G. WISSLER.

Binder-Attachment for Sewing-Machines

No. 164,896. Patented June 22, 1875.

FIG. 1.

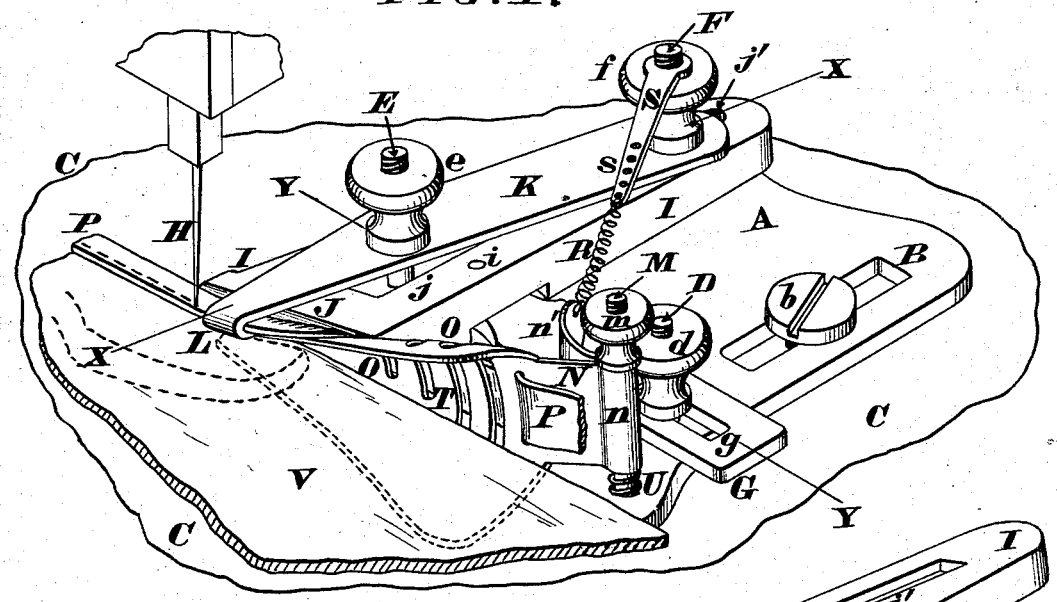


FIG. 2.

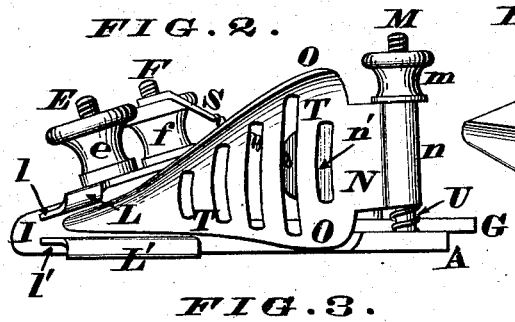


FIG. 3.

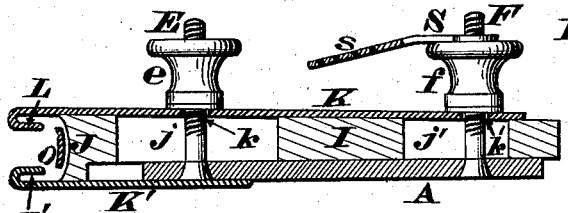


FIG. 4.

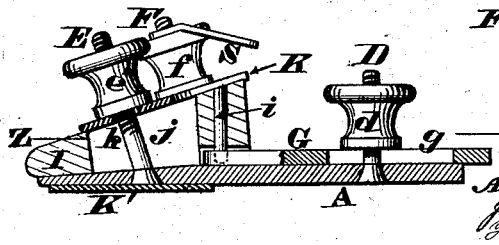


FIG. 7.

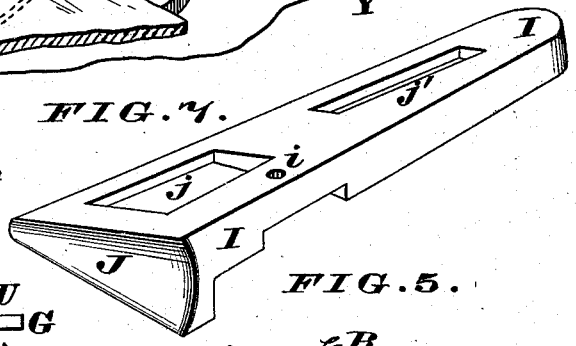


FIG. 5.

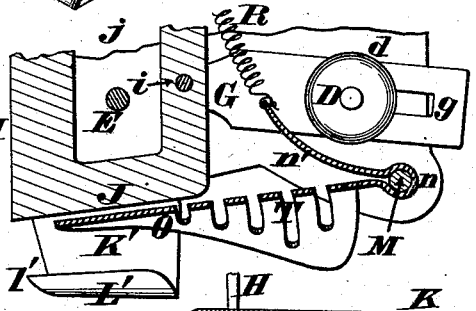
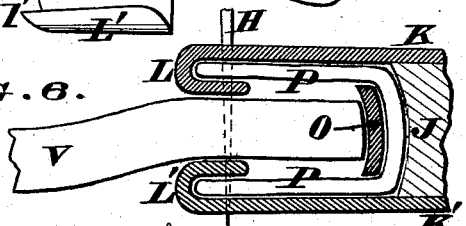


FIG. 6.



Attest.
Jas. H. Layman.
Henry Tanner.

George Wissler
By Knight Bros Att'ys.

UNITED STATES PATENT OFFICE.

GEORG WISSLER, OF CINCINNATI, OHIO.

IMPROVEMENT IN BINDER ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **164,896**, dated June 22, 1875; application filed April 29, 1875.

To all whom it may concern:

Be it known that I, GEORG WISSLER, of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Binder Attachments for Sewing-Machines, of which the following is a specification:

My invention relates to an arrangement of yielding and adjustable slotted scroll and associate devices, whereby goods of any thickness may be uniformly and smoothly bound, as hereinafter fully explained.

In the accompanying drawing, Figure 1 is a perspective view of my improved form of binder in position upon the cloth-plate of a sewing-machine, the position of the presser-foot being indicated by dotted lines. Fig. 2 is a front elevation of the binder detached from the machine. Fig. 3 is a vertical section of the device at the line X X. Fig. 4 is another vertical section of the same at the line Y Y. Fig. 5 is a horizontal section at the line Z Z. Fig. 6 is an enlarged sectional view, showing the device adjusted for binding a wide piece of tape upon the edge of the goods. Fig. 7 is a perspective view of the wedge-shaped adjusting-block detached from the other parts of the binder.

A represents a flat casting, which constitutes the bed-plate of the binder, said bed-plate having a slot, B, and set-screw *b*, wherewith it can be adjusted and maintained in any suitable position upon the cloth-plate C of a sewing-machine. Securely united to the aforesaid bed-plate are three upwardly-projecting screw-threaded stems, D E F, which are, respectively, provided with appropriate heads or nuts, *d e f*. Of these screws and nuts, the one D *d* serves to unite to the bed-plate a slotted shackle, G *g*, whose end nearest the needle H is pivoted, at *i*, to a wedge-formed adjusting-block, I, whose front edge is concaved at J. This block slopes downward from right to left, and also from front to rear, and is furnished with two slots, *j j'*, which allow said block to be adjusted, both in a longitudinal and transverse direction, without coming in contact with either of the screws E or F. The peculiar shape of this double-wedge block is more clearly shown in Fig. 7. The block I has attached to its upper side, by means of screws E F, a bar, K, whose forward end is provided with a downwardly and rearwardly bent flange or lip, L, which serves to turn the upper edge of the tape or other fabric over onto the goods to be bound. The under edge of this lip is prolonged in the direction of progress, as shown at *l* in Fig. 2, in order to insure the tape being held in its proper position until the needle begins its operation. Secured to the under side of bed-plate A is another bar K', similar to the one K, with the exception that its lip L' is curved upward. This lip is likewise prolonged, *l'*, in the direction of progress. These bars K K' are incapable of displacement either longitudinally or transversely of the binder; but the upper one, K, may be shifted vertically, so as to afford a greater or less clearance between the edge-turners *l* and *l'*. Projecting from the right side of the bed-plate A, and near the front edge of the same, is a screw-threaded stem, M, surmounted with an appropriate nut, *m*, and surrounded by the cylindrical portion *n* of the shank N of a convex guide, O, that serves to conduct the tape P into its proper path in the binder. The shank N has a rearwardly-bent wing, *n'*, to which is attached one end of a suitable spring, R, whose other end may be engaged with either of the perforations *s* of a link, S, that is coupled to the upper end of screw F. The object of this wing and spring is to cause the diminished end of guide O to press the tape P more or less snugly against the concave face J of block I, the tension of said guide being regulated by the proper engagement of spring R with either of the apertures *s*. The guide O is perforated, at T, by slots of various lengths, so as to admit tape or other binding material of any width. U is a spring, which maintains the shank N at any height, according to the manner in which the nut *m* is adjusted. V represents a piece of fabric to be bound.

The operation of my binder is as follows: The bed-plate A is first adjusted upon the cloth-plate C, by means of the devices B *b*, so as to bring the needle H immediately to the left of the prolongations *l l'*, after which the wedge-block I is properly adjusted.

If it be desired to bind a narrow tape upon thin goods, the block I is shifted forward

and to the right, so as to leave comparatively little space between the tongues L and L′, and also between them and the guide O, as seen in Fig. 2. This having been accomplished, the nuts *d*, *e*, and *f* are screwed tight, so as to maintain the block in the desired position. The tape P is then passed through the appropriate slot in the guide O, carried rearwardly between the back of said guide and the concave face J, and the edges of said tape are inserted in the turning devices L *l* L′ *l*′. The stuff V is then inserted between the tongues L and L′, with its inner edge bearing against the outer face of guide O, and the sewing-machine is then started, the proper tension of said guide upon the tape having first been regulated by adjusting the spring R. The stitching of the two edges of the tape upon the stuff is then effected in the ordinary manner.

To set the binder so as to operate upon wide tape and thick material, the block I is retracted and swung to the left, so as to separate the plates K and K′, and to afford more room between them and the guide O, as seen in Fig. 6.

It will be seen that the guide O, in the present case, is detached from the bed-plate A, and is capable of being adjusted vertically and set at any degree of tension. This arrangement of yielding and adjustable guide enables the working of uneven goods, and of pieces of various textures and thicknesses, without any difficulty whatever.

The shackle G *g*, for adjusting and securing the wedge-block I in position, renders the regulation of the binder a very easy and convenient operation.

The vertical adjustment of the shank N enables the guide O to be set so as to bring its point about midway between the edge-turners L and L′, whether the latter are more or less remote from one another, and by so doing secures a uniform tension on both edges of the tape or binding material, and consequently even work.

I claim as new and of my invention—

1. In combination with the bed-plate A and the lipped bars K L K′ L′, the wedge-block I J *j j*′, and retaining device D *d*, E *e*, F *f*, and G *g*, as and for the purpose specified.

2. In combination with the concave bearing J and the edge-turners or lips L L′, the guide O M and tension-spring R, as and for the object herein designated.

In testimony of which invention, I hereunto set my hand.

GEORG WISSLER.

Attest:

GEO. H. KNIGHT,

JAMES H. LAYMAN.