

(No Model.)

I. PLAMONDON & M. PALMER.

MACHINERY FOR THE MANUFACTURE OF RUBBER BELTING.

No. 368,166.

Patented Aug. 9, 1887.

Fig. 1

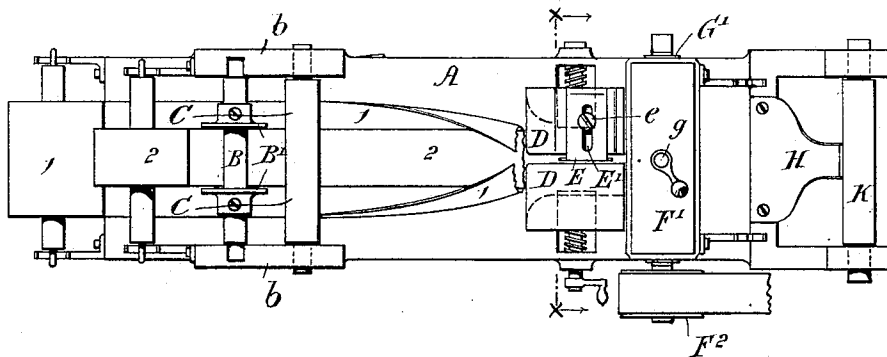


Fig. 2

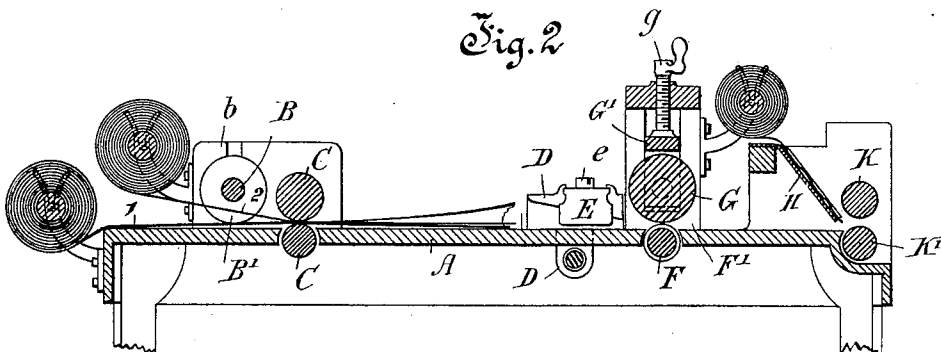
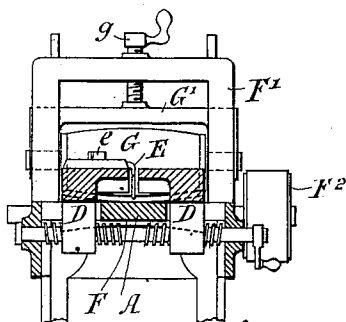


Fig. 3



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MACHINERY FOR THE MANUFACTURE OF RUBBER BELTING.

SPECIFICATION forming part of Letters Patent No. 368,166, dated August 9, 1887.

A application filed May 23, 1887. Serial No. 239,700. (No model.) Patented in Canada June 6, 1887, No. 26,885.

To all whom it may concern:

Be it known that we, IGNACE PLAMONDON and MALLORY PALMER, both of the city of Montreal, in the district of Montreal and Province of Quebec, Canada, have jointly invented certain new and useful Improvements in the Manufacture of Rubber Belting; and we do hereby declare that the following is a full, clear, and exact description of the same.

The objects of our invention are specially to provide means whereby the overlapping of the edges of the outer ply during the operation of folding may be prevented, and also devices by which the feed of the inner ply may be regulated and the plies more firmly and evenly secured together.

The invention, consists, mainly in a novel construction of the "folders" and in certain attachments thereto, these folders being so made and arranged that they may be brought nearer together or moved wider apart and the sides be at the same time kept equidistant from the center line of the table. To either one of these folders is fixed a downwardly-projecting guide, which will always be on the axial line of the table—i. e., the center of the belt—and will keep separate the turned-over edges of the outer ply as it passes through and is turned over by the folders.

Our invention also embraces certain improvements in the construction of the rollers through which the plies pass after leaving the folders, and also in the rolls regulating the feed of the inner ply or plies.

For full comprehension of the invention, reference must be had to the annexed drawings, forming part of this specification, in which—

Figure 1 is a top view of the apparatus; Fig. 2, a longitudinal sectional elevation; and Fig. 3, a transverse sectional view taken on line *xx*, Fig 1.

Similar letters of reference indicate like parts.

A is the table, on which are mounted the folders and the bearings for rollers, &c.

B is the first roller, carried in bearings *b b* and carrying collars *B' B'*, secured in place by set-screws. C C are rollers, also carried in the bearings *b b*.

D D are the folders, of the shape shown specially in Fig. 3, mounted on a right and left hand screw, so that the distance apart may be adjusted to correspond with the width of the belt to be made, and the sides always equidistant from the center line of the table.

E is the guide, turned down, as shown in Fig. 3, and secured to either of the folders by a set-screw, *e*, passing through the slot *E'* in the top. This will allow of the position of the guide being adjusted so as always to bring its turned-down edge on the center line of the table.

F is a concave roller at the level of the table, carried in bearings *F'* and having mounted on one end a pulley, *F²*, connected by a belt with any going part of the machinery.

G is a swelled or convex roller, the ends of which are supported in a carriage, *G'*, which can be raised and lowered in the frame *F'* by means of the screw *g*, or any other suitable device may be employed for the purpose.

H is the guide for the cover-strip, and K K' the rolls by which the strip is pressed into position on the belt to complete it.

The operation of our invention is as follows: The outer ply, 1, is taken from a roller preferably below the level of the table, and passes between the rolls C C, the inner ply or plies, 2, being taken between the collars *B' B'*, which are adjusted its exact width apart and equidistant from the center, and thence with the outer ply between the rolls C C. The plies then pass to the folders D D, adjusted so that the opening will correspond with the width of the belt to be made, by which the extra width of the outer ply, 1, is turned over on the inner ply, 2. The edges of the turned-over part of ply 1 pass either side of the turned-down edge of the guide E, are kept apart by it, and prevented from overlapping. The belt thus partially formed is drawn between the concave roller F, rotated by any suitable power, and the convex roller G, the position of which with relation to F is adjusted to suit the number of plies of which the belt is formed. The pressure between these rollers will secure the outer and inner plies together.

It will be seen from the above that however unevenly the edge of the outer ply may be cut

the action of the guide during the process of folding over will prevent the folded-over edges from overlapping, and that the passage of the partially-formed belt between the rollers F and G will tend to press the substance of the outer ply toward the center, thus bringing the edges nearly to a butt-joint.

When beginning a length of belting, it will be necessary to turn the outer ply into the opening of the folders by hand; but so soon as the folded plies are gripped between the rollers F and G the process of folding and pressing will be performed automatically.

The cover-strip is taken down the guide H onto the surface of the folded plies and passes with them between the rolls K K', by which it is pressed into place and the belt completed, this mechanism being of the usual type.

What we claim is as follows:

1. In a machine for the manufacture of rubber belting, the combination of the folders, mechanism for adjusting the width of opening

and equidistance of sides from the center line, and a downwardly-projecting guide secured to one of the folders and adjusted to the center line, all as herein described, and for the purposes described.

2. The combination, with the folders D D and guide E, of the first roll, B, with collars B' mounted loosely thereon and means for securing them in place, and intermediate rolls, C C, all substantially as described, and for the purposes set forth.

3. In a machine for the manufacture of rubber belting, the combination, with the folders, of a concave roller driven by power and a convex roller carried in bearings capable of vertical adjustment, all as and for the purposes described.

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