

No. 633,242.

Patented Sept. 19, 1899.

C. M. HAYES.

IMPLEMENT FOR INSERTING PAPER FASTENERS.

(Application filed Dec. 21, 1898.)

(No Model.)

Fig. 1.

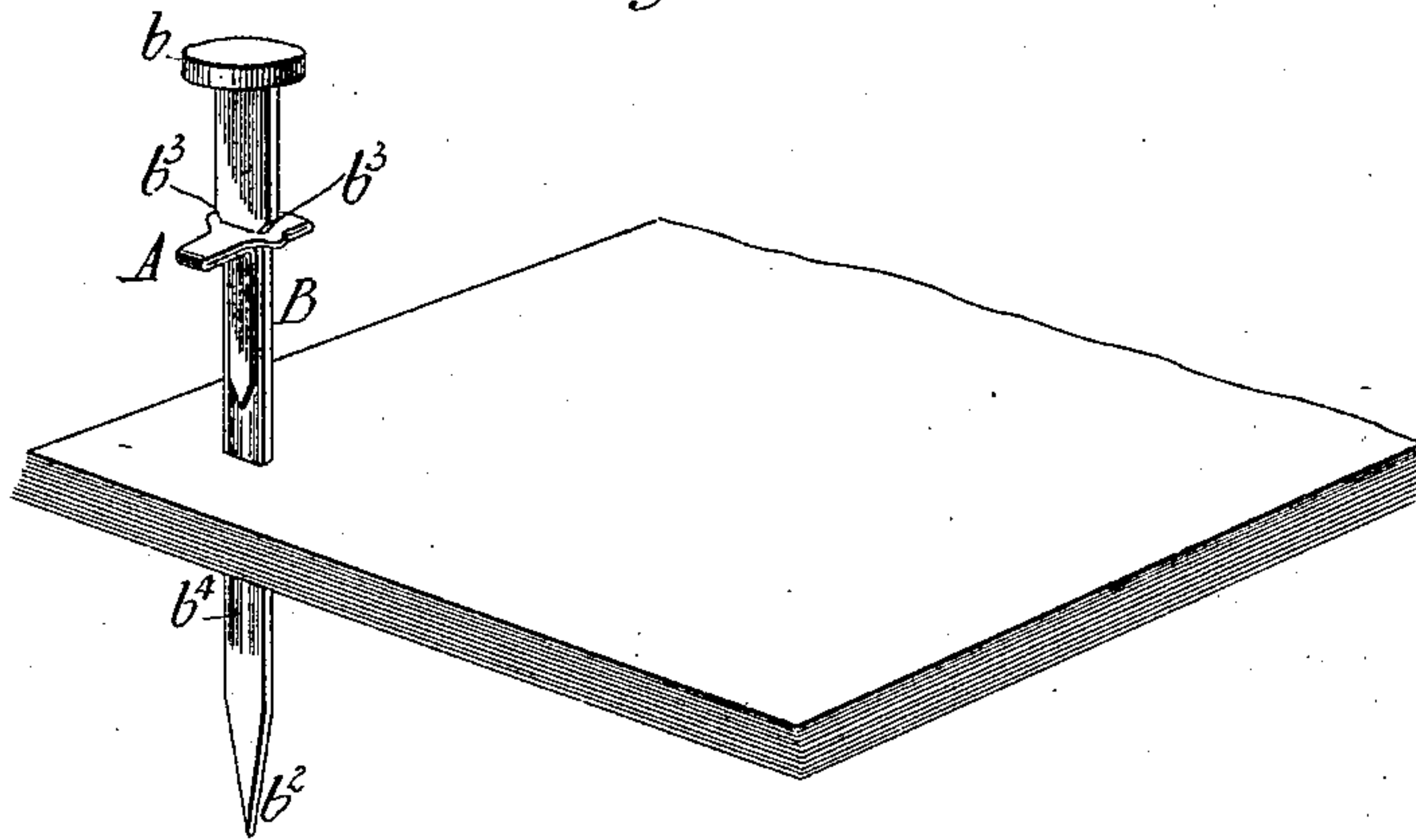


Fig. 2.

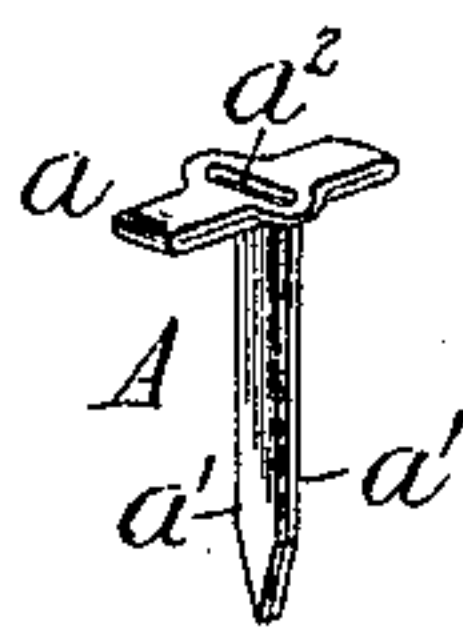


Fig. 3.

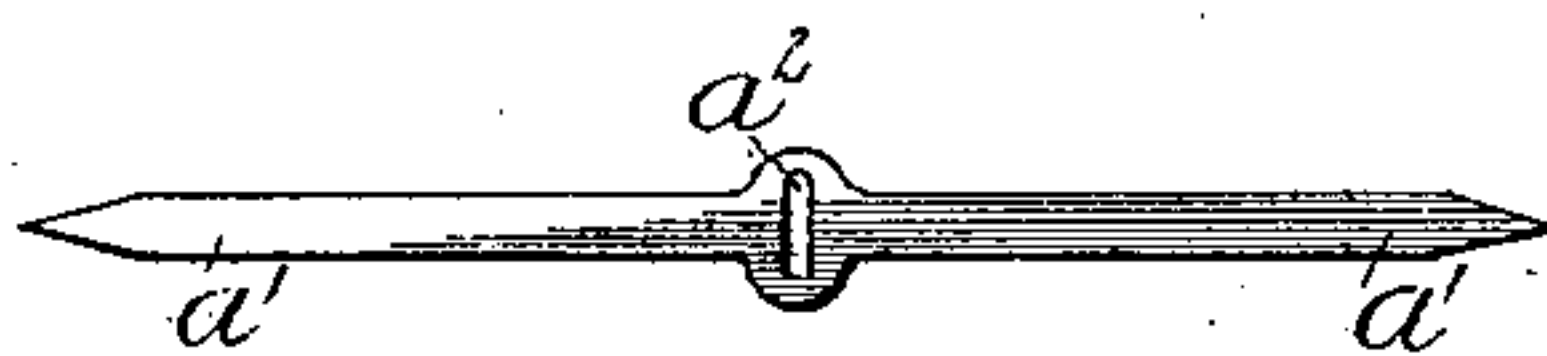


Fig. 4.

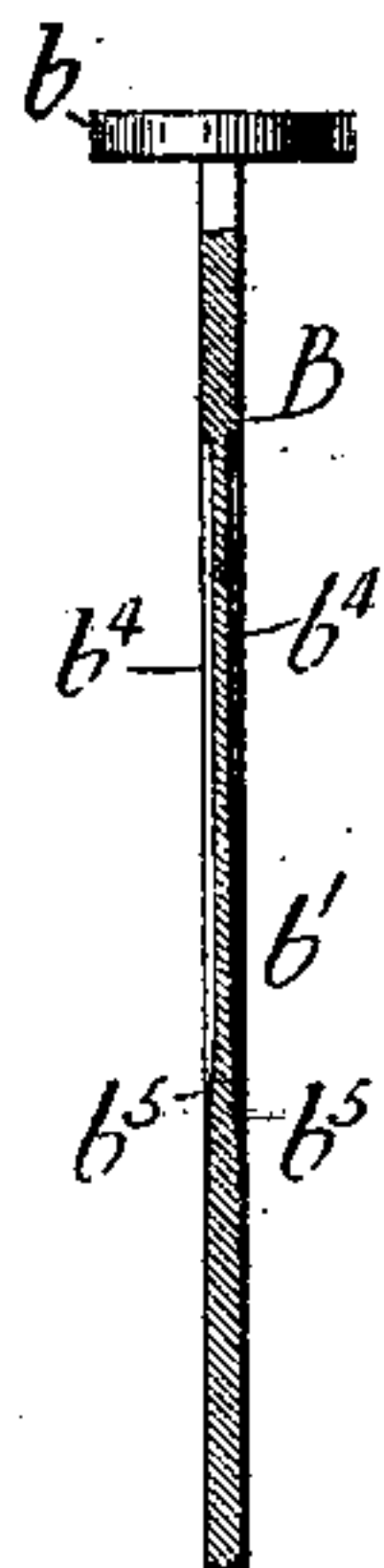
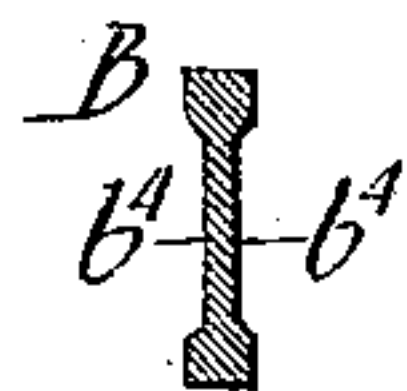


Fig. 5.



Witnesses

C. H. W. Evers
S. E. Zimmerman

Inventor

Charles Magnus Hayes

By *W. W. Dudley & Co.*
his Attorneys

UNITED STATES PATENT OFFICE.

CHARLES MAGNUS HAYES, OF BIRMINGHAM, ALABAMA.

IMPLEMENT FOR INSERTING PAPER-FASTENERS.

SPECIFICATION forming part of Letters Patent No. 633,242, dated September 19, 1899.

Application filed December 21, 1898. Serial No. 699,930. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MAGNUS HAYES, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Paper-Fastener-Inserting Implements; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to devices for attaching together papers and the like, and contemplates the production of an implement by which the insertion of the fastener may be easily and quickly accomplished.

The nature of my invention will be readily understood by reference to the following description and to the accompanying drawings, which form a part thereof.

In the drawings, Figure 1 is a perspective view illustrating the use of the fastener and my improved inserting implement. Fig. 2 is a perspective view of the fastener. Fig. 3 shows the blank from which the fastener is made. Fig. 4 is a vertical sectional view of the inserting implement. Fig. 5 is a sectional view on line 5 5 of Fig. 4.

Referring to the drawings by letter, A denotes the fastener, which comprises the head a and two pointed prongs a' . The fastener is constructed by punching or otherwise making from sheet metal the blank shown in Fig. 3 and bending it to the form shown in Fig. 2. The head a is centrally enlarged and is provided with a slot or aperture a^2 , the length of which is slightly in excess of the width of the prongs a' .

The inserting implement B comprises a head b and a blade b' , the latter terminating in a sharp point or edge b^2 . The blade is provided near the head end with shoulders b^3 , and beyond the shoulders the blade flatwise is provided on opposite sides with longitudinal depressions or grooves b^4 , the end of the depressions or grooves nearest the point or edge of the blade having an inclined approach b^5 .

In practice the fastener is slipped over the blade, the latter occupying the slot or aperture a^2 , and the prongs a' , which are at each side of the blade, occupying the depressions or grooves therein. The point of the blade is then forced by hand or other pressure through the sheets, and further pressure being applied the blade enters up to the shoulders b^3 . The prongs of the fastener are carried with the blade into the puncture, the engagement of the head a by the shoulders insuring the insertion of the fastener up to its head. The friction between the sides of the puncture and the fastener-prongs is relatively greater than the friction between the prongs and the blade, so that when the latter is withdrawn the fastener remains, and the exposed length of its prongs may then be oppositely bent over against the paper in the usual manner. The provision of the inclined approaches to the depressions obviously facilitates the withdrawal and separation of the blade from the fastener. By reference to Fig. 5 it will be observed that the blade is for a considerable portion of its length of I form, thus insuring great strength and rigidity, qualities which are essential by reason of the strain to which the blade is subjected in practice.

Aside from the strength and durability of the instrument there is economy in the production and high efficiency in operation.

The fastener may be of any desired size, and likewise the instrument; but I prefer to make the latter of such dimensions as will enable the use in connection therewith of fasteners of varying sizes.

I claim as my invention—

An implement for inserting paper-fasteners having a pointed blade grooved intermediate of its ends and provided with inclined approaches b^5 at the lower end of the grooves, and shoulders b^3 at the upper end thereof, that portion of the blade below the grooved portion being ungrooved, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES MAGNUS HAYES.

Witnesses:

G. H. DAVIS,

J. H. WALLACE.