

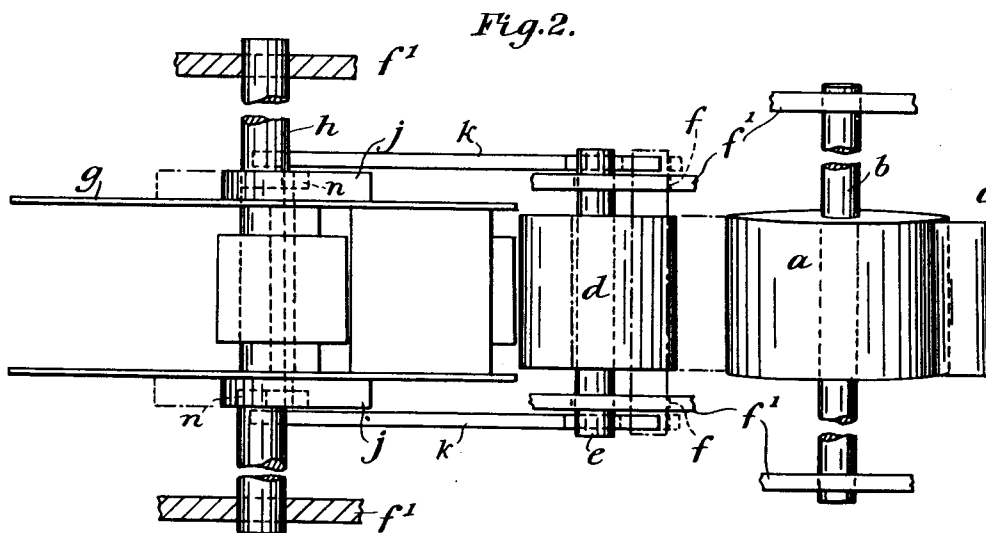
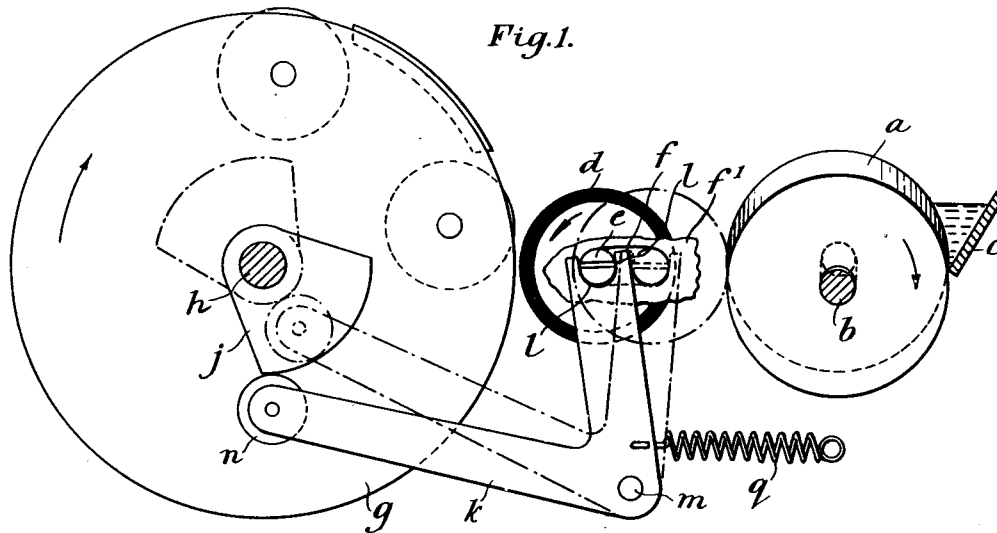
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INKING APPARATUS OF PRINTING MACHINES

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UNITED STATES PATENT OFFICE

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INKING APPARATUS OF PRINTING MACHINES

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This invention relates to the inking apparatus of printing machines such as combined ticket printing and issuing machines of the kind described in the specification of my application for a patent, Serial No. 235,877 of which this case is a division, in which the inking roller and the ink-duct roller, the former being formed of, or coated with, the usual resilient composition and both being of comparatively short length, are arranged in such a manner that they contact obliquely with one another, the effect of this oblique contact giving to the inking roller a somewhat similar ink distribution to that obtained with the lateral oscillating roller in the ordinary form of inking train.

In my said specification the inking roller is carried on a pivot beneath the fixed revolving ink duct roller, the consequent pivoting movement of the said inking roller to bring it into contact with the platen or printing cylinder being controlled by a cam, secured to the shaft of the said platen or printing cylinder, and rotating therewith, which operates one end of a bell-crank lever, the free end of the inking roller shaft being carried in a slot provided in the other end of the said bell-crank lever.

According to the present invention, the movement of the inking roller is a parallel one between the ink-duct roller and the printing cylinder so that it can be moved out of contact with the one and into contact with the other, the stationary ink-duct and its revolving roller being mounted obliquely relatively to the said inking roller, the inking roller being moved through the medium of bell-crank levers by cams connected to the printing cylinder.

In order that the invention may be fully understood, I will now describe it by reference to the accompanying drawing, in which:—

Figure 1 is a sectional elevation illustrating the improvements in accordance with the invention.

Figure 2 is a plan view thereof.

a is the ink-duct roller, revolving on its spindle *b*, and *c* is the ink-duct and which

together are mounted obliquely to the horizontal. *d* is the inking roller which revolves on the spindle *e*, and is arranged horizontally, the said roller *d* normally contacting with the roller *a* along its whole length in spite of the obliquity of the latter, owing to the said inking roller being formed of, or coated with, the usual resilient composition. The spindle *e* has its ends mounted in substantially horizontal slots *f* in the framing *f*¹. *g* is the printing cylinder carrying the type to be inked by the roller *d* and which is mounted on the horizontal spindle *h*. *j*, *j* are the cams secured to the said spindle *h* and revolving therewith and *k*, *k* are the bell-crank levers in a slot *l* in one end of each of which one end of the spindle *e* engages, and each of which levers is pivoted at *m* and carries at its other end the roller *n* against which a cam *j* bears to bring the inking roller *d* out of contact with the roller *a* and into contact with the printing cylinder *g*. *q* is a spring provided for returning the said roller *d* to its normal position into contact with the roller *a*.

The operation of the device is as follows:—

The roller *d* is normally held by the spring *q* in frictional contact with the roller *a*, as shown by the dotted lines in Figures 1 and 2. As the cylinder *g* rotates, the cams *j*, *j* depress the bell-crank levers *k*, *k* thereby moving the inking roller *d* out of contact with the roller *a* and into contact with the printing cylinder *g*. This contact is maintained until the bearing surface of the cam *j* is rotated out of contact with the said lever *k* when the roller *d* is automatically returned to its normal position by the spring *q*.

Claims:

1. An inking device for the printing cylinder of a printing machine, comprising an inking roller having a resilient surface, an ink-duct roller arranged obliquely to the inking roller, an ink duct for the ink-duct roller and means for moving the inking roller to and fro between the ink-duct roller and the printing cylinder to make contact alternately with the said roller and cylinder.

2. An inking device as claimed in claim 1, wherein the means for moving the inking roller to and fro, comprise cams co-axial and rotatable with the printing cylinder, and bell-crank levers co-acting at one end with the cams and carrying at the other end the spindle of the inking roller.

3. An inking device for the printing cylinder of a printing machine, comprising an inking roller, an ink-duct roller arranged obliquely to the inking roller, an ink duct for the ink-duct roller and means for moving the inking roller to and fro between the ink-duct roller and the printing cylinder to make contact alternately with the said roller and cylinder.

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