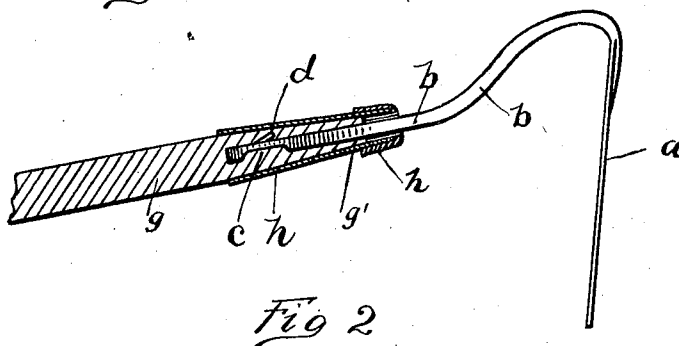
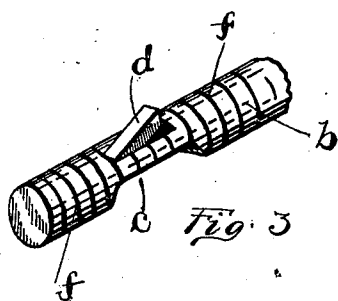
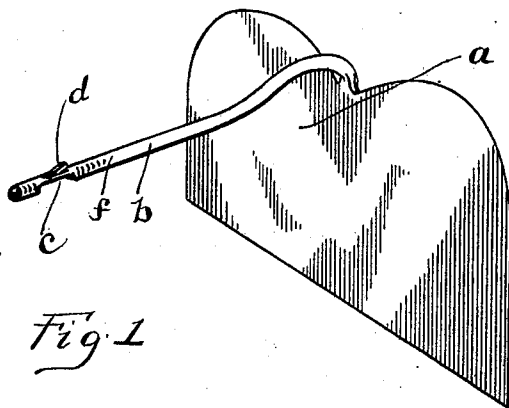


(No Model.)

J. L. EVANS.
TOOL SHANK CONNECTION.

No. 581,275.

Patented Apr. 27, 1897.



WITNESSES:

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JOHN L. EVANS, OF COLUMBUS, OHIO, ASSIGNOR TO THE BROWN, HINMAN & HUNTINGTON COMPANY, OF SAME PLACE.

TOOL-SHANK CONNECTION.

SPECIFICATION forming part of Letters Patent No. 581,275, dated April 27, 1897.

Application filed June 22, 1896. Serial No. 596,389. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. EVANS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Tool Handle or Shank Connections, of which the following is a specification.

My invention relates to the improvement in the manner of connecting tool and implement heads and handles therefor; and the object of my invention is to provide tool or implement heads with an improved construction of shank, whereby a strong, durable, and effective connection can be produced between said shank and the tool-handle, and whereby the necessity of employing rivets or nails for such connection is entirely obviated. This object I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of a hoe head and shank having my improvement thereon. Fig. 2 is a central transverse section through said hoe-head, and Fig. 3 is a perspective view in detail of a portion of the shank.

Similar letters refer to similar parts throughout the several views.

a represents an implement-head, of which *b* is the shank-stem, which is ordinarily connected with a handle by insertion in an end socket of said handle.

In the construction of the shank *f* I form on one side thereof, preferably near its outer end portion, an elongated recess or notch *c*, while on that surface of the shank which is diametrically opposite said recess I provide an engaging outwardly-projecting lug or spur *d*, the latter having its taper or incline toward the outer end of the shank.

The surface of that portion of the shank which is adapted to be inserted within a wood handle is, as indicated at *f*, corrugated or roughened.

As indicated in Fig. 2 of the drawings, the ordinary tool or implement handle *g* is provided with an end socket *g'*, into which, as is customary, the shank of the tool or implement is adapted to be inserted. This socket portion of the handle is also ordinarily provided with a suitable form of ferrule *h*.

In inserting my improved tool or implement shank into the usual end opening of the ferrule it is obvious that the recess *c* in the shank will operate to prevent the lug or spur *d* on

the opposite side thereof forming a bar to the insertion of said shank. The shank portion, formed as described, is forced into the usual socket *g'* of the wood handle with the result that the lug or spur *d*, which is outside the circumference of the socket, forms in the wood of the handle a recess or indentation, which, owing to the natural spring of the wood-fiber, results in an engagement by the forward end of said lug or spur with the wood of the handle, thereby anchoring said shank firmly therein. It will also be observed that the fiber of the wood will to a greater or less extent spring into the recess *c* of said shank and by engagement with the ends thereof serve as a further means of preventing the withdrawal of the shank.

When the shank is inserted into the handle in the above-described position, as shown in Fig. 2 of the drawings, it is obvious that the lug or spur *d* will not only offer a resistance toward an outward pull of said shank, but that the flat sides of said lug or spur will form a shoulder contact with the wood of the handle and thereby operate to prevent an undesirable rotation of the shank.

From the construction and operation described it is obvious that means are provided for producing a strong, durable, and effective connection of a tool or implement shank with its handle and that said means are such as to obviate the necessity of the employment of rivets, which necessarily weaken the handle, or other additional means for the effective connection of said parts.

Although the shank herein shown is that of a hoe, it is obvious that the construction thereof may be applied to the heads of forks or other implements or tools.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a tool or implement shank and handle connection, the combination of a tool-head and its shank, a lug or spur projecting from said shank, a recess formed in said shank on the opposite side of said lug or spur, and corrugations formed about the surface of said shank, substantially as and for the purpose specified.

JOHN L. EVANS.

In presence of—

C. C. SHEPHERD,
A. L. PHELPS.