

A. L. NICKERSON & H. HUGHES.
STENCIL BRUSH.

APPLICATION FILED AUG. 21, 1908.

914,970.

Patented Mar. 9, 1909.

2 SHEETS—SHEET 1.

FIG. 1

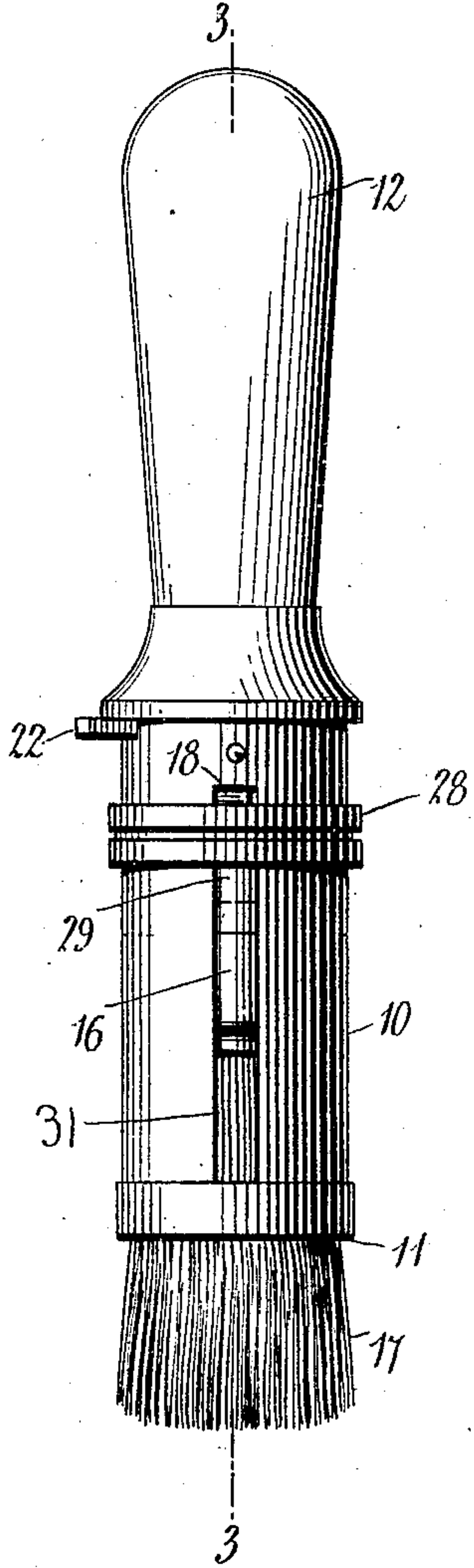


FIG. 4

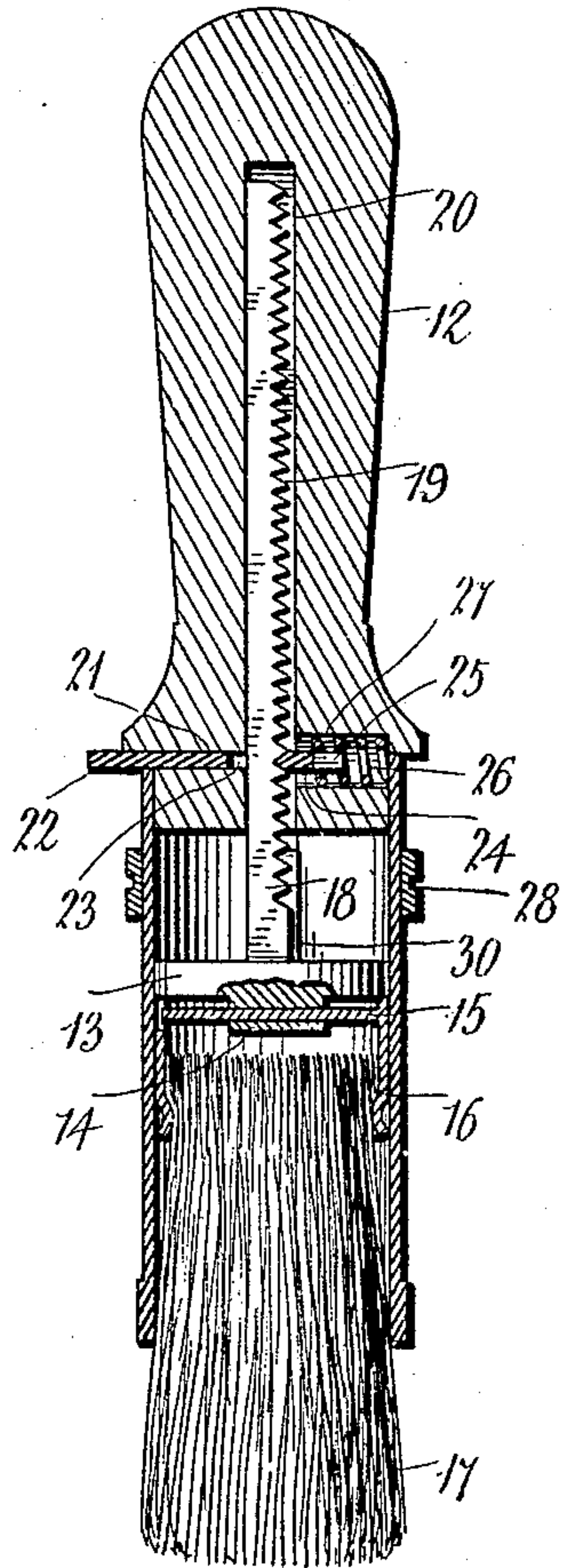
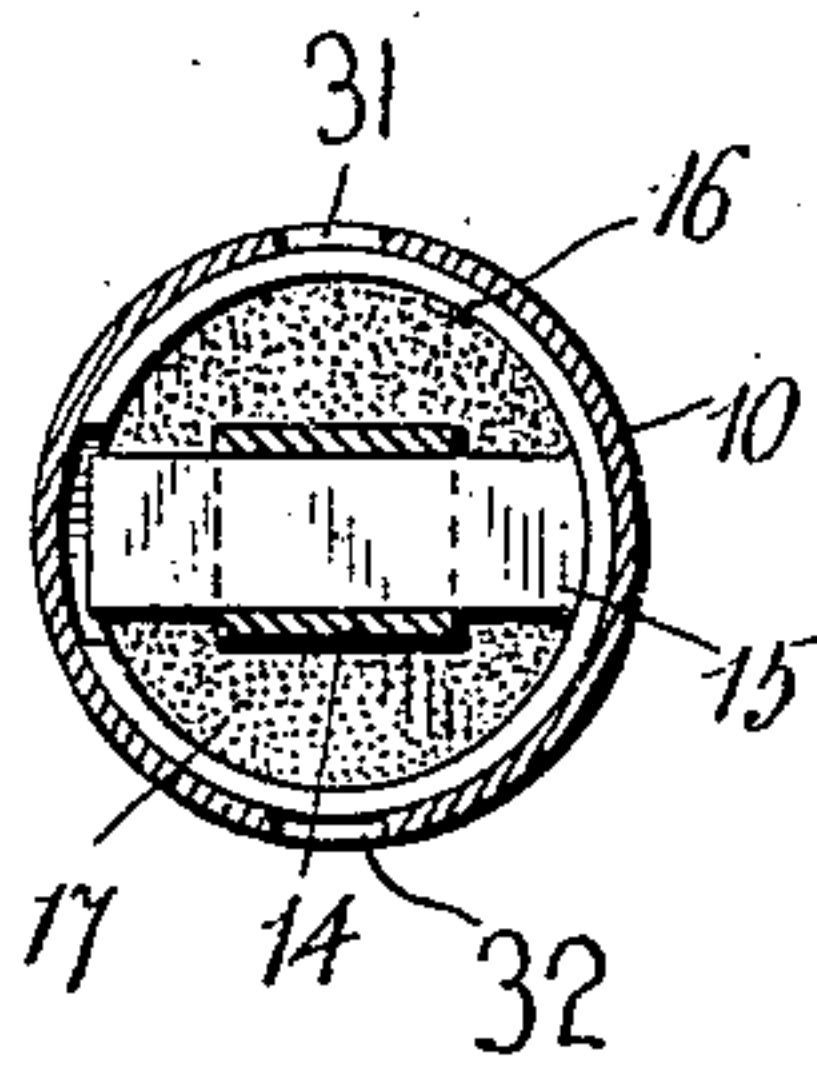


FIG. 6



Witnesses

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2 SHEETS—SHEET 2.

914,970.

FIG. 2

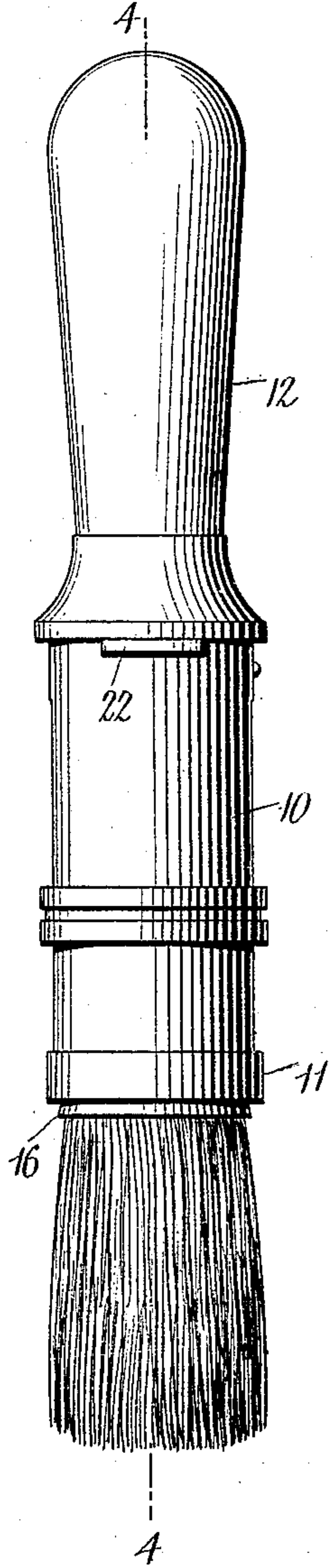


FIG. 3

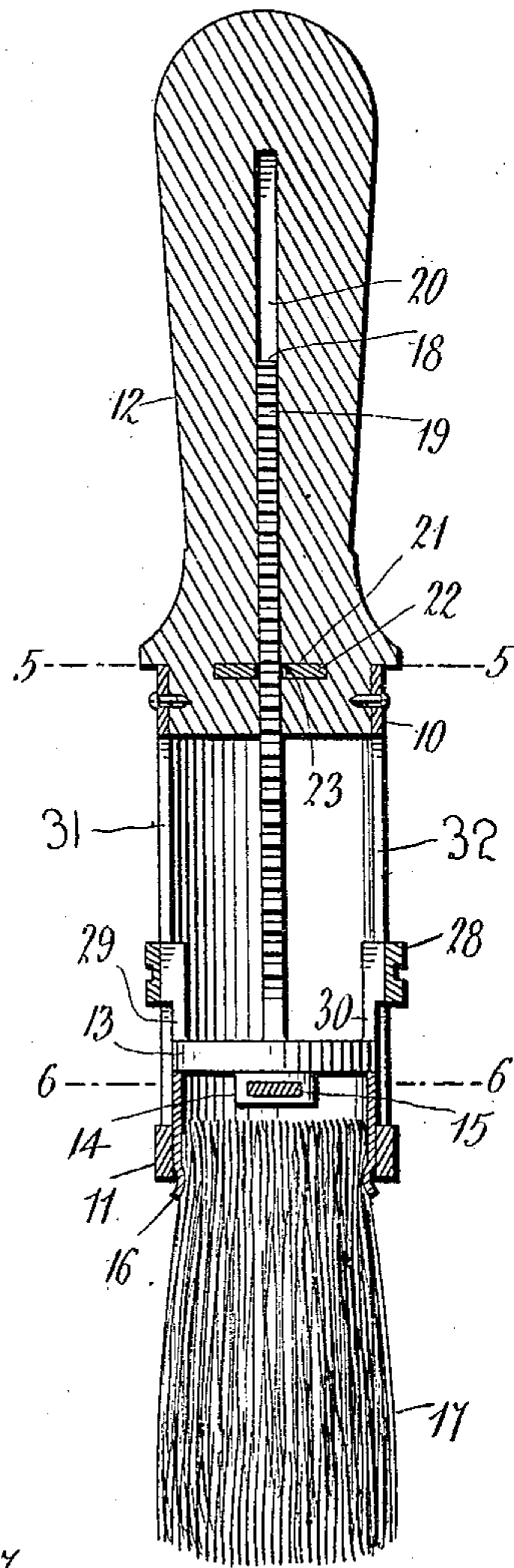
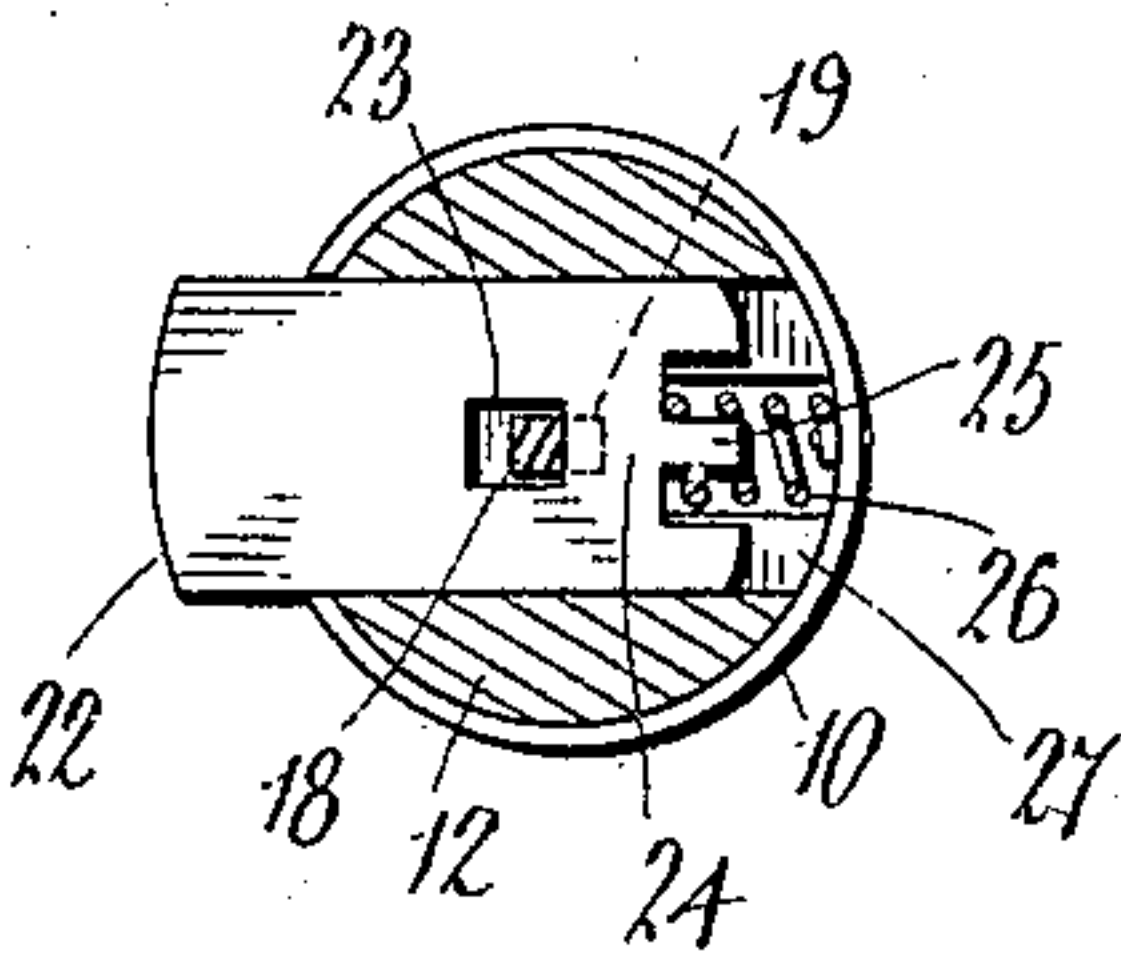


FIG. 5



Witnesses

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UNITED STATES PATENT OFFICE.

ALBERT L. NICKERSON AND HAROLD HUGHES, OF CAMPELLO, MASSACHUSETTS.

STENCIL-BRUSH.

No. 914,970.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed August 21, 1908. Serial No. 449,724.

To all whom it may concern:

Be it known that we, ALBERT L. NICKERSON, a subject of the King of Great Britain, and HAROLD HUGHES, a citizen of the United States, both residing at Campello, in the county of Plymouth, State of Massachusetts, have invented certain new and useful Improvements in Stencil-Brushes; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to brushes, more particularly to brushes of this kind employed in connection with stencils, and for similar purposes, and has for one of its objects to provide a simply constructed means whereby the brush elements may be projected at any required distance from the supporting structure, and projected when required as the brush elements are worn away.

With these and other objects in view the invention consists in a casing having a head slidable therein, and with a brush element detachably coupled to the head, the head having a toothed bar extending therefrom, and a spring controlled catch means operating to engage the tooth bar and thus support the brush head and its brush element at any required distance relative to the casing, so that the extent of the projection of the brush elements may be controlled.

The invention further consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claims, and in the drawings illustrating the preferred embodiment of the invention, Figure 1 is a side elevation of the improved device viewed from one side. Fig. 2 is a side elevation viewed from another side. Fig. 3 is a longitudinal section on the line 3—3 of Fig. 1. Fig. 4 is a longitudinal section on the line 4—4 of Fig. 2. Fig. 5 is a transverse section on the line 5—5 of Fig. 3. Fig. 6 is a section on the line 6—6 of Fig. 3.

The improved device comprises a casing 10, preferably of metal, and with straight sides and enlarged at one end at 11, to strengthen and reinforce the free open end of the casing, and with a handle 12 engaging in

the opposite end of the casing, the handle being permanently secured in any suitable manner to the casing 10. Slidable within the casing 10 is a head 13 having a keeper 14 upon its lower face with which a catch arm 15 on a brush cap 16 engages detachably, the brush cap provided with brush elements 17, as shown. By this simple means when the head 13 is projected beyond the free end 11 of the casing the brush element may be detached therefrom laterally by withdrawing the catch arm 15 over the keeper. It will be noted that when the member 16 is disposed within the casing, it cannot be displaced laterally, as the walls of the casing prevent lateral movement thereof, as hereafter explained. Extending from the opposite face of the head 13 is an arm 18 having spaced teeth 19 in one edge, the arm extending into an aperture 20 in the handle member 12.

The handle member 12 at its juncture with the casing 10 is formed with a transverse recess 21 to receive a plate 22, the plate having an elongated central aperture 23 through which the notch member 18—19 passes, the notches thus being engaged one at a time by the rib portion 24 of the member 21. The member 21 is formed with a pin 25 engaging in one end of a spring 26, the latter in turn bearing against the inner face of the casing 10 and within a cavity 27 in the handle member. By this simple means it will be obvious that when the spring 26 bears upon the rib portion 24 it will hold the latter in engagement with one of the teeth 19 of the bar 18 and thus lock the bar 18 with its head attached at any desired distance within the casing so as to project the brush elements to any desired extent from the casing 10.

Surrounding the casing intermediate its ends is an annular member 28 slidable over the casing 10 and connected by projections 29—30 with the head 13, the projections extending through vertical slots 31—32. By this simple arrangement it will be obvious that when the bristles or brush elements 17 are to be adjusted relative to the casing 10 the plate 21 is compressed to withdraw the rib 24 from engagement with the teeth of the bar 18 and thus release the sleeve and

permit it to be drawn into or moved outwardly from the tubular member 10, by moving the annular member 28 and thus control the amount of the projection of the brush elements 17.

Much difficulty is experienced in the use of stencil brushes as ordinarily constructed for the reason that the bristle portions project at too great a length from the casing and are too flexible for convenient use. This difficulty is overcome in this device by withdrawing the bristles partly into the casing and any desired length of the bristles may be projected beyond the casing and thus effectually control the flexibility of the brush. As the bristles wear away they may be projected to a greater extent and so on until the bristles are entirely worn away or until the brush becomes so badly worn as to be useless. When this occurs the brush element can be readily detached by moving the head 13 to its outward position to locate the outer face of the head beyond the casing 10 and thus permit the brush element to be moved laterally to release its arm 15 from the keeper 14, and a new brush element inserted in the same manner and the brush element moved into the casing 10 to a sufficient extent to prevent the lateral displacement of the brush element, or to locate the bristles with the requisite amount projecting beyond the casing. By this simple means it will be obvious that the brush elements may be adjusted to any required extent to enable the brush to be adjusted as required and with any degree of stiffness or flexibility.

The improved device is simple in construction, can be inexpensively manufactured, and will be found especially useful in stencil operations, as above noted.

What is claimed, is:—

1. A device of the class described comprising a casing, a head slidable in said casing, a brush, means for detachably coupling said brush to said head, a toothed bar extending from said head, and a spring controlled catch device engaging the teeth of said bar one at a time and operative through the side of the casing whereby the brush may be adjusted to project the brush elements at any desired distance beyond the casing.

2. A device of the class described comprising a casing, a head slidable in said casing, a brush, means for detachably coupling said brush to said head, means for supporting said head at any required point in said casing, and a catch device engaging said supporting means.

3. A device of the class described comprising a casing having longitudinal slots, a head slidable in said casing, an annular

member bearing over said casing and coupled to said head through said slots, a brush, means for detachably coupling said brush to said head, means for supporting said head at any required point in said casing, and a catch device engaging said supporting means.

4. A device of the class described comprising a casing, a head slidable in said casing, a brush, means for detachably coupling said brush to said head, a handle engaging the free end of said casing and provided with an internal bore, a toothed bar extending from said head and projecting into said bore, and a spring controlled catch device operating through said handle and engaging the teeth of said bar one at a time, whereby the brush may be adjusted and locked in any desired position.

5. A device of the class described comprising a casing, a head slidable in said casing, a brush, means for detachably coupling said brush to said head, a handle engaging the free end of said casing and provided with an internal bore, a toothed bar extending from said head and projecting into said bore, a plate slidable transversely through said handle and provided with a transverse aperture through which said toothed bar extends, a spring operating to hold one edge of said aperture in engagement one at a time with the teeth of said bar, and means operative exteriorly of the handle for operating said plate.

6. A device of the class described comprising a casing having longitudinal slots, a head slidable in said casing, an annular member bearing over said casing and coupled to said head through said slots, a brush, means for detachably coupling said brush to said head, a handle engaging the free end of said casing and provided with a longitudinal bore, a toothed bar extending from said head and projecting into said bore, a plate having a transverse aperture and slidably disposed through said handle with the toothed bar extending through the aperture therein, and a spring operating to maintain said plate yieldably in engagement with the teeth of said bar one at a time.

7. A device of the class described comprising a casing having longitudinal slots, a head slidable in said casing, a brush carried by said head, an annular member bearing over said casing and coupled to said head through said slots, means for supporting said head at any required point in said casing, and a catch device engaging said supporting means.

8. A device of the class described comprising a casing having longitudinal slots, a head slidable in said casing, an annular member engaging over said casing and

coupled to said head through said slots, a handle engaging the free end of said casing and provided with a longitudinal bore, a toothed bar extending from said head and into said bore, a plate having an aperture and bearing over said toothed bar and engaging the teeth thereof one at a time, and a spring engaging said plate.

In testimony whereof, we affix our signatures, in presence of two witnesses.

ALBERT L. NICKERSON.
HAROLD HUGHES.

Witnesses:

C. C. KING,
M. D. MURPHY.

It is hereby certified that in Letters Patent No. 914,970, granted March 9, 1909, upon the application of Albert L. Nickerson and Harold Hughes, of Campello, Massachusetts, for an improvement in "Stencil-Brushes," errors appear in the printed specification requiring correction, as follows: In line 3, page 1, the words "a subject of the King of Great Britain," should be stricken out and inserted before the word "both," line 5, and in lines 4 and 5, same page, the words "a citizen of the United States," should be stricken out and inserted before the word "and," line 4; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 4th day of May, A. D., 1909.

[SEAL.]

C. C. BILLINGS,
Acting Commissioner of Patents.