(No Model.)

H. & L. IWAN.

BLASTING TOOL.

No. 288,706. Patented Nov. 20, 1883.

Fig. 1.

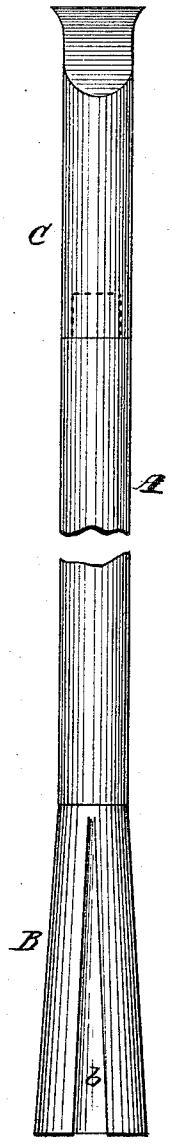
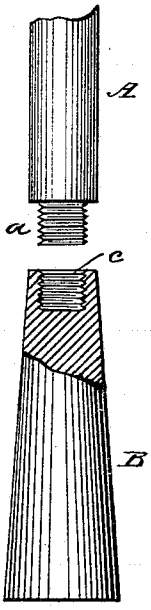


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY IWAN AND LOUIS IWAN, OF STREATOR, ILLINOIS.

BLASTING-TOOL.

SPECIFICATION forming part of Letters Patent No. 288,706, dated November 20, 1883.

Application filed September 12, 1883. (No model.)

To all whom it may concern:

Be it known that we, HENRY IWAN and LOUIS IWAN, citizens of the United States, residing at Streator, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Blasting-Tools; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side elevation of our invention; Fig. 2, a similar view, partly in section, showing the butt detached from the handle.

This invention relates to certain new and useful improvements in that class of blasting-tools generally known as "tamping-bars."

Previous to our invention it has been usual to secure the brass or copper butt of a tamping-bar to the iron or steel portion thereof, forming the handle by riveting or brazing, thereby requiring a butt for each handle, no matter what its length, it being necessary in mining or quarrying to have tamping-bars of different lengths for various depths of blast-holes. Not only has it been found expensive to provide each tamping-bar with its own particular butt of copper or brass, but great difficulty has been experienced in properly securing the brass or copper butt to the iron or steel portion of the rod or handle, so as to prevent its getting loose or breaking off.

The object, therefore, of the present invention is to provide a butt for tamping-bars that may be removably connected thereto, so as to admit of the same butt being used upon handles or rods of different lengths, thereby effecting a saving, and at the same time rendering it incapable of becoming loose or broken off.

It will be understood that often, in blasting, the powder-charge fails to explode, and in such cases said charge of necessity has to be withdrawn. To do this the tamping material has to be drilled out, and blasting-operators are accustomed to use their steel or iron drills for that purpose. Thus a spark of fire is often struck by the drill, which ignites the charge and an explosion takes place, frequently resulting in loss of life or severe injury to the operators.

A further object, therefore, of this invention is to provide a tamping-bar having an iron or steel handle or rod with a brass or copper chisel or drill to be used in drawing charges which fail to ignite, or when for other reasons their withdrawal is found necessary, the material composing this chisel or drill being sufficiently hard for the purpose named.

These objects we attain by the construction substantially as shown in the accompanying drawings, and hereinafter more fully described.

In the drawings, A represents a rod or handle, which is usually composed of iron or steel, and in this instance has one or both ends cut away and screw-threaded, as shown at *a*. To this handle or rod A is intended to be connected in a removable manner a butt, B, made of brass, copper, or other suitable material, of such a length as may be found requisite or most convenient, said butt being provided usually with a groove, *b*, which passes over and around the priming-needle when a blast-hole is being tamped; and, as shown in the drawings, this butt is preferably constructed with a screw-threaded socket, *c*, adapted to receive the screw-threaded end of the rod or handle in such a manner that when the two are joined a flush, tight joint is obtained, and the two portions prevented from working loose or breaking off at their point of juncture. By having the butt B removable, the same is capable of being applied to handles or rods of different lengths, thereby requiring but one butt to a number of such handles or rods. The upper end of the handle or rod is intended to have attached thereto a copper or brass chisel or drill, C, said chisel or drill being connected to the handle or rod in any suitable manner, either stationary or removable, though we prefer to use the same means as employed for uniting the butt B to said handle or rod.

By providing the iron or steel handle of a tamping-bar with a brass or copper chisel or drill, a convenient tool is thereby produced, by which a blasting-charge may be withdrawn without danger of ignition during the operation.

Instead of having the butt at one end of the

handle or rod and the chisel or drill at the other, said butt and chisel or drill may be constructed so as to be interchangeable upon the same end.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A tamping-bar provided with a removable butt of copper, brass, or other analogous material, substantially as and for the purpose set forth.

2. As a new article of manufacture, a blasting-tool having its handle or rod provided at one end with a removable butt, and at the other with a removable chisel or drill, substantially as and for the purpose specified.

3. A tamping-bar having its butt formed with a groove adapted to pass over and around a priming-needle, and its upper end adapted to be detachably connected to said bar, substantially as and for the purpose set forth.

4. A tamping-bar having a detachable butt formed with a groove adapted to pass over and around a priming-needle, and the opposite end of said bar provided with a removable chisel, substantially as shown and described.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

HENRY IWAN.
LOUIS IWAN.

Witnesses:
OSCAR B. RYON,
HENRY BAKER, Jr.