

No. 688,361.

Patented Dec. 10, 1901.

N. STOW.
TOOL FOR MAKING BRUSHES.

(Application filed July 5, 1901.)

(No Model.)

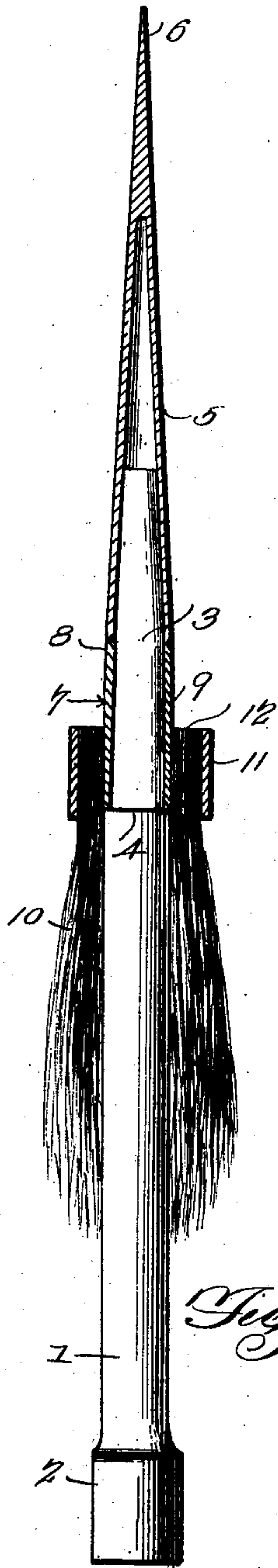


Fig. 1.

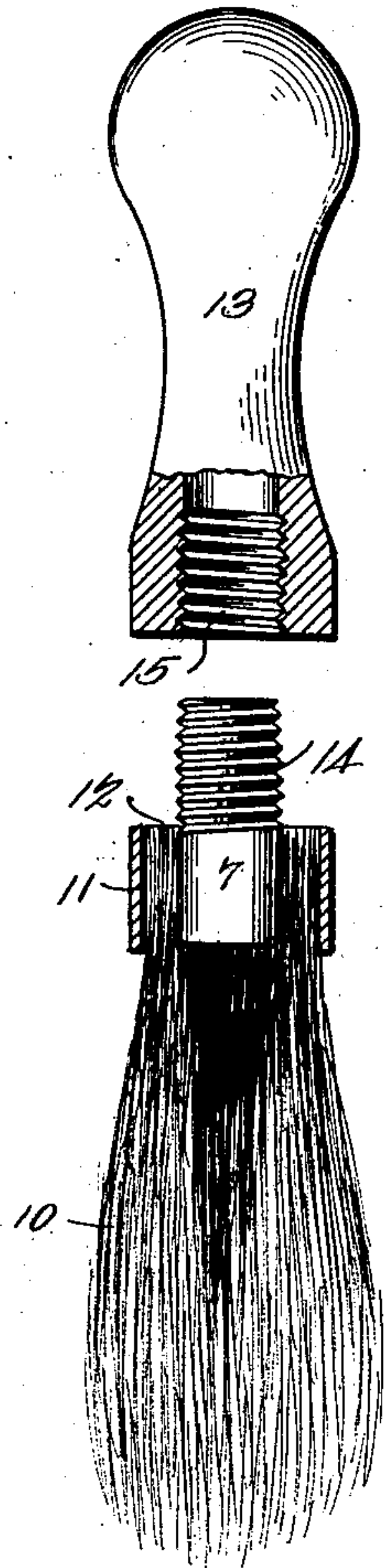


Fig. 2.

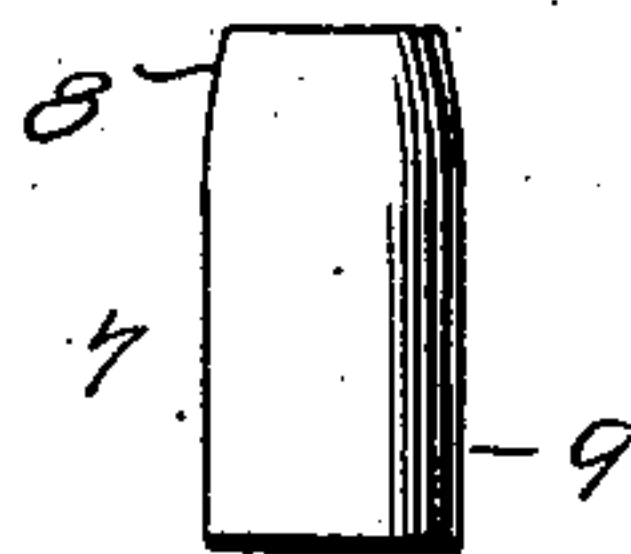
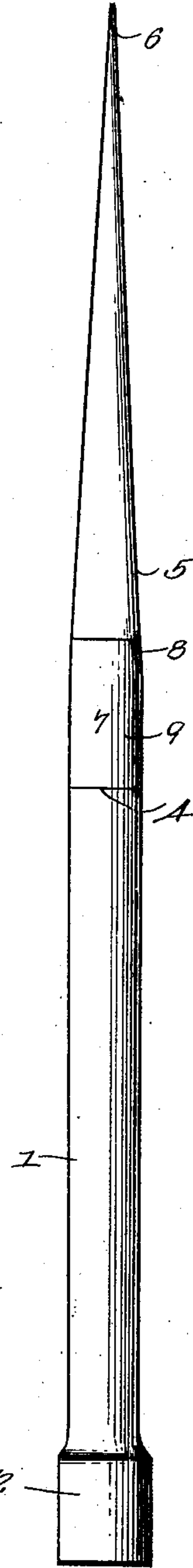


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

NELSON STOW, OF BINGHAMTON, NEW YORK.

TOOL FOR MAKING BRUSHES.

SPECIFICATION forming part of Letters Patent No. 688,361, dated December 10, 1901.

Application filed July 5, 1901. Serial No. 67,208. (No model.)

To all whom it may concern:

Be it known that I, NELSON STOW, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented a new and useful Tool for Making Brushes, of which the following is a specification.

This invention relates to a tool for making brushes, adapted particularly for inserting in the heads of brushes the attaching element for the handles; and the object of the same is to provide a simple form of inserting mandrel or leader comprising separable sections which primarily include in their organization the said attaching element, which has its outer surface conforming in contour to the form of the adjacent parts to thereby produce a continuous unbroken surface to facilitate the insertion of the mandrel or leader through the brush-head and accurately dispose the attaching element in the latter without obstruction.

The invention consists of the construction and arrangement of the parts, which will be more fully hereinafter described and claimed and subject to a wide range of modification in the form, size, proportions, and minor details.

In the drawings, Figure 1 is a sectional elevation of a brush and the mandrel or leader therein, the attaching element being fully inserted in the brush-head preparatory to separating and withdrawing the mandrel or leader sections. Fig. 2 is a sectional elevation of a brush and handle, showing one mode of preparing the attaching element for securement of the handle thereto. Fig. 3 is an elevation of the mandrel or leader arranged for insertion through a brush and showing the handle-attaching element forming part of the primary organization. Fig. 4 is a detail elevation of the handle-attaching element in its simplest form.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The mandrel or leader comprises in the main a lower supporting-section 1, having a lower enlarged terminal 2 to serve as a gripping means or for attachment of the said end of the section to some other device to assist in inserting the mandrel or leader as an entirety. The said enlarged terminal 2 is also adapted

to receive the impact of a hammer, mallet, or like device for driving the mandrel or leader through the brush. The upper extremity of the section 1 is reduced to form a stem 3, which is tapered for a greater portion of its length toward the upper reduced end thereof, the formation of this reduced stem providing a shoulder 4 at the base thereof. A tubular entrance-section 5 is removably fitted on the stem 3 and is regularly tapered to an upper entrance-point 6, and between the lower end of the entrance-section 5 and the shoulder 4 of the supporting-section 1 a handle-attaching element 7 of tubular form is removably fitted on the stem 3 and forms part of the primary organization of the mandrel or leader. This attaching element has the portion 8 thereof adjacent to the lower end of the entrance-section 5 tapered similarly to said latter end, and said portion 8 regularly merges into a lower truly cylindrical portion 9, having a maximum diameter equal to that of the section 1 adjacent to the shoulder 4, and by this means the opposite extremities of the said attaching element will form flush joints with the lower end of the entrance-section and with the section 1, adjacent the shoulder 4, respectively. A continuous unbroken exterior surface is thus produced to facilitate the entrance of the element 7 through and placement in the brush-head, and said element will be made of such thickness as to resist crushing or bending strain after it is disposed in the brush-head, so that the sections 1 and 2 can be easily withdrawn or disconnected without the least difficulty.

In preparing the brush for insertion of the element 7 the bristles 10 are assembled as usual and clamped or bound at one extremity by a collar or bridle-band 11 to form a tight head 12. The mandrel or leader is next arranged as shown by Fig. 3 and inserted in and driven or forced through the brush from lower portion upwardly or through the loose portion of the bristles centrally through the bound head. In this operation the element 7 is unobstructedly forced through the head and not only securely holds the bristles, but of itself is firmly fixed by the pressure around the part thereof that remains within the brush-head. The sections 1 and 2 will then be detached from the element, and the latter

will then be ready for securement to the brush-handle 13. One mode of securely fastening the brush-handle to the element 7 consists, as shown by Fig. 2, in providing the exteriorly-projecting portion thereof after insertion of the element through the head with screw-threads 14 and constructing the handle with a correspondingly screw-threaded socket 15 to fit over said threads 14; but this is not necessarily the only means of arriving at the result sought, as the projecting portion of the element may remain smooth and the handle secured thereto in any other manner. This operation can be very rapidly carried on, and a strong and durable means of attaching a handle to a brush is provided. The mandrel is also simple in its construction and is easily operated to dispose the element 7 in place in the brush-head, as set forth.

20 Having thus described the invention, what is claimed as new is—

A mandrel or leader for the purpose set forth having a supporting-section with an elongated reduced stem which is tapered for a portion of its length, an entrance-section of

hollow tapered form removably fitted on the said stem, the formation of the reduced stem producing a shoulder on the supporting-section, and a brush-handle tubular attaching element removably mounted on the stem between the shoulder of the supporting-section and the end of the entrance-section on said stem, the said element having a contour at opposite extremities corresponding to and continuous with the contiguous portions of the supporting and entrance sections to provide an unbroken joint between the assembled parts, whereby the entrance-section is pushed through a brush-head in advance of the attaching element by the supporting-section and the latter and said entrance-section detached to allow the attaching element to remain in the brush-head.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

NELSON STOW.

Witnesses:

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H. J. HENNESSEY.