

No. 649,042.

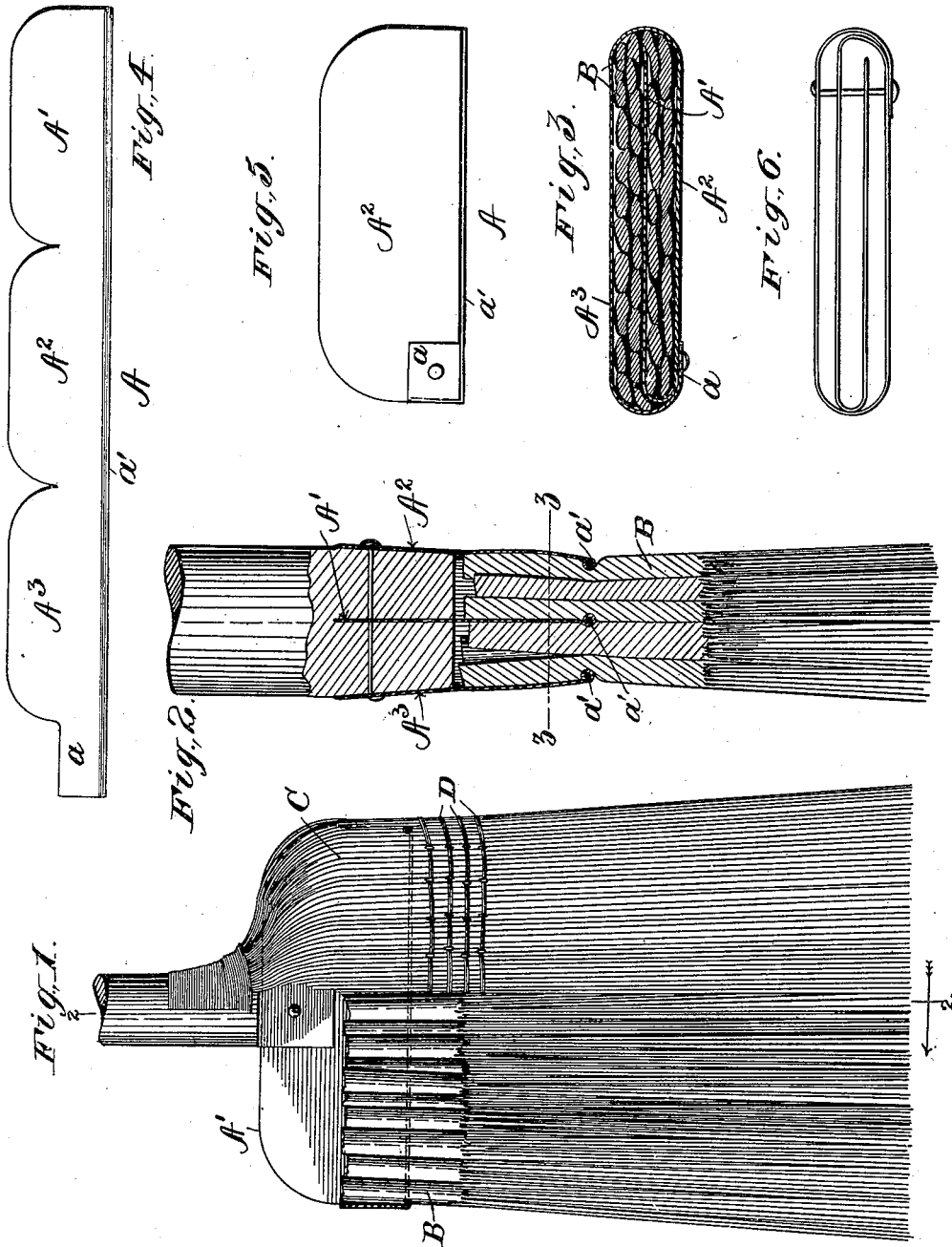
Patented May 8, 1900.

S. T. CAMERON.

BROOM.

(Application filed June 28, 1897.)

(No Model.)



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## BROOM.

SPECIFICATION forming part of Letters Patent No. 649,042, dated May 8, 1900.

Application filed June 28, 1897. Serial No. 642,657. (No model.)

*To all whom it may concern:*

Be it known that I, SHELTON T. CAMERON, of Washington, District of Columbia, have invented a new and useful Improvement in Brooms, which improvement is fully set forth in the following specification.

My invention relates to the art of manufacturing brooms.

Heretofore efforts have been made to construct a broom-head by employing various clamping devices for attaching the broom-corn to the handle, as well as by the more common method of "tying" or wiring the corn to the handle.

Now the chief objects of my invention are to construct a broom-head which shall to a large extent be composed of short stock, such as that usually designated "inside stuff," which shall dispense with the use of "covers" and at the same time increase the stiffness and rigidity of the broom-head without lessening the elasticity of the brush, and which shall be so simple in construction that to a large extent skilled labor may be dispensed with in its manufacture and at the same time produce a broom superior in quality. These objects I accomplish by forming the greater part of the broom of a core of short broom-corn held together by a folded metallic plate, which by its folds both surrounds the broom-corn and divides it into layers, attaching this core to the handle by a rivet or nail, and then covering the core by a layer of hurl "tied" to the broom, as in the ordinary tying method, after which the broom is stitched in the usual way, the stitching being below the metallic plate. This construction I have illustrated in the accompanying drawings, in which—

Figure 1 shows a broom-head constructed according to my invention, parts being broken away. Fig. 2 is a broken central vertical section along the line 2 2, Fig. 1. Fig. 3 is a transverse section on the line 3 3, Fig. 2. Fig. 4 is a view of the blank from which the metal clip is formed, and Fig. 5 is a side elevation of said clip in the form it assumes when used in a broom-head. Fig. 6 shows a modified form of clip. Fig. 3 is on an enlarged and Fig. 4 on a somewhat-reduced scale.

A, Fig. 4, represents a blank metallic clip conveniently made of tin, light sheet-iron, or

other flexible metal and divided, as shown in Fig. 4, into three lobed sections  $A'$ ,  $A^2$ , and  $A^3$ , with a small projecting portion  $a$ . Along its straight edge the metal strip of which the blank clip A is formed preferably has a bead  $a'$ , made either by turning the metal upon itself or over a wire in a manner readily understood. That portion of the bead extending along the lobe  $A'$  may, if desired, be formed so as to project on both sides of the metal, while along the lobes  $A^2$  and  $A^3$  the bead will appear on but one side, as will be clearly understood by referring to Fig. 2. By this construction the layers into which the core of the broom-head is separated by the lobe  $A'$  are securely held between the bead on the opposite sides of lobe  $A'$  and the inner sides of lobes  $A^2$  and  $A^3$ . A convenient manner of using this blank clip in the manufacture of a broom is as follows: A layer of broom-corn is placed on that side of the lobe  $A^2$  which has the bead  $a'$ , and the lobe  $A'$  is then bent over and forced down upon the corn by means of a mallet or other tool, thus clamping the corn between the two lobes  $A'$   $A^2$ , as will be readily understood from an inspection of Figs. 2 and 3. A second layer of broom-corn is then placed on lobe  $A^3$ , and the lobes  $A'$   $A^2$ , with the layer of broom-corn between them, are turned over onto lobe  $A^3$  and the clamping effect secured by a blow from a mallet, as before. The projecting portion  $a$  is then turned over and secured by a wrought nail or other suitable fastening device, as clearly shown in Figs. 3 and 5. Since the beaded portion  $a'$  is turned inward toward the broom-corn, it serves to securely clamp the same in the clip, as shown in Fig. 2, a sufficient quantity of the corn being placed within the clip to form the major part of the broom-head. The core of the broom-head thus made is attached to the handle by inserting the lobe  $A'$  in a saw-kerf in the end of the handle, as shown in Fig. 2, the lobes  $A^2$  and  $A^3$  lying along opposite sides of the handle, which are preferably flattened, a wrought nail or other securing device being passed through the lobes of the clip and through the handle. One nail has been found amply sufficient for this purpose. After the filled clip or core is thus attached to the handle the coat or layer of hurl C is tied or wired

to the handle in the usual way, as shown in the right half of Fig. 1, and the broom completed by the desired number of rows of stitches D, care being taken when the clip A is filled with heads B of broom-corn that the lower strand of stitches should be well below the stalk.

It will be seen that in manufacturing a broom according to my invention the greater portion thereof may be made of heads of broom-corn having straw much shorter than that required in broom-heads of the same length when made according to the old tying method without detracting from the elasticity of the broom, and I am thereby enabled to effect a great saving in the cost of the stock which enters into the broom without detracting from the sweeping qualities of the latter. It is also apparent that the clip may be filled with broom-corn and secured to the handle by unskilled labor, whereby a very material reduction in the cost of manufacture is obtained.

In addition to the great saving in cost of material and labor the general appearance of the completed brooms is enhanced by their symmetrical outline and the fact that when bunched for sale they are uniform in size and shape.

It is evident that by providing the lobe A' with an extension similar to extension *a* on lobe A<sup>3</sup> the blank might be folded in the form of a flattened S and the lobe A<sup>2</sup> inserted into the saw-kerf in the handle. It is also evident that the blank might be provided with an increased number of lobes—as four, for example, when there would be two saw-kerfs in the handle—and the broom-corn forming the core would be divided into three layers instead of two. This form of clip is shown in Fig. 6. Such modifications are fully within the limits of my invention.

Having thus described my invention, what I claim is—

1. A broom-core comprising broom-corn held together by a folded metallic plate which by its folds both surrounds the broom-corn and separates it into layers, substantially as described.

2. The combination with a broom-handle, having a slit or saw-kerf as described, of the plate A, one section or lobe passing through the saw-kerf in the handle and the other sections folding on the opposite sides of the same, the broom-corn inclosed by said clip, and securing devices whereby the broom-corn is firmly secured to the handle by the clip, substantially as described.

3. The combination with the broom-handle having the saw-kerf or slit, of the clip A, one section or lobe of which passes through the saw-kerf in the handle, and the other sections or lobes folded on opposite sides thereof, the broom-corn secured between the lobes of said clip, and the hurl covering C attached to the handle and surrounding said handle and clip, substantially as described.

4. A blank for a broom-clip consisting of a strip of flexible metal having a straight edge with a bead formed thereon, and the opposite edge divided into substantially-equal lobes or sections, whereby the lobe-sections when folded into a broom lie opposite each other and form the shoulders of the broom, substantially as described.

5. A blank for a broom-clip consisting of a flexible metal strip having a straight beaded edge *a'* and the three substantially-equal lobes A' A<sup>2</sup> A<sup>3</sup> and the extension part *a*, whereby the lobe-sections when folded into a broom lie opposite each other and form the shoulders of the broom, substantially as described.

6. A broom-head consisting of a core of broom-corn divided into separate layers and surrounded by a folded metallic plate attached to the handle, and a coat or hurl covering secured to the handle above the core and stitched to the core below the plate, substantially as described.

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

SHELTON T. CAMERON.

Witnesses:

REEVE LEWIS,  
PHILIP MAURO.