

1,012,567.

Patented Dec. 19, 1911.
2 SHEETS—SHEET 1.

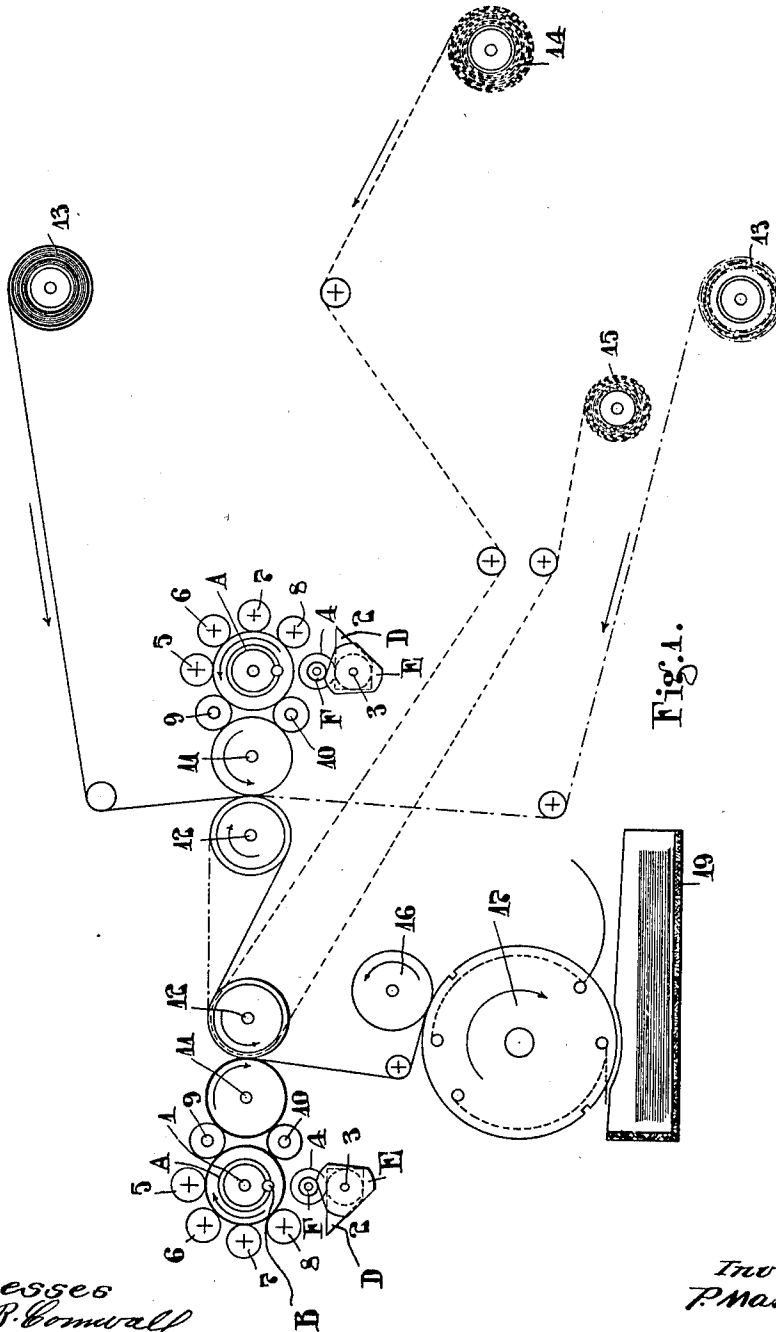


Fig. 1.

Witnesses
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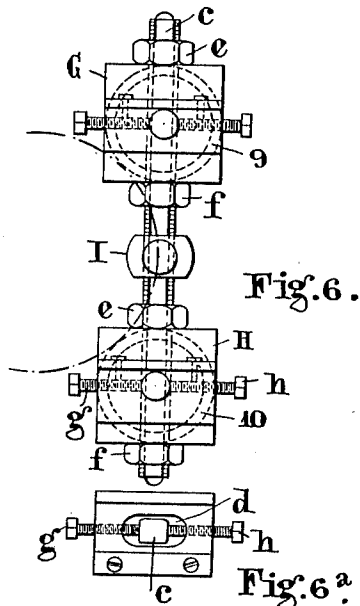
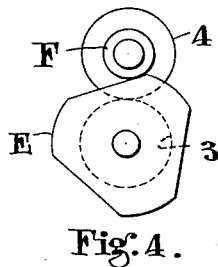
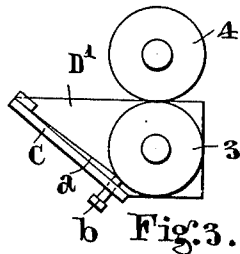
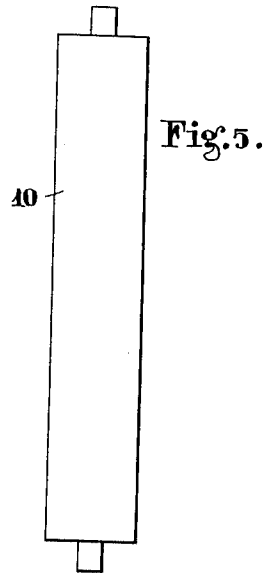
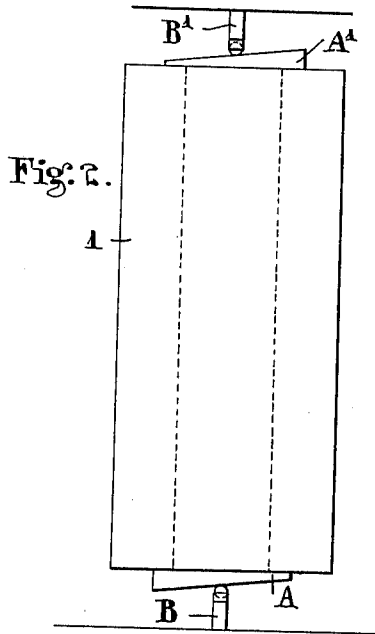
P. MARTIN.
INKING DEVICE.

APPLICATION FILED APR. 15, 1911.

1,012,567.

Patented Dec. 19, 1911.

2 SHEETS—SHEET 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

PAUL MARTIN, OF ROUBAIX, FRANCE.

INKING DEVICE.

1,012,567.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Original application filed August 16, 1910, Serial No. 577,427. Divided and this application filed April 15, 1911. Serial No. 621,386.

To all whom it may concern:

Be it known that I, PAUL MARTIN, a citizen of the French Republic, and residing at Rue du Fontenoy, Roubaix, France, have invented certain new and useful Improvements in and Relating to Inking Devices, of which the following is a specification.

This invention relates to inking devices and especially in connection with printing machines and may, if so desired, be applied to the cylindrical printing press described in my specification No. 577,427 filed August 16th, 1910.

The object of the present invention is to provide an easy and simple adjustment of certain elements while the device is in operation, so that a uniformly thin supply of ink is transferred to the printing cylinder, and to this end the invention consists in the combination hereinafter pointed out in the description.

Referring to the accompanying drawings, Figure 1 is a diagrammatic view of a cylindrical printing press as described in my specification No. 577,427 filed August 16th, 1910, showing the inking device in position. Fig. 2 is a plan of the inking table. Fig. 3 is an end view of the ink reservoir, and the transmitting cylinder. Fig. 4 shows the arrangement by which the transmitter is lifted to contact with the inking table. Fig. 5 is a plan of an inking roller. Fig. 6 is an end view of the bushes supporting the inking rollers. Fig. 6^a is a plan view of a portion of the previous figure.

In Fig. 1 it is seen that the machine consists in essential elements suitably arranged for adjustment; 1 being the inking table with the different parts depending thereon such as 2 and 3, the ink carrier and its cylinder respectively, 4 the transmitter, 5, 6, 7 and 8 the braying cylinders, 9 and 10 inking cylinders, 11 the stereotype cylinder, 12 the tympan cylinders, 13 the paper roll, 14 and 15 rolling and unrolling paper rolls serving as blotting paper, 16 and 17 special devices for cutting and delivering the work, 19 a box for the finished work.

The inking table (Figs. 1 and 2) is in the form of a roller 1 having at each end an inclined surface A A' which surface always rests upon ball bearings B B'. This arrangement produces the reciprocation of the table in a very simple manner, doing

away with all accessory mechanism while giving the maximum efficiency for braying the ink, owing to its action on the transmitter, the braying rollers and the inking rollers.

The inking device is shown in Figs. 1, 3 and 4. The ink boxes or reservoirs are formed with a longitudinal inclined wall C and two other walls D and D'. The metal cylinder 3 forms a second longitudinal wall serving as a bottom. The ink is supplied in greater or less quantity by means of a thin metallic plate or blade *a* placed in front of the wall C and having an adjustable contact with the cylinder 3 through the instrumentality of a series of set screws *b* arranged longitudinally to the cylinder. The metal roller 3 has at each end a triangular cam E operating in a particular manner the transmitter 4 through rollers F. This device does away with all the hitherto employed systems of levers or the like, which easily get out of adjustment.

The braying rollers, shown in Fig. 1, any number of which may be present, are arranged around the periphery of the inking table, as at 5, 6, 7 and 8 and work freely in supports provided for that purpose in the frame of the machine. All these rollers are used to obtain perfect braying.

The inking rollers 9 and 10 (see Figs. 1, 5 and 6) require to have very accurate adjustment in both the vertical and the horizontal direction. For this purpose these rollers are carried by bushes G and H specially arranged for the above adjustments and guided on a rod *c* which is partially threaded, has four flat sides arranged in pairs opposite each other and fixed in a boss I in the frame. These bushes have a mortise *d* into which the rod *c* is introduced, and the vertical adjustment is effected by turning the nuts *e* and *f*. The horizontal adjustment is controlled by means of the set screws *g* and *h*. This method of working is very accurate, the bushes being always in contact with the frame.

It is to be understood that I do not wish to confine myself to the particular arrangement of parts as herein shown as it is clear that the inking device may have any arrangement and may also be applied to any kind of machine.

Having now described my invention what

I claim as new and desire to secure by Letters Patent is:—

1. An inking device comprising in combination an ink reservoir, a longitudinally reciprocating inking table, braying cylinders in contact with the inking table, a printing cylinder, adjustable inking rollers intermediate of the inking table and the printing cylinder, bushes supporting the inking rollers, a partially screwed rod carrying the bushes, a boss in which the rod is fixed, carried on the frame of the device, nuts on the rod for effecting the vertical adjustment of the rollers, set screws at right angles to the rod for effecting the horizontal adjustment of the said rod, means for controlling the primary ink feed, and means for transferring the ink from the ink reservoir to the inking table.
2. An inking device comprising in combination an ink reservoir, a longitudinally inclined wall and a roller therein, a thin metallic plate fixed along one edge to the inclined wall, set screws carried by the inclined wall and arranged longitudinally to the roller and bearing against the thin me-

tallic plate, a longitudinally reciprocating inking table, inclined surfaces mounted co-axially with, and fixed to the ends of, the said inking table, ball bearings in contact with the said inclined surfaces and carried by the frame of the inking device, braying cylinders in contact with the inking table, a printing cylinder, adjustable inking rollers intermediate of the inking table and the printing cylinder, bushes supporting the inking rollers, a partially screwed rod carrying the bushes, a boss, in which the rod is fixed, carried on the frame of the device, nuts on the rod and set screws at right angles to the rod, a transmitting roller, and triangular cams mounted co-axially, at each end, on the roller in the inking reservoir and actuating the transmitting roller.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PAUL MARTIN.

Witnesses:

LOUI FAIR,
D. LYENS.

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