

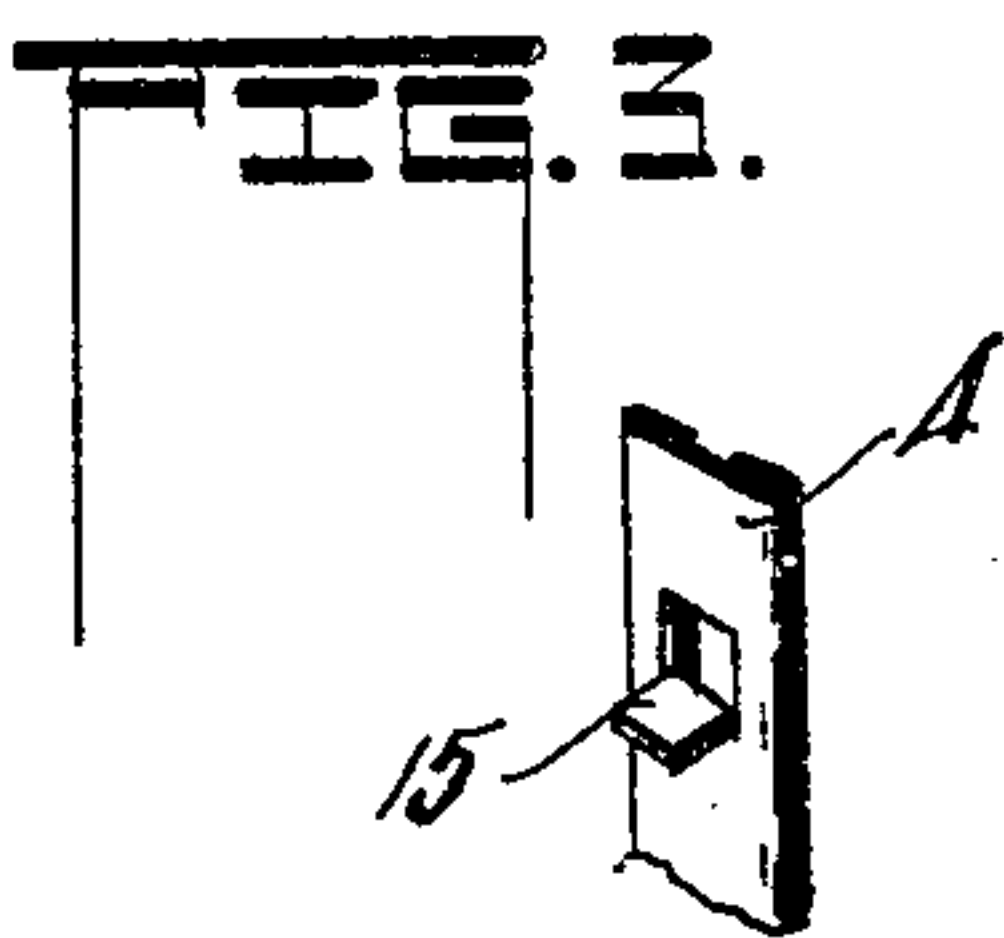
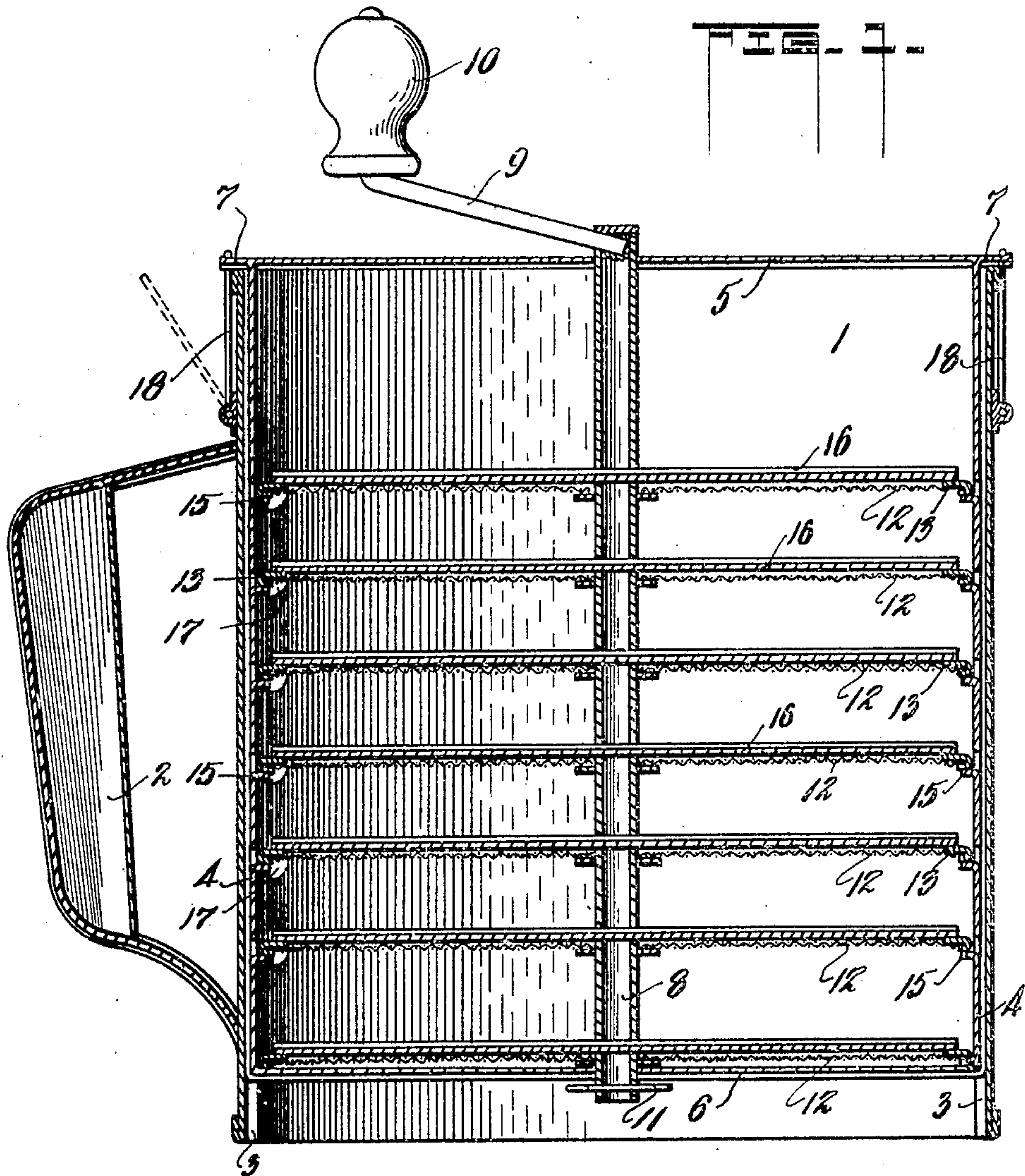
I. WANTLING.

FLOUR SIFTER.

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927,697.

Patented July 13, 1909.



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UNITED STATES PATENT OFFICE.

ISAAC WANTLING, OF PEORIA, ILLINOIS.

FLOUR-SIFTER.

No. 927,697.

Specification of Letters Patent.

Patented July 13, 1909.

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To all whom it may concern:

Be it known that I, ISAAC WANTLING, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Flour-Sifters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to flour-sifters and sifters for use in sifting other fine material, and the object which I have in view in the present invention is to provide a plurality of superimposed sieves mounted in one frame and coöperating therewith stirrers or scrapers, whereby at one operation, the flour or other material may be sifted several times.

A further object of the invention is to construct the sifting mechanism of the sifter, whereby the cost of manufacture will be reduced to a minimum and where the support for the several sieves may be easily and quickly removed from the supporting body and as easily and quickly replaced therein.

That the invention may be more fully understood, reference is had to the accompanying drawings, in which:—

Figure 1 is a vertical section of the sifter embodying my improvements; Fig. 2 is a partial plan view in section, showing certain details of construction, and Fig. 3 is a sectional detail showing the construction of the support for the sieves.

Like numerals of reference indicate corresponding parts throughout the figures.

The sifter comprises the open ended cylindrical body 1 having a handle 2, and said body is provided with the longitudinal grooves or runways 3, extending from end to end thereof and diametrically opposite to each other, into which may be inserted and have a sliding movement the vertical bars 4 of a frame which supports the sieves. These bars are connected at their upper ends by the cross head 5, at their lower ends by the cross brace 6. The cross head 5 is much longer than the brace 6, so that projections 7 are provided which rest on the top edge of the body 1 when the frame is in position therein, and limits the downward movement of the frame into the body 1.

Journalled in the frame, composed of bars

4, cross head 5 and brace 6, and having a bearing in said head 5 and brace 6 is a shaft 8. Said shaft having a crank arm 9 at its upper end provided with a button 10 to facilitate in operating said shaft, and through the lower end of the shaft below the brace 6 is passed a cotter pin 11, which, together with the crank arm 9 retains said shaft in operative position in said frame.

On the shaft 8 are carried a plurality of superimposed sieves 12. These sieves are preferably disk shaped and formed of the annular rings 13, capable of being carried in the frame aforesaid and said rings support the wire gauze or foraminated sheets 14 in the center of which a suitable bearing 14^a is provided through which the shaft 8 is carried. The positions of the sieves 12 on the shaft 8 is determined by lugs or plate projections 15 which project inwardly from the bars 4, and which serve as a rest for the sieves 12. Operatively carried by the shaft 8 immediately above the sieves are scrapers 16 which will rotate with the shaft, as it is operated. To prevent the sieves 12 from turning with this shaft, I secure lugs 17 to the rings 13 which will engage with the projections 15 of the bars 4.

To remove the sieves from the body 1, if for any reason it is desired to do so, by grasping the cross head 5, the entire frame and sifters may be lifted out of the body, the bars 4 having a sliding movement in the runways 3 as will be understood, and if for any reason, it is desired to remove the sieves from the frame, as for instance, to clean the same or substitute other and different forms of sieves, by removing the cotter pin 11, the shaft 8 may be removed, and likewise the sieves therefrom, if first, the stirrers or scrapers 16 have been detached from the shaft 8.

I provide bails 18 hinged to the outside of the body 1, adapted to engage the projections 7 of the cross head 5, for securely fastening the frame support for the sieves, in the body 1.

The projections 15 of the bars 4 are preferably formed thereon by stamping out portions of the metal of said bars, and bending said stamped portions out at right angles to produce the projections 15 described. Any chance of the frame rotating with the shaft is obviated by the arrangement of the bars 4 seated in the runways 3.

Having thus fully described my invention,

what I claim and desire to secure by Letters Patent of the United States, is:—

1. In a device of the character described, in combination, a cylindrical body open at both ends and provided with diametrically opposed longitudinal runways in its wall, a frame having parallel side bars adapted to be carried in said cylindrical body and have movement in the runways thereof, whereby the frame is prevented from having rotative movement, a shaft journaled in said frame, a plurality of superimposed sieves, and supports for said sieves connected with said parallel bars of the frame, and scrapers connected with said shaft and disposed immediately above said sieves.

2. In a device of the character described, in combination, a cylindrical body open at both ends and provided with diametrically opposed longitudinal runways in its wall, a sieve support composed of parallel frame parts adapted to be reciprocally carried in the runways of said cylindrical body, said parallel frame parts connected at their upper ends by a cross head provided with extensions adapted to engage the end of the cylindrical body for limiting the movement of the support in said body, and a cross brace connecting the lower end of said parallel frame parts, a plurality of sieves carried in said support, a shaft having a bearing in said cross head and brace of the frame and passing through said sieves, and scrapers connected with said shaft and carried immediately above said sieves.

3. In a device of the character described, in combination, a cylindrical body open at both ends and provided with diametrically opposed longitudinal runways, a sieve support composed of parallel frame parts adapted to be reciprocally carried in the runways of said cylindrical body, said parallel frame parts connected at their upper

ends by a cross head provided with extensions adapted to engage the end of the cylindrical body for limiting the movement of the support in said body, and a cross brace connecting the lower end of said parallel frame parts, means attached to said body and adapted to engage the extensions of said cross head for locking the frame in said cylindrical body, a plurality of sieves carried in said support, means attached to said parallel frame parts and forming a support for said sieves, means attached to said sieves and adapted to engage their supports for preventing rotative movement of said sieves, a shaft having a bearing in said cross head and brace of the frame and passing through said sieves, and scrapers connected with said shaft and carried immediately above said sieves.

4. In a device of the character described, in combination, a cylindrical body open at both ends and provided with diametrically opposed runways in the wall thereof, a sieve support adapted to be detachably connected with said cylindrical body and arranged to have a sliding movement in the runways thereof, but prevented from having rotative movement, and means for locking said sieve support in said cylindrical body.

5. In a device of the character described, a sieve support comprising parallel supporting bars, a cross head connecting the tops of the bars and a brace connecting the lower ends of the bars, said bars provided with right angle projections stamped from the body thereof, and sieve members supported on said projections.

In testimony whereof I affix my signature in presence of two witnesses.

ISAAC WANTLING.

Witnesses:

CHAS. W. LA PORTE,
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