

No. 666,682.

Patented Jan. 29, 1901.

R. A. MONNIER.

DEVICE FOR DYEING SEAMS IN GLOVE SEWING MACHINES.

(Application filed Mar. 30, 1898.)

(No Model.)

3 Sheets—Sheet 1.

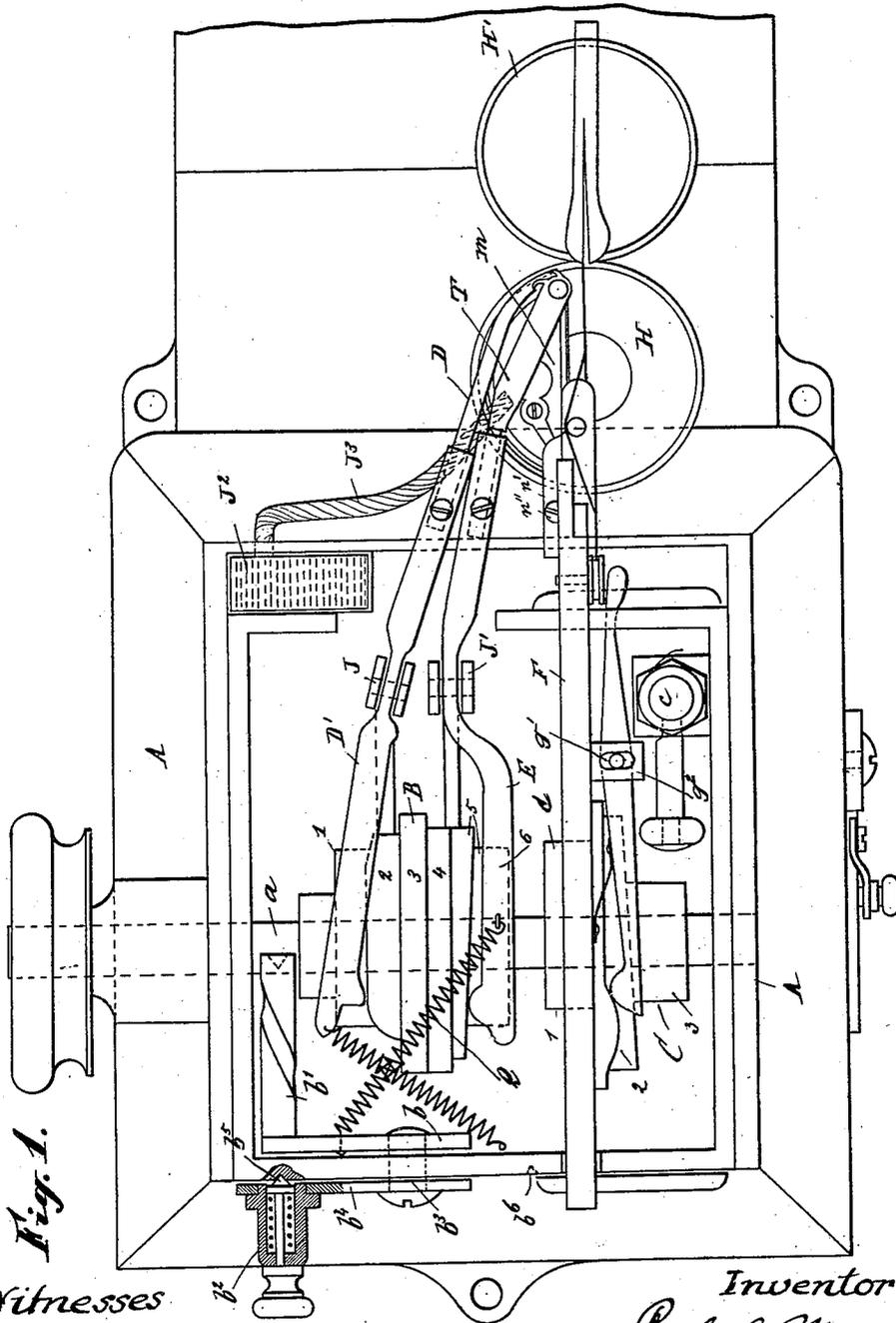


Fig. 1.

Witnesses
 G. S. Hemstedt
 F. M. Archer

Inventor
 R. A. Monnier
 by W. J. Rose
 atty.

No. 666,682.

Patented Jan. 29, 1901.

R. A. MONNIER.

DEVICE FOR DYEING SEAMS IN GLOVE SEWING MACHINES.

(Application filed Mar. 30, 1898.)

(No Model.)

3 Sheets—Sheet 2.

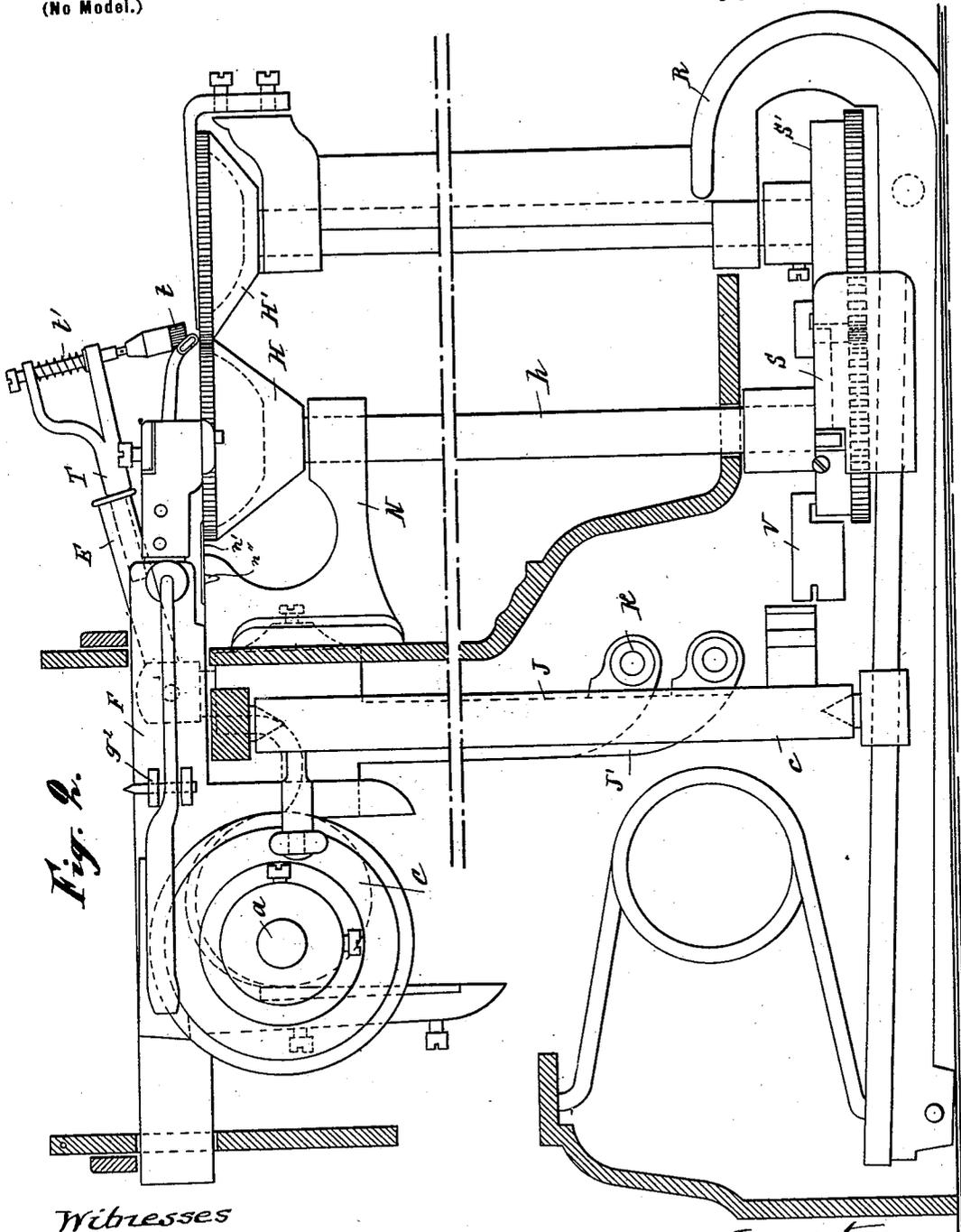


Fig. 2.

Witnesses
 G. S. Kennedy.
 F. M. Archer

Inventor
 Rud. A. Monnier
 by W. Rosenbaum
 atty.

R. A. MONNIER.

DEVICE FOR DYEING SEAMS IN GLOVE SEWING MACHINES.

(Application filed Mar. 30, 1898.)

(No Model.)

3 Sheets—Sheet 3.

Fig. 5.

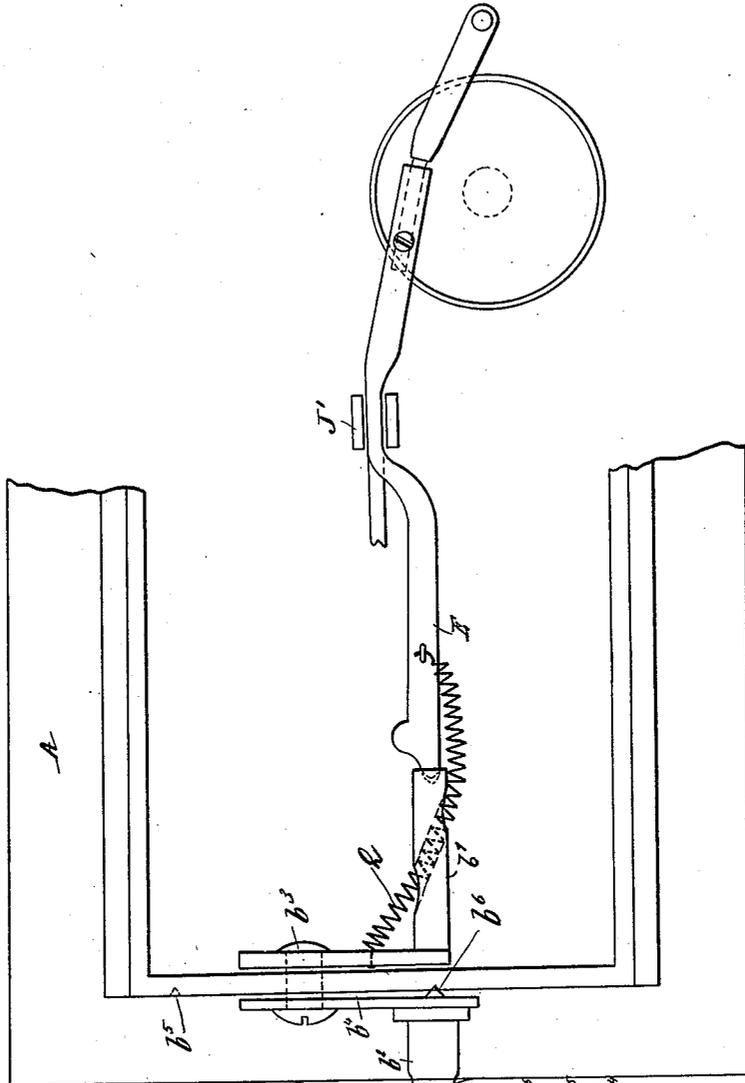


Fig. 3.

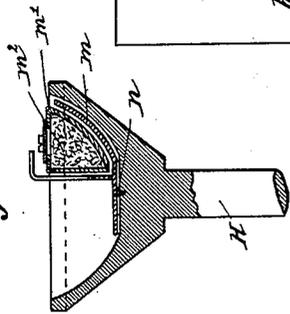
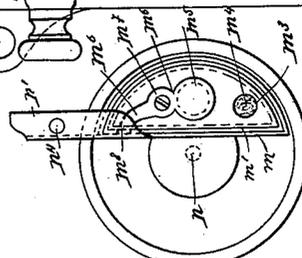


Fig. 4.



Witnesses

G. S. Kennedy
J. M. Archer

Inventor

Rud. A. Monnier

by W. A. Rosenbaum
Att'y.

UNITED STATES PATENT OFFICE.

RODOLPHE A. MONNIER, OF GHENT, BELGIUM.

DEVICE FOR DYEING SEAMS IN GLOVE-SEWING MACHINES.

SPECIFICATION forming part of Letters Patent No. 666,682, dated January 29, 1901.

Application filed March 30, 1898. Serial No. 675,883. (No model.)

To all whom it may concern:

Be it known that I, RODOLPHE AUGUSTE MONNIER, a subject of the King of Belgium, residing at Ghent, in the Kingdom of Belgium, have invented certain new and useful Improvements in Machines for Sewing Gloves, of which the following is a specification.

The present invention relates to a machine for sewing gloves of the kind wherein the seam is dyed automatically during the operation.

It has for its object to procure new and improved means for automatically dyeing the seam in a practical manner without fear of soiling the skin or of applying color upon parts next to the same.

In the accompanying drawings, Figure 1 is a plan view of a machine constructed in accordance with the principles of my invention. Fig. 2 is a view in elevation and partly in section of the said machine. Fig. 3 is a separate view showing in section one of the feed-wheels with the feeding device for the color. Fig. 4 is a plan view thereof. Fig. 5 is a detail showing how the dyeing device can be isolated from the machine.

In the drawings, A shows the body of the machine, traversed at its upper part by the principal driving-axle *a* of the entire mechanism. Upon this axle *a* are fixed in a well-known manner on one side a cam B, operating the hook D, and on the other side a cam C, operating the needle-carrier F and the feed-wheels H H'. The hook D is supported by a hook-carrier D', mounted upon the extremity of a vertical support J, movable upon the axle K.

H H' are the ordinary feed-wheels of the work, one of which, H, is held by its axle *h* in a support N, fixed to the body of the machine, while the other is allowed to oscillate with its support R. Both these feed-wheels are put in motion in one of the well-known manners by means of the wheels S S' of the driving device *v* and of the vertical axle *c*, actuated by one of the surfaces of the cam C.

In most of the machines of this kind containing these mechanisms the cam B has as a rule only three working faces, intended to give to the hook D the required motion, and the cam C two working faces, intended to actuate the needle-carrier and the feed-wheels H H'.

In my present machine I provide the cam B with supplemental faces for engaging and operating the carrier for the dyeing device. 55

I arrange in a manner analogous with that in which the hook-carrier D' is arranged—I mean upon a movable support J'—a special support E, referred to hereinafter as the "carrier" of the dyeing device, pressed against the supplementary faces of the cam B by a spring Q, and I locate in one of the feed-wheels H H'—for instance, in the rear wheel H—a small receptacle *m*, called hereinafter the "color-cup carrier." This cup-carrier reposes in the center of the feed-wheel upon a point *n* and is fixed to the support N of the feed-wheel H by means of a projecting piece *n'* and a screw *n''*. In this color-cup carrier *m* I place a cup *m'*, containing a sponge or other suitable material *m²*, one part of which forms a pad *m⁴* in an opening *m³* of the cover of the cup *m'*. I then introduce into the cup *m'* through the opening *m⁵* a certain quantity of color, so as to soak the sponge, while carefully avoiding to pour in any excess of liquid. After having done this I close the opening *m⁵* by means of a small cover *m⁶*, arranged pivotally upon a screw *m⁷*, the other extremity of which has the shape of a hook which engages into a corresponding opening of the cup-carrier *m* in order to hold in its place the cup *m'* in the cup-carrier *m*. 60 65 70 75 80

At the end of the carrier of the dyeing device I fix a support T, which carries a little brush or dyeing device *t*, the rod of which is preferably submitted to the action of a spring *t'*. 85

This part of my invention works as follows: The profile of the cam B is such that while the stitch is being made in a perfectly regular manner by means of the hook T and the needle the carrier E of the dyeing device operates a slight backward motion and applies first the brush *t* upon the pad *m⁴*, which is slightly saturated with color by the sponge of the color-pad, after which it advances and applies the brush *t* upon the stitch at the moment that the latter is perfected, while the spring-rod *t'* of the dyeing-brush *t* regulates the pressure of the brush upon the seam, and as the contact of the brush is proportionate to the forward motion of the glove there will be a friction of the said brush upon the said 90 95 100

glove without the brush being in the least displaced. It will be easily understood that owing to this arrangement, which consists in applying the color upon the seam by means of a brush to which color is fed gradually by means of a pad which is simply slightly wet, there will never be any reason to fear either an excess of color or the overflow of color upon the glove. As the quantity of color which can be absorbed by the sponge m^2 is relatively small, it might be insufficient for operating the dyeing of the seams of a great number of gloves. In such case I use a color-reservoir J^2 , located inside of the body of the machine, and I continually feed color to the sponge from the color-reservoir by means of a wick J^3 , which is protected outside of the machine by means of a rubber tube, for instance, and which leads to a suitable opening in the cover of the color-cup m' . In such a manner I can feed color to the sponge of said cup m' as long as it is necessary without being compelled to replace the empty color-cup by another filled cup, which is a very important point if we consider the cleanliness of the work, as when the operator is compelled to frequently manipulate the color-receptacles he might easily soil his hands and as a consequence thereof the glove upon which he works.

It may be necessary in certain cases to be able to isolate the dyeing device, so as to prevent the application of color upon the seam. For that purpose I have fixed the spring Q , which keeps the carrier E of the dyeing device pressed against the supplementary faces of the cam B , to a plate b , provided with a rod b' . This plate is mounted upon an axle b^3 , which traverses the body of the machine. Upon the axle b^3 is fixed a lever b^4 , which carries a spring-button b^2 , the stopping-point of which can drop into two holes b^5 and b^6 of the body of the machine. (See Fig. 5.) In

the ordinary position—I mean when the machine sews and dyes simultaneously—the plate b and the spring Q occupy the position indicated in Fig. 1. When it is desired to suspend the working of the dyeing device, the point of the spring-button e^2 is withdrawn from the hole b^5 of the body of the machine and the plate b is made to turn upon its axle b^3 . The spring Q is displaced and engages into the groove of the rod b' , that rod b' taking position in the prolongment of the lever E of the carrier of the dyeing device. It will then be sufficient to slightly lower from the outside the forward end of the carrier E of the dyeing device to make the other end thereof engage in a conical hollow provided in the rod b' . The dyeing device will then be completely removed from the action of the cam B , and consequently from the impossibility of operating.

Having described my invention, I claim—

1. In a machine for sewing gloves and dyeing the seams, the combination with a sewing mechanism of a cam having a plurality of faces, a carrier for the dyeing device actuated by said cam, feed-wheels, a color-cup mounted in one of said wheels, means for feeding the cup with color and means for putting the carrier for the dyeing device out of operation.

2. In a machine for sewing gloves and dyeing the seams, the combination with a sewing mechanism of a cam having a plurality of faces, a carrier for the dyeing device actuated by said cam, feed-wheels, a color-cup placed in the carrier, a cover for the cup, a pad in the cup and means for feeding the color to the cup, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

R. A. MONNIER.

Witnesses:

S. VARILLON,
V. ORNDUVAIL.