

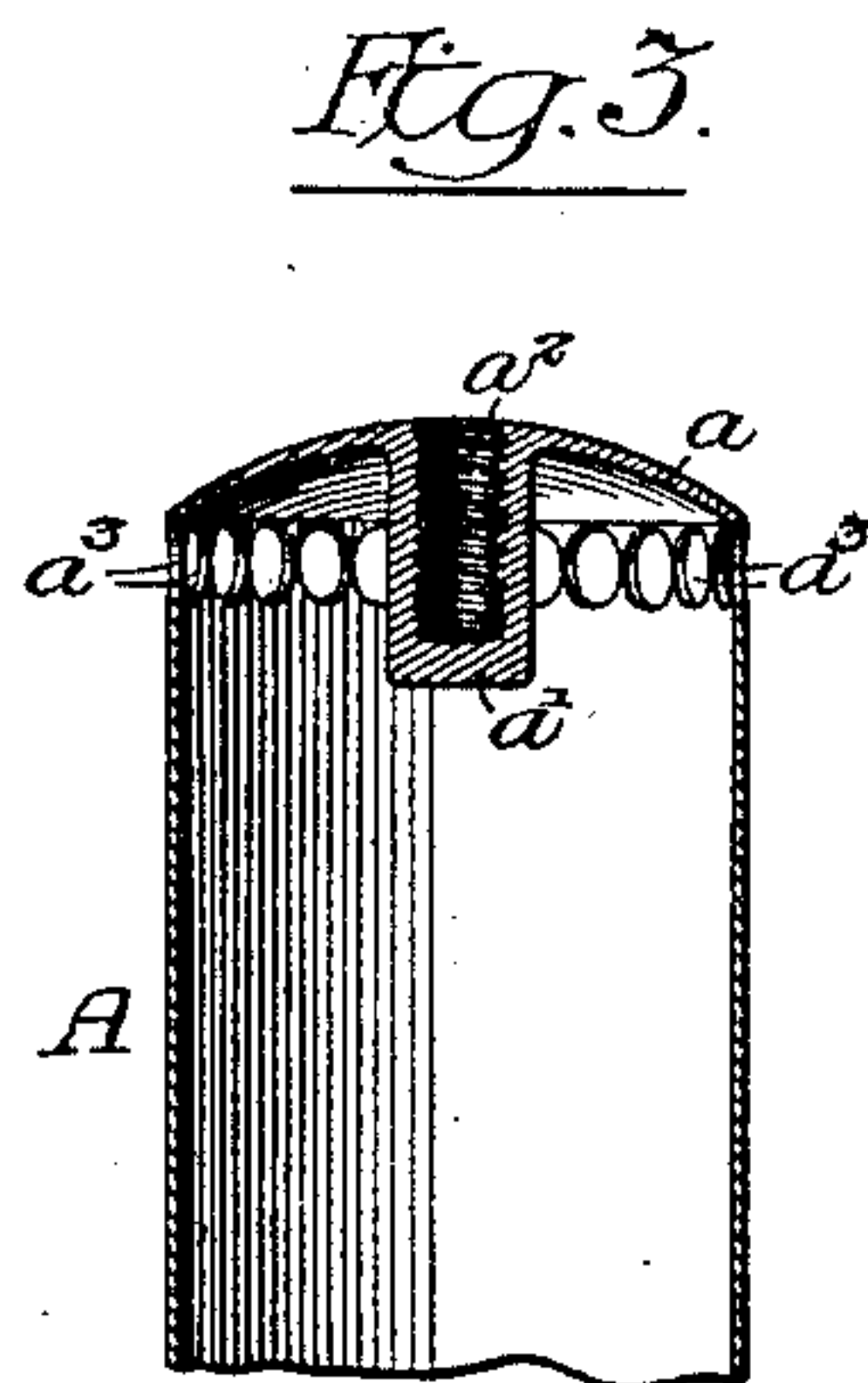
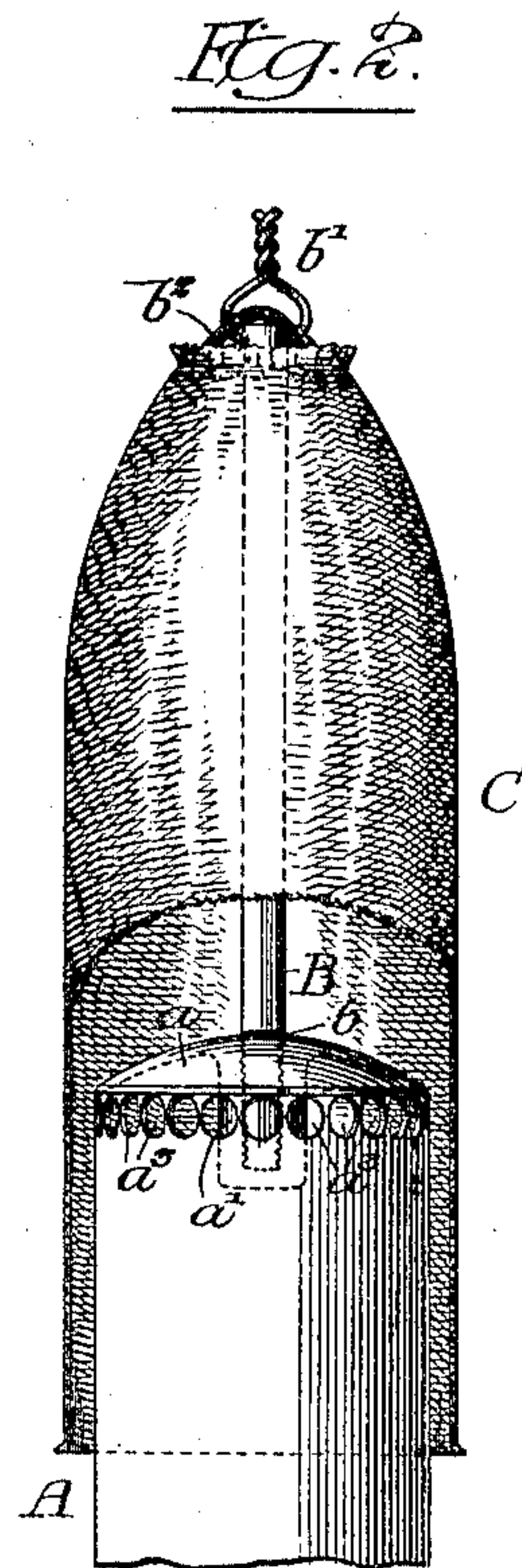
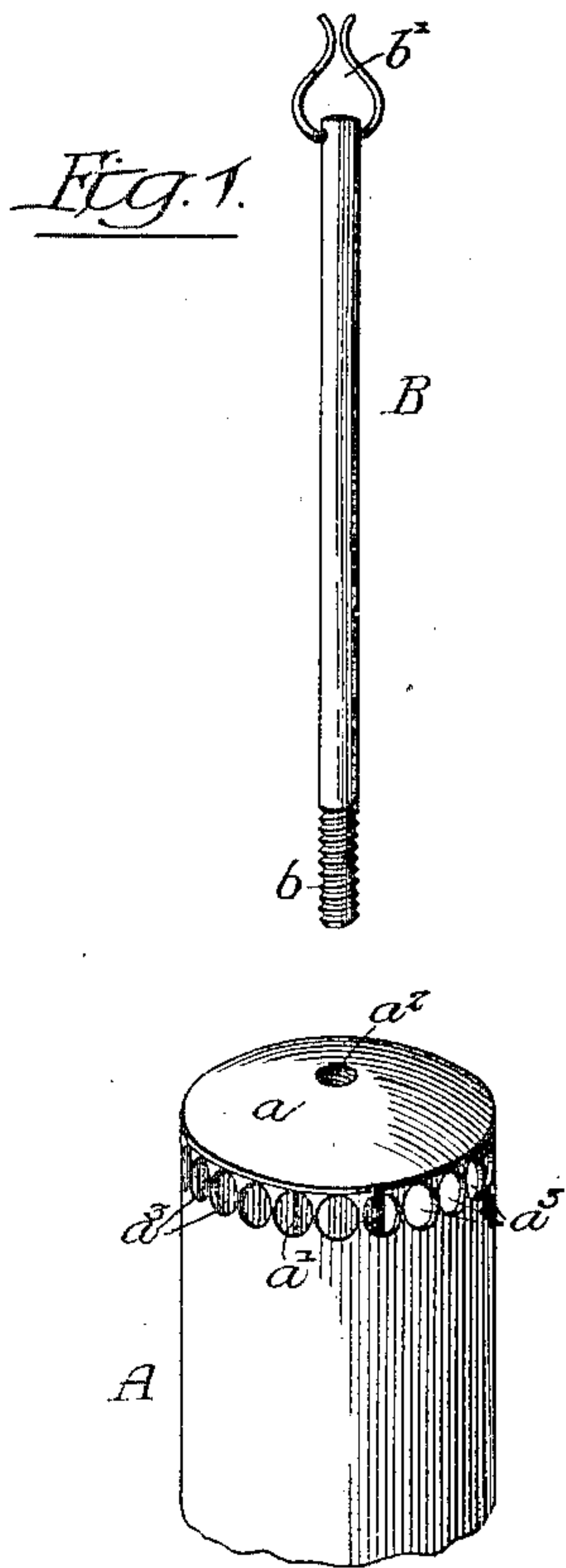
No. 681,590.

Patented Aug. 27, 1901.

W. TICE.  
BURNER FOR INCANDESCENT GAS LAMPS.

(Application filed May 14, 1901.)

(No Model.)



Witnesses:-  
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# UNITED STATES PATENT OFFICE.

WILLIAM TICE, OF PHILADELPHIA, PENNSYLVANIA.

## BURNER FOR INCANDESCENT GAS-LAMPS.

SPECIFICATION forming part of Letters Patent No. 681,590, dated August 27, 1901.

Application filed May 14, 1901. Serial No. 60,226. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM TICE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Burners for Incandescent Gas-Lamps, of which the following is a specification.

My invention relates to certain improvements in burners for incandescent gas-lamps, having for its object the provision of an improved device for supporting the mantle of a lamp in combination with a burner constructed to direct gas to said mantle in the most advantageous manner.

In the accompanying drawings, Figure 1 is a detached perspective view of my improved burner, showing the support for the mantle. Fig. 2 is a side view, partly in section, of my improved burner, showing a mantle in position thereon; and Fig. 3 is a vertical sectional view of the burner, showing its detail construction.

In the drawings, A is a tubular burner having a solid top  $a$ , provided with a depending central portion  $a'$ , in which is a threaded opening  $a^2$ , there being holes  $a^3$   $a^3$  around the upper edge of the burner for the escape of the gas. A rod B is threaded at one end  $b$  and constructed to be screwed into the opening  $a^2$  in the top of the burner, there being a fork  $b'$  at its upper end, made, preferably, of flexible wire.

C is a mantle of the ordinary construction, composed of mineralized fiber and having its upper end drawn together by an asbestos string, there being a loop  $b^2$  of the same extending across the small opening at the top of the mantle. As ordinarily constructed an opening is provided in the top of the burner, and its mantle-supporting rod is held therein by an asbestos packing. After the burner has been in use for some time it has been found that this packing, no matter how made or inserted, will certainly burn out, allowing the supporting central rod to tilt out of the perpendicular, thereby insufficiently and incorrectly holding the mantle and materially shortening the period of its efficient life.

In use the rod B is screwed into the threaded opening in the top of the burner, and a

mantle is carefully lowered over the same until its loop  $b^2$  rests in the wire fork  $b'$ , when the ends of said fork are twisted, as shown in Fig. 2, to retain the same in position. The object of thus twisting the wires of the fork is to prevent the reuse of the rod  $b$  for another mantle when the one originally supplied therewith becomes broken or worn out. The wires of the fork  $b'$  are preferably composed of a metal which is structurally changed by the prolonged heat from the incandescent mantle, the said change rendering the wires brittle and making it practically impossible to successfully untwist them. I have found by experience that iron answers the above requirements, for after but a comparatively short exposure to the heat of a lamp the wires become oxidized to such an extent that they cannot be untwisted without breaking. I sometimes employ copper solder to hold together the ends of the fork, this substance having been found to effectually resist even the action of prolonged heat, while at the same time preventing the successful separation of the wires should it be attempted to replace the original mantle by another. When gas is supplied to the burner and ignited, it issues from the holes  $a^3$  and the flames strike the inside of the mantle, rendering it incandescent in the well-known way.

I claim as my invention—

1. The combination of a tubular burner, a recess in the top thereof, a rod detachably held in said recess, a flexible part at the upper end of said rod constructed to receive and retain the supporting-string of a mantle, the said part being constructed so as to be closed upon said string and made of a material which is deteriorated by the heat to which it is subjected, thereby preventing a second mantle being used with the rod, substantially as described.

2. The combination of a mantle having a non-combustible string across its top, a tubular burner having a top, a recess in said top and a rod detachably secured therein, the same extending through the mantle, a flexible fork at the upper end of the rod adapted to receive the supporting-string of said mantle, the ends of said fork being constructed

to be twisted together after the insertion of  
said string, said ends being of a material de-  
teriorated by the heat to which they are sub-  
jected, thereby preventing the use of another  
5 mantle after the first has been destroyed, sub-  
stantially as described.

In testimony whereof I have signed my

name to this specification in the presence of  
two subscribing witnesses.

WILLIAM TICE.

Witnesses:

WILLIAM E. BRADLEY,  
JOS. H. KLEIN.