K. W. ERLER.

MULTICOLOR PRINTING MACHINE FOR FABRICS.

APPLICATION FILED FEB. 17, 1908.

917,030. Patented Apr. 6, 1909.

Fig. 1.

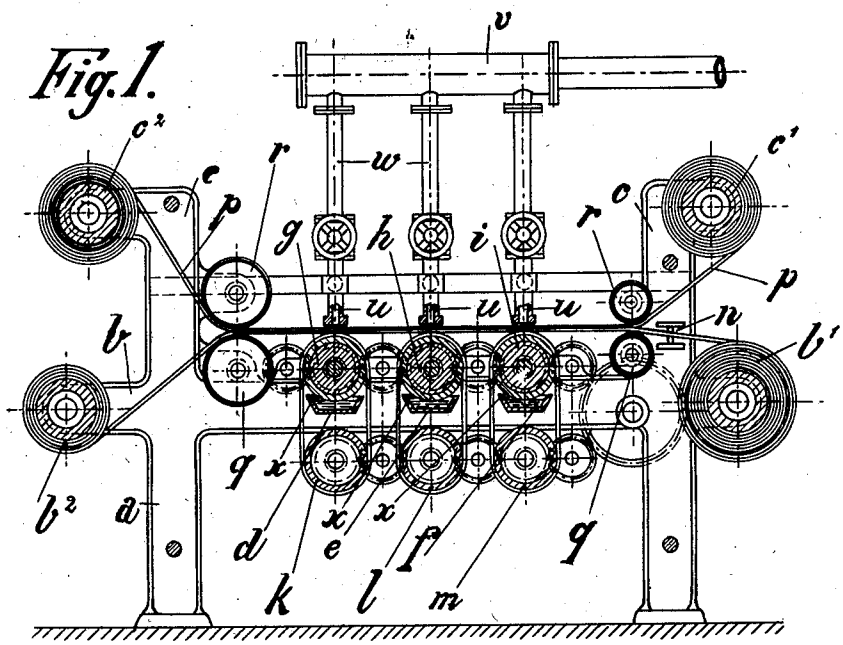
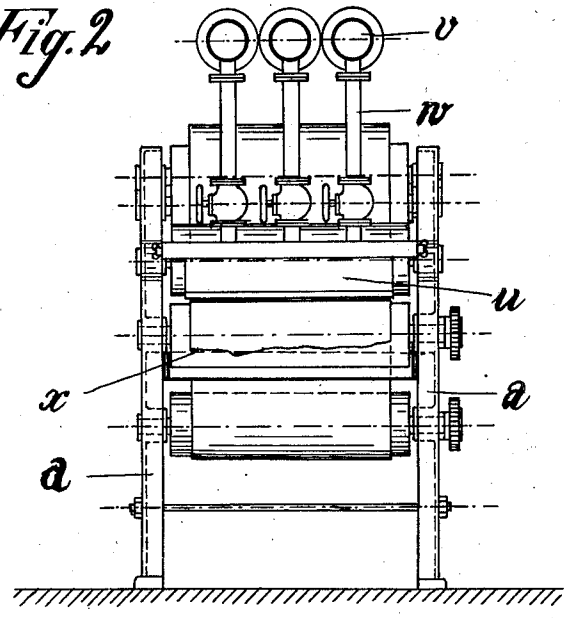


Fig. 2.



Witnesses:

J. Hans

Karl Singer

Inventor

Karl Willy Erler

UNITED STATES PATENT OFFICE.

KARL WILLY ERLER, OF MÜNCHENBERNSDORF, GERMANY.

MULTICOLOR-PRINTING MACHINE FOR FABRICS.

No. 917,030. Specification of Letters Patent. Patented April 6, 1909.

Application filed February 17, 1908. Serial No. 416,271.

To all whom it may concern:

Be it known that I, KARL WILLY ERLER, manufacturer, a subject of the German Emperor, residing at Münchenbernsdorf, in the Kingdom of Saxony, German Empire, have invented certain new and useful Improvements in Multicolor-Printing Machines for Fabrics, of which the following is a specification.

The invention hereafter described relates to the type of machines for printing or dyeing fabrics by the application of the vacuum, whereby the dye is forced right through the textures, thus thoroughly and effectively dyeing them.

In the accompanying drawing the multicolor printing machine according to this invention is illustrated, Figure 1 being a longitudinal section, and Fig. 2 a lateral view.

The machine in question is composed of any suitable frame with brackets b and c, which brackets are fitted with bearings to receive rollers b^1, b^2, c^1 and c^2. Attached to the frame are the dye-tanks d, e and f, which contain the various dyes. In these dye-tanks are running cylinders g, h and i, which are covered with felt or the like, said felt cover sucking up dye during the working of the machine. Cylinders k, l and m are provided below the cylinders g h and i respectively, and the stencils perforated with the required designs are placed around the pairs of cylinders g and k, h and l, and i and m. The rotation of the cylinders is effected either by cog or chain gearing. The stencils are provided with small holes on the outer edge to engage pins on the cylinders and are thus evenly rotated with the cylinders.

The material to be dyed passes from a roll b^1 through a guide n and across the stencils to the corresponding winding roll b^2, there to be rolled up again. Heavy material, which does not get dry quickly is dried in a chamber, in which case the material is not rolled up again on the winding roll b^2, but is drawn over another roller, to be rolled up again automatically later on. Above the material is a web or apron p, which passes from the roll c^1 to the winding roll c^2. The rollers q and r serve to guide the material and to press it firmly.

Above the cylinders g h and i are situated suction nozzles u, which are connected with a suction tube v by tubes w, the purpose of which is to suck slowly the dye from the felt-coated cylinders right through the rotating stencils into the material which is to be dyed and so impregnate the design. The apron p serves to prevent the color from being smudged on the material being printed.

Any number of pairs of cylinders may be placed behind one another. The suction nozzles u may be yieldingly arranged to adapt themselves to unevennesses. The dye-tanks may be arranged adjustable to and from the cylinders g h and i.

Affixed to the dye-tanks are guards x, which press against the cylinders g h and i, and which regulate the quantity of the dyeing matter taken up by the felt-covering.

What I claim as new and desire to secure by Letters Patent of the United States is:—

In a multicolor printing machine for fabrics of the type specified, a series of endless rotating stencils, cylinders arranged in pairs, upon each pair of which one of the said stencils is rotated, a felt covering provided on the upper cylinder of each of said pairs, dye-tanks arranged between said cylinders so that the felt covered cylinders dip into said dye-tanks, suction nozzles arranged on top of said felt covered cylinders so that the color can be drawn by said nozzles from the said felt covered cylinders through the stencils and through the fabric, substantially as described.

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

KARL WILLY ERLER.

Witnesses:
GUSTAV MÜLLER,
CHARLES NEUER.