G. A. MILLER.

Ink Roller Attachment for Printing Machines.

No. 232,744. Patented Sept. 28, 1880.

Fig. 1

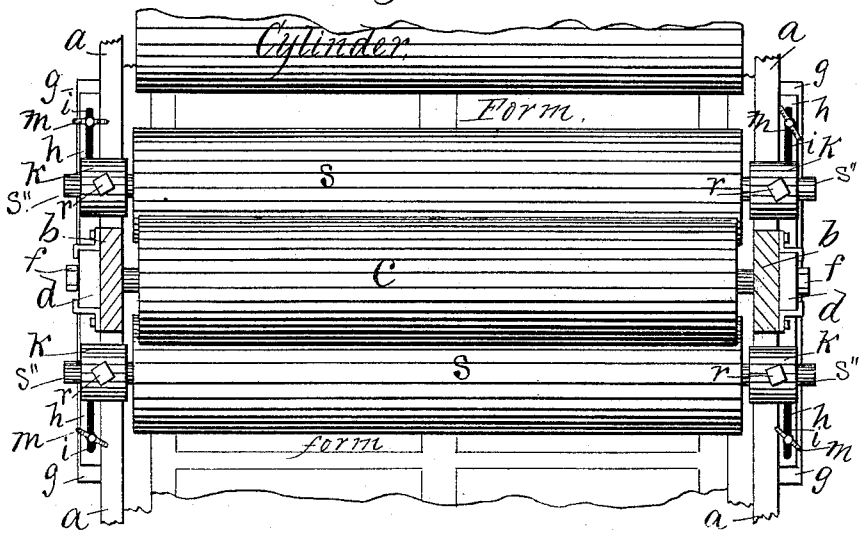


Fig. 3

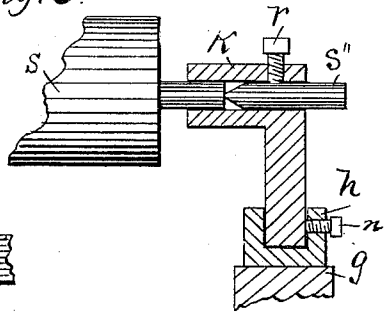
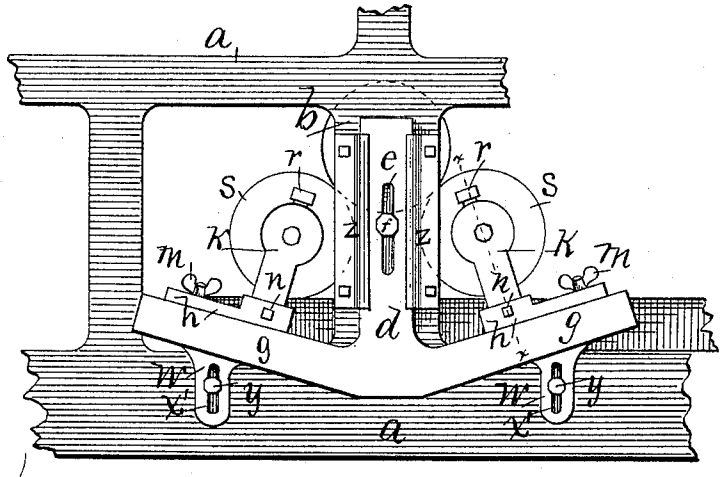


Fig. 2



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UNITED STATES PATENT OFFICE.

GEORGE A. MILLER, OF DES MOINES, IOWA, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO R. Y. FLINN, OF SAME PLACE.

INK-ROLLER ATTACHMENT FOR PRINTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 232,744, dated September 28, 1880.

Application filed July 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. MILLER, of Des Moines, in the county of Polk and State of Iowa, have invented a Printing-Press Attachment for Holding and Adjusting Ink-Rollers, of which the following is a specification.

The object of my invention is to provide a simple attachment that can be readily applied to a printing-press to hold and adjust the form-rollers relative to the bed and form and the ink-distributing roller.

Heretofore roller-bearers have been placed on fixed brackets having inclined planes and pushed and pulled up and down thereon by means of screws to accomplish the results contemplated; but it frequently occurs that this one means of adjustment is insufficient when the rollers become worn and are not uniform in size, and therefore I provide a means for adjusting the bearings of the form-rollers in two directions on the inclined planes, and also by adjusting the inclined planes relative to the frame of the press, the form, and the inking apparatus.

Figure 1 of my drawings is a top-plan view. Fig. 2 is a side elevation of my device attached to a section of the frame of a press. Fig. 3 is a sectional view through the dotted line *x x* in Fig. 2, showing the adjustable pivoting-bolt in contact with the shaft of a form-roller. Jointly considered, these figures fully illustrate the construction, application, and operation of my complete invention.

a a represent the frame of a printing-press, which may vary in configuration. *b b* are upright portions of the frame *a a*, that support the ink-distributing roller *c*. The bearings for this roller *c* may be formed in or attached to the frame portions *b* in any suitable way.

d is the main portion and upright part of the frame and base of my attachment. It has a vertical slot, *e*, in its center, through which a bolt, *f*, is passed to clamp it to the press-frame part *b*.

g g are arms formed integral with the part *d*, to produce two uniformly-inclined planes that extend in opposite directions from its lower end to support sliding blocks *h h*, to which the form-roller bearers *k k* are attached. The sliding blocks *h* have longitudinal slots *i*, through which thumb-screws *m* are passed to clamp them upon the inclined arms *g*. These blocks *h* also have enlargements at their inner ends, that form socket-bearings for the lower and rounded ends of the elbow-shaped roller-bearers *k*, that are thus fitted to the blocks in such a manner that they can be revolved and raised and lowered and rigidly blocked, when required, by means of set-screws *n*. By turning the swiveled roller-bearers the journals of the form-rollers *s s* are more easily inserted than when the bearings are rigidly fixed.

s'' are bolts passed horizontally through the bearings *k* to pivot the rollers *s*, and to thereby make them run truer and with less friction. They are adjustable and locked by means of thumb-screws *r*.

w w are extensions on the under sides of the inclined arms *g*. They have slots *x'*, through which set-screws *y* are passed into the frame *a*, to aid the screw-bolt *f* in clamping the adjustable frame *d g g* to the press-frame.

z z are bearings formed on or attached to the upright part *b* of the frame *a*, to aid in retaining my attachment in a perpendicular position at all times, and to hold it perfectly rigid when the press is in operation.

In the practical use of my invention thus constructed and applied each form-roller *s* may be readily removed by simply loosening the thumb-nut *m* and revolving the sliding block *h*, carrying the roller-bearer *k* outward to free the end of the roller-shaft from the bearer and the pivoting-bolt *s''* carried thereby.

To adjust the complete attachment relative to the form and the inking apparatus, the screws *f* and *y y* can be loosened and the upright *d* moved vertically in its bearing *z*.

To adjust the form-rollers the swiveled bearings *k* can be readily raised and lowered in their sockets by loosening the set-screws *n*, or by loosening the set-screws *m* and sliding the blocks *h* on the inclined arms *g*. By this triple means of adjusting the form-rollers relative to the form and the ink-distributing roller the color can be more uniformly applied to the paper and improved press-work performed.

I claim—

1. The press-frame *a a*, having fixed bear-

ings *z z* on its upright part *b*, the attachment-frame *d g g w w*, having slots *e x' x'* to admit screw-bolts *f y y*, formed, arranged, and combined as shown and described, to operate in the manner set forth.

2. The elbow-form roller-bearers *k k*, carrying the pivotal bolts *s''* and thumb-screws *r*, in combination with the adjustable blocks and sockets *h*, carrying set-screws *n*, substantially as and for the purposes shown and described.

3. The sliding blocks *h*, having slots *i* and carrying the swiveled roller-bearers *k*, in combination with the inclined arms *g*, carrying the thumb-screws *m*, substantially as shown and described, for the purposes specified.

4. The printing-press attachment composed of the frame *d g g*, having a slot, *e*, and slotted extensions or ears *w*, the sliding blocks *h*, having slots *i*, and the swiveled roller-bearers *k*, carrying pivotal bolts *s''* and thumb-screws *r*, substantially as and for the purposes shown and described.

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Witnesses:
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