No. 877,679. PATENTED JAN. 28, 1908.

C. R. TAYLOR.

INK FOUNTAIN.

APPLICATION FILED APR. 16, 1907.

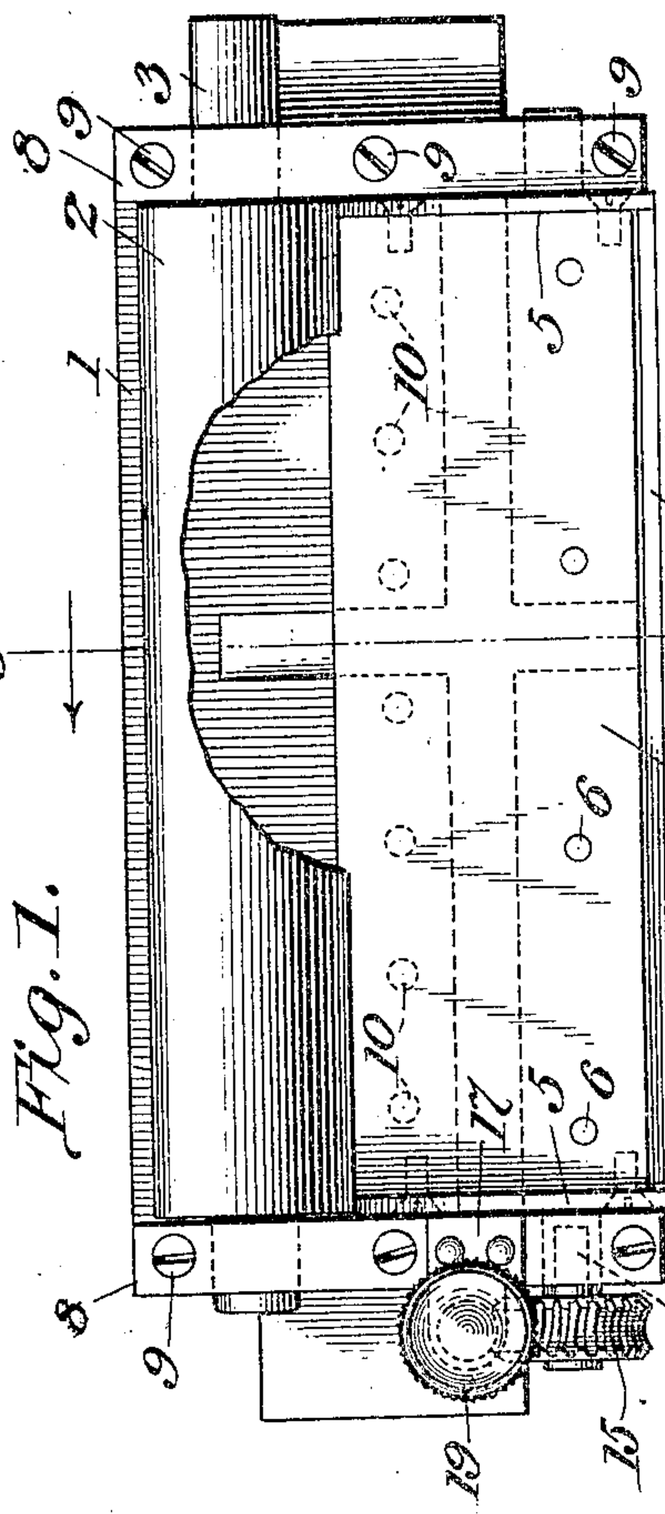

Fig. 1.

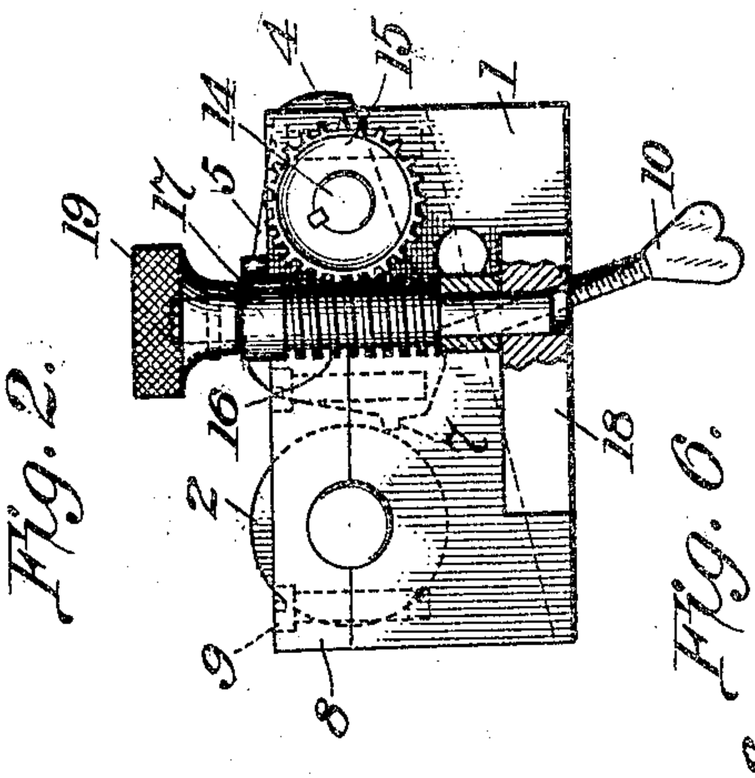

Fig. 2.

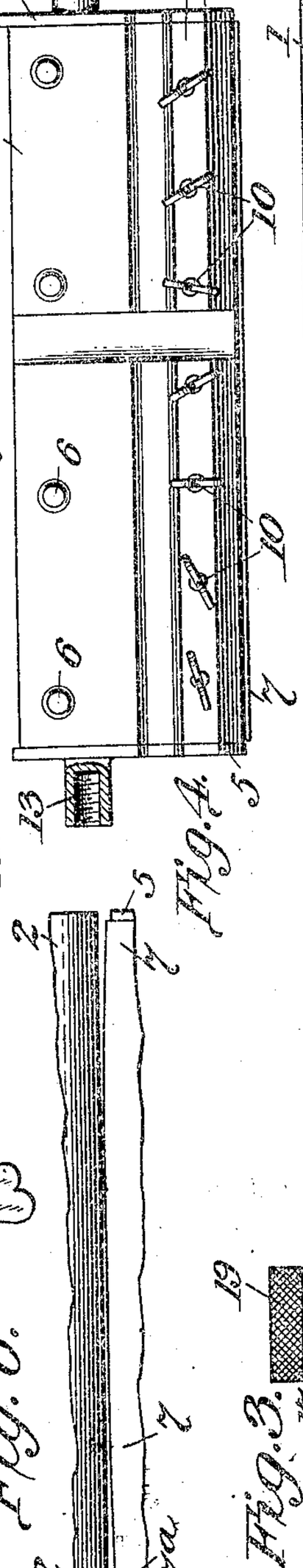

Fig. 4.

Fig. 6.

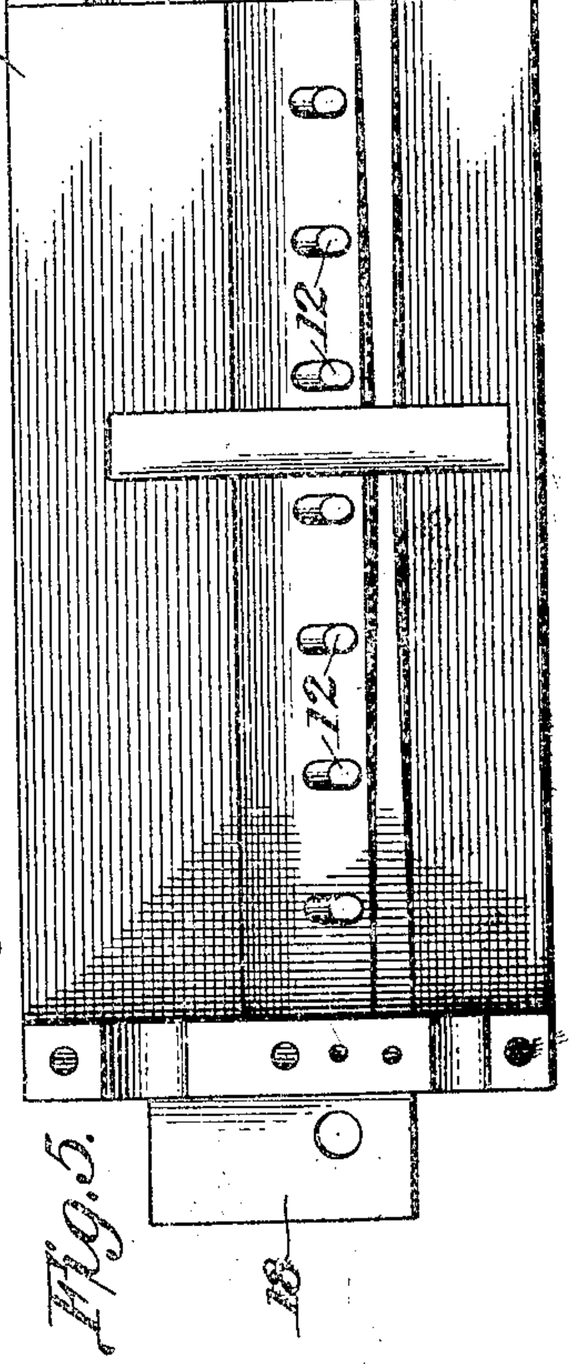

Fig. 5.

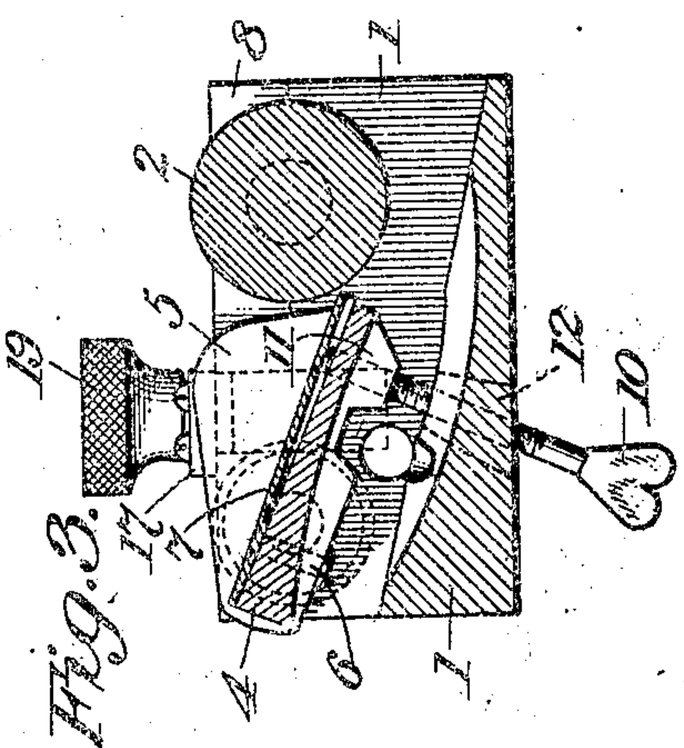

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

CASPER R. TAYLOR, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF ONE-SIXTH TO OSCAR J. RICKETTS, ONE-SIXTH TO EDWARD EYNON, JR., AND ONE-THIRD TO WILLIAM F. MAHONY, OF WASHINGTON, DISTRICT OF COLUMBIA.

INK-FOUNTAIN.

No. 877,679. Specification of Letters Patent. Patented Jan. 28, 1908.

Application filed April 16, 1907. Serial No. 368,465.

To all whom it may concern:

Be it known that I, CASPER R. TAYLOR, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Ink-Fountains, of which the following is a specification.

My invention relates to novel improvements in ink fountains for printing presses, and more particularly to fountains designed for use on presses in which the ink is distributed to the type by means of form rollers. In devices of this character it is customary to mount an inking roller in the font and to arrange adjacent thereto a knife or doctor for limiting the amount of ink delivered by said roller. This doctor is adjusted by means of set screws, and, when it is desirable to clean out the font, for any reason, as for refilling with a different colored ink, it has heretofore been necessary to loosen all the set screws, and thus destroy the adjustment of the doctor.

The primary object of my invention is to provide means for cleaning the font and roller without destroying the adjustment of the doctor.

With the above and other objects in view, my invention consists in the construction hereinafter described, and illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view of my improved ink font. Fig. 2 is an end elevation of the same. Fig. 3 is a transverse section of the same, taken on the line 3—3 of Fig. 1 and looking in the direction of the arrow. Fig. 4 is an inverted plan view of the doctor frame. Fig. 5 is a plan view corresponding to Fig. 1, but with the roller and doctor removed, and Fig. 6 is a diagrammatic view showing fragments of roller and doctor, and the manner of adjusting the latter.

Referring to the drawings in detail, my improved font comprises a main frame or casting 1, in which is journaled the inking roller 2. To one end of the shaft, 3, of this roller, may be secured suitable driving means, (not shown). Also mounted in the casting 1, and supported by means of journals, 13, is a fountain bed, or doctor frame 4, a bottom view of which is seen in Fig. 4. From an inspection of Fig. 3 it will be seen that this doctor frame is thick, and practically rigid, being preferably formed of cast metal. End pieces 5, of sheet metal, are riveted or otherwise secured to the doctor frame, and form therewith a kind of trough or box for the reception of the ink.

7 indicates the doctor, which, as shown in Fig. 3 consists of a thin, resilient plate of sheet metal. This lies over the upper surface of the doctor frame, and, at its rear edge, is secured thereto by means of rivets, 6. This construction leaves the forward edge of the doctor free, and, as shown clearly in Fig. 3, this forward edge projects slightly beyond the doctor frame.

A series of set screws, 10, work in a rib 11, on the doctor frame, and their upper ends bear against the under side of the doctor, near its front edge. The shanks of said set screws project downwardly through elongated slots, 12, formed in the main frame 1, the purpose of which will hereinafter appear.

The bearings in the frame 1, for supporting the journals of the roller 2, and doctor frame 4, are semi-cylindrical, and caps, 8, also formed with semi-cylindrical bearings fit down over said journals and are secured in position by means of screws 9. This construction is preferred, as it admits of the ready removal of roller and doctor frame when desired.

Into one of the journals 13, of the doctor frame, fits a screw plug, 14, on which is rigidly mounted a worm-wheel 15. A worm 16, is arranged to gear therewith, and is journaled at its ends in brackets, 17, 18, carried by the frame 1.

A thumb nut, 19, is mounted on the upper end of the worm shaft, and affords means by which the same may be turned.

The operation of the device is as follows:— In printing on job presses and the like it is frequently desirable to supply ink more freely to one part of the form than to another, owing to the fact that parts of the type may be heavier than others. The desired distribution or flow of ink is therefore obtained by adjusting the several set screws 10 so as to cause them to bring the edge of the doctor to the proper distance from the roller. If they are all turned forward to the same extent, they will, obviously bring the edge of the doctors up parallel with the roller, and the ink will flow uniformly. By setting forward some of said screws more than others, however, the doctor will be dis-

torted, and parts of its edge, (as at 7ª Fig. 6) will be at a greater distance from the roller than other parts, and the ink will, of course, flow more freely, over that part of the roller which is at a greater distance from the doctor. Having once obtained the proper adjustment of the doctor it is highly desirable to maintain that adjustment while printing the entire edition from any particular form, even though some part of the edition be printed in a different color from other parts. In order, then to clean out the font, for the purpose of changing inks, or other reason, the entire doctor frame is swung away from the roller by operating the worm 16. The doctor frame swings on its trunnions 13, and the screws 10 move in the elongated slots, 12. When cleaned, the doctor frame may be swung back, and printing resumed, the relative or local adjustment of the doctor, having remained undisturbed, and the distribution of ink being, therefore exactly the same as before.

What I claim is:—

1. In an ink fountain, a frame, a roller journaled therein, a doctor in operative relation with said roller, means for adjusting said doctor locally at any point throughout its length, and means for bodily moving said doctor without interfering with such local adjustment.

2. In an ink fountain, a frame, an ink roller journaled therein, a doctor frame also journaled therein, means for swinging said doctor frame, a flexible doctor secured thereto, and in operative relation with said roller, and local adjusting means for flexing said doctor, carried by said doctor frame.

3. In an ink fountain, a frame, a roller journaled therein, a doctor frame also journaled therein, a resilient doctor secured to said doctor frame and in operative relation with said roller, means for locally adjusting said doctor by flexing the same, said means comprising set screws carried by said doctor frame and bearing against said doctor, and means for bodily swinging said doctor frame on its journals.

4. In an ink fountain, a main frame, provided with slots, a roller journaled therein, a doctor frame also journaled therein, a doctor carried by said doctor frame in operative relation with said roller, adjusting screws carried by said doctor frame and bearing against said doctor at intervals throughout its length, said screws having their shanks projecting through the slots in said main frame, whereby ready access may be had to said screws, and means for swinging said doctor frame to and from said roller.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CASPER R. TAYLOR.

Witnesses:
ELIAS WOLFE,
JAS. W. HUGHES.