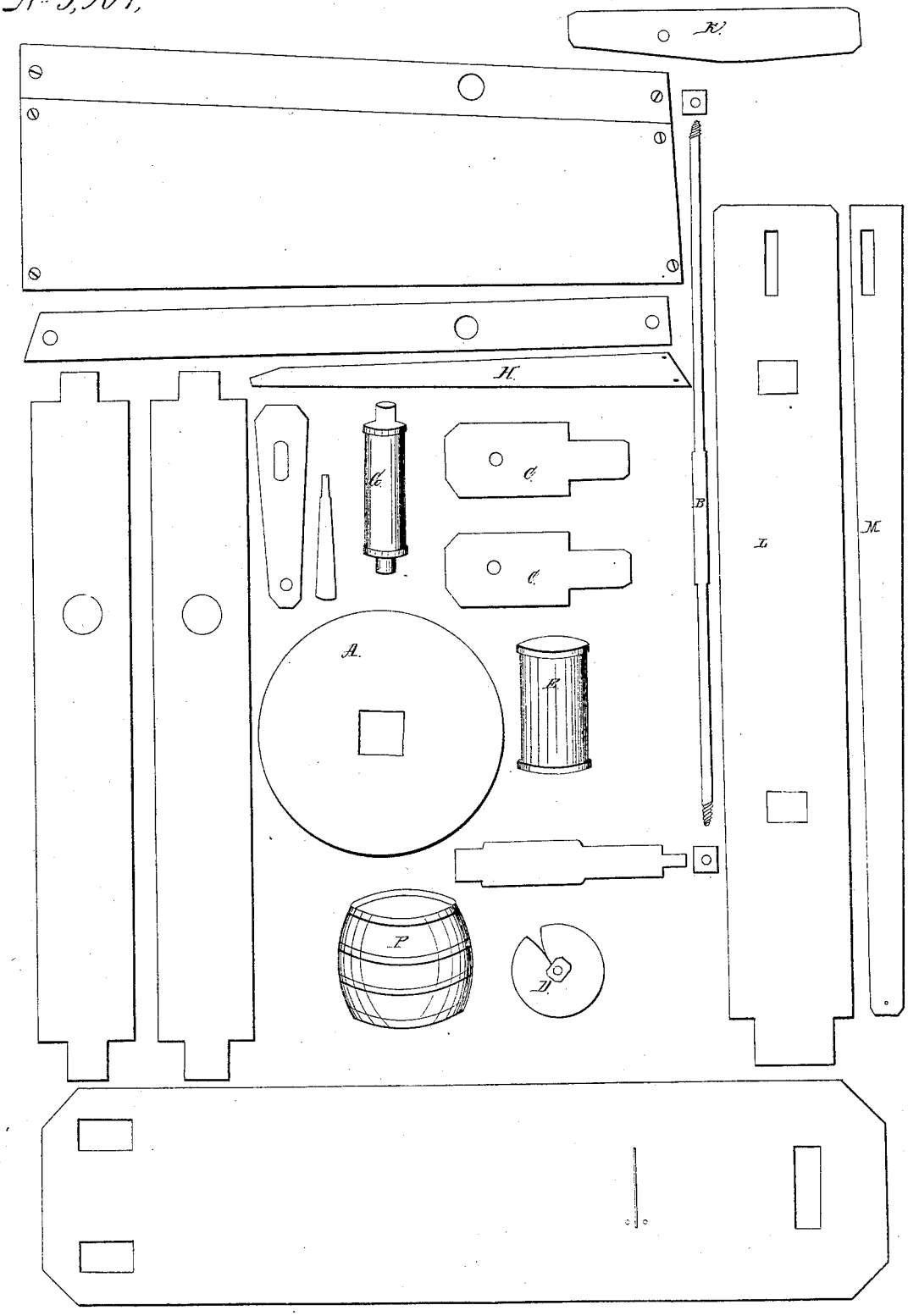
Sheet 1-2, Sheets.

Borman & Kauffman.

Flour Packer,

No. 5,907, Patented Nov. 7, 1848.

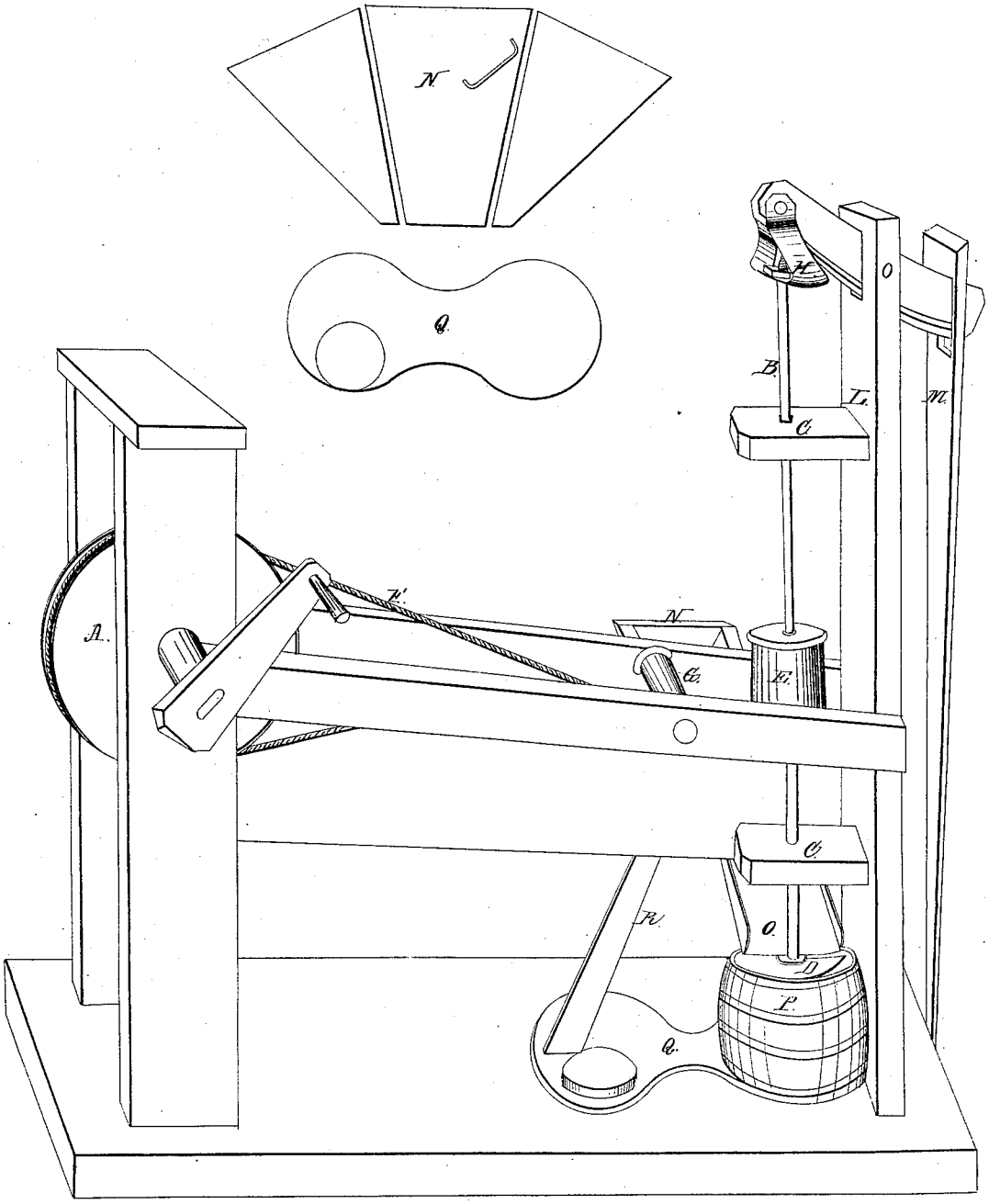


Sheet 2-2 Sheets.

Borman & Kauffman,

Flour Packer,

No. 5,907, Patented Nov. 7, 1848.



UNITED STATES PATENT OFFICE.

B. BOWMAN AND A. KAUFFMAN, OF FRANKLIN COUNTY, PENNSYLVANIA.

FILLING BARRELS WITH FLOUR, &c.

Specification of Letters Patent No. 5,907, dated November 7, 1848.

To all whom it may concern:

Be it known that we, BENEDICT BOWMAN and ABRAHAM KAUFFMAN, of the county of Franklin and State of Pensylvania, have jointly invented a new and useful method of filling and weighing flour or other meal in barrels in a mill by a single process, the name of the machine to be used for the purpose being a "flour filler and weigher," and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the machine, reference being had to the accompanying drawings as a part of this specification.

No. 1 is a perspective view of the whole machine. No. 2 exhibits the different parts of the machine separately exposed to view.

The folowing are the essential parts of the machine requiring description and specification.

A is a drum or wheel keyed on the boltering shaft in a flour mill which next to the water fall or steam may be considered the motive power.

B is a vertical pressing rod made of polished wrought iron about 10 feet in length and an inch and a half in diameter—it is polished on those parts only that rise sink and revolve in the holes of the wooden arms, C, C,—these holes are bushed with suitable metal and are of use to keep the rod in a perpendicular position.

D is a circular cast iron plate nearly corresponding in diameter with the mouth of a flour barrel and about three-eighths of an inch in thickness. This plate has a fissure or slot running from a point an inch or more from its center to the circumference, one edge of which is beveled below like a chisel, and raised gradually above the other edge along the line of the fissure until the two edges of it are about 1 inch apart at the circumference of the plate. The lower point or end of the pressing rod is screwed into the center of this plate and fastened if necessary by a nut. The pressing rod and plate thus connected sink into and press the flour or meal in the barrel by their own weight, and rise with the accumulation of the flour under the plate to the top of the barrel. Besides this vertical motion of the rod and plate they are also made to revolve by the motive power mentioned during the process of filling and pressing the flour, somewhat in the manner of an auger—the revolution being against the raised edge of the fissure in the plate so as to admit a free passage of the flour beneath it into the barrel.

E is a drum keyed on a square of the pressing rod, around which a strap F is passed under the pulley G to the drum A,—by means whereof the rotatory motion above described is given to the pressing rod and plate.

H is a stirrup or clevis of wrought iron within which the pressing rod is suspended by means of a nut screwed on its upper end. This stirrup or clevis is fastened by bolts to the lever K which rides in a mortise cut in the upright post L,—and by the play of the lever, both it and the clevis yield to the descent and rise of the pressing rod and plate in the process of filling and pressing the flour in the barrel.

M is an arm connected by a loose mortise at the upper end with the lever K at the extremity of the lever opposite the clevis, and is designed merely to stay the descent of the pressing rod and plate until things are ready for its operation. This is effected by slipping a hole in the lower end of the arm M over a pin fixed in the upright post mentioned near which the arm is suspended.

N is a sink or hopper which conveys the flour from the boltering chest and discharges it by the trough O into the barrel P.

Q is a pair of platform scales balanced in the narrow neck between them, upon one of which the barrel is placed and on the other the weights. When the barrel is filled with flour to its proper weight it sinks with the end of the scale upon which it stands; and the opposite end of the scale as it rises pulls a wire or string attached to a bell to give notice to the miller of the barrel being ready for removal. By this same motion (the rise of the weight end of the scale) the trough O—which is suspended on two axle points at the sides far enough from the center of it to give a preponderance to that division of it which is farthest from the barrel—is reversed by the upper end of the lever R unhooking from a pin in the framework over the trough a rod or wire that is attached to the heavy end of the trough, and looped or hooked on this pin at the other end to keep the trough inclined towards the barrel when the flour should flow into it; the inclination of the trough being thus reversed conveys the surplus flour into a chest—placed on the opposite side of the framework from the barrel to receive it.

The above described machine composed of the parts specified and suitably connected with the boltering apparatus of a flour mill will fill a barrel with flour and weigh it at the same time without the superintendence or presence of anybody. The attendance of a hand is only required to remove the barrels when filled and weighed and to supply its place on the scale with an empty one.

A portion of the above machine having been heretofore patented to others—what we claim as our invention and desire to secure by Letters Patent is—a new and useful method of filling flour into barrels in a mill and weighing the flour and barrel together by one process by means of a movable trough suspended on axle points near the center of its sides giving a preponderance to that division of it that is farthest from the barrel, and a pair of platform scales fixed below the light end of the trough, upon one end of which scales the empty barrel is placed to receive the flour from the trough and on the other end the weights are placed with the end of a lever mortised on it also—which rising with that end of the scales when the barrel has reached its weight, unloops or unhooks a rod or wire from a pin in the framework above that stayed it with an inclination toward the barrel while it was filling, and thus permits the trough by its unequal balance to reverse its inclination and convey the surplus flour into a chest on the opposite side to receive it. This invention is called a flour filler and weigher—and may be used in flour mills of every description for the manufacture of flour or meal from any description of grain whatever.

BENEDICT BOWMAN.
ABRAHAM KAUFFMAN.

Witnesses:
JOHN MCCLELLAN,
S. M. ARMSTRONG.