

No. 640,793.

Patented Jan. 9, 1900.

J. C. MURPHY.
ASH SIFTER.

(Application filed Feb. 21, 1898.)

(No Model.)

Fig. 1.

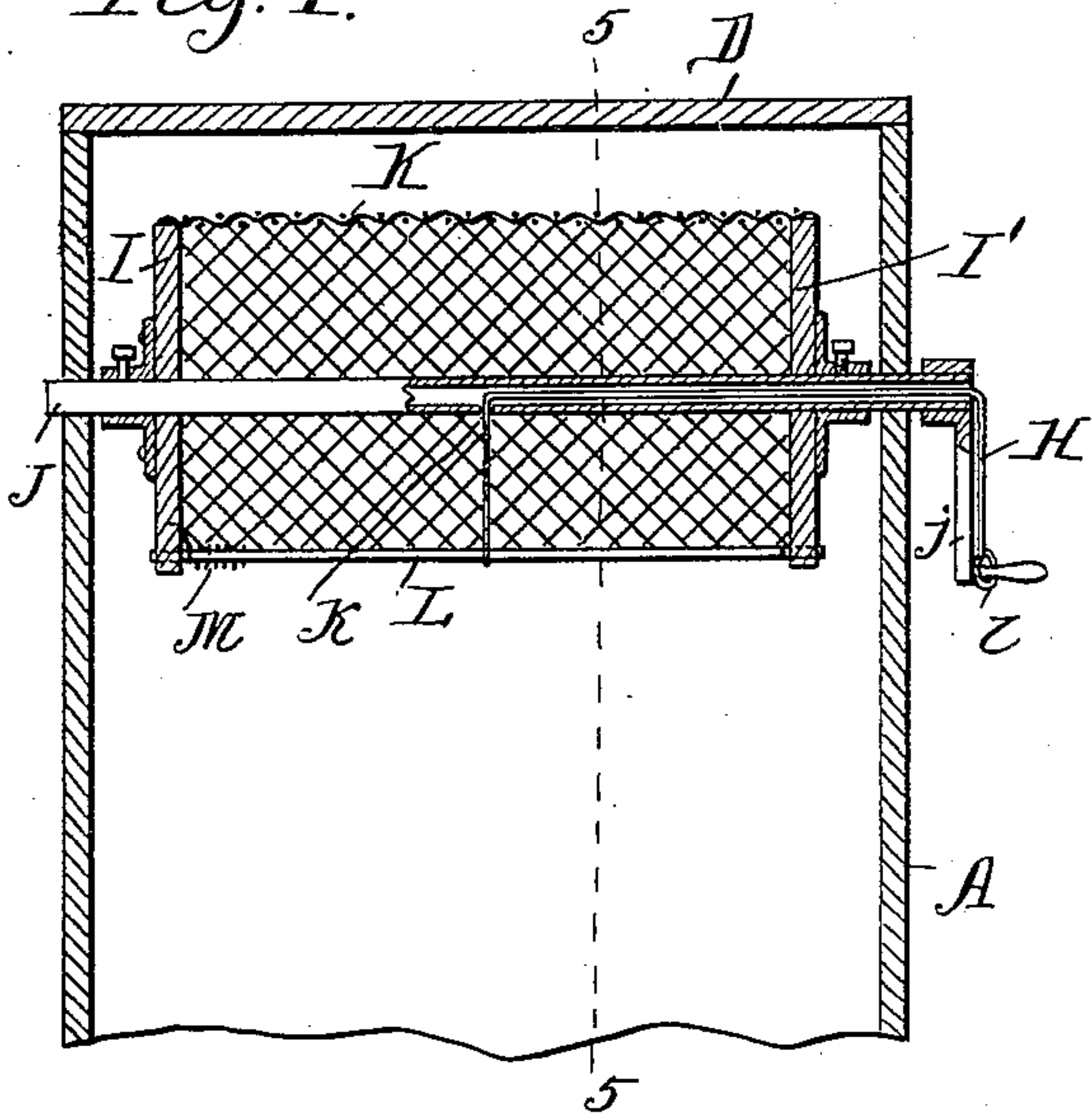


Fig. 2.

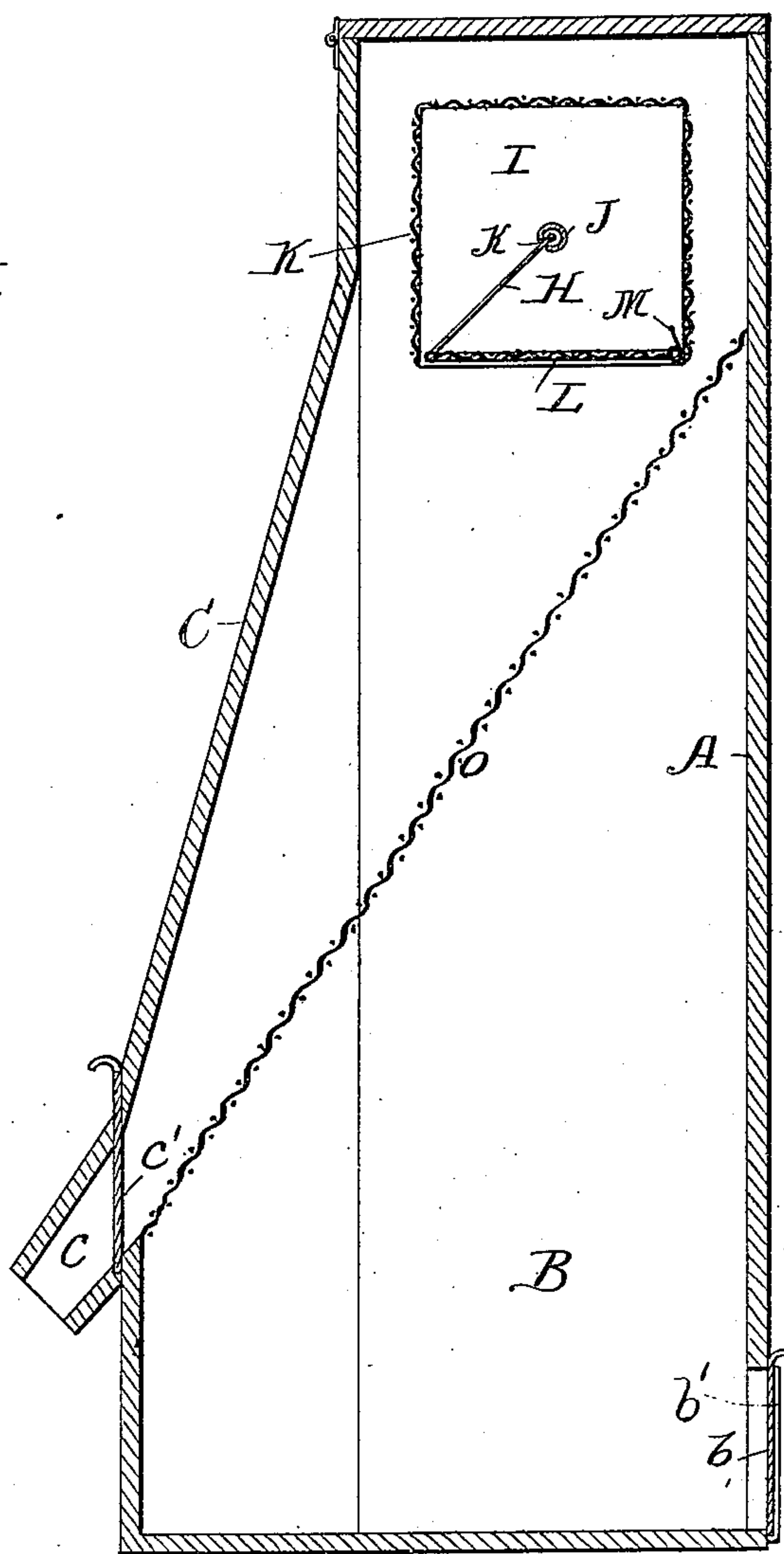


Fig. 3.

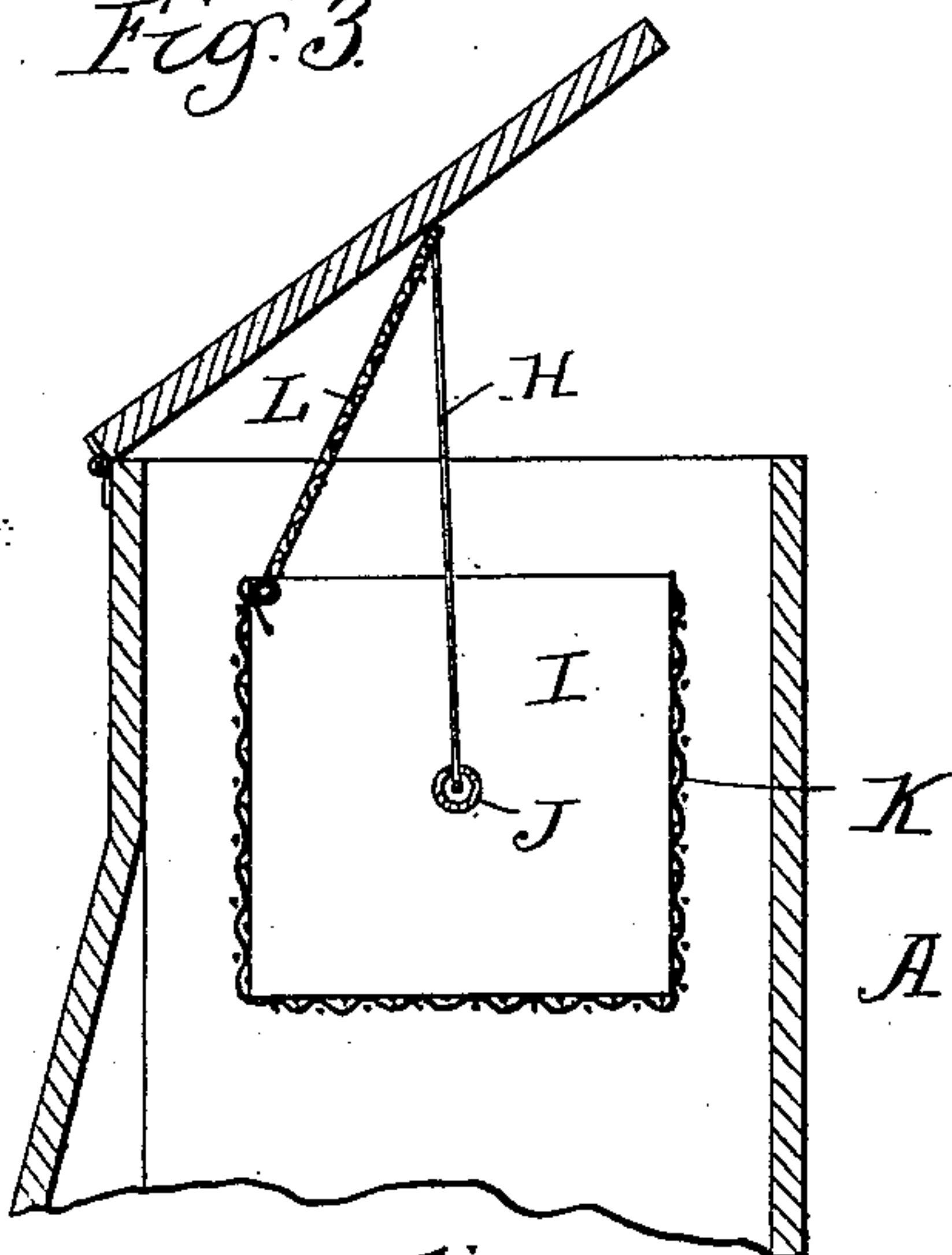


Fig. 4.

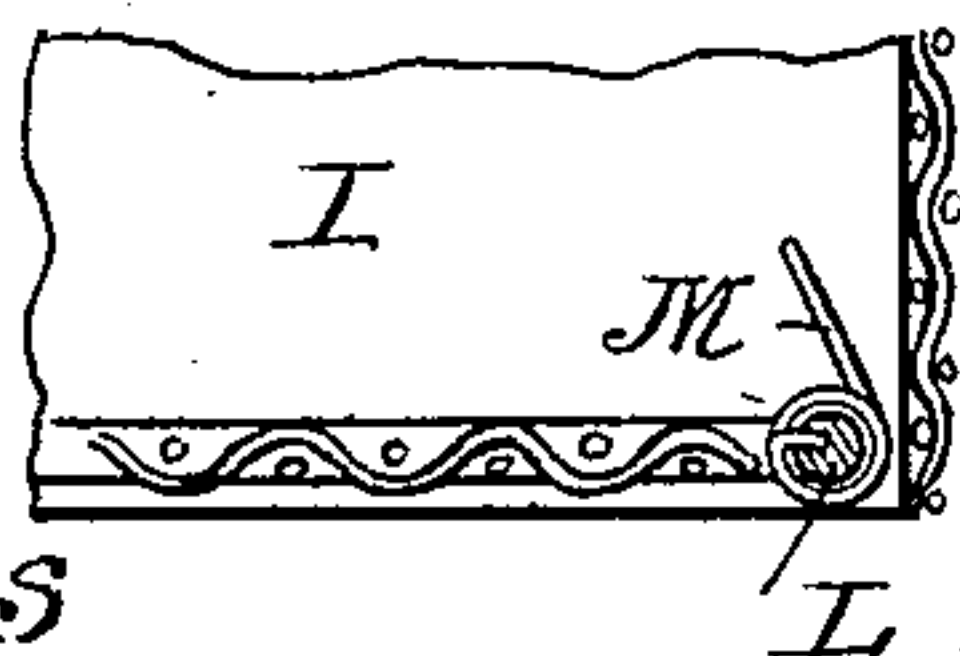
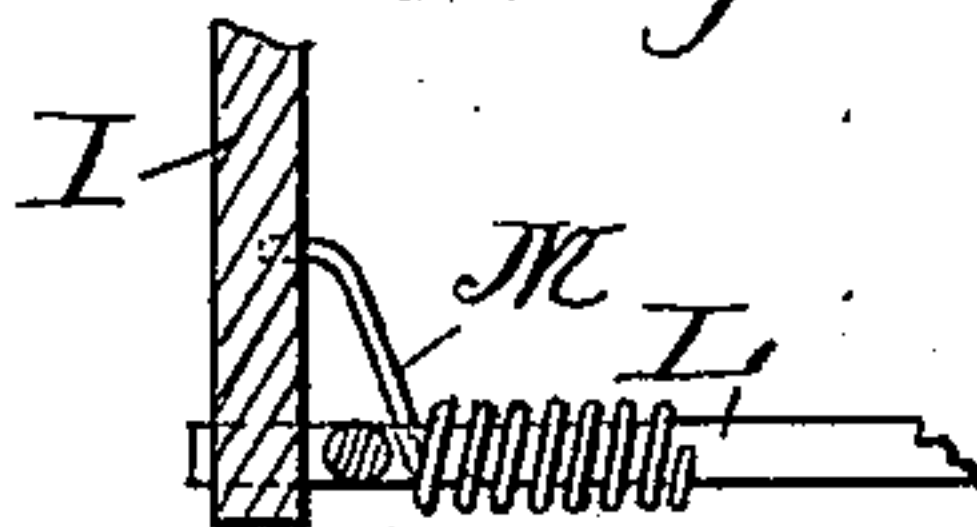


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN C. MURPHY, OF EVANSTON, ILLINOIS.

ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 640,793, dated January 9, 1900.

Application filed February 21, 1898. Serial No. 671,059. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. MURPHY, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ash-Sifters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to ash-sifters; and its primary object is to provide an improved construction of sifter which may be readily operated and which will prevent the escape of dust.

A further object is to provide improved means for controlling the opening and closing of the shaker which receives the ashes.

The novel features of the invention will be fully described hereinafter and defined in the appended claims.

In the accompanying drawings, Figure 1 is a vertical section of the upper portion of a sifter embodying my invention. Fig. 2 is a vertical section through the sifter on the line 5 5 of Fig. 1. Fig. 3 is a sectional view showing the manner in which the lid of the box and the hinged section of the rotary shaker may be lifted for the introduction of the ashes, and Figs. 4 and 5 are detail views.

A designates a box having a large ash-chamber B at its bottom and a contracted front C, which causes the coal to be directed to the discharge-opening *c* in said front. In the back of the box is an opening *b*, through which the ashes can be removed, and this opening, as well as the coal-discharge opening, is provided with a sliding shut-off *b' c'*, respectively. The coal-discharge opening may be provided with a spout, as shown in Fig. 2, if desired; but this is not essential.

I provide a hinged lid D for the top of the box, and beneath this lid the shaker is arranged. The shaker is preferably of rectangular form and consists of two heads I I', mounted on a transverse hollow shaft J, journaled in bearings in the sides of the box, these heads supporting a covering K, of foraminous material, which may be gauze or any other material of a suitable nature. The shaft is provided with a crank *j* on one of its ends, by means of which the shaft and shaker

can be rotated. This rotary shaker is provided with a hinged section L, supported in its normal position, as shown in Figs. 1 and 2, by means of a cord or chain H, which passes through the hollow shaft and a side opening *k* therein and is attached to the front of the hinged bottom L. When it is desired to fill the shaker, the ring *l* on the end of the cord or chain is disengaged from the handle of the crank and the shaker is turned so that the bottom thereof will be uppermost and the lid of the box and the bottom of the shaker are raised, as indicated in Fig. 3. After the shaker has received the fresh ashes and coals the lid of the box and bottom of the shaker are closed and secured in the proper manner.

It will be apparent that the location of the cord or chain within the hollow shaft protects said cord or chain, only a small portion thereof being exposed to contact with the ashes.

In order to facilitate the charging of the shaker with fresh coal and ashes, I provide a spring M, which is adapted to hold the bottom of the shaker open when the tension of the cord or chain is removed, as shown in Fig. 3.

A sifter constructed in accordance with my invention embodies many different features of advantage, and one of special importance is the facility with which it may be operated without permitting the escape of dust therefrom. This permits of the sifter being used inside of the house; but another convenient arrangement of the sifter is to place the back thereof against the fence around the back yard, the sifter being located within the yard, so that the ashes may be removed from the alley through an opening in the fence registering with the opening *b* in the box, the lid D in this case being hinged to the fence, if desired. I may also swing the box in an opening in the fence so that it can tilt forwardly into the yard, if desired, to receive the coal and ashes, and backwardly into the alley, so that the ashes may be removed.

The manner of using the device may be varied as desired and in accordance with prevailing conditions; but as the coal can be separated from the ashes and discharged without opening the sifter it is obvious that it may be operated within the house as well as without.

An inclined screen O of foraminous mate-

rial is arranged within the box, its upper end being located beneath the shaker and at the rear of the box and its lower end arranged so that the coals discharged thereon from the shaker will pass directly through the discharge-opening *c*. This screen permits the ashes from the shaker to pass therethrough and into the ash-chamber, but arrests the coals and directs them to the discharge-opening in the front of the box. I thus provide for two actual siftings of the ashes and thereby accomplish the separation of the coal from the ashes in a superior effective manner.

It is obvious that the box may be mounted on a stand or on legs or otherwise supported.

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

1. In an ash-sifter, the combination with a box or casing, of a hollow shaft supported in bearings formed in the box, and provided with a crank-handle, a rotary shaker mounted on said shaft and consisting of end pieces or

heads, and a covering of foraminous material, having a hinged section, and a cord or chain secured to the hinged section, and passing through the hollow shaft, to the exterior of the box, where it is provided with a fastening device.

2. In an ash-sifter, the combination with a box or casing, of a hollow shaft supported in bearings formed in the box, and provided with a crank-handle, a rotary shaker mounted on said shaft, and consisting of end heads and a cover of foraminous material having a hinged section provided with a spring tending to normally open said hinged section, and a cord or chain extending through the hollow shaft, and secured at one end to the hinged section, and provided at its opposite end with a fastening device to secure the chain outside of the box.

JOHN C. MURPHY.

Witnesses:

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