

G. P. FENNER.  
MECHANISM FOR ADJUSTING INK ROLLERS.  
APPLICATION FILED SEPT. 14, 1912.

1,057,136.

Patented Mar. 25, 1913.

4 SHEETS—SHEET 1.

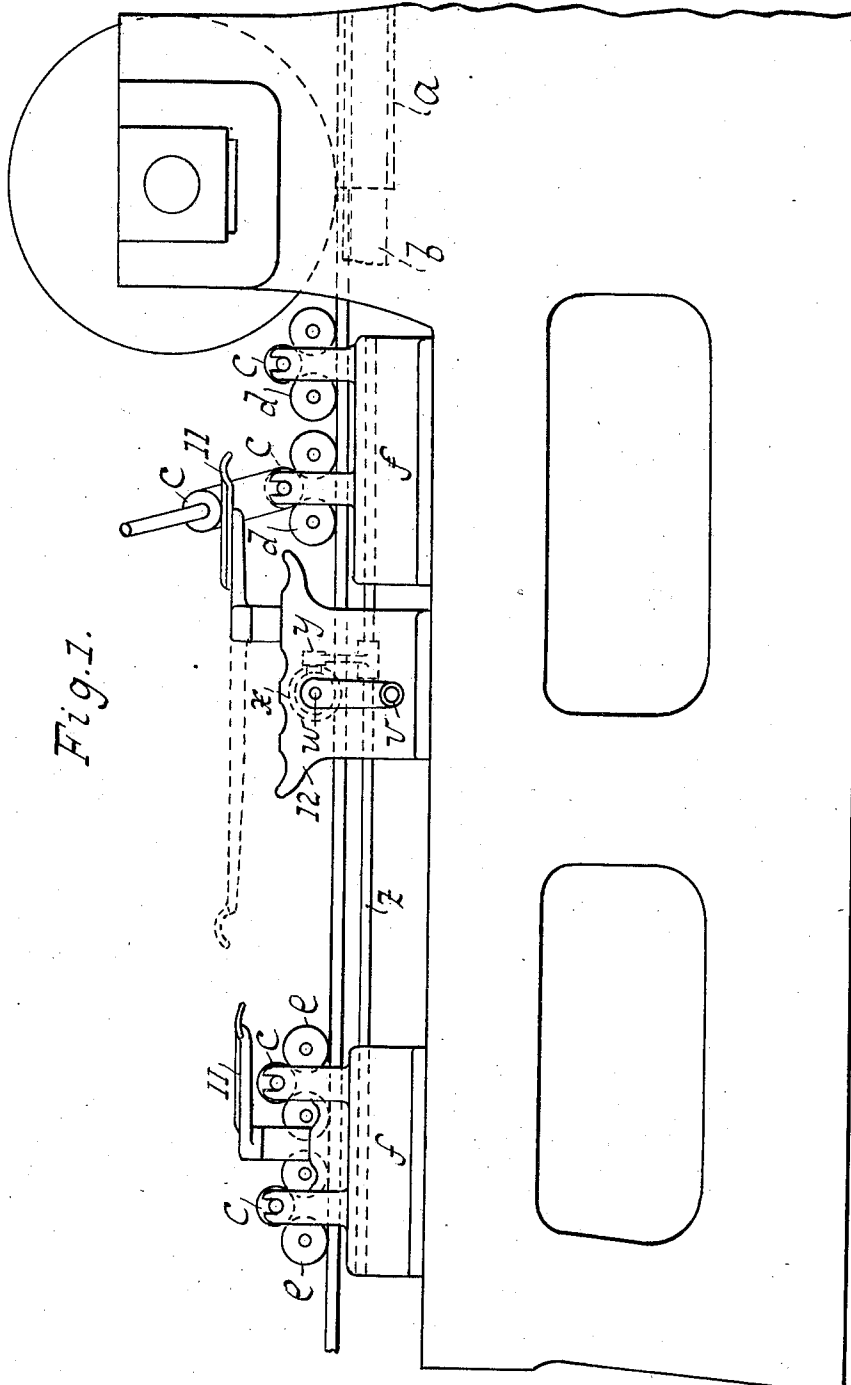


Fig. 1.

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By His Attorneys  
Hauff & Warden

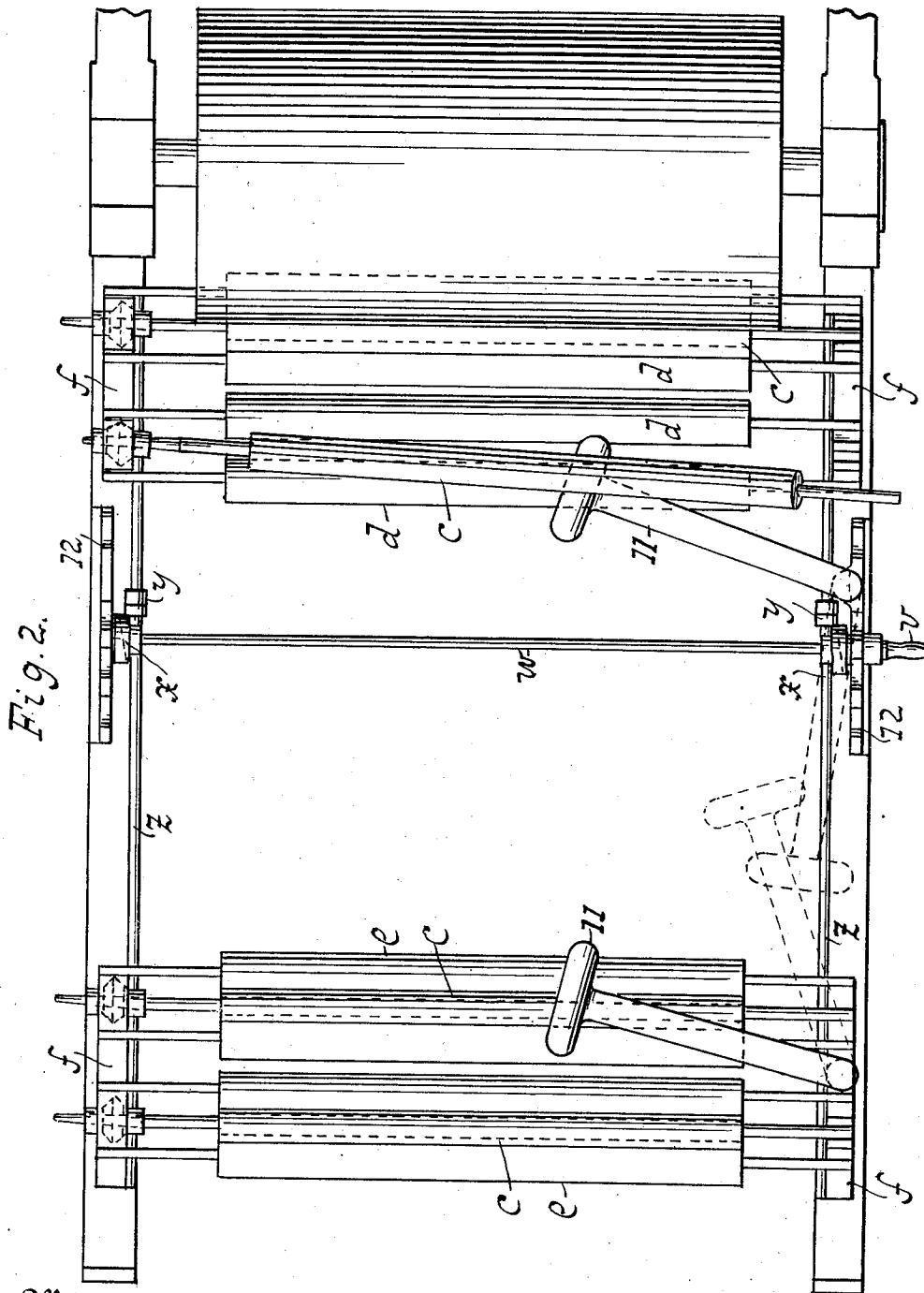
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4 SHEETS—SHEET 2.



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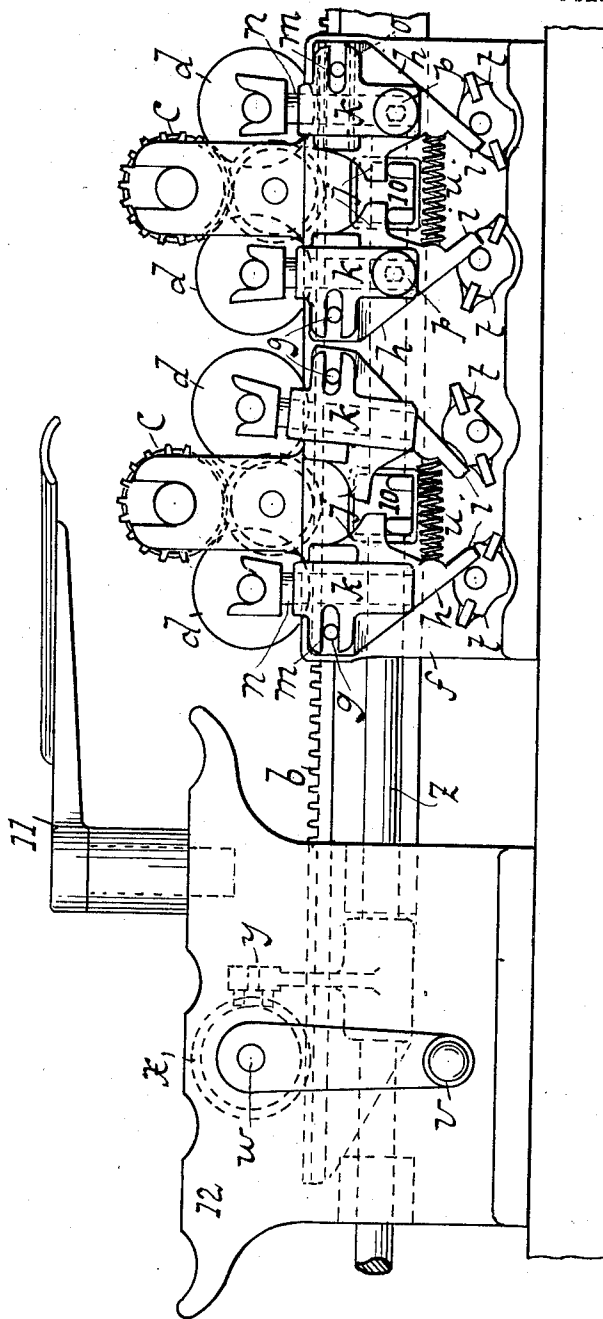
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4 SHEETS—SHEET 3.

Fig. 3.



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4 SHEETS-SHEET 4.

Fig. 5.

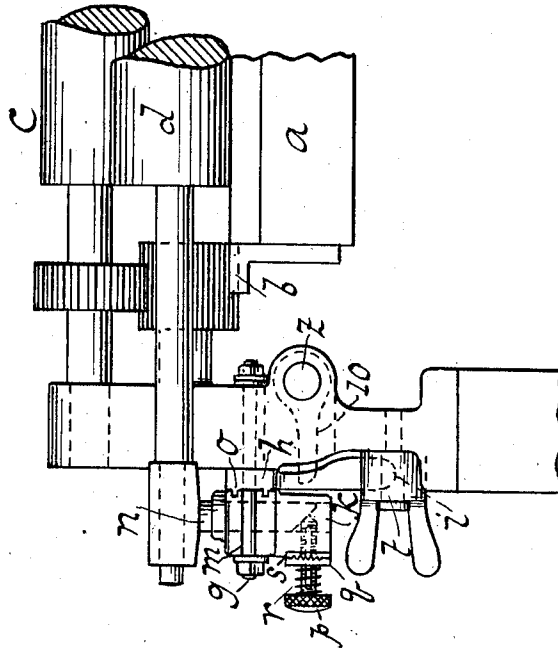
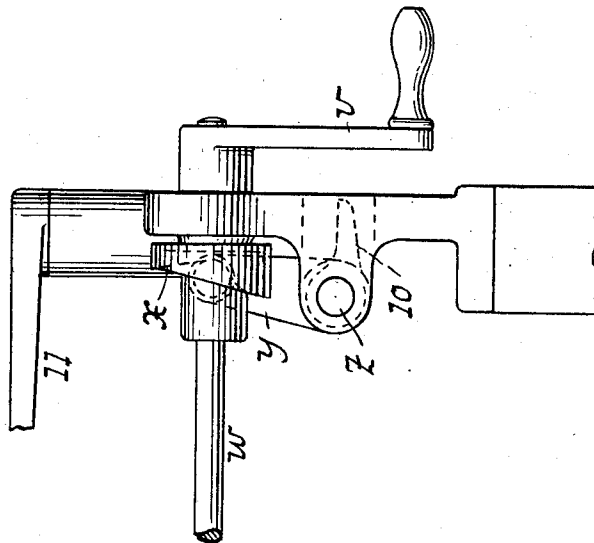


Fig. 4.



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# UNITED STATES PATENT OFFICE.

GEORGE P. FENNER, OF NEW LONDON, CONNECTICUT.

MECHANISM FOR ADJUSTING INK-ROLLERS.

1,057,136.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed September 14, 1912. Serial No. 720,372.

*To all whom it may concern:*

Be it known that I, GEORGE P. FENNER, a citizen of the United States, residing at New London, county of New London, and State of Connecticut, have invented new and useful Improvements in Mechanism for Adjusting Ink-Rollers, of which the following is a specification.

This invention relates to mechanism for adjusting the ink rollers of a printing press, one of the principal objects of the invention being to move or throw all or only one of the rollers in or out of operation at one movement.

This invention also provides means whereby the ink rollers and vibrating rollers can be readily dismounted and handled by a single person. Each inking roller is mounted on an independent bearing and the bearings are universally oscillated by means of a crank, to move the inking rollers in or out of operation. Each journal bearing is connected to a socket supporting member which is pivoted to the frame and can be oscillated to move one of the rollers out of operation. With the foregoing mechanism it is possible for the operator to throw all or any one of the rollers into or out of action. Each roller bearing carries devices for vertical adjustment of a roller, so that the roller can be moved in proper position with the form or table. The roller bearing members can also be adjusted horizontally to bring the ink rollers into correct frictional contact with the steel vibrator rollers.

The novel features of the invention are more fully described in the following specification and illustrated in the accompanying drawings in which:—

Figure 1 represents a side elevation of a printing press, some of the parts having been removed. Fig. 2 is a plan view of the same. Fig. 3 is a side elevation of the roller adjusting mechanism on a larger scale. Fig. 4 is an end view of the crank mechanism. Fig. 5 is an end view showing the roller mechanism.

In these drawings the letter *a* designates a bed or form and *b* is a rack which is fixed to the bed as indicated in Figs. 3 and 5. The bed is given rectilinear reciprocating movement as is well known. The rack transmits motion to a series of steel vibrator rollers *c* and these driving rollers give rotary motion to a series of form ink rollers *d* and a second series of table ink rollers *e*

respectively, the foregoing parts of the printing press are well known.

The peculiar method of arranging the table and form ink rollers includes; a number of frames *f* secured to the main frame of the machine. To each frame is fixed a series of studs or pins *g* projecting from the side of the frame as indicated in Figs. 3 and 5. On each pin is swingingly mounted a roller socket supporting member *h* provided with a tail portion *i* and a lug *j* the function of these parts will be hereinafter described.

The base portions *k* of the journal bearings are located on the outer sides of the supporting members *h* and each bearing is swingingly connected to a pin *g* by means of a slot *m* situated at the end of a base member.

Each base member has a socket for the insertion of a spindle or stem *n* of suitable construction for supporting or journaling a composition ink roller. Each base member *k* and its supporting member are joined together by means of a tongue and groove connection *o*. Hence, when it is necessary to position an ink roller to and from a vibrator *c* the base member *k* can be moved horizontally on the tongue of the supporting member. The slot *m* thus allows the base member to move forward and back on the pin when adjusted. After these parts are suitably adjusted, a clamp nut adapted to engage the end of the pin *g* as indicated in Fig. 5, can be tightened to hold the members together.

Each spindle or stem *n* can be vertically adjusted by means of a knurled thumb screw *p* best seen in Fig. 5, the pointed stem of which engages the lower beveled portion of a spindle *n*. This adjusting screw has flat sides and carries a toothed washer *q* which is normally pressed by means of a spring *r* against a correspondingly toothed part *s* fixed to the base support. When the thumb screw is rotated in either direction the toothed washer is disengaged from the part *s* and rotates with the screw, consequently raising or lowering the spindle to set an ink roller in its proper position in relation to the bed or table. In other words the washer comprises a locking arrangement by which the screw is normally prevented from being accidentally turned, thus preventing further vertical action of the spindle.

Each tail *i* of a supporting member rests against an independently movable cam

$t$  mounted on the frame. If it is desired to throw out of action a composition inking roller (see Fig. 3) where one of the series of rollers is shown out of operation; it is simply necessary to manipulate a thumb cam  $t$ . This action compresses a spiral spring  $u$  positioned between two of the tails  $i$  and swings a supporting member  $h$  with its roller socket support  $k$  on a pin and oscillates one of the ink rollers off the type bed or table and clear of its vibrator. It will be understood that the cams  $t$  are mounted on both sides of the machine and in order to entirely free the roller at both ends it will be necessary to actuate both cams. The roller may be allowed to stand in this position to get cool if it is overheated and the other rollers continue in action, or the roller may be removed entirely from the journal bearings as will be hereinafter described.

When it is desired to throw out all the rollers, it is merely necessary to turn a crank  $v$  mounted on a shaft  $w$  extending across the press. This shaft is provided with cams  $x$  for engagement with a pair of levers  $y$  each lever being secured to a rock shaft  $z$  located on each side of the press. Each shaft also carries a series of levers 10 for engagement with the underside of the lugs  $j$ , as indicated in Fig. 3, of the supporting members.

It will be apparent that when the crank is turned it oscillates both rock shafts  $z$  and actuates the levers 10 thus oscillating the roller supporting members to move all the table and form inking rollers out of operation with the vibrators, the type form and table. If a single roller happens to be thrown out of action by means of the thumb cam  $p$  as indicated in Fig. 3, it will in no manner interfere with the action of moving the other rollers in or out of operation.

For removing and handling the vibrator rollers  $c$  one or more levers 11 are provided. These levers are swingingly mounted on the frame and when not employed can be swung around against the side of the machine, as shown in Fig. 2. When it is desired to move or dismount a vibrator from its journal bearings it is simply necessary to swing a lever 11 as indicated in Figs. 1 and 2, raise by hand one end of a roller, lay the roller on the lever, using it as a fulcrum. Draw the opposite end of a roller  $c$  from its journal

bearing and swing it around on the lever to a support 12 secured to the frame of the press. This support has recesses as indicated in Fig. 3, for disposal of the rollers. It will be readily understood that the same operation can be applied to any of the vibrator rollers or any of the ink rollers mounted on the press.

I claim:—

1. In a printing press the combination with a plurality of rotary inking rollers, of bearings for supporting each of the rollers, manually controlled devices for oscillating the bearings to universally swing all of the rollers in or out of action, independently manually movable cams coöperating with each of the bearings for swinging any of the rollers out of action.

2. In a printing press the combination with a plurality of rotary inking rollers, of bearings for supporting each of the rollers, a rock lever shaft located on each side of the press, a transverse shaft for manually actuating the rock shafts to oscillate the bearings to universally swing all of the rollers in or out of operation, and means independent of the manually actuating device for swinging any of the rollers out of action.

3. In a printing press the combination with a plurality of rotary inking rollers, of socket bearings for supporting each of the rollers, a supporting member for each bearing, the latter having a lug and a tail portion, a rock lever to engage the lugs and swing all of the rollers out of action, and a cam coacting with the tail piece for independently swinging one of the rollers out of action.

4. In a printing press the combination with a plurality of rotary inking rollers, of socket bearings having beveled spindles with journals for mounting the rollers, a thumb screw threaded in the side of the bearing for coöperation with the beveled portion of the spindle to vertically adjust a roller, and a device carried by the screw and yieldingly engaging the bearing for locking the screw.

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

GEORGE P. FENNER.

Witnesses:

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