

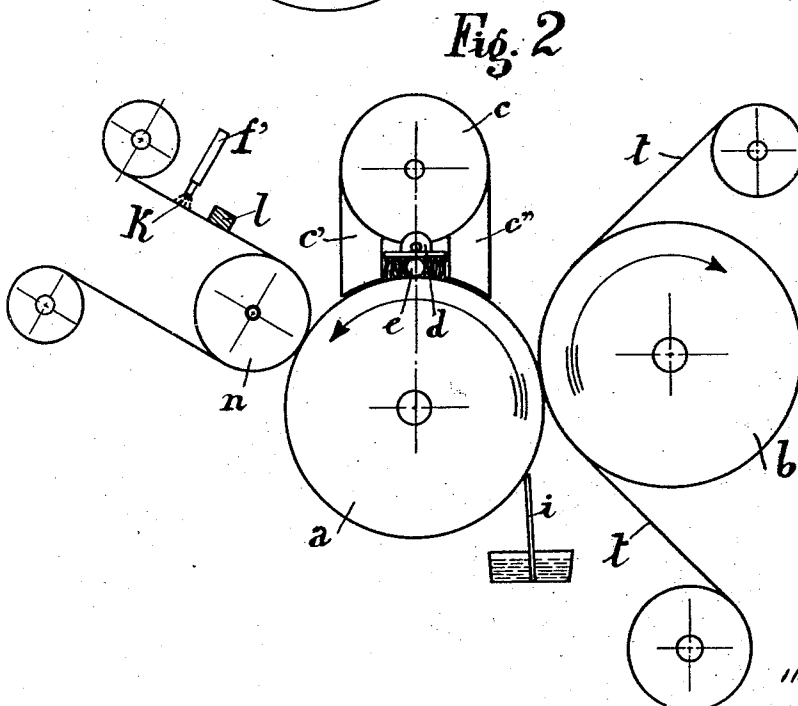
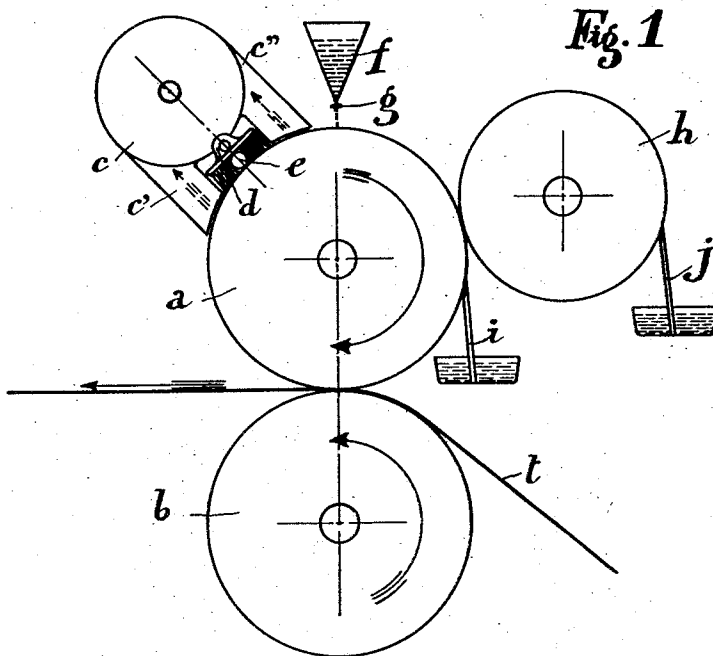
Feb. 19, 1929.

1,703,015

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APPARATUS FOR PRINTING TEXTILE FABRICS

Filed Aug. 23, 1927



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR PRINTING TEXTILE FABRICS.

Application filed August 23, 1927, Serial No. 214,921, and in France September 11, 1926.

My invention relates to improvements in an apparatus for printing textile fabrics in several colors.

The object of my invention is to simplify the parts of a machine of the character indicated and to so arrange the parts that a polychrome impression of perfect clearness is produced regardless of the number of colors employed.

A more specific object of my invention is to provide a suction washer in combination with a single engraved roller which shall assure perfect cleaning of the roller during each revolution thereof and to distribute the colors by means of a single reservoir having several compartments or suitable equivalent apparatus.

The accompanying drawing, by way of example, illustrates two embodiments of my invention and in which—

Fig. 1 is a transverse section of a machine furnished with a color distributing reservoir; and

Fig. 2 is a similar view of a machine in which the colors are fed thereto by means of an endless belt and pulverizers.

Referring to the drawing and particularly Fig. 1, the machine comprises a single engraved cylinder *a* on which are traced all the designs to be printed. Said roller *a* bears against the usual pressure roller *b* of any suitable plastic material.

At the upper rear corner of the machine and extending throughout the length of the engraved cylinder *a* are fitted the suckers *c'*, *c''* of an aspirateur *c*, which is furnished on the one hand with a brush *d* and a watering tube *e*. The said brush *d* is arranged to be displaced longitudinally by any suitable mechanism.

Above the roller *a* is suspended a reservoir *f* provided with several compartments in which are disposed the colors, the delivery of which is regulated by a series of cocks *g*.

A roller *h* is placed in close proximity to the cylinder *a* and is given an alternate rotary as well as longitudinal movement which has for a purpose to produce the crushing and the equalization of the colors on the cylinder *a*.

Finally the cylinder *a* and the roller *h* are furnished respectively with cat-gut scrapers *i* and *j*.

As shown in Fig. 1, the cylinder *a* which turns in the direction indicated by the arrow, receives the different colors from the reservoir *f*. Said colors are spread out and equal-

ized by the roller *h* and the cat-gut scraper *i* in order to be finally applied to the textile fabric *t* which passes over the pressure roller *b*.

The colors are subsequently removed from the cylinder *a* by the strenuous washing produced by the watering tube *e* and the movable brush *d*. The cleaning liquid is drawn off by the sucker *c'* while the cylinder is completely dried by the sucker *c''*.

New applications of fresh colors thus takes place at each revolution of cylinder *a* which prevents accidental mixing of the colors at all times.

Referring to the modification shown in Fig. 2, the colors are led to the cylinder *a* by an apron *k* which may be a strip of paper or other suitable material, passing over a roller *n*.

The distribution of the colors on the apron *k* is brought about by a series of pulverizers *f'* supported in any suitable manner. The colors are subsequently spread and equalized on the apron *k* by a rubber *l* arranged to be displaced in the directions desired under control of a mechanism "ad hoc".

The colors are thus distributed in fixed positions on the cylinder *a*, which imprints them upon the textile fabric *t* pressed against the cylinder *a* by means of the roller *b*.

In the embodiment described the liquid employed for removing the colors is water but it is to be understood that in case the printing takes place with the thick inks any other appropriate solvent might be employed in place of water.

The various elements of the machine just described may be driven by any suitable means known in the art.

My invention is not necessarily limited to the embodiments described herein as it is applicable to the various types of machines now in use in which one or more cylinders are employed and it is desirous to produce the frequent cleaning of said cylinders. Furthermore various combinations of reservoirs having compartments or of pulverizers might be resorted to as the occasion presents itself without departing from the scope of the invention. The structure is of a simple character and necessitates by a single engraved cylinder.

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

A cleaning device for textile printing

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presses having a single engraved cylinder and color distributing mechanism, comprising means for applying a cleansing fluid to the engraving cylinder, a brush movable longitudinally of the cylinder for scrubbing the
5 latter, a sucker for drawing the cleansing fluid on the cylinder, a second sucker for drying the said cylinder, and a cat-gut scraper

arranged opposite the suckers, the whole being arranged so that the engraved cylinder is 10 completely freed from printing matter at each revolution thereof, to insure the clearness of complicated designs.

In witness whereof I have hereunto set my hand.

MARIUS RATIGNIER.