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P. J. WOOD

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METHOD OF PRINTING PANELED EFFECTS ON FABRIC STRIPS

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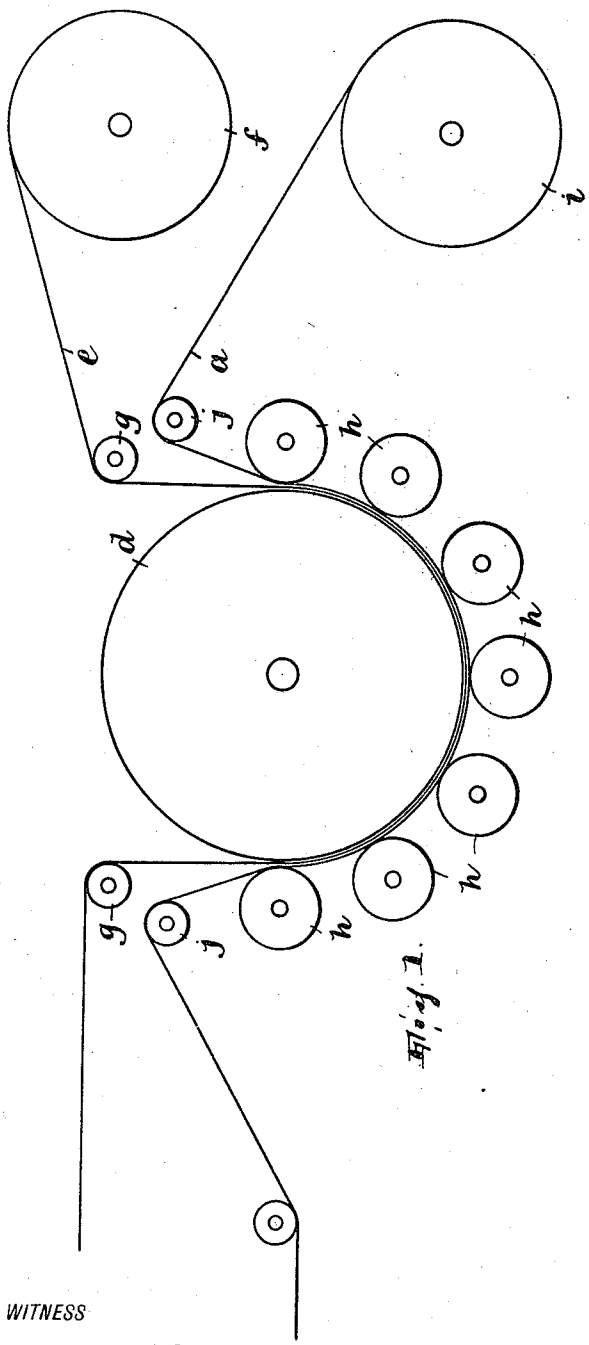


Fig. 1.

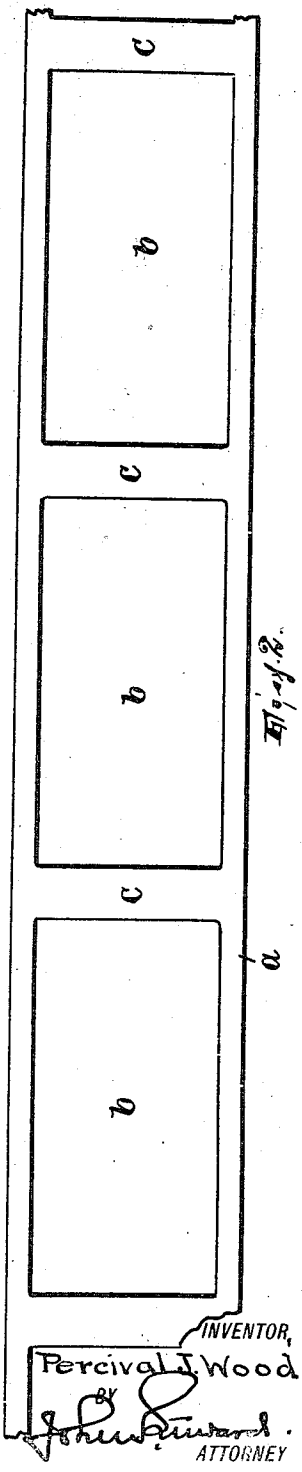


Fig. 2.

WITNESS

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UNITED STATES PATENT OFFICE.

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METHOD OF PRINTING PANELED EFFECTS ON FABRIC STRIPS.

Application filed December 26, 1922. Serial No. 609,413.

To all whom it may concern:

Be it known that I, PERCIVAL J. WOOD, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Methods of Printing Paneled Effects on Fabric Strips, of which the following is a specification.

In the printing of strips in printing machines of the roller class, as in the printing of fabrics, it is impossible to print in panels varying in dimension lengthwise of the strip without resorting to either of the following expedients, to wit, using printing rollers of different diameters and each having a transverse blank in its printing surface that will result in producing the spacing between the panels or using mechanism which will at the proper intervals "jump" the rollers clear of the advancing strip, so that each time the printer is required to produce a paneled effect in which the panels differ in length from those of the strip which the machine was last adapted to print it is necessary either to change the rollers or to re-set the jumping mechanism.

The first expedient is of course an expensive one and in existing machines the second expedient involves great loss of time and extreme care in re-setting the jumping mechanism so as to operate exactly at the intervals required. In each case, moreover, if the width of the panels differs from that which the machine was last adapted to produce the rollers used must in addition have their printing surfaces cut to the proper width.

The object of this invention is to make it possible for the fabric printer to print fabric strips with paneled effects in which each panel may occupy any desired part of the width of the strip and have any desired length and be spaced from its neighbors any desired distance without further preparation than is involved in merely cutting a suitable pattern.

In the drawings,

Fig. 1 is a diagrammatic side elevation of the rollers of a fabric printing machine illustrative of my invention; and

Fig. 2 is a plan of a certain strip used in furtherance of the invention.

In carrying out my invention I provide a sheet, as a strip, of flexible material, as *a* in the accompanying drawing, the width of which shall more or less approximate that of the fabric strip to be printed; usually the length of this strip will approximate the length of the fabric strip.

Openings *b* are formed in this strip of any desired length and width and spacing, as at *c*, from each other.

When the fabric is to be printed this strip *a* is passed through the printing machine with the fabric and so that it will intervene between the printing rollers and the fabric. The sheet or strip *a* is of course impermeable by the color, or printing substance. In consequence, the printing of the fabric by the rollers will take place where the spaces *b* in the strip *a* permit the printing surfaces of the rollers to contact with the fabric strip, and where the material of the strip *a* intervenes between the printing surface and the fabric strip the latter will be unprinted, so that there will be blank margins on the fabric strip and blank intervening portion where the printed panels on the latter are spaced.

If the fabric printer according to the present practice should be required to print a strip with a certain pattern but so that the printed effect shall be interrupted by intervening transverse blanks, thus to permit the strip to be cut up into handkerchiefs or other pieces with plain borders, for example, he would be required to cut his printing rollers with transverse blanks or, if the machine is equipped to that end, set the jumping mechanism to form such blanks; and in every case where the panels to be produced varied in dimensions from those previously produced he would have to make a change in the machine in one or the other of these respects.

According to my invention only one set of printing rollers that produce a given pattern is necessary, and if the printing of the fabric strip is to be done in paneled effects the printer has only to provide a strip *a* having openings *b* whose dimensions conform with those of the panels required.

In view of the absorbent nature of the fabric to be treated provision should be made against the printing substance or color working its way beyond the margins of the openings *b* of the strip *a* and so causing the panels produced to present irregular outlines. I therefore prefer in practice to form the strip *a* of material which is absorbent of the printing substance, as ab-

sorbent paper of proper thickness but will serve to insulate the strip therefrom; in the use of such a strip the outlines of the printed panels will be clean-cut and true to the form of the openings *b*.

In Fig. 1 of the drawing *d* is the drum or "bowl" which backs the fabric *e* and around which it is made to travel from the supply beam *f* to suitable take-up means (not shown), *g* being guiding rollers for the fabric strip; *h* designates the printing rollers and *i* the supply beam for the strip *a* which passes with the fabric around the bowl *d* and between the fabric strip and rollers *h* (its take-up means being not shown), *j* being guiding rollers for said strip *a*.

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

The hereindescribed method of printing a fabric strip which consists in passing said strip and a flexible sheet, the latter having a succession of openings therein and being an absorbent of the printing substance but adapted to insulate the strip therefrom, between a backing means and a printing roller having said substance on its periphery and so that the sheet is interposed between the strip and roller and said openings will successively expose the strip to the periphery of the roller.

In testimony whereof I affix my signature.

PERCIVAL J. WOOD.