(No Model.)

J. T. HAWKINS.

INKING APPARATUS FOR PRINTING MACHINES.

No. 382,979. Patented May 15, 1888.

Fig. 3.

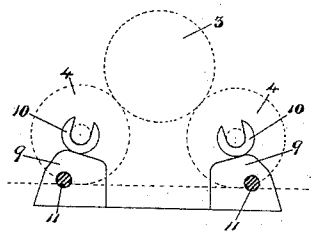


Fig. 1.

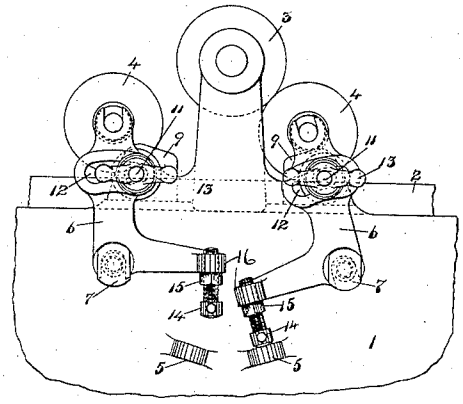


Fig. 4.

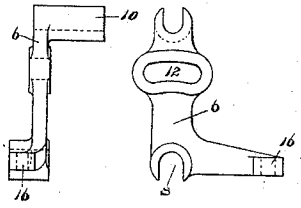
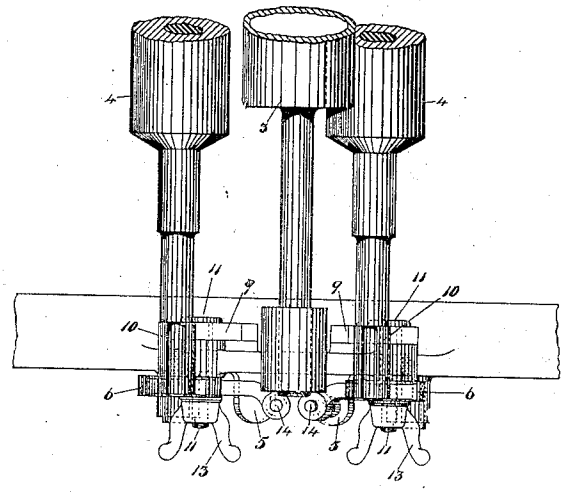


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN T. HAWKINS, OF TAUNTON, MASSACHUSETTS.

INKING APPARATUS FOR PRINTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 382,979, dated May 15, 1888.

Application filed December 14, 1887. Serial No. 257,872. (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 a new and useful Improvement in Inking Apparatus for Printing-Machines, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to provide a simpler adaptation of the method of adjustment of the form-rollers of a printing-machine—such as is shown in Patent No. 184,946, dated November 28, 1876—to cheapen the construction by the means employed, and to make the parts more accessible to the printer and save time in removing or replacing the rollers.

In the patent above referred to a distributing-roller is carried in eccentric bushes which lock, by means of a key, the form-roller bearings upon their inclined seats, involving the removal of the distributer-roller and its bushes and keys before the form-rollers can be removed.

The invention will first be described in detail, and then particularly set forth in the claim.

In the accompanying drawings, Figure 1 represents a side elevation of so much of the inking apparatus of a cylinder printing-machine as is necessary to fully illustrate the invention. Fig. 2 is a view, in plan, of Fig. 1, showing one end of the rollers only. Fig. 3 is an outline elevation showing the relative positions for the form-roller bearings and the inclined surfaces upon which said bearings rest. Fig. 4 shows two views of the form-roller bearings or socket-levers.

In said figures the number 1 indicates a portion of the main frame; 2, the form; and 3 the distributer-roller, actuated both to rotate with a surface velocity equal to that of the form and to vibrate endwise by any of the well-known methods.

The number 4 indicates the form-rollers, and 5 lugs cast on the frame 1, upon which the heads of adjusting screws 14 rest when the form-rollers are in adjustment.

The form-roller bearings or socket-levers 6 have the general form of bell-crank levers. The studs 7, screwed into the frame 1, form fulcrums upon which the form-roller socket-levers 6 oscillate, the slots 8 of said levers engaging studs 7, so as to fit laterally only, so as to rise and fall to the form with the inclined bearings 9. The inclined bearings 9 are secured to the top of the frame 1, and the opposite parts, 10, of the socket-levers 6 rest upon them. The studs 11 pass through the inclines 9 and the curved slot 12 of the socket-levers 6. Upon the outer ends of said studs are thumb-nuts 13, by means of which the socket-levers 6 are secured in place. Upon one arm of each lever 6 is formed a lug, 16, tapped to receive an adjusting-screw, 14, and upon adjusting-screw 14 are check-nuts 15.

In Fig. 1 the right-hand form roller 4, with its socket-lever 6, is shown in place as adjusted for printing, and the left-hand form-roller 4 is thrown out, so as to permit of being removed from the machine without coming in contact with or disturbing the distributer-roller 3.

As in Patent No. 184,946, above mentioned, the inclined bearings 9 are so formed as to compensate for the shrinkage of the form-rollers 4, and cause them, within all limits of shrinkage, to always touch the distributer-roller 3 and the form 2 alike. With this construction it is obvious that while the principle of effecting both the vertical and horizontal adjustment of the form-rollers at a single adjustment, as described in Patent No. 184,946, above mentioned, is preserved, unlike that patent, the removal of the form-rollers 4 may be effected without disturbing the distributer-roller 3; that the single adjustment of the form-rollers 4 to the distributer-roller 3 is obtained by means of the adjusting-screws 14, and the adjustment retained by means of the check-nuts 15; that the form-rollers may be removed and replaced without disturbing their adjustment or removing the distributer-roller 3; that the adjusting-screws 14 and nuts 15, being on the side of the frame 1, are very accessible, and that the whole is a cheaper construction than as shown in said patent.

Having thus fully described my said improvement, I do not claim inclined bearings for the form-roller boxes for effecting the vertical and horizontal adjustment of the form-rollers by means of one adjustment, as this is fully described in the patent above mentioned; but

As of my invention, I claim—

In an inking apparatus of a printing-machine, the combination, with inclined bearings,

as 9, of slotted bell-crank levers, as 6, fulcrumed laterally on studs, as 7, carrying on one arm sockets or bearings for the form-rollers resting upon said inclined bearings, and in the other arm set-screws, as 14, secured in position by check-nuts, as 15, and impinging upon lugs, as 5, formed on or secured to the frame of the machine, and thumb or other nuts, as 13, and studs, as 11, for securing said levers in place, whereby the adjusting only of said set-screws performs the adjustment of the form-rollers both to the form and to the distributer-roller and permits of the ready removal and replacing of the form-rollers without disturbing their adjustment, substantially as set forth.

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