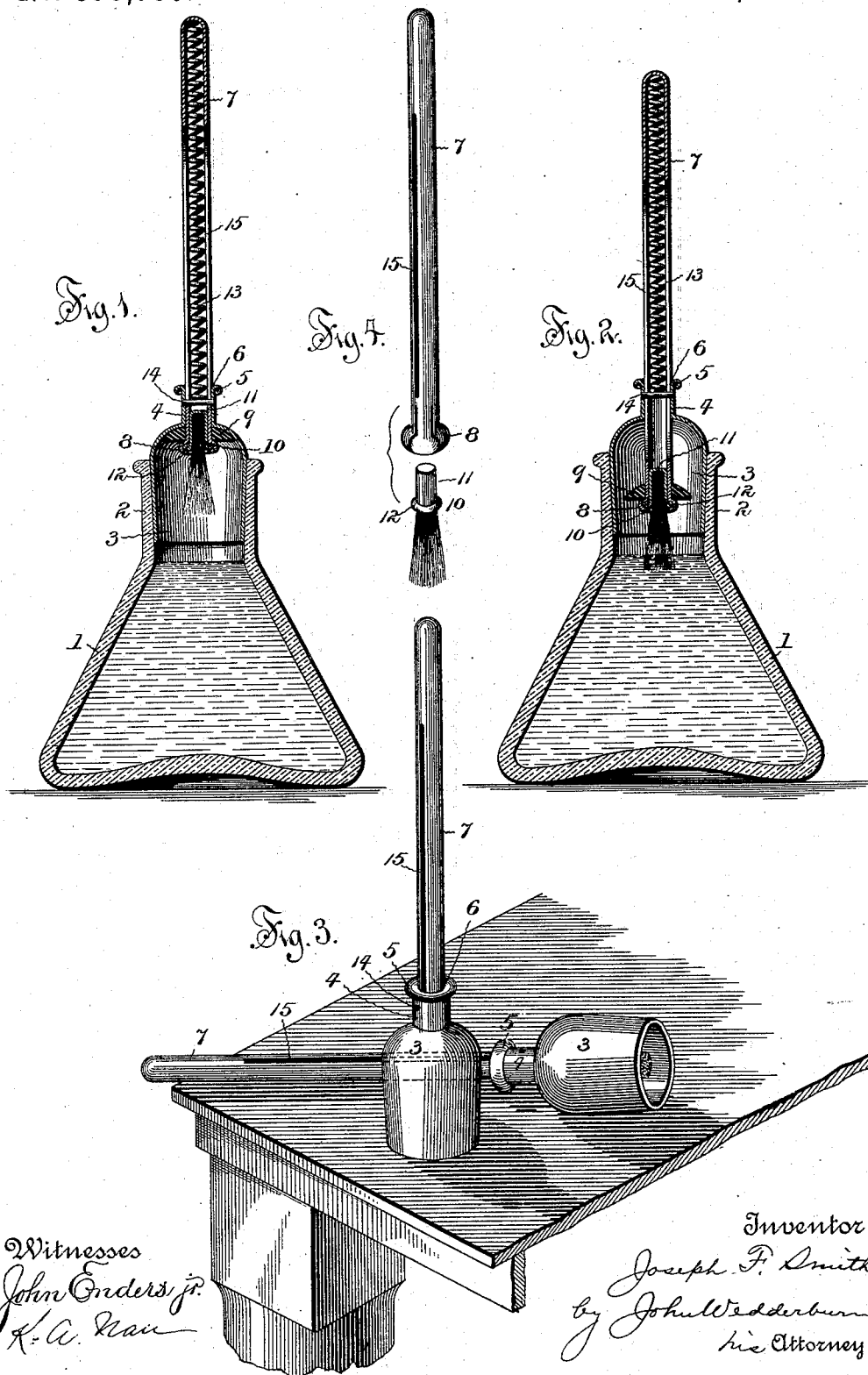


(No Model.)

J. F. SMITH.
MUCILAGE BRUSH.

No. 578,780.

Patented Mar. 16, 1897.



UNITED STATES PATENT OFFICE.

JOSEPH F. SMITH, OF ANACOSTIA, DISTRICT OF COLUMBIA.

MUCILAGE-BRUSH.

SPECIFICATION forming part of Letters Patent No. 578,780, dated March 16, 1897.

Application filed June 1, 1893. Serial No. 593,827. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. SMITH, a citizen of the United States, residing at Anacostia, in the District of Columbia, have invented certain new and useful Improvements in Mucilage-Brushes; and I 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.

My invention relates to improvements in stoppers and brushes for mucilage-bottles, the object of the same being to provide a stopper which will prevent the gumming and smearing of the mucilage around the edges thereof, the drying up of the mucilage contained in the bottle, and which will permit the removal of the brush and the resting of the same upon a book or table without allowing the mucilage from the brush to come in contact therewith.

The invention consists of a stopper proper made of sheet metal, tubular in form, with a contracted neck at the upper end thereof, a brush-handle fitting the opening in said neck, a spring for normally holding said handle in its raised position, engaging a pin projecting through said neck and an elongated slot in said handle, a brush detachably connected to the lower end of said handle, and a washer for completing the closure of the opening through said neck.

The invention also consists in other details of construction and combinations of parts which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 represents a vertical sectional view through a mucilage-bottle with my stopper applied thereto. Fig. 2 is a similar view showing the brush-handle in its depressed position. Fig. 3 is a detail perspective view of the stopper and brush-handle, showing the same resting upon a table or other support. Fig. 4 is a detail perspective view of the brush-handle with the brush shown detached therefrom.

Like reference-numerals indicate like parts in the different views.

The mucilage-bottle 1 is of the usual form of construction, provided with a neck 2, as clearly shown, within which my improved

stopper is adapted to fit. The stopper 3 is cylindrical in form, being provided with a contracted neck 4, with the metal at the upper end of said neck bent outwardly, as shown at 5, to form a handle or gripping device, the purpose of which will hereinafter appear. Fitting through the opening 6 in the neck 4 is the brush-handle 7, which is tubular in form and has its upper end closed. The lower end of said handle is crimped, as shown at 8, forming an annular shoulder upon the outside thereof and a groove upon the inside. Surrounding said tubular handle 7 and resting upon the shoulder 8 is a rubber washer 9, whose upper surface is shaped to conform to the inner surface of the upper end of the stopper 3. Fitting within the lower end of the tubular handle 7 is the brush 10, the hairs of which are glued or otherwise secured in a cap 11, formed with an annular shoulder 12, as clearly shown. The said shoulder 12 fits within the groove 8 on the inside of the handle 7 for holding said brush securely in place and permitting the same to be readily detached when desired.

Fitting within the inside of the tubular handle 7 is a coil-spring 13, which bears at its upper end upon the top of said tubular handle and is engaged at its lower end by a laterally-extending pin 14, which passes through the neck 4 of the stopper 3 and through an elongated slot 15 in the two sides of the tubular handle 7.

In assembling the parts of my device the washer 9 is first inserted over the upper end of the tubular handle 7 until it is down in engagement with the shoulder 8 upon said handle. The upper end of said handle is then inserted from the under side through the opening in the neck 4, the spring 13 inserted upon the inside of the tube 7, and the pin 14 passed through the neck 4 and the slot 15 in the handle 7, the same being located upon the under side of the spring 13. Finally, the brush is inserted into the lower end of the handle 7. When thus in place, the stopper 3 may be inserted within the neck 2 of the bottle 1 and a complete closure thereof is effected, preventing the drying and hardening of the mucilage contained therein. Preferably the stopper 3 is tapered from its upper end downwardly, so as to prevent the

same from being inserted too far in the neck of the bottle.

When it is desired to use the brush, the upper end of the handle 7 is depressed against the action of the spring 13 until the brush 10 is inserted into the mucilage. The finger is then released from the handle, permitting the latter to fly back into its normal position, as shown in Fig. 1. The stopper 3 may now be removed from the neck of the bottle without danger of any mucilage coming in contact with said neck, and the brush and stopper may be rested horizontally on a table without danger of the mucilage from the brush coming in contact with the table and gumming it. When it is desired to apply the mucilage to any article, the stopper is gripped by the handles 5 and the brush thrown outwardly by forcing in the upper end of the handle 7.

While I have described my invention as being particularly applicable for use upon mucilage-bottles, it is obvious that it may be used upon any bottles which contain liquid which is to be applied by a brush.

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

1. The combination with a bottle, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form and having a contracted neck at the upper end thereof, a handle or gripping device on said neck, a vertically-reciprocable tubular handle carrying a brush at its lower end, fitting within the opening in said neck and having an elongated slot in each side thereof, a pin passing through the neck of said stopper and the elongated slots in said handle, a coil-spring fitting within said handle, engaging the upper end thereof and bearing against said pin and a stop on the lower end of said handle for limiting the upward movement thereof, substantially as and for the purpose described.

2. The combination with a bottle, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form and having a contracted neck at the upper end thereof, a handle or gripping device on the upper end of said neck, a vertically-

reciprocable tubular handle carrying a brush at its lower end, fitting within the opening in said neck and having an elongated slot in each side thereof and crimped at its lower end forming an annular shoulder upon its outer side and a groove upon its inner side, a brush adapted to fit within the lower end of said tubular handle and be held in place by the engagement of the shoulder upon its casing with the groove on the inner surface of said handle, a pin passing through the neck of said stopper and the elongated slots in said handle, a coil-spring fitting within said handle, engaging the upper end thereof and bearing against said pin and a washer secured to the lower end of said handle, adapted to engage the inner surface of said stopper adjacent to the neck thereof to limit the upward movement of said handle and to complete the closure of the opening through said neck.

3. The combination with a bottle for containing mucilage, of a stopper therefor adapted to fit within the neck of said bottle, the said stopper being tubular in form, with a contracted neck having an annular flange or shoulder at the upper end thereof, a vertically-reciprocable tubular handle fitting the opening in said neck, having an elongated slot in each side thereof and crimped at its lower end, forming an annular shoulder upon its outer side and a groove upon its inner side, a brush adapted to fit within the lower end of said tubular handle and be held in place by the engagement of a shoulder upon its casing with the groove on the inner surface of said handle, a washer surrounding said handle and resting upon the shoulder at the lower end of said handle, a pin passing through said neck and the elongated slots in said handle and a spring fitting within said tubular handle, engaging the upper end thereof and bearing against said pin, substantially as and for the purpose described.

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

JOSEPH F. SMITH.

Witnesses:

LOUIS G. RANDALL,
ALLEN W. MALLERY.