

(No Model.)

J. T. HAWKINS.

INK FOUNTAIN FOR PRINTING PRESSES.

No. 318,617.

Patented May 26, 1885.

Fig 1.

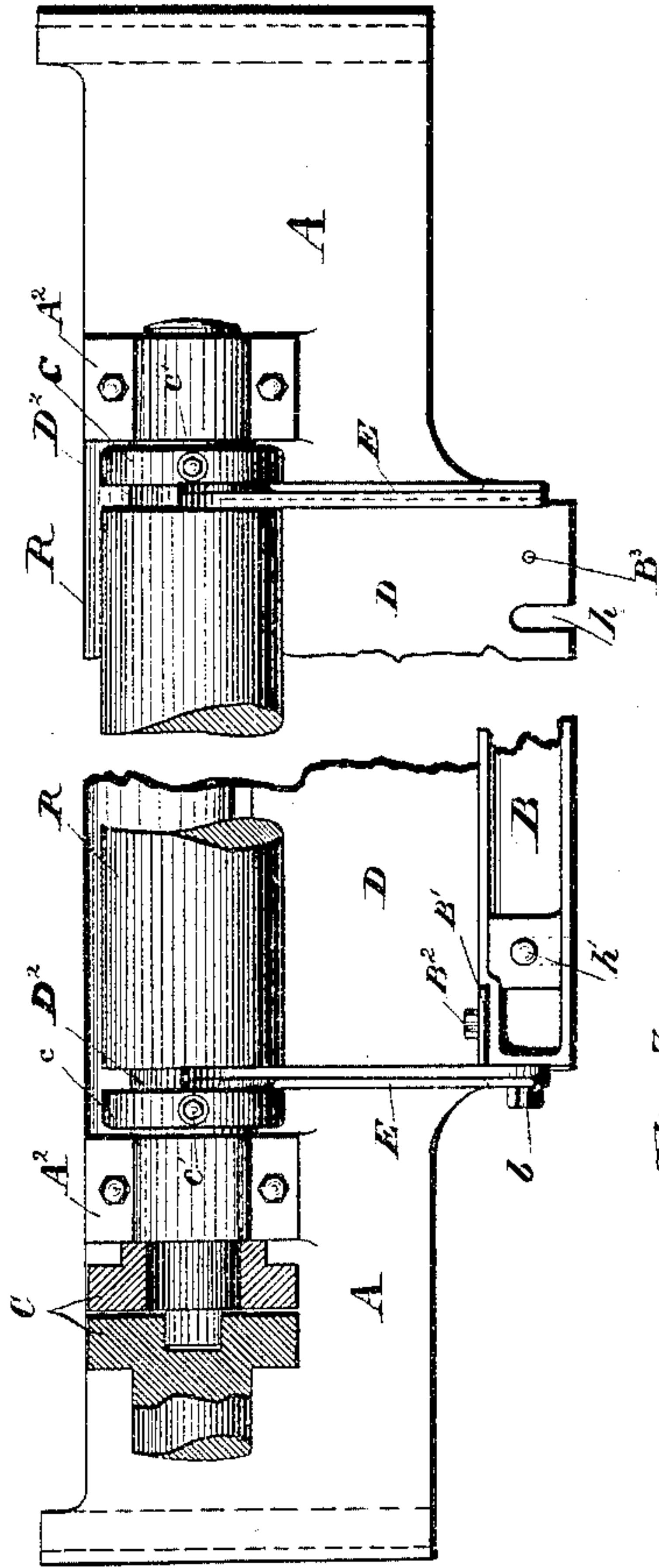


Fig 2.

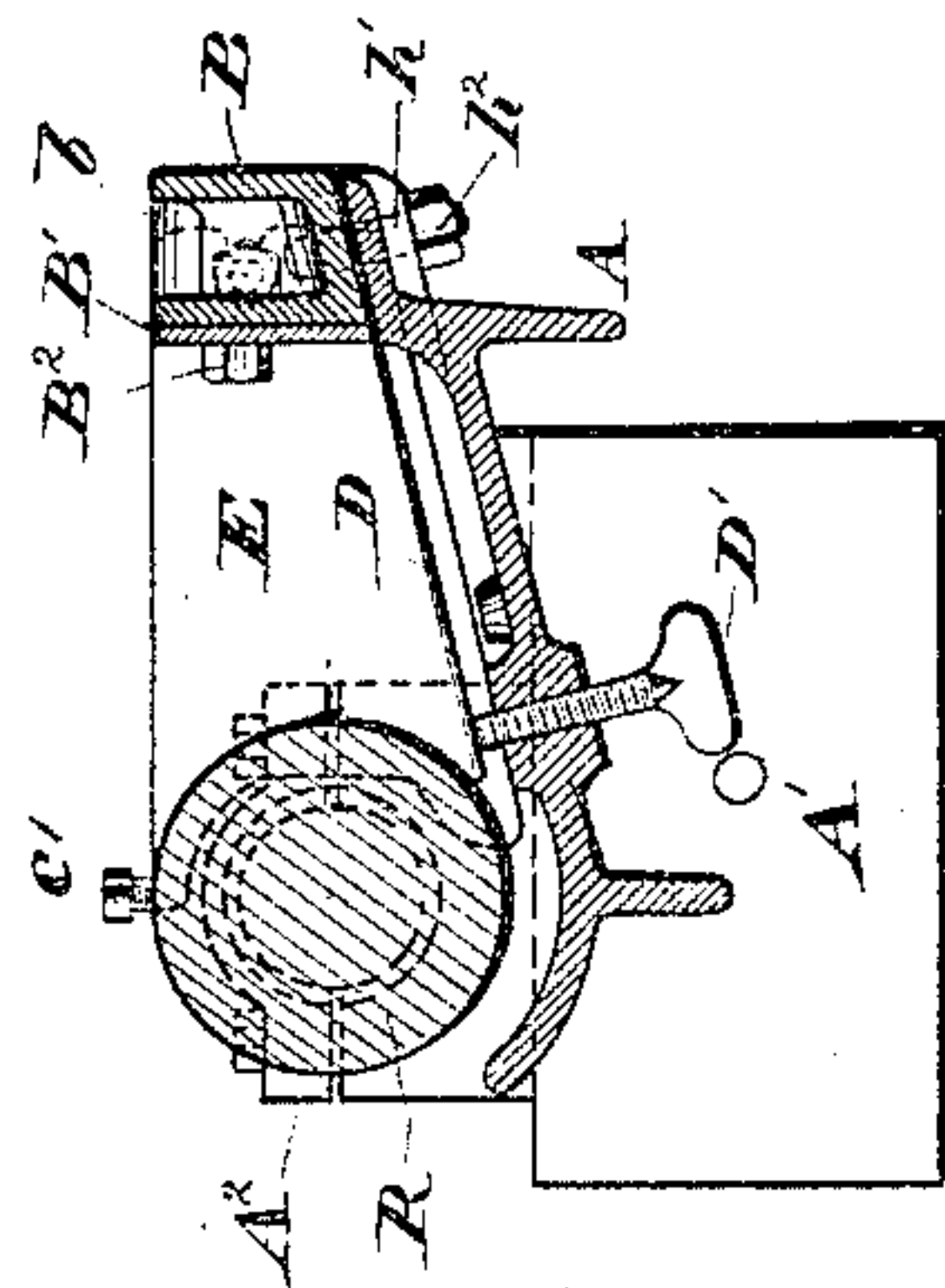


Fig 3.

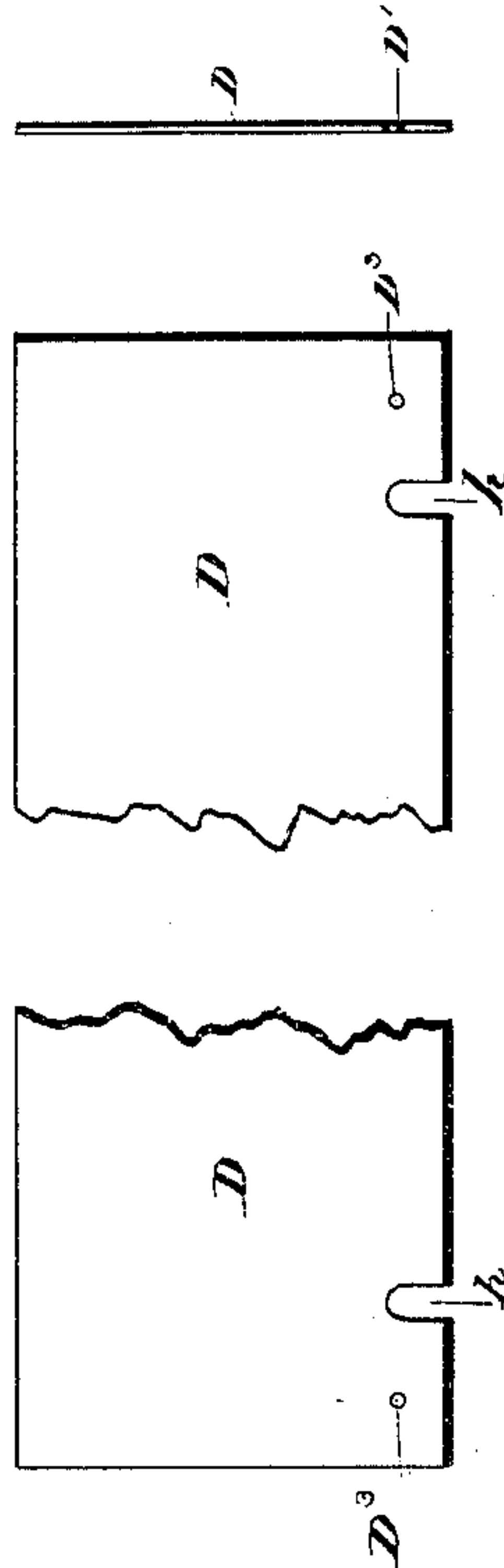
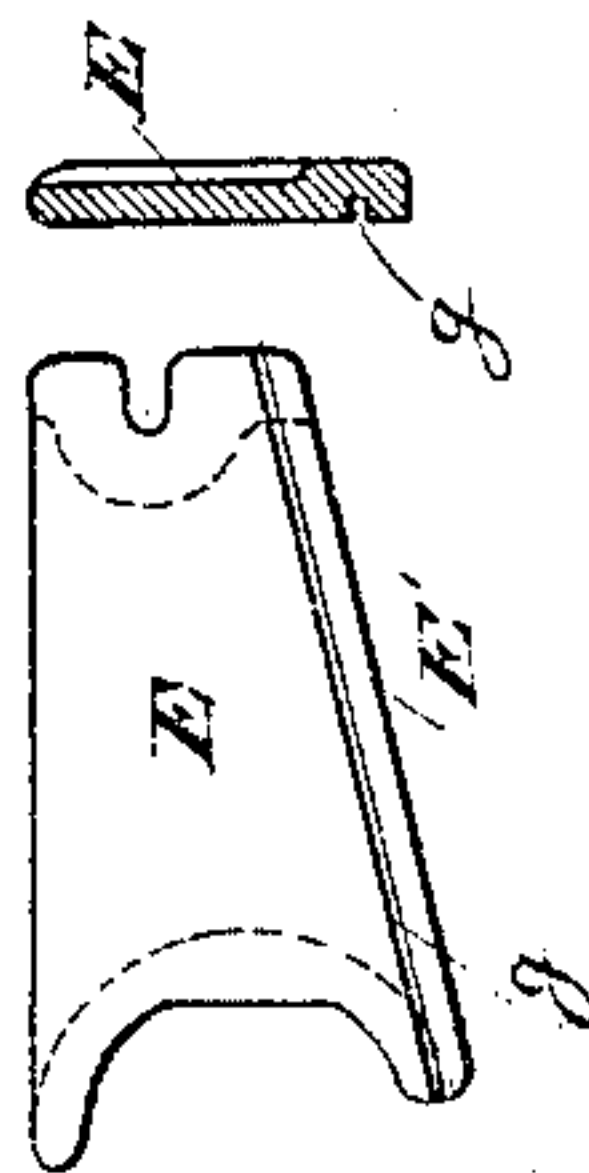


Fig 4.



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# UNITED STATES PATENT OFFICE.

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## INK-FOUNTAIN FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 318,617, dated May 26, 1885.

Application filed May 28, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN T. HAWKINS, of Taunton, in the county of Bristol and State of Massachusetts, have invented certain new and  
5 useful Improvements in Ink-Fountains for Printing-Presses, which improvements are fully set forth and illustrated in the following specification and accompanying drawings.

The object of the invention is to provide an  
10 ink-fountain for printing-presses easy and cheap to construct, and capable of holding a considerable quantity of ink, which shall avoid all difficult fitting of parts to insure tightness of the reservoir, and have such an arrange-  
15 ment of parts that the surfaces whose contact involves the prevention of leakage of the ink are adjustably assembled, and therefore adjustable for wear, whereby the whole is so arranged that its parts may be easily and  
20 quickly dismembered for cleansing and as easily and quickly replaced.

In the accompanying drawings, Figure 1 is a view in plan in two parts, each part showing an end of the fountain, the left-hand end  
25 having all parts in position and the right-hand end having the fountain-back removed. Fig. 2 is a transverse section through the center of the same. Fig. 3 is a view in plan of the blade broken away in the middle. Fig.  
30 4 shows in two views the cheek-pieces forming the ends of the ink-reservoir.

In said drawings the several parts are respectively indicated by letters as follows:

35 A is the main base-piece, which is secured to the frames of the machine in any suitable way—as, for instance, by the flanges A', Fig. 2.

A<sup>2</sup> are bearings, in which the ink-roller R is journaled at its ends. The construction here shown is such that the entire fountain  
40 may be detached from the press, the outer half of the clutch-coupling C (shown in section) remaining in the machine. It may, however, be so constructed that the ink-roller R may be journaled in the main frames of the  
45 press in such manner as to be easily removed, in which case the bearings A<sup>2</sup> should be omitted.

D is the blade for regulating the film of ink to be allowed on the roller R.

50 D' are the set-screws for adjusting the distance of the inner edge of the blade D from the roller R in regulating the ink film.

B is the back-piece, forming the back of the ink-reservoir, having at each end, upon its inner surface, an adjustable plate, B', se- 55 cured in place by the bolts B<sup>2</sup>.

E are the cheek-pieces forming the ends of the ink-reservoir. At the ends of the ink-surface of the roller R are turned two depressions of smaller diameter, D<sup>2</sup>, into which said cheek- 60 pieces fit. On these smaller ends of the roller R are secured two collars, c, held in place by set-screws c'.

In the back edge of the blade D are formed slots h, for the passage through them of stud- 65 bolts h', secured to the back B.

On the inner sides of the cheek-pieces E is planed, respectively, a groove, g, of the same thickness as the blade D. The ends of the blade D partially enter the grooves g, leaving 70 a portion of the depth of said grooves for adjustment. The bolts h', secured to the under side of the back-piece B, are provided with nuts h<sup>2</sup>.

Tapped into the ends of back-piece B, are 75 bolts b, having their threaded ends of somewhat smaller diameter than the rest of their lengths, and screwed hard down against said back-piece, so that the cheek-pieces E may move easily under the heads of the bolts b, 80 while said heads hold the cheek-pieces E in contact with the ends of back-piece B, and the edges of the plates B' close enough to prevent leakage of ink at said points. The cheek-pieces E are so formed at their ends, 85 which come in contact with the roller R, that they may rise and fall at those ends with the operation of the screws D' in adjusting the film of ink on the roller B. The base-piece A is slotted at its back edge, for the reception of 90 the bolts h' in the same manner and at the same points as the blade D, as shown at h.

In the blade D are two small holes, D<sup>3</sup>, fitted to two short guide-pins, B<sup>3</sup>, inserted in the base-piece A, which serve the purpose of lo- 95 cating the blade D in position.

In this construction it will be seen that the cheek-pieces E are adjustable upon the blade D for wear of the surface of contact of the cheek-pieces E and roller R by means of the 100 grooves g in said cheek-pieces—that is to say, allowing a variation in the length between the inner sides of the cheek-pieces E. The adjustable plates B' on the ends of the back-



piece B allow for a corresponding variation in the length of the back-piece B. The collars *c* may always be placed so as to hold the cheek-pieces E in contact with the ends of the ink-surface of the roller R, so that wear at the said ends of the roller R (which wear is the troublesome feature in ink-fountains non-adjustably constructed at this point) may always be taken up by properly readjusting the parts, thus keeping all the joints tight.

It will be seen that as the parts are so completely interadjustable the necessity for all ink-tight fitting in the construction of the fountain is avoided, for the parts may all be made to dimensions or gages and then assembled or put together without further fitting.

To dismantle the fountain for cleansing or change of ink from one color or quality to another, it is only necessary to slack off the nuts *h*<sup>2</sup> and withdraw the back-piece B when the blade D, with the cheek-pieces E attached, may be removed. Then said cheek-pieces may be detached without disturbing the adjustment of any other parts, leaving the roller clear and unobstructed for cleansing. If necessary, the roller R may also be removed by first removing the caps from the bearings A<sup>2</sup>.

Having thus fully described my said improvements, as of my invention I claim—

1. In an ink-fountain, in combination with a film-regulating blade, as D, cheek-pieces, as E, adjustably secured thereto by grooves, as

at *g*, and constituting the ends of the ink-reservoir forming part of said fountain, substantially as and for the purpose set forth.

2. In an ink-fountain, in combination with a film-regulating blade, as D, having cheek-pieces, as E, adjustably attached to it, a back-piece, as B, adjustably attached also to said cheek-pieces, and having adjustable plates, as B', for adjusting its length, substantially as and for the purposes set forth.

3. In an ink-fountain, in combination with a film-regulating blade, as D, having cheek-pieces, as E, adjustably attached thereto, an ink-roller, as R, having adjustable collars, as *c*, to hold said cheek-pieces in contact with the ends of the ink-surface of said roller, substantially as and for the purposes set forth.

4. An ink-fountain consisting of an ink-roller, as R, having adjustable collars, as *c*, an adjustable film-regulating blade, as D, secured in position by pins, as B<sup>3</sup>, having adjustably attached thereto cheek-pieces, as E, and a back-piece, as B, having adjustable plates to vary its length, as B', the whole being interadjustably carried in a base-piece or frame, as A, and operating substantially as and for the purposes set forth.

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