(No Model.)

J. D. JOSLIN.

Machine for Making Rubber Belting.

No. 231,327. Patented Aug. 17, 1880.

Fig. 1.

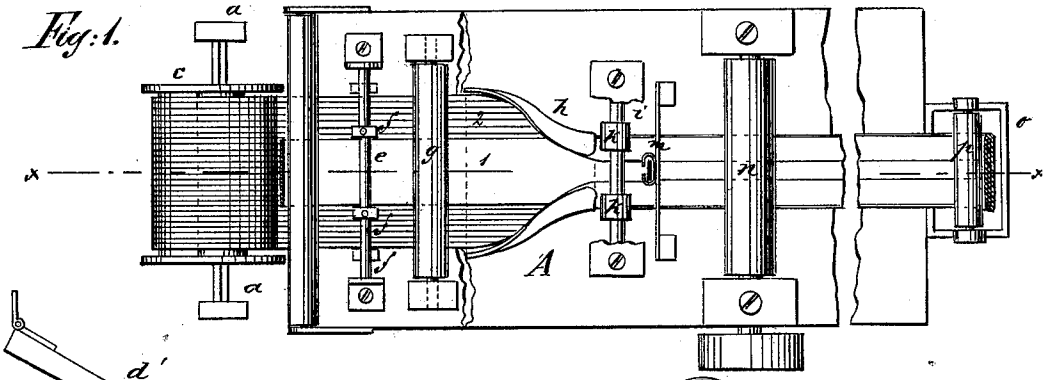


Fig. 2.

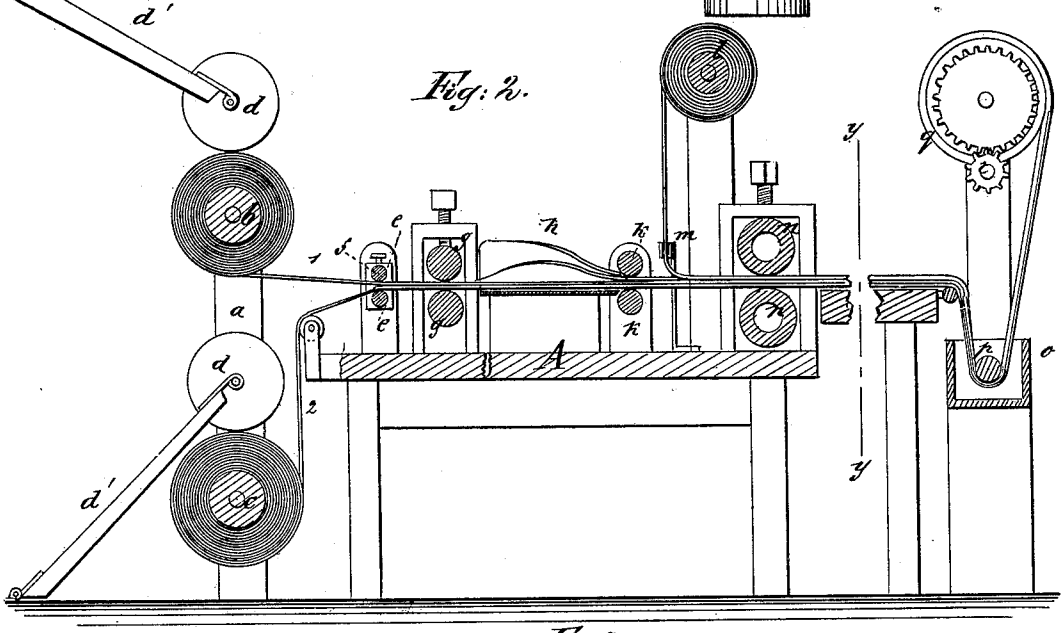


Fig. 3.

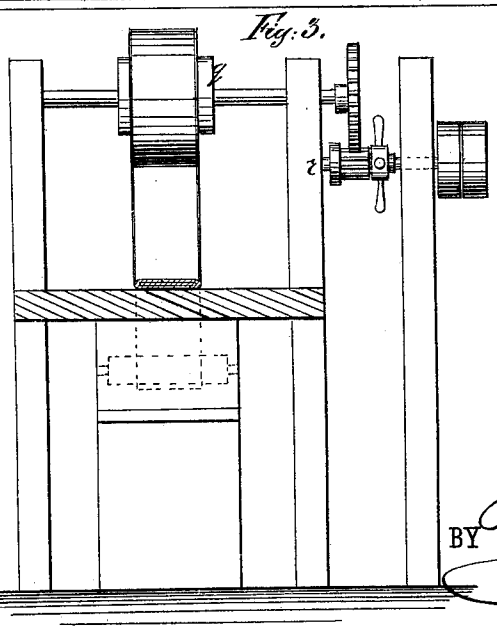


Fig. 4.

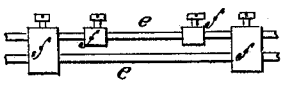


Fig. 5

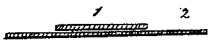
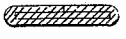


Fig. 6.



Fig. 7.



WITNESSES:

Chas. Nida.

C. Sedgwick

INVENTOR:

J. D. Joslin

BY Munn & Co

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JACOB D. JOSLIN, OF TRENTON, NEW JERSEY.

MACHINE FOR MAKING RUBBER BELTING.

SPECIFICATION forming part of Letters Patent No. 231,327, dated August 17, 1880.

Application filed June 30, 1880. (No model.)

To all whom it may concern:

Be it known that I, JACOB D. JOSLIN, of Trenton, in the county of Mercer and State of New Jersey, have invented a new and useful Improvement in Machines for Making Rubber Belting, of which the following is a specification.

My improved machine is intended for receiving the stock and folding and preparing the belt for vulcanization.

The construction and operation will be described in detail with reference to the accompanying drawings, and the invention pointed out in the claims.

In the drawings, Figure 1 is a plan view of the machine. Fig. 2 is a vertical longitudinal section on line *x x* of Fig. 1. Fig. 3 is a vertical transverse section on line *y y* of Fig. 2. Fig. 4 is a detail view, showing the guides for the stock. Figs. 5, 6, and 7 show the belt in different stages of manufacture.

Similar letters of reference indicate corresponding parts.

A is the bed or frame of the machine. In front of the bed are fitted standards *a a*, which support the rolls *b c* of stock, the upper roll, *b*, carrying the stock for the center 1 of the belt, and roll *c* the covering 2. *d' d'* are hinged arms carrying rollers *d d*, that rest on the stock on rollers *b c*, for taking up the lining or cloth from the stock as it is drawn off. *e e* are shafts fixed across bed A, and provided with adjustable gages *f f* (see Fig. 4) for guiding the center and cover. *g g* are pressure-rollers for pressing or setting the center 1 upon the cover.

h is the shoe or folder, consisting of a metal plate with turned flaring edges, beneath which the stock passes and by which the edges of cover 2 are folded upon the center 1. I prefer that there should be a space of, say, twenty feet between the pressure-rollers *g* and folder *h*, to give opportunity for inspection of the material before it is folded, and for correction of irregularities in the stock.

i i are rolls fitted across bed A at the delivery side of shoe *h*, and provided with adjustable collars *k*, which bear upon the folded edges of the belt, to press the same.

l is a spool supported above bed A, and carrying the strip of material for covering the seam of the belt. This strip passes through a guide, *m*, that is fixed behind the upper roll, *i*, so that the strip is delivered at the center of the belt, as required.

n n are the calender-rolls, geared together and provided with a pulley for connection to power. The upper roll *n* is fitted in a sliding box adjustable by a screw, so that the desired pressure may be obtained.

o is a box for containing soapstone, fitted with a roll, *p*, beneath which the belt passes after leaving the bed A.

q is the winding-roller for the belt, driven by gearing from a shaft, *r*, that will be connected to power. The pinion on shaft *r* is provided with a friction-clutch that allows the pinion to slip as the belt on roller *q* increases in size, so that the belt shall not be drawn too rapidly nor strained.

In operation the center 1 and covering 2 pass from rolls *b c* between the guides *f f* and pressure-rollers *g*. The lining or cloth on the stock being first caught on the rolls *d d*, it is taken up thereafter automatically as the stock pays off, and the hinged bars *d'* allow the rollers *d* to rise as they increase in size. The outer guides, *f*, direct the covering 2, while the inner guides retain the center 1 properly in position until it is pressed or set by the rollers *g*. The belt then goes through the shoe *h*, which turns the cover 2 at each side over upon the center 1, the edges of the cover being thereby brought closely together, as shown in Fig. 6, The folded edges of the belt then pass between the rolls *i i*, and are pressed by the collars *k*, which are adjustable on the rolls to suit any usual width of belt. The strip from spool *l* covers the seam of the cover 2, as shown in Fig. 7, and the belt then passes between the calendering-rolls *n*, which press the material closely together and smooth the surface. The belt is covered with soapstone as it passes through box *o*, so that when wound on roller *q* it is ready to be vulcanized. By this construction the belt is folded and prepared rapidly and with regularity. The stock-rolls *b c* and winding-roll *q* are removable, so that others may be substituted as required and the work proceed without interruption.

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

1. The machine for making rubber belting, consisting of guides *f* for the stock, pressure-roller *g*, folding-shoe *h*, rollers *i*, for pressing the folded edge, guide *m* for the seam-strip, and calender-rolls *n*, combined together and with delivery and take-up rolls, substantially as described and shown, for successive operation, as specified.

2. In machines for making belting, the folding-shoe *h*, consisting of a metal plate having flaring turned edges, combined with rolls for compressing the material before and after folding, substantially as herein shown and described.

3. The spool *l* and guide *m*, combined with the folding-shoe *h* and calenders *n*, substantially as described, for delivering the seam-strip upon the belt, as set forth.

4. The shafts *e*, provided with adjustable guides *f*, combined with the stock-rolls *b c* and initial pressure-rollers *g* of the machine, substantially as and for the purposes set forth.

5. The rolls *d d* hung upon the hinged arms *d'*, combined with the stock-rolls *b c*, substantially as specified, for automatically removing the lining of the stock, as set forth.

JACOB D. JOSLIN.

Witnesses:

AMOS G. GROOM,

JOSIAH HOLLICS.