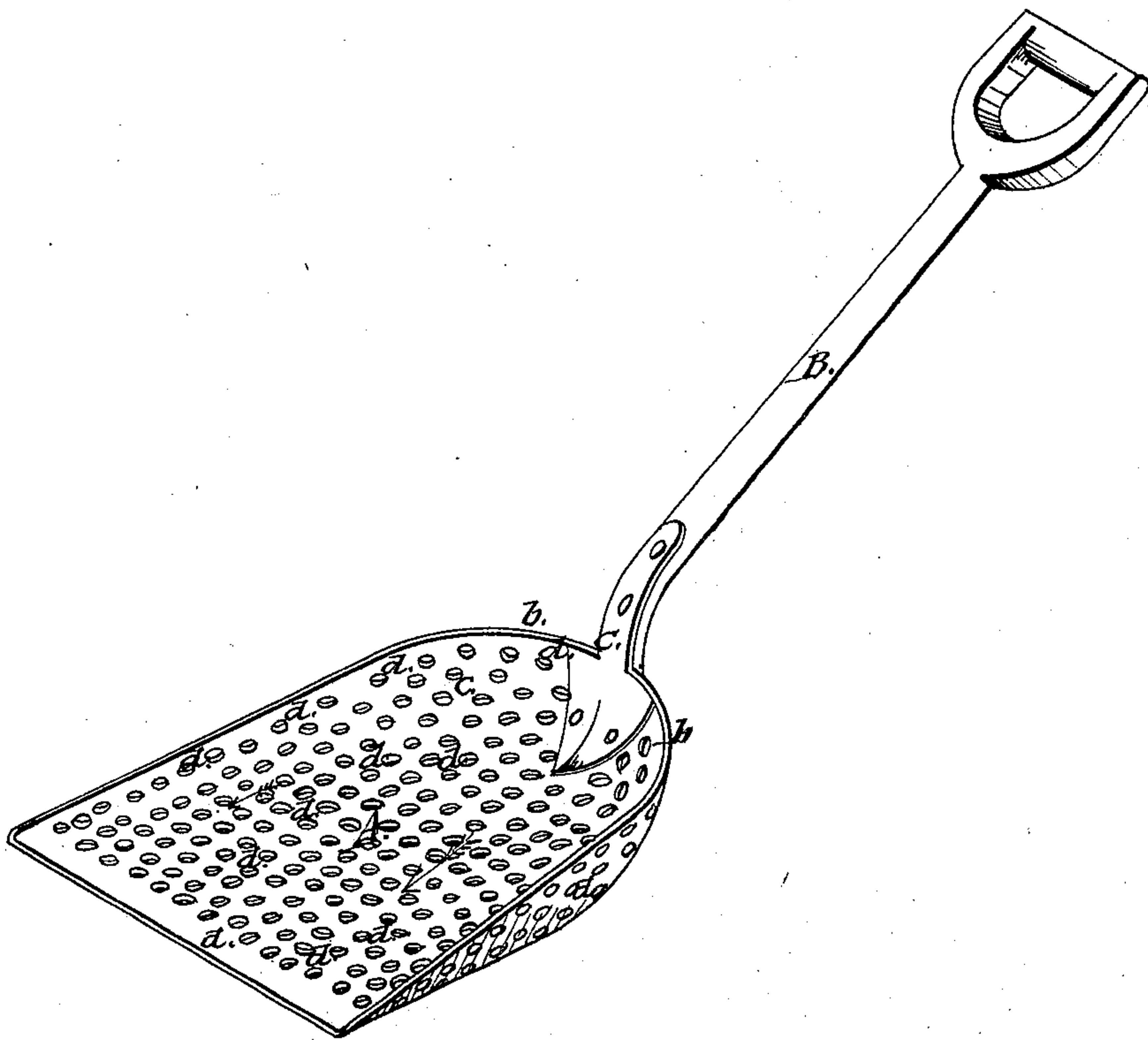


*H. A. Palmer,*

*Coal Scoop.*

*No. 93,336.*

*Patented Aug. 3, 1869.*



*Witnesses:*  
*Geo. W. Mott*  
*Fred. A. Mallet*

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# United States Patent Office.

H. A. PALMER, OF ROCHESTER, NEW YORK.

*Letters Patent No. 93,336, dated August 3, 1869.*

## IMPROVEMENT IN COAL-SCOOPS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, H. A. PALMER, of Rochester, in the county of Monroe, and State of New York, have invented a certain new and useful Improvement in Coal and other Scoops; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which the figure represents a perspective view of my improvement.

My invention consists of a coal or other scoop, made of cast-steel, of peculiar form, and perforated in the manner hereinafter described.

In the drawing—

A represents the blade of the scoop;

B, the handle; and

C, the connecting-strap.

The blade is made of cast-steel. The front edge *a* is made wide, but it gradually narrows in the rear, and, at *b*, it is made of circular form, as shown.

A peculiarity, also, that distinguishes it from other scoops, consists in making the rear sides *b c* of gradual dishing or concave form, thereby leaving no acute angle at the junction of the sides and bottom, as in other devices.

The whole surface of the scoop—sides as well as bottom—is filled with perforations *d d*. These may be of any desired shape, round, square, or angular.

They are so arranged as to make the webs between of sufficient strength, and yet to secure a large sifting-action.

The round form, as shown, is found most effective in screening coal, as the escape of dust is more effective; and there is less wear to the perforations by the avoidance of sharp angles. There is also less danger of clogging. I also combine lightness with strength.

The scoop, as above constructed, is especially adapted to screening coal. The broad front insures the easy loading of the scoop, and also presents a broad surface in discharging.

The contracted rear furnishes, as it were, a reservoir for the accumulation of the material. The result is, that in the forward throw of the scoop, the accumu-

lated coal diverges and spreads over the whole broad front surface, in a thin sheet, and is thus exposed to the best sifting-action.

By this means, but a single stroke or throw of the coal is required, and that action is the natural one resulting from taking up and throwing the material.

The coal thus receives less action than would be otherwise required, which not only avoids unnecessary labor, but also saves waste in the wear of the coal itself.

The perforation of the sides of the blade, as well as the bottom, and the gradual merging of the sides with the bottom, presents a special advantage, since the sifting-action thus commences at the first movement of the coal, and the coal itself keeps in contact with the bottom at all times, which it would not do if passing over an abrupt angle. These features I believe to be new and valuable.

I am aware that coal-scoops have been made of cast-iron, of skeleton form, as in Sabbaton's patent, January 4, 1859. Such are of little value, from their great weight and liability to break.

I am also aware that it is common to perforate common small sifting ash-shovels; but, in that case, the shovels are different in form from mine, and do not have the side perforations nor the gradual incline.

My scoop is very light and strong, and not easily worn out or broken.

What I claim as my invention, and desire to secure by Letters Patent, is—

As a new article of manufacture, the scoop herein described, the same consisting of a body A, having a curved back, *b*, gradually-sloping sides, *c*, of dishing-form, and a flaring mouth, *a*, when perforated throughout and constructed of cast-steel, as set forth.

In witness whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

H. A. PALMER.

Witnesses:

R. F. OSGOOD,

GEO. W. MIATT.