

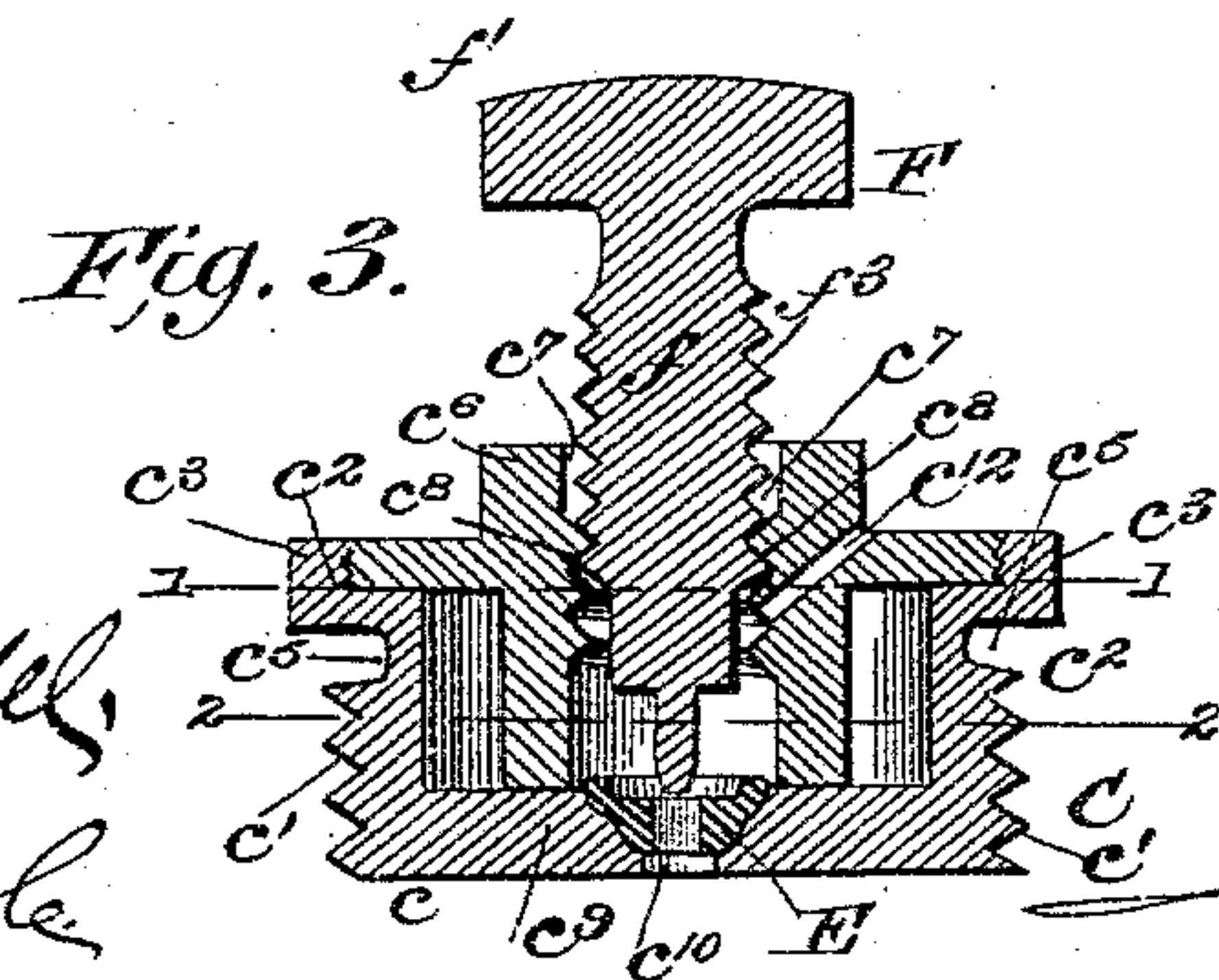
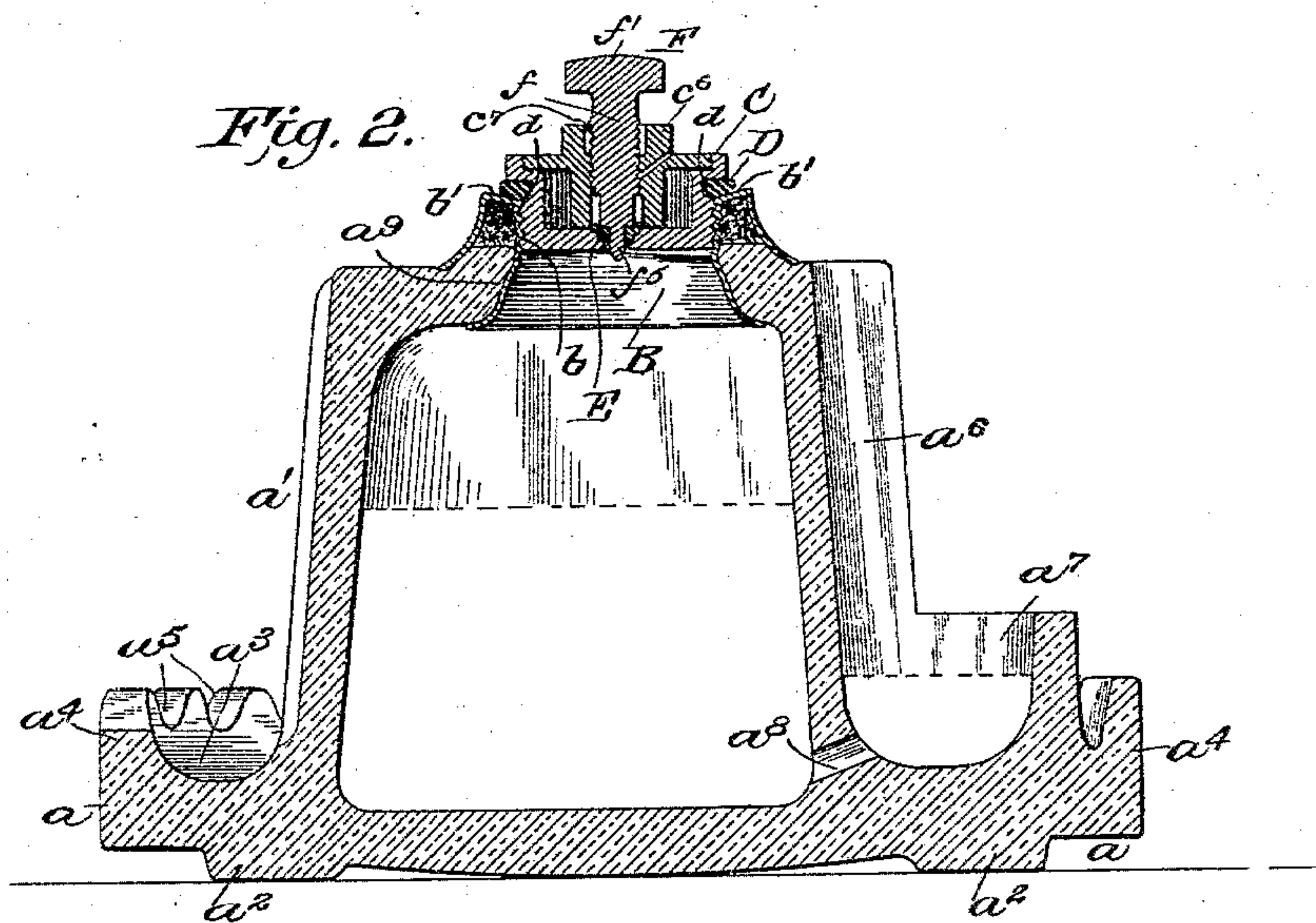
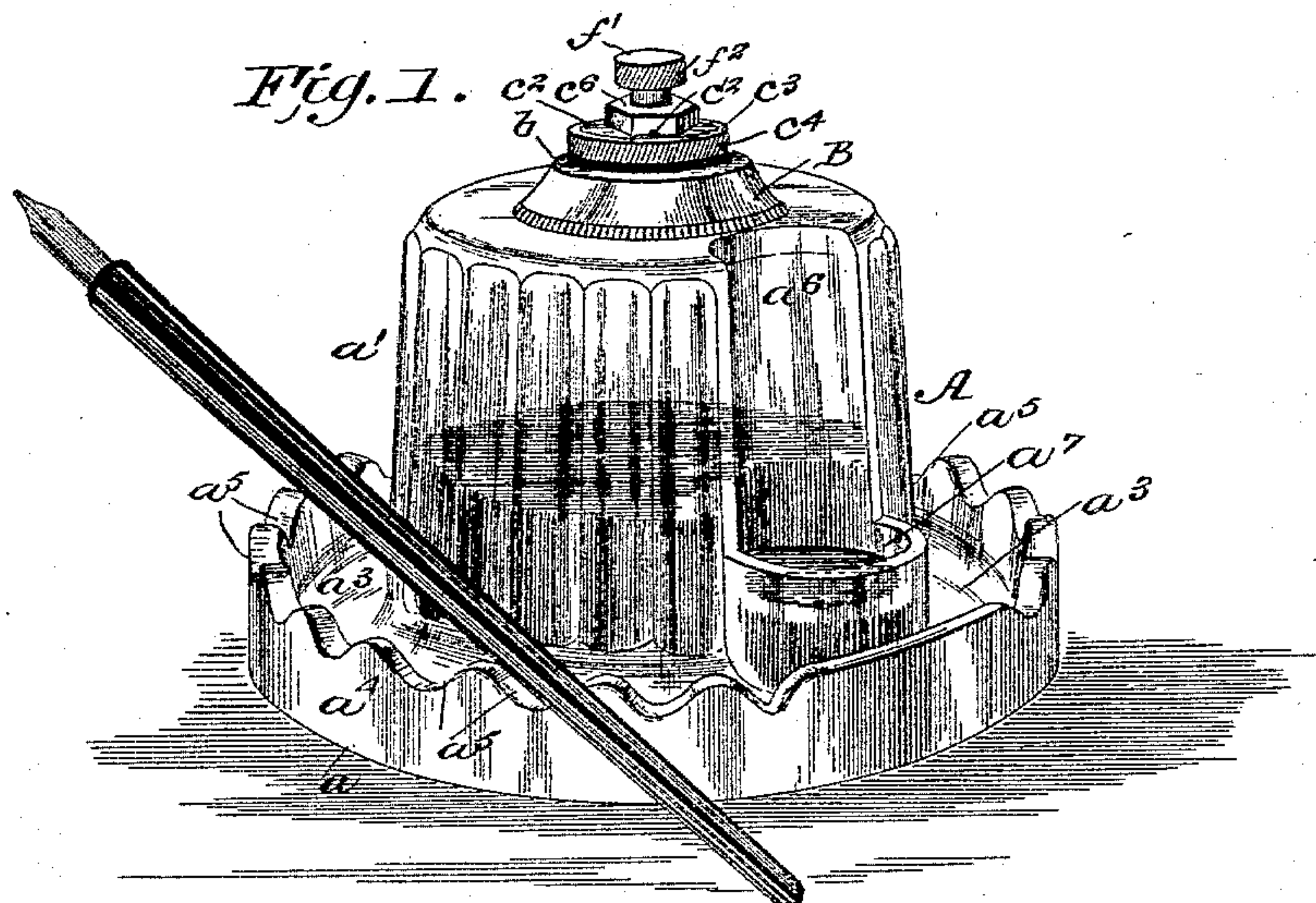
(No Model.)

2 Sheets—Sheet 1.

J. C. MILLER  
INKSTAND.

No. 546,338.

Patented Sept. 17, 1895.



WITNESSES:

*M. D. Blouet,*  
*Chas. W. Boyle*

INVENTOR

*Julius C. Miller.*

BY

*J. R. Little,*  
his ATTORNEY.



(No Model.)

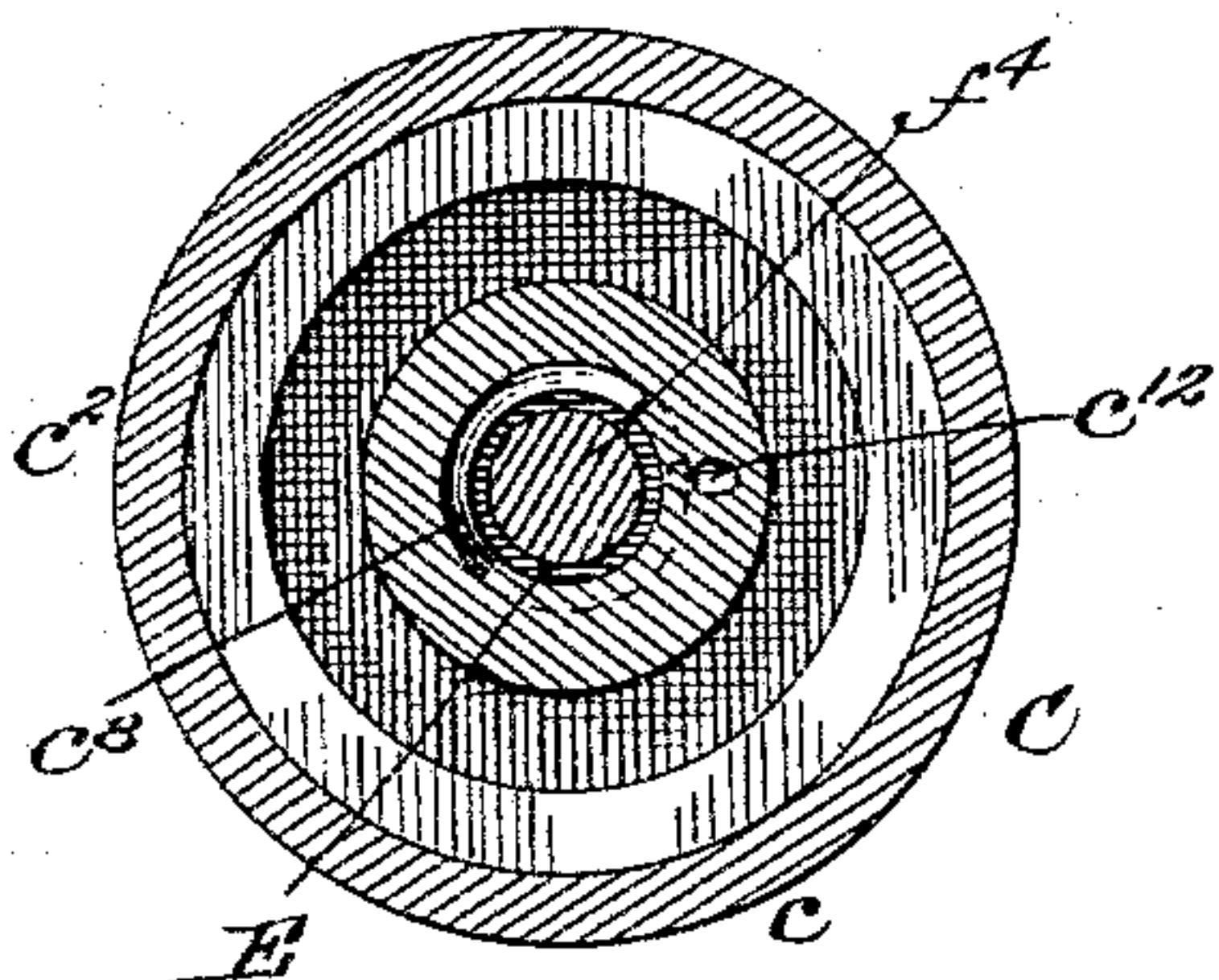
2 Sheets—Sheet 2.

J. C. MILLER.  
INKSTAND.

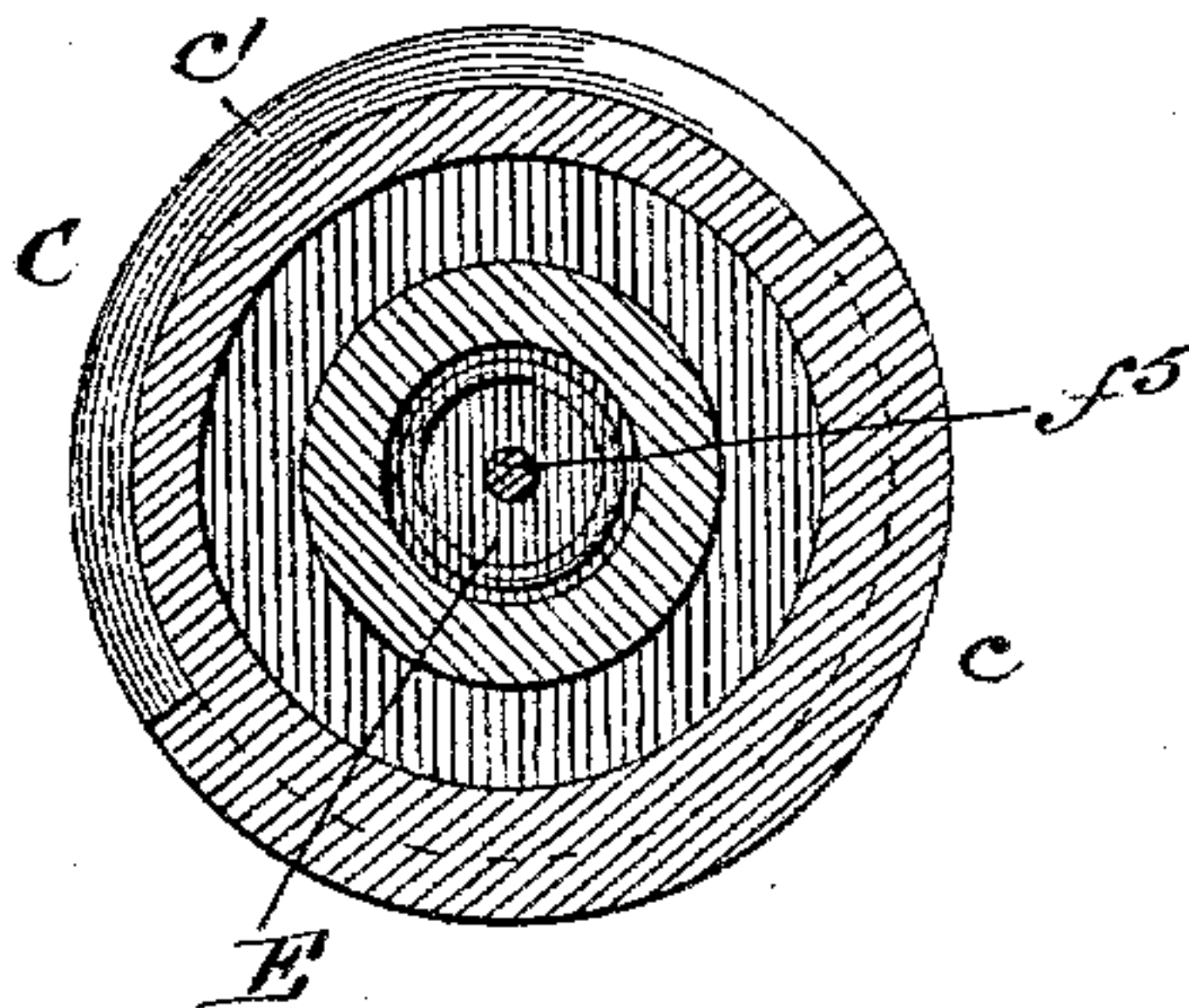
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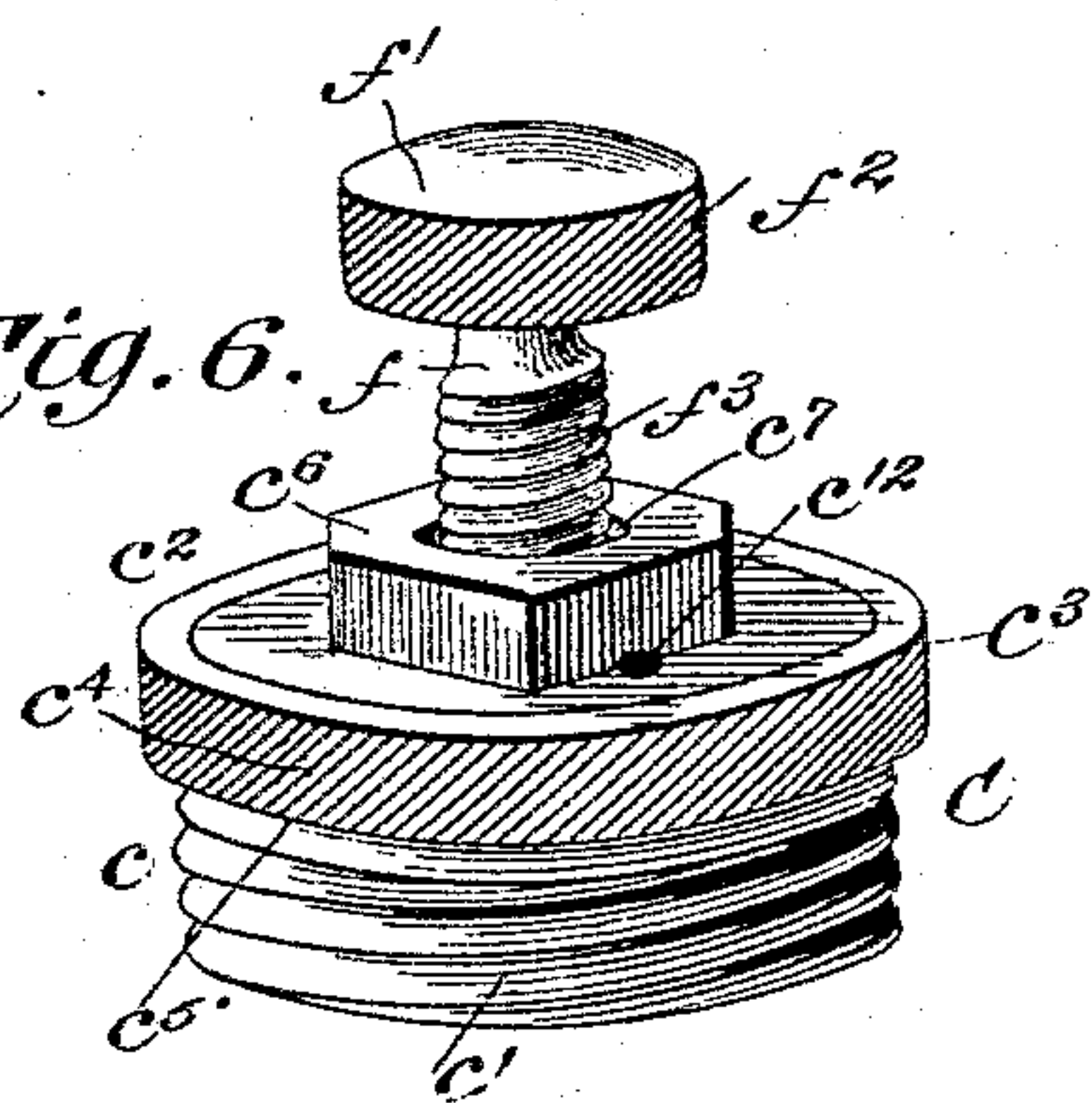
*Fig. 4.*



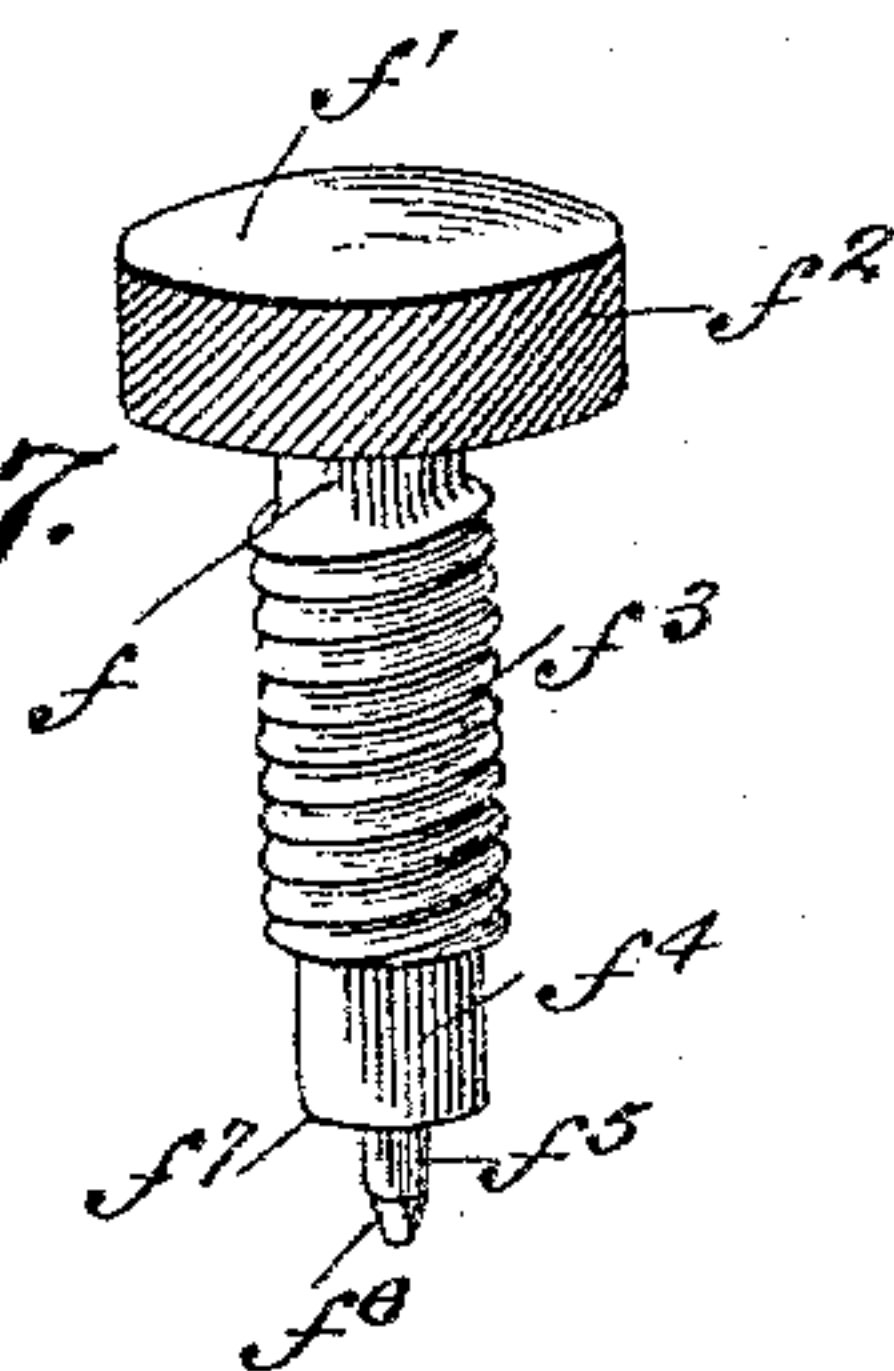
*Fig. 5.*



*Fig. 6.*



*Fig. 7.*



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# UNITED STATES PATENT OFFICE.

JULIUS C. MILLER, OF SYRACUSE, NEBRASKA.

## INKSTAND.

SPECIFICATION forming part of Letters Patent No. 546,338, dated September 17, 1895.

Application filed March 23, 1895. Serial No. 542,885. (No model.)

*To all whom it may concern:*

Be it known that I, JULIUS C. MILLER, a citizen of the United States, residing at Syracuse, in the county of Otoe and State of Nebraska, have invented a new and useful Inkstand, of which the following is a specification.

This invention relates to that class of inkstands which embody a dome or reservoir and feeding-cup and which have valve or air-inlet devices at the top of the reservoir for controlling the admission of air to the latter.

The object of my improvements is to provide a simple inkstand of this class which will possess advantages in the point of effectiveness, positive operation, ease of adjustment, durability, and general efficiency.

In the drawings, Figure 1 is a perspective view of an inkstand embodying my improvements. Fig. 2 is a vertical transverse sectional view of the same. Fig. 3 is a detail transverse sectional view taken through the valve devices at the top. Fig. 4 is a detail horizontal sectional view taken on the line 1 1, Fig. 3. Fig. 5 is a detail horizontal sectional view taken on the line 2 2, Fig. 3. Fig. 6 is a detail perspective view of the removable cap-piece. Fig. 7 is a detail perspective view of the screw-valve.

Referring to the drawings, A designates the body of the inkstand, which is preferably formed of glass and comprises a flat base  $a$ , from which rises the dome or reservoir  $a'$ . The flat base preferably has an annular flange or shoulder  $a^2$  on its bottom, which supports the inkstand and raises the base from the surface upon which the inkstand rests. The base portion also preferably embodies an annular groove  $a^3$ , surrounding the dome or reservoir and forming an outside annular raised flange  $a^4$ , having its edge recessed or scalloped, as shown at  $a^5$ , to form securing-rests for pens or analogous articles. In the front face of the dome or reservoir is provided a vertical segmental concave recess  $a^6$ ; at the base of which is provided an outwardly-projecting concave cup  $a^7$  within the annular groove  $a^3$  and rising therefrom. Near the bottom of this cup and in the wall of the segmental concave recess  $a^6$  is formed a feed opening or perforation  $a^8$ , through which the

ink is fed from the reservoir to the dipping-cup.

The top of the reservoir is preferably approximately flat and is provided with a central circular opening  $a^9$ , in which is permanently set a raised annular ring or flange B, having a threaded opening  $b$ , surrounded by an annular edge  $b'$ , which is preferably inclined inwardly or slightly concaved.

C designates the cap-piece of the valve mechanism, which comprises a body or main portion  $c$ , exteriorly threaded, as at  $c'$ , to correspond to the threaded opening  $b$ , and a top portion  $c^2$ , forming a flat circumferential projecting flange  $c^3$ , preferably having milled edge  $c^4$  to facilitate the removal of the cap-piece when desired. At the junction of the threaded portion  $c'$  and the circumferential flange  $c^3$  the cap-piece is provided with a circumferential groove or recess  $c^5$ , in which is set an annular flexible or elastic washer-ring or packing D, the inner edge  $d$  of said ring being received within the circumferential groove  $c^5$ , while the outer portion of the ring is tightly clamped against the inclined or concaved annular edge  $b'$  by the circumferential flange  $c^3$  when the cap-piece is screwed down tightly into position, an air-tight joint being thus formed. From the top of the cap-piece preferably projects a nut-shaped head  $c^6$ , adapted to facilitate the setting or adjustment of the cap-piece. The cap-piece is provided with a central vertical bore  $c^7$  of suitable diameter and interiorly threaded, as shown at  $c^8$ , the threads preferably extending from a point a short distance above the bottom to near the top of the bore. The bore has a bottom  $c^9$ , in which is formed a small eye or opening  $c^{10}$ , opening into the reservoir and of a diameter considerably less than that of the bore. This improved cap-piece may, in its practical construction, have its main or body portion  $c$  and top portion  $c'$  formed as a hollow cylindrical shell having a bottom  $c^9$ , in which is formed the opening  $c^{10}$ , and into this shell may be screwed or set a center piece embodying the nut-shaped head  $c^6$  and the bore  $c^7$ , with bore portion resting tightly upon the bottom  $c^9$  and surrounding the opening  $c^{10}$  therein.

The construction just set forth is illustrated in the accompanying drawings, but it



will be understood that the practical construction of the cap-piece to provide the essential members or features herein described may be varied as desired.

5  $c^{12}$  designates an air-inlet channel or opening extending from the top of the cap-piece into the bore  $c^7$ . This channel is preferably formed by a diagonal perforation running from about the base of the nut-shaped head  
10 to a point near the bottom of the threaded portion of the bore  $c^7$ .

In the bottom of the bore is preferably set a washer-block or bushing E, in which is also formed the opening  $c^{10}$ . This bushing may be  
15 approximately cup-shaped, and the bottom of the cap-piece C may be correspondingly formed, if desired, to neatly accommodate this bushing.

F designates the valve proper, which comprises a stem  $f$  and a projecting head  $f'$ , having a milled edge  $f^2$ . The main portion of the stem  $f$  is threaded, as at  $f^3$ , corresponding to the threaded bore. Below this threaded portion  $f^3$  the stem of the valve is reduced in diameter and is smooth, as shown at  $f^4$ , and  
25 from this smooth reduced portion projects a point  $f^5$  of less diameter, this point being adapted to be seated in the corresponding opening  $c^{10}$ . The end of the point  $f^5$  is preferably of conical shape, as shown at  $f^6$ . The annular shoulder  $f^7$ , formed by the bottom of the portion  $f^4$  of the stem, is adapted to be seated against or rest upon the bushing E when the valve is closed.

35 It will be noted that my improved inkstand embodies in its top mechanism only screw-valve devices, which insures a more effective operation, enables the more convenient and accurate adjustment or removal of the valve  
40 devices, and obviates the use of spring or similar mechanisms, which are apt to become clogged or imperfect in operation as an air-inlet valve.

The operation and advantages of my invention will be readily understood. The dome or reservoir is adapted to be effectively closed at the top by the screw-valve mechanism, so that the ink is held in the reservoir by the vacuum therein and is adapted to be fed to the  
50 dipping-cup by the admission of air through the valve. When the screw-valve F is screwed tightly down, the reservoir is perfectly closed against the admission of air. When it is desired to admit air to the reservoir, the screw-  
55 valve F is raised, so that the air in the bore surrounding the smooth reduced portion  $f^4$  of the stem of the valve, which has been fed from the air-inlet  $c^{12}$ , may pass into the reservoir.

I claim as my invention—

60 1. An inkstand of the class described, comprising the cap-piece having the threaded bore and bottom opening and provided with an air-inlet running from the outside of the cap-piece to said bore, and the screw valve fitting  
65 in said bore and having the point corresponding to the bottom opening, substantially as and for the purpose set forth.

2. An inkstand of the class described, comprising the cap-piece having the threaded bore and bottom opening and provided with the  
70 air-inlet running from the outside of the cap-piece to said bore, and the screw valve embodying the threaded stem, the smooth reduced portion below the threaded portion, and the point projecting from the reduced portion,  
75 substantially as and for the purpose set forth.

3. An inkstand of the class described, comprising the threaded cap-piece having the threaded bore formed with a bottom in which is provided the opening or perforation, said  
80 cap-piece being provided with the diagonal air-inlet channel or perforation running from the top diagonally to the threaded bore, the washer-block or bushing at the bottom of the bore, and the valve embodying the threaded  
85 stem and the smooth reduced portion below the threaded portion forming a shoulder or bottom from which projects a point, substantially as and for the purpose set forth.

4. An inkstand of the class described, comprising the dome or reservoir having the raised annular ring or flange at its top provided with a threaded opening, a cap-piece having an exteriorly-threaded body portion fitting said  
90 ring and provided with a threaded bore having a bottom opening and with an air-inlet or channel entering said bore, and the valve having a threaded stem and a projecting point corresponding to the bottom opening, substantially as and for the purpose set forth.  
100

5. An inkstand of the class described, comprising the dome or reservoir having the raised annular ring or flange at its top provided with a threaded opening surrounded by an annular edge,  $b'$ , the cap-piece having an exteriorly-  
105 threaded body fitting said ring and a circumferential projecting flange corresponding to the edge  $b'$ , said cap-piece being provided with a threaded bore having a bottom opening and with an air-inlet or channel entering  
110 said bore, and a valve having a threaded stem and projecting point, substantially as and for the purpose set forth.

6. An inkstand of the class described, comprising the dome or reservoir having the raised  
115 annular ring or flange at its top provided with a threaded opening surrounded by an annular edge,  $b'$ , the cap-piece having the exteriorly-threaded body fitting said threaded opening and the circumferential projecting flange  
120 corresponding to the annular edge  $b'$ , the ring or washer bound between the edge  $b'$  and the circumferential flange, said cap-piece being provided with a threaded bore having an air-inlet or channel, and the threaded valve stem  
125 working in said bore, substantially as and for the purpose set forth.

7. An inkstand of the class described, comprising the dome or reservoir having an annular ring or flange at its top provided with a  
130 threaded opening surrounded by an annular edge, the cap-piece having an exteriorly-threaded body fitting said threaded opening and a circumferential flange corresponding



to said annular edge, the cap-piece being provided with a threaded bore having a bottom in which is formed an opening and with an air-inlet or channel entering said bore, a ring or washer arranged under said circumferential flange, and the valve provided with the threaded stem fitting said bore and with a reduced portion below the threaded portion from which projects the point, substantially as and for the purpose set forth.

8. An inkstand of the class described, comprising the dome or reservoir having the raised annular ring or flange at its top provided with a threaded opening surrounded by an annular edge,  $b'$ , the cap-piece having an exteriorly-threaded body fitting said opening and a circumferential projecting flange corresponding to the edge  $b'$ , the cap-piece being provided

with a threaded bore having a bottom in which is formed the opening or perforation and having the air-inlet or channel extending diagonally from the top to the bore, the ring or washer carried by the cap-piece and interposed between the edge  $b'$  and the circumferential projecting flange, and the valve having a threaded stem and a smooth reduced portion below the threaded portion from the bottom of which reduced portion projects the point, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JULIUS C. MILLER.

Witnesses:

JOS. E. CASE,  
D. W. SMITH.