No. 610,570. Patented Sept. 13, 1898.

W. WATKINS.

HOE OR MATTOCK.

(Application filed July 21, 1897.)

(No Model.)

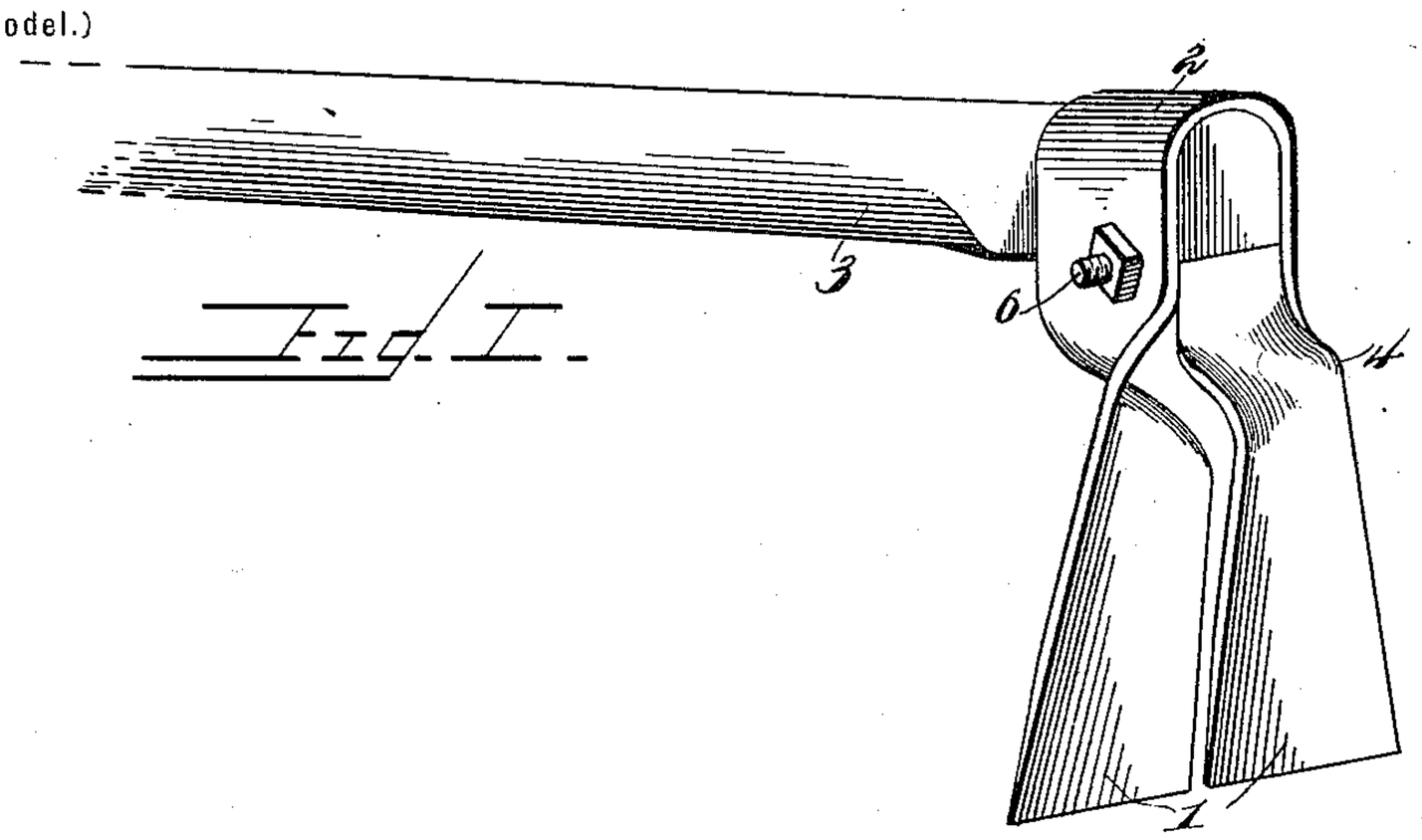

Fig. 1.

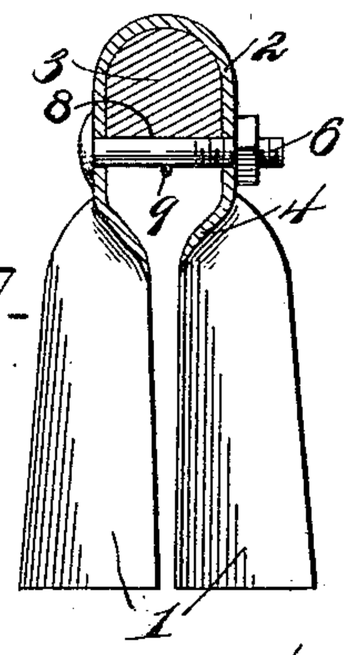

Fig. 2.

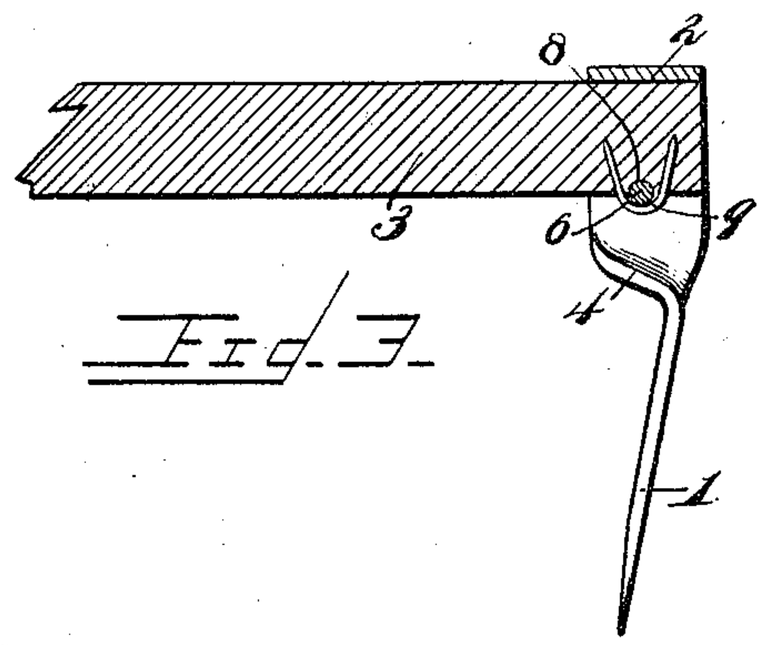

Fig. 3.

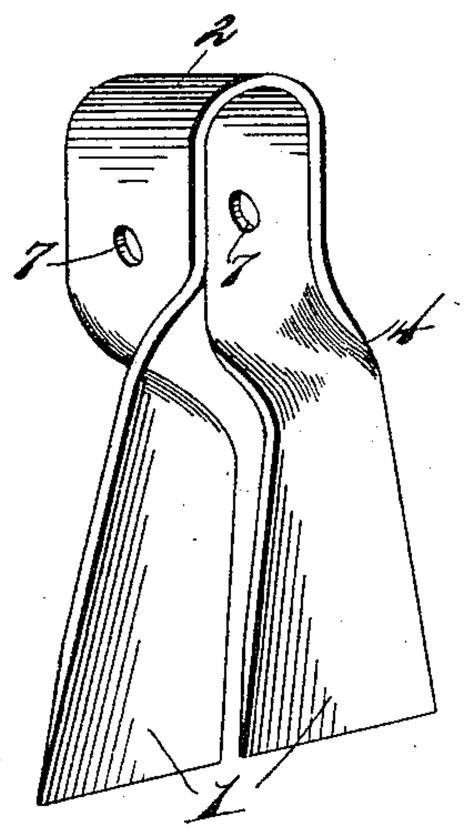

Fig. 4.

Inventor
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Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM WATKINS, OF REEDSVILLE, WEST VIRGINIA.

HOE OR MATTOCK.

SPECIFICATION forming part of Letters Patent No. 610,570, dated September 13, 1898.

Application filed July 21, 1897. Serial No. 645,427. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WATKINS, a citizen of the United States, residing at Reedsville, in the county of Preston and State of West Virginia, have invented a new and useful Hoe or Mattock, of which the following is a specification.

The invention relates to improvements in hoes or mattocks.

The object of the present invention is to improve the construction of hoes and analogous tools which are attached to a handle by means of an eye and to provide a simple, strong, and inexpensive construction whereby such a tool may be readily applied and securely fastened to a handle and adjusted to clamp the same firmly, so that it may be readily tightened should the handle shrink and the tool become loose.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a hoe constructed in accordance with this invention. Fig. 2 is a transverse sectional view. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail perspective view of the blades.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 1 designate a pair of hoe-blades constructed of a single piece of metal and arranged in the same plane, with a slight intervening space between their inner adjacent edges. The metal of which the blades are constructed is doubled centrally to form a substantially U-shaped eye 2 for the reception of an ordinary wooden handle 3, which is preferably rounded at its upper face and provided with a lower flat face at its outer end. The metal after being bent to form the eye 2 is given a quarter turn or bend 4 to arrange the blades 1 in a plane transversely of the handle, so that they will face the work properly. The blades may be of any width and length, and their lower edges are sharpened, and by being spaced apart or divided they enter the soil more readily than a continuous unbroken blade. The eye 2 is perforated at opposite sides for the reception of a transverse bolt 6, and these perforations 7 are formed in the metal previous to bending the same and are brought opposite to each other through the formation of the eye. The bolt 6 is provided with a nut and is adapted to cause the eye to clamp the handle. The handle 3 is preferably provided at its lower face with a transverse groove 8 for the reception of the transverse bolt, which also passes through an eye 9, formed by a suitable fastening device, such as a staple or eyebolt, the former being preferable. This construction, while securely fastening the tool to the handle, prevents the eye from slipping longitudinally of the latter and enables the parts to be tightened should the handle shrink.

The principle of forming the eye and applying the same to a handle is applicable to various other tools and instruments than that shown in the accompanying drawings. An ordinary pick or mattock may be provided with a substantially similar eye and be secured in the same manner to a handle.

The invention has the following advantages: The hoe is simple and comparatively inexpensive in construction and may be easily manufactured. It is securely fastened to the handle, and should the latter shrink or otherwise become loose the eye may be readily tightened. The blades by being slightly separated are adapted to penetrate the soil more easily than a continuous blade.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a device of the class described, the combination of a handle, a blade or tool provided with an eye embracing the handle and provided at opposite sides with perforations located adjacent to one of the faces or edges of the handle, a bolt passing through the perforations of the eye and adapted to cause the sides thereof to clamp the handle, and a fastening device mounted on the handle and forming an eye through which the said bolt passes, substantially as described.

2. A hoe comprising a handle, a pair of blades constructed of a continuous strip of metal doubled between its ends to form an

eye to receive the handle, and having quarter turns or bends at the lower face of the handle to arrange the blades transversely thereof, said blades being separated by a slight intervening space, and means for securing the eye to the handle, substantially as described.

3. A hoe comprising a handle, a pair of blades constructed of a continuous strip of metal doubled between its ends to form an eye to receive the handle, and having quarter turns or bends at the lower face thereof, said blades being slightly separated, a bolt passing through the sides of the eye and arranged adjacent to the lower face of the handle, and a fastening device mounted on the handle at right angles to the bolt and forming an eye for the reception of the same, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM WATKINS.

Witnesses:

OSCAR A. CAMPBELL,

FRANK F. HAYMOND.