

(No Model.)

G. CROMPTON.

DOCTOR BLADE FOR FABRIC PRINTING MACHINES.

No. 491,240.

Patented Feb. 7, 1893.

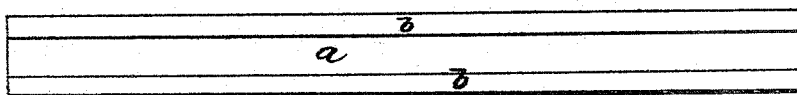


Fig. 1.

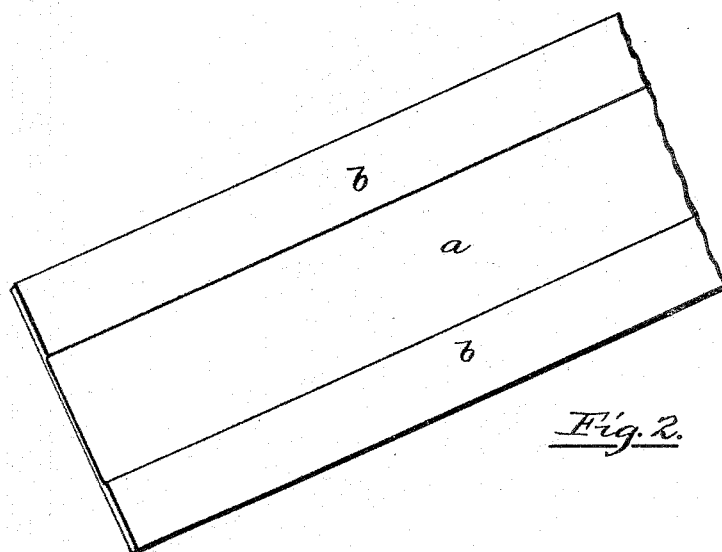


Fig. 2.

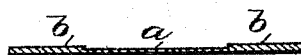


Fig. 3.

Witnesses.

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GEORGE CROMPTON, OF CRANSTON, RHODE ISLAND.

DOCTOR-BLADE FOR FABRIC-PRINTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 491,240, dated February 7, 1893.

Application filed May 28, 1892. Serial No. 434,726. (No model.)

To all whom it may concern:

Be it known that I, GEORGE CROMPTON, of Cranston, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Doctor-Blades for Fabric-Printing Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to the doctor blades used in fabric printing machines to clear the color from the raised portions of the engraved printing rolls, and also for taking from those rolls the threads and lint which come from the cloth, and which would otherwise go into the color boxes or troughs. It is illustrated in the accompanying drawings.

Figure 1 is a top or plan view of one of the improved doctor blades. Fig. 2 is a perspective view of a portion of a plate showing the end of it, full size. Fig. 3 is a cross section of the blade on same scale as Fig. 2.

The object of this improvement is to make the doctor blade more elastic or yielding than when made in the usual form to keep its edge uniformly in contact with the surface of the engraved roll, with less pressure, and at the same time retain the thickness of its front edge to prevent it from following into the larger figures and brushing the color out, and also keeps the usual thickness at its back edge to hold it by in the shears.

The improvement consists, as will easily be understood from the drawings, in making a part *a*, from about one-half to three-fourths the width of the blade through its middle, of about one-half the usual thickness of such

blades, and leaving the strips *b, b*, on each side of the thin portion, of the usual thickness of doctor blades, from the thin portion *a*, out to each edge.

A doctor blade has been made, (see United States Patent No. 447,126) in which one-half the width of the blade was made thin, to give it elasticity but as it was necessary to have the thick edge lie on the engraved roll, it had to be held by the thin portion, and that made it liable to be uncertain in its action and not so easy to hold as when the back part that it was held by was of the full thickness, as in my plan and in the old form.

Another important advantage of having both edges of the usual thickness, is, that if one of them gets injured or out of order, as it is necessary to have the edge fit the printing roll very closely, the blade can be turned edge for edge and the back used as the front was, which will also lengthen out the life of a blade, or term of time it can be used, to twice the usual extent, thereby greatly increasing the value of the blade.

Having thus described my improvements, I claim as my invention:

An improved doctor blade for the use in fabric printing machines, made thin in its middle for one-half to three-fourths of its width throughout its length to increase its elasticity, to a certain extent, and having the strips on each side of said thin portion, to the edges of the blade, made of the usual thickness, substantially as set forth.

GEORGE CROMPTON.

Witnesses:

BENJ. ARNOLD,
E. B. READ.