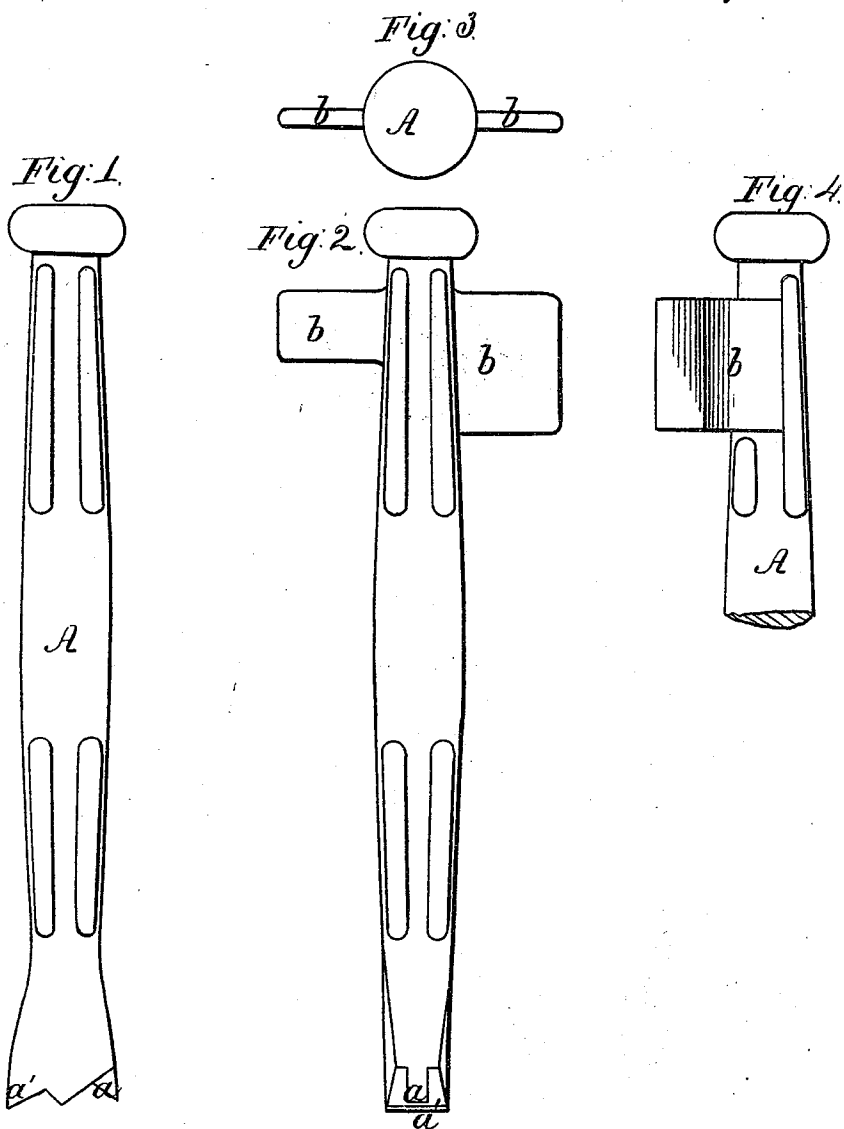


B. B. Blackwell.
Printers' Shooting Stick.
N^o 107,154. Patented Sept. 6, 1870.



Witnesses
Fred. Haynes
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Letters Patent No. 107,154, dated September 6, 1870; antedated August 26, 1870.

IMPROVEMENT IN SHOOTING-STICKS FOR PRINTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, BENJAMIN B. BLACKWELL, of the city, county, and State of New York, have invented a new and useful Improvement in Printers' Shooting-Sticks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a longitudinal view of a reversible shooting-stick, constructed in accordance with my improvement;

Figure 2, a similar view of the same, at right angles to fig. 1, with furniture-spacing wings or attachments formed thereon;

Figure 3 a back end view of such stick; and

Figure 4, a view of the upper portion of the stick, with a single furniture-spacing attachment of stouter dimensions, for the purpose of adapting the stick to be used also as a hammer.

Similar letters of reference indicate corresponding parts.

My invention consists in a shooting-stick for the use of printers, formed with noses on reverse sides of it, at its forward end, of different width or size, for operating on quoins of varied sizes in locking up the form within the chase; and

It furthermore consists in providing a shooting-stick on its side, at or near its rear end, with one or more wings for pressing up the bottom or side-sticks, to facilitate the entry of the quoins between them and the chase.

When duplicate wings are used, they are arranged on opposite sides of the shooting-stick, and made of different lengths, working in spaces of different widths. They may be also made of different thicknesses, and, if desired, one or more of the shooting-sticks in a set may be provided with a furniture-spacing wing of sufficient thickness to adapt it to be used as a hammer, for use in locking and unlocking the form, or other purposes.

In the accompanying drawing—

A represents the body portion of a shooting-stick, provided with noses, *a a'*, of different widths, on reverse sides of it, to facilitate, by simply reversing or turning the stick half round, operating on quoins of different sizes, using, for instance, the smaller nose *a* when driving up the quoins near the top of the form

where the wedge-shaped side-stick is broadest, and using the wider nose *a'* in driving up the lower quoins that necessarily require to be broader by reason of the side-stick's diminished width, and increased width of the space such quoins are required to fill.

By such a construction of the shooting-stick, a broad flat bearing against the ends of the different quoins is secured, which not only facilitates the work to be done, but it also serves to prevent that injury to the furniture which arises from using a shooting-stick of insufficient dimensions on its nose, as, for instance, a shooting-stick suited to work on the larger quoins, but incapable, except by angling it, to work on the smaller quoins. By having the different sized noses *a a'* on the same stick, a multiplicity of sticks is avoided.

Branching from the shooting-stick, near its back end, are one or more side wings, *b*, for entry between the wedge-shaped bottom or side-sticks and sides of the chase, and for pressing up said sticks against the form, by twisting or bearing laterally on the shooting-stick as a lever, to facilitate the introduction of the quoins.

This spacing of the furniture has heretofore been done by the fingers much less perfectly, and often with injury to the fingers or their nails.

These wings may also be made of varied thicknesses, and at least one of the shooting-sticks in a set be provided as represented in fig. 4, with a wing of thickness sufficient to make it answer the additional purpose of being used as a hammer, the utility or necessity of which article to the printer is well understood, and which, in being combined with a shooting-stick, will be found very convenient, and lessens the multiplicity of tools.

What is here claimed, and desired to be secured by Letter Patent, is—

1. A reversible shooting-stick, formed with noses *a a'*, of different widths, substantially as specified.
2. The combination of one or more side wings, *b*, with the body A of a shooting-stick, essentially as and for the purpose or purposes herein set forth.

B. B. BLACKWELL.

Witnesses:

FRED. HAYNES,
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