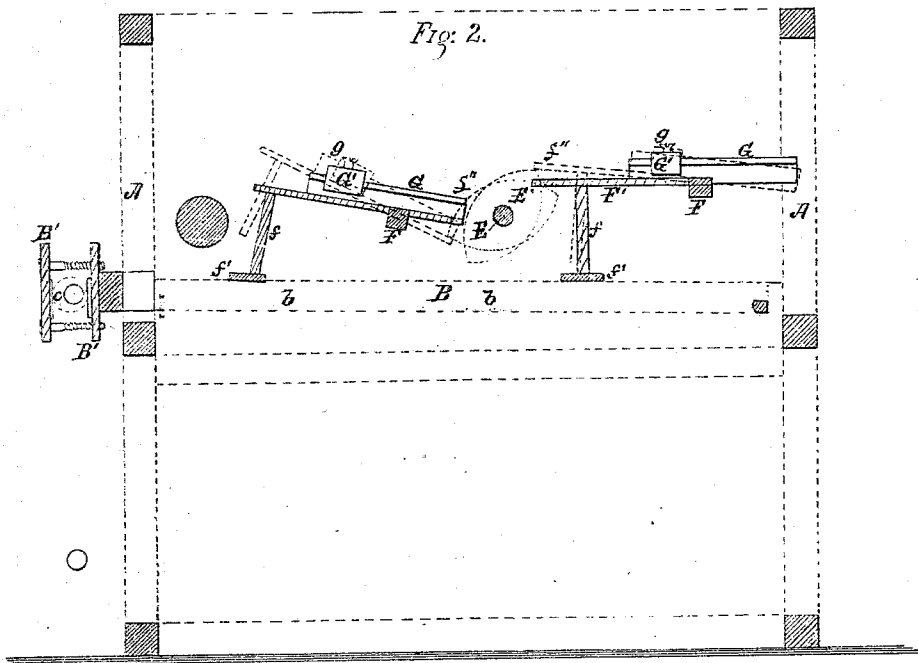
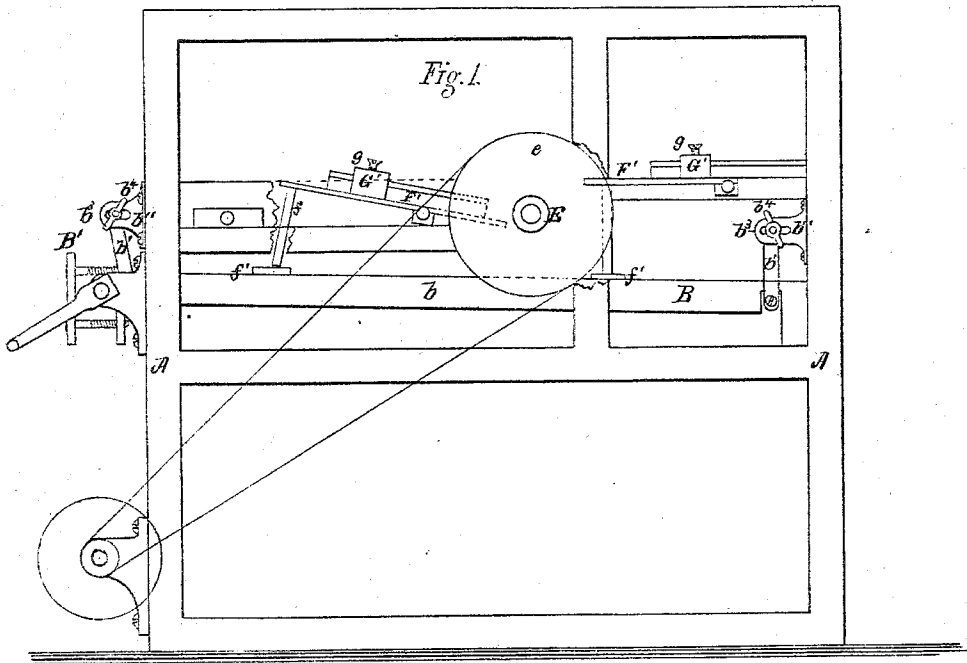


C. JANNEY.
Middlings Purifiers.

No. 134,750.

Patented Jan. 14, 1873.



Attest
Augustus Watson
J. Mason Woelfer

Inventor
Charles Janney
By N. Crawford
att'y

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Fig. 3.

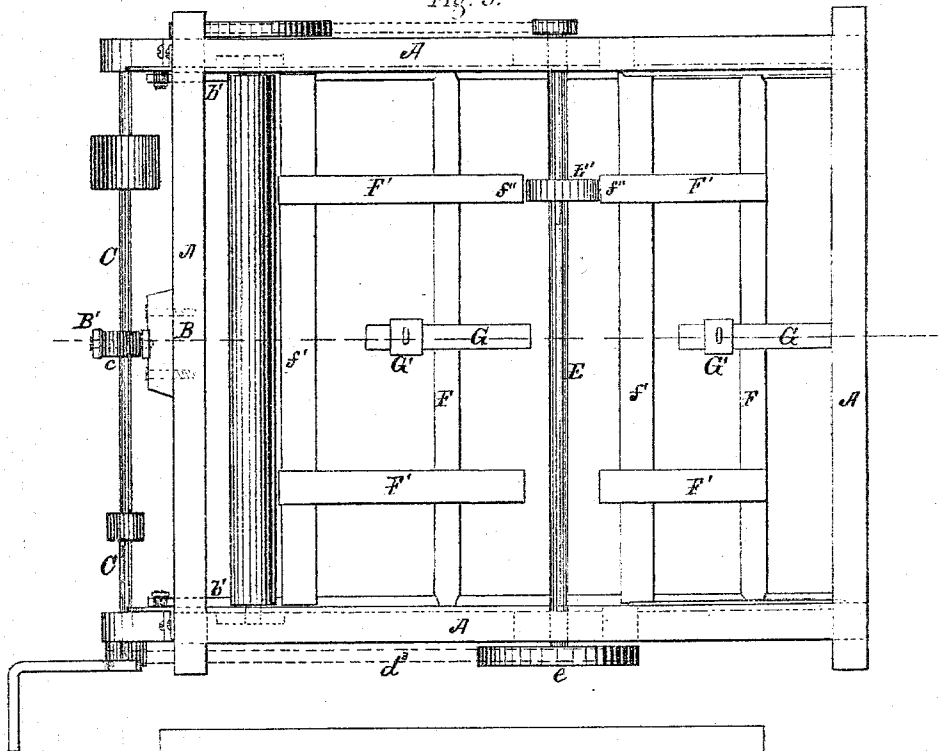
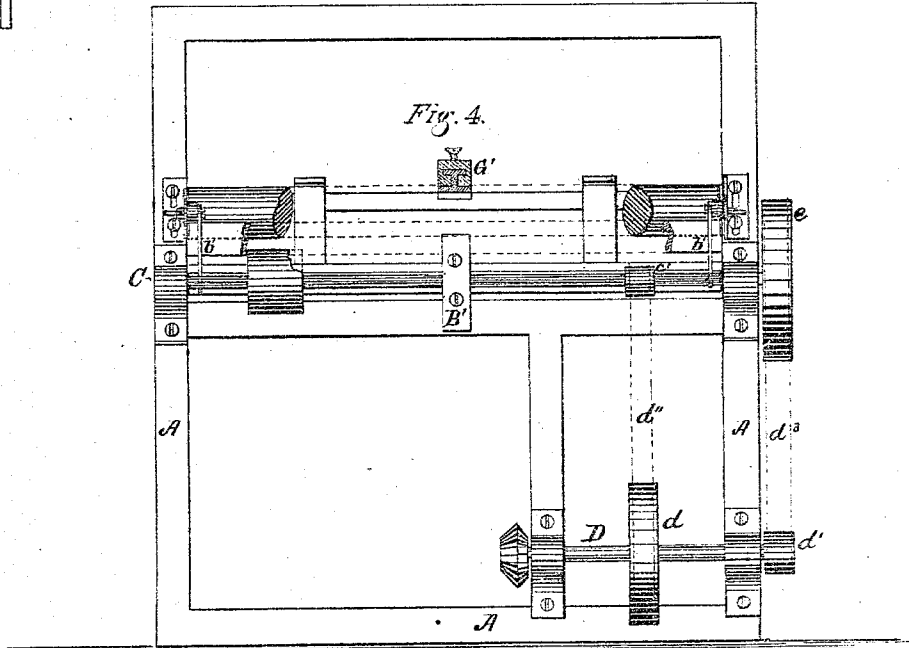


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES JANNEY, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO CHARLES M. HARDENBERGH, OF SAME PLACE.

IMPROVEMENT IN MIDLINGS-PURIFIERS.

Specification forming part of Letters Patent No. 134,750, dated January 14, 1873.

To all whom it may concern:

Be it known that I, CHARLES JANNEY, of Minneapolis, in the county of Hennepin, in the State of Minnesota, have invented certain Improvements in Middlings-Purifiers, of which the following is a specification:

Flour is now separated from bran and brown stuff, to a great extent, by means of bolts that are inclined in one direction and reciprocate in their movements instead of revolving, and in such movement of a bolt some of the finest flour may adhere to the bolt-cloth; and the object of this invention is to adapt a means of preventing any flour from adhering to the bolt-cloth; and it consists in the construction of the devices that are used for the purpose, and their arrangement to act upon the reciprocating bolt.

In the drawing, Figure 1 is a side elevation of the bolt; Fig. 2, a section of same; Fig. 3, a top view; and Fig. 4 is an end view.

A represents the frame or support, upon which the operating parts are attached. B is the reciprocating bolt-frame with the bolt-cloth *b* at its under edge suspended by swinging arms *b*¹ to slotted brackets *b*², so that swinging arms *b*¹ can be readily adjusted in the slots *b*² of the brackets, and when adjusted are held by the screw-bolt and nut *b*⁴ to their adjustments. B' is an adjustable frame attached to the rear end of the bolt-frame, in which revolves an eccentric *c* on revolving shaft C that goes across the rear end of the bolt, and gives a reciprocating motion to the bolt-frame B. D is the main driving-shaft placed at the rear end of the bolt and near its bottom side, is driven by any convenient power, and gives motion to pulleys *d* and *d*¹ by means of belt *d*² that goes around pulley *c*¹ on shaft C, which gives motion to the eccentric *c* and bolt-frame B. Belt *d*³ goes from pulley *d*¹ on shaft D around pulley *e* on shaft E, and revolves it. At a convenient point on horizontal shaft E, which is located above the reciprocating bolt-frame B, is attached a cam, E', of irregular curved form, that revolves with shaft E. F F are rock-shafts that go transversely and horizontally across the frame A, and are properly secured above the bolt-frame B in suitable bearings.

F' F' are arms secured in the rock-shafts F, as seen in Fig. 2, with their ends *f*^{''} projecting toward the shaft E and cam E', while at the opposite ends of arms F' are downwardly-projecting arms or hammers *f f f f*. *f' f'* are jar-bars that go transversely across, and are securely attached at the proper place on the top of bolt-frame B to receive the blows of the hammers *f*. G G are slide-bars fast on the rock-shafts F, and so constructed as to receive adjustable weights G' that can be adjusted on the bars G at any desired point, and when so adjusted the weights G' are secured by the holding-screws *g*.

By this construction and arrangement of parts, the reciprocating bolt in operation, and the shaft E with its cam E' in revolution, the projecting parts of the cam E' will bear upon the end of arms F' and cause the hammers *f f* on one rock-shaft to rise until, in its revolution, the cam is clear of the arm F', when the opposite side of the cam will bear upon the end *f*^{''} of arm F' to raise the two hammers on the other rock-shaft, when they will fall upon jar-bars *f'* on the reciprocating bolt-frame B, and the fine flour adhering to the bolt-cloth will be jarred off. When it requires a heavier blow to be struck in order to jar off the adhering flour, the weight G' is adjusted further from the rock-shaft on arm G, when the hammer *f* will fall with greater force, and as great as may be desired.

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

1. The combination of the revolving cam E' on shaft E, hammers *f* of arm F' on rock-shaft F, with the jar-bars *f'* on reciprocating bolt-frame B, all constructed and arranged in the manner substantially as and for the purpose described.

2. The combination of the slide-bar G, adjustable weights G' with the rock-shaft F and hammers *f*, when constructed and arranged to operate in the manner substantially as described.

CHARLES JANNEY.

Witnesses:

R. S. BRYANT,
CHAS. H. WOODS.