

MARY J. BUTLER.

Improvement in Sifting-Shovel.

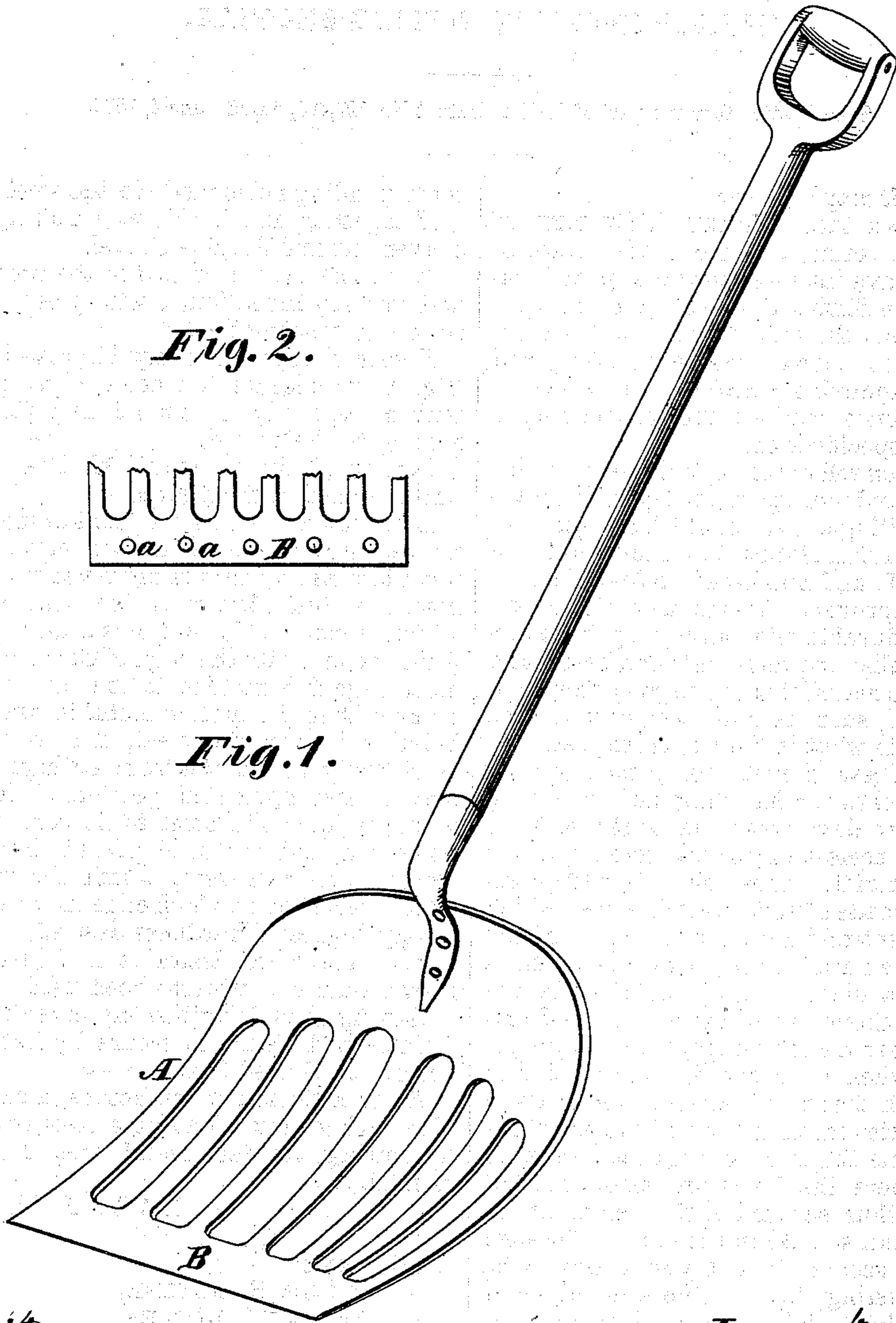
No. 127,405.

Patented June 4, 1872.

*Fig. 2.*



*Fig. 1.*



*Witnesses.*

J. N. Foxson  
E. T. Purus.

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By *Attorney,*  
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# UNITED STATES PATENT OFFICE.

MARY J. BUTLER, OF COOPERSTOWN, NEW YORK.

## IMPROVEMENT IN SIFTING-SHOVELS.

Specification forming part of Letters Patent No. 127,405, dated June 4, 1872.

*To all whom it may concern:*

Be it known that I, MARY J. BUTLER, of Cooperstown, county of Otsego and State of New York, have invented new and useful Improvements in Sifting-Shovels; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

My invention relates to improvements in sifting-shovels, and more particularly to improvements on a sifting-shovel on which a patent was granted to Paul A. Sabbaton on the 4th day of January, 1859, and numbered 22,514. The object of my improvements is to make the shovel much more durable and lasting, by introducing, in a peculiar and novel manner, better and more durable material at the edge or front end of the shovel, such as cast-steel, or what has proved best is what is known as English blister-steel. These shovels being mostly used about gas-works for handling and removing coke, in a few days wear the edges so as to render them useless unless protected by some suitable material. These shovels have heretofore been made of soft malleable iron, which has proved entirely unfit for the edges of the shovels. The nature of my invention consists in forming a piece of steel suitable for the edge of the shovel, in which is provided several holes near the back edge, or at any proper point, and when so prepared it is molded in the sand with the shovel-pattern in such a way that the molten metal will fill all the holes. At the same time the iron covers that portion of the steel where the holes are made, so that the steel is thus secured to the shovel in the most rigid and substantial manner. The steel may also be secured in a very rigid way to the shovel by casting lugs or rivets at the point where the shovel joins the steel, so as to fit

corresponding holes made in the steel and riveted together, and in this way making a very convenient and durable shovel.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction.

Figure I represents my improved shovel. Fig. II represents the steel edge, provided with holes, ready to be molded in the sand or riveted to the shovel.

Letters of like name and kind refer to like parts in each of the figures.

A represents the shovel containing my improvements, the general form of which I do not claim as any part of my invention. B represents a steel edge, provided with holes *a a*, which is made thin and of suitable shape to form or constitute the edge of the shovel. This steel edge B is molded in the sand in such a manner that the molten metal is run into the holes and upon the steel, thus riveting the steel firmly within the iron; or lugs or rivets may be cast upon that portion of the shovel where it joins the steel to fit corresponding holes *a a*, and the steel placed thereon and riveted firmly thereto, which forms a steel edge to the shovel, which edge may be brought to any degree of hardness desired, thus making a much more desirable and lasting cast shovel than has hitherto been used.

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

As an article of manufacture, a cast malleable sifting-shovel, having a steel edge united by flowing the cast metal around it, as described.

MARY J. BUTLER.

Witnesses:

OLIVER R. BUTLER,  
ALBERT J. BUTLER.