

(No Model.)

2 Sheets—Sheet 1.

H. C. STIFEL.  
INKSTAND.

No. 453,519.

Patented June 2, 1891.

Fig. 1.

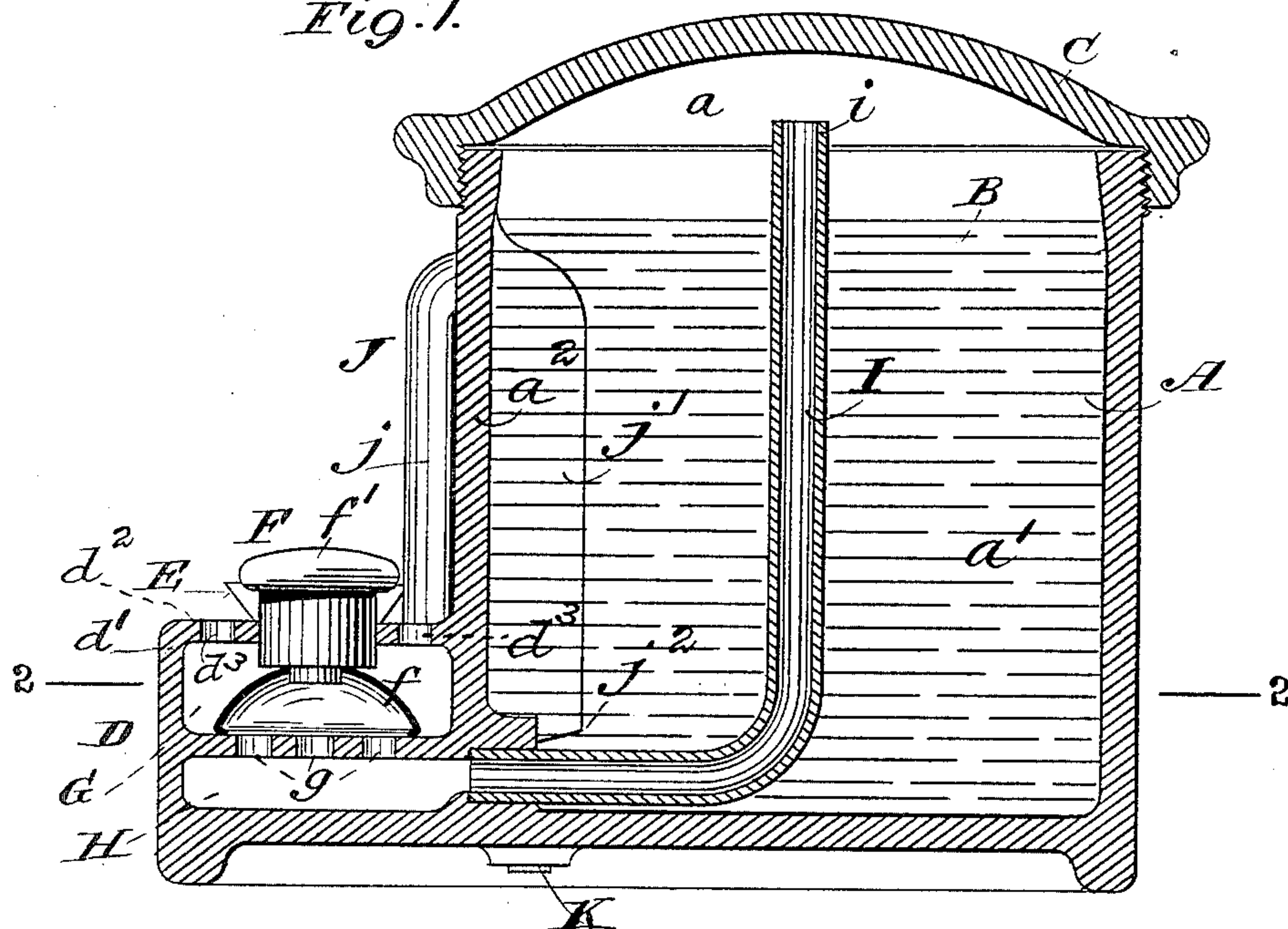
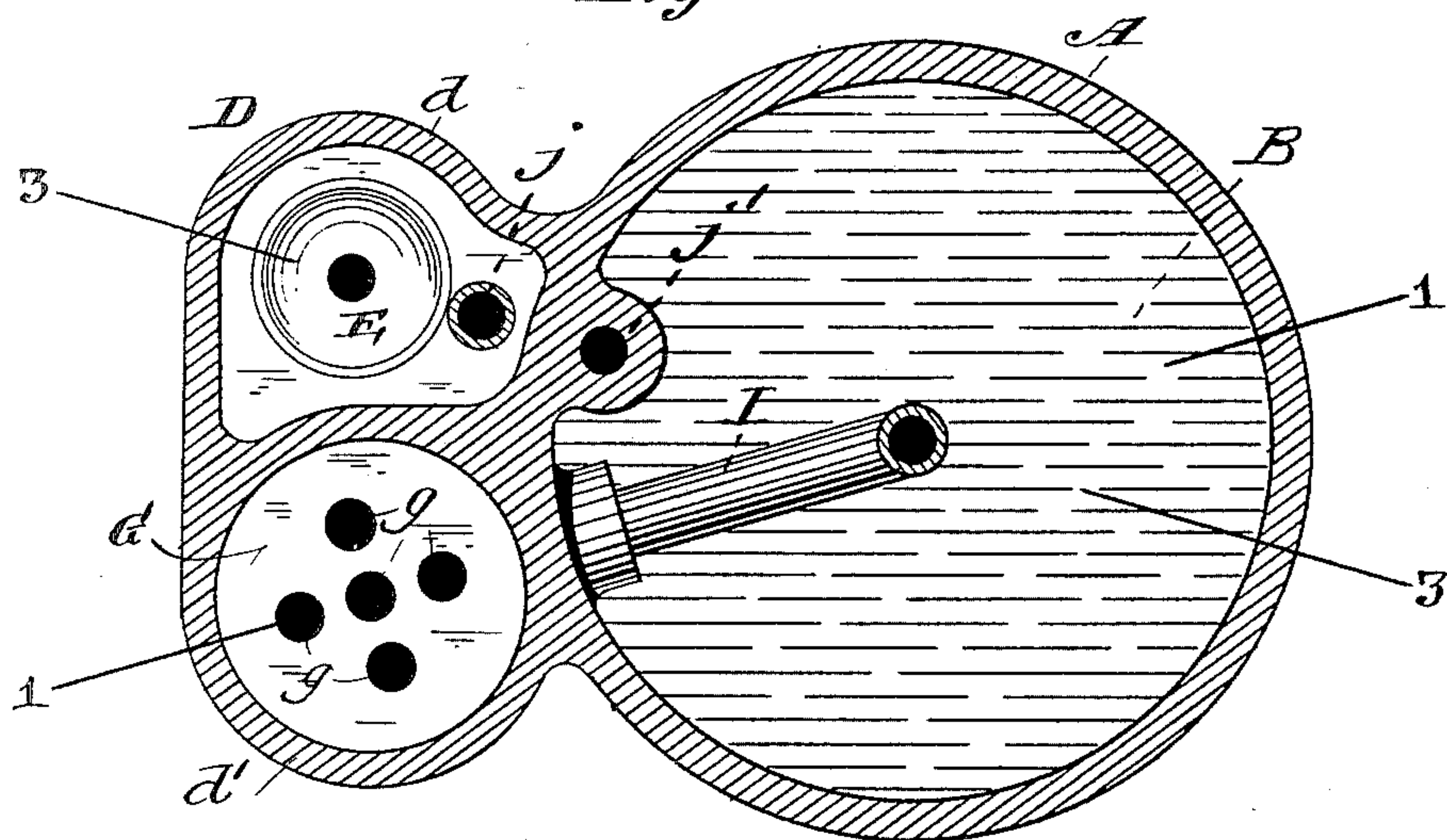


Fig. 2.



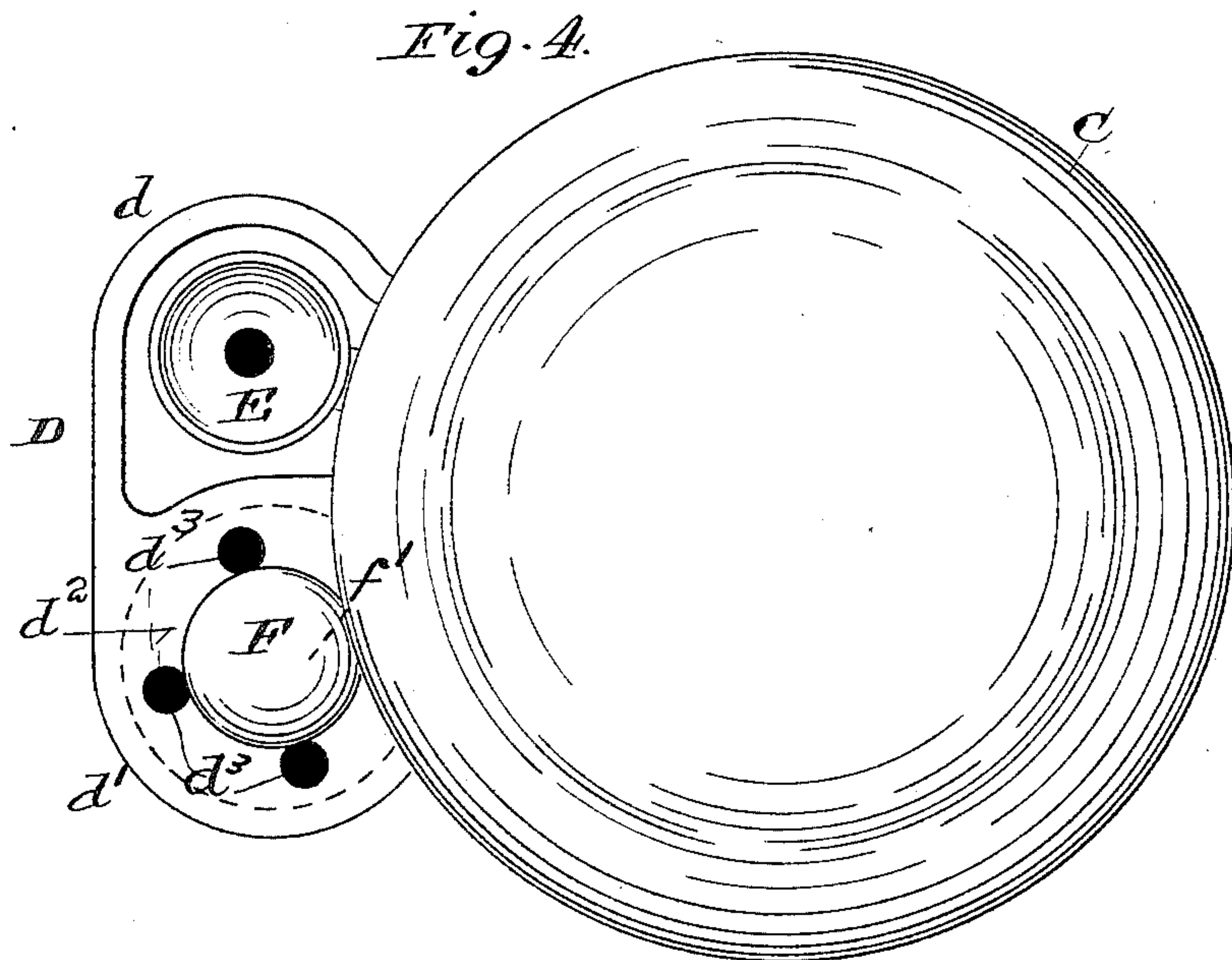
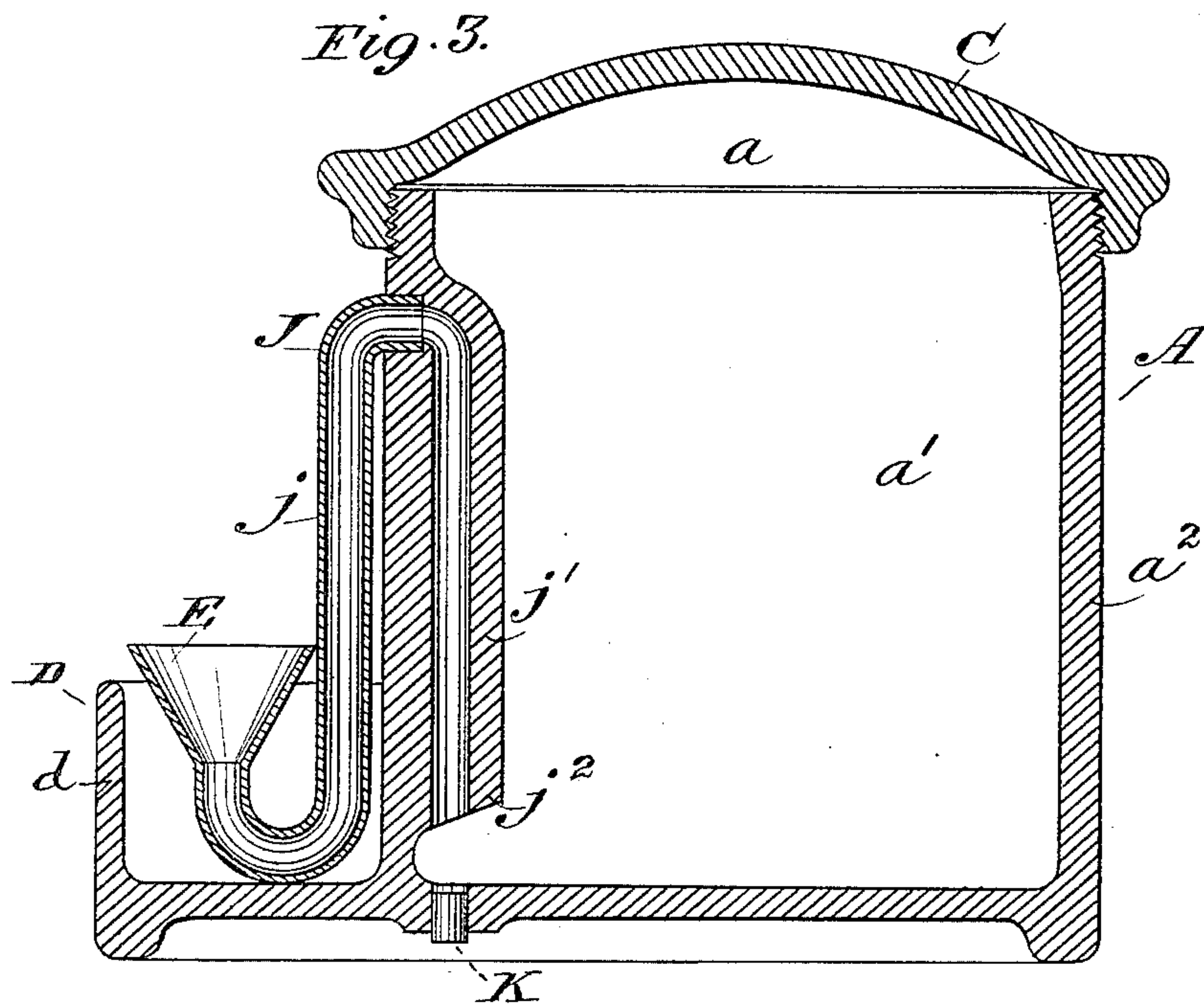
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# UNITED STATES PATENT OFFICE.

HERMAN C. STIFEL, OF ST. LOUIS, MISSOURI.

## INKSTAND.

SPECIFICATION forming part of Letters Patent No. 453,519, dated June 2, 1891.

Application filed September 24, 1890. Serial No. 366,024. (No model.)

*To all whom it may concern:*

Be it known that I, HERMAN C. STIFEL, of St. Louis, Missouri, have made a new and useful Improvement in Inkstands, of which the following is a full, clear, and exact description.

The invention relates to that class of fountain-inkstands in which a diaphragm-piston is used to force the ink into the dip-hole. In such inkstands the piston is usually arranged at the top and the dip-hole is arranged well down at the side of the structure. In another form the piston has been attached directly to the tube through which the ink is supplied to the dip-hole, and to operate the piston the pen-point in taking the ink is pressed upon the stem, causing it to move downward, and the ink thereby made to well upward through the tube to meet the pen-point, and in still another form the dip-hole and the piston have both been arranged at the top of the inkstand and side by side.

To provide an improved construction whereby the dip-hole can be arranged at the side and toward the bottom of the inkstand, and the person using the inkstand can in dipping his pen-point into the dip-hole with the same hand in which the pen is being held operate the plunger to force the ink into the dip-hole, is the aim of the present improved construction, which consists, substantially, as is hereinafter specified and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a vertical section on the line 1 1 of Fig. 2, which in turn is a horizontal section on the line 2 2 of Fig. 1; Fig. 3, a vertical section on the line 3 3 of Fig. 2, and Fig. 4 a plan of the improved inkstand.

The same letters of reference denote the same parts.

A represents the reservoir containing the ink. B. It is provided with a removable cover C, which can be screwed onto the reservoir to make it substantially air-tight.

D represents an extension at the lower front of the reservoir. It is divided into two compartments  $d$   $d'$ . The compartment  $d$  contains the dip-hole E. The compartment  $d'$  contains the piston F and a chamber G, in which the lower end of the piston and the

flexible cup-shaped diaphragm  $f$  operate. It also contains a sub-chamber H, which communicates with the chamber G by means of the passages  $g$ . The upper end  $f'$  of the piston projects above the roof  $d^2$  of the chamber G to bring it at the level, or thereabout, of the dip-hole E. There are air-passages  $d^3$  in the roof  $d^2$ . A passage, say in the form of the tube I, establishes communication between the chamber H and the upper part  $a$  of the interior  $a'$  of the reservoir. The upper end  $i$  of the tube extends in practice above the level at which the ink stands in the reservoir.

J represents a passage leading from the dip-hole into the interior of the reservoir. It connects with the lower end of the bowl which forms the dip-hole, and it extends thence first sidewise from the dip-hole in the compartment  $d$ , thence upward at  $j$  to about the level of the ink when the reservoir is filled, and thence downward at  $j'$  toward the bottom of the interior of the reservoir, and at its lower end  $j^2$  it communicates with said interior. The passages I and J can be, as well as the other parts of the construction, composed of suitable materials. A desirable way of forming the passage I is, as stated, to employ a tube which is not integral with the reservoir, but is a separate piece suitably fitted at its lower end  $i'$  to form an air-tight joint with the sub-chamber H.

The passage J is preferably formed as follows: Its portion  $j$  is a separate piece passing up the outer side of the shell  $a^2$  of the reservoir and at its upper end entering said shell to form a liquid-tight joint with the descending portion  $j'$  of the passage, which last-named portion can be integral with the reservoir-shell, substantially as shown. The passage J resembles and it may be styled a siphon.

The device is operated as follows: The inkstand being filled with ink, as indicated, the operator, holding the pen in his hand, applies the pen-point to the dip-hole, and at the same time and with the little finger, and perhaps the finger adjacent thereto, presses the piston downward. The air is thereby compressed in the space beneath the piston-diaphragm, and an air-pressure *via* the sub-chamber H and the passage I is thereby produced in the

space *a* above the ink. The ink is thereby caused to flow upward into and through the part *j'* of the passage J, and thence into and downward through the part *j* of the passage J, and thence to the dip-hole, where it meets the pen-point. On removing the pressure from the piston the ink retreats from the dip-hole into and through the siphon. By this means a fountain-inkstand having advantage of being operative from its lower front, and which does not necessitate the use of the pen-point to move the piston, is provided.

For cleaning purposes access is conveniently had to the part *j'* of the passage J by removing the plug K.

I claim—

1. A fountain-inkstand having an extension at its lower front, said extension being divided into two compartments to contain the dip-hole

and the piston, respectively, substantially as described.

2. The combination of the reservoir having the extension at its lower front, the cover, the dip-hole, the piston and its diaphragm, the air-passage establishing communication between the air-space between the piston-diaphragm and the upper part of the interior of the reservoir, and the ink-passage leading from the lower part of the interior of the reservoir upward and then downward to the dip-hole, substantially as described.

Witness my hand this 19th day of September, 1890.

HERMAN C. STIFEL.

Witnesses:

C. D. MOODY,

GEO. J. CHAPMAN.