

N. BASSETT.
Sifting-Machine.

No. 216,549.

Patented June 17, 1879.

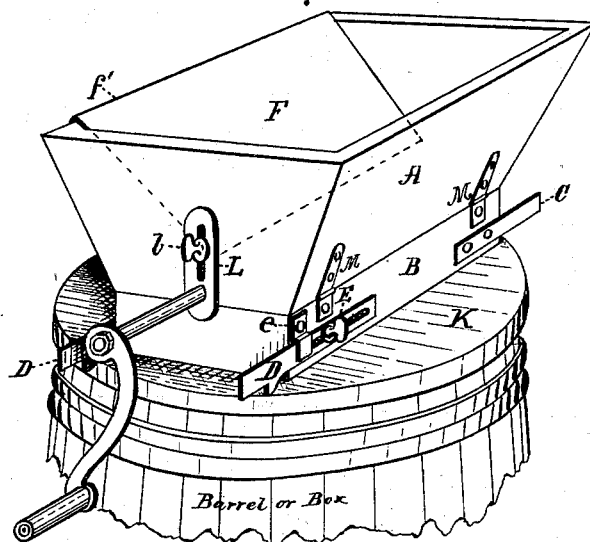


Fig. 1

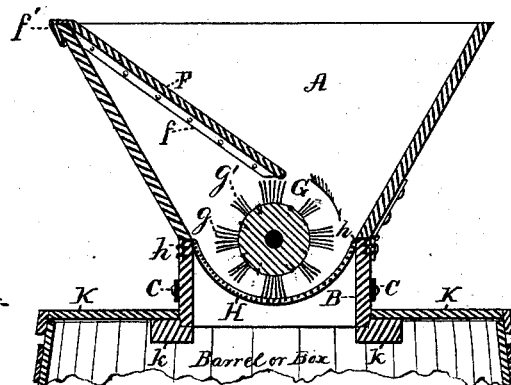


Fig. 2

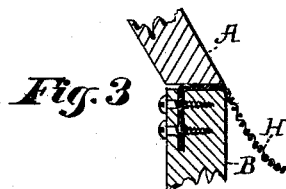


Fig. 3

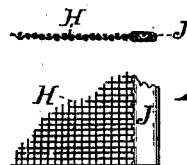


Fig. 4

Attest:
J. P. Burthong.
James H. Lange.

Inventor:
Nathan Bassett.
per Edson Bros.
Attorneys

UNITED STATES PATENT OFFICE.

NATHAN BASSETT, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SIFTING-MACHINES.

Specification forming part of Letters Patent No. **216,549**, dated June 17, 1879; application filed March 18, 1878.

To all whom it may concern:

Be it known that I, NATHAN BASSETT, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Sifting-Machines, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to an improvement in machines used for sifting various substances, such as flour, plaster, &c., and such other siftable matter as it is desirable to pass through a fine sieve. Heretofore machines used for such purpose have met with certain difficulties—viz., a lack of adjustability to different positions, such as the various widths of bakers' troughs; not being adapted to barrel-heads; subject to throwing out lumps and foreign substances; clogging up of the sieve and the consequent tearing away of the same at its fastenings; non-ability of the sieve to adjust itself to the various matters to be sifted; the destruction of the sieve when nails, sticks, &c., find their way into the machine.

The object of my invention is to provide a sifting-machine of such construction as to obviate the objectionable features above noted; and to that end my invention consists, first, of adjustable bearings by which the machine can be adapted to troughs of different widths; second, a rotating reducing-cylinder having metallic points and bristles arranged thereon in spirals, the former projecting from the drum a less distance than the latter; third, the combination, with the hopper proper, of a false hopper in such a position as to prevent the throwing out of the machine of non-reducible substances, and to form a chamber for the same; fourth, of a sieve fastened at the sides only of the machine, and provided with flexible attachments, by which the sieve adjusts itself to the amount or condition of the material to be sifted.

In the drawings, Figure 1 represents the entire sifting apparatus in combination with a barrel-cover. Fig. 2 is a vertical transverse section through the center of the entire apparatus, as shown by Fig. 1. Fig. 3 is an enlarged view of the joint between the hopper and its base, showing the manner of fastening

the ends of the sieve. Fig. 4 is a plan and section of a portion of the sieve, showing the flexible metallic edge or border on same.

In the drawings, A represents the hopper of a sifting-machine; B, the frame for holding the sieve and bearings of the reducer. C is one of two fixed bearings. D is one of two adjustable bearings or slides, having thumb-screw fastening E and bearing or slide holder *e*. F is a portable false hopper, sliding into the hopper A on the ways *f*, and having a hooking-edge, *f'*, at its upper part, of metal or other suitable material, in one continuous piece or in sections, to hook over the edge of the hopper A. G is a drum, having placed in its periphery, spirally, longitudinally, or in sections, reducing-bristles and metallic points alternately, *g* and *g'*, the latter describing a circle of less diameter in turning than the former. L is one of two adjustable bearings for carrying the reducer G, said bearing being held in the desired position by set-screw *b*. H is a sieve, hung and fastened at the sides at *h*, and in the manner shown—that is, by first cutting a deep slot in the edges of the frame B, and by bending and forcing the sieve ends into the same and securing in that position by screws or nails set through and across the slot and sieve into the wood beyond, as shown at *h*, Fig. 3. As an additional security to the sieve, the hopper A is hinged to the frame B, and when shut down or together the hopper, with the weight of its contents, bears upon the sieve on both sides at the joint between the hopper and frame.

J is a flexible metallic binding or edge on the sides of the sieve H, to prevent fraying, and to allow the sieve to move freely in the frame B, adjusting itself to any demand made upon it by the material being sifted, especially to any hard or foreign substances that may chance to be passed into the hopper A.

K is a barrel or box cover, to which the whole of the above apparatus may be attached at will or permanently secured to. The bottom of the frame B fits closely into a frame-seat, *k*, secured to the under side of the barrel or box cover.

The frame B and hopper A, as before said, are separate in construction, both being held

firmly together by means of suitable hinges or clamp M M and catches on the opposite side.

In operation, the material to be reduced and sifted is placed into the hopper A, the crank turned in direction shown by arrow in Fig. 2, rotating the reducer G, the metallic points *g'* breaking all lumpy substances, and the tampico bristles *g* pulverizing and forcing same through the sieve H into receptacle beneath. Should there be any substance in the hopper A not reducible, the false hopper F prevents same being thrown out by the rapid rotation of the reducer G. The false hopper F prevents, also, the too rapid feeding of the machine and consequent scattering of the contents thereof.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the hopper and base A and B of a sifting-machine, of a series of adjustable slide-bearings, D D, having suitable locking devices *e e*, as herein described.

2. The combination, with a hopper of a sift-

ing-machine, of a rotating drum, G, having in its periphery bristles *g*, arranged in spirals on said drum, and metallic points *g'*, the latter projecting from the face of the drum a less distance than the former, as herein set forth.

3. The combination, with the hopper of a sifting-machine and a reducing-roller, of the portable false hopper F, having a hooking edge or lip, *f'*, and sliding into the hopper A on the ways *f*, substantially as shown and described.

4. The combination, with the hopper and base of a sifting-machine, of a sieve, H, fastened at sides only, the ends being free, and having a flexible metallic strip-edge, J, as and for the purpose set forth.

In testimony that I claim the above I have hereunto set my hand and seal, in the presence of two witnesses, this 2d day of March, 1878.

NATHAN BASSETT. [L. s.]

Witnesses:

EDWARD C. RYER,

JOHN URIAN.