No. 664,965. Patented Jan. 1, 1901.

J. S. MORRISS.

ROTARY PRINTING MACHINE.

(Application filed July 13, 1900.)

(No Model.)

Fig. 1.

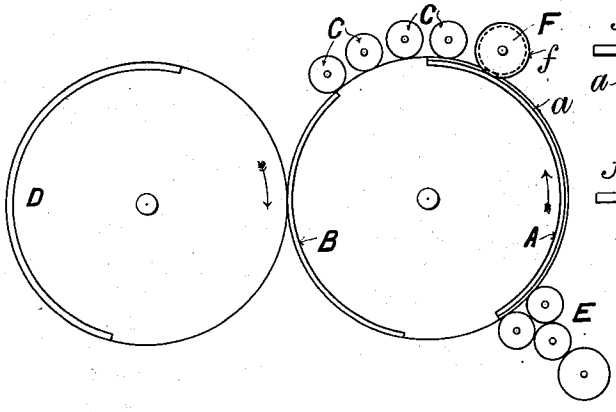


Fig. 2.

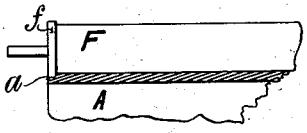


Fig. 3.

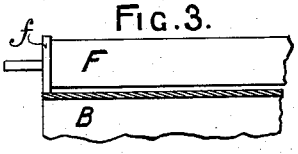


Fig. 4

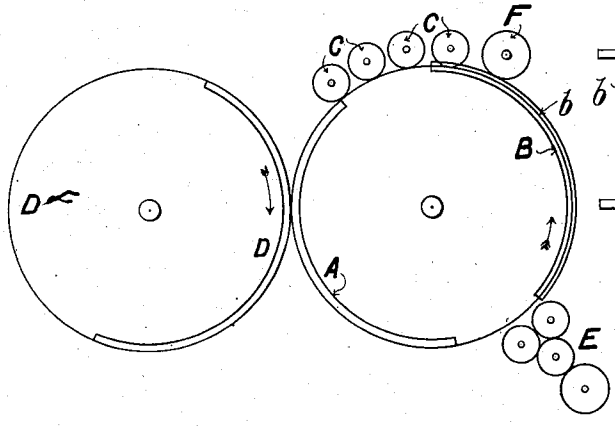


Fig. 5.

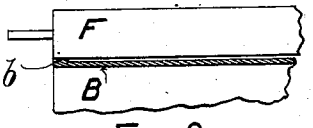
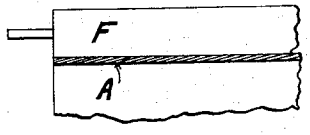


Fig. 6.



WITNESSES:

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INVENTOR.

J. S. Morriss.

Per Robert E. Phillips

his Attorney.

UNITED STATES PATENT OFFICE.

JOB SHUFFLEBOTTOM MORRISS, OF LONDON, ENGLAND.

ROTARY PRINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 664,965, dated January 1, 1901.

Application filed July 13, 1900. Serial No. 23,514. (No model.)

To all whom it may concern:

Be it known that I, JOB SHUFFLEBOTTOM MORRISS, manufacturer, a subject of the Queen of Great Britain, residing at 57 to 59 Ludgate Hill, in the city of London, England, have invented a new and useful Improvement in Rotary Printing-Machines, (for which I have applied for a patent in Great Britain, No. 24,944, bearing date the 15th of December, 1899,) of which the following is a full and complete specification.

This invention relates to rotary algraphic, lithographic, or surface printing machines; and it consists in the introduction of one or more rollers of any suitable absorbent material placed between the water-rollers and the inking-rollers to operate in contact with the printing-plate, the object being to absorb the superfluous water or moisture from the said plate, which water or moisture has hitherto been taken off by the inking-rollers and became incorporated with the ink, which was hardened thereby and otherwise deteriorated the quality of the printing.

In the accompanying drawings, which show two methods of carrying the invention into practice, Figure 1 is a diagrammatic view, in side elevation, of a rotary algraphic or lithographic printing machine fitted with this invention. Figs. 2 and 3 are broken views, partly in section, of the absorbent roller; and Figs. 4, 5, and 6 are similar views to the above, showing a modification.

Similar letters refer to similar parts throughout the several views.

A designates the curved printing surface or plate carried partially around a cylinder, the ink plate or slab B occupying the greater part of the remaining curved surface.

C C are the inking-rollers, so mounted as to revolve in contact with the ink plate or slab B and the printing surface or plate A.

D is the impression-cylinder.

In order to dampen or moisten the surface of the plate A before it is inked, there are arranged a series of water-rollers E.

According to the present invention for the purpose of removing the excess water or moisture left by the water-rollers E from the printing-plate I mount a roller F, or in some cases there may be two or more rollers, in slotted bearings, so that it is free to move radially with respect to the cylinder carrying the ink-plate B and the printing-plate A. This roller F is made or covered with flannel or other suitable absorbent material. With the object of preventing this roller F from revolving in contact with the ink-slab B as well as with the printing-plate A, which it normally would do, as the surface of the ink-plate and the surface of the printing-plate are at an equal distance radially from the cylinder carrying them, I may either form grooves *a* in each edge of that part of the cylinder carrying the printing-plate A and furnish disks or runners *f* on the ends of the roller F, adapted to engage the said grooves, as shown by Figs. 1, 2, and 3, Fig. 2 showing the absorbent roller F in contact with the printing-plate A and Fig. 3 showing the roller F revolving clear of the ink plate or slab B, or I may form an outwardly-projecting strip or raised piece *b* on each edge of that part of the cylinder carrying the ink-plate B, so that the roller F on meeting the strips or pieces *b* as the cylinder revolves is lifted clear of the surface of the ink-plate B. This arrangement is illustrated by Figs. 4, 5, and 6, Fig. 5 showing the roller F clear of the ink-plate B, and Fig. 6 the roller F in contact with the printing-plate A.

It will be understood that any suitable means or devices may be used for drying or taking away the moisture from the roller F.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination in a rotary algraphic, lithographic or surface printing machine of one or more moisture-absorbing rollers placed between the water-rollers and the inking-rollers and means for lifting the said roller or rollers clear of the ink-plate, as set forth.

2. The combination in a rotary algraphic, lithographic or surface printing machine of one or more rollers capable of absorbing or taking up water placed between the water-rollers and the inking-rollers and means for intermittently raising the said roller or roll-

ers clear of the ink-plate comprising end disks or runners of a greater diameter than the roller or rollers, said disks or runners taking a bearing on the edges or surface of the ink plate or slab and engaging grooves or recesses in that part of the revolving cylinder carrying the printing-plate, as set forth.

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

JOB SHUFFLEBOTTOM MORRISS.

Witnesses:
A. KNIGHT CROAD,
JOSEPH LAKE.