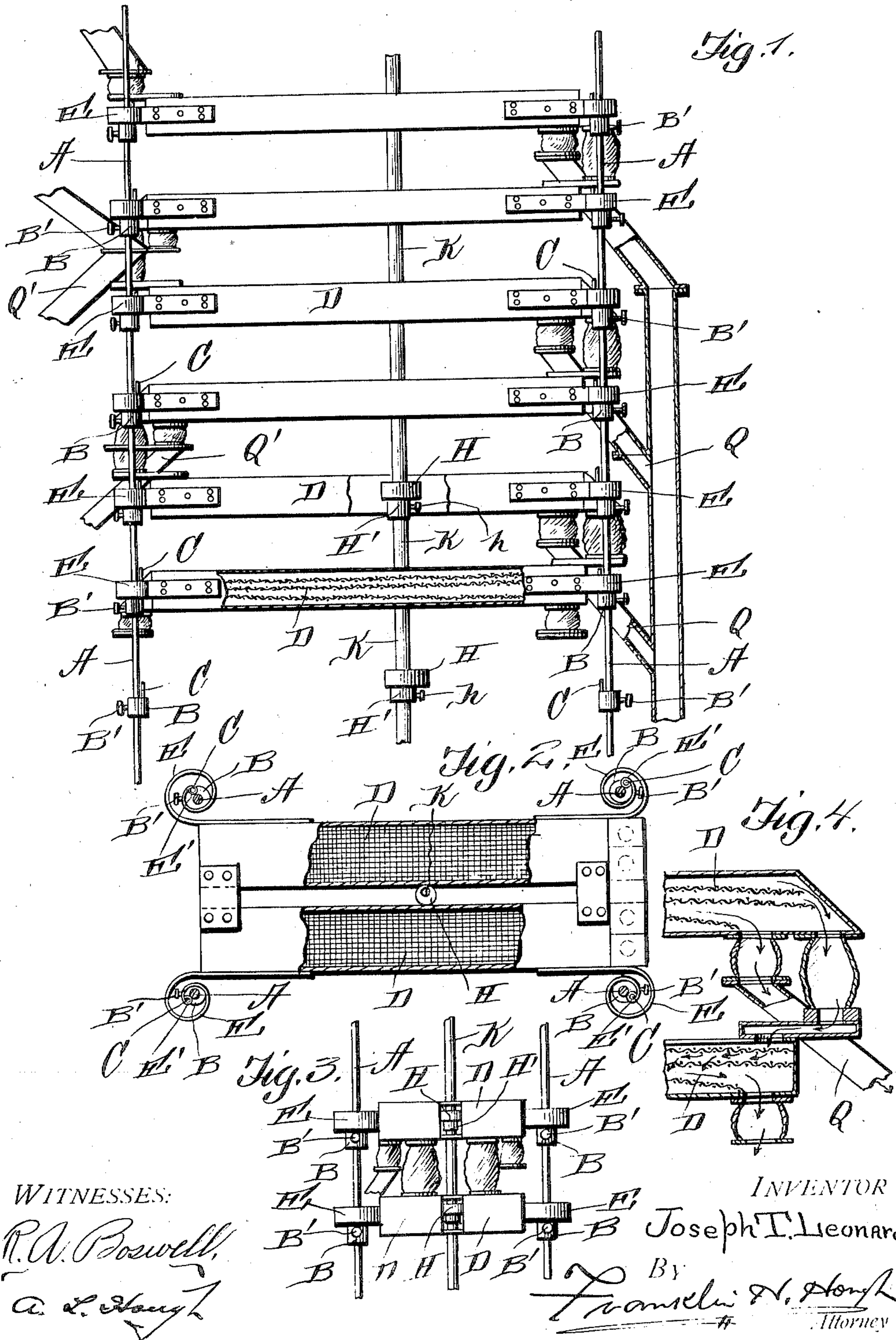


No. 811,857.

PATENTED FEB. 6, 1906.

J. T. LEONARD.
HANGER FOR SIFTERS AND SCREENS.

APPLICATION FILED MAY 10, 1905.



WITNESSES:

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JOSEPH THOMPSON LEONARD, OF SEDALIA, MISSOURI.

HANGER FOR SIFTERS AND SCREENS.

No. 811,857.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed May 10, 1905. Serial No. 259,799.

To all whom it may concern:

Be it known that I, JOSEPH THOMPSON LEONARD, a citizen of the United States, residing at Sedalia, in the county of Pettis and State of Missouri, have invented certain new and useful Improvements in Hangers for Sifters and Screens; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in hangers for sifting or bolting screens in flour-mills; and the object of the present invention is to provide means for supporting the screens by means of coil-springs of suitable strength and dimensions, so that the screens may gyrate or have a rotary motion, the springs being mounted upon edge and adjustably held upon upright shafts, motion being imparted to the screens by an eccentric.

My invention consists in various details of construction and in combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings—

Figure 1 is a side elevation showing a series of screens mounted in accordance with my invention. Fig. 2 is a top plan view of one of the sets of screens. Fig. 3 is an end view of a pair of screens. Fig. 4 is a sectional detail view.

Reference now being had to the details of the drawings by letter, A A designate shafts which are held in upright positions and spaced apart, and adjustably mounted upon said shafts are the collars B, which are held by means of thumb-screws B' at any suitable location. Each collar carries a pin C, which projects from the upper edge of the collar and parallel with the shaft upon which the latter is held.

D designates the screens or sieves, which are arranged in pairs, and to the outer edge of each screen is fastened a spiral spring E, closely coiled at its end, as at E', to receive a pin C, carried by the collar B. By this arrangement it will be observed that each pair

of screens is supported upon the four shafts A in such a manner that a horizontal movement in any direction may be imparted to the screen. Each of said screens is provided, preferably, with inclined bolting-cloths having different-sized meshes for the purpose of grading the flour as a gyrating movement is imparted to the screens by means of the cams H, which are fixed to the rotatable shaft K. Each of said cams or eccentrics is mounted in an aperture I intermediate the pairs of screens, and as the shaft K is rotated it will be observed that a gyrating movement will be imparted to the screens, which are supported by the springs upon edge in the manner shown and described. Suitable chutes Q and Q' are provided to receive the different grades of flour at the opposite ends of the screens.

It will be observed that collars H' are mounted upon the shaft K and held by means of set-screws h, whereby the eccentrics may be held at different locations to correspond with the adjustments of the collars which support the screens upon the shafts A.

By the provision of apparatus embodying the features of my invention it will be observed that bolting-screens may have a perfectly level, rapid, and springy motion, whereby the flour may be quickly and thoroughly bolted.

While I have shown a particular form of apparatus illustrating my invention, it will be understood that I may vary the details of the same, if desired, in various ways without in any way departing from the spirit of the invention.

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

1. An improved hanger for bolting-screens comprising, in combination with a screen and fixed upright shafts, spiral springs fastened to said screen and having each an end closely coiled to form a socket, adjustable collars mounted upon said shafts and pins carried by said collars and engaged by said coils, and means for imparting a gyrating motion to the screen, as set forth.

2. An improved hanger for bolting-screens comprising, in combination with a screen and fixed upright shafts, coil-springs fastened to said screen and having each an end closely coiled to form a socket, collars mounted upon said shafts, a pin carried by each collar, a set-screw for holding said collar in adjusted posi-

tions, said pins adapted to engage said coils
at the end of said springs, an eccentric mount-
ed in suitable bearings in the screen, a shaft
to which said eccentric is fixed whereby a gy-
5 rating motion may be imparted to the screen
mounted upon the springs which are upon
edge, as set forth.

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

JOSEPH THOMPSON LEONARD.

Witnesses:

GEO. HOFMANN,
H. F. BRILL.