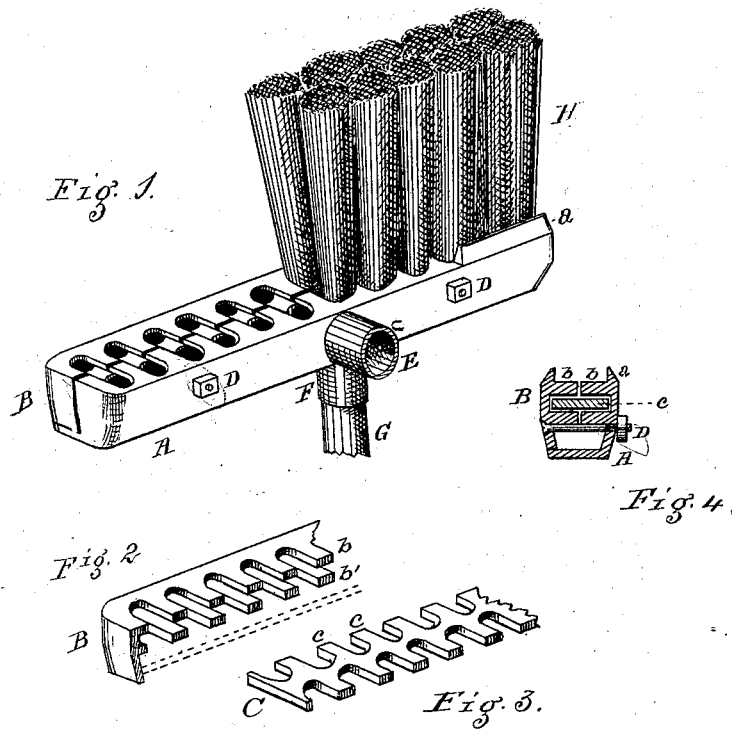


A. SHAFFNER.  
Brush-Head.

No. 216,296.

Patented June 10, 1879.



WITNESSES

*John W. Ensminger*  
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# UNITED STATES PATENT OFFICE.

ABRAHAM SHAFFNER, OF MANHEIM, PENNSYLVANIA.

## IMPROVEMENT IN BRUSH-HEADS.

Specification forming part of Letters Patent No. **216,296**, dated June 10, 1879; application filed March 28, 1879.

*To all whom it may concern:*

Be it known that I, ABRAHAM SHAFFNER, of the borough of Manheim, Lancaster county, in the State of Pennsylvania, have invented certain Improvements in Bristle-Clamp Brush-Heads, of which the following is a specification.

The object of this invention is to provide a permanent brush-head, so that when the bristles are worn out any farmer can replace them with new ones, without the use of pitch or the like, by means of the holding and clamping device herein specified.

The accompanying drawings illustrate this device for a whitewash-brush, with letters of reference marked thereon, a brief description will enable those skilled in the art to make and use the same, and in which—

Figure 1 shows a head of the combined side pieces and intermediate piece in place, partly provided with bristles in place and the bolts secured. Fig. 2 shows the projecting double ledges, with an intermediate space for the reception of the doubly-scalloped intermediate plate, Fig. 3. Fig. 4 shows a section of the head, in part, near one end.

This head can be cast of malleable iron and galvanized or otherwise secured against rust, and can be made so as not to exceed the weight of a stout and firm head made of wood. The sides are formed of two separate pieces.

The side marked A also forms the bottom of the head. This bottom has a central short tube, F, cast with it for the reception of the handle G. This tube may have a screw-thread cut into it for a screw-cap on the end of the handle to prevent its displacement. A similar tube, E, is also centrally on the side with any desired inclination adapted to the use intended for holding the handle, which is adapted to both of the tubes F and E. This side of the head A has two series of projecting flanges, one directly over the other. These flanges extend to the center of the head, and have intermediate slots open centrally and rounded off near the sides.

The counterpart B has the side flanges, *b b'*, Fig. 2, to match those of the side A, the in-

ner ends abutting and the open slots in range with each other. A space is left between the two series *b b'* of the sides A B for the reception of the central intermediate clamping-plate, C, Fig. 3. This has similar open slots, and the inner ends of said slots made circular. This intermediate plate holds the bristles on their inner half circumference, and the sides A B, above and beneath it, the outer portion of, say, two rows of bunches of bristles, *H*, or their equivalent.

Two or more headed or countersunk bolts, with nuts D, will draw the pieces A B firmly together, clamping the bristles between them and holding them without any wrapping of cords, pitch, or other device.

I may mention here that a pair of rounded clamp-tongs so formed that when filled with a bunch of bristles in the annular jaws and tightly compressed they form a gage for each respective bunch of bristles inserted into the slots of the combined head, so that when the parts are all in place and the bristles inserted it will be found that in drawing up the nuts D until the projecting flanges meet centrally the bristles will be so tightly clamped and firmly held as to remain fixed till worn out by use, when the entire head can be replenished and a new brush formed by any one of ordinary skill; and thus farmers can put the bristles to use and make their own brushes for whitewashing or the like, which, in rough outdoor work, soon wear out, and are expensive.

In Fig. 1, at one end, I show a shed-flange, *a*, set along the upper ledge from the outer face of the head inclined from the outer side against the bristles, to allow the surplus to escape and prevent the whitewash from lodging on the otherwise flat edge of the bristle-holder, or by simply rounding off the outer edges of the head.

I am aware that there are numerous brush holders and clamps; but I am not aware that a clamping device for holding the bristles was ever before known or used, substantially as herein shown and described. Therefore,

What I desire to claim as my invention, as a new article of manufacture, is—

The combination of the two parts A and B, each provided with two series of open slots and intermediate projecting flanges, *b b'*, the intermediate detachable clamp-plate C, with like open slots on each side, and flanges *c*, the whole bolted together and secured with nuts D, and provided with tubes F and E, the

whole arranged substantially as and for the purpose specified.

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Witnesses:

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