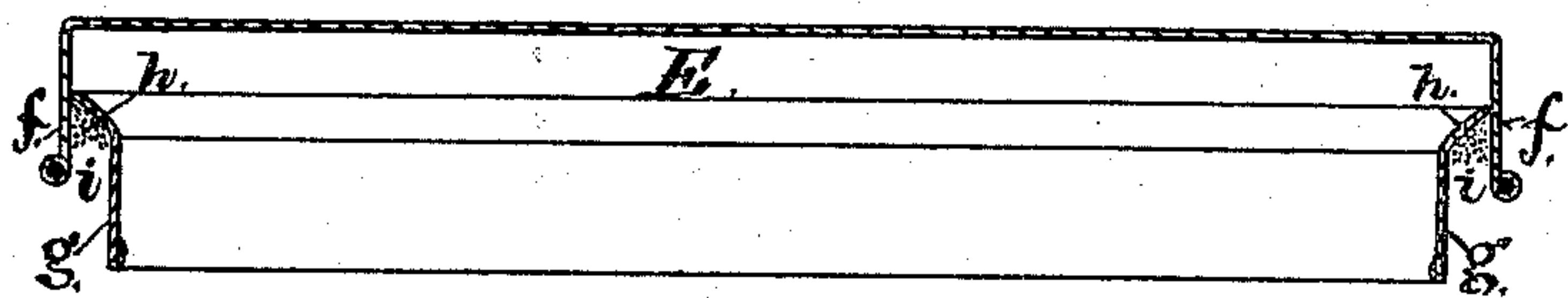
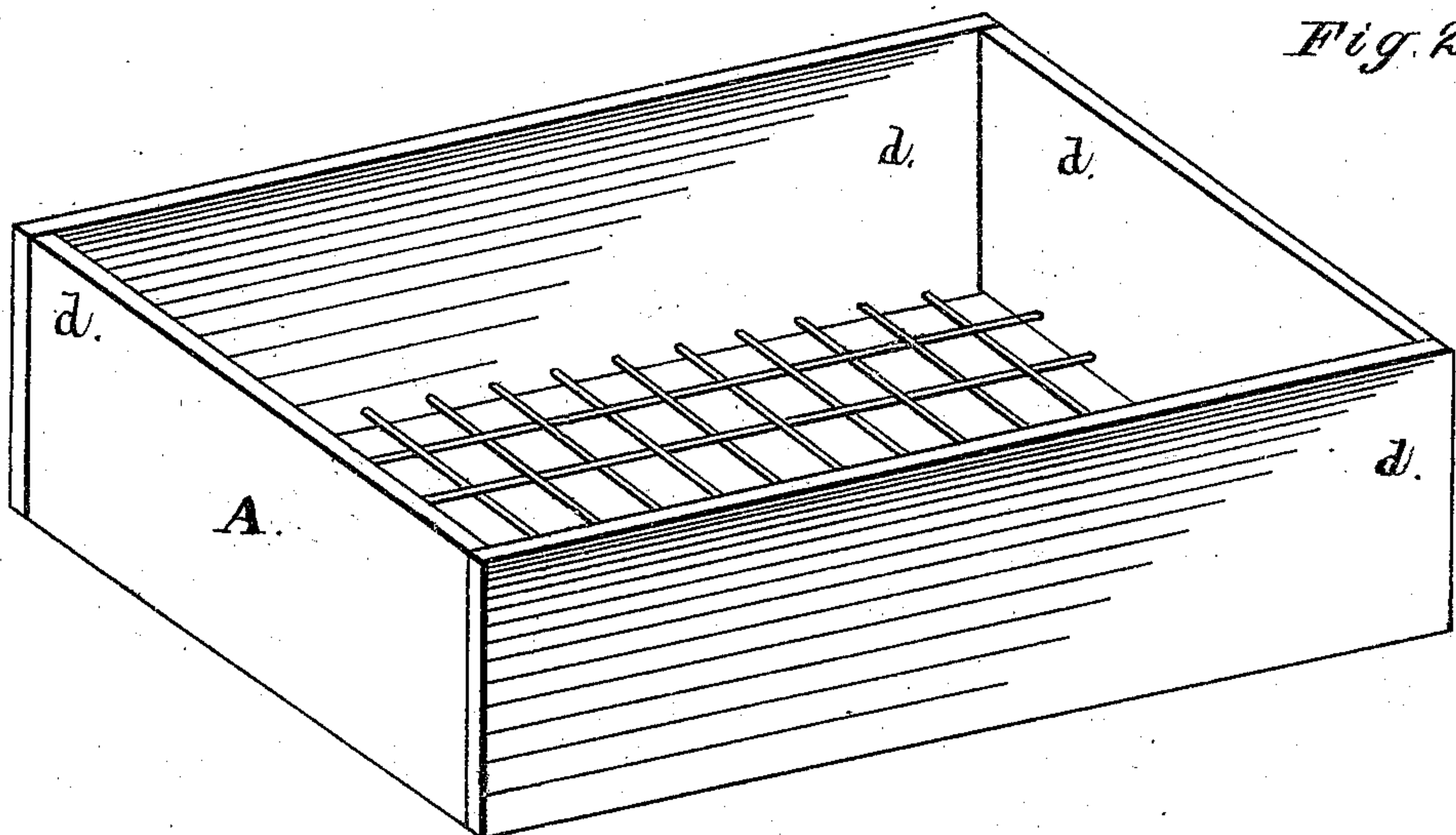
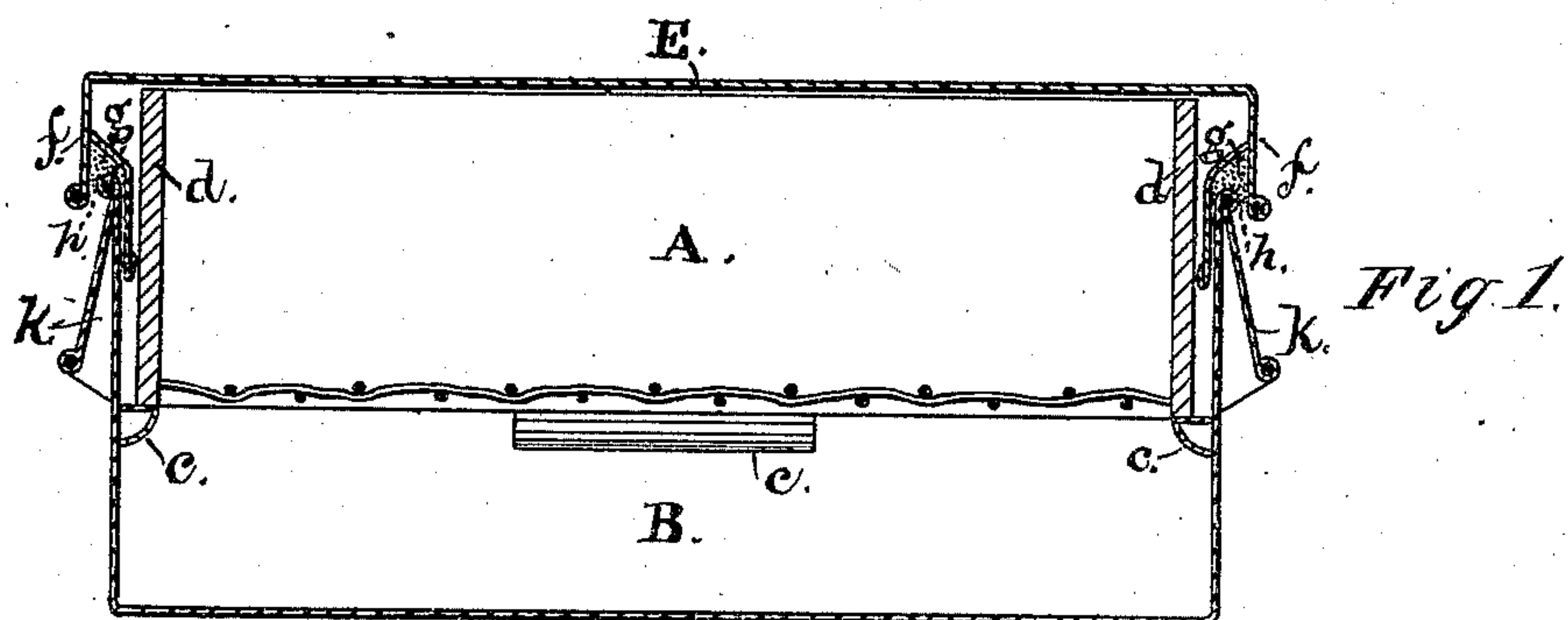


D. PIERCE.  
Sifters.

No. 143,250.

Patented September 30, 1873.



Witnesses,  
W. R. O'Brien.  
Jarvis Moulden

Inventor,  
Daniel Pierce  
by John J. Halsted  
his Atty.



# UNITED STATES PATENT OFFICE.

DANIEL PIERCE, OF WASHINGTON, D. C., ASSIGNOR TO JOHN W. WILLIS.

## IMPROVEMENT IN SIFTERS.

Specification forming part of Letters Patent No. **143,250**, dated September 30, 1873; application filed March 3, 1873.

*To all whom it may concern:*

Be it known that I, DANIEL PIERCE, of the city and county of Washington, in the District of Columbia, have invented certain Improvements in Sifters for Coal, &c.; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The object of my invention is to provide a sifter-case from which the ashes, dust, flour, or other material will not escape when in the act of being sifted, and which is therefore adapted not only for parlor use, but for domestic and other uses where it is necessary closely to confine the material; and my invention consists in a sifter case or box inclosing a removable sifter-frame, the box being constructed as hereinafter described, so that when its lid is on the sifter shall not only be completely covered and held on all sides, but shall also form a tight joint with its box, the hands of the person shaking and operating the whole, at the same time holding the parts together.

Figure 1 is a vertical section of the whole, ready for use. Fig. 2 is a perspective of sifter detached, and Fig. 3 a vertical section of the cover.

In the drawings, A is the sifter proper, for receiving the coal to be sifted, and having a perforated or wire-gauze bottom. The box or pan B, into which this sifter is placed, is provided with projections or rests *c*, on which the sifter is to rest, leaving beneath it sufficient room in the pan or box to hold all the ashes that could pass from one charge or sifterful of coal; and it is also provided with handles *k*. The frame *d* of the sifter rises considerably higher than that of the box B, for a purpose hereinafter stated. The cover E is of peculiar construction, being provided on the inside of its rim *f* with a continuous inner rim, *g*, extending downward considerably below the level of the main rim *f*, thus leaving a continuous narrow channel or space between them, extending all around the cover. Within this channel I place a packing, *h*, of any proper yielding material, such as wicking, cotton-

waste, strips of cloth, rubber, &c., the object of which is that, when the cover is placed upon the box, and the two held together by means of the handles on the box and the operator's thumbs on the cover, the whole shall be completely dust-tight, however much the inclosed material may be shaken.

The parts being thus held together, the contained material to be sifted is agitated by any proper shaking of the whole box, or by tipping it from side to side; the sifter-frame having little or no play within the box, and the top of its frame reaching nearly to the top of the lid or cover E, so as not only to prevent the coal from getting up over it and between it and the cover, but, also, so that when the cover and box are pressed closely together, in the act of sifting, the cover shall tend to press upon the top of the sifter-frame, and to hold it steadily.

It will be seen that in using this improved implement no dust or ashes can escape, inasmuch as any that might, perchance, get over the top edge of the frame A would be guided by the flange *g* downward below the top edge of the box B, and toward the ash-receptacle; that, by reason of having the mouth of the channel *i* opening downward, no ashes or dust that could rise between the flange *g* and the sides of the pan B can escape, nor can it settle in the channel, and that when the cover is removed there is none therefore lifted off with it, and none to drop upon the floor or furniture; the sifter-frame can be lifted out, and its cleaned contents be deposited on the fire, or elsewhere, and the ash-box carried away for emptying; the whole being a tidy and simple operation, requiring no servant, and avoiding any accumulation of unsifted coal.

The apparatus is equally suitable for sifting anything else—as, for instance, flour—by having the sieve of appropriate fineness. For flour-sifting it has the additional advantage that, when it is convenient to let the flour stand awhile after being sifted, dirt, rats, mice, &c., are kept out by simply omitting to remove the cover until ready to use the flour.

I claim, as a new article of manufacture—  
The sifter-case constructed as shown and

described, the same consisting of the pan or box B, provided with the projections *c* and handles *h h*, the sifter-pan A, extending above the pan, as shown, and the cover E, provided with the inner flange *g*, extending downward within the box, and having the packing-channel *h* between the flange and rim *f*, the construction being such that the very act of sift-

ing permits the operator to compress the parts together, and also to compact the packing and make the whole dust-tight.

DANIEL PIERCE.

Witnesses:

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