

J. S. Hasbrouck,

Grain Conveyor.

No. 100,887.

Patented Mar. 15, 1870.

Figure 1.

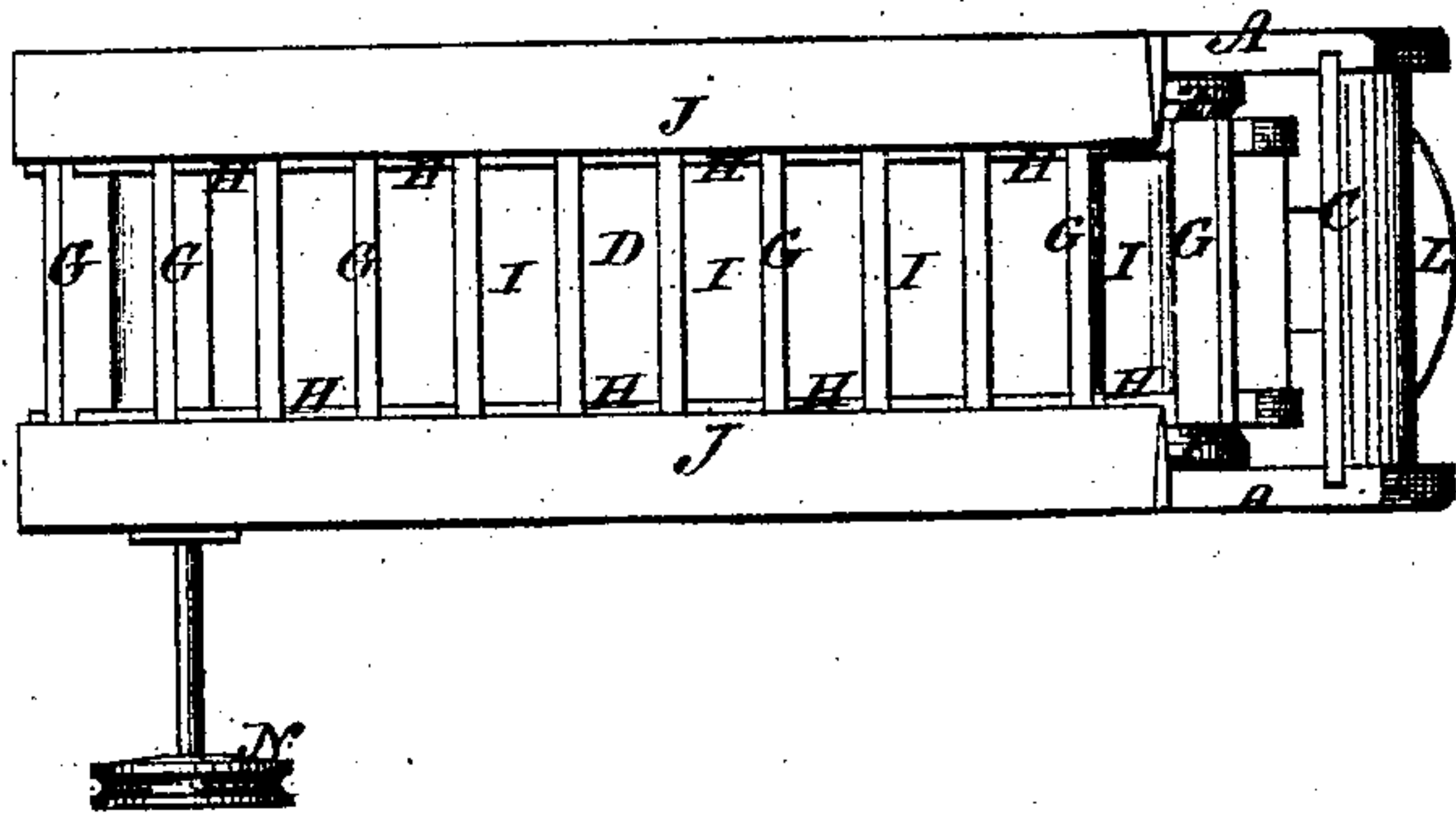


Figure 2.

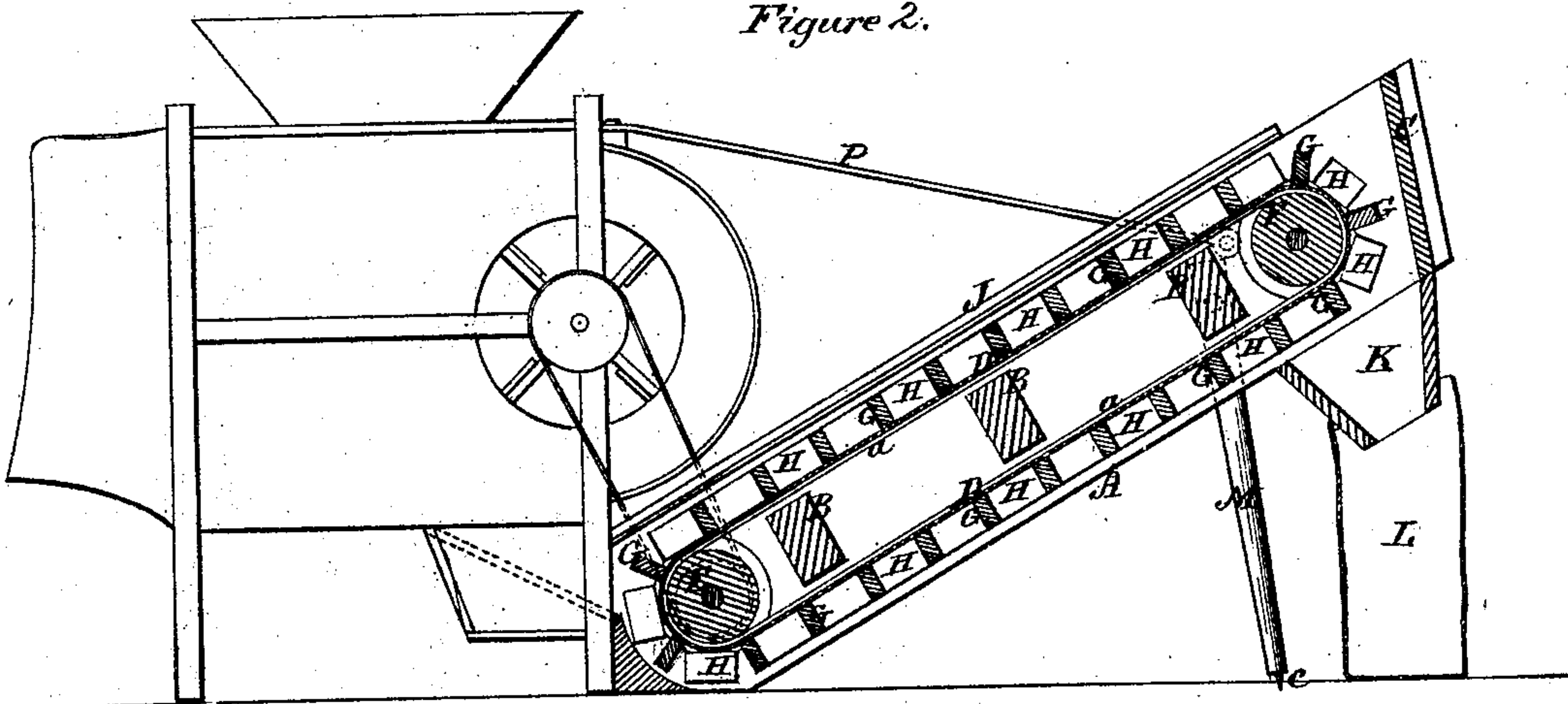


Figure 3.

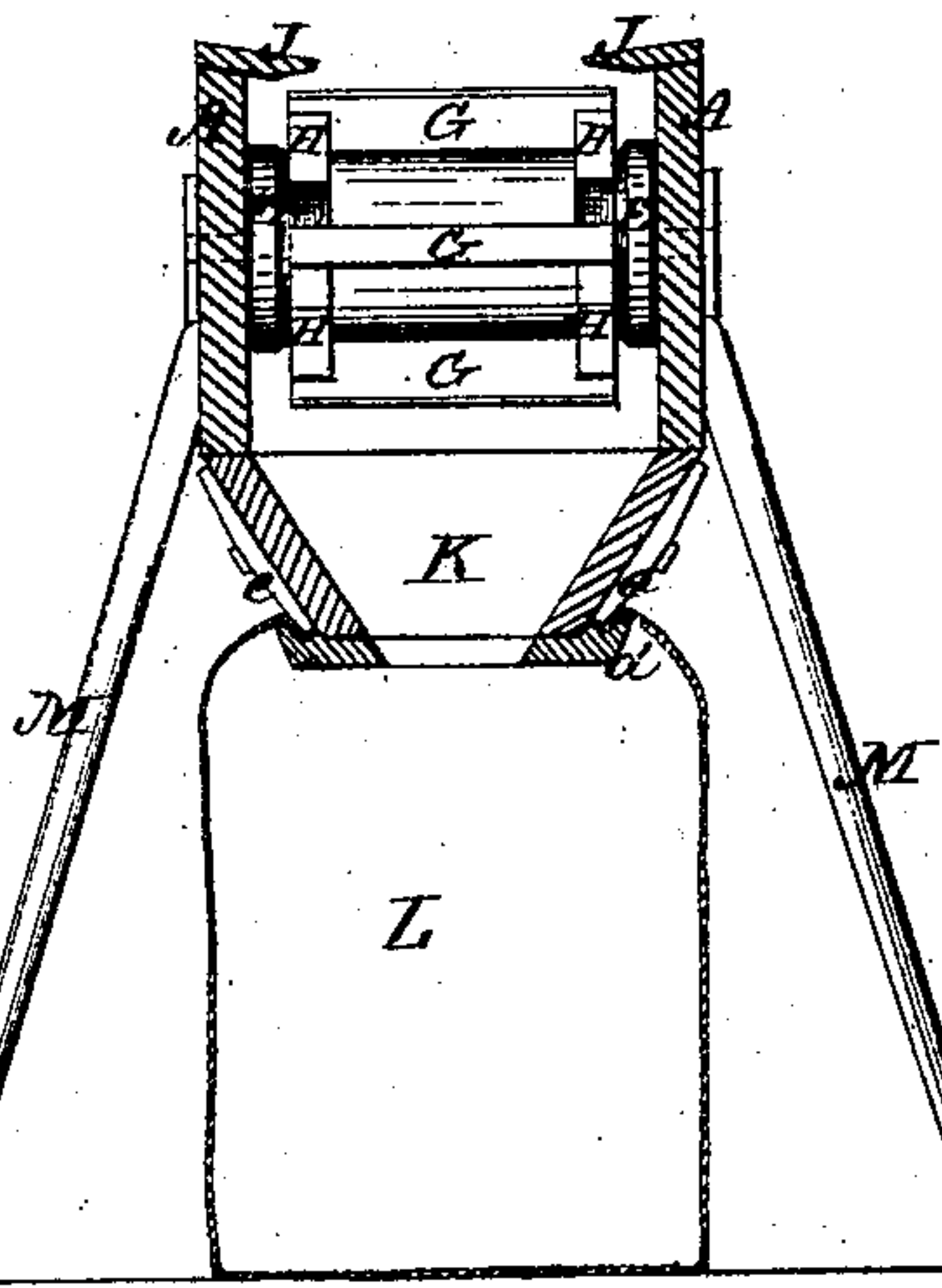
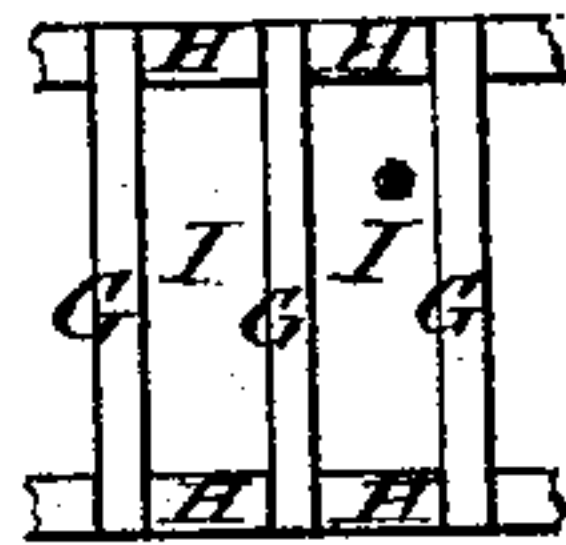


Figure 4.



Witnesses
French F. Moix,
Chas. C. Wilson

John S. Hasbrouck
By Whippleman Johnson
Attorneys.

United States Patent Office.

JOHN S. HASBROUCK, OF TYRE, NEW YORK.

Letters Patent No. 100,887, dated March 15, 1870.

IMPROVED APPARATUS FOR ELEVATING AND BAGGING GRAIN.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOHN S. HASBROUCK, of Tyre, in the county of Seneca, and State of New York, have invented certain new and useful Improvements in an Apparatus for Elevating and Bagging Grain; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings which make part of the same, and in which—

Figure 1 represents a plan or top view of an apparatus embracing my improvements.

Figure 2 represents a vertical longitudinal section through the same, showing its attachment to a fanning-mill.

Figure 3 represents a vertical transverse section through the discharging-chute, showing the manner of attaching the grain-sack thereto.

Figure 4 is a plan of two of the elevating-buckets of the apron.

My invention relates to an apparatus to be attached to any fanning-mill now in use, for carrying the cleaned grain therefrom and delivering it into sacks ready for shipment.

In the accompanying drawings—

A represents the side pieces, which form the case or frame of the apparatus, secured together by horizontal bars, B, open at its end next the winnowing-machine, and closed by an inclined board, C, at its delivering end.

Within this frame I arrange an endless apron, D, of buckets, secured in position by rollers E F at each end, around which it revolves.

This endless apron D consists of a band of canvas, mounted upon two outside and an intermediate endless band of leather, *a*, while to its upper surface are attached transverse bars G, of a width just equal to that of the apron, and at each edge of the apron, and between the transverse bars, are secured, by a single wrought rivet, blocks H, which form, in connection with the bars, entirely closed cells I, so that the kernels of grain cannot get in between the side blocks and the ends of the bars G, while the apron is allowed to turn over the convex surface of the supporting-rollers E F without binding or danger of being torn from their connection with the endless apron D, as they open readily from each other in turning the rollers, but close the moment the band D assumes a tangent to said rollers.

The side pieces A are provided with overlapping ledges, J, to cover the edges of the apron.

The inner or lower end of this apparatus is made pointed, so as to slide directly beneath the chute of the fanning-mill, and rests upon the floor against the

frame of the mill, and by this construction is capable of attachment to any fanning-mill in use.

The grain is received into the cells I of the apron, carried upward and delivered from its highest end directly into a chute, K, secured to the under side thereof, to which the mouth of the bag L is attached, and as grain-bags are of varying length, and as it is necessary that they should always just rest upon the floor without the least folding, so that, irrespective of their length, they shall be well filled, this end of the elevator is mounted upon two pivoted legs M, which maintain an inclined position with the sides A, so as to brace the elevator laterally, having their lower ends provided with pins *c* for biting into the floor, and turning the lower ends of the legs nearer to or further from the fanning-mill, raises or lowers the delivering end of the elevator to suit any length of sack.

Hitherto sacks have been secured to the mouth of the discharging-chute by being hooked thereon, which is liable to tear them out, and thus by constant use destroy the bag.

To prevent this, I attach a grooved rib, *d*, to each side of the mouth of the chute, and pivot a button, *e*, thereto, so that when turned down contiguous to the grooved rib, it will bite each side of the sack securely in the grooves of the supporting-ribs, and thus hold the bag, while its removal therefrom is effected by simply turning the button aside. In this way the bags may be attached and removed with the greatest facility, and without injury.

The motion of the endless cellular apron D is derived from a band leading from a pulley on the fan-shaft of the mill to a pulley, N, on the axis of the lower roller.

When it is not required to bag the grain the end board C may be removed, and the grain delivered directly on the floor.

Instead of the legs M, the elevator may be supported by rods P, connecting its front end with the top of the fanning-mill, and adjusted, as may be required, by screw-bolts.

Having thus described my invention,

I claim the combination of the endless traveling-apron D, of inclosed cells I, the hinged adjusting-legs M, the discharging-chute K, having grooved ribs *d*, and locking-buttons *e*, the whole constructed and arranged as herein shown and described, for adaptation to fanning-mills of various construction.

JOHN S. HASBROUCK.

Witnesses:

JEREMIAH MEAD,
J. D. VANDENBERY.