

Sheet 1.
3 Sheets.

J. Thomas.
Felling Machine.

N^o 15627

Patented Aug. 26, 1856.

Fig. 1.

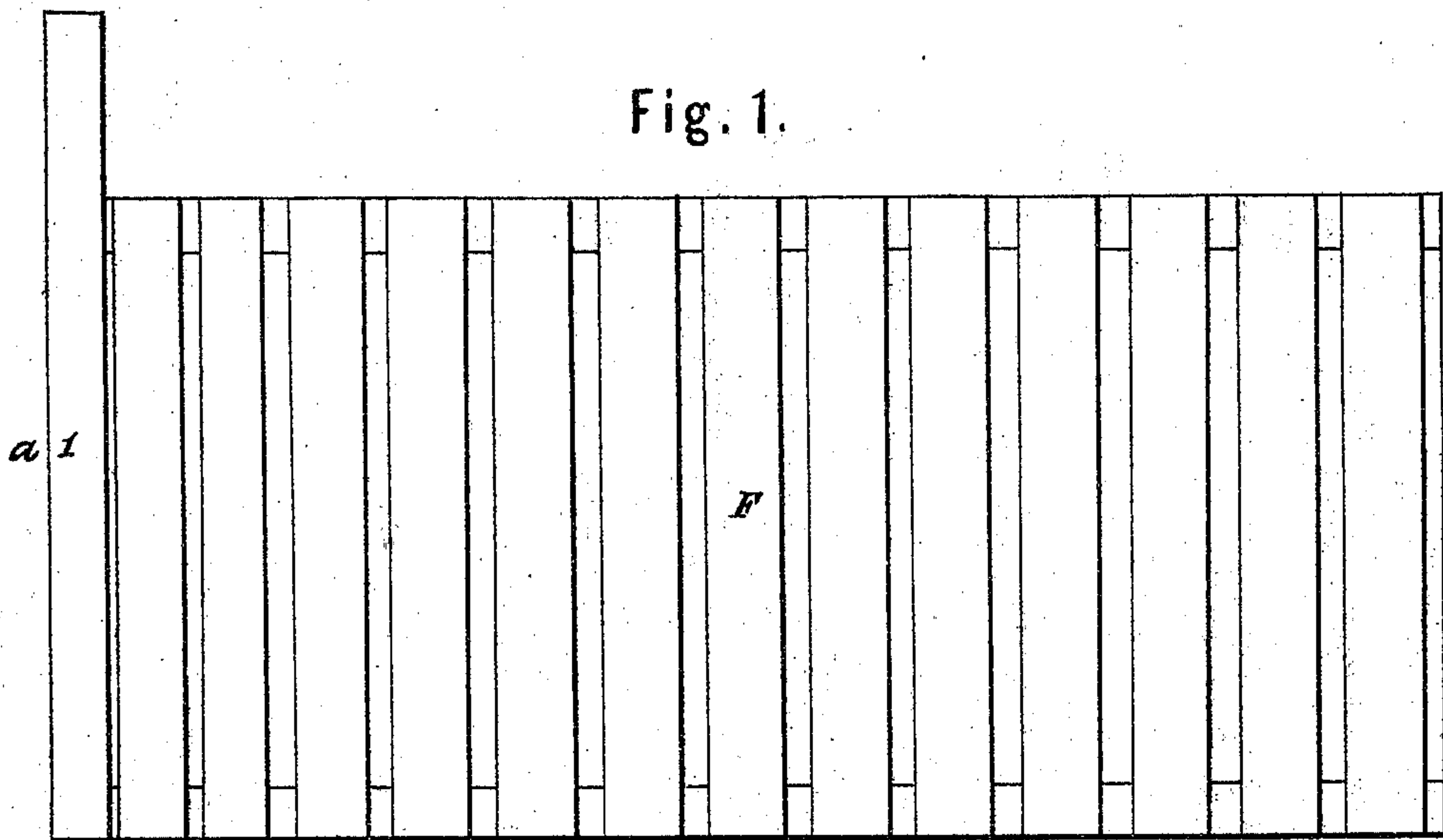
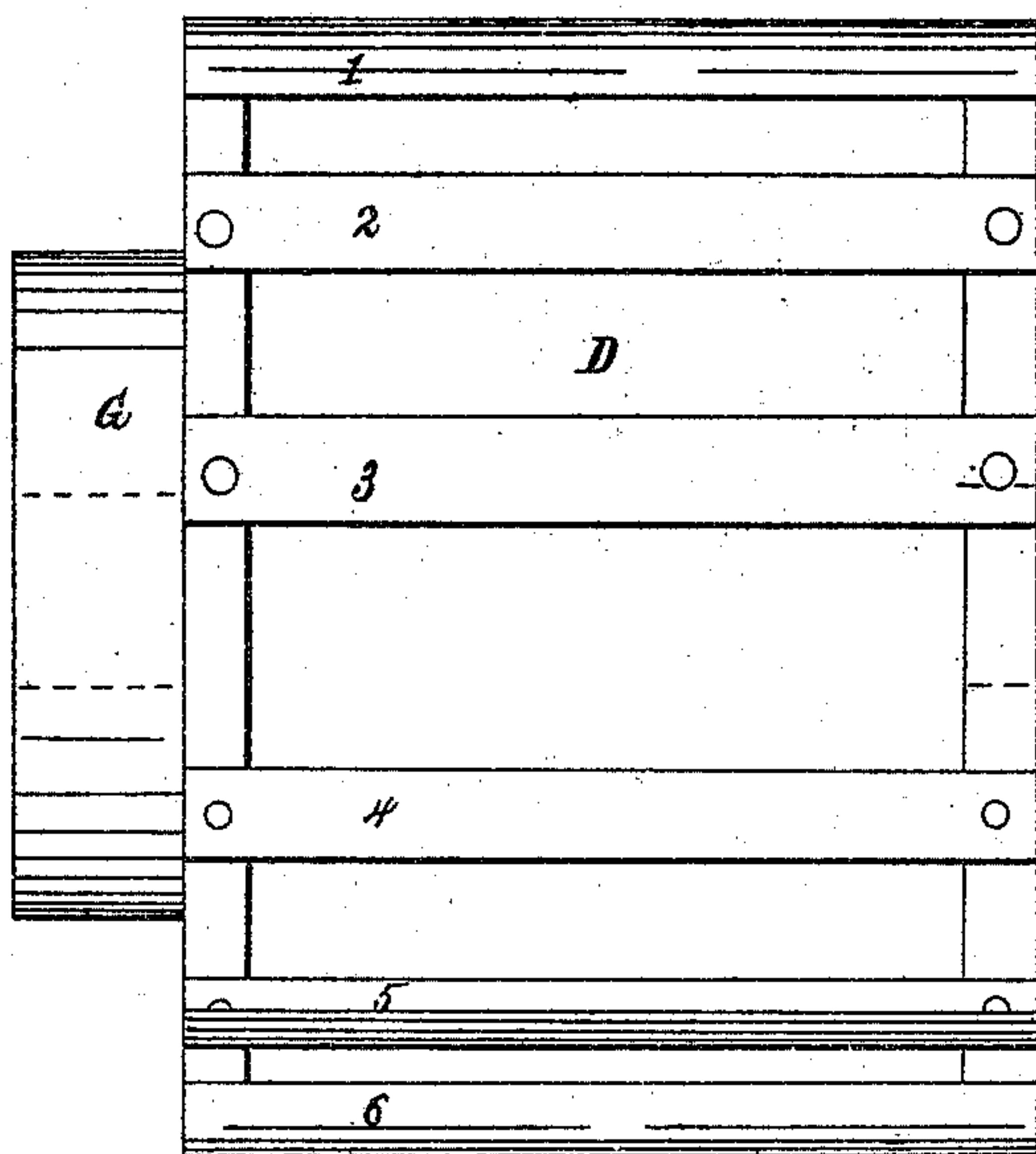


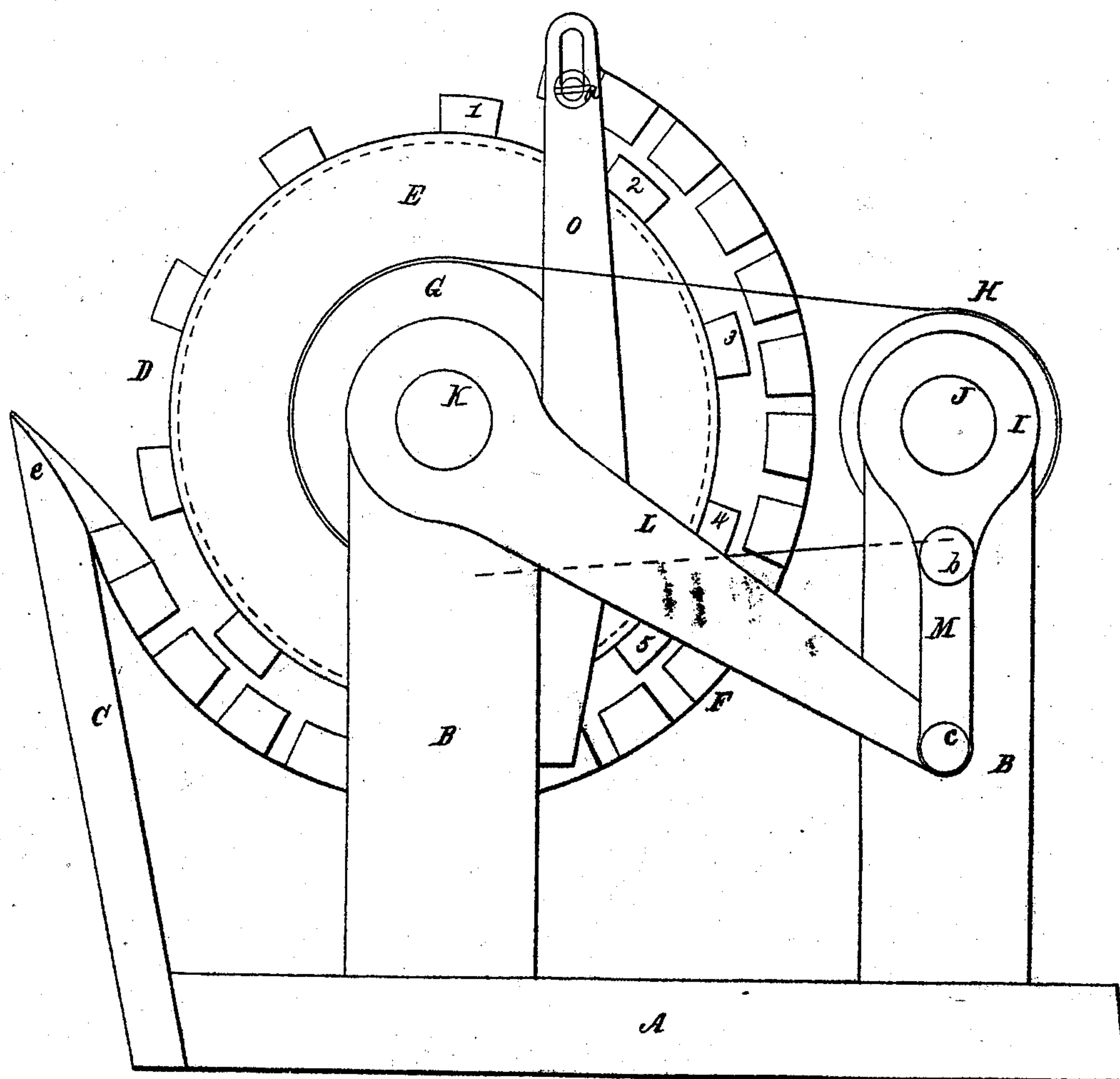
Fig. 2.



Sheet 2.
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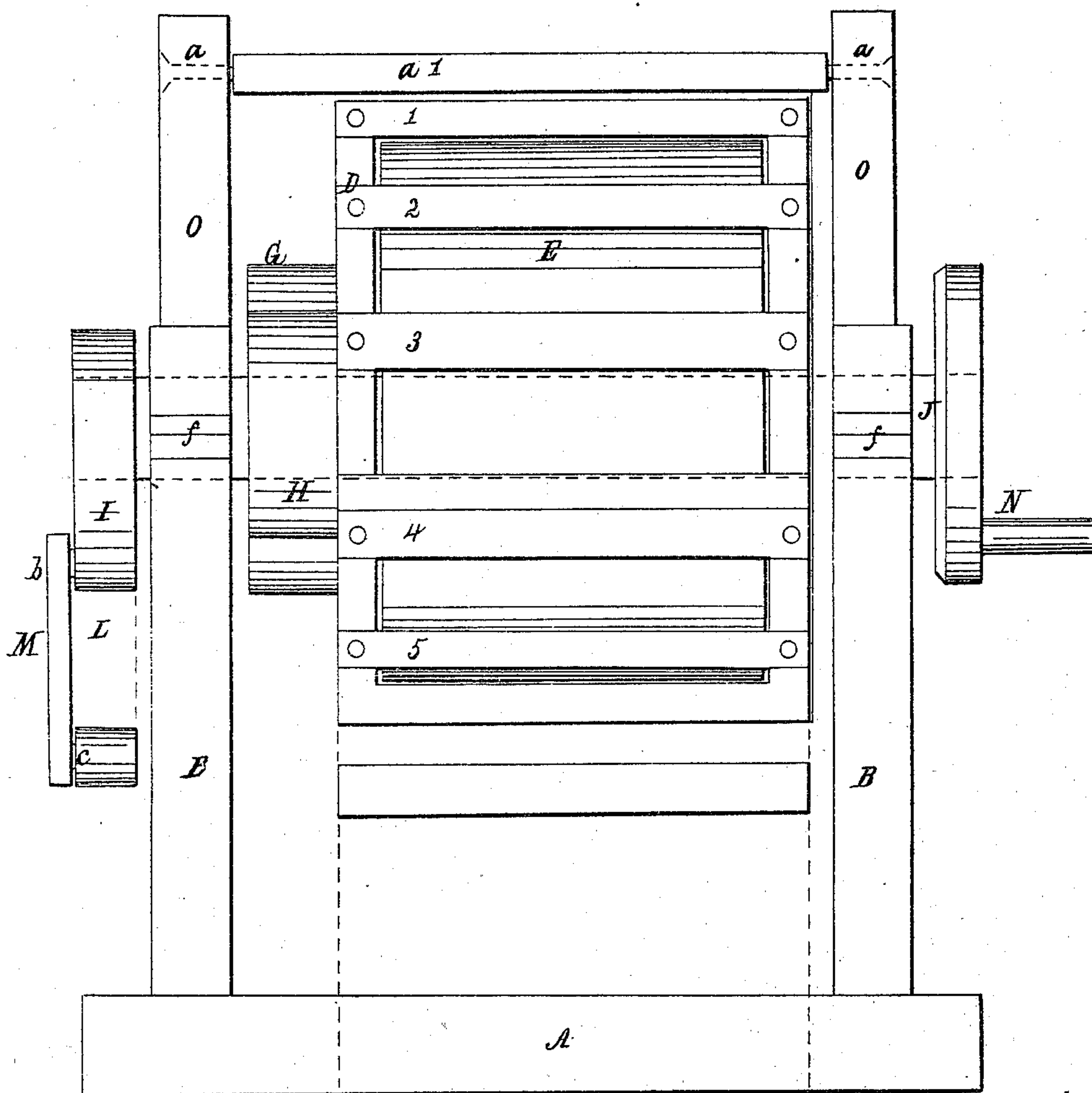
Fig. 3.



Sheet 3.
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Fig. 4.



UNITED STATES PATENT OFFICE.

JOSEPH THOMAS, OF BROOKLYN, NEW YORK.

MACHINERY FOR FELTING HAT-BODIES.

Specification of Letters Patent No. 15,627, dated August 26, 1856.

To all whom it may concern:

Be it known that I, JOSEPH THOMAS, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Machine for Sizing and Felting Hat-Bodies; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, figures and letters of reference thereon, in which—

Figure 1, is a face view of the slatted plate detached from the machine. Fig. 2, represents the slatted discharging wheel. Fig. 3, is a side elevation of my improved sizing and felting machine. Fig. 4, is an end view; having the slatted plate removed in order to better show the mechanism.

Similar letters of reference refer to like parts in all the drawings.

The nature of my invention consists in employing a discharging slatted wheel, to carry the material through the machine and effectually prevent clogging in its passage.

To enable others skilled in the art to construct and use my machine I will proceed to describe its construction and operation.

A, is the base of the machine.

B, B, are the standards which support the shafts.

C, is a bar supporting one end of the slatted plate the other end of which is secured to the base.

D, is the discharging slatted wheel.

E is a wheel incased within the discharging wheel, made fast upon the main shaft which has a vibratory motion.

F is the slatted plate upon which the goods work while felting.

G is a pulley made fast on the discharging wheel.

H is a pulley on the shaft J, which drives the discharging wheel.

I is a crank on the shaft J.

K is the shaft upon which the discharging wheel rotates while the vibrating wheel E is fast upon it.

L is a rocking lever attached to the main shaft K.

M is a short strap connecting the crank on the shaft J, to the lever L at the joints (b, c.)

N is a crank wheel having a winch to propel the machine.

O, O, are standards attached to the posts B the upper end of which secures the slatted plate (a¹.) A¹, is the bar which serves to secure the plate F, at (a) to the standards O, O, which plate is removed in order to better show the mechanism in Fig. 4. This plate F one end of which is secured to the post C at (e) while the other is fast at (a) on the posts O, O, is constructed with slats of suitable proportions secured by screws or bolts, to straps of brass or copper, which metallic substances will stand the action of water (or alkalis should such be used) better than iron or steel. This plate is so constructed that it will spring or yield slightly during the passage of the goods over it.

The discharging wheel D, rotates upon the shaft K and is arranged to incase the wheel E having thin peripheries nearly or quite together; meaning their diameters should be so near alike as not to allow the goods rubbed by the vibrating wheel, to catch under the slats on the discharging wheel. This discharging wheel has upon its periphery slats 1, 2, 3, 4, 5 as shown in Figs. 2, 3, and 4.

Operation: The goods being put into the machine and motion given the crank wheel (N) will in its revolutions cause the discharging-wheel which rotates upon the shaft K, to operate and carry forward the goods; while the crank I by means of the connecting rod M, and lever L will give a vibratory motion to the wheel E which rubs the goods back and forth against the plate F, as the discharging wheel progresses them forward which operation is repeated, until the goods are sufficiently sized and felted.

Having thus described my improved machine what I claim as new therein and desire to secure by Letters Patent is—

I claim in hat sizing machines the employment of a discharging slatted wheel, when arranged as described; for feeding the goods into and through the machine essentially as set forth.

JOSEPH THOMAS. [L. S.]

Witnesses:

C. A. DURGIN,
JAMES PARKER.