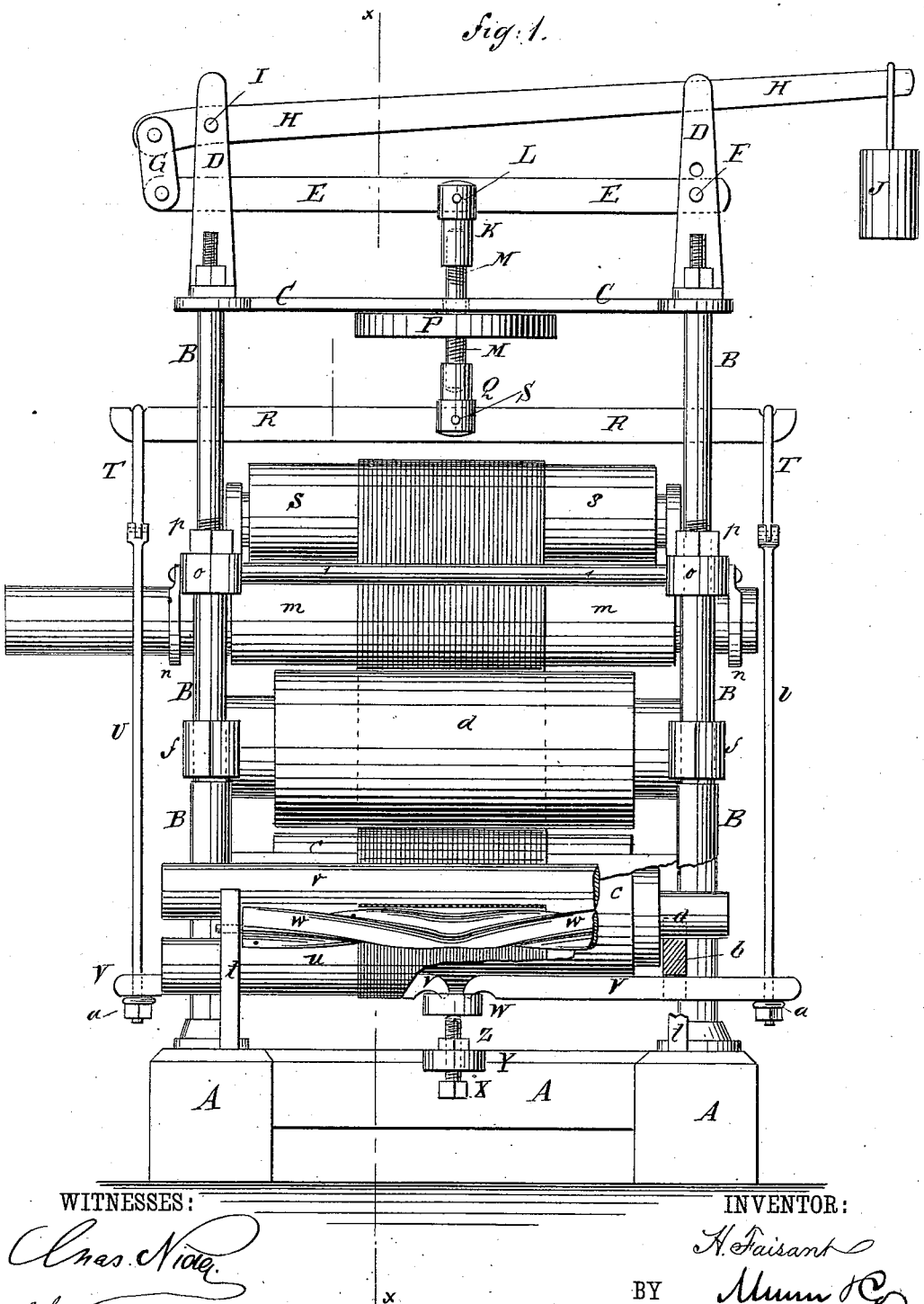
(No Model.) 3 Sheets—Sheet 1.

H. FAISANT.

SILK AND RIBBON FINISHING MACHINE.

No. 304,189. Patented Aug. 26, 1884.

Fig. 1.



WITNESSES:

Chas. Nichols

C. Bedgwick

INVENTOR:

H. Faisant

BY Munn & Co.

ATTORNEYS.

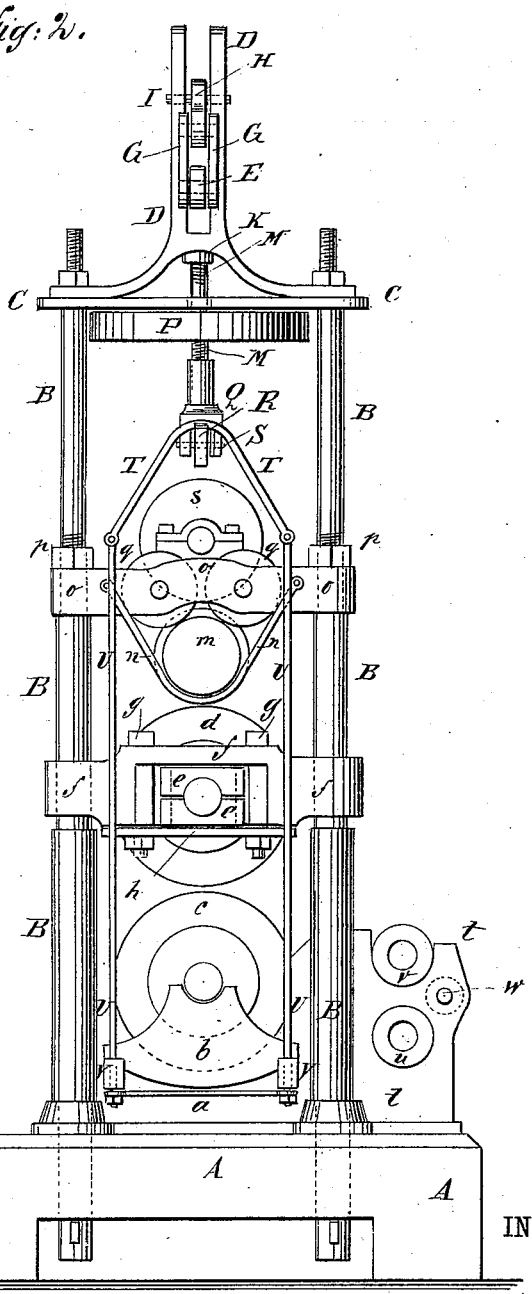
(No Model.) 3 Sheets—Sheet 2.

H. FAISANT.

SILK AND RIBBON FINISHING MACHINE.

No. 304,189. Patented Aug. 26, 1884.

Fig: 2.



WITNESSES:

Chas. Nida.

C. Sedgwick

INVENTOR:

H. Faisant

BY

Munn & Co.

ATTORNEYS.

(No Model.) 3 Sheets—Sheet 3.

H. FAISANT.

SILK AND RIBBON FINISHING MACHINE.

No. 304,189. Patented Aug. 26, 1884.

Fig. 3.

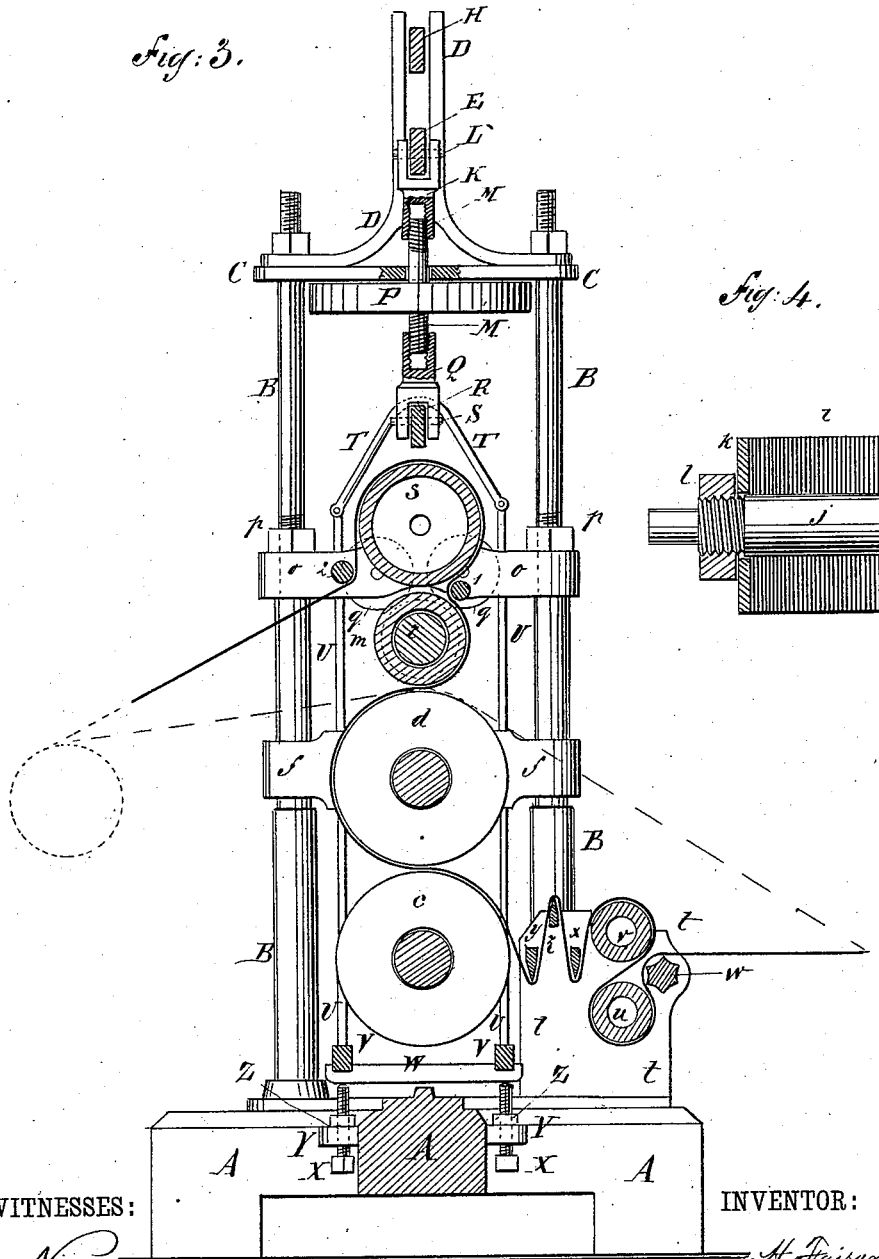
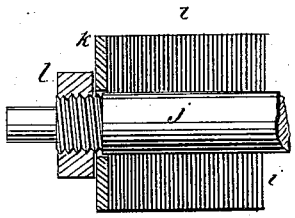


Fig. 4.



WITNESSES:

Chas. Nida.

C. Bedgwick

INVENTOR:

H. Faisant

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HONORÉ FAISANT, OF JERSEY CITY, NEW JERSEY.

SILK AND RIBBON FINISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 304,189, dated August 26, 1884.

Application filed May 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, HONORÉ FAISANT, of Jersey City Heights, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Silk and Ribbon Finishing Machines, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1, Sheet 1, is a front elevation of my improvement. Fig. 2, Sheet 2, is a side elevation of the same. Fig. 3, Sheet 3, is a sectional side elevation of the same, taken through the line *x x*, Fig. 1. Fig. 4, Sheet 3, is a sectional elevation of a part of one of the paper rolls.

The object of this invention is to facilitate the watering and finishing of broad silks and ribbons.

The invention consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

A represents the base of the machine, to the four corners of which are attached the lower ends of four posts, B. The upper ends of the posts B pass through the four corners of the plate C and through the bases of the standards D, and have nuts screwed upon them. The standards D are slotted to receive the lever E, which is pivoted at one end to one of the said standards D by a pin, F, and to its other end, at the outer side of the other standard, D, is connected, by a link, G, the end of the lever H. The lever H passes through the upper parts of the slots in the standards D, and is fulcrumed near its pivoted end by a pin, I, to the standard D. From the other end of the lever H, at the outer side of the other standard, D, is suspended a balancing-weight, J. The lever E, midway between the standards D, is pivoted in and to the slotted upper end of the long nut K by a pin, L. Into the nut K is screwed the upper end of the right-and-left screw M, the middle part of which passes through the center of the top plate, C. The screw M moves freely through the plate C, and has a hand-wheel, P, attached to it at the lower side of the said plate C. The lower end of the right-and-left screw M screws into the long nut Q, the lower end of which is slotted to receive the long bar R, and is secured to the center of the said bar R by a pin, S. The ends of the bar R project at the sides of the machine, and are recessed upon the upper sides to receive the bails T, to the ends of which are hinged the upper ends of the rods U. The lower ends of the rods U pass through the outer ends of the levers V, and have nuts screwed upon them at the lower sides of the said levers V. The inner ends of the levers V are curved downward a little, or have hooks formed upon them to rest in recesses in the upper ends of the cross-bar W, which rests upon set-screws X. The set-screws X pass up through screw-holes in lugs Y, formed upon or attached to the center bar of the base, and are secured in place, when adjusted, by nuts Z, screwed upon them at the upper sides of the said lugs Y. The outer ends of the levers V are connected and held in proper relative positions by a bar, *a*, placed upon the lower ends of the rods U, and held in place by the nuts screwed upon the lower ends of the said rods.

Upon the levers V, between their centers and outer ends, are placed blocks *b*, in the upper edges of which are formed half-bearings to receive the journals of the roll *c*. Above the rolls *c* is placed a corresponding roll, *d*, the journals of which revolve in bearings *e* placed in recesses in the lower sides of the cross-bar *f*, where they are secured in place by the key-bolts *g* and the bars *h*. The key-bolts *g* pass down through holes in the cross-bars *f* through grooves in the ends of the bearings *e*, and through holes in the ends of the bars *h*, and have nuts screwed upon their ends, as shown in Fig. 2. The ends of the cross-bars *f* have holes formed through them to receive the posts B, and their downward movement is limited by shoulders formed upon or collars attached to the said posts B. The rolls *c d* are formed of paper disks *i*, placed side by side upon a mandrel, *j*, between metal disks *k*, and pressed together by nuts *l*, screwed upon the said mandrel, as shown in Fig. 4. Above the roll *d* is placed a metal roll, *m*, the end parts of which are placed in stirrups or bails *n*, to prevent the said roll *m* from dropping down too low. The ends of the stirrups or bails *n* are attached to the cross-bar *o*, the ends of which have holes formed through them

to receive the posts B, and are held from rising by nuts *p*, screwed upon the said posts B. The roll *m* is held from being forced upward by friction-wheels *q*, pivoted in slots in the cross-bars *o*, and which rest against the upper part of the said roll *m*. One end of the roll *m* projects to receive a pulley or gear-wheel for giving motion to the said roll. The roll *m* is made tubular, and is heated by placing within it a hot iron bar, *r*, as indicated in Fig. 3. Above the roll *m* is placed a metal roll, *s*, the journals of which revolve in bearings attached to the cross-bars *o*.

To the forward parts of the ends of the base A are attached upright plates *t*, on which are mounted two stationary metal rolls, *u v*. The rolls *u v* are placed at a little distance apart, one directly above the other, and in such positions that one will be above and the other below the level of the axis of the roll *c*. The rolls *s u v* are made tubular, and are designed to be heated by steam introduced into them through their journals.

To the uprights *t*, in front of and midway between the rolls *u v*, is journaled a roll, *w*, the face of which has V-shaped or angular corrugations formed upon it, as shown in Figs. 1 and 3.

To the uprights *t*, between the roll *c* and the space between the rolls *u v*, and at a little distance apart, are attached the ends of two metal bars, *x y*, the lower edges of which are beveled to an edge, as shown in Fig. 3.

To the uprights *t*, directly above the space between the blades *x y*, are attached the ends of the metal bar *z*, the upper edge of which is beveled to an edge, as shown in Fig. 3.

With this construction, the material to be finished is fed into the machine from a reel, shaft, or by other suitable device, over the roll *w*, by the corrugations of which the said material is spread laterally, thence beneath and around the roll *u* and over the roll *v*, to smooth the same, so that it will be free from wrinkles or folds while passing through the machine. From the rolls *u v* the material passes under the blade *x*, over the blades *z*, and under the blade *y*, to give additional luster to the same; thence over the upper forward part of the roll *c*, around the rear part of the roll *d*, and around the forward part of the roll *m*, to give to the material, by the pressure to which it is subjected, the peculiar finished feeling which can only be imparted to the goods by pressure; and, finally, over the heated roll *s*, to restore the luster of the silk dimmed by the action of the pressure of the rolls *d m*, and from thence to a reel-shaft or other device. The material is kept close to the roll *s* while passing around it by the guide rods or rolls 1 2, attached or pivoted to the cross-bars *o*, as shown in Fig. 3. If the material is to be watered, it is simply passed between the rollers *d m*, as shown in dotted lines, Fig. 3, the material being either doubled or two pieces—one above the other—passed through at the same time when, by the action of the pressure and heat upon the doubled material, the watering will be effected.

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

1. A silk and ribbon watering and finishing machine constructed substantially as herein shown and described, and consisting of the rolls *c d m s* and their supporting and adjusting mechanism, the rolls *u v w*, and the blades *x y z*, as set forth.

2. The combination, with the steam-heated rolls *u v*, of the roll *w*, having V-shaped corrugations upon its face, substantially as herein shown and described, whereby the material will be spread laterally as it enters the machine, as set forth.

3. The combination, with the pressure-rolls and the steam-heated rollers *u v*, of the blades *x y z*, arranged, as shown, between the said heated rolls and the lowermost of the pressure-rolls, substantially as and for the purpose set forth.

4. The combination, with the rolls *c d* and means for regulating the pressure of said rolls, of the heated roller *m* above the roll *d*, and the heated finishing-roll *s* above the roller *m*, substantially as herein shown and described.

5. The combination, with the posts B and the cross-bar *o*, of the bails *n*, the roller *m*, and the friction-rollers *q*, journaled in said cross-bar, substantially as herein shown and described.

6. The combination, with the roll *c* and its bearing-block *b*, of the weighted lever H, the fulcrum-bar W, the levers V, and intermediate mechanism for connecting the levers V to the weighted lever H, substantially as herein shown and described.

7. The combination, with the roll *c*, the bearing-block *b*, the fulcrum-bar W, the levers V, the rods U, and bails T, of the bar R, the lever E, the link G, the weighted lever H, and means for connecting the lever E and bar R together, substantially as herein shown and described.

8. The combination, with the bearing-block *b*, supporting levers V, the bar R, and the connecting bail and rod T U, of the lever E, link G, weighted lever H, nuts K Q, and right-and-left-hand screw M, substantially as herein shown and described.

HONORÉ FAISANT.

Witnesses:
JAMES T. GRAHAM,
EDGAR TATE.