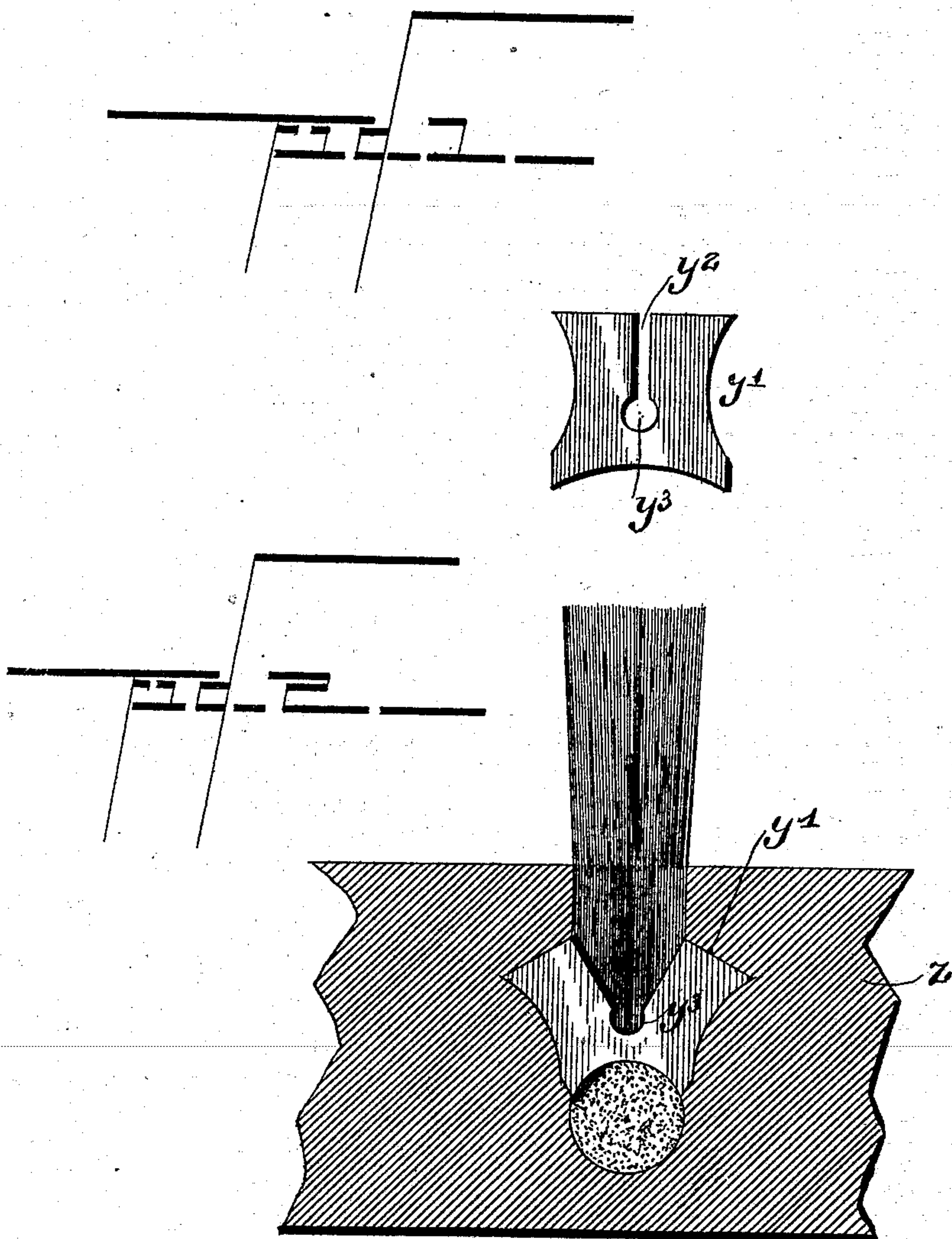


(No Model.)

C. M. KIMBALL.
BRISTLE FASTENER FOR BRUSHES.

No. 503,795.

Patented Aug. 22, 1893.



Witnesses:—

H. B. Satz

A. H. Harlow

Inventor:—

Chas. M. Kimball

By his Attorneys:—

Wright, Brown & Gossely

UNITED STATES PATENT OFFICE.

CHARLES M. KIMBALL, OF AUBURNDALE, OHIO.

BRISTLE-FASTENER FOR BRUSHES.

SPECIFICATION forming part of Letters Patent No. 503,795, dated August 22, 1893.

Application filed December 2, 1892. Serial No. 453,840. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. KIMBALL, of Auburndale, in the county of Lucas and State of Ohio, have invented certain new and
5 useful Improvements in Bristle-Fasteners for Brushes, of which the following is a specification.

My invention relates to improvements in metallic fasteners for securing doubled tufts
10 of bristles in a brush block or back, and the object of my invention is to produce a fastener of such shape that when pushed into the hole in the brush back, by an inserter needle, such as that shown in my application for patent
15 for brush making machines, filed November 15, 1892, Serial No. 452,043, the said needle will spread the fastener so that one portion thereof will partially surround the tuft on the line of a curve approximating a semi-circle.

20 My invention consists in the fastener as hereinafter described and claimed.

In the accompanying drawings, Figure 1— is an enlarged view of the fastener; and Fig. 2— represents the position and shape of the
25 tuft fastener after being secured in the brush block.

Similar reference letters indicate like parts in both the views.

The fastener y' is preferably made of sheet
30 metal and is provided with three concave edges, one of which constitutes the lower edge and the other two the side edges. At a point, preferably slightly below the center of the fastener, is formed an opening y^3 from which
35 opening the slot y^2 , somewhat narrower than the diameter of the opening y^3 , extends to the upper edge of the fastener.

The brush block, indicated at z , is formed with the usual holes to receive tufts of bristles, which are doubled so that one portion of
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the tuft, when in the hole, is on one side of the fastener and the other portion on the other side. When the fastener is pushed into the hole with the doubled tuft, by means of a V-shaped inserter needle such as above referred
45 to, entering the slot y^2 , the lower concave surface of the fastener engages and partially surrounds the tuft of bristles and when the fastener is stopped, owing to the doubled portion of the tuft reaching the bottom of the hole, a
50 slight further advance of the inserter needle will cause the lower edge to be curved around the bristles, and the points formed at the upper sides of the fastener, to be spread into the wood at the sides of the hole. This causes the
55 points at the ends of the lower concaved edge to extend so far around the doubled portion of the tuft, as to firmly secure the side bristles of the tuft against working loose. Owing
60 to the enlarged opening y^3 , the fastener is caused to take an easy curve or bend around the tuft.

Having now described my invention, what I claim is—

1. A metallic tuft fastener having a central
65 vertical slot, terminating at its lower end in an enlarged opening, for the purpose set forth.

2. A metallic tuft fastener consisting of a sheet metal plate, having three concaved sides and a slot terminating in its inner end, in an
70 enlarged opening, for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 28th day of November, A. D. 1892.

CHARLES M. KIMBALL.

Witnesses:

KARL A. FLEIKINGE,
WM. W. BROWN.