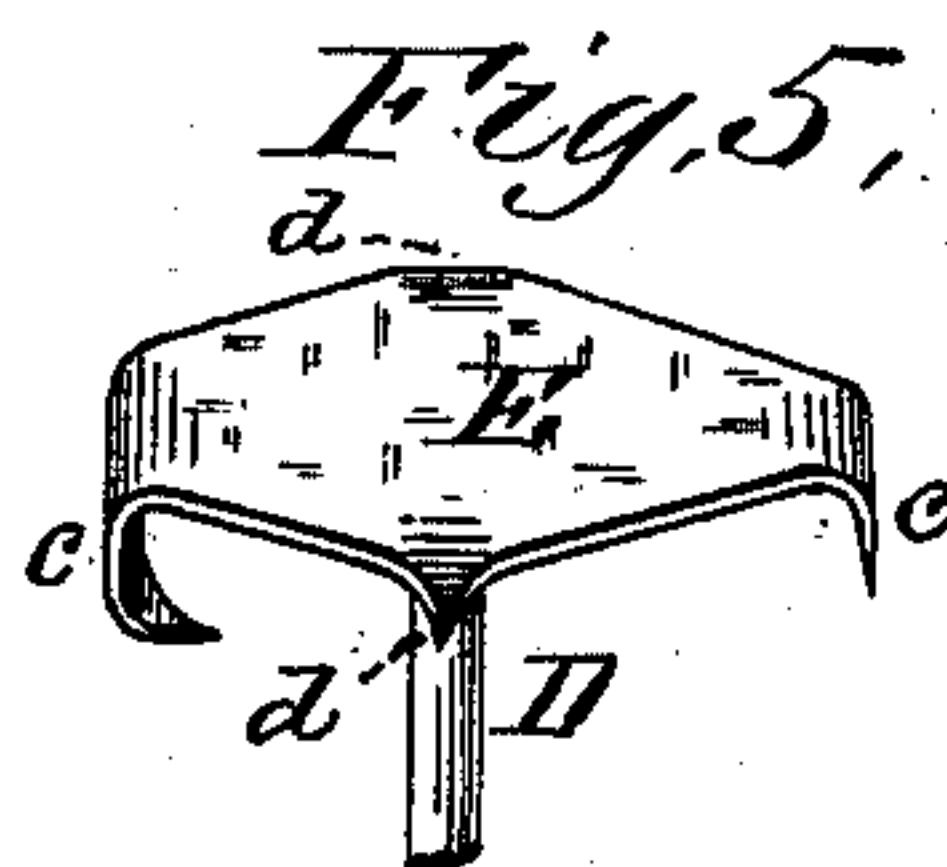
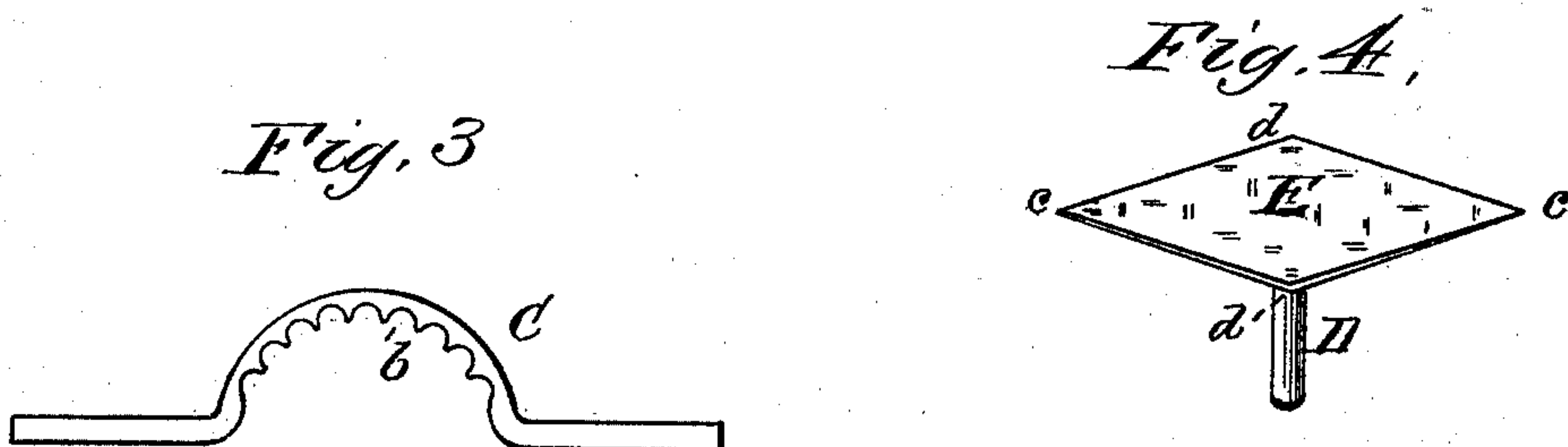
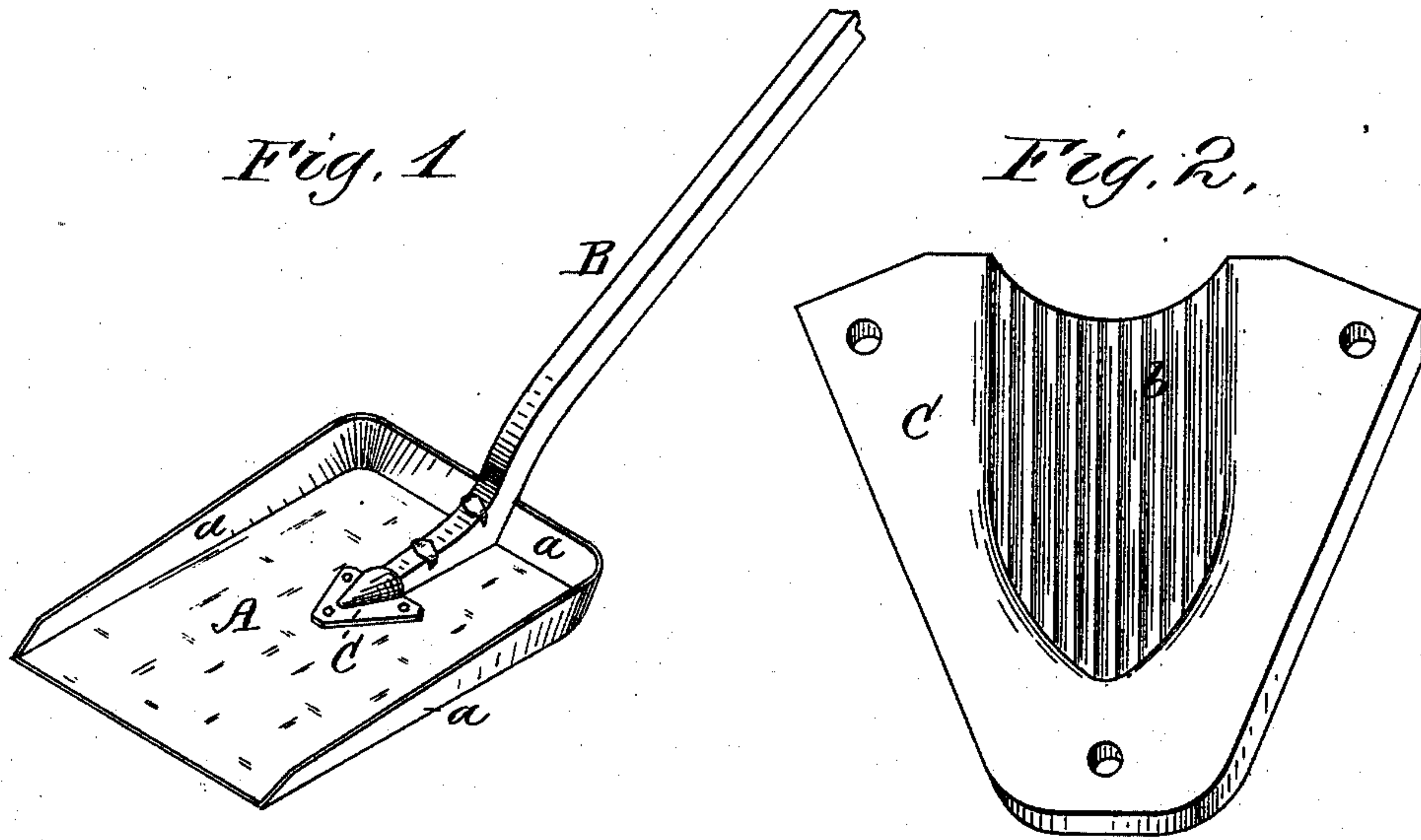


H. M. WHITNEY.

Shovel.

No. 223,619.

Patented Jan. 13, 1880.



WITNESSES

Nat. E. Oliphant.
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UNITED STATES PATENT OFFICE.

HENRY M. WHITNEY, OF OSWEGO, NEW YORK.

SHOVEL.

SPECIFICATION forming part of Letters Patent No. 223,619, dated January 13, 1880.

Application filed December 12, 1879.

To all whom it may concern:

Be it known that I, HENRY M. WHITNEY, of Oswego, in the county of Oswego and State of New York, have invented a new and valuable Improvement in Shovels, Spades, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my invention. Fig. 2 is an under-side plan view of the cap for receiving the end of the handle. Fig. 3 is an end view of the same on the same enlarged scale; Fig. 4, a perspective view of the T-headed rivet; and Fig. 5, a similar view of the rivet with the sharp points of the head bent down, as they appear when secured around the handle.

The present invention has relation to a novel construction of shovels, spades, scoops, &c.; and it consists in the peculiar manner of connecting the handles thereto, whereby is produced a simple and cheap article of the above description, possessing the requisite qualities of lightness, strength, and durability, as will be hereinafter described, and subsequently pointed out in the claim.

In the accompanying drawings, A represents the blade of a shovel, formed around three of its sides with an upwardly-turned flange, *a*. This blade A is preferably formed from a rectangular plate of hammered steel, pressed into the required shape with its flange by suitable dies, thereby rendering the blade of sufficient strength and durability for the various purposes for which a shovel may be adapted or used.

The handle B, which is of wood, and of any desirable length, is so formed at its lower end as to rest upon its under side flat upon the face of the blade A from its point to and against the flange *a* at the back thereof. This portion of the handle is firmly secured in position by rivets D, which, together with their heads E, may be termed "T-rivets." The

rivets D pass through the handle B and the blade A, the points *c* of the head E being bent down over the sides of the handle, while the points *d* penetrate the upper edge. This manner of securing the handle to the blade prevents the possibility of the wooden handle splitting when the blade comes suddenly in contact with a stone, railroad-rail, or other hard substance when the device is used as a snow-shovel; also, when the handle becomes wet, to prevent it breaking or being injured by the swelling of the wood. After the handle B has thus been secured to the blade A, a metal cap, C, is placed over the point of the handle and secured, by rivets or other suitable means, to the blade.

The cap C is formed upon its under side with longitudinal grooves or flutes *b*, so that when the point of the handle becomes wet it will swell and fill the grooves between the flutes or ribs, thereby forming a perfect and rigid connection between the cap and point of the handle, which, together with the rivets, secure the handle and blade together, so that there is comparatively little danger of their becoming separated by ordinary usage.

Although I have shown my invention as applied to a shovel, it is evident that the manner of securing the handle is equally as applicable to spades, and may be applied to scoops without departing from the principle of my invention.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the blade A, of the handle B, secured to said blade by T-headed rivets D, and cap C, having upon its under side flutes or grooves *b*, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY M. WHITNEY.

Witnesses:

S. A. WEBB,
E. G. JONES.