

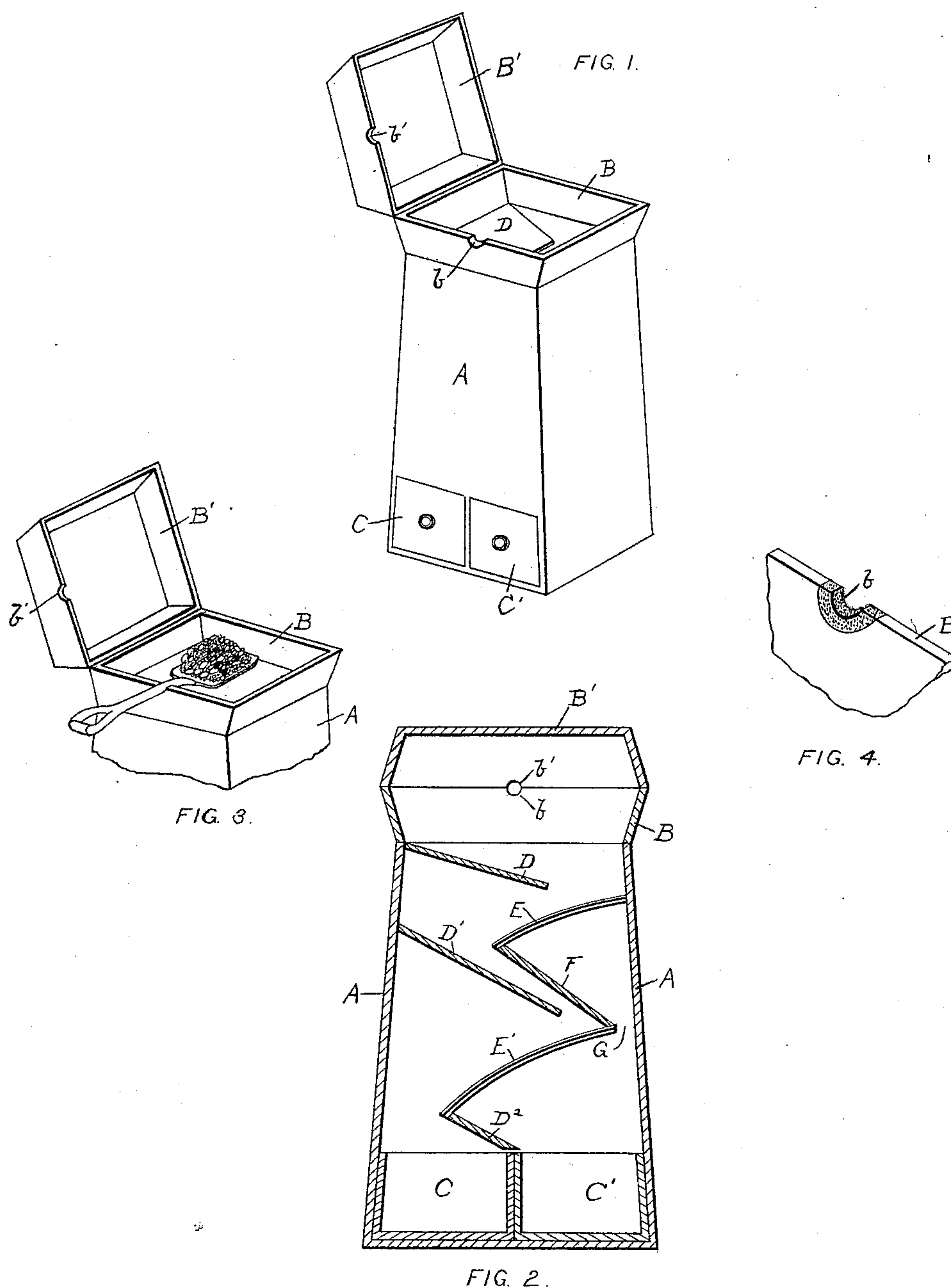
(No Model.)

C. H. BRECK.

SIFTER.

No. 371,544.

Patented Oct. 18, 1887.



WITNESSES:  
Albert E. Leach  
W. H. Thompson.

INVENTOR  
Charles H. Breck  
By his Attorney  
W. B. Howells

# UNITED STATES PATENT OFFICE.

CHARLES H. BRECK, OF NEWTON, MASSACHUSETTS.

## SIFTER.

SPECIFICATION forming part of Letters Patent No. 371,544, dated October 18, 1887.

Application filed December 11, 1886. Serial No. 221,251. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. BRECK, a citizen of the United States, residing at Newton, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Sifter, of which the following is a true and complete specification, reference being had to the accompanying drawings, and the letters and figures marked thereon, forming a part of the said specification.

My invention relates to devices for sifting seeds, coal, ashes, ores, and chemical substances.

My invention is designed to provide a device for sifting all light substances without the escape of any particles into the outer air. To this end I provide a top, to be attached to the sifter and capable of being closed, leaving only a small hole, which fits closely to the handle of the shovel by which the material to be sifted is introduced. The shovel is then inverted, depositing the material in the sifter. The sifter is then agitated, and when the operation is completed the top may be opened and the shovel withdrawn and the operation repeated as often as desired without escape of dust.

Referring to the drawings, Figure 1 is a perspective view of my improved sifter. Fig. 2 is a side section of the same. Fig. 3 is a perspective view showing the head of the sifter at the moment of introducing the material to be sifted. Fig. 4 shows the method of lining the hole through which the shovel is introduced.

My improved sifter is contained in a square casing, A, somewhat higher than it is wide and somewhat larger at the bottom than at the top. This is provided at the bottom with two drawers, C and C', for the reception of the separated material, the drawer C receiving the larger particles and the drawer C' the dust and smaller particles.

The casing A is provided with a top, B, preferably separate, which has a cover, B', hung upon hinges and opening upward and backward. On one of the sides of the said top B, adjacent to that to which the top B' is hinged, is a semicircular notch, b, and there is a corresponding and opposing notch, b', in the cover B'; or this hole is cut in either B or

B'. When the cover is closed down, these two notches are directly opposed to each other and form a circular hole, as shown at b b', Fig. 2.

At the top of the casing A is an inclined table, D, which extends across the top of the casing and to about three-fourths of its width. Just below this is placed the upper screen, E, which is inclined downward from the opposite side of the casing A, and has a convex upper surface, the convexity being preferably upward. Just below this is placed the inclined table D', and below that a second screen, E', which is similar to the screen E.

Between the upper end of the screen E' and the wall of the casing A is a chute, G, by which the siftings from the upper screen, E, are delivered to the drawer C'. Between the lower end of the screen E and the upper end of the screen E' is a partition, F, which guides the siftings from the screen E to the chute G.

At the lower end of the screen E' and inclining to the top of the box C' is a partition, D<sup>2</sup>, which guides the siftings from the screen E' to the box C'.

The partitions F and D<sup>2</sup>, the inclined tables D and D', and the screens E and E' all extend, preferably, clear across the casing A, and are supported by the front and back sides of the same.

The drawers C and C' are adapted to pull out from the front of the casing A, as shown in Fig. 1.

The hole b b' is of a size to fit the handle of an ordinary shovel. It is made somewhat larger than is necessary, and then preferably lined with felting or with some rough or hairy material. This causes it to fit closely to the shovel-handle, and so prevents the dust from escaping.

The device is operated as follows: The shovel, loaded with the material to be sifted, is introduced into the top of the sifter, the handle of the shovel resting in the notch b'. The cover B' is then closed down, as shown in Fig. 4, and the shovel inverted, thus depositing the material upon the inclined table D, without allowing any dust to escape from the sifter. The shovel is then forcibly drawn forward, thereby tilting and shaking the whole device and causing the material to pass successively upon and over the screen E, table



D', and screen E' into the drawer C, the siftings being carried into the drawer C' by the partitions F and D<sup>2</sup>. The slight curvature of the screens E and E' causes the material to  
5 move more rapidly at the lower end of the screens than at the top of the same, and this insures a freedom from clogging and an even thin distribution of the material over the greater portion of the screen, and consequently  
10 a more thorough sifting.

The top B B' is made of sufficient height to allow the shovel to revolve over around the hole b b', with its handle as an axis.

What I claim is—

15 A sifter provided with a covered boxed top,

the upper half of which is hinged to the lower half, having on its side a hole centrally situated, whereby, when the handle of the vehicle which conveys the substance to be sifted to the sifter is placed in said hole and the cover 20 closed, the vehicle may be inverted and discharge its load and be used to agitate the casing, all arranged and operated substantially as described.

In witness whereof I have hereunto set my 25 hand.

CHAS. H. BRECK.

Witnesses:

WM. B. H. DOWSE,  
M. W. MARSTON.