(No Model.)

S. PALMER.

BRUSH.

No. 500,719. Patented July 4, 1893.

Fig. 1.

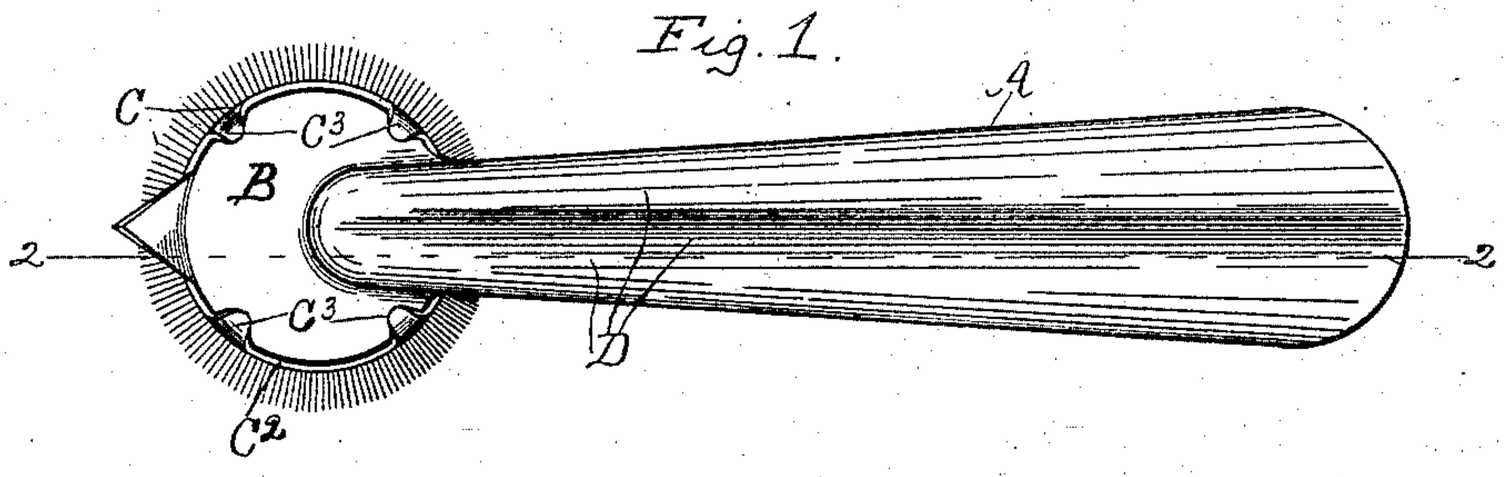

Fig. 2.

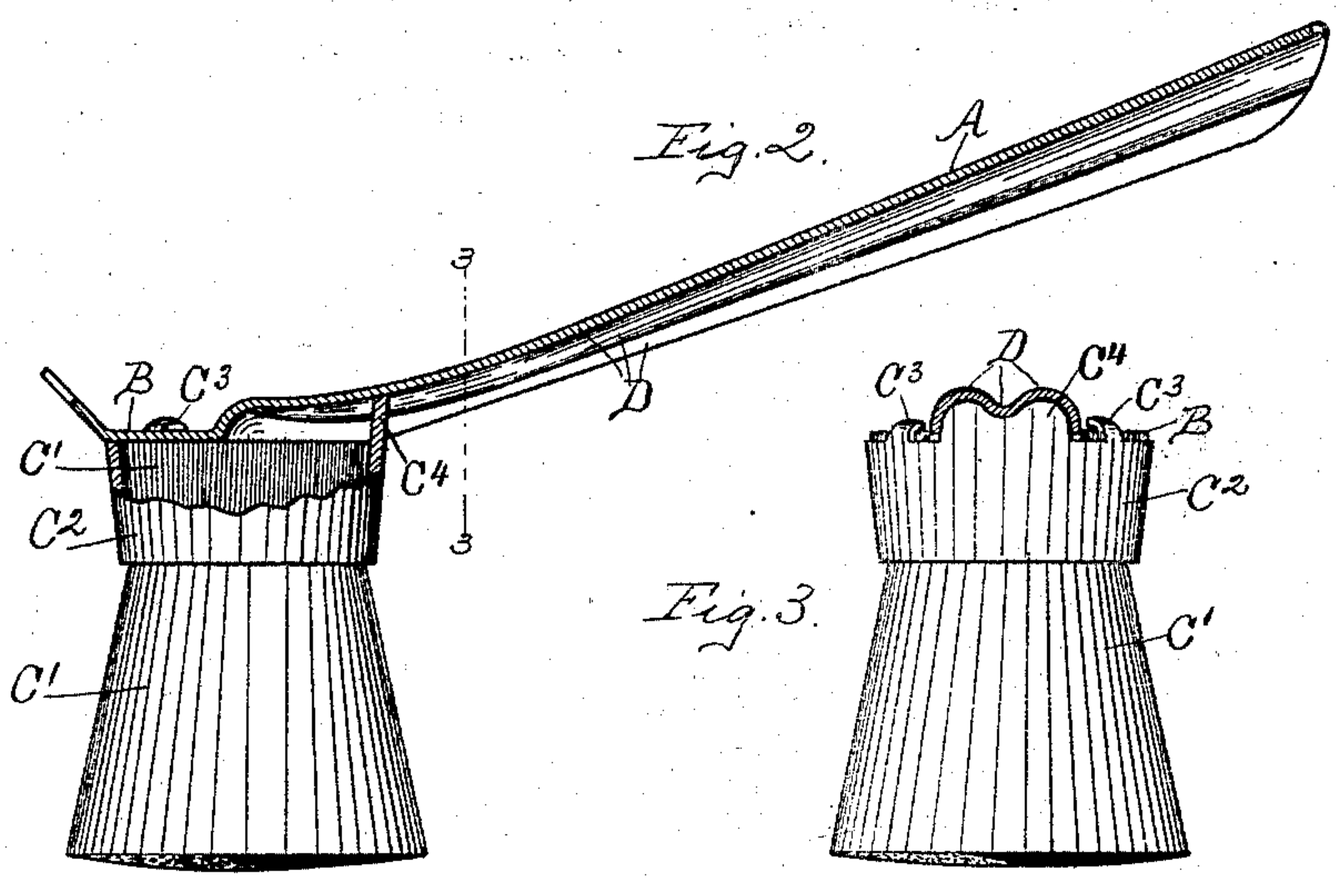

Fig. 3.

Fig. 4

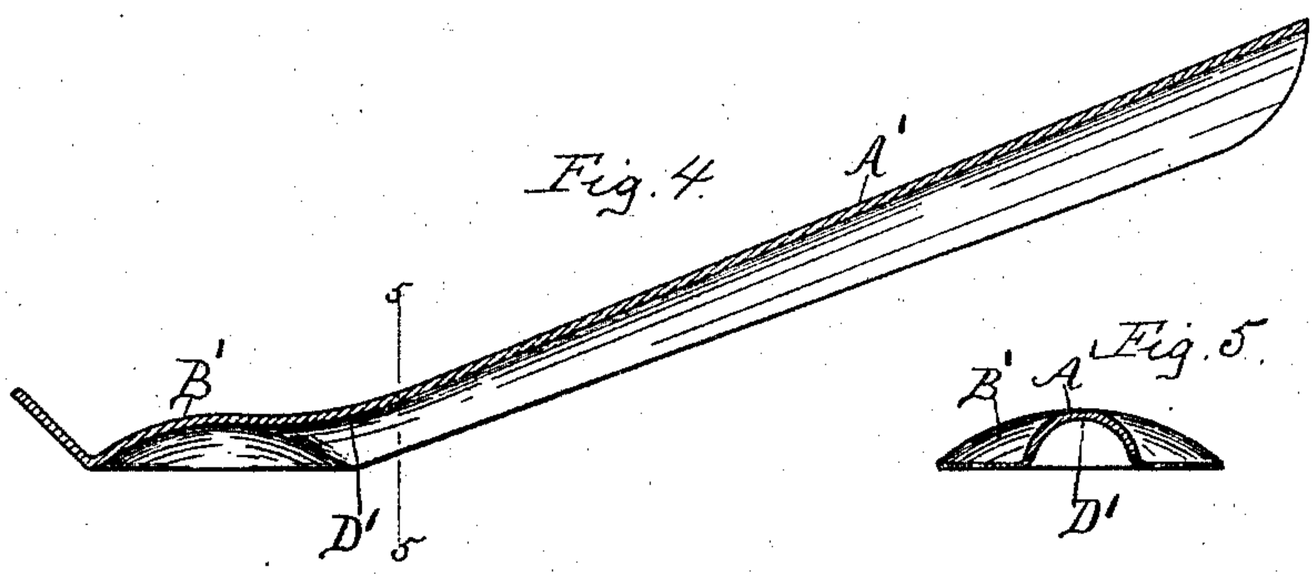

Fig. 5.

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UNITED STATES PATENT OFFICE.

STEPHEN PALMER, OF LANSINGBURG, NEW YORK.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 500,719, dated July 4, 1893.

Application filed December 10, 1892. Serial No. 454,701. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN PALMER, a citizen of the United States, residing at Lansingburg, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

My invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a top plan view of a completed brush. Fig. 2 is a vertical longitudinal section of the same, taken on the broken line, 2—2, in Fig. 1. Fig. 3 is a view partly in section and partly in elevation, the section being taken on the broken line, 3—3, in Fig. 2. Fig. 4 is a vertical, central longitudinal section of a brush-handle, showing a modified form of my invention. Fig. 5 is a cross-section of same, taken on the broken line, 5—5, in Fig. 4.

The object of my invention is to provide a brush-head or other implement with a light, durable and ornamental sheet-metal handle, projecting laterally from the head.

My invention consists in providing a strip of sheet-metal with one or more longitudinal corrugations, terminating near one end in the middle part of a cap corresponding in general outline with the top of the brush-head, and in securing the cap directly to the head.

A— is the handle, and B—, the handle-attaching cap, both formed by suitable dies from a single piece or strip of sheet-metal. The cap is made to correspond in form and size with the form and size of the circular brush-head, C—, composed of a knot of bristles, C′— and knot-containing ferrule, C^2—. The cap may be secured to the head in any known manner, as by the overlapping lugs, C^3—, integral with the ferrule. The corrugations, D— run longitudinally of the handle, and terminate within the periphery of the cap, thereby giving great strength to the sheet-metal part at the junction of handle and cap, and obviating the necessity of any lateral head-projection to stiffen the handle. To close the opening which would be formed between the grooved corrugations and the top of the head or ferrule, I provide an upwardly projecting lug, C^4— on the ferrule, which is formed to fill the opening. The lug also serves as a guide to secure uniformity in position of the cap relatively to the head. Any desired number of grooves may be employed to stiffen the handle.

In Figs. 4 and 5, I have shown a single groove, D′—, which extends approximately to the middle of the cap over the center of the head.

A′ and B′ indicate respectively the handle and cap in the modified form illustrated in said Figs. 4 and 5.

When desired, the dies may be so shaped as to give the circular cap a concavo-convex, or dome-shaped form, as shown in Figs. 4 and 5, the single groove, D′— terminating in the top or central part of the dome.

The sheet-metal handle-and-cap, which I have shown as a part of my improved brush, is equally applicable to other implements, to which it may be attached in any known manner.

I am aware that a curved or grooved handle terminating in and formed integral with a cap under which a brush is secured is not new and I do not claim such device. My sheet metal handle is provided with a groove formed therein and extended within the periphery of the cap, and is thereby distinguished from the prior construction in which the handle-shank rested upon, fitted, and was riveted to a flat lug projecting from the head band, said shank having no groove.

If the contracted portion of the sheet-metal piece at the junction of cap and handle were made plane or flat, the piece would be too flexible at such junction and the handle would be easily broken from the cap by which the handle is secured to the brush-head; whereas the corrugations, or groove, serve to stiffen and strengthen the contracted portion of the sheet-metal piece independently of the upwardly extending lug on the brush-head or ferrule.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a brush, the combination with a sheet-metal handle having an attaching cap at one end; and a longitudinal groove in the handle terminating within the periphery of the cap; of a brush-head provided on one side of its top with a lug projecting upwardly into the groove at the junction of the handle and cap; and means for securing the cap to the head, substantially as described.

2. The combination with a brush-head, of a sheet-metal cap secured to the top of the head, and a laterally projecting contracted handle integral with the cap, the handle being provided with a longitudinal groove extending past the junction of cap and handle within the periphery of the cap, whereby the contracted portion of the sheet-metal piece is strengthened at the junction of cap and handle, substantially as described.

In testimony whereof I have hereunto set my hand this 5th day of December, 1892.

STEPHEN PALMER.

Witnesses:
GEO. A. MOSHER,
FRANK C. CURTIS.