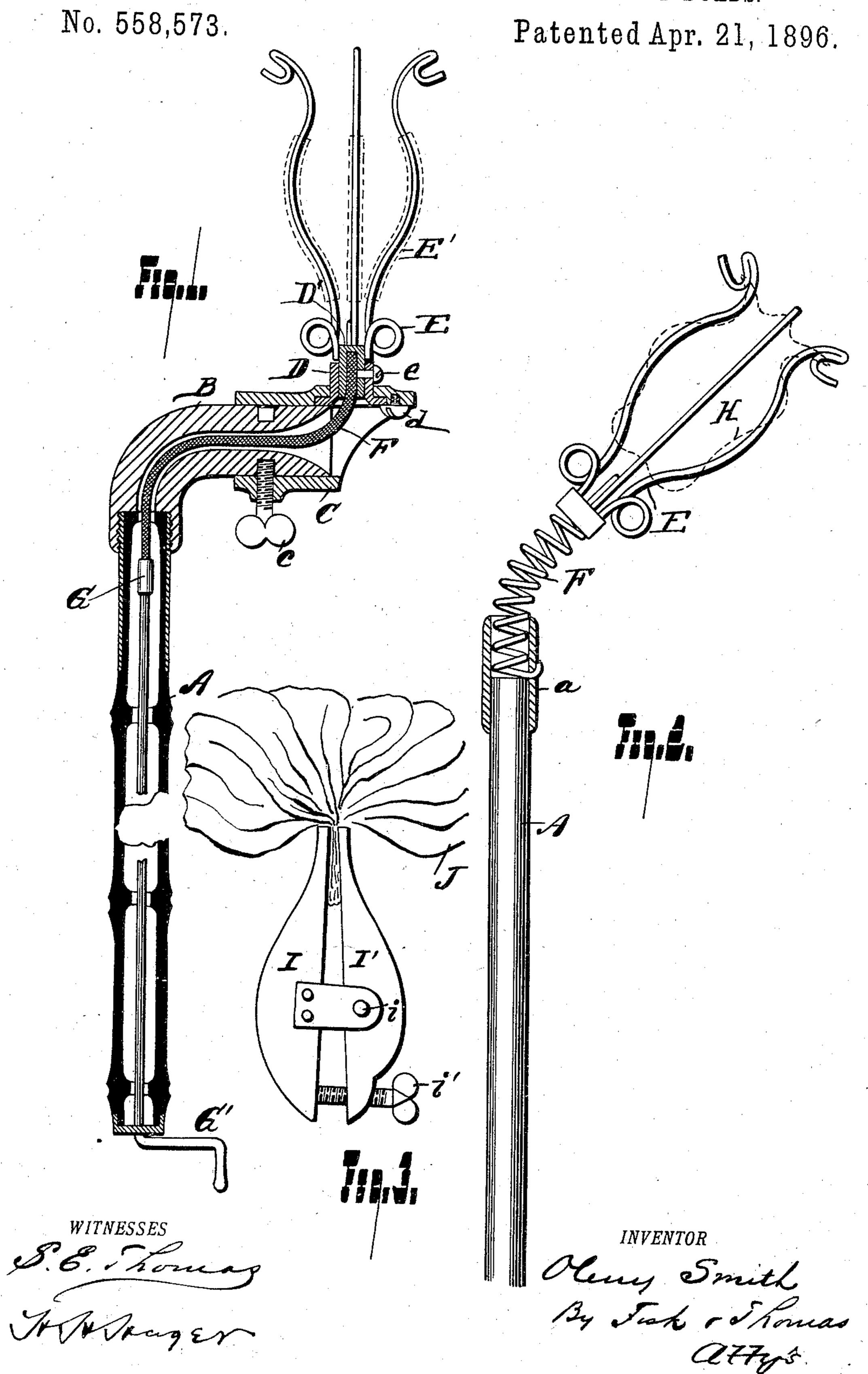
O. SMITH.

APPARATUS FOR DETACHING ELECTRIC LAMP BULBS.



## United States Patent Office.

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## APPARATUS FOR DETACHING ELECTRIC-LAMP BULBS.

SPECIFICATION forming part of Letters Patent No. 558,573, dated April 21, 1896.

Application filed October 7, 1895. Serial No. 564,855. (No model.)

To all whom it may concern:

Be it known that I, OLENY SMITH, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Apparatus for Detaching Electric-Lamp Bulbs; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements for detaching and replacing electric lamps when located near the ceiling or any other place ordinarily inaccessible.

The invention will be readily understood by reference to the accompanying drawings

20 and specification.

In the drawings, Figure 1 is a sectional view of my improved lamp-detacher. Fig. 2 is a variation of the same. Fig. 3 is a detailed view of a clamp for holding the dust-cloth to be used in connection with said detacher.

In the drawings, A represents a handle.
B is a head secured to the handle in any

suitable way.

C is a swivel connection, which may be held in any position by the set-screw c. Mounted in the swivel connection is a collar D. The springs E are secured in any suitable manner to a head-piece D'. This head-piece is held in the collar D by means of the set-screw e, which also serves to secure one end of the flexible shaft F in the head-piece D'. One end of the flexible shaft F is engaged with the rod G. The rod G terminates in a crankarm G'. The collar D is held in place by the screw d.

E'represents rubber tubing slipped over the springs E to afford frictional engagement with the lamp-bulb during the act of removing or

replacing the bulb.

The operation of the device is as follows:
We will suppose the lamp to be removed to be in a vertical position. The operator forces the springs over the lamp-bulb, and by turning the crank-arm G' the springs coming into contact with the lamp-bulb will cause the same to turn by means of the connection through the flexible shaft and rod G. If the

lamp is located in a horizontal plane, or in fact any angle, it is only necessary to adjust the swivel connection C, locating the same in 55 a position to engage the lamp, then lock the same by means of the set-screw c, when the lamp can be readily engaged and the act of detaching and replacing the lamp be carried out. The construction shown in Fig. 2 in- 60 volves the same principle; but in this case the swivel connection is dispensed with. The flexible shaft F in its normal condition is bent at an angle as shown and connected directly with the handle A by means of the fer- 65 rule a or any suitable engagement, the other end of the shaft being connected directly with the springs E for engaging the lamp. If the lamp to be detached is in a vertical position, it can be readily seen that the springs can be 70 forced over the bulb by holding the device at the proper angle, and when once engaged over the bulb the flexible shaft can be forced into line with said handle, and by turning the same the lamp can be detached or replaced. 75 It will be found that the angle shown in the variation referred to will adapt itself to the majority of positions in which electric lamps are located.

I provide a bag H of chamois or other suit- 80 able material, which may be secured in any suitable manner to the springs E, as shown in Fig. 2. It will be found very convenient in wiping or dusting the bulbs by simply slipping the bag over the bulb and rotating the 85 same around the bulb. The lamps can then be quickly and thoroughly cleaned.

Fig. 3 shows a clamp for holding a dustcloth, and consists of the jaws I I', preferably shaped so as to adapt themselves to the con- 90 tour of the springs E. They are pivoted as shown at i, and at one end is located a set-screw i'. J represents the dust-cloth. By placing one end of the dust-cloth J between the jaws I I', then by turning the set-screw i' the jaws can 95 be made to engage the dust-cloth, holding the same securely. It is intended to use this dust-cloth holder in connection with the lampdetacher, and it is engaged by means of the springs, similar to the electric-lamp bulbs. 100 The dust-cloth can thus be used to clean electroliers or other places ordinarily inaccessible. In place of the rubber tubing placed over the springs E, to afford frictional engagement

with the lamp-bulb, a pocket of sheet-rubber or other suitable material may be used without departing from my invention. I prefer, however, to use the tubing shown.

It is understood that I do not limit myself

to the construction herein shown.

What I claim is—

1. In a lamp-detacher, a flexible shaft provided with means for engaging the lamp, and no means for rotating said shaft, substantially as described.

2. In an electric-lamp detacher, a flexible shaft, springs to engage a lamp-bulb, a swivel connection adapted to engage lamps at different angles, and means for rotating said shaft and springs substantially as described.

3. In a lamp-detacher, a flexibe shaft work-

ing in a suitable handle, a swivel connection, suitable means for engaging the lamp and means to rotate the flexible shaft, substan- 20 tially as described.

4. In a lamp-detacher, a flexible shaft, springs to engage a lamp-bulb, said springs covered with rubber or other material adapted to offer frictional engagement with said lamp- 25 bulb, and means for rotating said flexible shaft, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

OLENY SMITH.

Witnesses:

B. D. YORK,

S. E. THOMAS.