

C. H. RAYMOND.
INK FOUNTAIN.
APPLICATION FILED JULY 13, 1910.

981,110.

Patented Jan. 10, 1911.

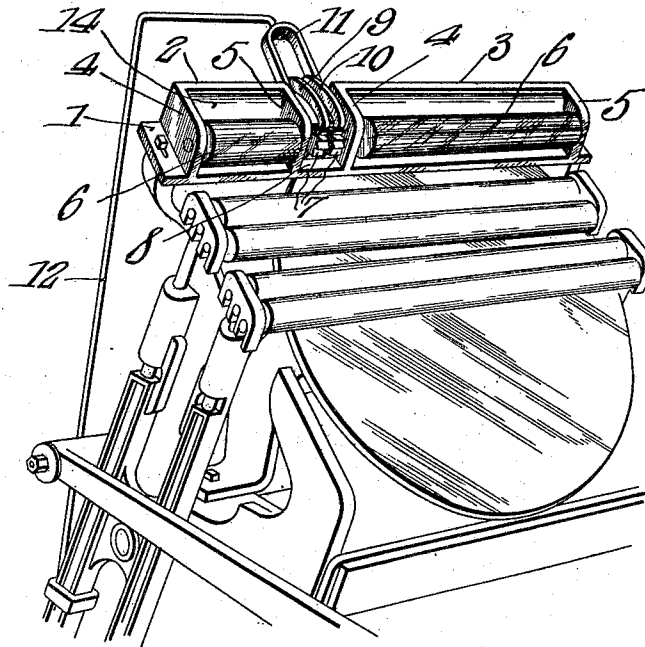


Fig. 1.

Fig. 2.

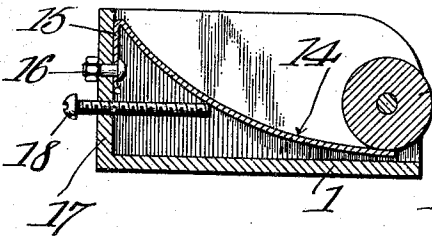
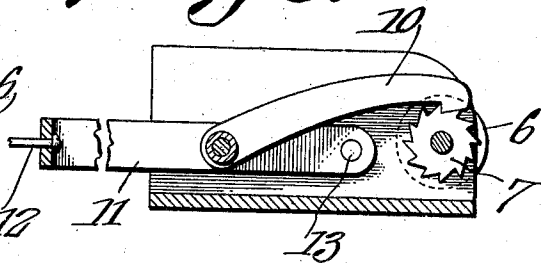


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES H. RAYMOND, OF NASHVILLE, ARKANSAS.

INK-FOUNTAIN.

981,110.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES H. RAYMOND, a citizen of the United States, residing at Nashville, in the county of Howard and State of Arkansas, have invented a new and useful Ink-Fountain, of which the following is a specification.

This invention relates to ink fountains such as are particularly adapted for feeding ink to platen presses, although the fountain of the present invention can be used for other purposes and in other connections if desired.

The principal object of the invention is to provide an ink fountain which is adapted, with equal facility to supply the exactly appropriate amount of ink for either a narrow form of type, a medium wide form of type or a full width form of type.

A further object of the invention is to provide means for adjusting the flow of ink from the fountain.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawings forming part of this specification:—Figure 1 is a perspective view of a printing press equipped with the improved ink fountain of the present invention. Fig. 2 is a transverse vertical section through one of the sections of the fountain. Fig. 3 is a similar section through the operating mechanism for the feed rolls of the two sections of the fountain.

Like reference numerals indicate corresponding parts in the different figures of the drawings.

For the purpose of conveying a clear understanding of the ink fountain of the present invention, it has been illustrated in Fig. 1 in connection with an ordinary conventional type of printing press having sets of feed rollers and an ink plate, with the ink fountain of the present invention arranged adjacent thereto. As the printing press and feed rollers thereof form no part of the present invention, a specific description of the same is deemed to be unnecessary.

The ink fountain of the present invention

is constructed preferably with a base board 1 on which is mounted a pair of ink fountains 2 and 3, the ink fountain 2 being relatively short and the ink fountain 3 being relatively long as shown. Each of the fountains 2 and 3 is formed with a pair of end boards 4 and 5. Mounted in each of the ink fountains 2 and 3 is a feed roller 6, the ends of each of which rollers are provided with ratchet wheels or feed devices 7, the two ratchet wheels 7 being located end to end in the space 8 between the two fountains 2 and 3. The ratchet wheels 7—7 of the two feed rolls are independently operable by means of a pair of pawls or levers 9 and 10 which are pivotally mounted upon an approximately U-shaped yoke 11 pivoted at 13 adjacent the shaft of the roller 6 and being operated in any suitable manner such as by means of a draw rod 12.

For the purpose of regulating the amount of ink which is to be fed from the fountains 2 and 3 by the rollers 6 thereof, each of said fountains is provided in the bottom with a flexible member 14 as shown in Fig. 2. The member 14 preferably is in the nature of a false bottom and is constructed of sheet metal having at the rear end thereof a depending flange 15 which is bolted or otherwise suitably secured at 16 to the rear wall 17 of the fountain. The forward free end of the false bottom 14 is located between the lower portion of the roller 6 and the base board 1 of the fountain. An adjustable member or screw 18 which is threaded or adjustably extended through the rear wall 17 of the ink fountain bears against the lower portion of the resilient bottom 14. A plurality of adjustable members or screws 18 are employed in each of the fountains and by adjusting said members either forward or backward, the false bottom 14 of each fountain can be adjusted toward or away from the roller 6 so as to regulate the amount of ink which can pass out between said roller and the false bottom 14.

Constructed as described, the operation of the invention is as follows:—If the printing press is being operated with a narrow form of type, the pawl 10 of the long ink fountain 3 is thrown backward onto the yoke 11 so as to be out of engagement with the ratchet 7 of the feed roll 6. The ink fountain 3 is thus thrown out of operation. Each movement of the yoke 11 is then communicated through the lever or pawl 9 to the

ratchet 7 of the ink roll 6 of the short fountain 2 and ink is thus fed from said fountain 2 in sufficient quantities to feed the narrow form of type in the press. The amount of ink which it is desired to feed from the short fountain 2 is regulated by means of the screws 18 in Fig. 2 acting against the flexible bottom 14. If a medium wide form of type is being used in the printing press, the pawl or lever 9 of the short fountain 2 is thrown out of engagement with its ratchet so as to leave merely the long fountain 3 in operation. If the full width of type form is being used in the printing press, then both the pawls 9 and 10 are thrown into engagement with their respective ratchets, and thus ink is simultaneously fed from both the long and short fountains so as to supply ink to the full width of type.

It will be noted from an inspection of Fig. 3 of the drawing that the ratchet wheels 7 are smaller in diameter than the rollers 6 which they operate. By reason of this fact the feed rollers of the printing press when they are moved up into contact with the feed rollers 6 of the ink fountain will not contact with the ratchet wheels 7. Moreover, said ratchet wheels are separated from each other by a sufficient distance to prevent any lint which may accumulate therebetween, from interfering with the operation of the ratchet wheels. It will be noted, moreover, that the pawls 9 and 10 are shortened at the free ends thereof so as not to contact with the feed rollers of the printing press when they are moved up close to the ink fountain.

In some cases, when it is not desired to use the entire ink fountain for a single color

of ink, different colors of ink can be supplied to the sections 2 and 3 of the fountain. This arrangement will facilitate the operation of two color printing.

While I prefer to construct the ink fountain with the sections thereof of different lengths, it is to be understood, nevertheless, that the different sections of the fountain can be made of the same length if desired so that the ratchet wheels will be located at the center of the fountain.

The ink fountain of the present invention is thus susceptible of use with either a narrow form, a medium wide form or a full width form of type. Moreover said fountain is exceptionally strong, simple, durable and inexpensive in construction as well as thoroughly efficient in operation.

What is claimed as new is:—

1. An ink fountain embodying in a single structure a plurality of compartments, the bottom of the fountain constituting its support, an inking roller mounted in each compartment, and means to operate the rollers singly or in unison.

2. An ink fountain embodying in a single structure a plurality of compartments of different lengths, the bottom of the fountain constituting its support, an inking roller mounted in each compartment, and means to operate the rollers singly or in unison.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES H. RAYMOND.

Witnesses:

JAMES L. TALLETT,
H. L. LURICEGOOD.