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H. H. MEYER

PATTERN PRINTING MACHINE

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Fig. 1.

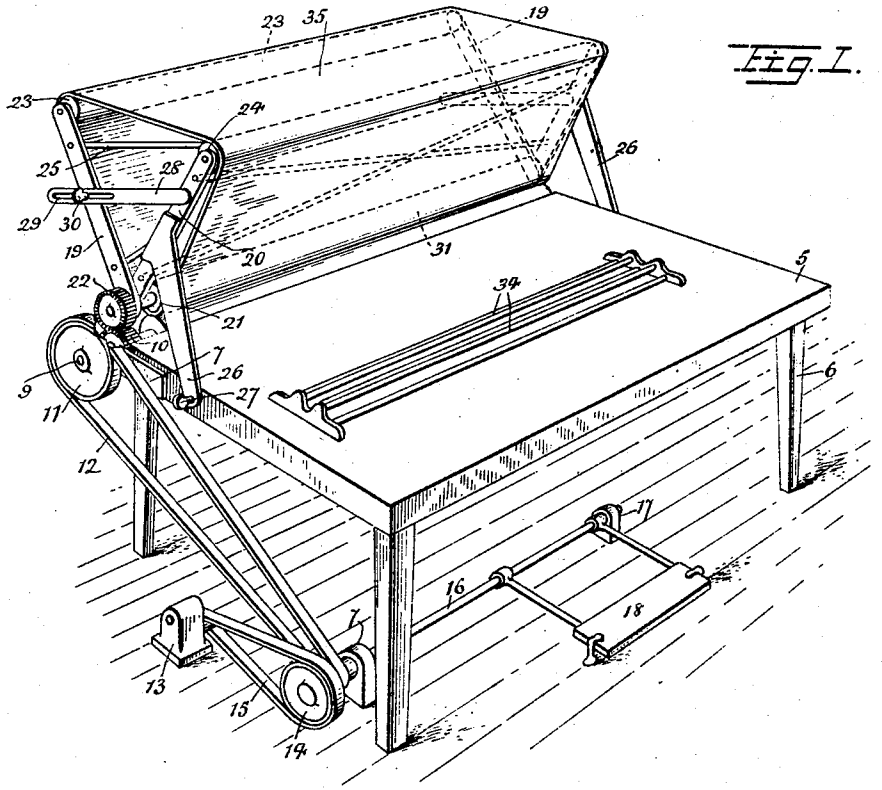
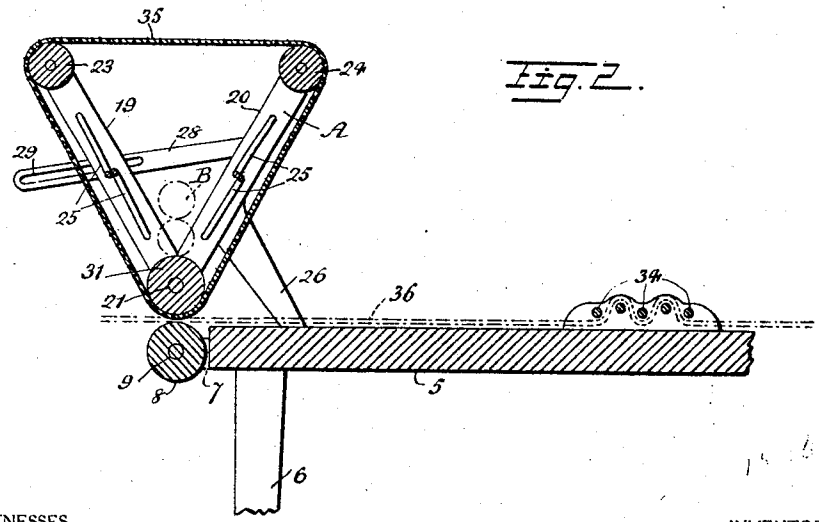


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

HANS HENRY MEYER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO MORRIS KATZ, OF NEW YORK, N. Y.

PATTERN-PRINTING MACHINE.

Application filed December 2, 1924. Serial No. 753,494.

To all whom it may concern:

Be it known that I, HANS HENRY MEYER, a citizen of the United States, and a resident of the city of New York, borough of the Bronx, in the county of Bronx and State of New York, have invented a new and Improved Pattern-Printing Machine, of which the following is a full, clear, and exact description.

The present invention relates to new and useful improvements in printing machines, and it pertains more particularly to a machine for printing patterns on fabrics.

It is one of the primary objects of the invention to provide a machine for printing patterns upon lengths of fabrics which machine provides for a continuous printing operation.

It is a further object of the invention to provide a machine in which a strip of fabric, such, for example, as a bolt of cloth, may be printed with a plurality of patterns of the same nature, the patterns being arranged in succession with respect to the bolt of cloth.

It is a further object of the invention to provide a printing mechanism in the form of an endless web.

It is a still further object of the invention to provide a support for the endless web which is adjustable in order that the endless web may at all times be maintained under proper tension.

With the above and other objects in view, reference is to be had to the accompanying drawings, in which

Figure 1 is a perspective view of the machine;

Fig. 2 is a transverse sectional view.

Referring more specifically to the drawings, the reference numeral 5 designates a table supported by legs 6. Extending parallel with one edge of the table and maintained in brackets 7, there is a roller 8. This roller is carried by a shaft 9, and mounted adjacent one end of the shaft 9, there is a gear wheel 10. Secured to this shaft 9, there is a pulley 11, and passing around the pulley 11 there is a power belt 12. The reference numeral 13 designates a motor, and such motor drives a pulley 14 through the medium of a belt 15. The pulley 14 is of the clutch type and is operated by a shaft 16 mounted in suitable bearings 17, which shaft 16 is in turn operated by a treadle 18 in the ordinary manner. The belt 12 passes around a driving pulley on the shaft 16, which is controlled by the clutch pulley 14.

The reference character A designates a substantially triangular frame. This frame comprises two angularly disposed arms 19 and 20. These arms diverge from the shaft 21 on which is mounted a gear 22 meshing with the gear 10 heretofore mentioned. There are two of these arms arranged at each end of the table. The upper ends of the arms 19 are connected by a roller 23, and the upper ends of the arms 20 are connected by a roller 24. The arms 19 and 20 are connected by angularly disposed braces 25, and this construction provides a triangular frame. The triangular frame is maintained in position by arms 26, which are connected to the table by a detachable facing 27, as shown, and the arms 19 and 20 are maintained in adjusted spaced relation by a strap or the like, 28. These straps 28 are attached to the arms 20, and are provided with elongated slots 29, which receive thumb screws 30 carried by the arms 19.

Carried by the shaft 21 heretofore mentioned, there is a roller 31. Passing around the rollers 23, 24 and 31, there is an endless web member 35. This endless web member is in the form of a stencil, and the patterns printed upon the fabric are formed by perforations or other suitable openings in the endless web member 35. As shown diagrammatically in Fig. 2 of the drawings, a suitable inking device, designated by the reference character B, is employed within the triangular frame, and this device spreads ink upon the roller 31 in order that the same may pass through the openings in the endless web 35.

Mounted upon the table in spaced relation with respect to the triangular frame, there is a plurality of rollers 34′. These rollers are spaced in staggered relation as shown in Fig. 2, in order that when the fabric shown in dotted lines and designated by the reference character 36, passes therebetween, it will be placed under sufficient tension to cause a proper feeding thereof.

The machine operates in the following manner:

The fabric 36 being fed through the staggered rollers 34, is led to pass between the roller 8 and the endless web 35 at the point

where it passes around the roller 31. As the machine is started, the rollers 8 and 31 are rotated. This action feeds the fabric 36 between the roller 8 and the endless web member 35, and the ink carried by the roller 31 is forced through the perforations of the endless web member 35 and deposited upon the fabric 36 to print the pattern thereon.

When it is desired to remove the endless web member 35, the bolts 30 are loosened and the arms 19 and 20 are moved toward each other after which the endless web may be slipped over either end of the machine by loosening the brackets 26.

From the foregoing it is apparent that the machine provides means whereby a pattern may be repeated upon a strip of fabric, such, for example, as a bolt of cloth, by a continuous operation and without interruption.

What is claimed is:

1. A pattern printing machine comprising a table having a bed, means for moving a sheet of material to be printed upon over said bed, and printing mechanism for printing upon the moving sheet of material, said printing mechanism including an endless perforate pattern stencil, and a collapsible support for removably supporting said stencil.

2. A pattern printing machine comprising a table having a bed, means for moving a sheet of material to be printed upon over said bed, and printing mechanism for printing upon the moving sheet of material, said printing mechanism including an endless perforate pattern stencil, a collapsible support at one end of the bed for removably supporting said stencil; and tension means for tensioning the sheet of material during its movement.

3. A machine of the class described comprising a bed, means for moving a fabric to be printed over said bed, and printing means for printing the fabric, said printing means including an endless web having the pattern to be printed thereon and a support for supporting said endless web, said support comprising a plurality of spaced arms arranged in pairs, means for adjusting the arms of said pairs relatively to each other, and means for supporting the web-supporting support from the bed.

HANS HENRY MEYER.