

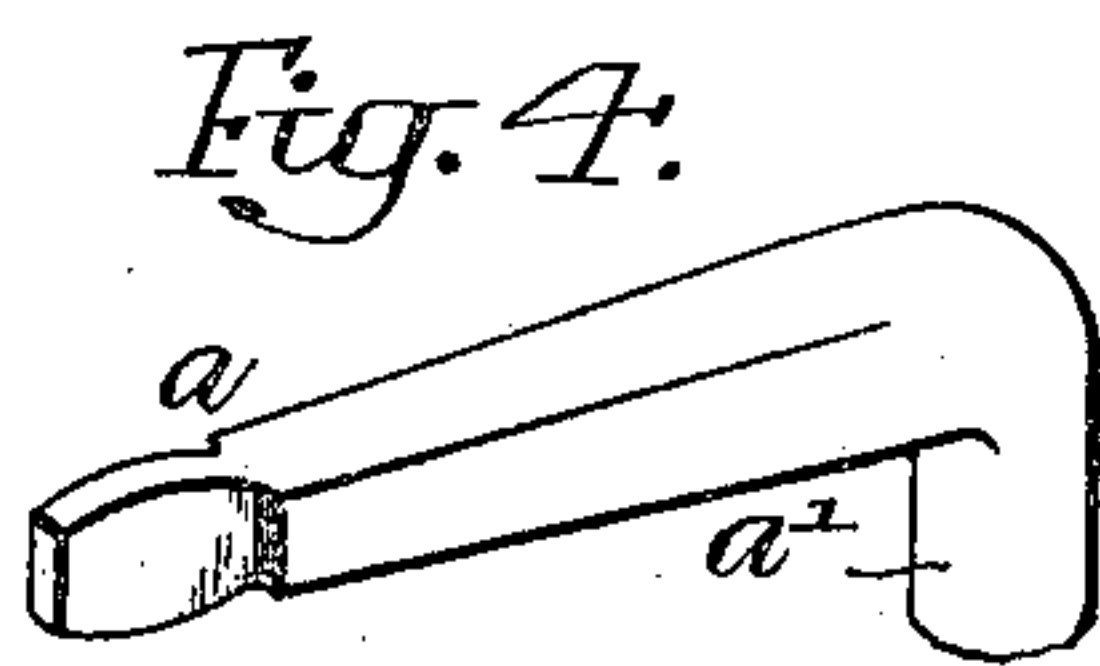
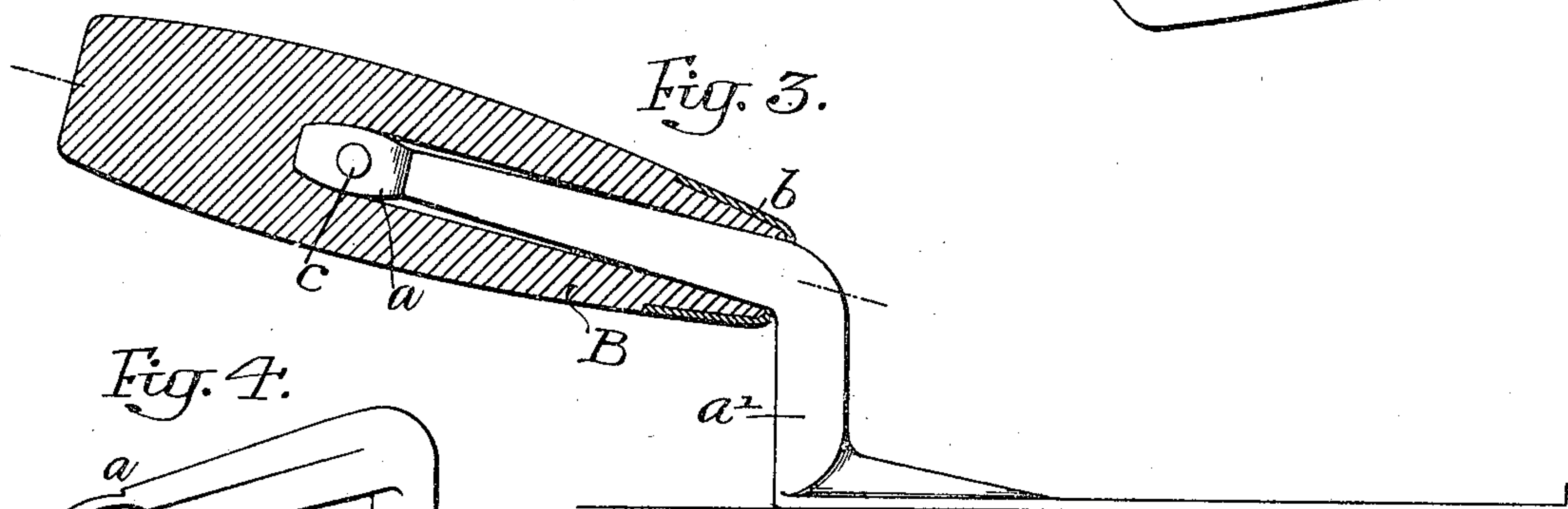
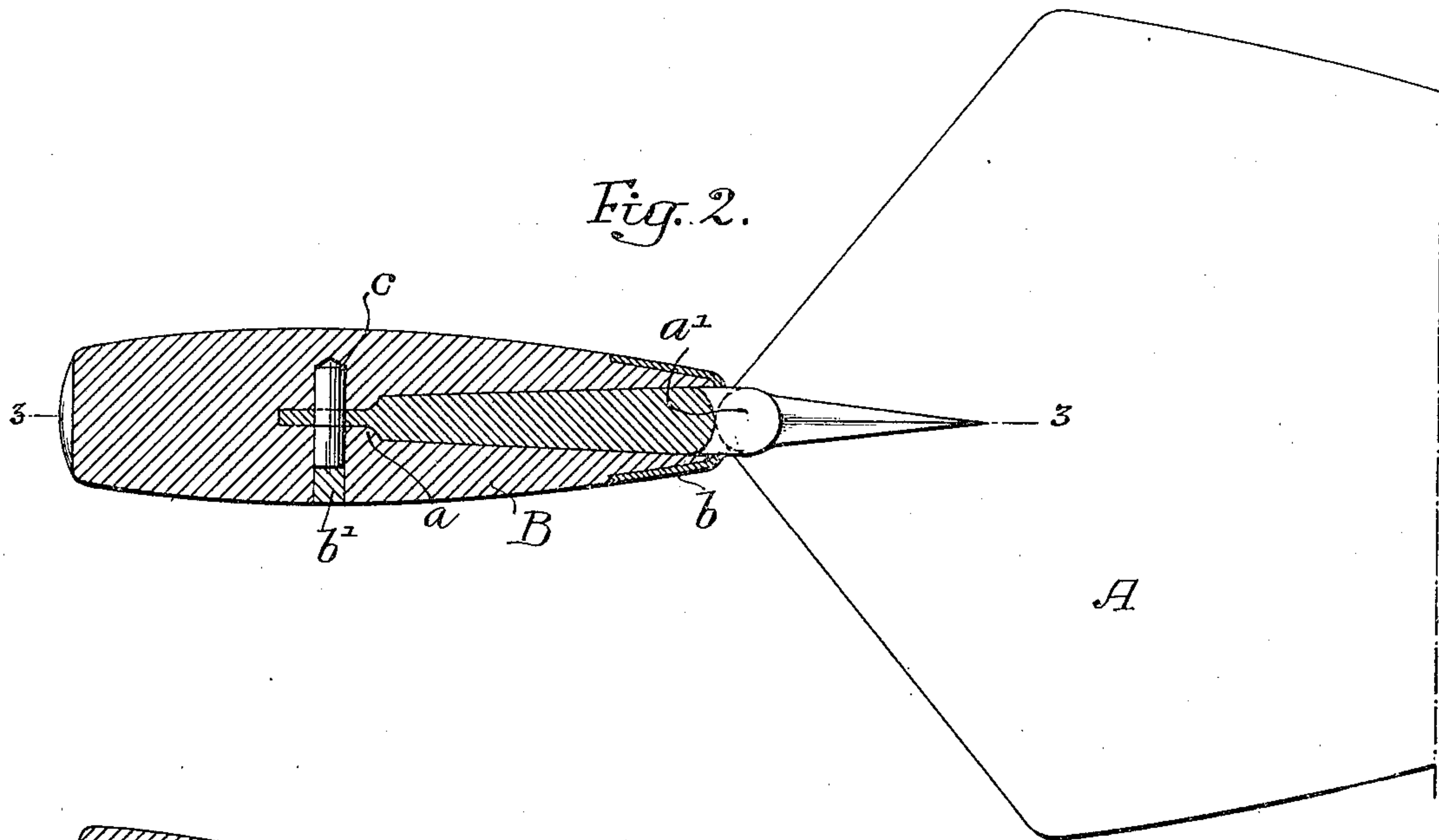
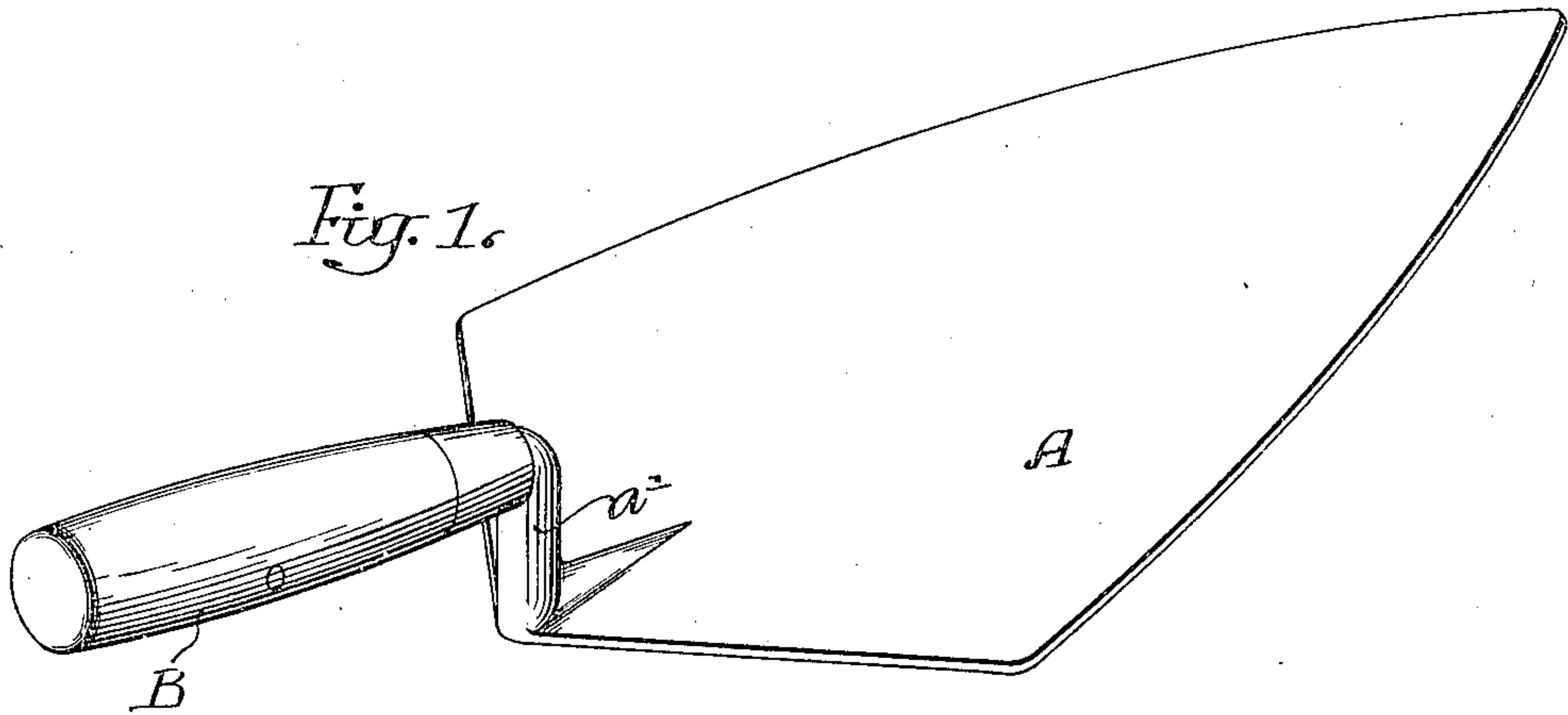
J. G. THATFORD.

TROWEL.

APPLICATION FILED JULY 10, 1909.

960,210.

Patented May 31, 1910.



Witnesses:  
Otto A. Burrows  
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# UNITED STATES PATENT OFFICE.

JOSEPH G. THATFORD, OF SHARON HILL, PENNSYLVANIA.

## TROWEL.

960,210.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed July 10, 1909. Serial No. 506,903.

*To all whom it may concern:*

Be it known that I, JOSEPH G. THATFORD, a citizen of the United States, residing in Sharon Hill, Pennsylvania, have invented certain Improvements in Trowels, of which the following is a specification.

The object of my invention is to firmly attach a trowel to its handle in such a manner that there will be no metal parts exposed except the ferrule.

In the accompanying drawing:—Figure 1, is a perspective view of my improved trowel; Fig. 2, is a sectional plan view; Fig. 3, is a longitudinal sectional view on the line 3—3, Fig. 2; and Fig. 4, is a perspective view of the tang of the trowel.

A is the blade of the trowel having a tang *a* connected to the body of the trowel by a neck *a'* in the usual manner.

B is the handle having the usual ferrule *b*. This handle is made of any suitable material, such as wood or fiber and shaped in the ordinary manner.

The handle is bored as usual and the tang is driven into the hole formed in the handle and when in place a hole is drilled transversely into the handle and through the end of the tang, as illustrated in Fig. 2; the tang being preferably reduced as shown in Fig. 4.

A pin *c* of metal is driven or screwed into the hole and through the opening in the tang, as illustrated in Fig. 2, and a wooden plug *b'* is inserted in the hole after the metal pin is in place, to completely close the hole.

The metal pin *c* is driven only part-way through the handle, stopping short of the other side of the handle, as shown, so that no metal is exposed except the ferrule. In

some instances two pins may be driven, if desired, and while I have described my invention particularly as a mason's trowel, it may be used in connection with other tools having wooden handles. The end of the tang is much shorter than the handle so that it does not extend entirely through the handle, consequently there are no metal parts at the extreme end of the handle which would scar a brick when the end of the trowel is used to tamp the same.

I claim:—

1. The combination of a trowel having a tang, a handle into which the tang is driven, a pin extending transversely through said tang and lying wholly within the handle, the aperture for said pin being longer than the pin, and non-metallic material filling said aperture and covering the pin.

2. The combination of a trowel having a tang, a handle into which the tang is driven, a transverse hole extending through one side of the handle and through the tang and partly through the other side of the handle, a pin adapted to said hole and passing through the tang and stopping short of each side of the handle, and a wooden plug driven in the hole after the pin so that no metal is exposed on the surface of the handle with the exception of the ferrule.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

JOSEPH G. THATFORD.

Witnesses:

WM. E. SHUPE,  
WM. A. BARR.