

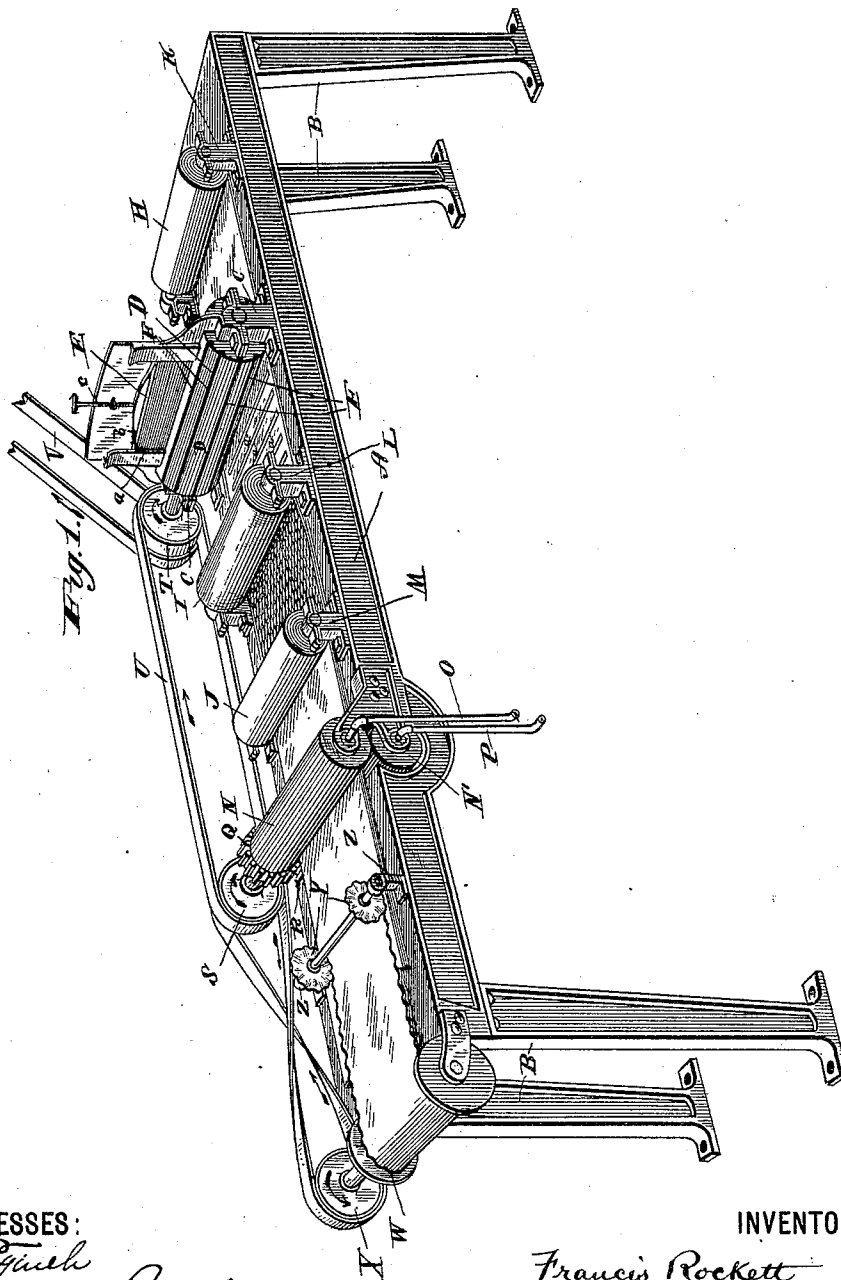
(No Model.)

3 Sheets—Sheet 1.

F. ROCKETT.  
MACHINE FOR COVERING DRESS STAYS.

No. 428,142.

Patented May 20, 1890.



WITNESSES:

*J. C. Smith*  
*N. B. Church*

INVENTOR

*Francis Rockett*

BY *F. W. Smith* ATT'Y

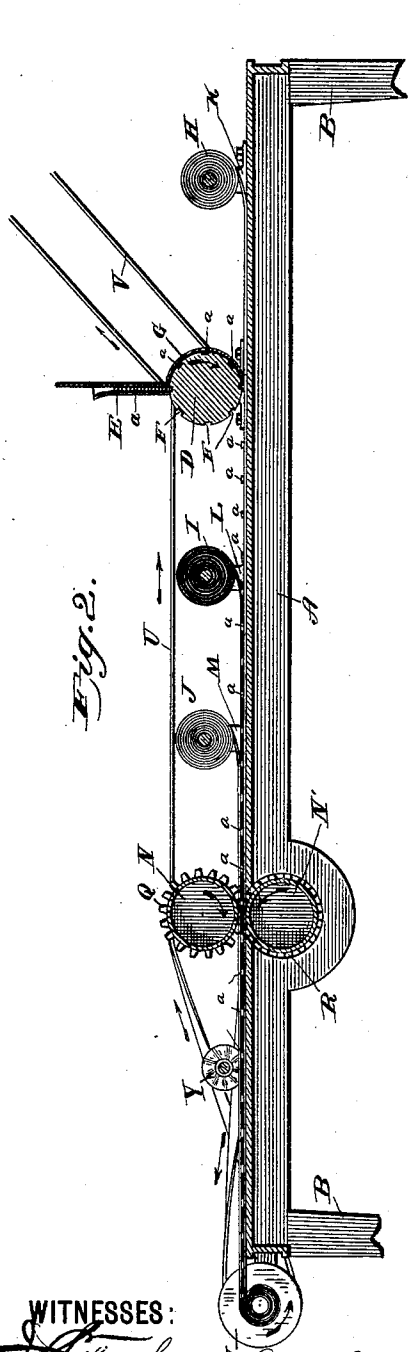
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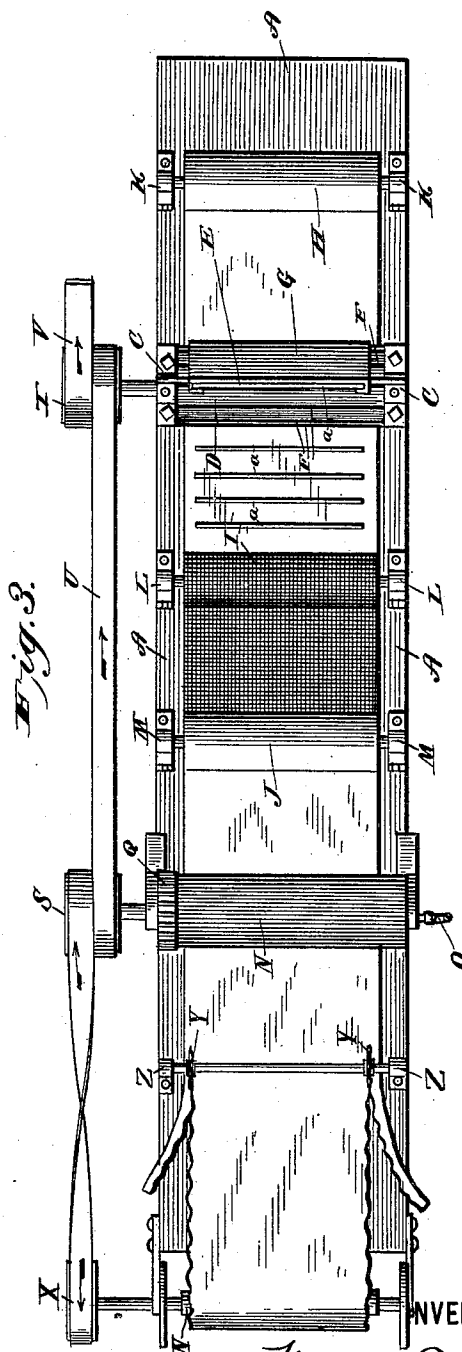
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WITNESSES:

*J. B. Church*  
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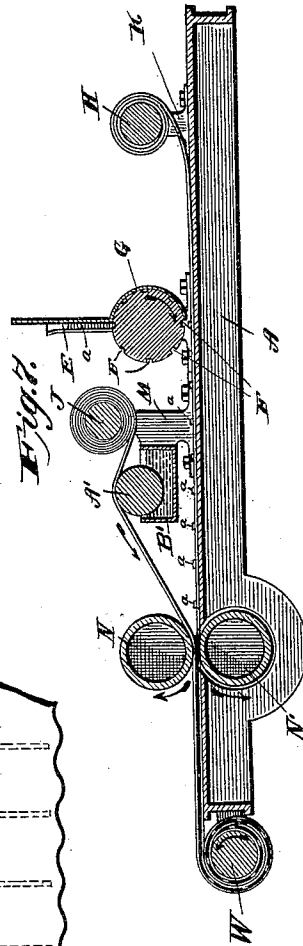
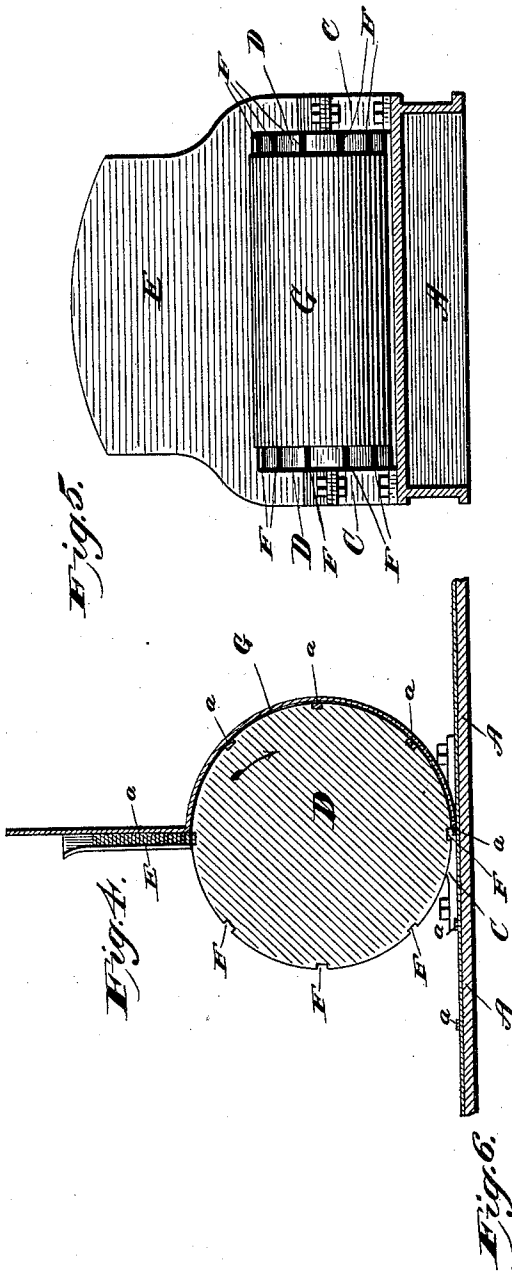
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MACHINE FOR COVERING DRESS STAYS.

No. 428,142.

Patented May 20, 1890.



WITNESSES:

*J. Smith*  
*A. B. Church*

INVENTOR

*Francis Rockett*  
BY *W. Smith* ATT'Y

# UNITED STATES PATENT OFFICE.

FRANCIS ROCKETT, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-  
THIRD TO OAKLEY M. GREGORY, OF SAME PLACE.

## MACHINE FOR COVERING DRESS-STAYS.

SPECIFICATION forming part of Letters Patent No. 428,142, dated May 20, 1890.

Application filed November 16, 1889. Serial No. 330,569. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS ROCKETT, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Machines for Manufacturing Dress-Stay Strips; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in machines for making dress-stay strips, and has for its object to automatically perform the operation of laying the steels, securing them in a continuous strip of any suitable covering, and pinking the sides of the completed strips.

With these ends in view my invention consists of the details of construction and combination of elements, such as will be hereinafter fully set forth, and then specifically designated by the claims.

In the accompanying drawings, Figure 1 is a perspective of my improved machine; Fig. 2, a longitudinal section thereof; Fig. 3, a plan view; Fig. 4, a detail, enlarged, sectional side elevation of the feed drum and hopper; Fig. 5, a rear elevation of the construction shown at Fig. 4; Fig. 6, a plan of the completed dress-stay strip, and Fig. 7 a sectional elevation showing practically a pasting-roll in lieu of the gutta-percha.

Similar letters denote like parts in the several figures of the drawings.

Heretofore it has been the universal practice to lay these steels on a lower strip of cloth by hand, then to superimpose strips of gutta-percha and cloth, respectively, and finally to secure the steels by fusing the gutta-percha under pressure, thus firmly uniting both the under and upper strips of cloth. Now a serious difficulty arose, because the steels could not be laid by hand equal distances apart, and it became evident that in buying these strips any measurement by the yard was very unreliable, because one yard of the strip might contain half again as many steels as the succeeding yard; also, no automatic stamping mechanism could be utilized to imprint the name of the maker or the patent-stamp upon

the covering of each steel, and said stamping is, moreover, necessary and has hitherto been done by hand. My invention obviates these difficulties, and will be best understood from the following description.

A is the bed or table of the machine, supported by legs B. C are uprights extending from said bed, and journaled between said uprights is the feed-drum D.

E is the hopper, which is secured to the uprights, and within which the dress-steels *a* are placed one upon the other. The bottom of the hopper is open and in close proximity to the face of the drum D, which latter has longitudinal channels F, extending at predetermined intervals throughout its width around its circumference. These channels are very shallow, being of a depth sufficient only to accommodate a single steel, and it will therefore be obvious that as the drum revolves the steels will drop one by one in succession within the channels F.

G is an apron, which extends from the bottom of the hopper around one side of the drum, with just enough space between the latter and said apron to permit said drum to revolve freely. The bottom of this apron extends almost to the vertical axial longitudinal plane of the drum, so that it will be readily understood that the steels cannot fall out of the channels until the latter have passed beyond the apron, when said steels will drop by gravity, for the purpose presently explained.

H I J are rolls journaled, respectively, between the uprights K L M, projecting from said table. The roll H carries the lower cloth, the roll I carries the intermediate gutta-percha strip, while the roll J carries the upper cloth.

N N' are hollow metallic rolls, having ordinary steam-connections O P, whereby they may be heated. These rolls are journaled one above the other in suitable bearings supported by the table.

Q R are intermeshing cog-wheels, secured, respectively, to the shafts of said rolls N N'.

S T are pulleys tight on the shafts of the roll N and drum D, respectively; and U is a belt extending around said pulleys, by means of which motion is communicated from the

power-pulley T to the rolls N N'. These pulleys S T are of equal diameters, so that the drum D and rolls N N' will be equally speeded. A belt V imparts motion to the pulley T from any suitable primary power-pulley. (Not shown.) At the end of the table beyond the rolls N N' is journaled a roll W, on which the completed strip is wound, as will be presently set forth. The shaft of this roll W has thereon a tight pulley X, which is belted up to the pulley S, said belt being twisted in order to impart a movement to the roll W reverse to that of the roll N, said pulleys X S being of equal diameters for the obvious purpose of effecting equal speeds to said rolls.

The pinking-cutters Y may be journaled in bearings Z on the table between the rolls N and W; but my invention has nothing whatever to do with the pinking of the dress-stay strips, and such pinking may therefore be performed in the usual manner.

If desired, a spring b on the end of a screw c, mounted in bearings on the hopper, may be employed to exert a constant pressure against the steels in said hopper; but the weight of the steels is alone sufficient to cause the lower steel to drop into the channel in the feed-drum.

The operation of my improvement is as follows: The lower and upper cloth strips and the gutta-percha strip are first drawn from the rolls H J I, respectively, and passed between the rolls N N' and secured to the winding-roll W, and the drum D then set in motion. The steels will be successively deposited upon the lower cloth strip at predetermined distances thereon, and will be carried by the latter first beneath the gutta-percha strip, and then beneath the upper strip of cloth. The lower cloth strip, carrying the steels and the superimposed gutta-percha and the upper cloth strips, will then be carried between the rolls N N', whereby the gutta-percha will be fused and the steels firmly cemented between the two cloth strips, the completed dress-stay strip being wound upon the roll W. The gutta-percha is merely used as a cement by means of which the steels may be secured with the upper and lower coverings of cloth;

but I do not wish to be limited to the use of gutta-percha in this connection, nor do I wish to be limited to the application of any cement, glue, or paste applied in sheet form between the cloth strips, since a roller A', partially submerged in a paste, glue, or cement solution B' and having a constant contact with the under side of the upper cloth strips, may be used without departing from the spirit of my invention, as shown in Fig. 7.

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

1. In a machine for manufacturing dress-stay strips in continuous lengths, the combination of a cloth-roll from which a strip of cloth is fed continuously, a feed-roll journaled immediately above the strip and extending crosswise of it and provided with longitudinal channels, and a hopper to feed stays to said channels one at a time, the said channeled feed-roll depositing the said stays upon the cloth strip in parallelism, crosswise thereof and at predetermined distances, a cement-applying device, and an upper cloth-roll arranged in the order stated, and substantially as and for the purpose described.

2. In a machine for manufacturing dress-stay strips in continuous lengths, the combination of a cloth-roll from which a strip of cloth is fed continuously, a feed-roll journaled immediately above the strip and extending crosswise of it and provided with longitudinal channels, and a hopper to feed stays to said channels one at a time, the said channeled feed-roll depositing the said stays upon the cloth strip in parallelism, crosswise thereof, and at predetermined distances, a cement-roll, an upper cloth-roll, and a pair of heated compression-rolls, all arranged upon a common frame and moving in unison, substantially as shown and described.

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

FRANCIS ROCKETT.

Witnesses:

J. P. FINCH,

F. W. SMITH, JR.