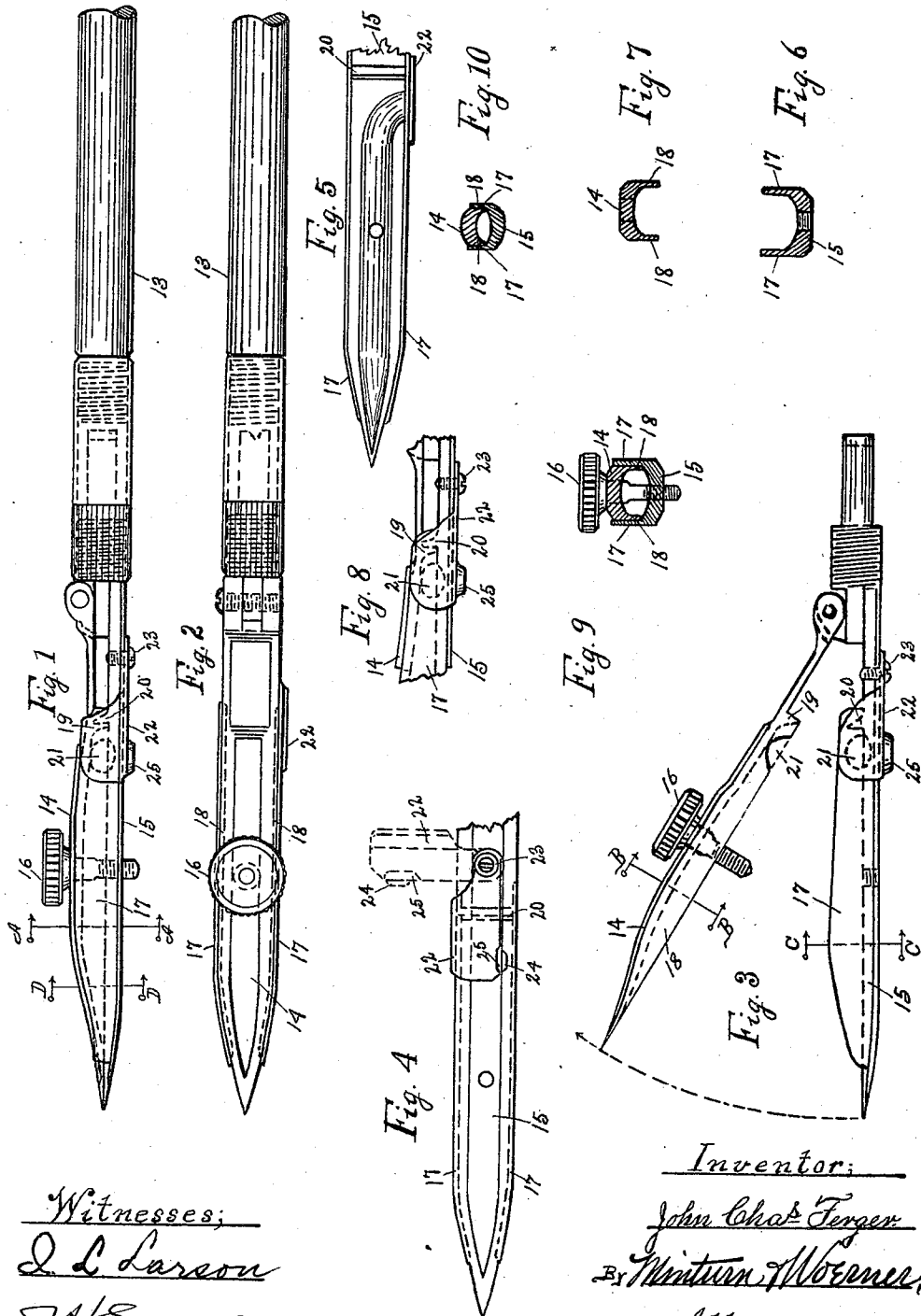


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DRAFTSMAN'S PEN.  
APPLICATION FILED MAR. 28, 1912.

1,046,753.

Patented Dec. 10, 1912.



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# UNITED STATES PATENT OFFICE.

JOHN CHARLES FERGER, OF INDIANAPOLIS, INDIANA.

DRAFTSMAN'S PEN.

1,046,753.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed March 28, 1912. Serial No. 686,931.

*To all whom it may concern:*

Be it known that I, JOHN CHARLES FERGER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Drafts-  
men's Pens, of which the following is a specification.

This invention relates to improvements in pens for drawing straight lines, comprising a pair of blades which are adjusted with relation to each other to regulate the size of the line; and the object of the invention is to provide an ink magazine or reservoir, between the blades, near the point or drawing end of the pen, and holding a very much larger supply of ink than the ordinary pen, and preventing the evaporation of the ink, thereby securing any size or uniform line desired, without readjusting, and refilling frequently, as in the ordinary pens, and where the reservoir will not interfere with the separation of the blades for the purpose of cleaning them, which will probably not be necessary but several times a week. The pen is also provided with an extension of the fixed blade which can be adjusted to a compass for drawing circles, without filling another pen for this purpose. The construction of the points of the pen also enables the operator to perform ordinary writing, and eliminates blotting entirely. Thus the object is to improve upon the construction of instruments of the above character in various ways which will be hereinafter fully described and pointed out in the appended claims.

I accomplish the objects of my invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of a pen provided with my improvements. Fig. 2 is a side view of the same. Fig. 3 is a top view with the blades open for cleaning. Fig. 4 is a view of the reverse side of the pen from that shown in Figs. 2 and 5 with the clasp for closing the filling place, closed in full lines and open in dotted lines. Fig. 5 is a view of the inner surface of the fixed blade. Fig. 6 is a cross section on the line C C of Fig. 3. Fig. 7 is a cross section on the line B B of Fig. 3. Fig. 8 is a detail of the right side of both blades of the pen, and illustrates the clasp closed and shows the ink-filling channel and transverse walls at the

upper end of the ink magazine in dotted lines, also shows the transverse wall of the hinged blade below and overlapped by the transverse wall of the fixed blade, thus closing the upper end of the ink magazine. Fig. 9 is a cross section of both blades with pen closed on line A—A of Fig. 1 showing the side extensions as integral parts of both blades, the side extensions of the upper blade sliding between the side extensions of the lower blade, thereby forming the ink magazine, also showing set-screw passing through the ink magazine when filled, and the pen closed. Fig. 10 is a cross section taken on the line D—D of Fig. 1 showing the hinged blade with its side extensions sliding between the side extensions of the fixed blade, thereby forming the front end of the ink magazine.

Like characters of reference indicate like parts throughout the several views of the drawings.

While I have shown by my drawings the side extensions and transverse walls as being integral parts of both blades, they may also be attached to the blades by brazing, or other usual methods.

Referring to the drawings, 13 is a handle of any usual or suitable material to which a shank carrying the blades of the pen is fastened, preferably by being screwed therein in the manner shown in the drawings. There are two blades 14 and 15, of which I designate the blade 14 as the hinged, and blade 15 the fixed one. The hinged blade 14 is hinged, as shown, to the fixed blade 15 in the usual manner, to permit the blade 14 to be swung upward for the purpose of cleaning the inner faces of both blades when necessary. The distance between the blades is regulated by a set-screw 16 in the usual way. It will be noted that both blades are brought closer together near their points than is usual in such instruments to more fully prevent the escape of ink at that end when the pen, filled with ink, is closed. The usual openings at each side of the pen, between the two blades, are closed by integral side extensions of the blades, the extensions 17 of the fixed blade overlapping the extensions 18 of the hinged blade, which are made to slide between the extensions 17 to near the inner face of the fixed blade 15. While extensions 17 fully cover extensions 18 they also extend almost to the outside or top

face of the upper blade. The lower ends of the extensions 17 of the fixed blade 15 are somewhat nearer the point of the pen than those of the hinged blade 14 and practically close the space at the sides between both blades to a point about midway of the set-screw 16 and the shank of the handle, and then connect with the transverse wall 19 which is also an integral part of the hinged blade 14 and is made to slide against and below the transverse wall 20 of the fixed blade 15 said wall 20 also being an integral part and connecting with side extensions 17 of the fixed blade 15, which extend along both sides to near the point of the pen. Thus the blades with their extensions form a reservoir, to receive a supply of ink for the pen, when the blades are closed with the set-screw 16, which must be unscrewed from the fixed blade 15 for opening up and cleaning.

The filling of the magazine can be done with a medicine dropper, through openings 21 on the right side of the extensions of both blades. These openings are closed, after the magazine is filled, by a metal clasp 22 having a member at an angle therewith which is hinged at 23 to blade 15. The clasp is of spring metal and may be locked when closed, as here shown, by a small extension 24 at the left side which springs over the left edge of the fixed blade 15, but any suitable locking means can be used. A finger-hold 25 on the clasp enables it to be drawn out and unlocked.

It must be noted that the spring in the hinged blade 14 should be between the hinge and end transverse wall 19 of the hinged blade 14. This spring in the blade 14 should be sufficiently strong to release the blade from its closed position when the set-screw 16 is being released, thereby regulating the width of the line desired. To obtain the best results, the points of both blades should be thin and pointed, and the channel, as shown on the inner surface of the fixed blade 15 of Fig. 5, should start from the filling place 21 and decrease gradually to near the point of the blade, the hinged blade should also have a similar channel, thus aiding the flow of ink to the point of the pen. Any foreign matter which may accumulate between the points may be easily removed with a pin or tooth-pick, by releasing the set-screw slightly. A draftsman's pen constructed as above is very simple and easy to operate.

Having thus fully described my said invention, what I claim as new and wish to secure by Letters Patent of the United States, is—

1. In a drawing instrument, a blade having longitudinal flange extensions at its edges, a second blade having longitudinal flange extensions which make a close sliding

fit between the flange extensions of the first blade, and means for adjusting the distance between the two blades.

2. In a drawing instrument, a blade having longitudinal flange extensions at its edges, a second blade hinged to the first blade and having longitudinal flange extensions which make a close sliding fit between the flange extensions of the first blade, and means for adjusting the distance between the two blades.

3. In a drawing pen, a blade having longitudinal flange extensions at its edges, a second blade having longitudinal flange extensions which make a close sliding fit between the flange extensions of the first blade, both of said blades having longitudinal channels in their adjacent faces to aid the flow of ink to the point of the pen, and means for adjusting the distance between the two blades.

4. In a drawing instrument, a blade having longitudinal flange extensions at its edges, a second blade having longitudinal flange extensions which make a close sliding fit between the flange extensions of the first blade, means for adjusting the distance between the two blades, and means at the inner ends of said flange extensions to close the inner end of the reservoir formed by said flange extensions.

5. In a drawing instrument, a blade having longitudinal flange extensions at its edges, a second blade having longitudinal flange extensions which make a close sliding fit between the flange extensions of the first blade, transverse flange extensions from each blade and close together to close the inner end of a reservoir formed by all of said flange extensions, and means for adjusting the distance between the two blades.

6. In a drawing pen, a blade having longitudinal flange extensions at its edges, a second blade hinged to the first blade and having longitudinal flange extensions which make a close sliding fit between the flange extensions of the first blade, both of said blades having longitudinal channels in their adjacent faces to aid the flow of ink to the point of the pen, said flange extensions having registering openings through which ink is introduced into the pen, and means for closing said openings.

7. In a drawing pen, a blade having longitudinal flange extensions at its edges, a second blade hinged to the first blade and having longitudinal flange extensions which make a close sliding fit between the flange extensions of the first blade, both of said blades having longitudinal channels in their adjacent faces to aid the flow of ink to the point of the pen, transverse flange extensions from each blade at the ends of their edge flanges nearest the handle of the pen and close together to close the inner end of

a reservoir formed by all of said flange extensions, two of said flange extensions having registering openings through which ink is introduced into the pen, a pivoted closure  
5 for said openings, and means for adjusting the distance between said two blades.

In witness whereof, I have hereunto set

my hand and seal at Indianapolis, Indiana, this, 25th day of March, A. D. one thousand nine hundred and twelve.

JOHN CHARLES FERGER. [L. s.]

Witnesses:

J. A. MINTURN,

F. W. WOERNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."