

No. 703,346.

Patented June 24, 1902.

T. LIVINGOOD.  
COMBINED SPIGOT AND BUNG REMOVER.

(Application filed Dec. 19, 1901.)

(No Model.)

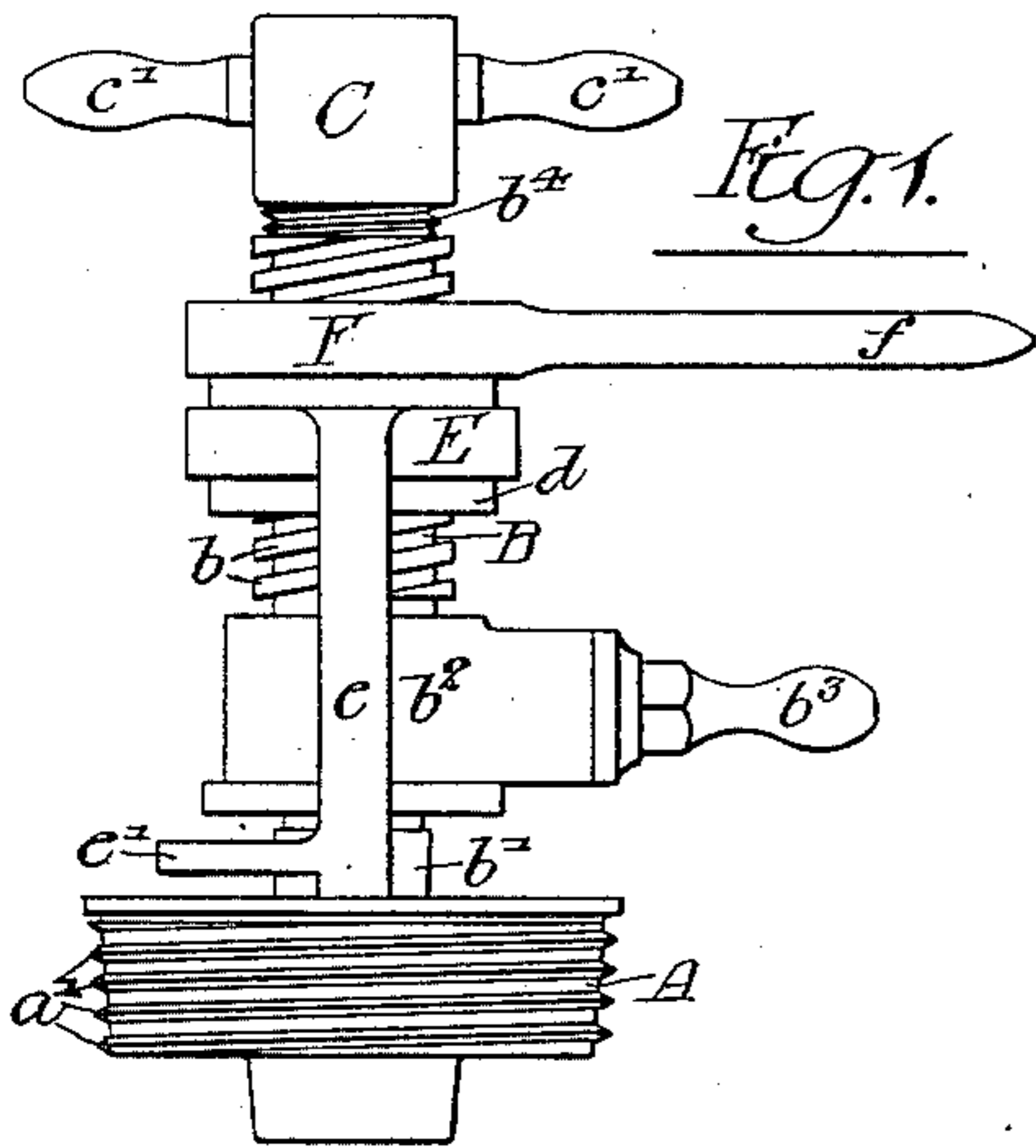


Fig. 1.

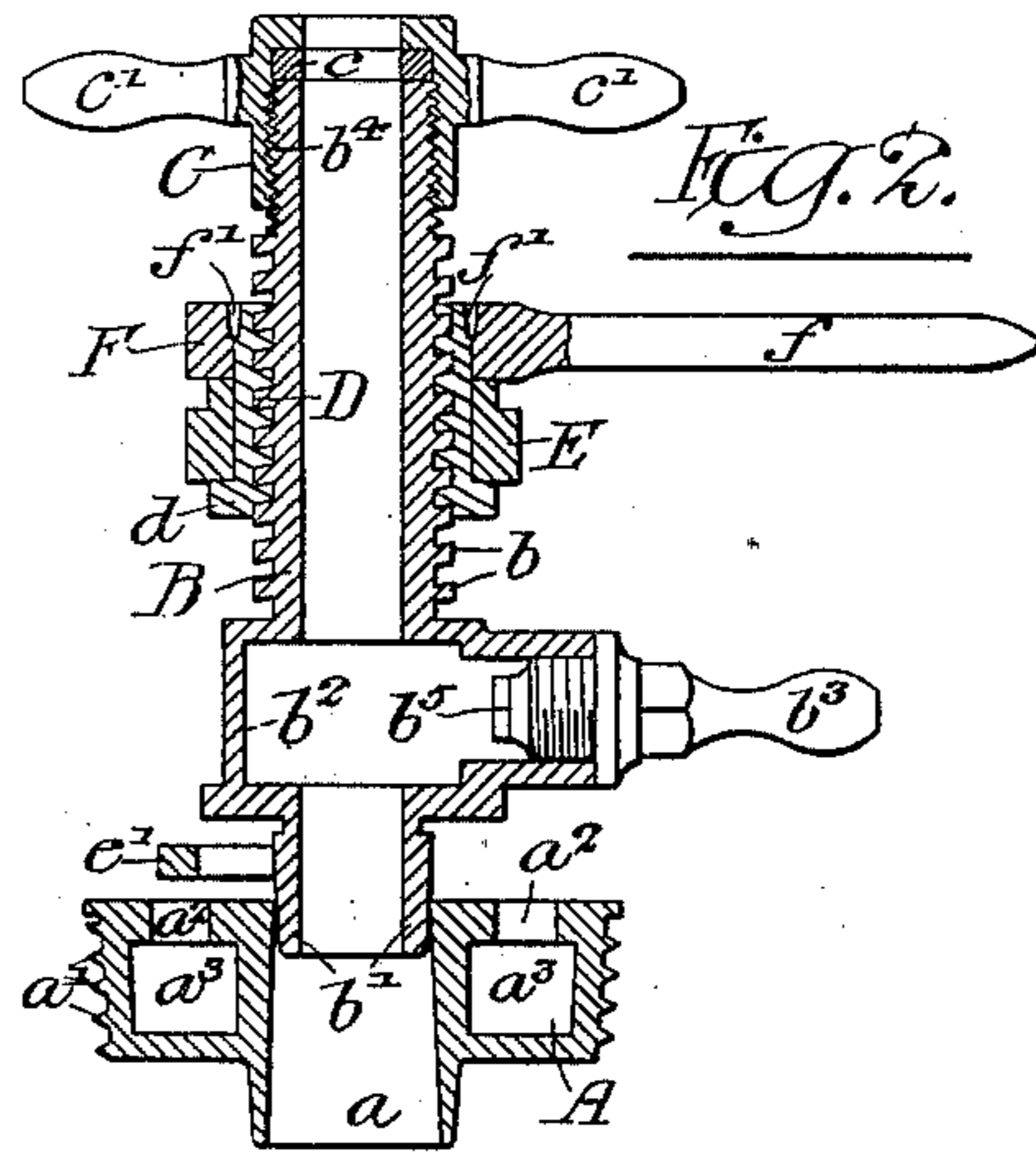


Fig. 2.

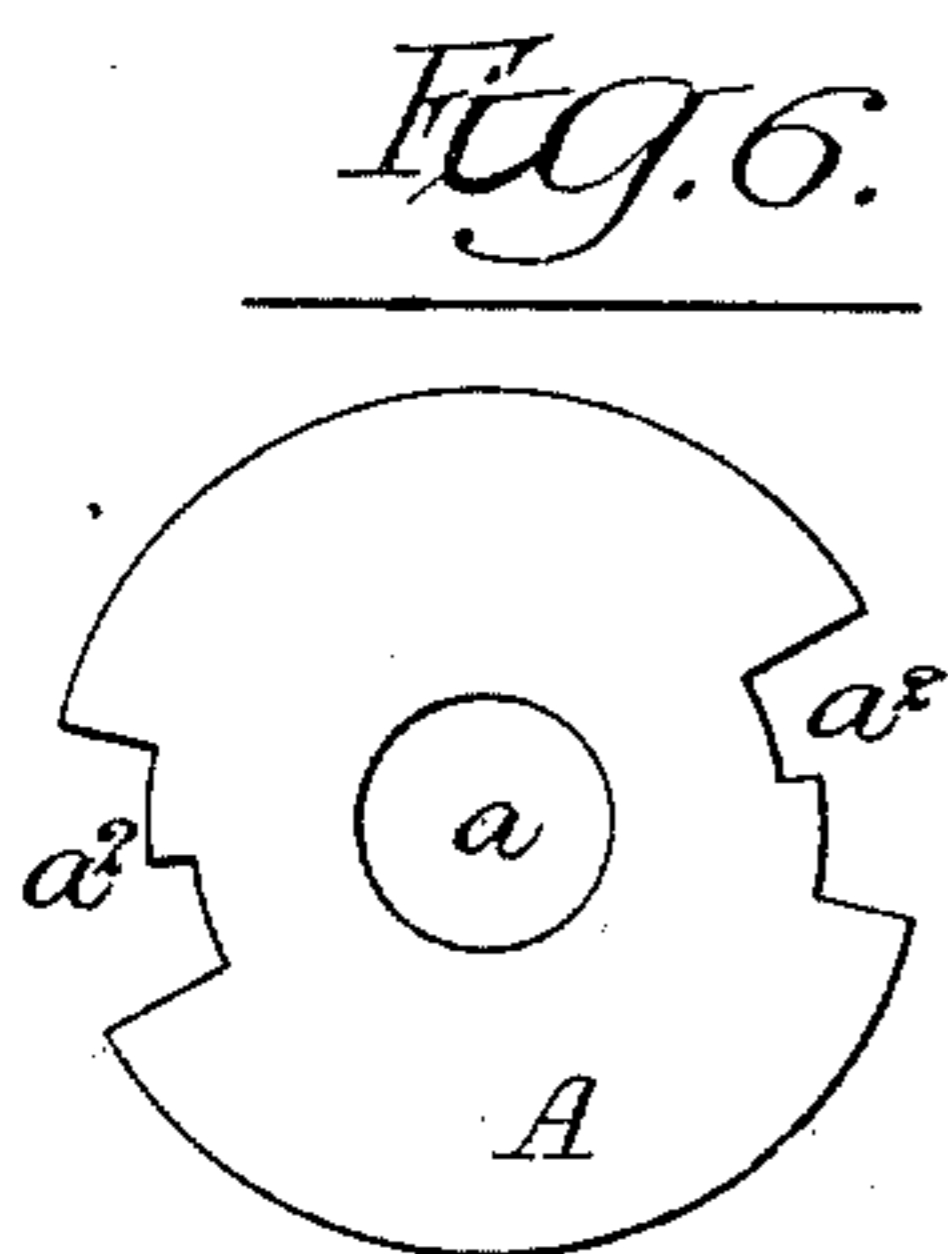


Fig. 6.

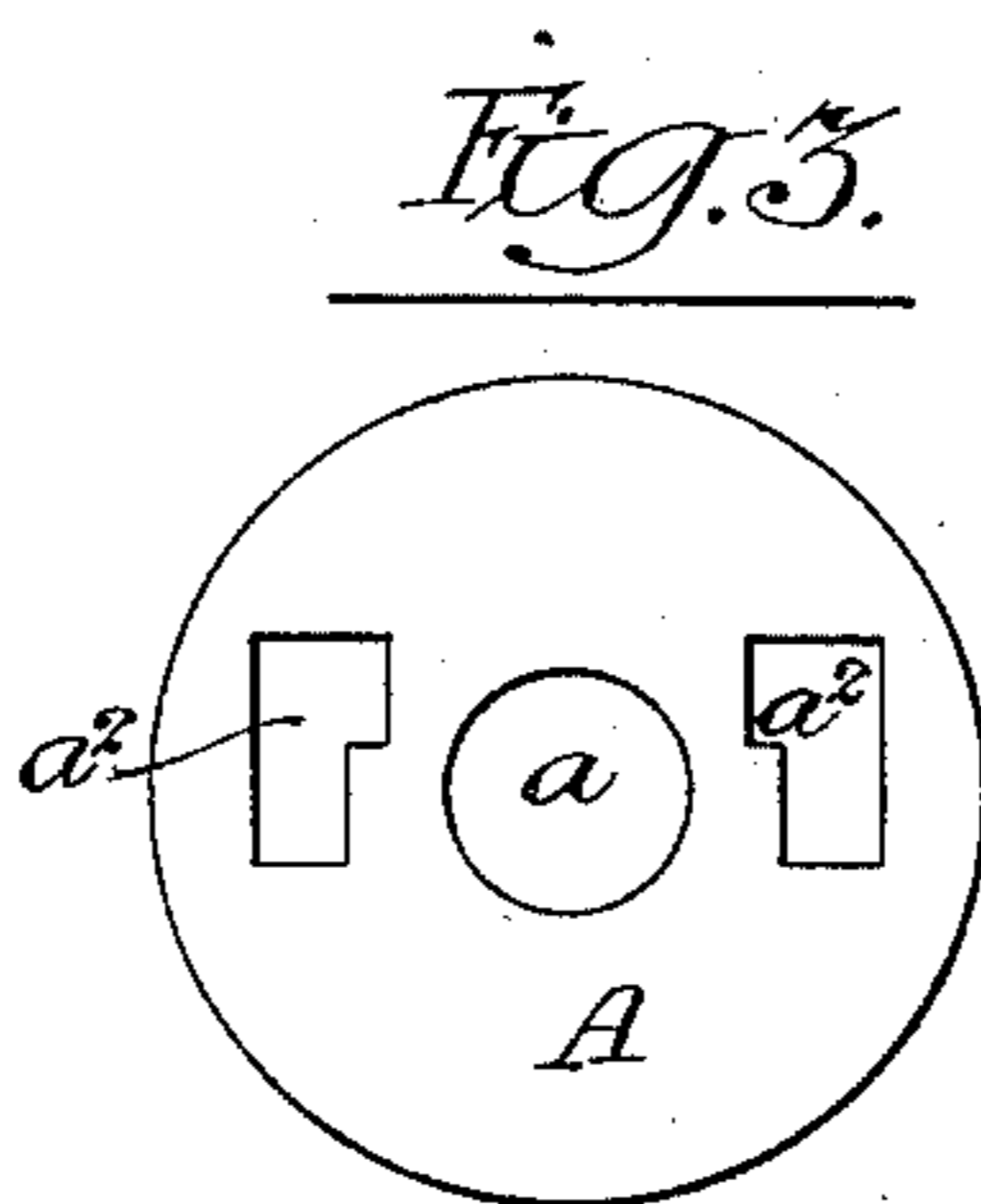


Fig. 5.

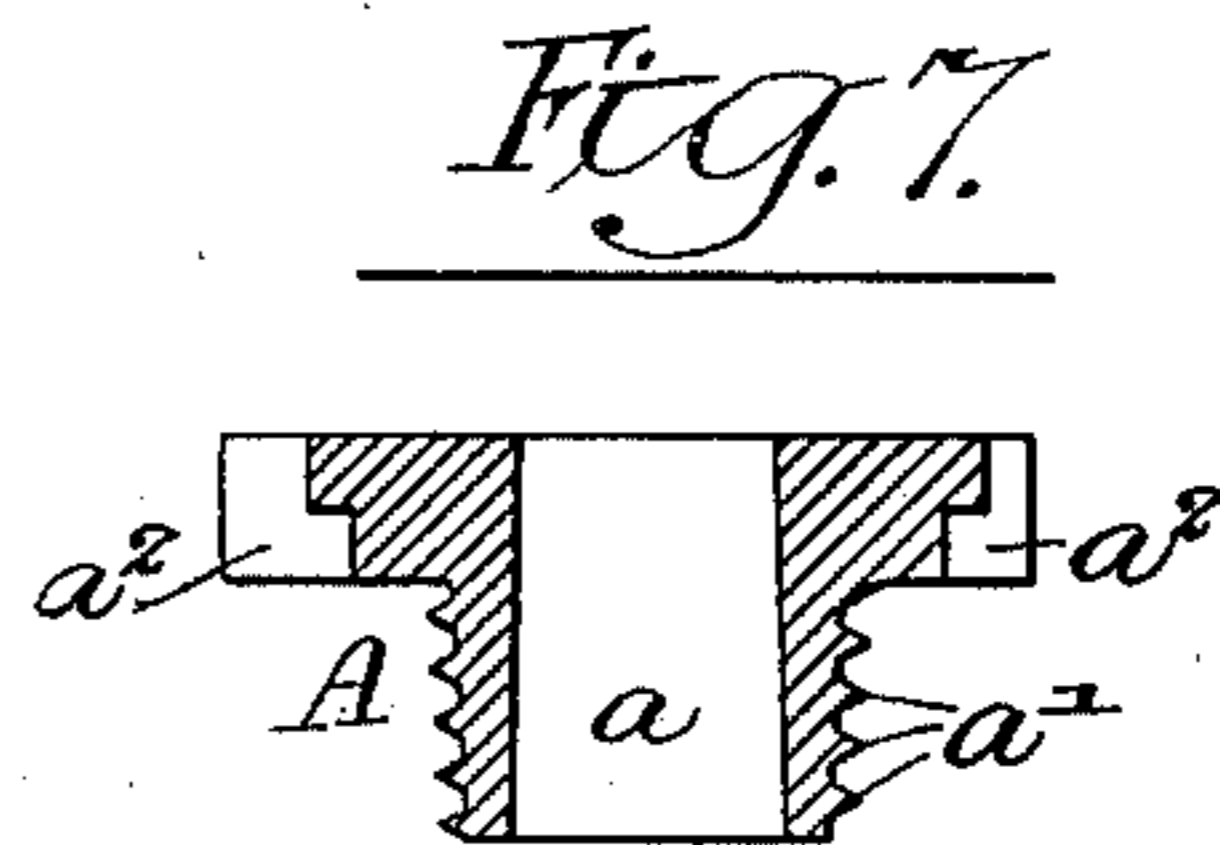


Fig. 7.

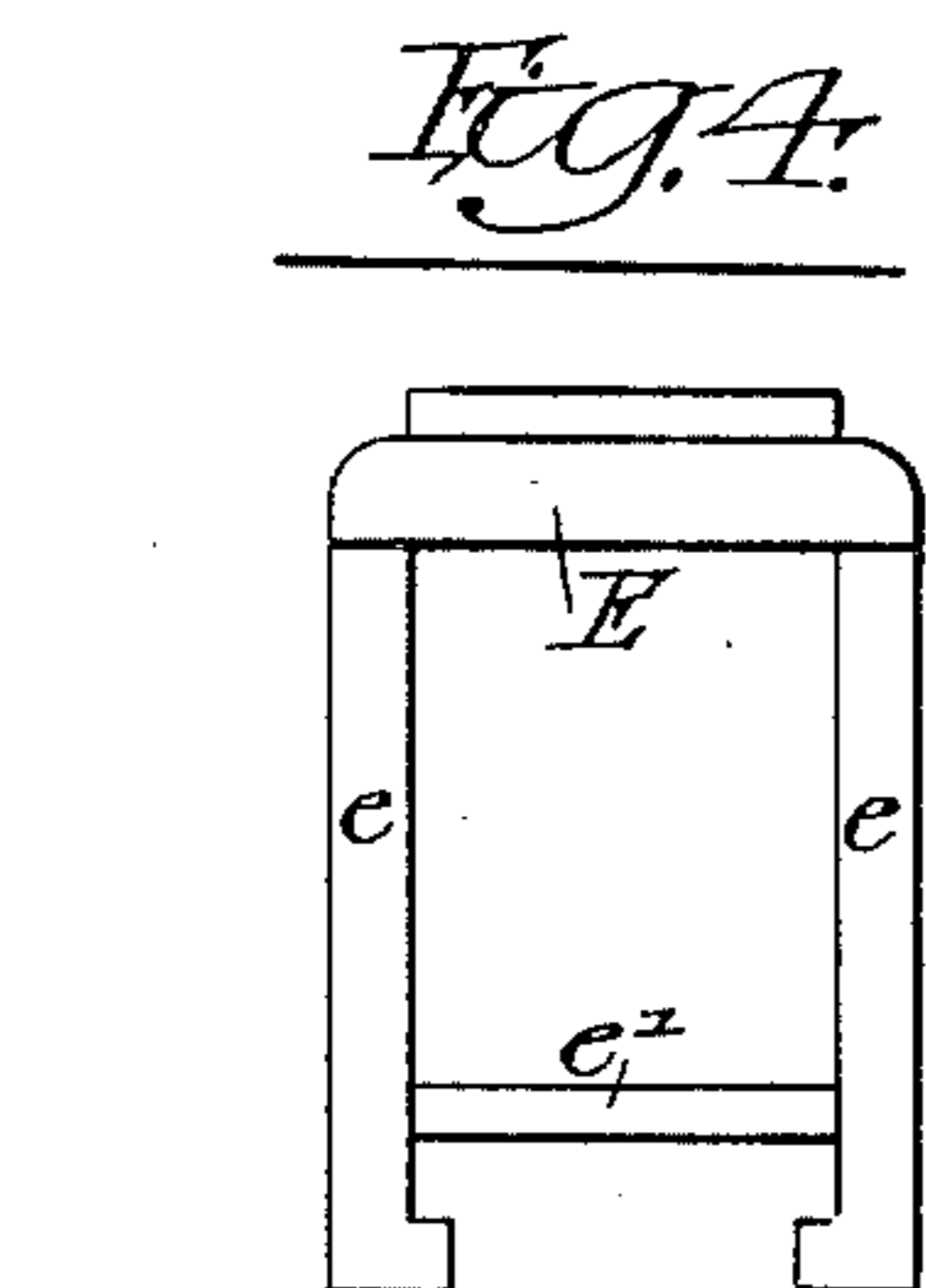


Fig. 4.

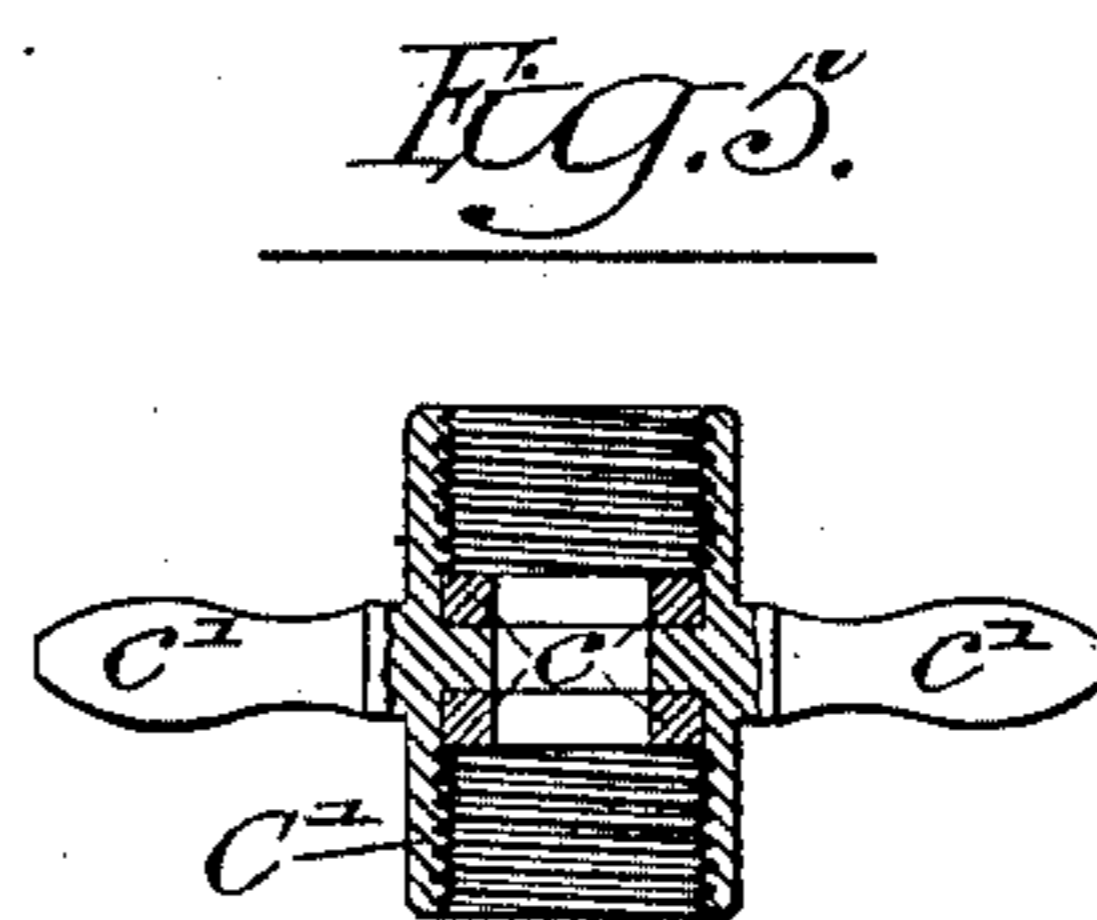


Fig. 8.

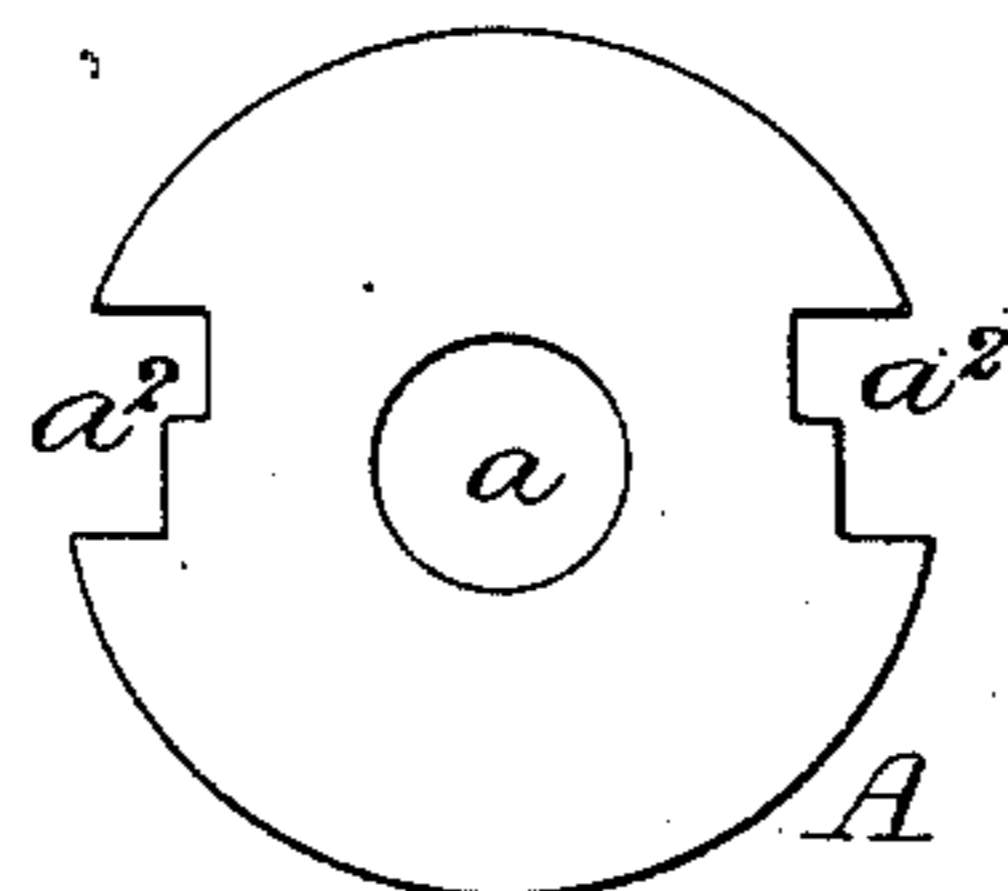


Fig. 3.

Witnesses:-

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# UNITED STATES PATENT OFFICE.

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## COMBINED SPIGOT AND BUNG-REMOVER.

SPECIFICATION forming part of Letters Patent No. 703,346, dated June 24, 1902.

Application filed December 19, 1901. Serial No. 86,518. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS LIVINGOOD, a citizen of the United States, and a resident of Hamburg, Berks county, Pennsylvania, have  
5 invented certain Improvements in a Combined Spigot and Bung-Remover, of which the following is a specification.

My invention relates to certain improvements in that class of devices used for drawing  
10 ing liquid from a barrel which combine in themselves the functions of spigot and bung-remover.

The object of my invention is to provide an improved device for placing a spigot in a barrel which shall simultaneously remove the  
15 bung without injury to the barrel or loss of liquid, the same being an improvement on the device for which Letters Patent were issued to me on December 25, 1900, No. 664,565.

20 The above-noted object I attain as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is an outside view of my improved invention. Fig. 2 is a vertical sectional view  
25 of the same. Fig. 3 is a plan view of the bung-bushing. Fig. 4 is a side view of the yoke-piece used in my device. Fig. 5 is a form of coupling employed when it is desired to connect a spigot directly to my bung-remover. Figs. 6 and 7 are respectively a  
30 plan view and a section of a special form of bushing which I employ in some cases, and Fig. 8 is a plan view of a slightly-modified form of bushing.

35 In the drawings, A is a bushing or annular plug, having through it a downwardly-tapered opening  $a$  and provided on its periphery with threads  $a'$ . It is preferably cast hollow, as shown, and there are two L-shaped openings  
40  $a^2$  into the hollow interior space  $a^3$ .

A tube B, having threads  $b$ , is made with its lower end  $b'$  slightly tapered and of a size to enter the opening  $a$  of the plug A, there being preferably between the threaded portion and the end section  $b'$  a hollow enlargement  $b^2$ , into one side of which a nozzle  $b^3$  is  
45 screwed. This nozzle by preference may project upward at an angle from said enlargement. It is made to receive a rubber pipe  
50 connected to a source of compressed-air sup-

ply, and at the inner end of said nozzle there is a check-valve  $b^5$ , by means of which any return flow of air is prevented.

The upper part of the tube B has threads  $b^4$ , preferably different in size from the  
55 threads  $b$ , upon which the coupling-piece C is constructed to fit. This latter has within it an unthreaded space made to hold packing  $c$ , the whole acting as a stuffing-box and making a tight joint around any tube or pipe  
60 inserted within the tube A for the purpose of drawing off liquid, this packing at the same time preventing the escape of said liquid along the threads  $b$ .

Handles  $c'$  are provided on the piece C, 65 which, if desired, may be made as shown at C' in Fig. 5 in order that a spigot may be directly attached to the tube. In this form the threaded part forming the stuffing-box of the said piece C is duplicated, there being pack-  
70 ing or a gasket  $c$  in each part. A threaded bushing D is constructed to fit the threads on the tube B, it having a flange  $d$  on its lower end. Fitting over the bushing D and resting upon the said flange is a ring-shaped  
75 piece E, from opposite sides of which project hooked depending pieces  $e$ , braced at their lower ends by a semicircular connecting-piece  $e'$ , thus forming a frame, the hooked  
80 ends of said depending pieces being constructed to enter the L-shaped openings  $a^2$  in the plug A. The slots for the reception of the hooked ends of the depending pieces  $e$  may be formed in the edges of the bushing,  
85 as shown in Figs. 6 and 8, instead of in the body of the bushing, as in Figs. 1 and 2. When the slots are L-shaped, as shown, the depending portions of the piece E are placed in position by a simple sidewise movement; but it may be preferred in some cases to se-  
90 cure said pieces by a rotary movement, in which case the slots are curved, as shown in Figs. 6 and 7. The threaded portion of the bushing may also be of contracted diameter, as shown in Fig. 7, instead of being of the  
95 full diameter of the bushing, as shown in Figs. 1 and 2.

Resting upon the upper surface of the ring-piece E and surrounding the upper part of the bushing D is a ring F, from which pro- 100

jects a handle  $f$ , there being keyways  $f'$  between the said ring and the bushing, made to receive keys, by which motion is transmitted from the handle  $f$  to the said bushing.

- 5 Ordinarily the plug A is permanently screwed into a barrel, only being removed when it is desired to place a bung in the opening  $a$ , after which the plug is replaced. When it is desired to remove the bung and draw off  
10 the liquid in the barrel, the part  $b'$  of the tube is placed on the said bung, the hooked ends of the pieces  $e$  from the ring E being placed in the openings  $a^2$  in the plug A and moved so as to be retained therein.
- 15 It will be understood that the bushing D, with its attached parts, has previously been screwed, by means of the handle  $f$ , toward the upper part of the tube B and that a suitable pipe has been placed within the said tube B,  
20 the gland C being turned to tighten the packing  $c$  around the same. The handle  $f$  is now turned so as cause the tube B to be forced downwardly, and as the bushing D revolves the end  $b'$  is also forced against the bung,  
25 loosening it, and finally coming to rest when it has tightly entered the opening  $a$ . Whenever now it is desired to draw off liquid from the barrel or other container, the pipe within the tube B is moved inwardly, pushing the  
30 already-loosened bung into the barrel and passing into the liquid. The nozzle  $b^3$  being connected to a suitable source of supply for compressed air, the said liquid in the barrel is drawn off, as desired, the valve  $b^5$  preventing the escape of air or gas when the device  
35 is out of action.

If it is desired to connect a spigot directly to the bung-removing device in place of the pipe above mentioned, a form of combined  
40 coupling and gland similar to that shown at

C' in Fig. 5 is used. This screws onto the end of the tube B, being also adapted to receive the threaded end of the spigot.

I claim as my invention—

1. The combination of an annular plug, a 45 frame consisting of a ring with depending members constructed to engage the plug, an internally-threaded bushing movably carried by the ring portion of the frame, means for turning the bushing, and a threaded tube 50 passing through said bushing and in line with the opening in the plug, substantially as described.

2. The combination of a plug having through it a tapered opening, a frame constructed to be attached to the plug, a threaded bushing loosely held in the frame, and a threaded tube passing through said bushing, said tube having means for the attachment of an air-supply pipe and having one of its 60 ends constructed to enter the tapered opening in the plug, substantially as described.

3. A hollow threaded annular plug having L-shaped openings into the interior thereof, a frame having members constructed to enter and be retained in said openings, a threaded bushing with a handle carried by the frame, a threaded tube passing through said bushing, said tube having a tubular projection from its side and being made to be forced 70 into the opening through the plug when said bushing is turned, substantially as described.

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

THOMAS LIVINGOOD.

Witnesses:

HARRY SMITH,  
JOS. H. KLEIN.