(No Model.)

J. N. PARKER.

HOE.

No. 387,806. Patented Aug. 14, 1888.

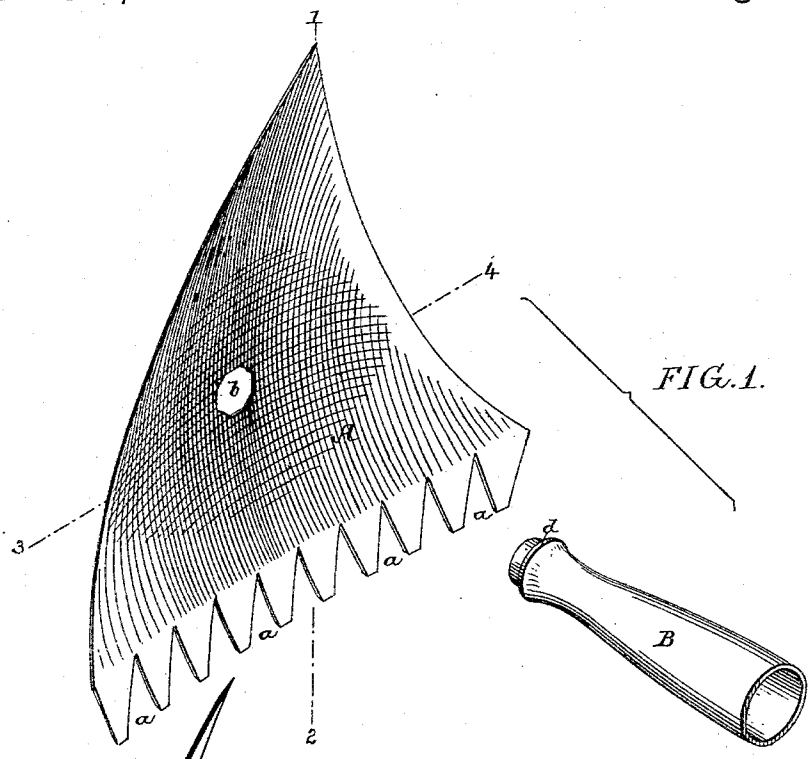

FIG. 1.

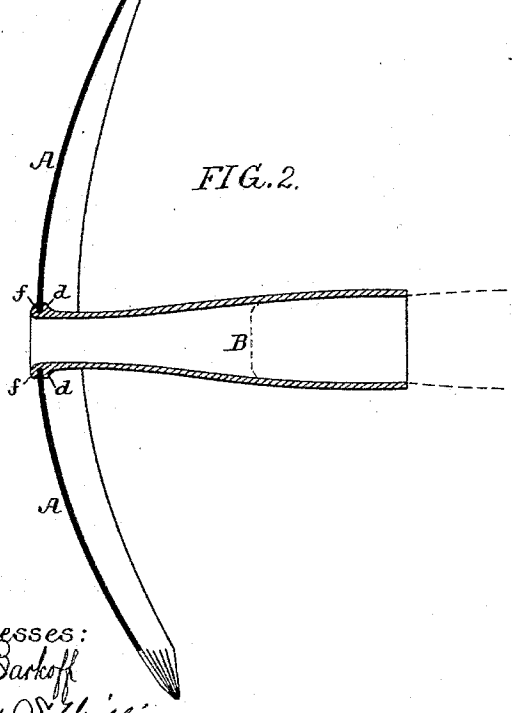

FIG. 2.

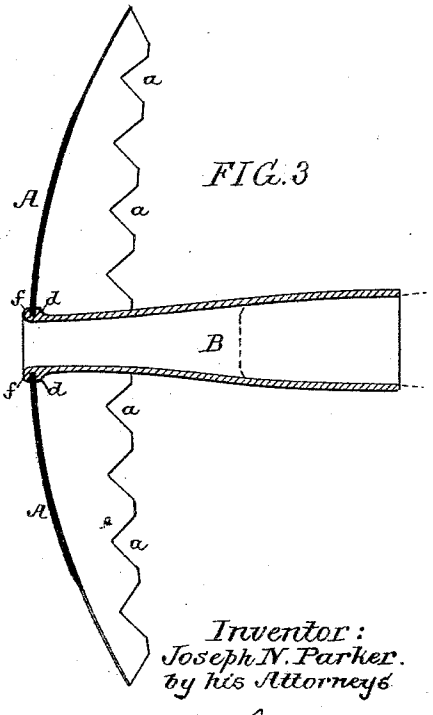

FIG. 3

Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH N. PARKER, OF VINELAND, NEW JERSEY.

HOE.

SPECIFICATION forming part of Letters Patent No. 387,806, dated August 14, 1888.

Application filed November 14, 1887. Serial No. 255,099. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH N. PARKER, a citizen of the United States, and a resident of Vineland, Cumberland county, New Jersey, have invented certain Improvements in Hoes, of which the following is a specification.

One object of my invention is to so construct a hoe that it will have several acting faces of different character, and can be so held as to bring either of these faces into use, as the character of the work to be performed may suggest, another object being to permit the ready changing of the handles of the hoe. These objects I obtain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the hoe-blade and handle-socket detached from each other. Fig. 2 is a longitudinal section on the line 1 2, showing the hoe-blade secured to the socket; and Fig. 3 is a transverse section on the line 3 4. Figs. 2 and 3 are on a larger scale than Fig. 1.

A is the blade of the hoe, which is of triangular form, all three of the sides of the blade being preferably sharpened, and one of said sides being toothed by the formation in the blade of V-shaped notches *a*. In the blade, at or about the center of the same, is formed an opening, *b*, which is in the present instance of octagonal form, although it may be of any form not circular. The blade is secured to a socket, B, which is tubular, and is flared at the inner end for the reception of the handle, as shown by dotted lines, the socket having near the front end an enlargement, *d*, forming a shoulder, and that portion of the socket which projects forward beyond the shoulder being of such size that it can be passed freely through the opening in the hoe-blade. In securing the blade to the socket this projecting portion of the socket is passed through the opening in the blade until the projection *d* bears against the inner face of said blade, and the projecting portion of the socket is then subjected to a swaging operation, whereby it is upset, so as to completely fill the opening in the blade and form on the outer face of said blade a rim, *f*, overlapping the blade around the edges of the opening, as shown in Figs. 2 and 3. By this means the blade is rigidly secured to the socket and cannot turn or twist thereon, owing to the shape of the opening in the blade; hence the tool can be held in any position, either of the two plain sides, the toothed side, or the point being available for use, the position of the blade being dependent upon the character of the work to be performed, and that portion of the blade being used which is calculated to best accomplish the work in hand.

The blade of the hoe is dished—that is to say, the inner face of the blade is concaved both longitudinally, as shown in Fig. 2, and laterally, as shown in Fig. 3. Therefore, whichever side of the blade is being used, there will be a forward rake of the acting portion of the blade, such as is desired in any tool in the nature of a hoe.

The point of the blade is extremely effective in digging or loosening the soil around the roots of bushes or plants, and the toothed side of the blade is much more effective than a plain side for the removal of weeds, the latter being caught in the V-shaped recesses between the teeth, so that they can be readily pulled away. As the socket is open at both ends, provision is afforded for driving out the handle by means of an implement inserted from the outer end of the socket when a change of handles becomes necessary.

I claim as my invention—

1. The combination of the hoe-blade, consisting of a flat plate concaved both longitudinally and transversely from edge to edge, with the handle-socket secured at or about the center of the blade, all substantially as described.

2. The combination of the dished triangular blade having two sides plain and the other side serrated, so as to form flat teeth, and intervening V-shaped recesses with sharp angles, and the handle-socket secured to the blade at or about the center of the same, all substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH N. PARKER.

Witnesses:
GEORGE SUTHERLAND,
J. L. DECKER.