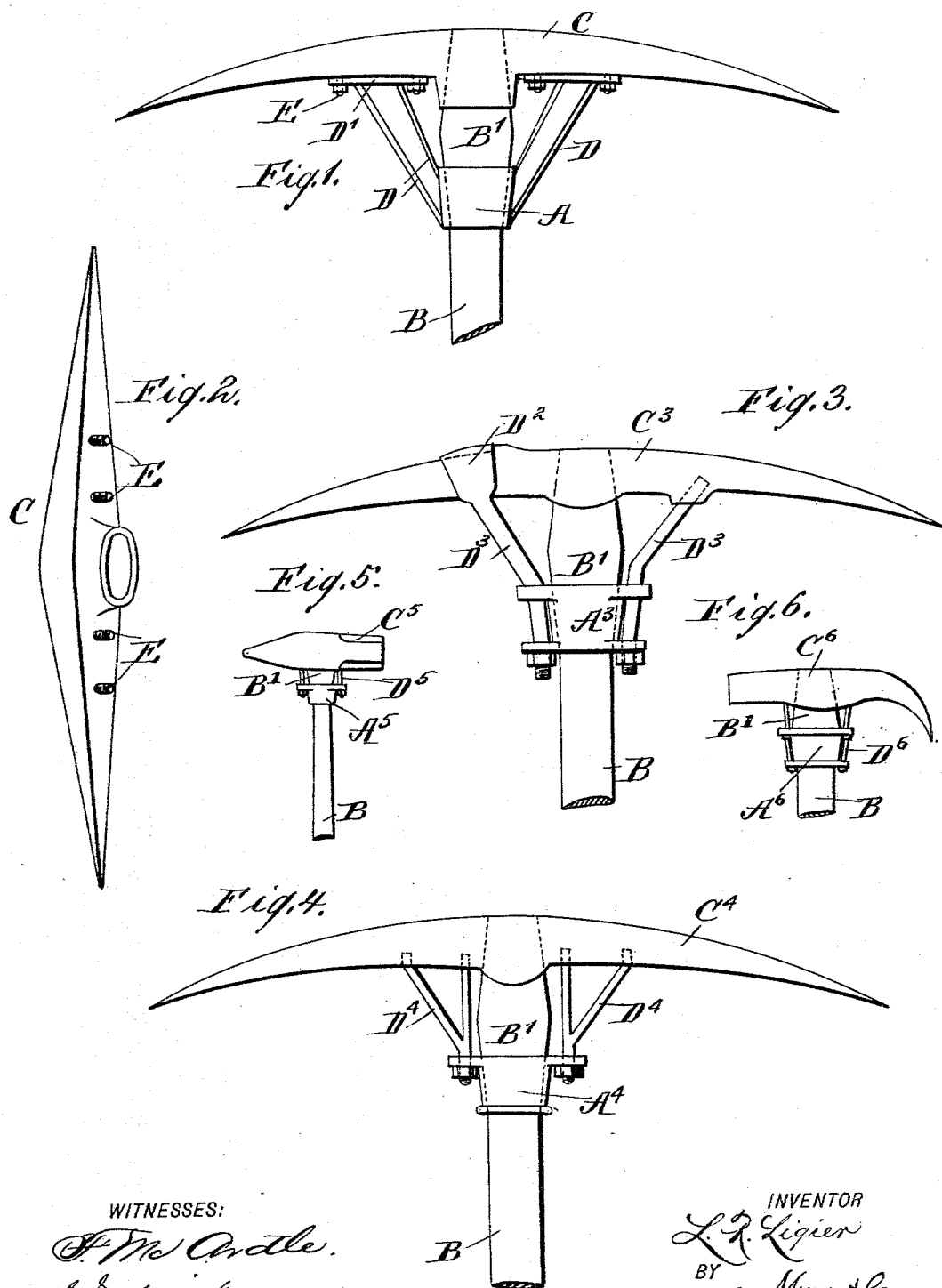


(No Model.)

L. R. LIGIER.
TOOL HANDLE FASTENER.

No. 511,087.

Patented Dec. 19, 1893.



WITNESSES:

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LEON R. LIGIER, OF DOUGLAS, WYOMING.

TOOL-HANDLE FASTENER.

SPECIFICATION forming part of Letters Patent No. 511,087, dated December 19, 1893.

Application filed November 4, 1892. Serial No. 450,961. (No model.)

To all whom it may concern:

Be it known that I, LEON REMI LIGIER, of Douglas, in the county of Converse and State of Wyoming, have invented a new and Improved Tool-Handle Fastener, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved tool handle fastener, which is simple and durable in construction and arranged to securely fasten the handle to the tool body, the fastener being more especially designed for use on picks, hammers and similar tools.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied on a pick. Fig. 2 is a perspective view of the tool body. Fig. 3 is a side elevation of a modified form of the improvement. Fig. 4 is a similar view of another modified form. Fig. 5 is a side elevation of the improvement as applied on a hammer; and Fig. 6 is a side elevation of the improvement as applied to a claw hammer.

The improved tool handle fastener is provided with a thimble or sleeve A fitted upon an enlarged part B' of the handle B, near that end of the handle carrying the tool body C. The thimble or sleeve A is connected with the tool body by means of arms or rods D attached to the tool body by the sleeve, in any desired manner, several forms being shown in the drawings.

It will be seen that by connecting the thimble A with the tool body C on the enlarged end of the handle, as shown, the tool body is securely attached to the said handle and is not liable to become detached, as so frequently is the case with the tools as now fastened in place.

As shown in Fig. 1, the arms D are rigidly formed on the sleeve A, and are provided with a plate D' fitting on the under side of the tool body C and secured thereon by bolts E cast or otherwise fastened in the tool body.

As illustrated in Fig. 3, arms or rods D³ are employed for connecting the tool body C³ with the sleeve, one of the said rods being cast in

the tool body C³ and bolted on projecting lugs of the sleeve A³, while the other rod is formed with an eye D² engaging the tool body and also bolted to the sleeve A³.

As shown in Fig. 4, the arms or rods D⁴ are bolted to the sleeve A⁴ and each is formed with a branch arm or brace to strengthen the arm, the latter being cast in the tool body C⁴.

As shown in Fig. 5, the device is applied to a hammer C⁵ in which the arms or rods D⁵ in the form of bolts are fastened in the head and connected with the sleeve A⁵.

In Fig. 6, a claw hammer C⁶ is illustrated which is also provided with arms or rods D⁶ in the form of bolts cast in the head of the hammer and bolted upon the sleeve A⁶. The eyes of the several tools shown are of greater diameter at their inner ends and all of the collars are likewise of greater diameter at their inner ends so that the tool and collar will fit upon the enlargement B' at opposite sides of its middle; said enlargement tapering in opposite directions from its middle. Thus when the tool and collar are in place and connected they will be firmly secured upon the enlarged portion of the handle. The collar must of course be inserted from the rear end of the handle while the outer end of the handle is introduced into the eye of the tool.

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

1. A tool formed with a tapering eye, a collar to slide over the tool handle and tapered oppositely to the tool eye, and arms for separably connecting the tool beyond and at opposite sides of its eye with said collar, substantially as set forth.

2. A tool formed with a tapering eye and with integral bolts E on its under side at opposite sides of its eye and a collar tapered oppositely to said eye and having oppositely inclined arms or rods D provided on their upper ends with horizontal plates D' resting against the under face of the tool and having apertures through which the said bolts pass and nuts on the lower ends of the bolts, substantially as set forth.

LEON R. LIGIER.

Witnesses:

ARONSON RICE,
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