

(No Model.)

D. SHIELDS.

MEANS FOR UNITING TOOLS TO HANDLES, &c.

No. 492,474.

Patented Feb. 28, 1893.

FIG. 1 -

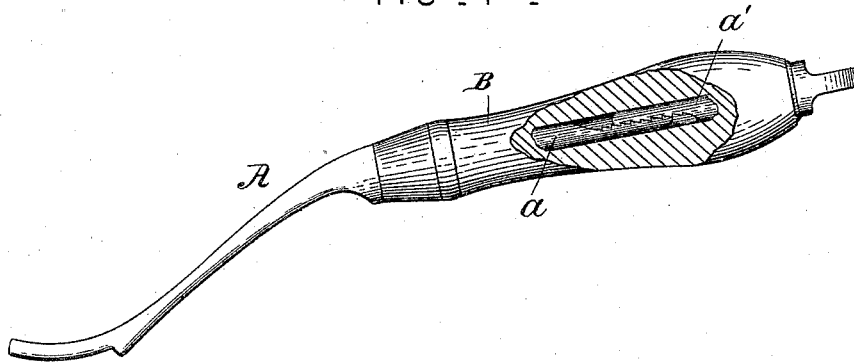


FIG. 2 -

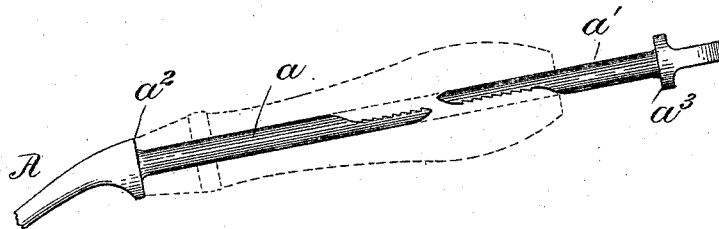
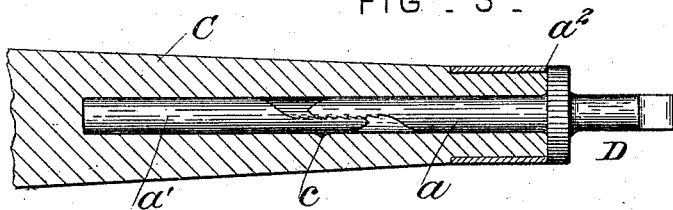


FIG. 3 -



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# UNITED STATES PATENT OFFICE.

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## MEANS FOR UNITING TOOLS TO HANDLES, &c.

SPECIFICATION forming part of Letters Patent No. 492,474, dated February 28, 1893.

Application filed March 18, 1892. Serial No. 425,437. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID SHIELDS, a citizen of the United States, and a resident of Erie, county of Erie, and State of Pennsylvania, have invented a new and useful Improvement in Means for Uniting Tools to Handles, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to the manner of uniting a tool or other implement or device to a bar or handle of wood and it consists in providing a tool or implement with a divided shank, the parts of which overlap and have toothed or roughened interlocking faces, and the combination of the same with a socketed wooden bar or handle by which the parts of the divided shank are held firmly interlocked; also in certain details of construction and arrangement of parts as hereinafter described and claimed.

In the accompanying drawings:—Figure 1 represents in side elevation a stove-cover lifter with the handle partly cut away to show the improvement. Fig. 2 is a side view of the parts detached, the handle being indicated in dotted lines, and Fig. 3 shows one end of a single-tree in section, with a hook applied thereto, in accordance with my invention.

A indicates a stove lifter provided with a divided shank the parts of which are indicated by the letters *a* and *a'*, and B is a handle, made, preferably, of wood, though other suitable material may be employed. The handle is shown as having the perforation extending from end to end and of a diameter conforming to and snugly fitting the tool shank. The shank is shown made somewhat longer than the handle with the adjacent ends of the parts thereof cut away on their adjacent faces to about one-half the diameter of the shank so as to permit them to overlap, as shown, and provided on such cut away portions with transverse interlocking serrations or roughened faces. The ends of these cut away portions are shown beveled on their adjacent faces, to adapt one to pass by and ride up on the other, when inserted in the handle and each part is shown provided with a shoulder against which the ends of the handle abut,

when the parts of the shank are driven to place therein. In this construction, the handle is first driven upon the part *a*, up to and against the shoulder *a'*, after which the part *a'* is driven in, its cut away end riding up on the cut away portion of the part *a*, of the shank, crowding outward the wood sufficiently to allow the teeth of one to pass by those of the other until driven to place as indicated in Fig. 1. The elastic or resilient character of the wood forces the teeth of the parts into engagement and prevents accidental withdrawal of the shank or the displacement of the parts.

In Fig. 3 I have shown the manner of attaching a hook to a single-tree. In this construction a socket is formed in the end of the single-tree, indicated at C. The hook D is provided with a divided shank similar to that above described, except that the portion *a'*, separate from the hook, is without a shoulder and is first inserted and driven to the bottom of the socket after which the hook portion of the shank *a* is driven in until its shoulder abuts against the end of the single tree and the toothed, overlapping parts thereof are interlocked in a manner similar to that above described. The shank in this case may be made polygonal in form, or it may be provided with one or more spurs *c* on the part *a'*, which, when the part *a* is driven in, is forced into the wood and serves to prevent the shank from turning in the socket therein and also from being withdrawn.

It will be apparent from the foregoing description that the handles of various kinds of tools and implements may be readily united to the shanks thereof by the construction described, and that when so united, they will not be liable to accidental displacement or separation.

While I have shown the device applied to a stove-cover lifter and to a single tree, I do not wish to be restricted to such use thereof, but desire to claim the construction broadly, for the purpose described, wherever the same may be found to be applicable.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A tool or implement of metal having a divided shank, the adjacent, rigid ends of

which overlap and are cut away on adjacent sides to conform to the diameter of the shank, said overlapping portions being provided with interlocking teeth, in combination with a socketed handle of resilient material which will yield to permit the teeth to pass by each other and then, by its resiliency, force the teeth into engagement, substantially as described.

2. The combination with a socketed handle of resilient material, of a bit or tool having a divided shank, the rigid ends or extensions of which are cut away, on adjacent faces, to overlap in said handle and have interlocking teeth, forced into engagement by the resilient action of the handle material, substantially as described.

3. The combination of the socketed bar or handle of resilient material and a tool or bit having a divided shank the rigid, overlapping ends of which are cut away to conform to the diameter of the shank and have interlocking teeth on their flat, adjacent faces, shoulders to engage the handle, and, means for preventing relative rotation of the shank and handle, substantially as described.

In testimony whereof I have hereunto set my hand this 16th day of March, A. D. 1892.

DAVID SHIELDS.

Witnesses:

MATTHEW GRISWOLD, Jr.,  
J. M. SHERWIN.