

No. 798,409.

PATENTED AUG. 29, 1905.

J. HERCZEG.
DEVICE FOR CLEANING TUBULAR BODIES.
APPLICATION FILED JUNE 9, 1904.

Fig. 1

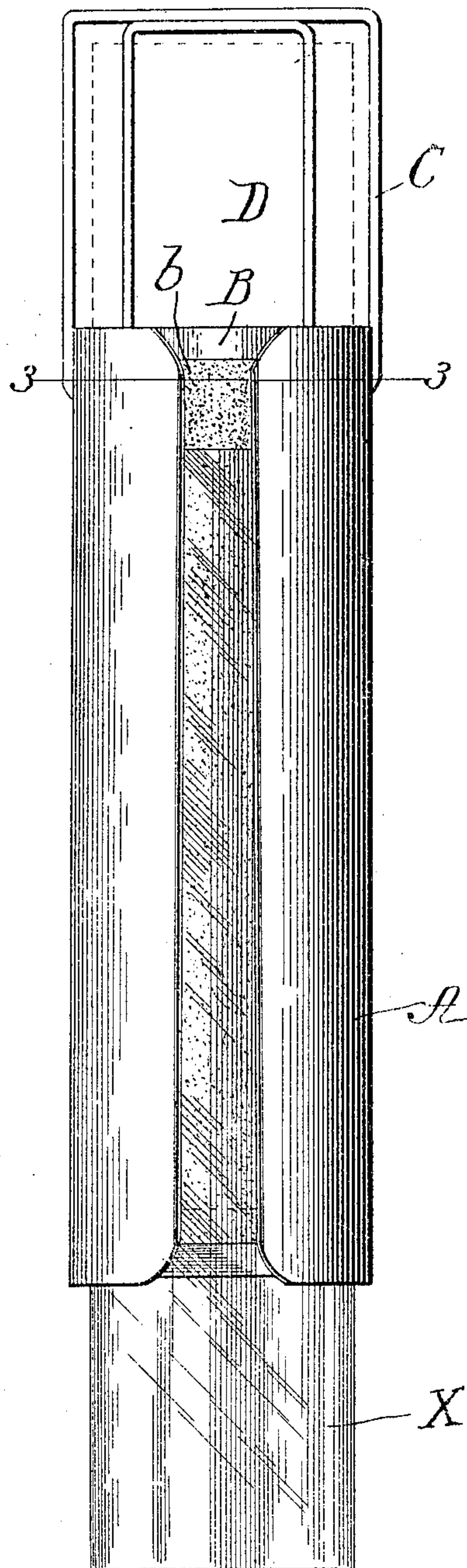


Fig. 2

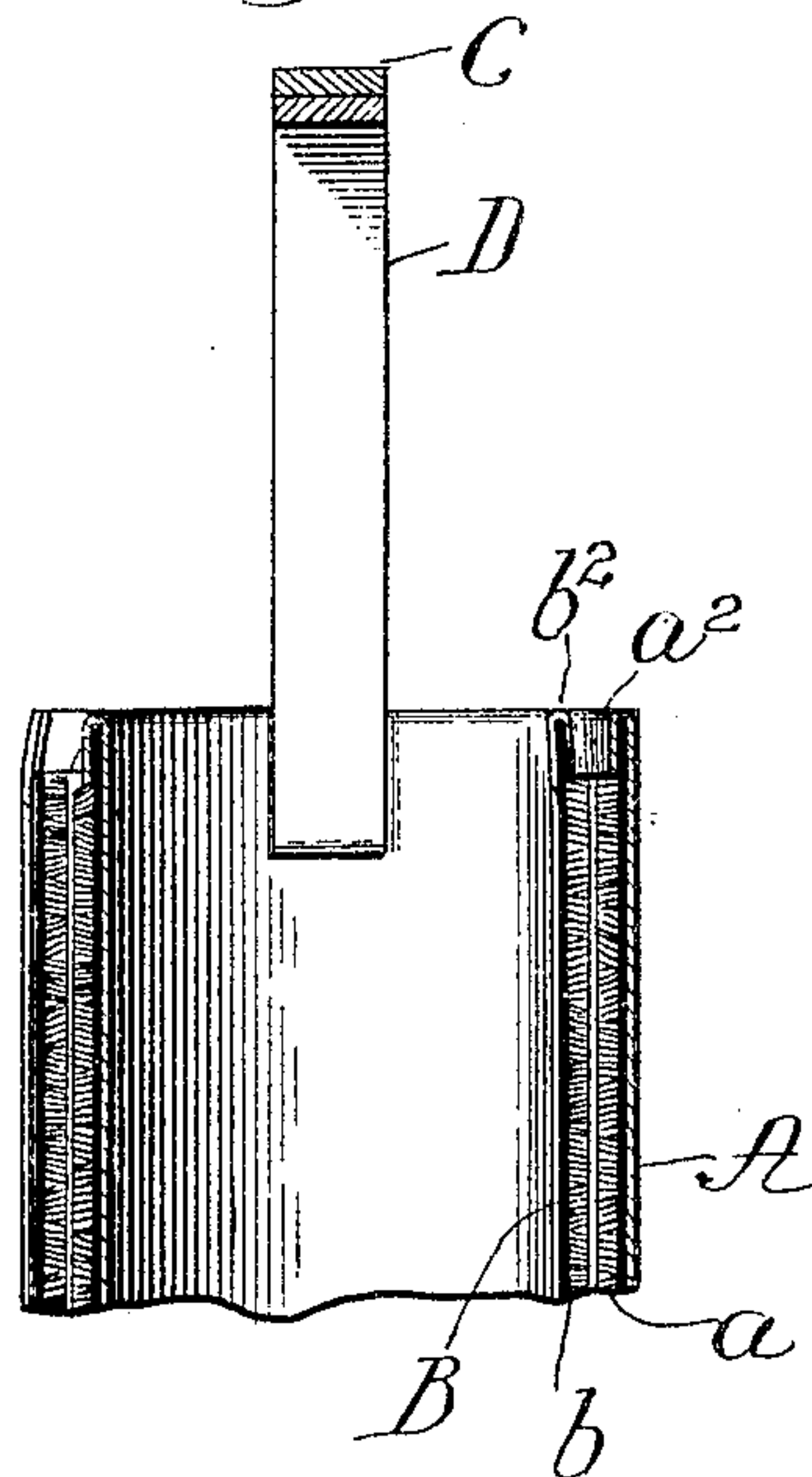
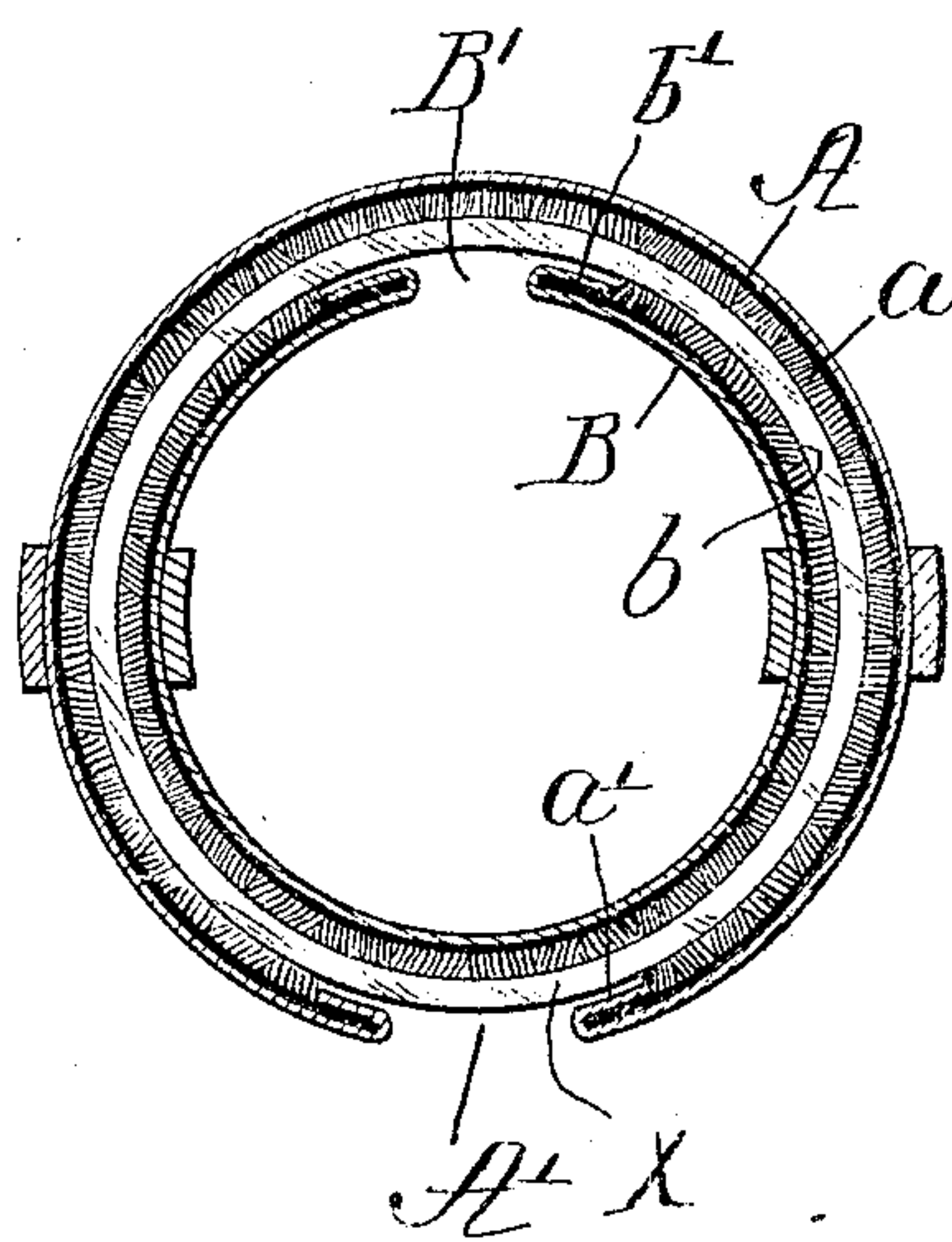


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

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DEVICE FOR CLEANING TUBULAR BODIES.

No. 793,409.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed June 9, 1904. Serial No. 211,870.

To all whom it may concern:

Be it known that I, JOSEPH HERCZEG, a citizen of the Empire of Austria-Hungary, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Devices for Cleaning Tubular Bodies; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a novel device for cleaning cylindric lamp-chimneys or other cylindric open-ended tubes, and is constructed to clean both the inner and outer surfaces at the same time.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

The device embodying my improvements embraces, in general terms, an inner and an outer tube of substantially equal lengths, the outer one of which is provided on its inner surface with a layer of cleaning material, such as plush or other loose fabric, and the inner one of which is provided on its outer surface with a like layer of cleaning material. The two layers of cleaning material, therefore, face each other and provide between the same an annular space to receive the chimney. Said layers of cleaning material thus arranged and supported are located so close to each other as to have cleaning contact with the inner and outer cylindric surfaces of the chimney at the same time. Preferably said tubes are longitudinally split or divided throughout their length, each tube being thus divided at one side thereof. The tubes thus split or divided are capable of being contracted and expanded to enable the cleaning-layers to be pressed closely against a chimney and also to enable the device to accommodate chimneys varying somewhat in diameter. Any suitable means are employed for connecting the two tubes together in a manner to hold them in their proper relative positions.

As shown in the drawings, Figure 1 is a side elevation of a chimney-cleaning device made in accordance with my invention, showing in full and dotted lines the manner of inserting and manipulating the chimney therein

to clean the same. Fig. 2 is a vertical section of the upper end of the device. Fig. 3 is a transverse section taken on line 3 3 of Fig. 1.

As shown in the drawings, A B designate the outer and inner tubes referred to, which are generally cylindric and which are preferably made of a metal having some resiliency, so as to permit the same to be expanded and contracted while retaining, when free from pressure, their normal dimensions. The outer tube A is provided on its inner surface with a layer *a* of cleaning material, which, as herein shown, is made of plush, but may be made of any other suitable loose fabric or material, while the inner tube B is provided with a like layer of cleaning material *b*, which faces outwardly toward the layer *a*. The said tubes A and B are preferably open at both ends and the chimney X to be cleaned is inserted with its cylindric wall in the annular space between the oppositely-facing cylindric cleaning-layers *a* *b* in the manner clearly indicated in Figs. 1 and 3. Each of said tubes A and B is longitudinally split or slitted at A' B' at one side, and the margins thereof at the sides of the longitudinal slit are separated a distance so that the said tubes may be contracted or the diameters thereof decreased after a chimney has been inserted therein in a manner to press the cleaning-layers closely against the inner and outer surfaces of the chimney. The outer tube is thus contracted or decreased in diameter through pressure applied by one of the hands of the person using the device, the other hand manipulating the chimney, while the inner tube is made of such diameter that the chimney when thrust thereover acts to contract it so that the cleaning-layer thereof is brought into intimate cleaning relation to the inner cylindric surface of the chimney. The tubes, when free from pressure, assume the positions shown in Fig. 3, with the margins at the sides of the longitudinal split separated. The longitudinal slits desirably extend from end to end of the tube. The slits are shown as located an angular distance of one hundred and eighty degrees apart, though such angular relation need not necessarily be preserved.

The cleaning-layers *a* *b* may be attached to the tubes in any convenient manner. As herein shown, they are attached to said tubes

by means of longitudinal folds $a' b'$ at the side margins of the split portions of the tubes which overlap the side margins of the cleaning-layers and other inwardly-folded flanges $a^2 b^2$ at the ends of the tubes which overlap the end margins of said cleaning-layers. The tubes are shown as connected together at one end of the device by means of strips C D of general U form, the strip C being attached at its ends to the outer face of the outer tube, while the strip D is attached at its ends to the inner face of the inner tube. The closed or looped parts of the U-shaped strips C and D are connected together by means of solder or the like.

When a chimney is to be cleaned, the device is grasped by one hand of the user and the chimney by the other hand, and said chimney is inserted into the annular space between the cleaning-layers $a b$ from the end of the device remote from the connecting-strips C and D. The chimney is inserted into the device so far as it may be, while retaining one end thereof in the hand, whereby the chimney may be properly manipulated. Thereafter the pressure is applied to the outer tube to contract the same and press the cleaning-layer thereof closely against the outer cylindrical surface of the chimney, and at the same time the chimney is partially rotated and forced endwise through the annular space between said cleaning-layers. The cleaning-layer of the inner tube is held in cleaning contact with the inner cylindrical surface of the chimney by the resiliency of the inner tube, tending to hold said inner tube open, said inner tube being somewhat contracted by the chimney when the latter is inserted into the device, as before explained. As herein shown, after one end of the chimney has been cleaned when occupying the position shown in full lines in Fig. 1 it may be forced into the position shown in dotted lines in Fig. 1 and the chimney manipulated from the other end, so

as to clean the end which first extended from the device.

The device described is an exceedingly simple and efficient one for cleaning lamp-chimneys of this character. The work of cleaning requires comparatively a short time, and the chimney is held in such position therein as to greatly diminish the liability of dropping and breaking the same.

Certain of the details of the device may obviously be varied without departing from the spirit of my invention, and I do not wish to be limited to such details except as hereinafter made the subject of specific claims.

I claim as my invention—

1. A device for cleaning lamp-chimneys comprising two tubes made of resilient material, one contained within the other, each of said tubes being longitudinally slitted, the inner tube being provided on its outer cylindrical face with a cleaning-layer and the outer tube being provided on its inner cylindrical surface with a similar cleaning-layer.

2. A device for the purpose set forth comprising two tubes made of resilient material, one contained within the other, each of said tubes being longitudinally slitted, the inner cylindrical surface of the outer tube and the outer cylindrical surface of the inner tube being provided with cleaning-layers, between which is adapted to be received a lamp-chimney, and U-shaped strips attached at their ends, each to one of said tubes, said strips being attached to each other at their closed parts.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 4th day of June, A. D. 1904.

JOSEPH HERCZEG.

Witnesses:

TAYLOR E. BROWN,
HERBERT A. PARKYN.