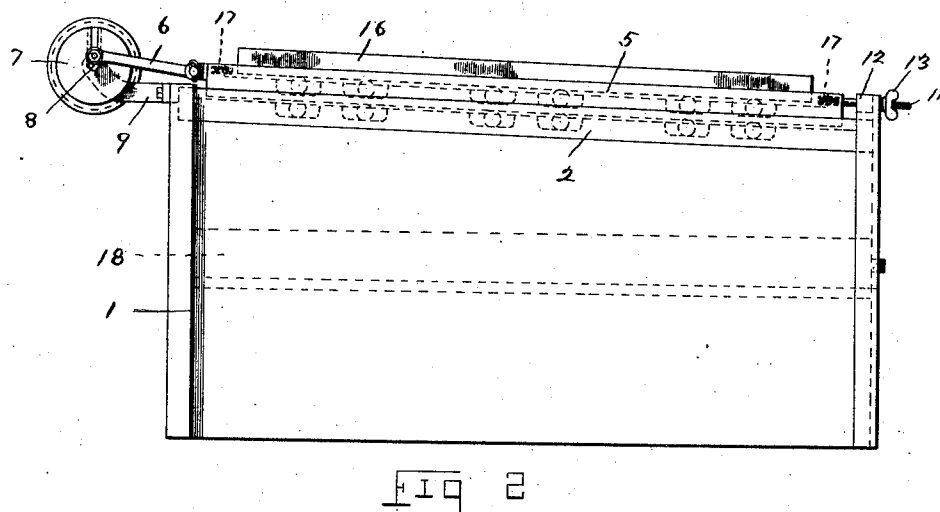
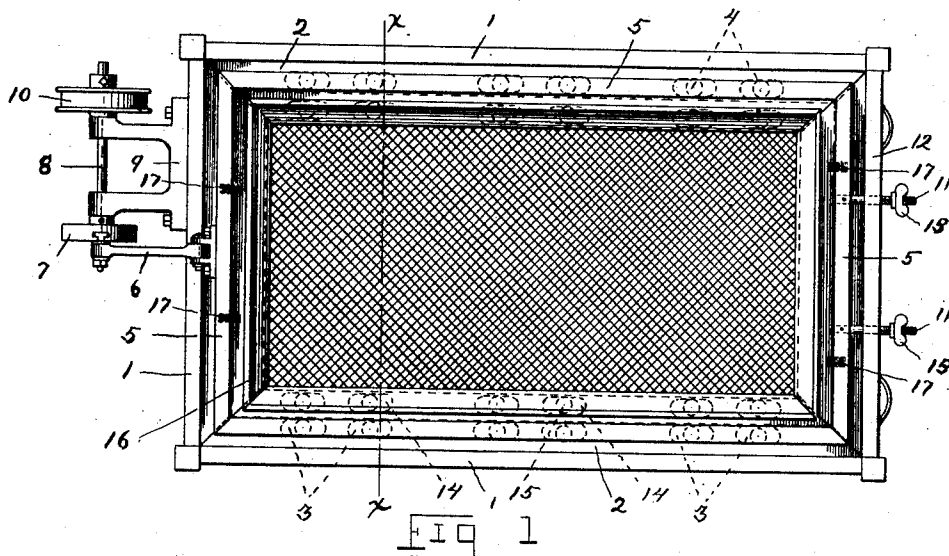


A. J. RICE.
FLOUR SIFTER.
APPLICATION FILED AUG. 29, 1911.

1,034,302. Patented July 30, 1912.

2 SHEETS—SHEET 1.



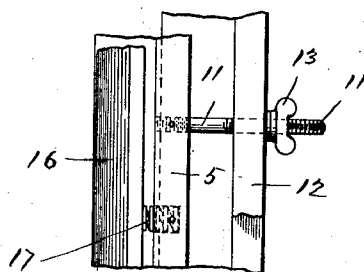
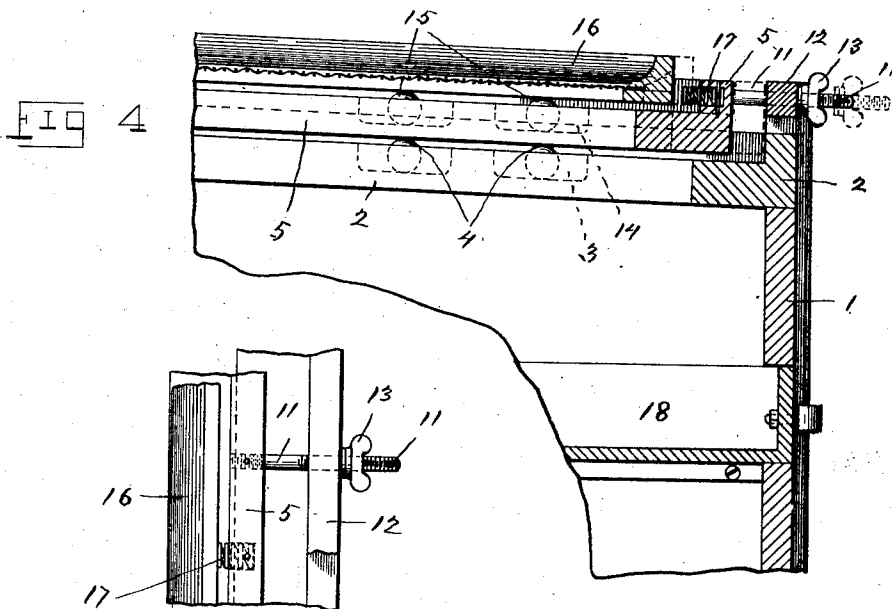
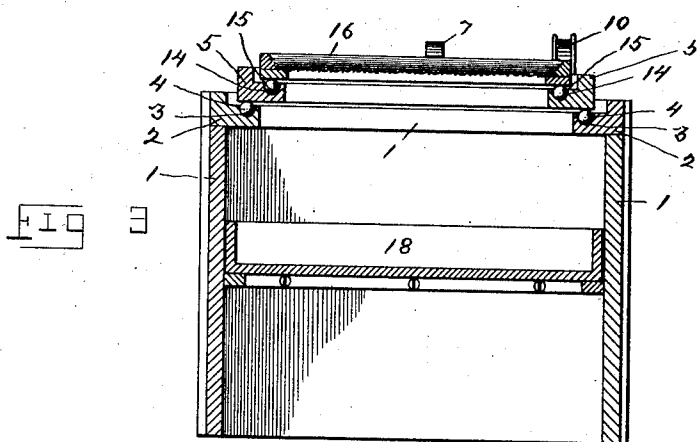
WITNESSES
B. P. Taltin
M. L. Lefevre.

INVENTOR
Andrew J. Rice,
BY
John Thompson
ATTORNEY

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Andrew J. Rice,
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ATTORNEY

UNITED STATES PATENT OFFICE.

ANDREW J. RICE, OF PHILADELPHIA, PENNSYLVANIA.

FLOUR-SIFTER.

1,034,302.

Specification of Letters Patent.

Patented July 30, 1912.

Application filed August 29, 1911. Serial No. 646,668.

To all whom it may concern:

Be it known that I, ANDREW J. RICE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Flour-Sifters, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to an apparatus for sifting or separating flour and other substances by means of a sieve or gyrator which is mounted in a frame and given a reciprocating or rotating motion.

15 The object of the invention is to provide a device of this class that shall be cheap, durable and efficient; contain few parts and be easily cleaned and adjusted.

20 Another object of the invention is to produce an apparatus of this kind in which the sieve is mounted on ball bearings in a reciprocating frame, and so operated that the material to be sifted is given a jumping motion or jar of varying length causing the material to sieve very rapidly.

25 Still another object of the invention is to provide a device that will sieve or separate damp or sticky material, the material not traveling with the body of the machine in motion, as is the usual case with similar devices.

30 The apparatus may be used without the usual jar and vibration imparted to the building within which it is mounted, as is the case by the ordinary separator.

35 With these and other objects in view, my invention consists in certain construction and combination of parts as will hereinafter be fully described and claimed in the annexed specification, and illustrated in the accompanying drawings which form a part of this application, and in which like figures of reference refer to corresponding parts in all of the views; but it is fully understood that while I have here described my invention as shown, that I do not confine myself to the exact design, as slight changes may be made in the construction and arrangement of the several parts without departing from the spirit of the invention.

40 In the drawings:—Figure 1, is a top plan view of the device. Fig. 2, is a side elevation of the same. Fig. 3, is a cross section taken on the line X—X of Fig. 1, showing the bearings. Fig. 4, is an enlarged verti-

cal sectional view showing the adjusting and cushioning means in detail. Fig. 5, is a detail top plan view of said adjustment means.

Referring to the drawings, the apparatus comprises the supporting frame 1, the top side plates 2, which are formed with a series of ball races 3, within which are placed the balls 4. Upon said balls 4, rests the reciprocating frame 5, which is provided at its upper end with the operating means which comprises a connecting arm 6, having one end attached thereto, and the other end attached to a crank wheel 7, mounted on one end of a shaft 8, rotatably mounted in a bracket 9, attached to the supporting frame 1, and designed to be rotated by a pulley 10, or by hand in any suitable manner. The reciprocating movement of said movable frame 5, is adjusted and limited by means of the rods 11, which have one end secured in the lower end of said frame 5, and which extend through and reciprocate within the cross-bar 12, secured to said frame 1; the stroke of said rods 11, being limited by the thumb-screws 15, which are threaded thereon; and in this manner, the limit of throw of the movable frame will be adjusted. Said movable frame 5, is also provided with a set of ball races 14, in which are placed the balls 15, upon which rests the sieve 16. Said sieve frame 16, has a perfectly free gyrating movement on the ball bearings 15, in the frame 5. For cushioning the movement of said sieve frame 16, with respect to the movable frame 5, I have provided the cushion springs 17, which are set into the frame 5, and project therefrom and receive the impact of said sieve frame 16; and in this connection it may be stated that these cushion springs may be placed at the sides as well as at the ends if desired. Under the sieve and movable frame may be placed a drawer or receptacle 18, to receive the sifted material as the same passes through the sieve.

The operation of the device is so obvious from the drawings and specification, that no detailed description is deemed necessary.

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

In a separating device of the class described, the combination of a supporting frame, a reciprocating frame mounted thereon in an adjustable manner, of a gyrating sieve frame mounted on said reciprocating

frame and capable of free lateral movement,
and means carried by said reciprocating
frame for cushioning the impact of said gy-
rating sieve frame, comprising coil springs
5 mounted in said reciprocating frame in a
manner to receive the impact of said gyrat-
ing sieve frame.

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

ANDREW J. RICE.

Witnesses:

D. A. KITCHENMAN,
WM. H. G. GOULD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
