M. JOHNSON.

HOE.

No. 192,764. Patented July 3, 1877.

Fig. 1.

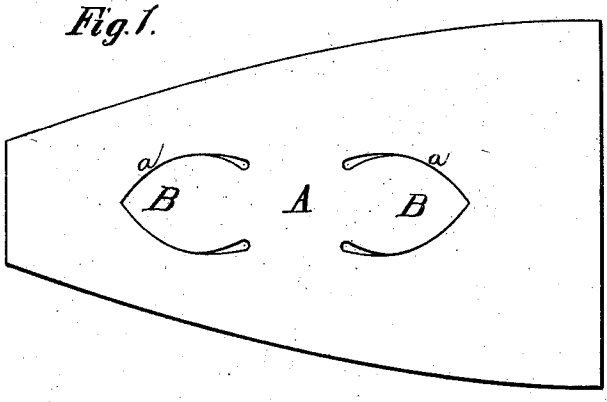


Fig. 2.

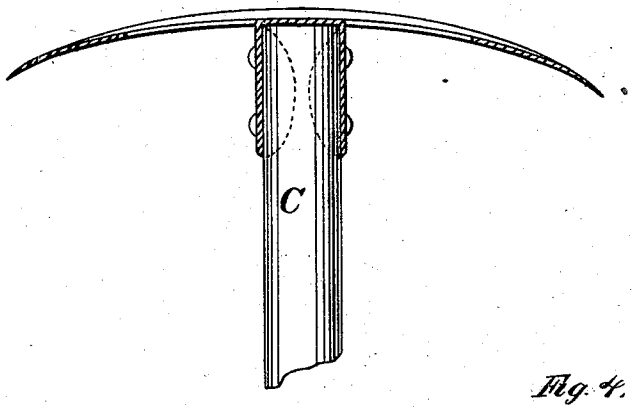


Fig. 4.

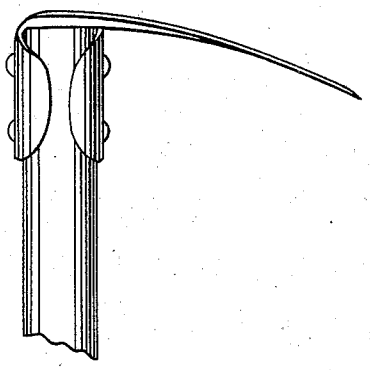
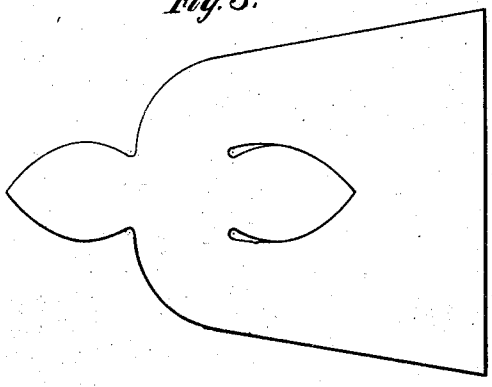


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

MOSES JOHNSON, OF LOCKPORT, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO MOSES CRANDALL RICHARDSON, OF SAME PLACE.

IMPROVEMENT IN HOES.

Specification forming part of Letters Patent No. **192,764**, dated July 3, 1877; application filed June 20, 1877.

To all whom it may concern:

Be it known that I, MOSES JOHNSON, of Lockport, in the county of Niagara and State of New York, have invented a new and valuable Improvement in Hoes; 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 plan view of my hoe-blank, and Fig. 2 is a vertical central sectional view of the hoe and handle. Fig. 3 is a blank for a modification thereof, and Fig. 4 a side view of the same.

The object of my invention is to improve the construction of hoe-blades, as will be hereinafter more fully set forth.

In the annexed drawing, A represents the blade for a double hoe, which may be of any suitable form and size.

By the use of dies or other suitable cutting devices, the blade A is cut with the curved slits *a a*, substantially in the form shown in Fig. 1, and the lips B B, thus formed, are bent outward from the blade, and then bent around the end of the handle C, forming the ferrule, which is riveted or otherwise firmly secured to said handle.

It will thus be seen that the blade and ferrule are formed of the same piece of metal, and all in one piece, which makes it very strong and durable.

Another very important advantage resulting from this construction is, that there is formed an opening in the blade on each side of the handle, which prevents dirt from clogging around the handle.

The same invention may be applied to a single hoe, as seen in Fig. 3, by cutting a single lip, B, from the hoe-blade, and forming a similar lip at the end of the blade. This leaves one opening in the blade just where the dirt would otherwise be most liable to clog.

What I claim as new, and desire to secure by Letters Patent, is—

A hoe-blade, A, provided with lips B B, cut out of the blade to form the ferrule, and leaving openings in the blade close to the handle, as and for the purposes set forth.

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

MOSES JOHNSON.

Witnesses:
E. E. VAN HORN,
J. J. ARNOLD.