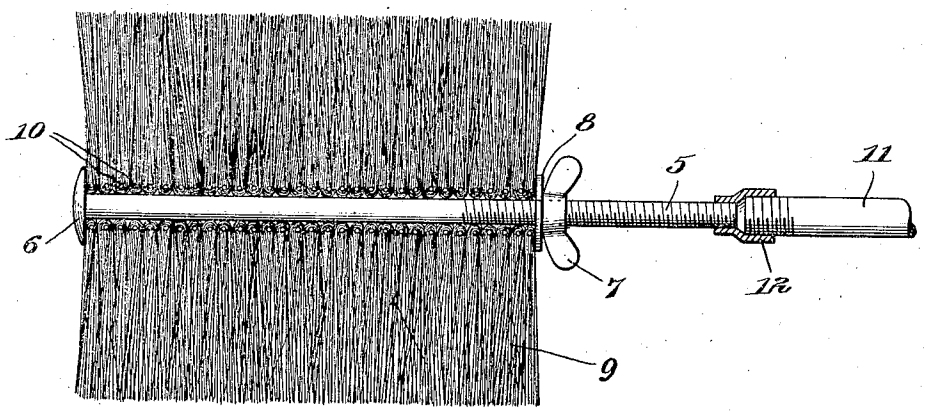
E. OLSON.

BRUSH.

APPLICATION FILED OCT. 15, 1915.

1,167,923. Patented Jan. 11, 1916.

Fig. 1.



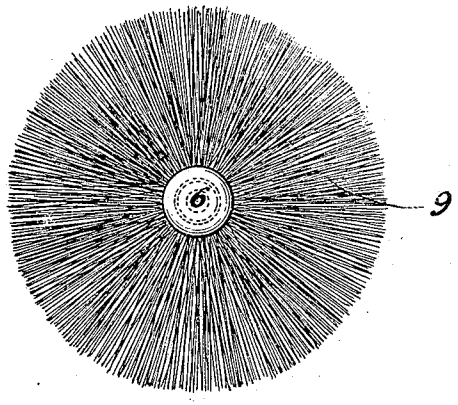


Fig. 2.

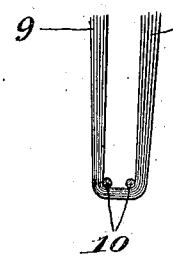


Fig. 3.

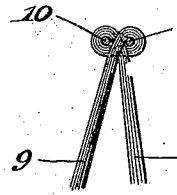


Fig. 4.

Witnesses:

H. S. Buell

B. G. Richards

Inventor,

Ernst Olson,

by Joshua R. H. Howe

his Attorney.

UNITED STATES PATENT OFFICE.

ERNST OLSON, OF OSSINING, NEW YORK.

BRUSH.

1,167,923. Specification of Letters Patent. Patented Jan. 11, 1916.

Application filed October 15, 1915. Serial No. 56,135.

To all whom it may concern:

Be it known that I, ERNST OLSON, a citizen of the United States, and a resident of the city of Ossining, county of Westchester, 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 improvements in brushes especially adapted for use as flue brushes and has for its object the provision of an improved construction of this character which is simple and efficient in use.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a longitudinal section of a brush embodying my invention, Fig. 2, an end view of the same, Fig. 3, a detailed view illustrating brush bristles in one stage of manufacture, and Fig. 4, another detailed view illustrating brush bristles in the final stage of manufacture.

The preferred form of construction as illustrated in the drawing comprises a threaded stem 5 in the form of a long bolt threaded at one end for a considerable distance and provided with a head 6 at the other end. A nut 7 is threaded on stem 5 and coöperates with a washer 8 to imprison and fasten the brush bristles 9 on said stem as indicated in Fig. 1. The brush element proper is formed of a large number of tufts of bristles 9, said tufts of bristles being preferably formed of sections of Manila rope and being doubled about two binding cords or cables 10 arranged adjacent and parallel to each other as best indicated in Fig. 3. The ends of bristles 9 are then doubled between the cords 10 as indicated in Fig. 4. A large number of bristle tufts are thus arranged on the cords 10 and the ends of the cords tied together thus securing the bristles to the cords and in effect forming a long string of bristles. This string of bristles is then wound about the stem 5 helically with the cords 10 adjacent said stem and the bristles projecting radially therefrom thus securely binding the bristles to the stem. The nut 7 and washer 8 are then tightened against the corresponding end of the bristles thus securely imprisoning the same on the stem and completing the brush proper. The brush is secured to an operating handle or stem 11 by means of an ordinary pipe coupling 12. By this arrangement a brush is provided of great durability and flexibility in use and which is also capable of economical manufacture.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A binding for brush bristles consisting of two elongated adjacent binding elements; and bristles doubled about and between said binding elements, substantially as described.

2. A binding for brush bristles consisting of two elongated adjacent binding elements; bristles doubled about and between said binding elements, and said binding elements being coiled helically, substantially as described.

3. A brush comprising a central stem; a brush element consisting of two elongated adjacent binding elements and bristles doubled about and between said binding elements, said binding elements being wound about said stem helically; and means securing said binding elements and bristles to said stem, substantially as described.

4. A brush comprising a central threaded stem; a brush element consisting of two elongated adjacent binding elements and bristles doubled about and between said binding elements, said binding elements being wound about said stem helically; and a nut securing said binding elements and bristles to said stem, substantially as described.

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

ERNST OLSON.

Witnesses:
HELEN I. MULLIZAR,
ISABELLA W. HUBBELL.