

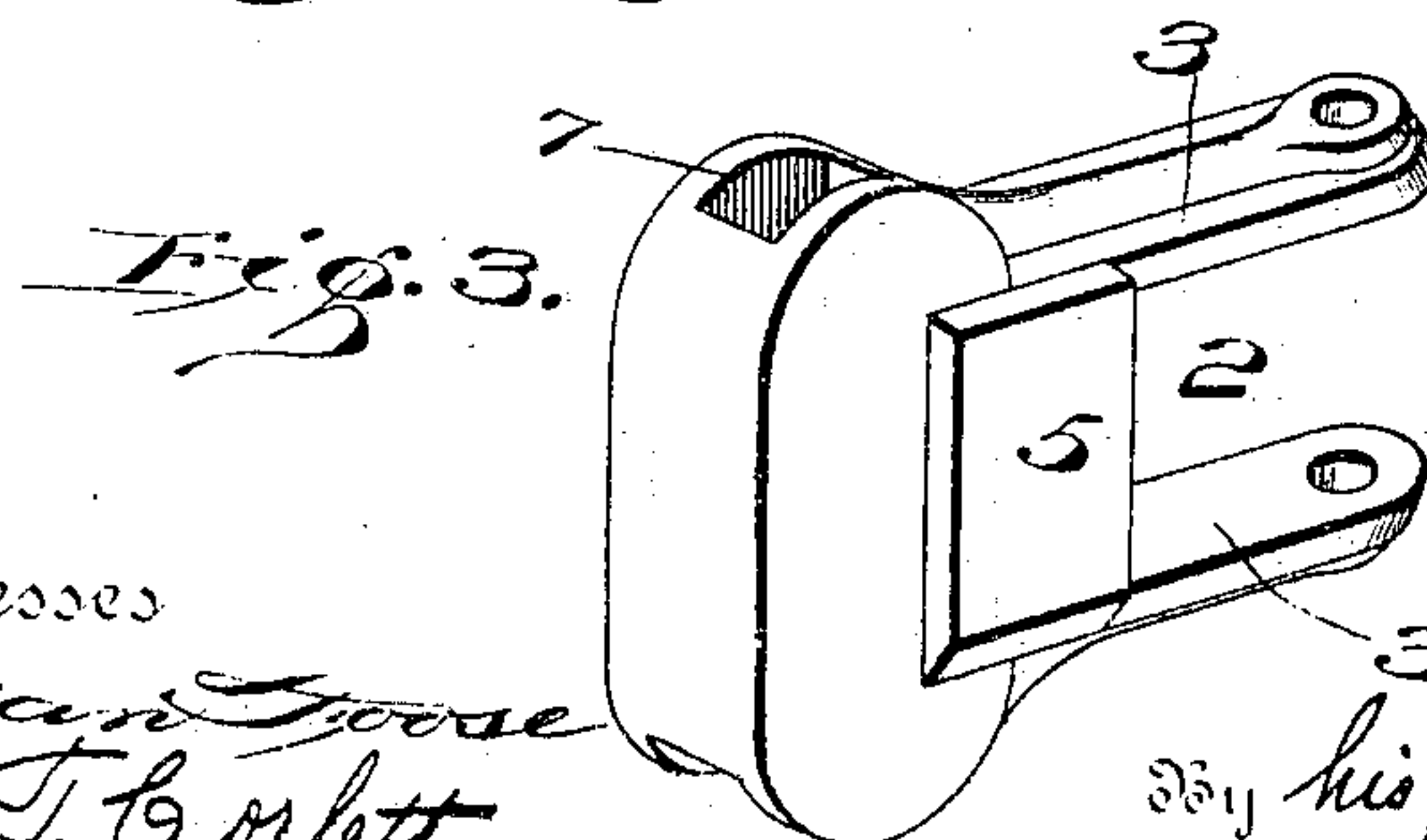
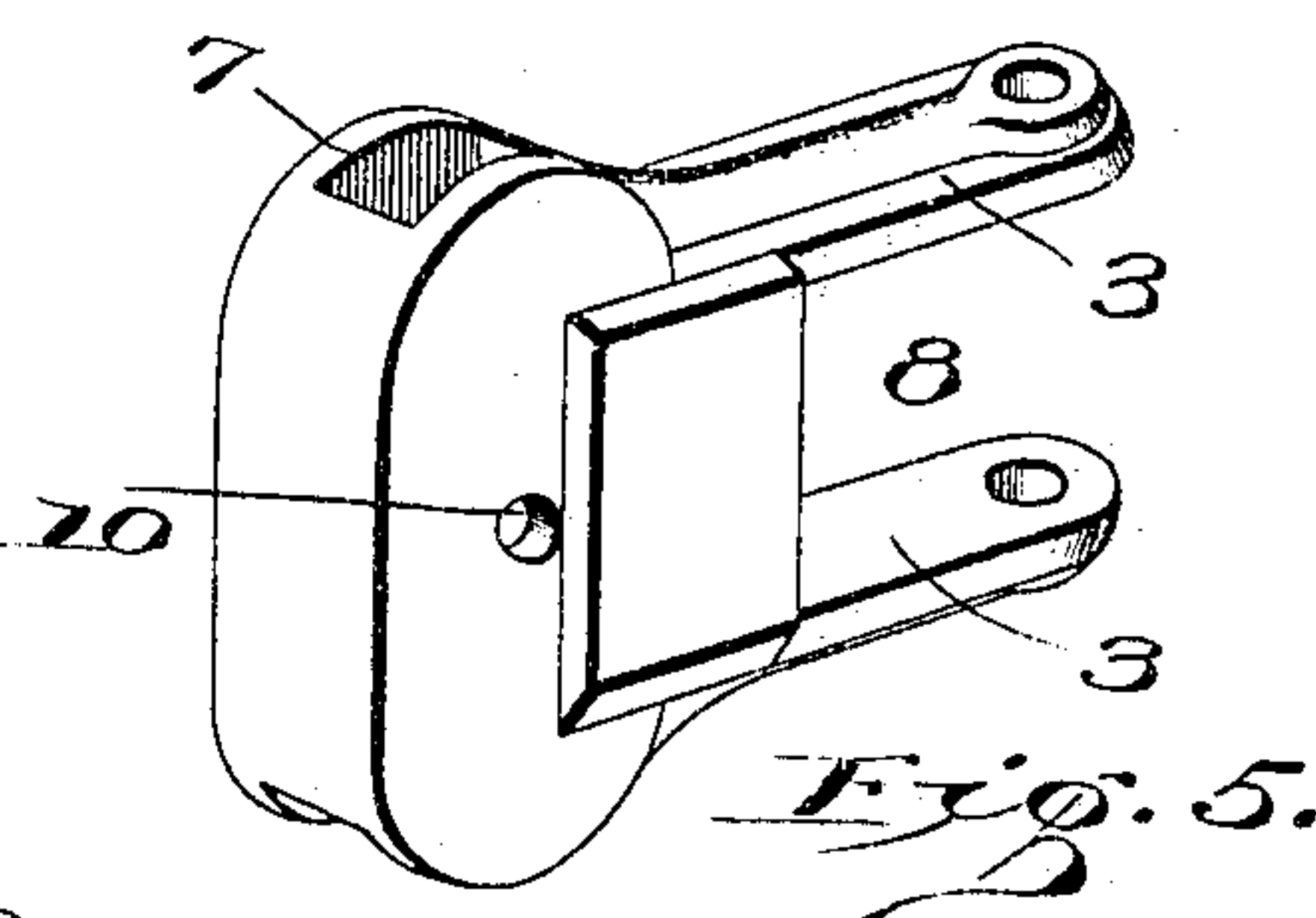
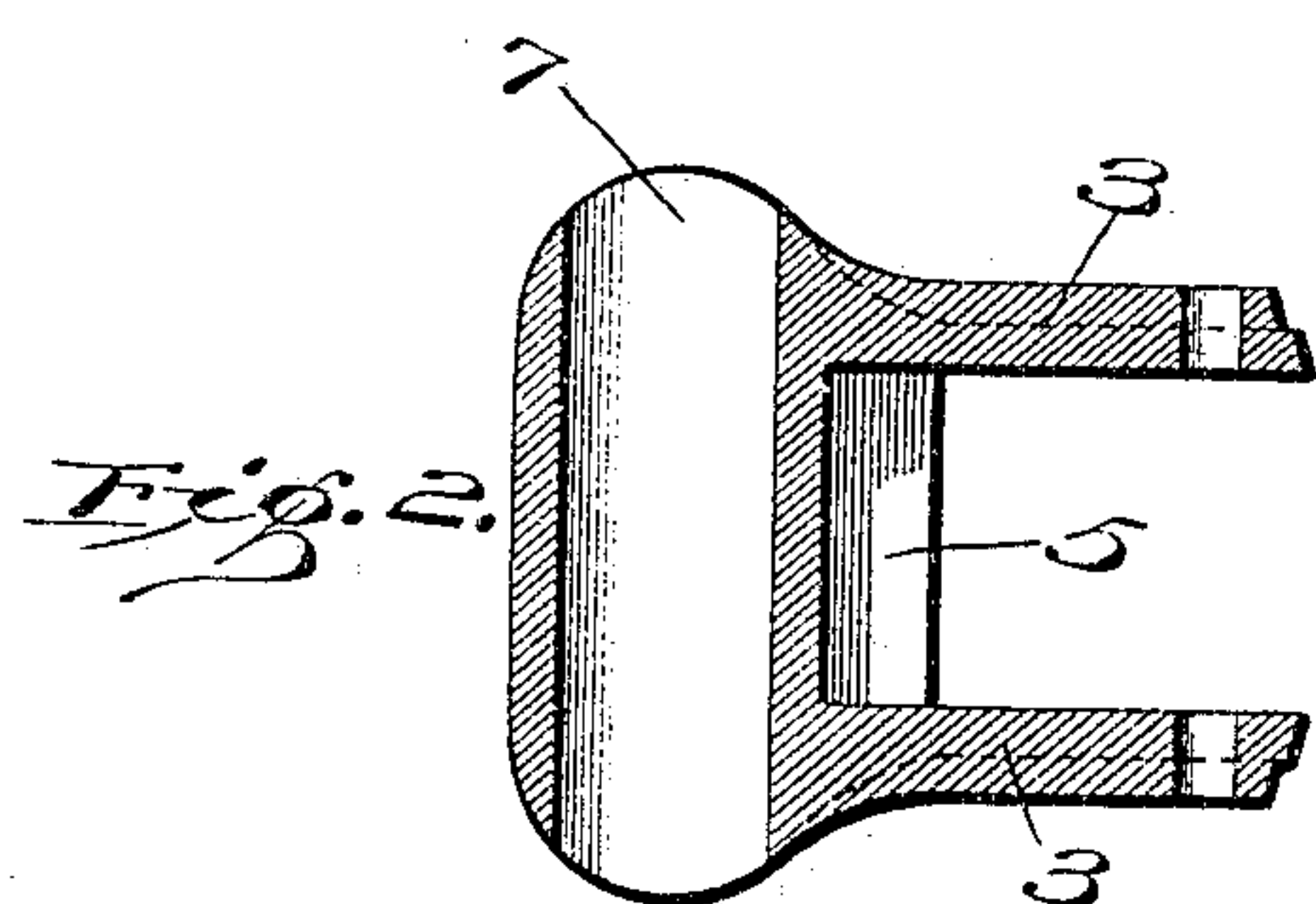
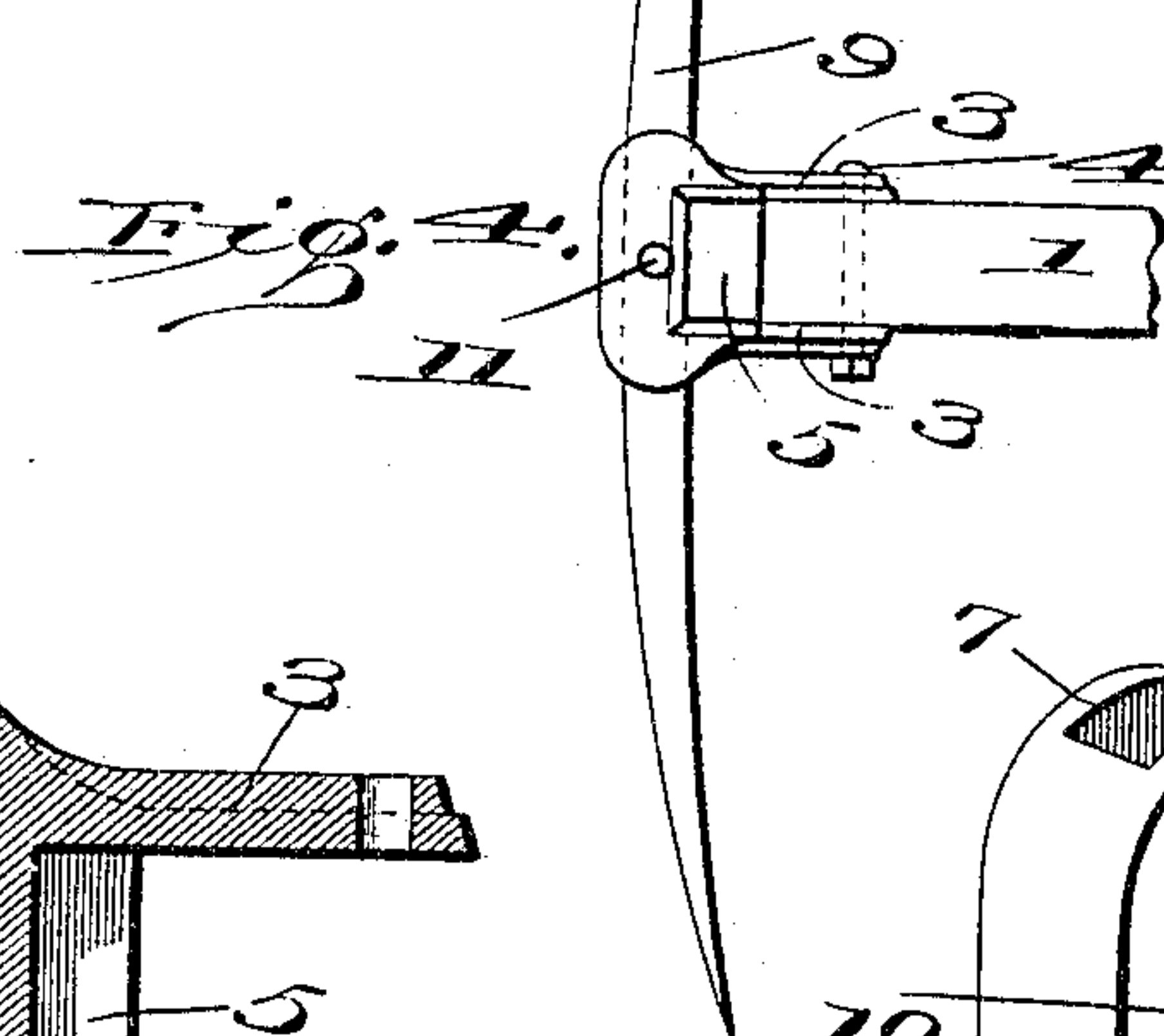
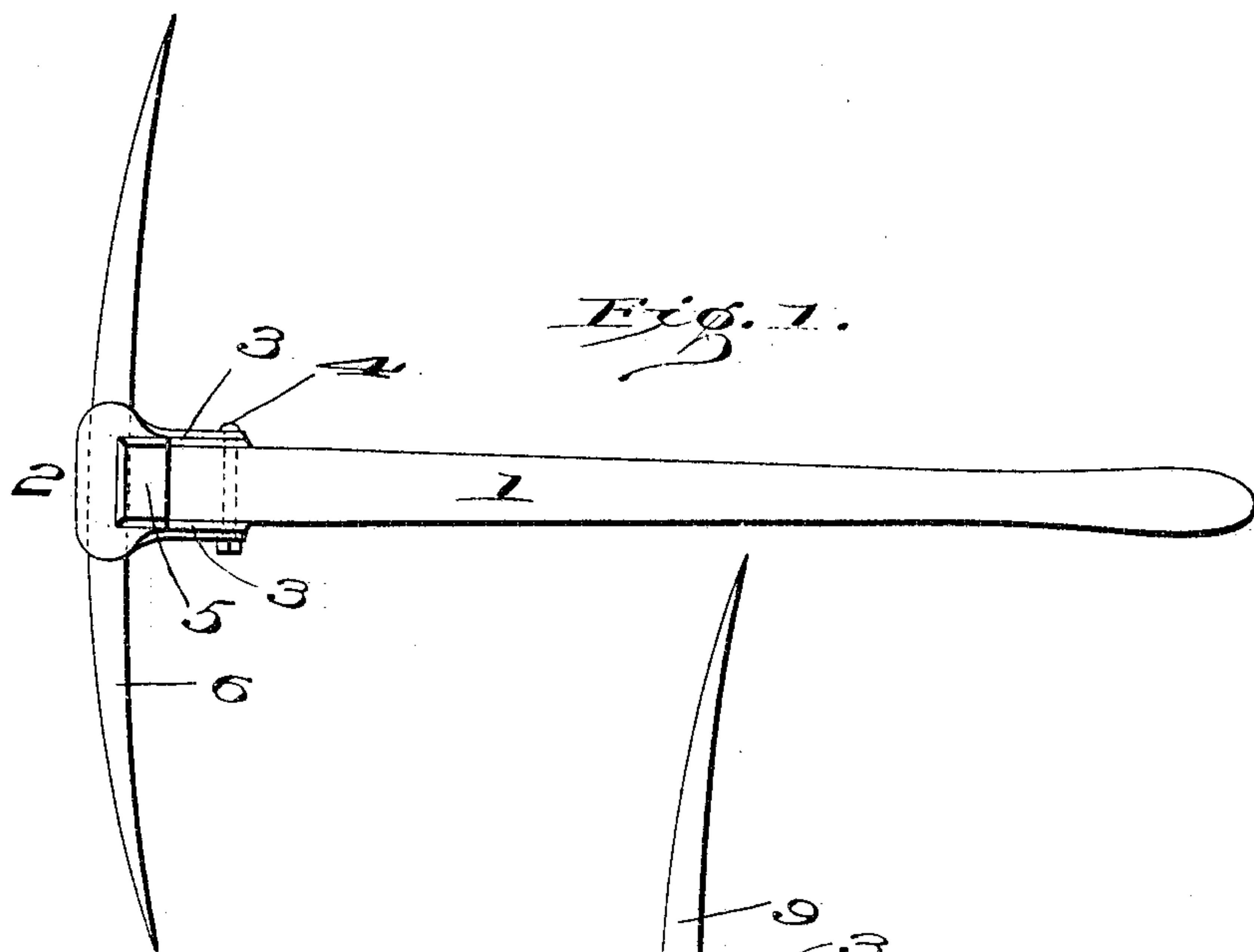
No. 781,801.

PATENTED FEB. 7, 1905.

H. G. ATHA.

PICK.

APPLICATION FILED AUG. 15, 1904.



Witnesses  
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## UNITED STATES PATENT OFFICE.

HENRY G. ATHA, OF NEWARK, NEW JERSEY.

## PICK.

SPECIFICATION forming part of Letters Patent No. 781,801, dated February 7, 1905.

Application filed August 15, 1904. Serial No. 220,701.

*To all whom it may concern:*

Be it known that I, HENRY G. ATHA, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Picks, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the construction of implements in the nature of picks.

One of the objects thereof is to provide a light and efficient pick of such construction that the component parts thereof will not become separated in the course of ordinary use and yet may be taken apart when desired.

Another object is to provide an implement of the above type in which the above results are attained without any weakening of the several parts.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the implement herein described and the scope of the application of which will be indicated in the claims at the end of this description.

In the accompanying drawings, wherein are shown two of the various possible embodiments of my invention, Figure 1 is a side elevation of a pick, showing the pick-bar in place. Fig. 2 is an enlarged vertical section through the head of the same. Fig. 3 is a perspective view of the head of the pick shown in Fig. 1. Fig. 4 is an elevation of a slightly-different construction embodying some features of my invention. Fig. 5 is a perspective view of the head of the implement shown in Fig. 4.

Similar reference characters refer to similar parts throughout the several views.

Preliminary to a description of the embodiments of my invention herein set forth it may be noted that it is a highly desirable feature to have the pick-bar securely fixed in position and yet separable for the purposes of sharpening or renewal. If it is attempted to attain these objects by means of a bolt or key, it is

found that these parts, if small enough to prevent weakening of the pick-bar, have a tendency to bend and become fast in their position. It is also found that if it is attempted to secure the pick-bar in position, as is hereinafter described, with a two-part head this member lacks sufficient rigidity to have the desired grip upon the pick-bar. The above defects are remedied in constructions of the nature of that hereinafter described, in the preferred form of which the pick-bar is not slotted or perforated or the outer surface thereof otherwise broken.

Referring now to Fig. 1 of the drawings, there is represented at 1 a handle, to one end of which is secured the head 2. The latter member is provided with two projections or lugs 3, adapted to engage opposite sides of the end of the handle and preferably secured in place by means of a bolt 4, passing through the same and the end of the handle on which the head is mounted. Connecting lugs 3 are flanges 5, which preferably project over the end of the handle 1, and thus, together with lugs 3, form a solid socket within which the end of the handle is securely held. The upper portion of the head 2 forms a casing within which the pick-bar 6 is adapted to be forced. This casing as shown extends throughout the entire width of the head, and the length thereof is slightly increased by means of projecting flanges 7. Within this casing is forced a pick-bar 6, which may be of any desired construction and is preferably of slightly larger cross-section than that of the passage through the casing. This pick-bar is forced into position under great pressure, preferably by means of a hydraulic press or similar apparatus. The pick-bar being forced into the casing is held in place by the reaction of the walls of the casing thereon with such firmness that it cannot become detached in the course of ordinary use. The process by which the pick-bar is forced in position is similar to that by which locomotive-wheels are forced upon the axles, and the tenacity with which these parts retain their hold is well known. When it is desired to remove the pick-bar, however, the same may be readily accom-



plished by means similar to those with which it was forced in place.

It will thus be seen that I have provided simple and inexpensive means whereby a pick-bar may be rigidly and securely mounted on a handle or equivalent member and yet may be readily removed for sharpening or other purposes. The parts are inexpensive and easily formed and, owing to the flanged construction of the head, are unlikely to split the end of the handle or become loose thereon. The pick-bar, moreover, is not weakened by cutting or perforation and there are no bolts or keys which are likely to become fast in use.

Figs. 4 and 5 show an embodiment of some features of my invention in which the form of the head 8 is substantially the same as that above described; but this member, together with the pick-bar 9, is provided with registering perforations 10, adapted to receive a bolt 11, so as to afford an auxiliary means of retaining the pick-bar in place. It has been found, however, that the mere forcing of the pick-bar into the head is sufficient to accomplish this object, and hence the use of an auxiliary bolt, as is indicated in the embodiment shown in Figs. 4 and 5, is generally found unnecessary.

As various embodiments of my invention, some of which would be apparently widely different from that herein described, could be made without departing from the scope thereof, I intend that all matter herein described or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

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

1. In an implement of the class described, in combination, a handle, a rigid one-piece head, lugs on said head engaging said handle upon opposite sides thereof, retaining means passing through said lugs and said handle and retaining said head thereon said head being provided with an opening of substantially uniform cross-section at right angles to said handle, and a pick-bar of slightly greater cross-section than that of said opening forced into the same, said pick-bar having an unbroken outer surface and the maximum cross-section thereof lying within said head.

2. In an implement of the class described, in combination, a handle, a rigid one-piece head, lugs on said head engaging said handle on opposite sides thereof, retaining means passing through said lugs and said handle and retaining said head upon said handle, said head being provided with an opening of substantially uniform cross-section at right angles to said handle, flanges connecting said lugs and engaging said handle upon opposite sides thereof, and a pick-bar of slightly greater cross-section than that of said opening forced into the same, said pick-bar having an unbroken outer surface and the maximum cross-section thereof lying within said head.

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

HENRY G. ATHA.

Witnesses:

EDW. INGALLS,

DONALD M. BARRELL.