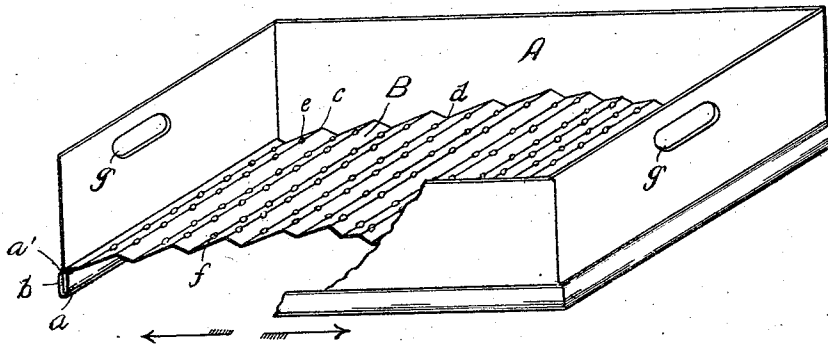


(No Model.)

W. T. HAIN.  
SIFTER.

No. 455,845.

Patented July 14, 1891.



Witnesses

*E. A. Kelly*  
*David Swan*

*Wm. T. Hain*

Inventor

By *his* Attorney

*[Signature]*

# UNITED STATES PATENT OFFICE.

WILLIAM T. HAIN, OF READING, PENNSYLVANIA.

## SIFTER.

SPECIFICATION forming part of Letters Patent No. 455,845, dated July 14, 1891.

Application filed April 29, 1890. Serial No. 349,883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM T. HAIN, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain Improvements in Sifters, of which the following is a specification.

My invention relates to an improved sifting-pan, adapted more particularly for sifting coal-ashes, though applicable to other uses.

The object of the invention is to provide a simple and cheap sifter which will effectually accomplish its office in the shortest space of time; and it consists in certain peculiarities in the construction of the same, substantially as hereinafter described, and particularly pointed out in the subjoined claims.

The accompanying figure of drawing is a perspective view, partly in section, of a sifting-pan involving my invention.

The rectangular pan A is represented as formed entirely of sheet metal, the sides and ends being very effectually connected with the bottom without the use of rivets, in the manner indicated in the section, the right-angled edges *b* of the bottom B being engaged by the upwardly-bent under edges *a* of the sides and ends of the pan, and the bottom firmly held, when the seam is closed by means of the shoulder or offset *a'*. The bottom B is formed of a single piece of sheet metal provided with corrugations running with the width of the pan. The ridges or elevated portions *c* of the corrugations have each a series of perforations *e*, and there are also similar perforations *f* in the hollows or depressions between the ridges, the latter being preferably arranged in "staggered" relation with the perforations *e*. All of these perforations, as well as additional ones, if desired, in the sloping faces of the corrugations, may be made either before or after corrugating the sheet, as preferred.

In operating the pan any suitable handles,

as *g*, may be used and the pan reciprocated in the direction of the arrows. The layer of material to be sifted, which rests upon the corrugated bottom B, instead of sliding from side to side with comparatively little disturbance, as is the case with a smooth bottom, is repeatedly turned and shaken in passing over the successive ridges and hollows *c* and *d*, and the finer particles of the whole mass quickly find their way to the bottom and through the perforations *e* and *f*. It is evident, too, that the corrugations at the same time greatly stiffen and strengthen the bottom plate B. To still further increase this strength and also make the disturbance of the material being sifted more radical and effective, the bottom B may be raised midway of its length, thus providing a general incline from the middle toward either end, as illustrated. As shown in the drawing, the corrugations extend in a direction at right angles to that of the inclination of the bottom, in order to more effectually accomplish their function, which, as stated above, is to turn the ashes over while the same are being sifted.

Having thus fully revealed my invention, I do not limit myself to the exact construction shown; but

What I claim is—

A rectangular ash-sifter having its bottom inclining in opposite directions from its center and formed with corrugations extending in a direction at right angles to that of its inclination, and also with perforations in the hollows and on the ridges of said corrugations, all substantially as described, and for the purposes specified.

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

WILLIAM T. HAIN.

Witnesses:

EDMUND SHEETZ,  
JAMES R. TYSON.