

(No Model.)

G. T. FINLEY.

SIFTER.

No. 257,928.

Patented May 16, 1882.

Fig. 1.

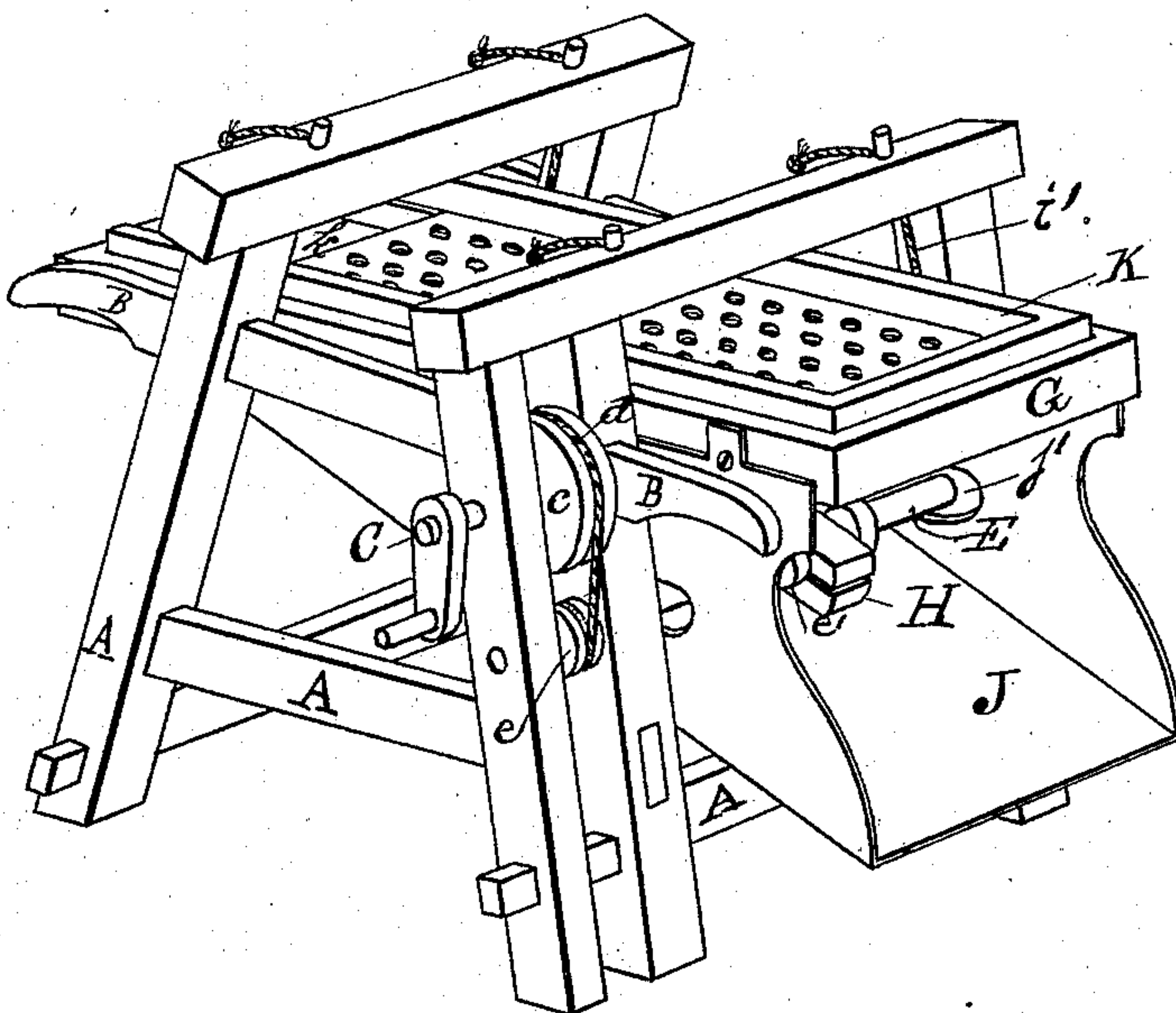
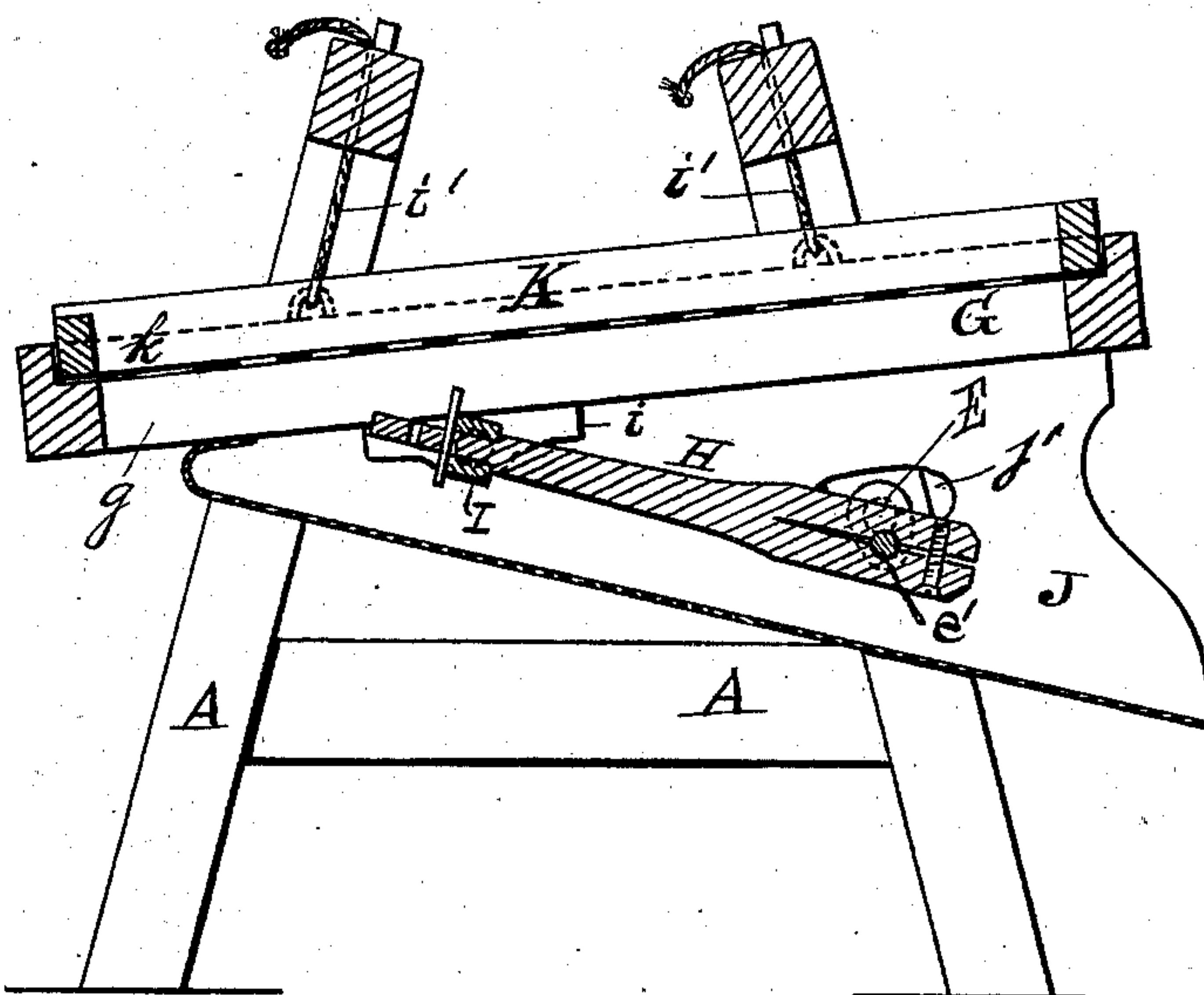


Fig. 2.



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UNITED STATES PATENT OFFICE.

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SIFTER.

SPECIFICATION forming part of Letters Patent No. 257,928, dated May 16, 1882.

Application filed April 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. FINLEY, a citizen of the United States of America, residing at Webster, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Sifters; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of sifters which are used to separate the finer and coarser particles of sand, lime, cinders, and similar substances; and it consists in certain elements of mechanism combined, as hereinafter described, and specifically set forth in the claims.

Figure 1 is a perspective of a machine embodying my invention, and Fig. 2 is a central vertical longitudinal section of the same.

Like letters refer to like parts in both figures.

A represents a suitable frame-work for the support of the mechanism, and it is provided with handles B, by which it is adapted to be carried from place to place.

Within the front standards of the frame is journaled a crank-shaft, C, which is connected by a pulley, c, and belt d to a driving-pulley, e, mounted on a parallel shaft, E, provided with a crank, e', by which the machine is operated. A belt-pulley may be mounted on the crank-shaft C, and power may be applied thereto, if desired.

To the crank of shaft C is connected the screen-frame G, by means of the rod H and a cross-bar, I, journaled in bearings i, attached to the under surfaces of the sides of said frame, which is supported by suspension chains, ropes, rods, or cords i', secured to the upper cross-bars of the frame-work. To the outer sides of said frame G are secured the sides of the chute J, which sides are perforated at j' in a manner which permits the passage therethrough of and

oscillation of said chute about the crank-shaft C. The rear end of the screen-frame projects beyond the chute, as clearly shown at g.

Within the frame G is located the screen K, having an opening, k, at its rear end corresponding to and registering with the opening formed by projecting frame G beyond the chute J. The frame G and screen K are inclined to the rear and the chute is inclined to the front, as shown.

Substances to be screened are fed into the front end of the machine, and the screen, screen-frame, and chute are simultaneously agitated, being directly connected to each other, by rotating the crank-shaft, as described, resulting in an oscillatory and swinging motion thereof, which is effective in separating the particles by forcing the finer through the screen into the chute and feeding both along the inclines of the screen and chute, delivering the finer portions at the front, while the coarser fall to the ground, or into a suitable receptacle at the rear of the machine.

If desired, gearing may be substituted for the belt and pulleys shown, and a fly-wheel may also be applied to either of the shafts.

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

1. The combination of the inclined suspended screen-frame and screen with the chute oppositely inclined and having perforated sides and secured to the screen-frame, and means for their operation, substantially as shown and described.

2. The combination of crank-shaft C, rod H, bar I, frame G, chute J, and screen K, with means for their operation, substantially as shown and described.

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

GEORGE T. FINLEY.

Witnesses:

A. A. PERKINS,
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