

No. 726,544.

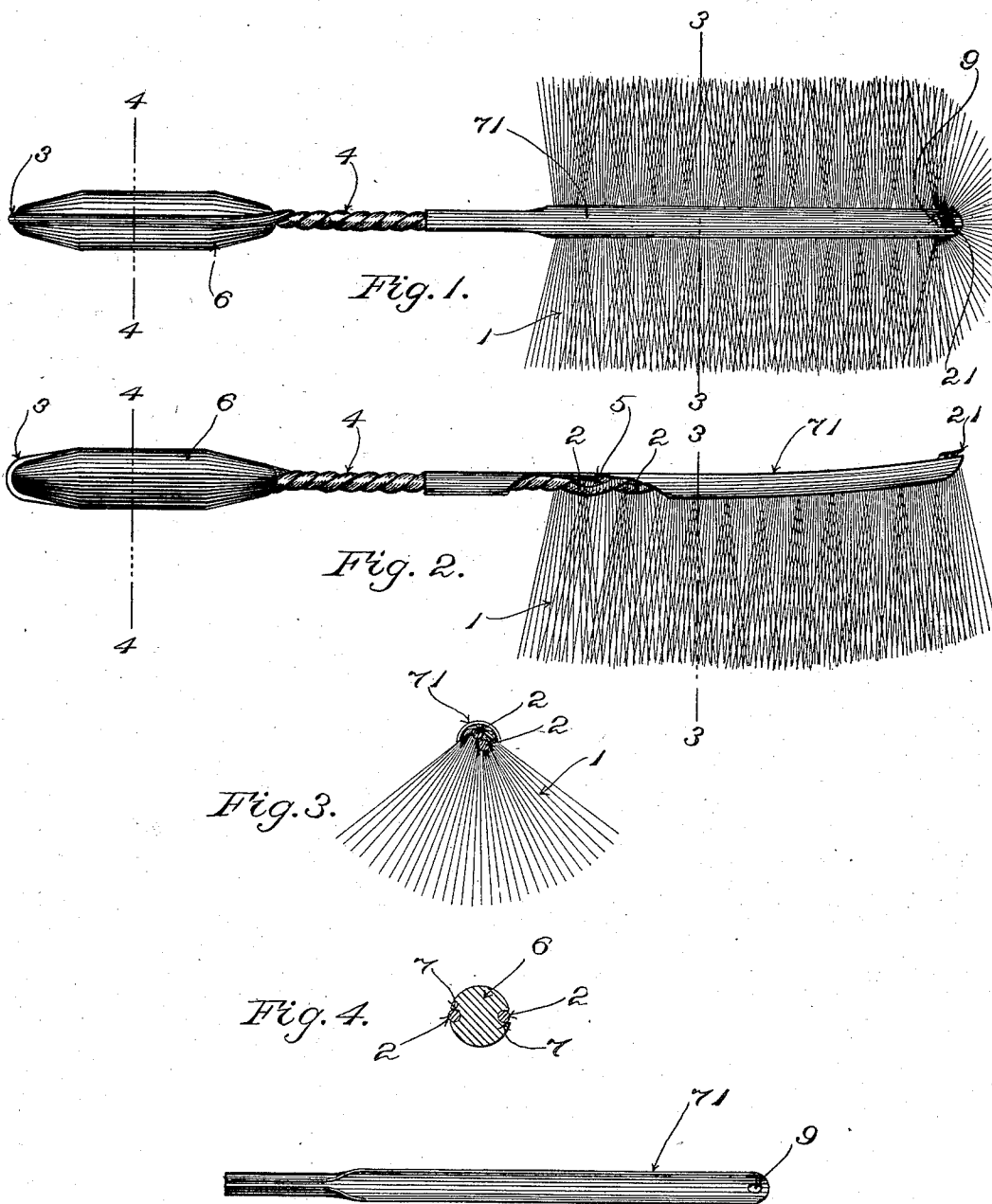
PATENTED APR. 28, 1903.

M. M. LAHUE.

BRUSH.

APPLICATION FILED JUNE 18, 1900.

NO MODEL.



Witnesses:
 Lepinehall Rice
 Oscar F. Bill

Fig. 5.

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UNITED STATES PATENT OFFICE.

MOSES M. LAHUE, OF LOWELL, MASSACHUSETTS.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 726,544, dated April 28, 1903.

Application filed June 18, 1900. Serial No. 20,640. (No model.)

To all whom it may concern:

Be it known that I, MOSES M. LAHUE, a citizen of the United States, residing at 107 Cushing street, Lowell, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Brushes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The general aim of the invention is to produce a brush which shall be suitable for use for purposes in general, but which in particular shall be fitted for use in mills, shops, and the like establishments for cleaning up
15 dust, lint, and the like from machinery or around the same.

More especially the objects of the invention are in part to produce a brush of a construction fitting it for service in cleaning out
20 between the parts of machines and elsewhere where required and enabling it to withstand the rough handling and severe treatment to which brushes employed for such purposes are subjected in practice and whereby the
25 brushes soon become disabled and rendered unfit for service.

Other objects will become apparent in the course of the following description.

30 I will describe the invention with reference to the accompanying drawings, in which latter I have presented an embodiment of the same.

In the drawings, Figure 1 shows in plan a brush constructed in accordance with the invention. Fig. 2 is a view of the brush in side
35 elevation, partly broken away to show internal construction. Fig. 3 is a view in section on the dotted line 3 3 in each of Figs. 1 and 2. Fig. 4 is a view in section on the dotted
40 line 4 4 in each of Figs. 1 and 2. Fig. 5 is a detached view of the back.

In the production of a brush embodying my invention I place the bristles 1 1 between two lengths of wires, as 2 2, the said lengths preferably constituting portions of a single piece
45 of wire, which is doubled back upon itself at 3 in Figs. 1 and 2. The bristles are laid crosswise with reference to the portions 2 2 of wire, and for the purpose of more effectually uniting the
50 bristles and wire together cement is applied, so that the bristles and wire shall adhere to one another at the places where they come in

contact with one another. The portions 2 2 are twisted together to form the stem at 4 and so as to bind or clamp the bristles in place in the body portion of the brush. Fig. 2 shows at 5 the twists of the wire in the said body portion of the brush. The portions of wire 2 2 are left spread apart from each other in the form of a loop at the handle portion of the stem of the brush. In some cases this loop may be left unfilled and open; but preferably I employ a block, as 6, filling the said loop and having on opposite sides thereof grooves, as 7 7, which receive the portions 2 2
55 of wire. These grooves enable the block to be permanently held in place between the two portions of the wire. I employ a narrow back 71, usually of sheet metal. This back is formed into the shape of a trough and is applied, as shown, so as to receive within its concavity the intertwisted wires 2 2 and the middle portions of the length of the bristles. The edges of the trough-shaped back are compressed against the bristles below the wires 2 2,
60 so as to enable it to retain its place firmly and so, also, as to hold the bristles pressed closely together in the required shape. At its inner end the back is compressed upon the bare wires 2 2, as shown, so as to hold tightly thereon. At its outer end the back is provided with a hole at 9. Through the said hole the upwardly-bent ends of the portions 2 2 of wire project. The said ends are cut off close against the outer face of the back and are formed
65 with a bur or enlargement, as 21. The back 71 stiffens the brush-body and prevents bending of the latter. It also holds the portions 2 2 of wire together, so as to prevent separation of the said portions and loosening of the bristles. The means of securing the outer ends of the said portions of wire is especially important in its functions for the reason that it is customary in practice for a person who is engaged in using the brush for cleaning
70 machinery or the like to clear or shake off lint adhering to the bristles by striking the handle endwise against some solid body. The jarring of the brush thereby occasioned tends to occasion a spreading or separation of the portions 2 2 of wire, which heretofore in like brushes has operated to loosen the bristles and permit them to fall out. This spreading of the said portions of wire speedily results
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in the destruction of the brush. The narrowness of the back 71 permits the brush to be inserted into narrow spaces. The block 6, filling the loop of wire in the handle portion 5 of the brush, prevents a person who is using the brush from introducing his fingers into the said loop. It has occurred in practice that a person employing a brush with open-looped wire handle and having his fingers introduced into the said open loop has accidentally permitted the brush to become engaged by moving portions of a machine and drawn into the machine, with the result that his hand or arm has been drawn in also by 15 the brush with resulting serious personal injury. The block forms in addition a convenient handhold.

What I claim is—

1. A brush having the bristles thereof secured between intertwined portions of wire forming the stem thereof, and the trough-shaped back inclosing the said wire and the bristles adjacent the latter, and clasping the said bristles by its edges so as to hold them 25 compressed together, substantially as described.

2. A brush having the bristles thereof secured between intertwined portions of wire forming the stem thereof, and having the said bristles cemented to the said portions of wire, 30 and the trough-shaped back inclosing the said wire and the bristles adjacent the latter, and clasping the said bristles by its edges so as to hold them compressed together, substantially as described. 35

3. A brush having the bristles thereof secured between intertwined portions of wire forming the stem thereof, and the trough-shaped back inclosing the said wire and the bristles adjacent the latter, and clasping the 40 said bristles, and also having the hole receiving the ends of such portions, the said ends having a bur or enlargement formed thereon to prevent retraction through the said hole, substantially as described. 45

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

MOSES M. LAHUE.

Witnesses:

CHAS. F. RANDALL,
WILLIAM A. COPELAND.