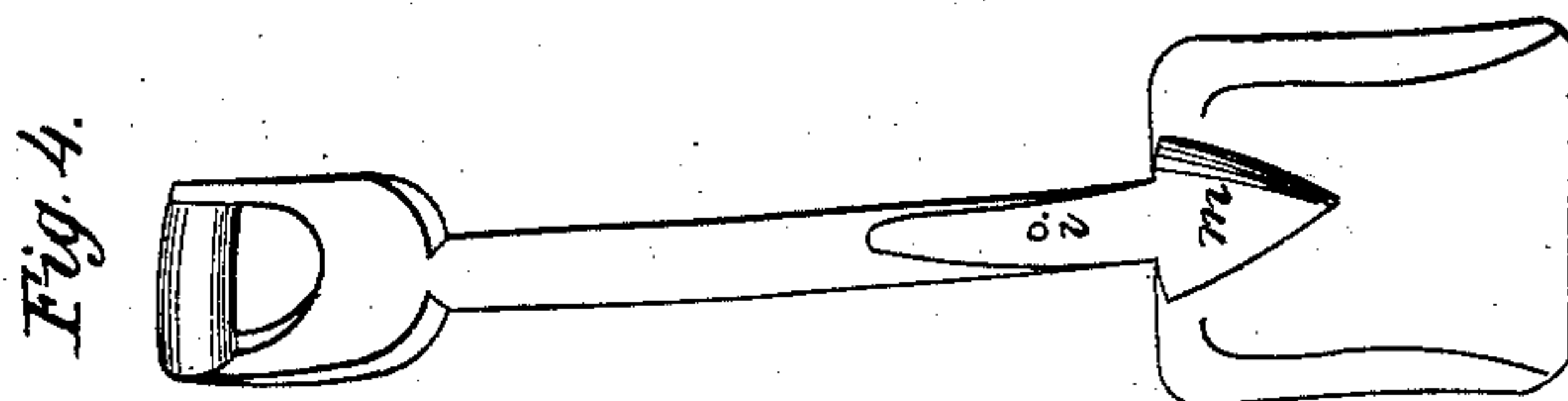
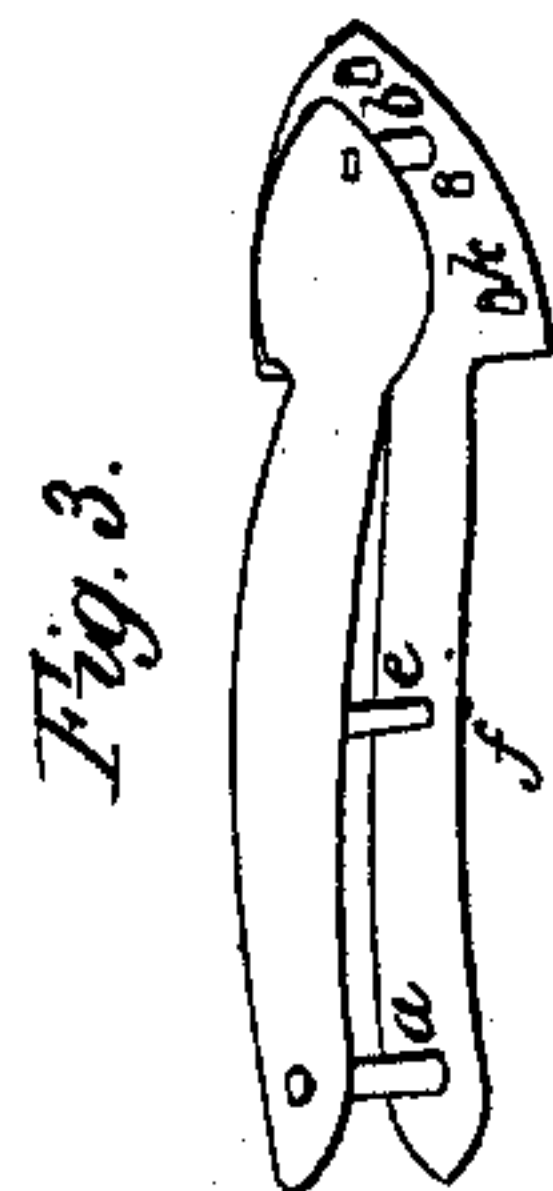
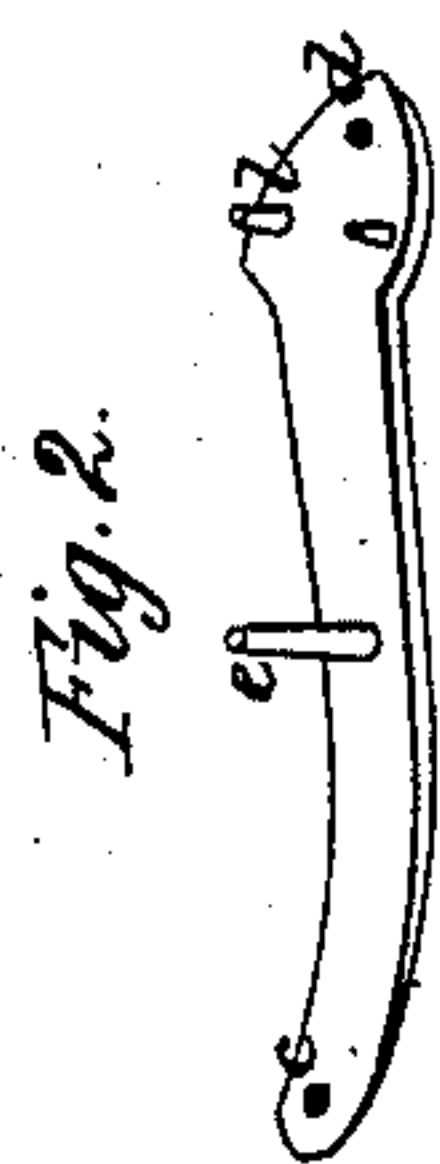
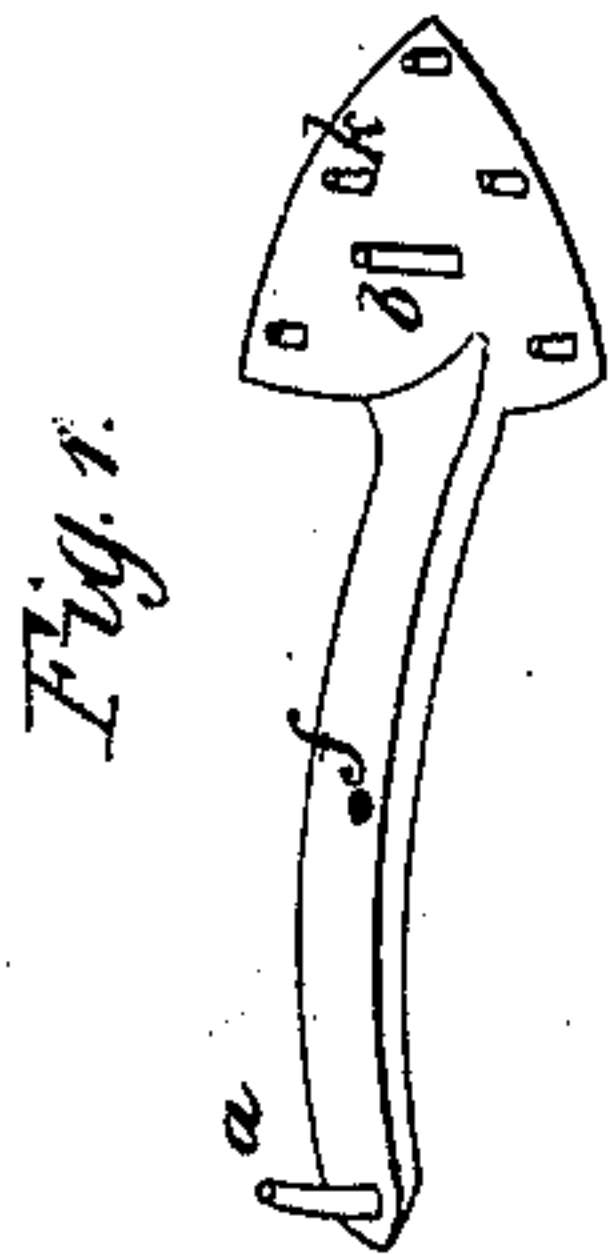
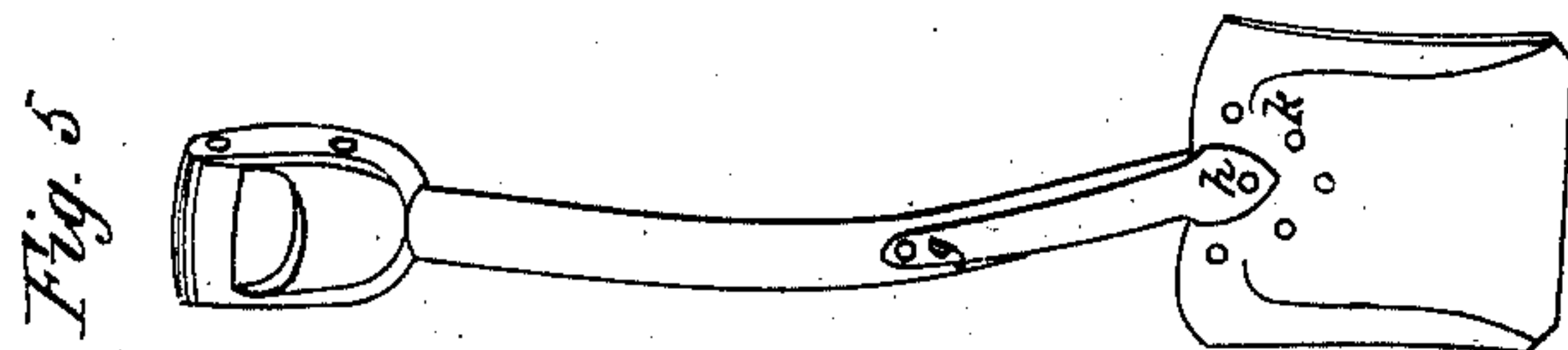


*C. H. Sayre.*

*Making Shovels.*

*N<sup>o</sup> 30,428.*

*Patented Oct. 16, 1860.*



*Witnesses:*  
*Wm Baker*  
*Me. Me. Jones*

*Inventor.*  
*Chas H Sayre*

# UNITED STATES PATENT OFFICE.

CHARLES H. SAYRE, OF UTICA, NEW YORK.

## IMPROVEMENT IN STRAPS FOR HANDLES OF SHOVELS.

Specification forming part of Letters Patent No. 30,428, dated October 16, 1860.

*To all whom it may concern:*

Be it known that I, CHARLES H. SAYRE, of Utica, in the county of Oneida and State of New York, have invented a new and improved mode of constructing and applying the straps to the handles of iron shovels and spades; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference thereon.

Straps for shovels and spades as heretofore constructed have been made of sheet metal, with holes drilled or punched in them, through which rivets are passed, the ends of which are hammered or flattened down so as to form heads, by which the straps are firmly secured to the blade and to the handle. Thus secured, the heads on the under side of the shovel-blade offer great resistance to the entrance of the blade in the soil in using them, where it is hard and cohesive, until they are worn off. Once worn off, they leave the straps loose on the blade, from which they become detached, while the heads of the rivets on the handle-straps seriously impede the free use of the hand on the handle.

The object of my invention is to remedy these defects; and it consists in the use of new and improved straps made of malleable cast-iron, on the inner side of which are cast appropriate pins, to serve as rivets by which to secure them to the shovel or spade blade and handle, they being riveted down into countersunk holes so as to leave no part of the head projecting above the surface of the straps. Thus constructed, no rivet-head presents itself on the under side of the blade where it enters the hard ground, or on the handle-straps to interfere with the free use of the hand, thus avoiding the evils resulting from the ordinary rivet-heads projecting on the back or front of the shovel, and in other respects making a more perfect and durable article.

Figures 1 and 2 represent the two parts of the strapping as they appear after casting with the appropriate rivet-pins upon them. Fig. 3 shows these two parts in the relative positions which they occupy when clasp- ing the handle.

Figs. 4 and 5 represent the complete shovel, the former with the back and the latter with the front side presented to the view.

The same letters refer to like parts in all the figures.

There are three long rivet-pins that pass through the handle. Two of these, *a* and *b*, are cast upon the back strap, Fig. 1, and corresponding holes are cast at *c* *d*, Fig. 2, in the front strap for the outer ends of these pins. The other, *e*, Fig. 2, is cast on the front strap, and a corresponding hole, *f*, Fig. 1, is cast in the back strap for the end of this. When the parts are put together, clasp- ing the handle, the two pins *a* and *b* on the back strap pass through the handle in the same direction and the pin *e* on the front strap in a contrary direction, and each is riveted down in appropriate countersinks on the outside of the opposing strap. These rivetings are seen in the figures showing the complete shovel, the two former at *g* *h*, Fig. 5, and the latter at *i*, Fig. 4. The short rivet-pins *k*, Fig. 1, and *l*, Fig. 2, pass through the shovel-plate only, and are riveted down on the opposite side. The rivetings of the pins *k*, Fig. 1, are seen at *k*, Fig. 5. Those of the pins *l*, Fig. 2, are beneath the shovel-plate when the shovel is finished and entirely out of view, so that, as seen at *m*, Fig. 4, there are no rivet-heads or rivetings of points seen on the back of the shovel, the whole surface being left smooth and solid. Thus, although the shovel is strapped in a strong and durable manner, not a rivet-head is seen, and the points of the rivet-pins being riveted down in countersinks cast for the purpose, the whole surface of the connection is improved in strength, in durability, and in appearance.

What I claim as new in the manufacture of shovels and spades is—

Malleable cast-iron straps with pins formed on their inner sides, to serve as rivets, and countersunk holes on their outer sides, in the manner and for the purposes described.

CHAS. H. SAYRE.

Witnesses:

WM. BAKER,  
M. M. JONES.