

(No Model.)

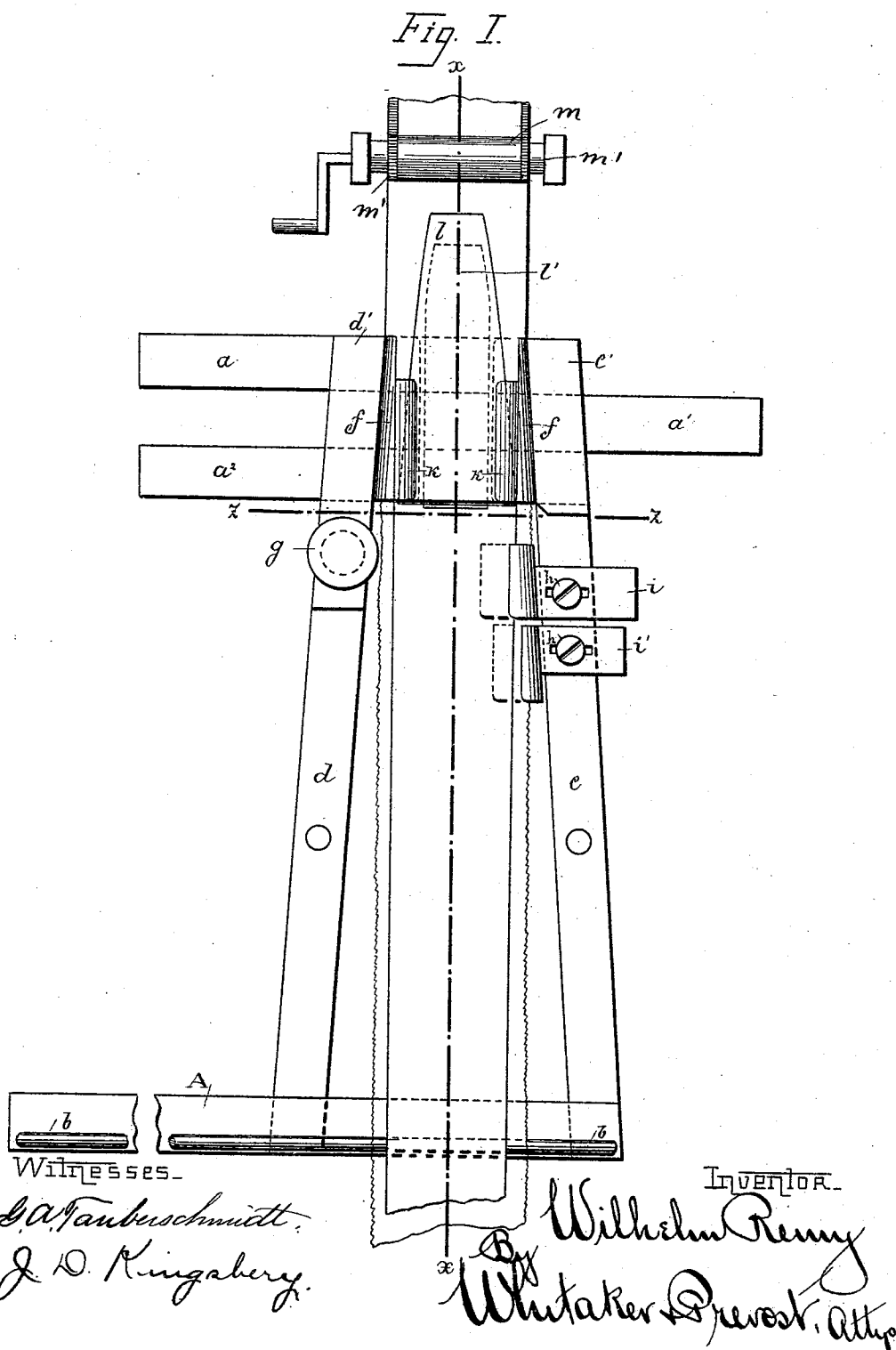
2 Sheets—Sheet 1.

W. REMY.

APPARATUS FOR FOLDING AND CREASING THE EDGES OF RIBBONS.

No. 494,347.

Patented Mar. 28, 1893.



(No Model.)

2 Sheets—Sheet 2.

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Fig. II.

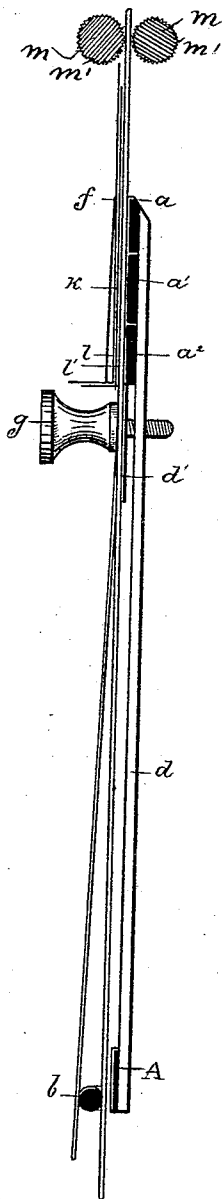


Fig. III.

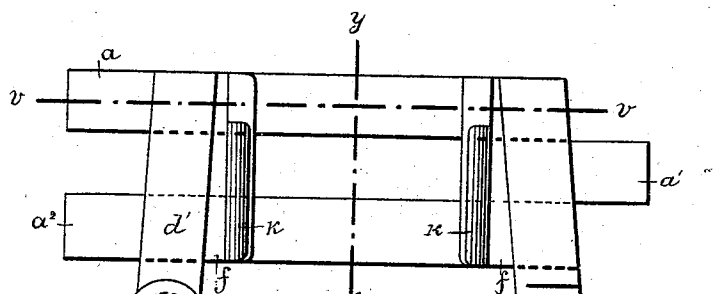


Fig. IV.

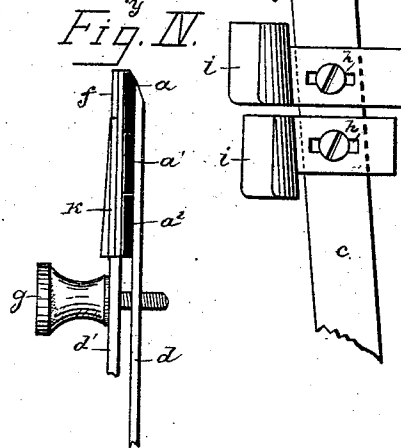


Fig. V.

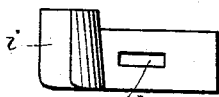


Fig. VI.

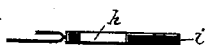


Fig. VII.

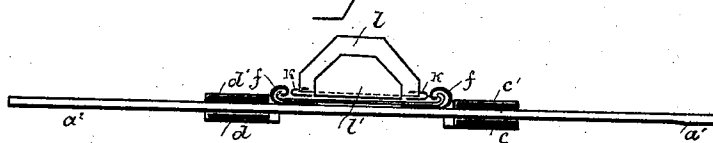
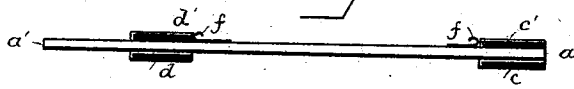


Fig. VIII.



Witnesses—

G. A. Tauberschmidt
J. D. Kuehberg.

INVENTOR—

Wilhelm Remy
By Whitaker & Brewster, attys.

UNITED STATES PATENT OFFICE.

WILHELM REMY, OF CREFELD, GERMANY.

APPARATUS FOR FOLDING AND CREASING THE EDGES OF RIBBONS.

SPECIFICATION forming part of Letters Patent No. 494,347, dated March 28, 1893.

Application filed October 24, 1891. Serial No. 409,706. (No model.) Patented in Germany September 6, 1890, No. 56,815.

To all whom it may concern:

Be it known that I, WILHELM REMY, manufacturer, of the city of Crefeld, Kingdom of Prussia and German Empire, have invented new and useful Improvements in Apparatus for the Manufacture of Velvet Ribbons, (for which Letters Patent have been granted to me in Germany, No. 56,815, dated September 6, 1890,) of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to apparatus for attaching a satin back to velvet bands or ribbons and at the same time strengthening the edges of the ribbon by turning the edges of the satin over and securing them to the velvet during the passage of the ribbon through the apparatus. Previous to passing through the machine both the satin and the velvet while in the piece have had their backs covered with a thin layer or caoutchouc solution or other suitable cementing material, and are then cut into strips of the desired width, the satin strip being wider than the velvet strip with which it is to be combined so as to allow of the edges being turned over.

A machine constructed in accordance with this invention is shown in the accompanying drawings.

Figure I illustrates a plan of the machine with the ribbon passing through. Fig. II illustrates a longitudinal section through $x-x$ Fig. I. Fig. III is a plan of part of the machine adapted for broad bands. Fig. IV is a section through $y-y$ Fig. III. Fig. V is a cross section through $z-z$ Fig. I. Fig. VI is a cross section through $v-v$ Fig. III, and Figs. VII and VIII are respectively a plan and longitudinal section of one of the ribbon guides.

In the drawings A represents one of the cross bars of the apparatus to which is secured a wire or guide b , leaving sufficient space between the two for the passage of a ribbon between them. From the bar A two longitudinal bars c and d extend. The bar c has its forward end provided with a pair of transverse parallel guide rods a a^2 secured at one end to the bar c between said bar and a top plate c' . The bar d is provided with a guide rod a' which is secured to said bar between it and a cover plate d' and the parts are so ar-

ranged that the guide rod a' lies between the guide rods a a^2 and slides between the bar c and plate c' while the guide rods a a^2 slide between the bar d and plate d' in a similar manner. By this means the two longitudinal bars c d may be moved nearer together or farther apart as desired. A set screw g extends through the bar d and plate d' and by means of said screw the plate d' may be forced down upon and made to clamp the guide bars a a^2 and hold the parts in any position to which they may be adjusted. A hemmer or folder f is secured to the bars c and d and extend inwardly therefrom, for the purpose of engaging the edges of the satin strip and folding them over the edges of the velvet ribbon or band, the hemmers f f being constructed with inwardly curved portions to effect the folding of the satin edges over the velvet. Secured to each of the hemmers f is a guide k and a presser plate l is slipped into engagement with said guides k when the ribbon is passing through to exert a pressure upon the ribbon and satin. When greater pressure is needed an auxiliary presser plate l' is slipped beneath the plate l as shown in Fig. V. The guides k k for the presser plate l are preferably inclined as shown in Fig. II and IV so that the greatest pressure will be exerted on the material just before it passes out of engagement with the presser plates, which may extend some distance beyond the guides k k if desired as shown in the drawings. I also provide the longitudinal bar c (or bar d if preferred) with a pair of adjustable guides i i' . These guides are formed with slotted portions for engaging and sliding upon the bar c (see Fig. VIII) and they are secured in position by means of adjusting screws which engage a slot h formed in said guides. The longitudinal bars c d are adjusted to such a distance apart that the hemmers f f will be in position to operate effectively and the guides i i' are also adjusted to engage the one the strip of velvet and the other the strip of satin as they pass through the apparatus. The satin strip is cut a little wider than the velvet band and passes into the apparatus beneath the guide rod or wire b , while the velvet passes over said rod. The guides i and i' guide the materials as they pass along so as to keep the velvet above the center of the satin and the

materials pass on to the hemmers *f f* which turn the edge of the satin down over the edges of the velvet and as both velvet and satin have had their backs coated with an adhesive material or substance the edges of the satin so
 5 turned over adhere to the velvet and are further pressed down and secured and the two materials are pressed together by the presser plate *k* or plates *l* and *l'*, as before described.
 10 The materials then pass to a pair of rolls *m m* shown in Figs. I and II which are preferably heated and have their ends provided with milled portions *m' m'*. As the materials pass through these rolls they are made to adhere
 15 securely, the edges are rolled down smooth and made to adhere firmly and the dies impart to said edges at the same time a design or ornamentation which adds to the finish of the completed ribbon. The rolls *m m* are revolved
 20 in any suitable manner and draw the material through the apparatus.

What I claim, and desire to secure by Letters Patent, is—

25 1. The combination with the main frame, of the hemmers, a longitudinal guide secured to each of said hemmers above the plane of the said hemmers and a removable presser plate for engaging the said guides, substantially as described.

2. The combination with the main frame, of the hemmers, the inclined guides secured thereto, a presser plate for engaging said guides, and a second presser plate adapted to be placed beneath the first, substantially as described.

3. The combination with the main frame, of the hemmers, the guides secured thereto; a presser plate for engaging said guides and the compressing rolls provided with milled portions substantially as described.

4. The combination with the frame including a pair of longitudinal bars, each having adjacent to one end a cross bar rigidly secured thereto, and movably engaging the other longitudinal bar, and a set screw for securing the parts together in their adjusted positions of hemmers secured to the longitudinal bars, whereby said bars may be moved toward and from each other to adjust the hemmers and secured in their adjusted positions, substantially as described.

In witness whereof I hereunto set my hand in presence of two witnesses.

WILHELM REMY. [L. S.]

Witnesses:

EVANS BLAKE,
LIZZIE S. BLAKE.