No. 785,860. PATENTED MAR. 28, 1905.

C. N. CHOATE.

HOE.

APPLICATION FILED JUNE 27, 1904.

Fig. 1.

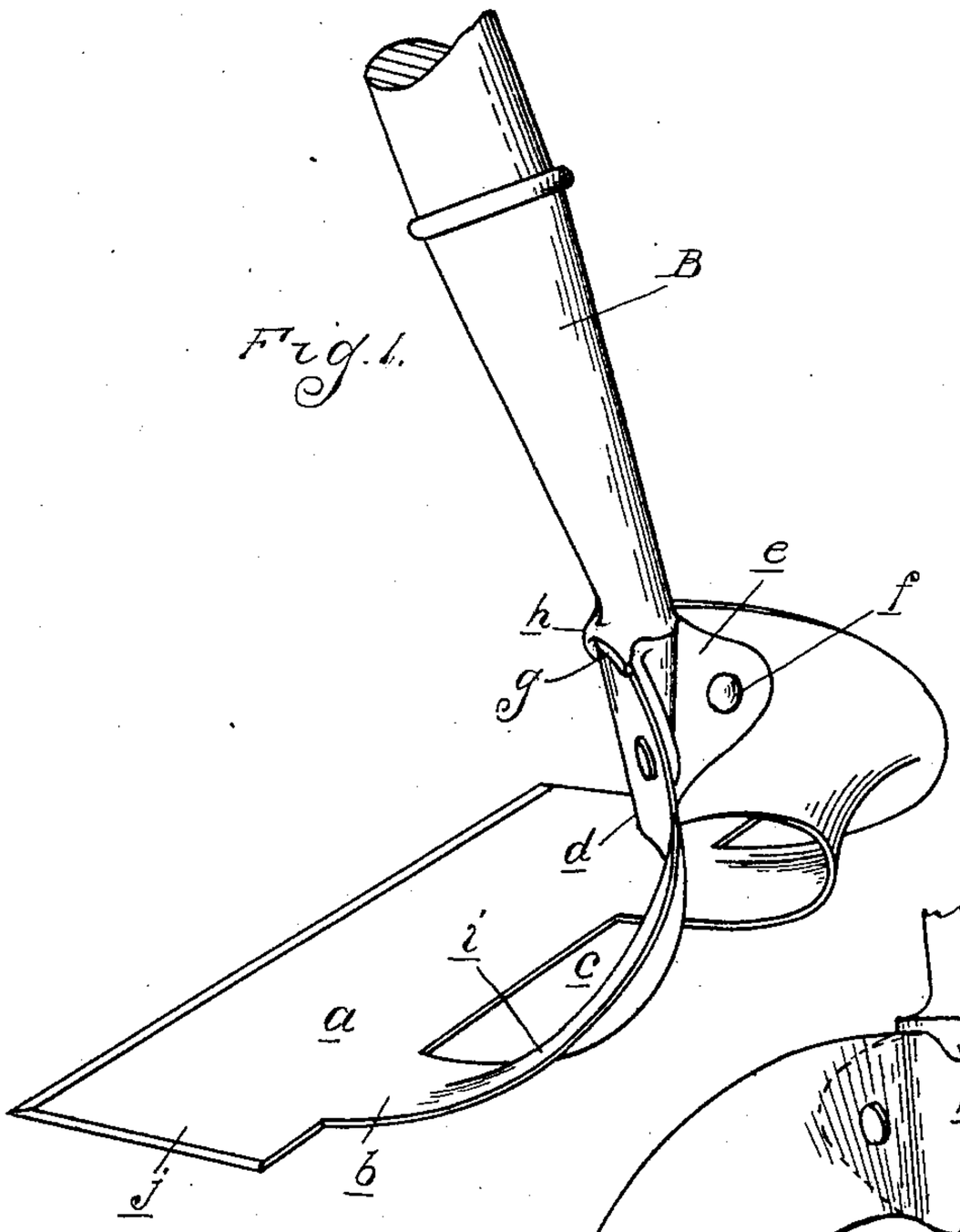


Fig. 2.

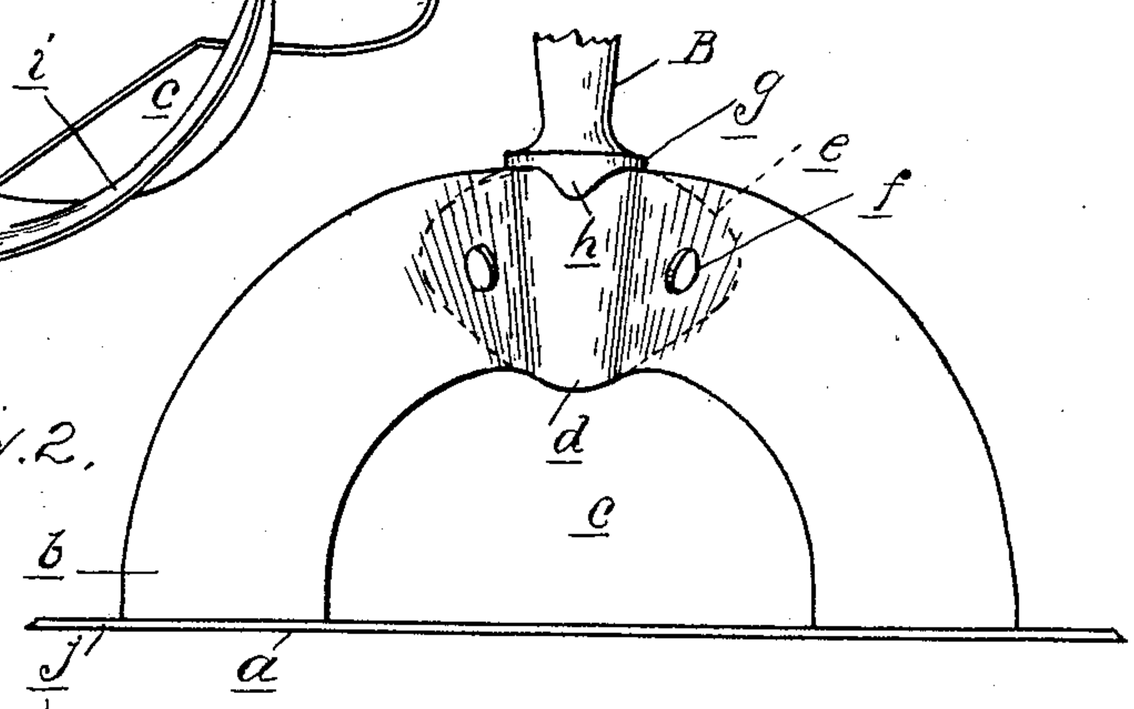
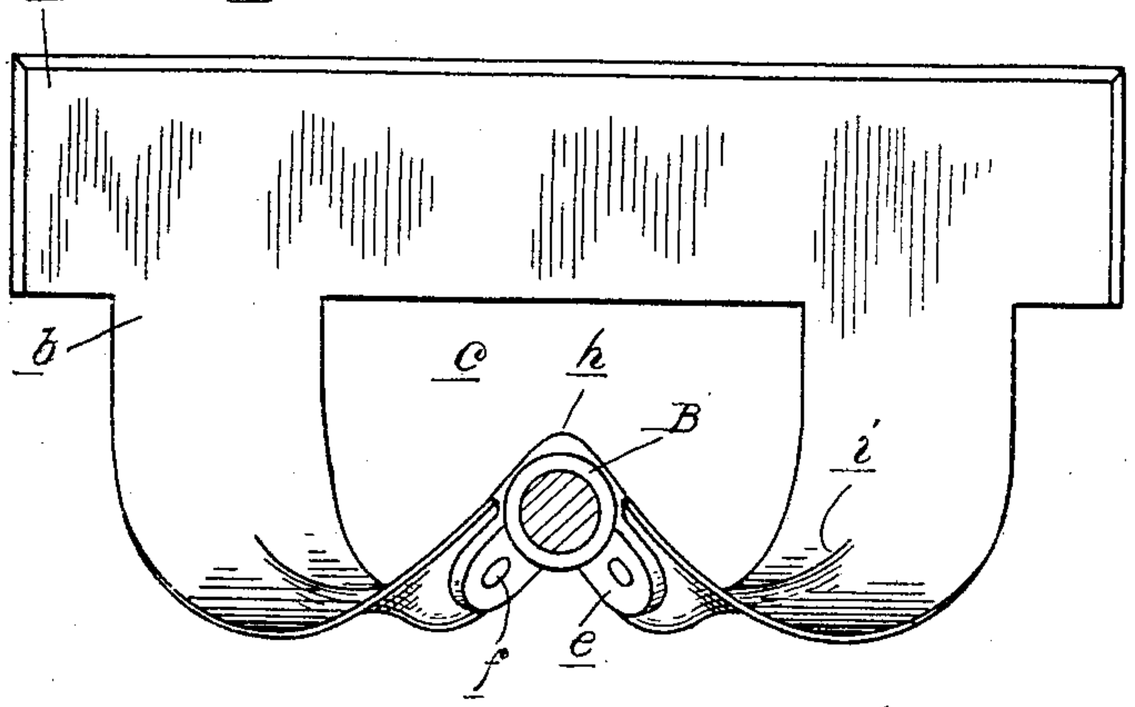


Fig. 3.



Witnesses
H. C. Smith
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No. 785,860. Patented March 28, 1905.

UNITED STATES PATENT OFFICE.

CHARLES N. CHOATE, OF WINDSOR, CANADA, ASSIGNOR OF ONE-HALF TO FRED E. ATCHISON, OF DETROIT, MICHIGAN.

HOE.

SPECIFICATION forming part of Letters Patent No. 785,860, dated March 28, 1905.

Application filed June 27, 1904. Serial No. 214,331.

To all whom it may concern:

Be it known that I, CHARLES N. CHOATE, a citizen of the United States, residing at Windsor, in the Province of Ontario and Dominion of Canada, have invented certain new and useful Improvements in Hoes, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to hoes; and it consists in the novel construction as hereinafter set forth.

In the drawings, Figure 1 is a perspective view. Fig. 2 is a front elevation, and Fig. 3 is a plan view.

My improved construction comprises, essentially, a hoe-blade having formed integral therewith a curved shank, which is directly connected to the handle-socket. The blade and shank are struck up from a sheet-metal blank, comprising the blade portion *a* and a segmental portion *b*, cut away at the center, as at *c*. The segmental portion *b* is bent out at its center *d* and from this point is preferably curved to the point of union with the blade *a*, so as to form a return-bend. The portions of this segment adjacent to the bend *d* extend at an angle to each other, forming a **V**-shaped structure, which is secured to the handle-socket B by means of lugs or wings *e* thereon. These lugs *e* are apertured for rivets *f*, which secure the socket B to the segments *b*.

From the description above given it will be understood that the socket B is held at an angle to the blade *a*, as is usual in hoe construction, and that the bend is formed entirely in the sheet-metal part and not in the socket, which is preferably of malleable casting. To more securely fasten the socket to the sheet metal, a rib *g* is formed on the socket against which the outer edge of the segment *b* bears, and the lug *h*, projecting centrally from said rib, is turned down over the sheet metal, as shown in Figs. 1 and 2.

With the construction as thus far described the blade and handle would be held in proper relation to each other; but inasmuch as the bend is formed in the sheet metal the structure would possess very little strength and would be easily distorted in shape. To avoid this, the segmental shank portion *b*, in addition to the bends already described, is also bent so as to form a curved or channel-shaped cross-section in the return-bent portion thereof, such as is indicated at *i*. In this form the sheet-metal shank is greatly strengthened, being trussed by the flanges of the channel, so as to be able to resist any strain to which a hoe is ordinarily subjected.

The blade portion *a* may, if desired, be the same width as the shank portion *b;* but preferably it is provided with end extensions *j*, which, together with the front edge of the section, are sharpened and may be used as narrow hoes.

What I claim as my invention is—

1. A hoe comprising a handle-socket and a combined blade and shank struck up from sheet metal in a return-bent form, the shank being of segmental form and secured to said socket.

2. A hoe comprising a blade and shank struck up from sheet metal, the shank being of segmental form and return-bent.

3. A hoe comprising a blade and shank struck up from an integral sheet-metal blank, the shank being of segmental form, bent at the center to form oppositely-angling portions and each portion being return-bent and of a channeled cross-section.

4. A hoe comprising a blade and shank struck up from an integral sheet-metal blank, the shank being of segmental form, bent at the center to form oppositely-angling portions, each of said portions being return-bent and formed of a channel-shaped cross-section, and a handle-socket secured to said shank at the central angle thereof.

5. A hoe comprising a blade and shank struck up from an integral sheet-metal blank, the shank being of segmental form, bent at its center to form oppositely-angling portions, each of which is return-bent and formed of channel-shaped cross-section, and a handle-socket having angling-lugs secured to said shank at the central bend therein, forming a reinforcement for said handle.

6. A hoe comprising a blade and shank

struck up from an integral sheet-metal blank, the shank portion being cut out at its center to form a semi-annular shape, and being bent at its center to form oppositely-angling portions, each of which is return-bent and of channel-shaped cross-section, a handle-socket secured in the bend of said shank and having a rib engaging with the upper edge of the shank, and a lug turned over the front face thereof.

7. A hoe comprising a handle-socket and a combined blade and shank struck up from an integral sheet-metal blank, the shank being of segmental form and return-bent, and end projection of the blade portion beyond the point of union with said shank, forming narrow cutting-blades.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES N. CHOATE.

Witnesses:
H. C. SMITH,
EDWARD AULT.