

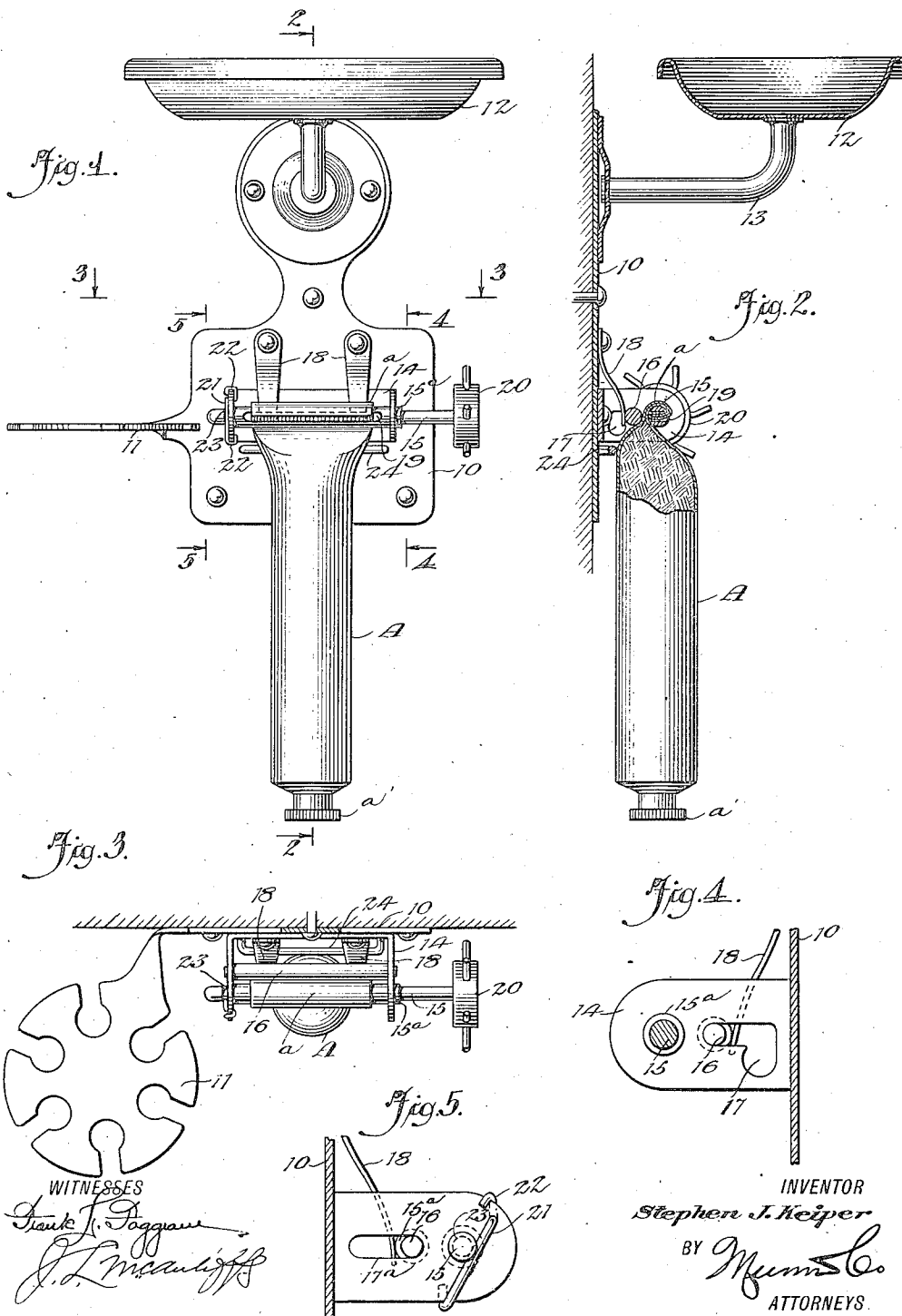
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TUBE SQUEEZER

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UNITED STATES PATENT OFFICE.

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TUBE SQUEEZER.

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To all whom it may concern:

Be it known that I, STEPHEN J. KEIPER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and improved Tube Squeezer, of which the following is a description.

My invention relates to a squeezing device for collapsible tubes and is more especially intended for squeezing tubes containing toothpaste.

The general object of my invention is to provide a squeezer in a form to be secured to a wall or like support in a bathroom for example and having a novel arrangement of squeezing rollers and appurtenances designed to effect the efficient squeezing of the tube to cause the desired quantity of the paste or the like to exude therefrom and so constructed and arranged as to permit of readily dismembering the squeezer for the thorough cleaning of the parts.

The nature of the invention and its distinctive features and advantages will clearly appear as the description proceeds.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of one example of the invention.

Figure 1 is a front view of a tube squeezer embodying my invention;

Figure 2 is a transverse vertical section as indicated by the line 2—2, Figure 1;

Figure 3 is a horizontal section on the line 3—3, Figure 1; and

Figures 4 and 5 are transverse vertical sections respectively on the lines 4—4 and 5—5, Figure 1.

In carrying out my invention in accordance with the illustrated example a back plate 10 is provided, here shown as provided at a side thereof with a brush holding plate 11 having radial recesses to receive individual brushes and provided at the top with a soap dish 12 on the bracket arm 13, but said brush holder and soap dish form no part of the present invention.

On the front of the back plate 10 is a U-shaped bracket 14, the forwardly extending flanges or side arms of which turnably support rollers 15, 16. The roller 16 is supported at one end in an L-shaped slot 17 en-

larged in the L-arm thereof for the ready removal of the roller, the opposite end of the roller 16 being supported in a horizontal slot 17^a. The roller 16 is yieldingly pressed toward the roller 15 by a pair of plate springs 18 secured at the upper ends to the back plate 10 and lying between said roller 16 and said back plate.

The roller 15 is enlarged at its central portion as at 15^a and said enlarged portion between the side arms of the bracket 14 has a longitudinal through-slot 19 through which the flat closed end *a* of the tube A may be passed for the winding of the tube onto the roller 15 when the latter is turned. The springs 18 press the roller 16 sufficiently close to the roller 15 to exert a squeezing action on the tube. On one end of the roller 15 is a suitable means for convenience in turning the roller, there being shown for the purpose a small hand wheel 20. At the opposite end of the roller 15 I provide spring means to retain the roller against axial displacement while permitting the ready removal of the roller when desired for thorough cleaning of the squeezer. The spring, designated 21, in the illustrated example, consists of a length of wire passed at one end through the adjacent flange of the bracket 14 and turned over the same as at 22 to retain the spring firmly on the bracket. The other end of the spring is bent to U-form to embrace the edge of the bracket flange. The tendency of the spring is to engage in an annular groove 23 in the roller 15 for locking the roller in place. Said spring 21 readily yields to a slight force to remove it from the groove 21 whereupon the roller may be withdrawn from the bracket 14.

Beneath the bracket 14 is a bar 24 offset from the back plate 10 so that the major portion of the bar lies in front of said back plate and in a vertical plane to resist the swinging backward of the tube A under the action of the rollers to thereby prevent the neck of the tube from contacting with the wall when the tube cap *a'* is removed.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the exact details herein illustrated, since, manifestly, the

same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I
5 claim:

1. A tube squeezer including a pair of rollers, supporting means therefor presenting side arms, said means having slots for the ends of one of the rollers, one of said
10 slots being L-shaped and enlarged at the L-arm thereof and through which one of the rollers may be axially removed, and the other slot being of straight form.

2. A tube squeezer including a pair of
15 rollers, supporting means therefor presenting side arms, said means having slots for the ends of one of the rollers, one of said slots being L-shaped and enlarged at the L-arm thereof and through which one of
20 the rollers may be axially removed, and the

other slot being of straight form; together with spring means secured to said supporting means above said side arms to press said last-mentioned roller toward the companion roller of the pair.

3. A tube squeezer including a spring-pressed roller, a coaxing roller having a longitudinal slot adapted to receive the flattened end of a collapsible tube, a bracket in which said rollers are turnably mounted
25 30 and axially removable, means on the slotted roller at one end outside of the bracket for turning said roller, the opposite end of said last-mentioned roller having an annular
35 groove outside of the bracket, and a spring adapted to engage in said groove for preventing accidental axial displacement of the roller.

STEPHEN J. KEIPER.