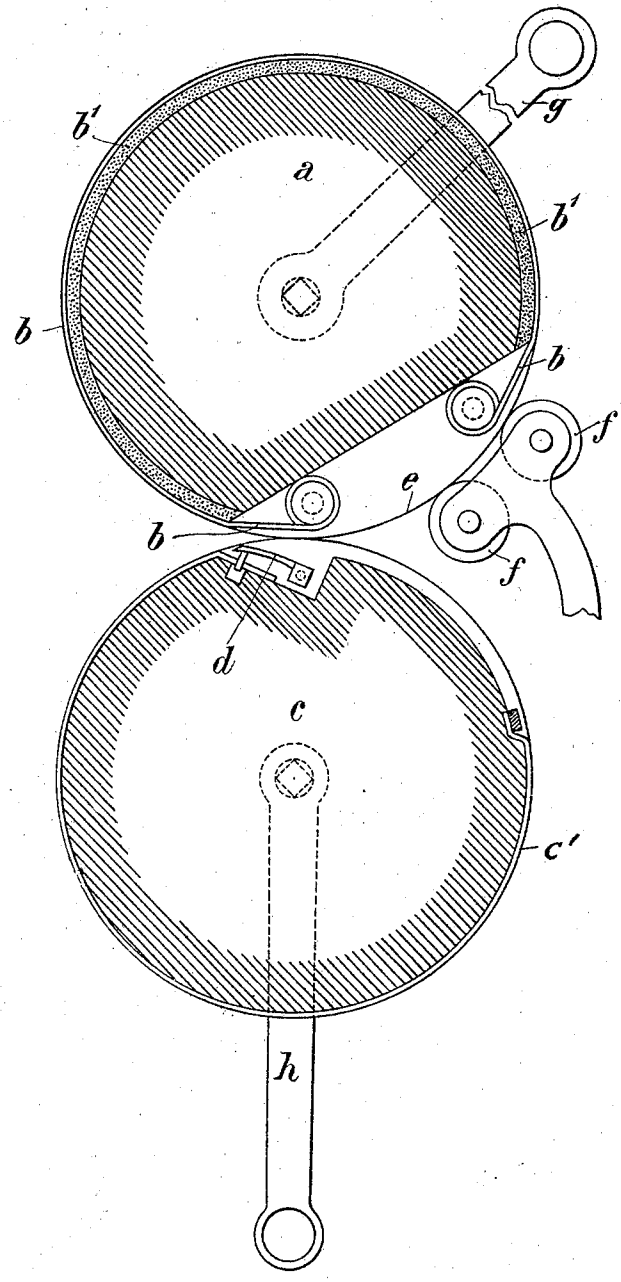
No. 683,478. Patented Oct. 1, 1901.

C. A. MEYER.

ROTARY PRINTING MACHINE.

(Application filed Apr. 25, 1899.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

CARL ANATOLE MEYER, OF ZURICH, SWITZERLAND.

ROTARY PRINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 683,478, dated October 1, 1901.

Application filed April 25, 1899. Serial No. 714,463. (No model.)

To all whom it may concern:

Be it known that I, CARL ANATOLE MEYER, a citizen of the Republic of Switzerland, residing at Zurich, canton of Zurich, Republic of Switzerland, have invented new and useful Improvements in Rotary Printing-Machines, (for which I have made application for patents in Germany, No. 26,616, dated November 10, 1898; in Austria, dated November 10, 1898; in Belgium, No. 108,784, dated November 10, 1898; in France, No. 270,758, dated November 10, 1898; in Hungary, No. 16,039, dated November 11, 1898, and in Great Britain, No. 23,797, dated November 11, 1898,) of which the following is a specification.

My invention relates to that type of rotary printing-machines in which a part of the periphery of the form or type roller serves as an ink-table, and has for its object to provide means whereby printed matter can be produced much clearer, quicker, and in a simpler manner than hitherto has been the case. To this end I combine with the said form or type roller a special damping device, which retains the type-band moist the required length of time. This invention dispenses with the distributing, damping, and inking rollers as hitherto used, the distribution of the ink upon the said table being performed by rollers, which serve also as inking-rollers for the form or type band. The said band remains uniformly damp and takes up from the said distributing and inking rollers only as much ink as is necessary for printing, so that smearing and toning, which occur where separate inking-rollers are employed and can only be obviated by clever manipulation of a skilled artisan, are thus completely prevented.

I attain the said objects by the device illustrated in the annexed sheet of drawing, which represents a vertical section of the principal parts of a rotary printing-machine of the type hereinbefore referred to with my improvements applied.

The periphery of the type-roller *a* is formed with the surface *e*, which serves as ink-supply and ink-distributing table, consisting, preferably, of a metal plate joining the periphery of the type-roller and detachably secured thereto. Against the said surface are kept in frictional contact—say by means of springs—two rollers *f f*, which serve simultaneously as ink-distributing and inking rollers. The periphery of the other part of the type-roller *a* is jacketed with felt or the like water-absorbing material *b'*, over which and after having been suitably moistened the type-band *b*, made of parchment-paper, is placed, coated with matter which throws off the ink—say such as gelatin. The felt or the like *b'* imparts to the band *b* such a degree of moisture that the surface of the latter between the negative will take up no ink. The pressure-roller *c* opposite the ink-table of the type-roller is formed in the usual way with a cavity containing a gripper *d* for holding the paper to be printed on and covered with a blanket *c'*.

The rollers *a* and *c* are geared up as usually, and each is furnished with a crank-handle *g* and *h*, respectively, by means of which they may be turned separately.

When printing, the table *e* is supplied by a suitable hand-tool—say by a palette-knife—with a sufficient amount of ink, which by reciprocating the table *e* over the rollers *f f* by turning the handle *g* is then evenly distributed thereon and afterward by the rollers *f f* given off to the type-band or negative on the roller *a*. The first inking of the said type-band or negative takes place while the roller *a* is out of contact with the roller *c* by turning the roller *a* by means of the handle *g*. To bring the roller *a* out of contact with the roller *c*, the latter is lowered. When afterward rotating the type-roller *a* a number of times completely around, the rollers *f f* deliver the ink to the negative and serve thus also as inking-rollers. If ink-spots should form on the surface of the type-band where not required, they can be readily removed by giving the type-roller a few quick turns. The machine is then set ready for printing by bringing the wheels of the type-roller *a* and pressure-roller *c* in such a manner in gear with each other that the ink-table *e* will be positioned opposite the cavity of the roller *c*. After having placed the sheet of paper to be printed upon below the gripper the printing is performed by imparting to the pressure-roller *c* by means of its handle *h* for each impression a continuous complete turn. During each complete turn of the rollers *a* and *c* and frictional con-

tact of the rollers *f f* an impression is taken and the negative inked for the successive impression. When the ink on the table *e* is used up, a little fresh ink only is spread thereon.

The ink-table and damping device combined in the type-roller, as described, provides a printing-machine which is so simple in construction that any one without the slightest practical knowledge can produce thereon faultless printed matter easily and quickly.

What I claim as my invention, and desire to secure by Letters Patent, is—

In rotary printing-machines, the type-roller *a* the periphery part *e* of which forms an ink-table, the jacket *b'* formed of water-absorbing material placed upon the periphery of the roller *a* and adapted to receive and keep the type-band *b* moist when required, in combination with two rollers *f*, *f* arranged in frictional contact with the said type-roller and serving both as distributing and inking roller, substantially as set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

CARL ANATOLE MEYER.

Witnesses:

A. LIEBERKNECHT,

E. STEIGERS DIEZTKEY.