(No Model.)

P. F. McCLURE.

INKSTAND FILLING ATTACHMENT.

No. 567,192. Patented Sept. 8, 1896.

Fig. 1.

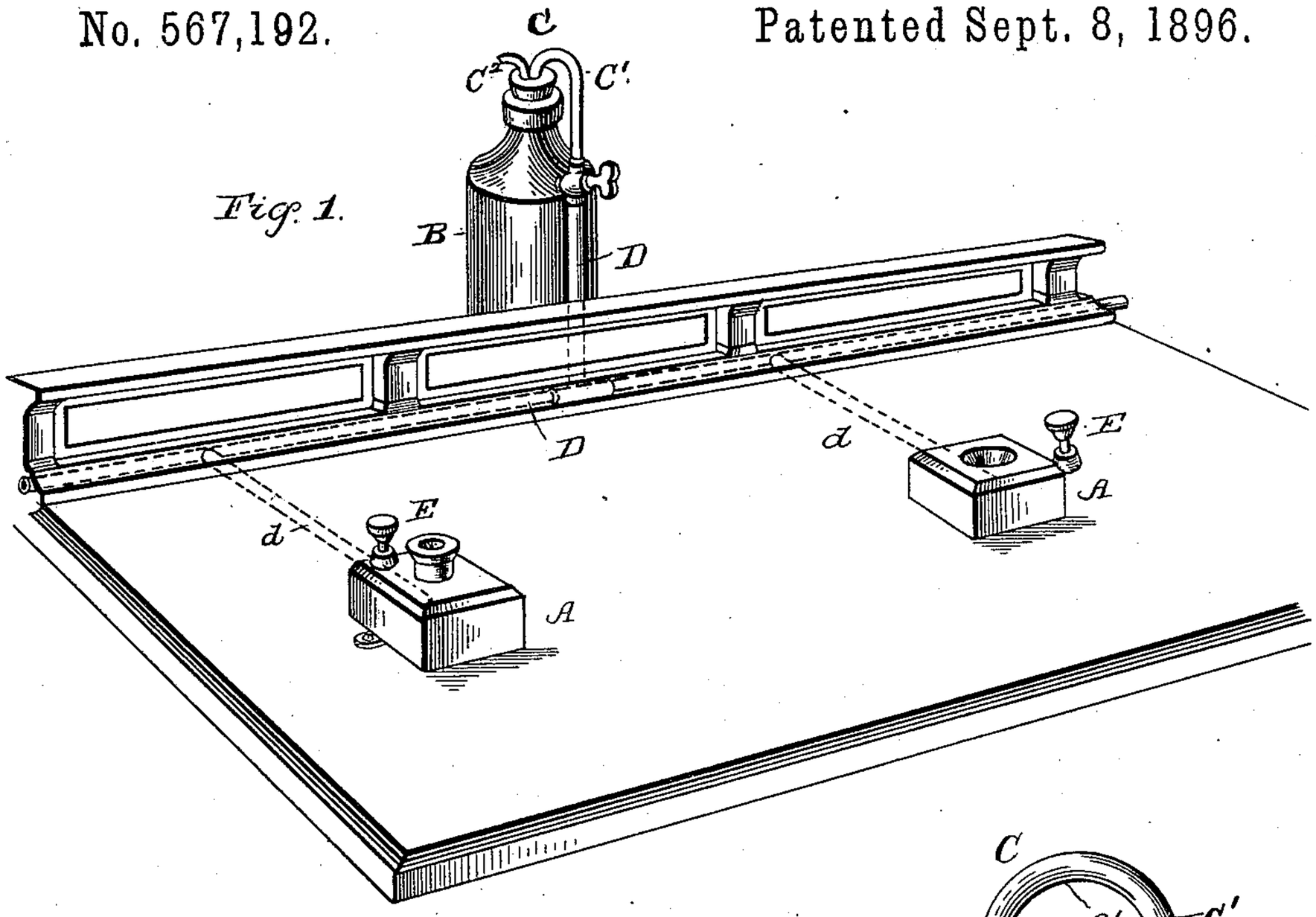


Fig. 3.

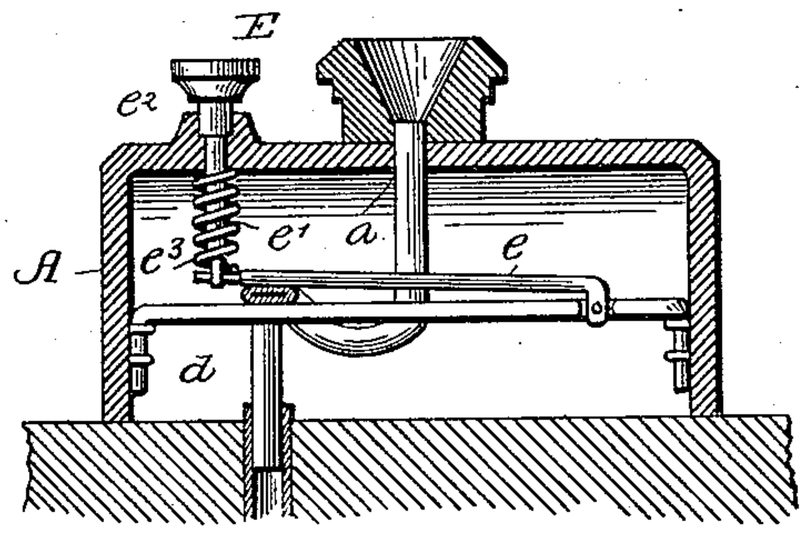


Fig. 4

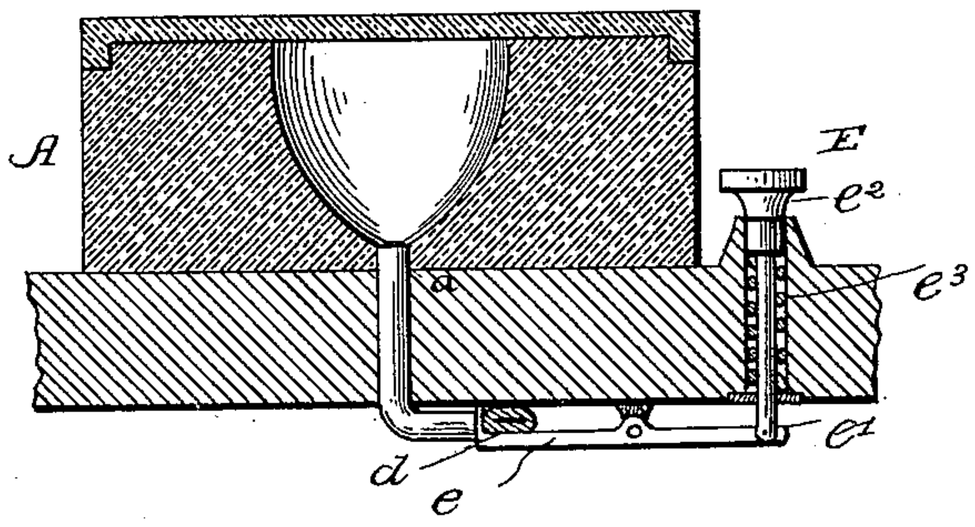
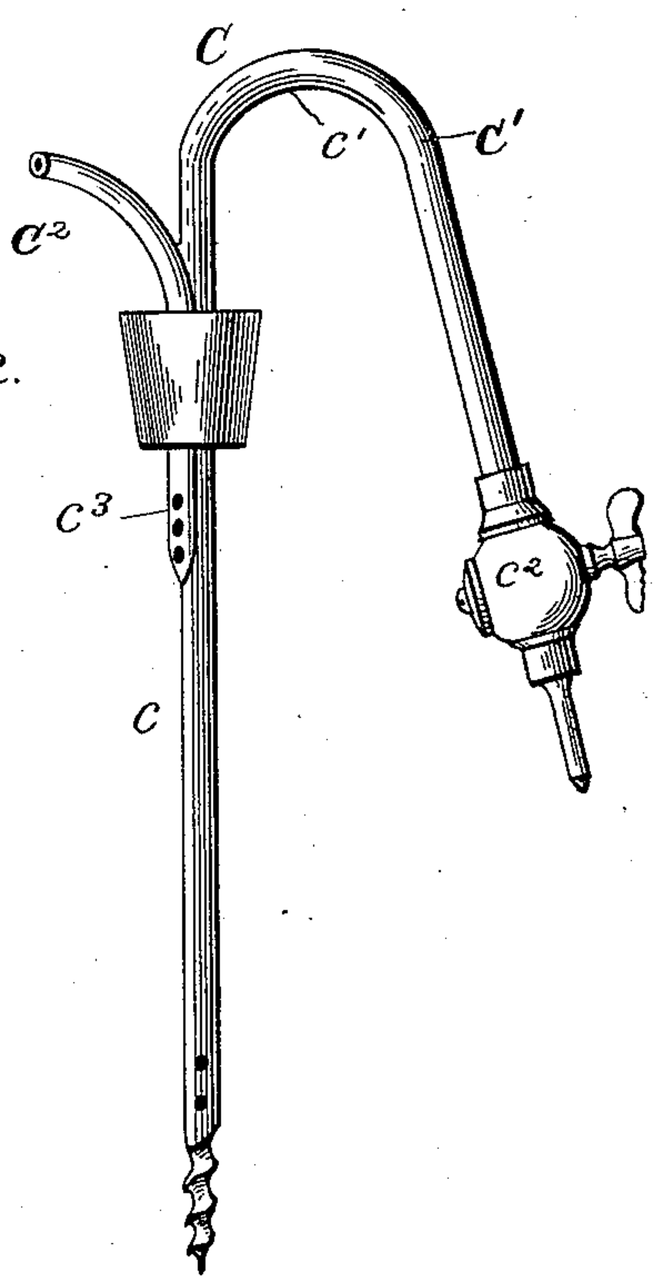


Fig. 2.



Witnesses
Victor J. Evans
O. R. Baitmayer

Inventor
P. F. McClure.
By E. M. Marble & Sons
Attorneys

UNITED STATES PATENT OFFICE.

PATTISON F. McCLURE, OF PIERRE, SOUTH DAKOTA.

INKSTAND-FILLING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 567,192, dated September 8, 1896.

Application filed November 23, 1895. Serial No. 569,886. (No model.)

To all whom it may concern:

Be it known that I, PATTISON F. McCLURE, a citizen of the United States, residing at Pierre, in the county of Hughes and State of South Dakota, have invented certain new and useful Improvements in Inkstand-Filling Attachments; and I do hereby 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 appertains to make and use the same.

My invention relates to improvements in inkstands, and particularly to improvements in inkstand-filling attachments; and it consists in the improved automatic inkstand-filling attachment which will be hereinafter described, and particularly pointed out in the claim.

The object of my invention is to provide a mechanism by which inkstands may be continuously and automatically refilled as rapidly as the supply of ink therein has become exhausted, thus avoiding the annoyance and loss of time which are necessarily occasioned in the present method of refilling inkstands by pouring from a supply-bottle. The present state of the art in inkstands shows that great care has been and is being paid toward securing a construction of inkstand which will decrease the loss of ink through evaporation and any spilling of ink through overturning or upsetting the inkstand. Little attention has been paid, however, to automatic means for supplying ink from a common source of supply to one or more inkstands, and it is toward the accomplishment of this end that I have devised my present invention.

In accomplishing the object of my invention I have made use of the so-called "siphon" principle for effecting the continual and automatic filling of the ink-supply tube, which extends from the source of supply to an opening in the bottom of the ink stand or stands which are on the line of supply. In establishing my system I pierce the cork of the original ink-supply bottle with a siphon attachment, consisting of a bent tube, one leg of which extends nearly to the bottom of the bottle and the other leg of which projects over the side of the bottle, and of a mouthpiece, by means of which the original flow of ink can be established. A valve in the leg of the bent tube projecting over the side of the bottle enables me to entirely cut off the supply of ink when so desired. To the end of the leg of the tube which projects over the side of the bottle I attach a flexible tube, which extends along the line on which the inkstands are stationed and connects the various inkstands to the main supply-pipe by means of small branch pipes, the inkstands all being formed with an opening in their bottom. I further provide a valve attachment for each inkstand, by means of which the flow of ink into the same can be interrupted or established, in accordance with the condition of the ink in the particular inkstand.

To put the system into operation, it is only necessary, after opening the various valves, to blow in the mouthpiece of the siphon attachment a sufficient length of time to start the flow of ink into the various inkstands. When this is once accomplished, the inkstands will fill as long as the valves, which permit the passage of ink thereto, are open, and as long as there is any ink in the supply-bottle the inkstands can be refilled at any time by simply opening the valves adjacent to the various stands. A complete automatic system for refilling the inkstands is thus established, the chief merit of which is its simplicity and directness of action.

My invention is fully represented in the drawings, which accompany and form a part of this application, in which the same reference-letters refer to the same or corresponding parts, and in which—

Figure 1 is a perspective view of a desk supplied with my ink-filling attachment, the supply-tube being shown in dotted lines and the position of the main supply-bottle being indicated. Fig. 2 is a detail view of the siphon employed in the ink-supply bottle. Fig. 3 is a section of an inkstand fitted with my filling attachment. Fig. 4 is a similar view showing a different construction for the valve, which is normally depressed and acts to shut off the supply of ink to the inkstand.

Referring to the drawings, A A represent inkstands which are to be supplied with ink. These inkstands may be of any desired type or pattern, the only restriction upon their formation being that they be provided with an opening *a* in the bottom thereof.

The inkstands may be stationed at any desired points and any number of stands may be filled from a single source of supply.

B represents the source of ink supply, it being in this case the original ink-bottle. The cork of the bottle is pierced by the siphon attachment C, which is preferably formed of hard rubber. This siphon attachment consists of a bent tube C′, formed with a leg *c*, which is intended to extend to the bottom of the ink-supply bottle, and with a bent portion *c*′, which projects over the side of the supply-bottle. The end of the portion *c* of the tube C′ is formed like an auger, so as to readily pierce the cork of the ink-supply bottle, and it is perforated to permit the passage therethrough of ink. A valve c^2 is placed in the bent portion *c*′, so as to permit the entire shutting off of the flow of ink therethrough, and the end of the said portion is reduced in size to facilitate the placing thereon of the flexible connecting-tube D. The mouthpiece C^2 is joined to the main tube C′ near the top of said tube and extends downward into the bottle, being formed at its lower end with openings c^3, thus permitting air to be forced by pressure through said tube.

The connecting-tube D, which is preferably constructed of rubber, as rubber is not corroded by ink and is also flexible, extends from the point at which the ink-supply bottle is stationed to the various inkstands which are placed on the line of supply. One or more inkstands may be used, and they may be stationed at any desired distance from each other. The supply-tube is preferably, when several inkstands are to be supplied, formed of a main supply-tube D and smaller branch tubes *d*, which extend to the various inkstands. This construction is preferred because of the neatness of arrangement thereby possible, but may be varied, if desired.

The ink-supply tubes are run in a concealed manner along the desks or counters on which the inkstands are stationed, so as not to be noticeable. They are connected with the openings *a* in the bottoms of the various inkstands.

Adjacent to each inkstand I place a valve E, which is designed to permit the stoppage of the flow of ink or the establishment of the flow, as desired. The form of valve which I have shown I have found best suited for general use. It consists of a pivoted lever *e*, one branch of which serves, when the lever is in its lower position, to close the ink-supply tube *d* and thereby prevent the flow of ink therethrough; a valve-rod *e*′, having a head e^2 on its outer end attached to one end of said lever, and a spring e^3, which normally forces the pivoted lever downward, or in such a position as to close the ink-supply tube. In the drawings two different constructions of this valve attachment are shown. Whichever construction is used, I find it advisable to employ a valve whose valve-rod is, when closed, in its lower position, as thereby accidental reëstablishment of the flow of ink is prevented.

Considering now the operation of my ink-filling attachment, if the valves c^2 and E be opened a flow of ink through the ink-supply tube can be readily established by blowing through the mouthpiece C^2. Once established, the flow is continuous as long as the valve c^2 is left open to permit the passage of ink. The ink will rapidly rise in the inkstands whose valves E are open. As soon as the inkstands are filled the valves E may be allowed to close and the flow of ink will stop. It may at any time be recontinued, however, as long as there is any ink in the ink-supply bottle, by simply raising the valve E, so that an automatic continuous supply of ink to the inkstands is thus effected.

It is obvious that my invention is not limited to any particular form or arrangement of the inkstands, and that many changes in the arrangement and position of the parts may be made from that herein shown without altering the spirit and scope of my invention, so that

What I desire to claim and secure by Letters Patent is—

In an inkstand-filling attachment, the combination with an inkstand having an opening in the bottom thereof, of an ink-supply bottle, a siphon attachment in the mouth of said bottle, a tube connecting said siphon attachment with the opening in the bottom of said inkstand, and the normally-depressed valve E having the spring-controlled valve-rod *e*′ and the pivoted lever *e* for normally closing said connecting-tube and thereby stopping the flow of ink, substantially as described.

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

PATTISON F. McCLURE.

Witnesses:
JOHN GREENOUGH,
LOUIS GREENOUGH.