

(No Model.)

J. H. ROY.

AUTOMATIC COAL AND ASH SIFTER.

No. 256,506.

Patented Apr. 18, 1882.

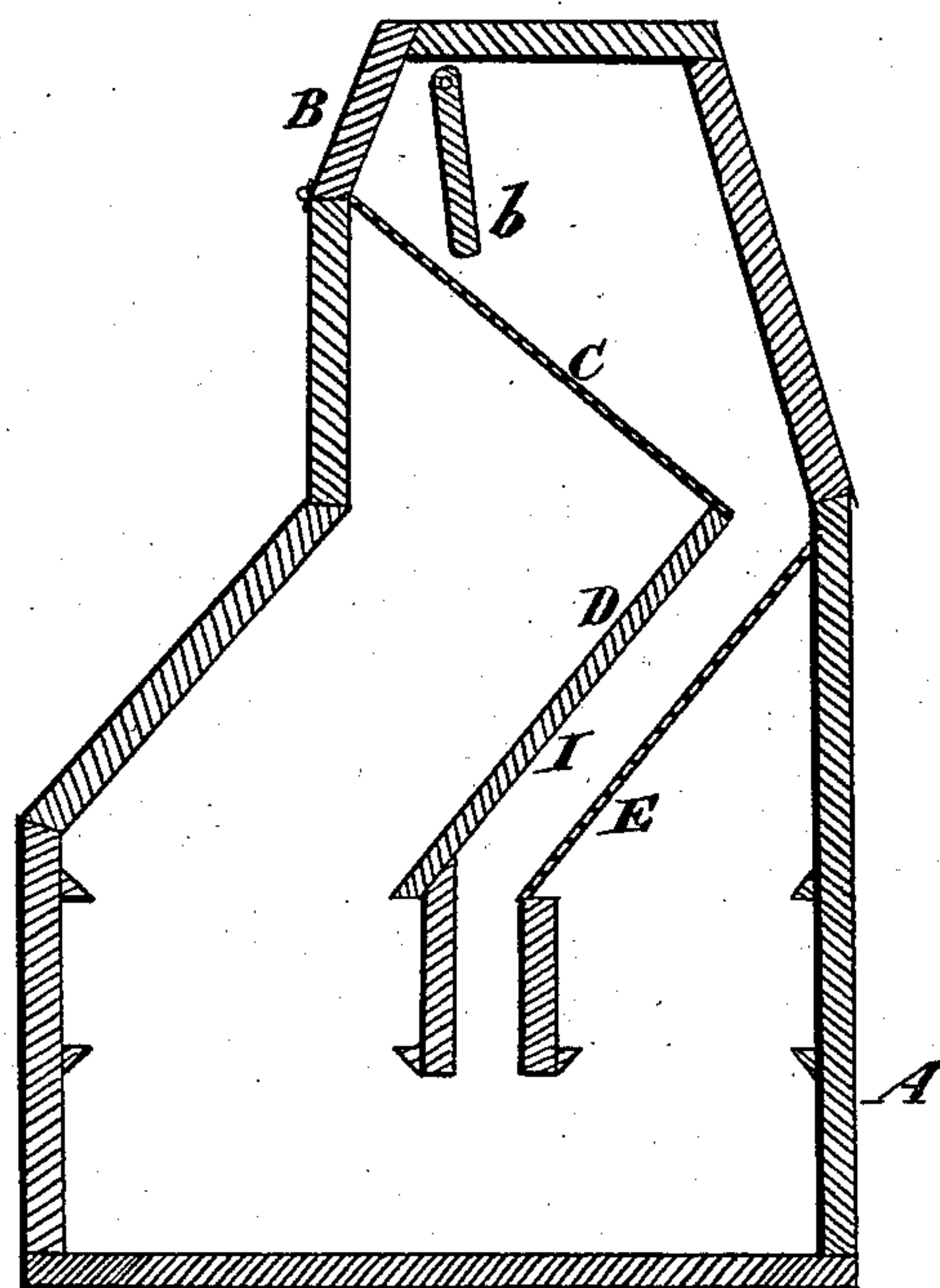


Fig. 1.

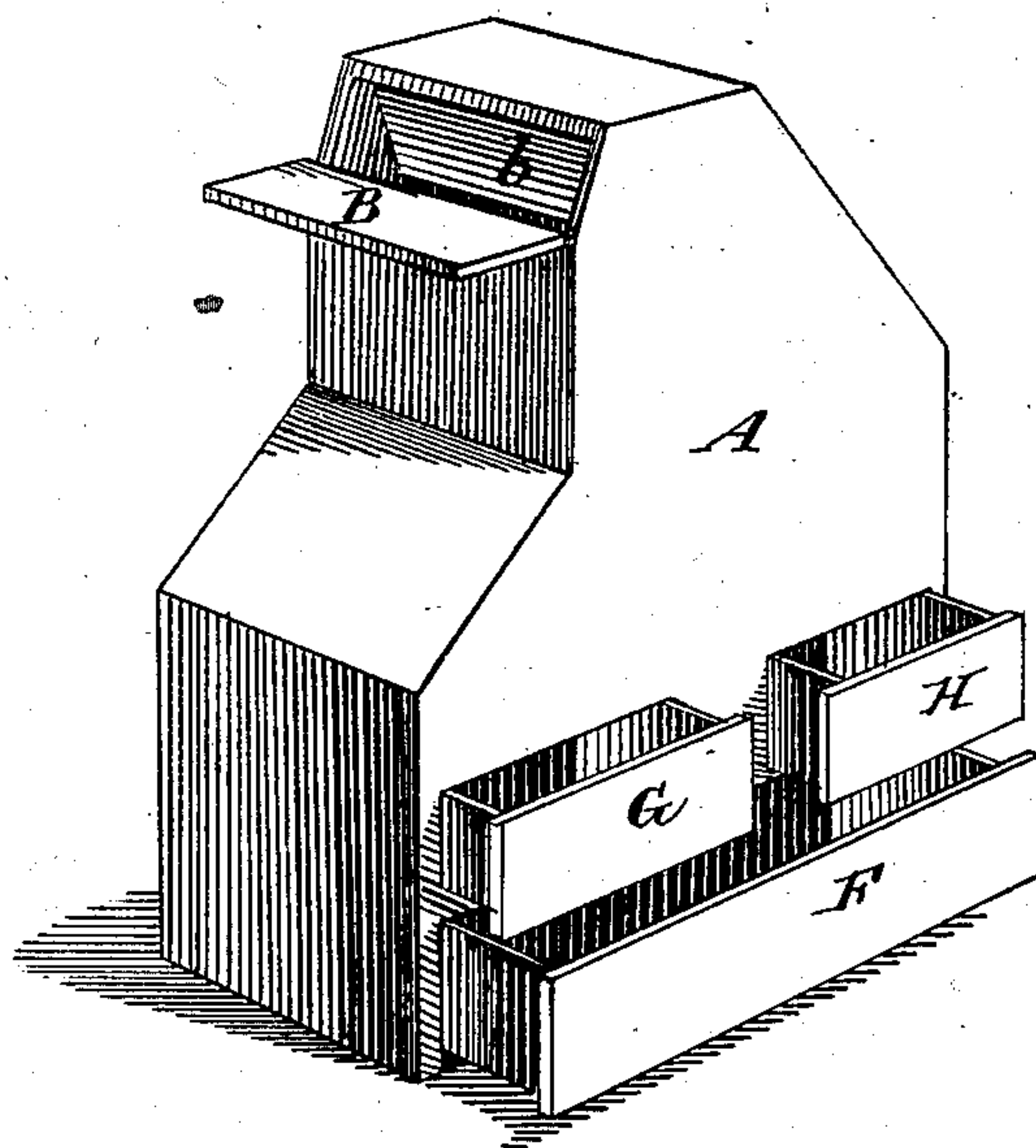


Fig. 2

Witnesses

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# UNITED STATES PATENT OFFICE.

JOSEPH H. ROY, OF BURLINGTON, VERMONT.

## AUTOMATIC COAL AND ASH SIFTER.

SPECIFICATION forming part of Letters Patent No. 256,506, dated April 18, 1882.

Application filed March 1, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH H. ROY, a citizen of the United States, residing at Burlington, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Automatic Dustless Coal and Ash Sifters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in self-operating coal and ash sifters in which the coal becomes separated from the ash or comparatively useless portion by being compelled to pass over inclined screens; and the objects of my improvements are, first, to separate the fine ash and dust and deposit the same by itself; second, to sift the coarser and more valuable material from the coal and gather it whence it can be readily removed, leaving the coal to fall into a receptacle, from which it can be readily taken for further use. This is successfully accomplished by a novel arrangement of inclined screens and chutes, by which the several portions are separated and deposited as described. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of my invention. Fig. 2 is a perspective view of the same.

Similar letters refer to similar parts throughout the several views.

A is the exterior case of my coal-sifter, constructed preferably of wood, and of convenient size. It is largest at the bottom to admit of room for the various receptacles or drawers which are designed to receive the material screened, and to support the apparatus more firmly.

The material to be sifted is poured into the top through the door B. A swinging guard, *b*, is suspended from the top of the interior of the case A and directly in front of the doorway, to prevent any liability of the dust being blown outward when the material is emptied into the case, and at the same time to direct its fall upon a wire-gauze screen, C. This screen faces the back of the case, and extends downward from the bottom of the doorway at an angle of about forty-five degrees, its lower side resting on the top of a solid

partition, D, which extends across the interior of the case, and is inclined at about the same angle downward in the opposite direction of the screen C, forming with a similar screen, E, which runs parallel with it from the rear of the case, a chute, I, leading to the lower compartment or drawer, F.

G and H are compartments or drawers located immediately above the compartment F, the former being designed to receive the fine ash, which is separated from the material as it slides over the screen C, while the latter receives the remaining and coarser ashes, which become separated from the partially-sifted coal as it strikes and passes down over the screen E. The coal thus thoroughly sifted by sliding over the two screens C and E falls into the lower compartment or drawer, F. These several compartments are made in the form of drawers, which are readily accessible from the exterior of the case A, as shown in Fig. 2. By this simple and practical arrangement the material is at once and automatically divided into the three portions of which it is composed—the fine ash or least valuable part, the coarser ashes, which can be used for banking fires or for garden and fertilizing purposes, and the more valuable part, or coal itself.

I am aware that it is not new to sift ashes by causing them to pass over inclined screens formed of slats, such arrangement being shown in a patent numbered 235,061, granted to Jos. F. Andrews on the 7th of December, 1880. I do not therefore claim broadly inclined screens for such a purpose; neither do I claim the combination shown in the patent above alluded to.

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

An automatically-acting coal and ash sifter combining in its construction a suitable case, A, for containing the screens and partitions, a swinging ash-guard, *b*, a wire-gauze screen, C, a solid partition, D, extending across the interior of the case, a supplemental wire-gauze screen, E, a chute, I, and receptacles G, H, and F, the parts being constructed and



arranged substantially as shown and described,  
whereby they are caused to divide the sub-  
stance treated into three separate and dis-  
tinct grades of different sizes and values and  
5 to receive them in different receptacles, from  
which they can be readily moved, as set  
forth.

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

JOSEPH H. ROY.

Witnesses:

CHARLES E. ALLEN,  
DAMUS LAVEE.