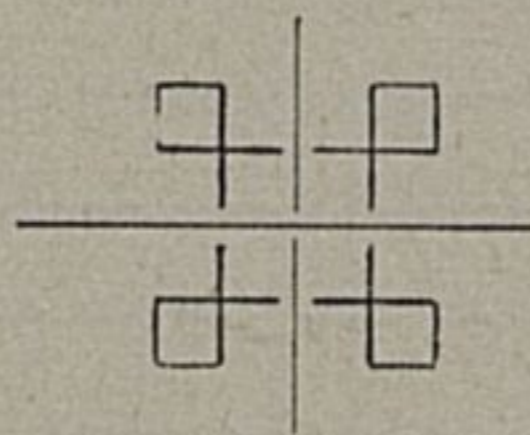
TELEGRAPHIC CIPHER.—Continued.

Flour Packers.

Richmond Flour Packer — with sun.....	Hog.
Richmond Flour Packer — against sun.....	Habit.
Flour Packer, with Barrel, $\frac{1}{2}$ -Barrel, $\frac{1}{4}$ -Barrel, and $\frac{1}{8}$ -Barrel Tubes.....	Hall.
Barrel Tube and Auger.....	Halo.
$\frac{1}{2}$ -Barrel Tube and Auger.....	Halter.
$\frac{1}{4}$ -Barrel Tube and Auger.....	Hard.
$\frac{1}{8}$ -Barrel Tube and Auger.....	Hatch.
With sun ..	Heavy.
Against sun.....	Hush.

Portable Mills.

Planters' Pride Mill.....	Ice.
Planters' Pride and Sieve Bolter.....	Image.
20-Inch Pride of Richmond Pulley Mill.....	Ignore.
20-Inch Pride of Richmond D. G. Mill.....	Imbibe.
24-Inch Under Runner Pulley Mill.....	Immense.
24-Inch Under Runner D. G. Mill.....	Impel.
30-Inch Under Runner Pulley Mill.....	Impose.
30-Inch Under Runner D. G. Mill.....	Infamous.
36-Inch Under Runner Pulley Mill.....	Infirm.
36-Inch Under Runner D. G. Mill.....	Influence.
With sun.....	Heavy.
Against sun.....	Hush.



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