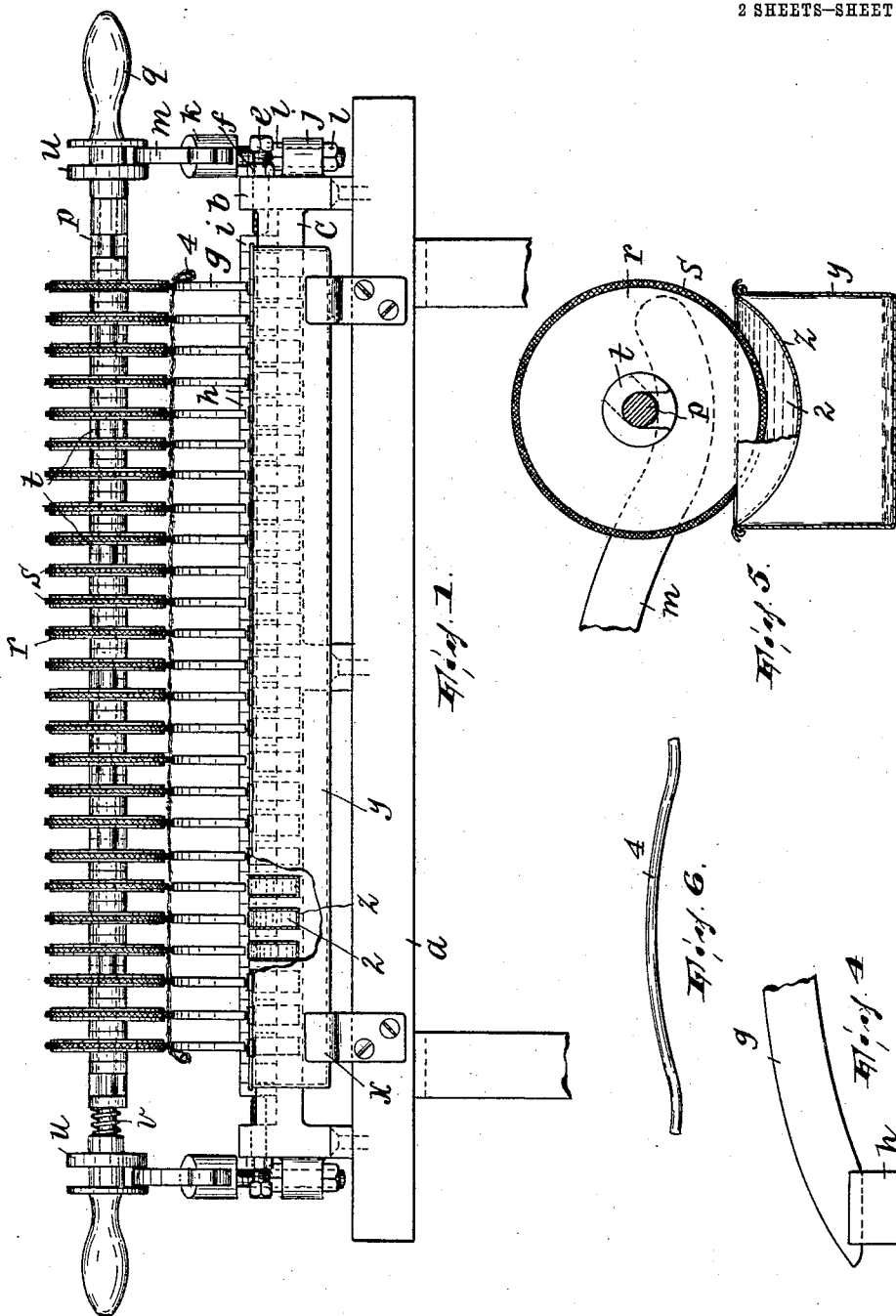


R. TAGLIABUE.
SILK PRINTING MACHINE.
APPLICATION FILED AUG. 8, 1912.

1,042,029.

Patented Oct. 22, 1912.

2 SHEETS—SHEET 1.



WITNESSES

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Elise Kaufmann.

INVENTOR
Richard Tagliabue,

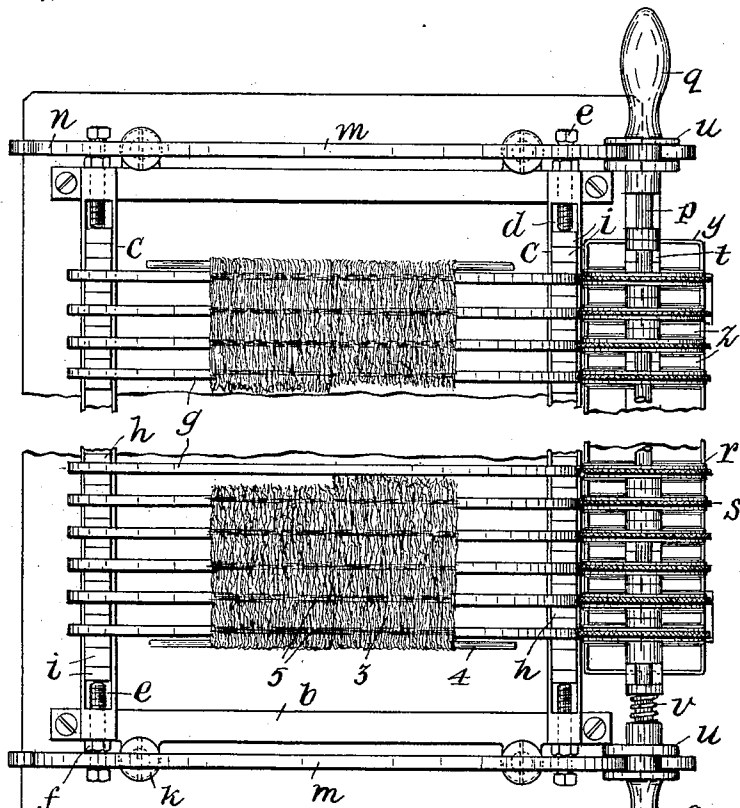
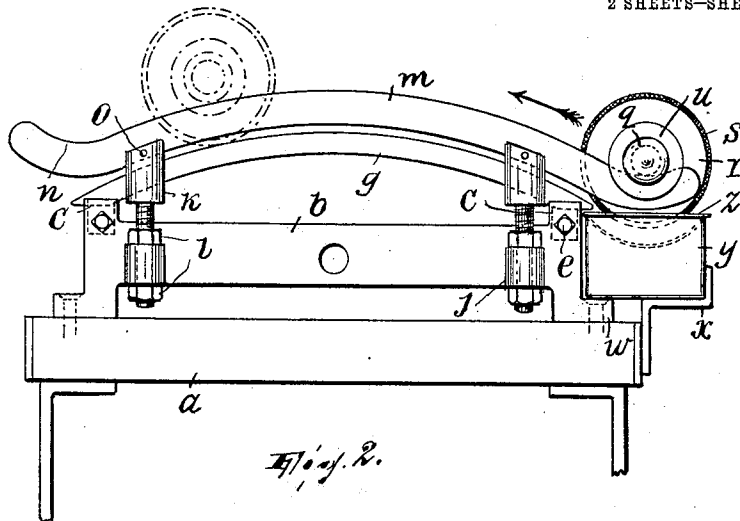
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WITNESSES

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Fig. 3

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UNITED STATES PATENT OFFICE.

RICHARD TAGLIABUE, OF PATERSON, NEW JERSEY, ASSIGNOR TO AMERICAN SILK & COTTON SKEINS PRINTING COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

SILK-PRINTING MACHINE.

1,042,029.

Specification of Letters Patent.

Patented Oct. 22, 1912.

Application filed August 8, 1912. Serial No. 714,024.

To all whom it may concern:

Be it known that I, RICHARD TAGLIABUE, 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 Silk-Printing Machines, of which the following is a specification.

This invention relates to apparatus for use in the printing of skeins and the like and particularly to apparatus of this kind wherein the printing is effected by passing a printing roller having a series of spaced printing wheels over the extended skeins.

The object of the invention is to improve apparatus of this kind as now generally known and used, particularly so as to make the same more efficient and accurate in operation and more convenient to handle and to allow ready adjustment thereof as occasion requires.

In the accompanying drawings, wherein the invention is fully illustrated, Figure 1 is a front elevation of the improved apparatus, partly in section; Fig. 2 is a side elevation; Fig. 3 is a plan; Fig. 4 a detail view of one of the rails on which the roller runs; Fig. 5 is a vertical sectional view through the roller and one of the dye vessels; and, Fig. 6 shows one of the wires or bars for holding the skein extended.

In said drawings, *a* designates a stand or table on which is arranged and suitably secured thereto a frame consisting of the side bars *b* and the cross-bars *c*, each of which latter has an upwardly open groove or channel *d* formed therein and extending from near one end to near the other end thereof; into the ends of the cross-bars and projecting into said channels are screwed the adjusting screws *e*, the same being provided with the lock-nuts *f*.

g designates the rails on which the roller (to be described) runs. They are all arched to the same curvature and each has at each end a downwardly extending squared block *h*, the blocks for each rail being so spaced apart that they will just enter the grooves in the two cross-bars *c*. The blocks are somewhat wider than the rails so that when the several rails have been assembled with the cross-bars, as shown in Figs. 1 and 3, they will stand spaced from each other. Filler blocks of various widths may be introduced between the blocks *h* to change the

spacing of the rails; such blocks (*i*) are in the drawings, however, only shown at the ends of each series of blocks *h* where they assume the pressure of the screws *e* which not only secure the several rails in place but afford means for adjusting the entire series transversely.

Projecting from the outer sides of the side bars *b* are the ears or lugs *j* through which are passed vertically the threaded portions of posts *k*, each such threaded portion carrying two nuts *l*, one above and the other below the corresponding ear or lug, whereby the post may be adjusted vertically. The two posts for each side bar are formed with vertical slits and receive therein the upwardly arched guide-rail *m*, whose ends curve upwardly somewhat to form the rests or seats *n*; the guide-rail is secured in the posts by the pins *o*, so that the three parts form a unitary structure. The two guide-rails are counterparts of each other and are so formed that, when adjusted by manipulating the nuts *l*, their top edges may be brought into parallel relation with the top edges of the rails *g*. Rails *m*, however, are sufficiently longer than rails *g* so that their rests *n* overhang.

The roller includes a shaft *p* carrying handles *q*, one at each end and one being screwed thereon or otherwise removably secured thereto; the disks or wheels *r*, each having a band *s* of absorbent material forming a continuous tread thereon, strung on said shaft in spaced relation to each other, the spaced relation being accomplished preferably in some manner affording adjustment, as by the spacing blocks *t* of U-shaped form fitted between the wheels over the shaft; and the peripherally grooved guiding collars *u*. Preferably, also, a spring *v*, coiled about the shaft, is interposed between one of the collars *u* and the adjoining end of the series of parts *r* and *t*, preventing any lost motion. The wheels are spaced apart exactly the same distances as are the rails *g*, upon which they are made to run, and they coincide with and are of the same number as said rails. The guiding collars *u* are spaced apart the same distance as are the two guide-rails *m* which are received in the grooves of said collars, nicely fitting the same so that the shaft has no endwise lost-motion and is kept at all times in true right-angular relation to said rails and hence to

the rails *g*, which in plan are parallel with the guide-rails *m*.

Resting on the projecting feet *w* of the side bars *b* and on the brackets *x* secured to the table is a rectangular receptacle *y* in which is supported a number of smaller receptacles *z* corresponding in number to the number of the wheels, which dip into them as shown in Fig. 5; the receptacles *z* hold the dye, indicated at 2.

In the rest position of the roller, it stands as shown in Figs. 2 and 3, its collars in the seats *n* of the rails *m* which adjoin the dye-holding vessel. In this position the roller may be twirled (or turned without advancing it from the seats *n*) so as to wet each of the wheel-bands *s* continuously with the dye. The skein 3 having been stretched across the rails *g*, as shown in Fig. 3, its fibers separated and laid out flat, and there held by the wires or rods 4 (Fig. 6), the attendant grasps both of the handles *q* and rolls the roller back and forth over the rails *g* and hence over the skein, the dye being deposited in streaks or stripes on the skein, as indicated at 5. In this operation it is very essential that the roller be kept perfectly true, *i. e.*, not only against longitudinal displacement but against one end moving ahead of the other, as otherwise the wheels are likely to run off the rails *g* and not only exert undue pressure on the skein but cause it to become pinched between themselves and said rails, resulting in the cutting of the fibers of the skein. It is for this reason that I have provided for guiding the roller in the way hereinbefore described.

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

1. In combination, a frame having spaced parallel upwardly open grooves, parallel rails each having at each end a block received in one of said grooves, means for securing the rails in the frame including opposed adjusting screws exerting sidewise pressure against the blocks in each groove and arranged in the frame in alinement with the grooves, and a roller having dye-bands surrounding the same and spaced to correspond with said rails, said roller being adapted to be rolled over the rails, substantially as described.

2. In combination, a frame having spaced parallel upwardly open grooves, parallel rails each having at each end a block received in one of said grooves, means for securing the rails in the frame including opposed adjusting screws exerting sidewise pressure against the blocks in each groove and arranged in the frame in alinement with the grooves, a roller having dye-bands surrounding the same and spaced to correspond with said rails, said roller being adapted to be rolled over the rails, and means for guiding the roller including guide-rails interlocked therewith and secured to the frame parallel with the first-named rails, substantially as described.

3. In combination, the frame, a series of parallel skein-supporting rails arranged therein, a dye-applying roller extending crosswise of the rails and having a series of absorbent bands fitted around it and spaced the same as and coinciding with said rails, said roller being adapted to be rolled over the rails, and guide-rails for the roller carried by the frame in parallel disposition to the first-named rails, said roller having peripherally grooved collars receiving and fitting the guide-rails, substantially as described.

4. In combination, the frame, a series of parallel skein-supporting rails arranged therein, a dye-applying roller extending crosswise of the rails and having a series of absorbent bands fitted around it and spaced the same as and coinciding with said rails, said roller being adapted to be rolled over the rails, guide-rails for the roller carried by the frame in parallel disposition to the first-named rails and each projecting beyond said first-named rails and having depressions in their projecting portions, said roller having peripherally grooved collars receiving and fitting the guide-rails, and a dye-holding vessel arranged under the roller when said roller is seated in the depressions of the guide-rails, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD TAGLIABUE.

Witnesses:

JOHN W. STEWARD,
WM. D. BELL.