E. OCUMPAUGH.

INK ROLLS FOR PRINTING MACHINES.

APPLICATION FILED NOV. 19, 1913.

1,139,710. Patented May 18, 1915.

Fig. 1.

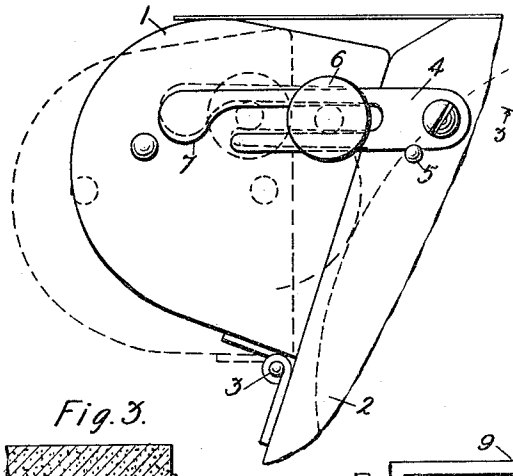


Fig. 2.

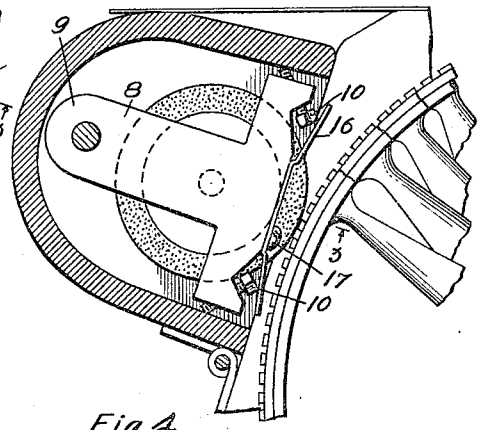


Fig. 3.

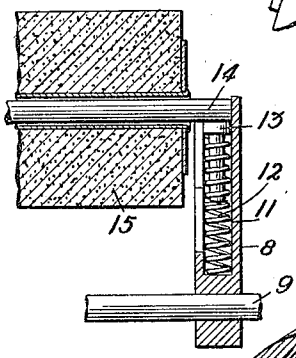
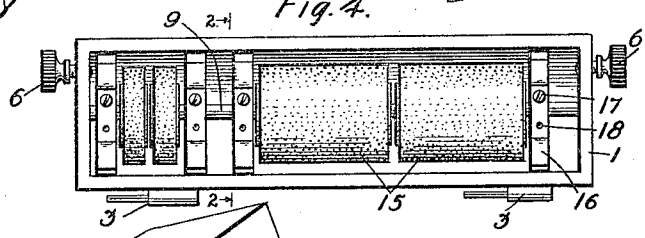


Fig. 4.



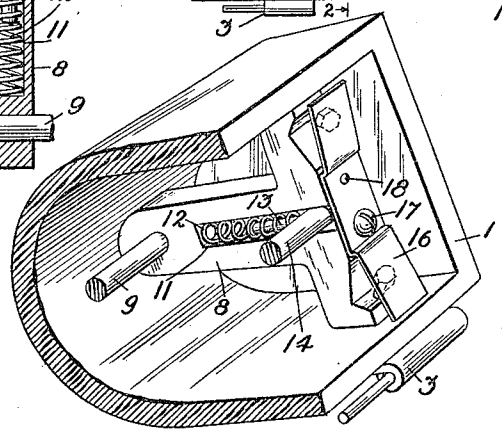


Fig. 5.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C

UNITED STATES PATENT OFFICE.

EDMUND OCUMPAUGH, OF ROCHESTER, NEW YORK, ASSIGNOR TO DEFIANCE MACHINE COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

INK-ROLLS FOR PRINTING-MACHINES.

1,139,710. Specification of Letters Patent. Patented May 18, 1915.

Application filed November 19, 1913. Serial No. 801,779.

To all whom it may concern:

Be it known that I, EDMUND OCUMPAUGH, a citizen of the United States, residing in Rochester, county of Monroe, State of New York, have invented certain new and useful Improvements in Ink-Rolls for Printing-Machines, of which the following is a specification.

My invention relates to ink rolls for printing machines and particularly for machines of the class known as check writers or check protectors. Machines of this class are usually provided with a plurality of type wheels which may be rotated either in the same or in opposite directions. It is therefore important that the rolls for inking the type be individual to each printing wheel independently rotatable and readily adjustable to various pressures depending upon the quantity of ink on the rolls.

The object of this invention is to provide rolls of this character which are so mounted as to be readily accessible for re-inking, located under the influence of individual springs so as at all times to remain in close contact with the type and at the same time to be interchangeable and adjustable so that the parts may be used for machines of different type wheel arrangements.

Other objects of my invention will be set forth in the following description and the appended claims.

My invention is illustrated in the accompanying drawing in which—

Figure 1 is an exterior end view of the ink roll case, illustrating its adjustments. Fig. 2 is a section through the ink roll case on the line 2—2 of Fig. 4. Fig. 3 is a partial section on the line 3—3 of Fig. 2. Fig. 4 is an interior view of the case removed and Fig. 5 is an isometric illustration of the details of the adjustable roller support.

In carrying out my invention the ink roll case 1 is preferably constructed of cast metal and hinged at its lower edge to the main inclosing case 2 of the printing machine by a pair of hinges 3, which are preferably arranged so that the ink roll case may be readily removed by sliding it longitudinally. Pivotally attached to each end of the case 2 are slotted adjusting latches 4, so engaged by the pins 5 that the shank of thumb screws 6 will enter the openings 7 as the case 1 is swung upward about its hinges 3. By means of the thumb screws 6 the case 1 may be held in any position to give the desired pressure between the ink rolls and the revoluble type wheels.

In order that the same case and parts may be used with printing machines having different arrangements of type wheels the T shaped supporting members 8 are made adjustable to any position within the case 1. To accomplish this, a rod 9 is supported in each end of the case 1 and passes through openings in one end of each of the T shaped supports 8. These supports are each provided with a pair of adjusting screws 10 which act to maintain the supports in proper longitudinal position and also act in conjunction with the rod 9 to maintain the support 8 in proper alinement, thus avoiding the necessity of machining the inside of the roller supporting case. Each support is provided with a cylindrical slotted aperture 11 forming a seat for spring 12 and forming a guide for the plunger 13 which presses against one end of one of the shafts 14 about which the ink rolls 15 rotate, each spring thus acting individually on its end of one of the shafts 14 to maintain one of the ink rolls in contact with its type wheel at a pressure determined by the adjusted position of the case 1.

In order to hold the shafts 14 in place when the rolls are out of contact with the type wheels, the spring plates 16 are provided, these being secured to the faces of the T shaped supports by means of screws 17 and prevented from turning by the embossing 18 engaging a depression in the support. The extended ends of the spring plates 16 press against the heads of the screws 10 and thus prevent them from becoming loosened through the jar incident to the operation of the printing machine.

It has been found in practice that the ink rolls and type should not be maintained under pressure contact with one another for an extended period when the printing machine is not in use. The slotted latch 4 provides means for relieving the pressure or even entirely removing the contact between the ink rolls and the type wheels on such occasions.

While I have shown and described my invention in a particular form it is to be understood that I do not wish to be unduly limited thereto, many modifications being possible without departing from the spirit or scope of my invention.

I claim—

1. In combination with a plurality of independently rotatable type wheels, an ink roll for each wheel, an independent spring for each roll, and a case adjustable with respect to said type wheels in which said ink rolls are reciprocatively supported.

2. In combination with a plurality of independently rotatable type wheels, an ink roll for each wheel, a case or housing for said ink rolls, and ink roll supports yieldingly carrying said ink rolls adjustably secured within said case whereby the same housing and supports may be used for various lengths of ink rolls.

3. In combination with a plurality of independently rotatable type wheels, an ink roll for each wheel, a hinged case for said rolls, shafts upon which said rolls are mounted, adjustable supports for said shafts, a spring within each support, each acting upon one end of one of said shafts and means to adjust the position of said case to regulate the pressure of said springs upon said shafts and of the rolls upon said type wheels.

4. In combination with a check printing machine, an ink roll carrying case hinged to the frame of the machine, ink rolls yieldingly carried in said case, type wheels in the machine but outside said case, a slotted latch pivoted to the frame, a thumb screw carried by the case engaging said latch and extending through the slot therein for holding the case in various positions whereby the ink rolls may be moved toward or away from said type wheels and caused to engage therewith with varying pressures.

5. In an inking device for printing machines the combination with a casing, of a plurality of ink roll supports mounted within said casing, means for securing the supports at any position along the casing, ink roll shafts extending between said supports and yieldingly supported therein, and ink rolls journaled on said shafts.

6. In an inking device for printing machines, the combination with an ink roll inclosing case, of ink roll supports, means associated with said inclosing case for retaining the ink roll supports therein but permitting said supports to be moved to any position throughout the length of said case, and means associated with each individual support for securing the same in any desired position in the case, and ink rolls yieldingly mounted between said supports, the adjustability of said supports permitting ink rolls of varying lengths to be mounted in any desired position in the ink roll frame.

7. In combination with a rotatable type wheel, of an ink roll, a hinged case for said roll, a shaft on which said roll is mounted, a pair of adjustable supports for said shaft, a spring within each support, said springs acting upon opposite ends of said shaft, and means to adjust the position of said case to regulate pressure of said springs upon said shaft and of the roll upon said type wheels.

8. In an inking device, the combination with an ink roll casing, of ink roll supports in said casing, screws passing through each support and engaging opposite walls of the casing and adapted by their adjustment to change the relative alinement of the support.

9. In an inking device, the combination with an ink roll casing, of ink roll supports in said casing, screws passing through each support and engaging opposite walls of the casing and adapted by their adjustment to change the relative alinement of the support and a spring plate secured to each support and engaging the heads of its adjusting screws to prevent them from loosening.

10. In an inking device, the combination with an ink roll casing, of ink roll supports in said casing, a screw passing through the support and engaging the inner wall of the casing to hold its support in position and a spring plate secured to the support and engaging the head of said screw to prevent it from loosening.

11. In an inking device, the combination with an ink roll casing, of slotted ink roll supports in said casing, an ink roll shaft reciprocatively mounted in slots of two of said supports, a screw passing through the support and engaging an inner wall of the casing to hold its support in position and a spring plate removably secured to each support for retaining the ink roll shaft in the slot in the support, said plate also engaging the head of said screw to prevent the latter from loosening.

Signed by me at Rochester, county of Monroe, and State of New York, in the presence of two witnesses.

EDMUND OCUMPAUGH.

Witnesses:
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S. E. MOSHER.

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