S. B. COCHRAN.

Binding Guide for Sewing Machines.

No. 42,989. Patented May 31, 1864.

FIG. 1

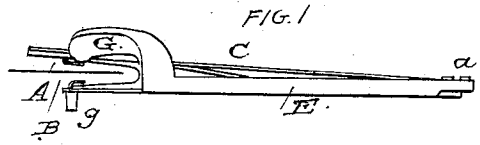


FIG. 2

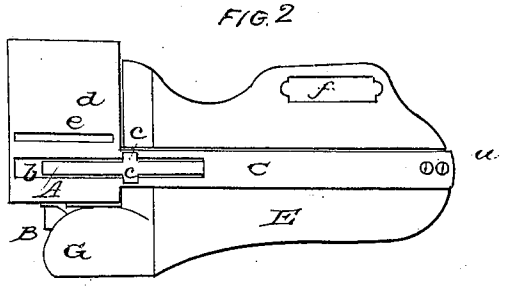


FIG. 3

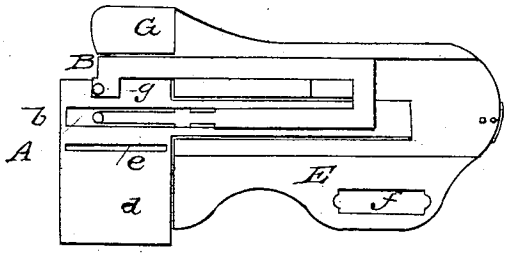


FIG. 4

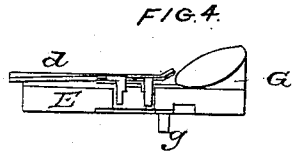


FIG. 4a

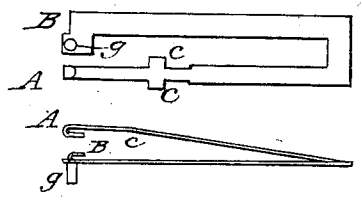


FIG. 6.

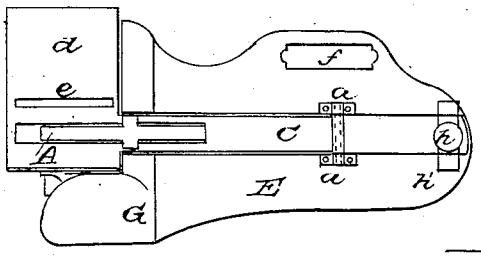
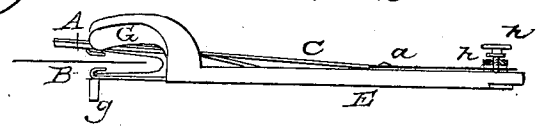


FIG. 5



WITNESSES

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IMPROVEMENT IN BINDING-GUIDES FOR SEWING-MACHINES

Specification forming part of Letters Patent No. **42,989**, dated May 31, 1864.

To all whom it may concern:

Be it known that I, SAMUEL BEACH COCHRAN, of Clapham, in the county of Surrey, Kingdom of Great Britain and Ireland, have invented certain new and useful Improvements in Binders to be used in connection with Sewing-Machines; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to a peculiar construction of binder to be used in connection with sewing-machines, whereby the binder is rendered self-adjusting to suit various thicknesses of material, while it is also capable of adjustment to suit various widths of binding, and provision is made for insuring the correct position of the binder and adjustment of the hooks or binding-guides in relation to the needle.

Figure 1 of the drawings represents an elevation of that side of the binder at which the galloon-tape or other binding material first enters. Fig. 2 is a corresponding plan of the top side thereof. Fig. 3 is a plan of the under side of the binder, and Fig. 4 is a view of that end of the binder nearest to the needle of the sewing-machine.

A and B represent respectively an upper and a lower spring-hook, which hooks hold the edges of the binding to be applied, and between which the material to be bound is placed. The material itself is shown by a blue line and the binding by a curved red line in Fig. 1.

C is a presser-plate or spring-blade, which is rigidly connected at *a* with the body E of the binder, the elasticity or inherent spring in the plate itself allowing its free end, or that part next to or under the needle of the sewing-machine, to have a vertical play or rising-and-falling motion. This spring-plate is slotted at *b* to receive the spring-blade of the upper hook, A, which has lateral projections formed thereon at *c*, resting upon the surface of the spring-plate C on each side of the slot *b*, so that as the plate C rises and falls the upper hook, A, (the blade of which passes underneath the spring-plate,) will rise and fall with it, thus accommodating itself to suit any thickness of material to be bound. In some cases the blade of the upper hook, A, may pass along the top surface of the spring-plate C and be connected with the blade of the lower hook, B, through a slot or spring in the body of the binder situate on one side of the spring-plate. The free end of the spring-plate C is enlarged, as shown at *d*, to form a yielding presser-foot, and has a longitudinal opening, *e*, made therein for the needle of the machine to work through and to allow of the adjustment of the binder to suit different widths of binding. A slot, *f*, is made in the body of the binder, through which a screw passes and enters a hole in the table or cloth-plate of the machine, thereby securing the binder in its place. The slot *f* allows for the proper adjustment of the binder for different widths of binding. The blade of the lower hook, B, is contained within a groove or channel made in the under side of the body of the binder, and the upper and lower hook-blades are united and may be formed out of one piece of steel, as shown by the detail views of the hooks detached at Fig. 4ª, so that both hooks will slide together in the body of the binder when the latter is adjusted.

g is a small steady and adjusting pin, fitted to the lower hook, B, and inserted when placing the binder in the machine into a hole made for the purpose in the table or cloth-plate, the position of this hole being such that when the pin *g* is inserted into it the two hooks A and B will be in their exact proper position in relation to the needle of the machine, and consequently the stitches will be always formed at a certain regulated distance from the edges of the binding without any special adjustment of the hooks being required for that purpose.

G is a curved guide, formed on and projecting from the front end of the body part of the binder for the purpose of giving the binding the proper turn as it enters the hooks.

The binder illustrated by Figs. 1, 2, 3, and 4 is intended to be used with the ordinary presser-foot of a sewing-machine, the foot resting upon the end *d* of the spring-plate; but in the modification shown in side elevation and plan at Figs. 5 and 6 the spring-plate C itself serves as a presser-foot without the intervention of the presser-foot of the machine. In order to regulate the pressure of this plate, a small thumb-screw, *h*, is secured into the rear end of the spring-plate, so as to turn freely therein, and is tapped through a bridge-piece, *h'*, secured to the body E of the binder, and the spring-plate, in place of being rigidly secured to the body E, is hinged thereto, as shown at *a*, so that

by suitably adjusting the thumb-screw *h* the opposite end of the spring-plate C may be made to press with more or less force upon the material. The leading peculiarities of these binders are the free self-adjustment of the hooks to any thickness of material, the attachment of the spring pressing-plate of the binder to the body, so that it will move with the body when being adjusted to different widths of binding, and the mode by which the proper position of the hooks in relation to the needle is always insured without the aid of special adjustments for that purpose.

Having now fully described my said invention and the manner in which the same is or may be carried into effect, I claim—

1. The construction of spring binding-hooks out of one piece of metal in such manner that by compressing the spring the hooks will hold the material to be bound by pressure on opposite sides, but not oppositely to each other.

2. In combination with spring binding-hooks constructed as described, a presser-plate acting in conjunction with or in line of the ordinary presser-foot of sewing-machines, as and for the purposes described.

3. In combination with spring binding-hooks and presser-plate constructed as described, forming in the presser-plate a slot arranged for the double purpose of receiving the spring-blade of the upper hook at variable points of adjustment (as to width of the binding) and of causing the spring to rise and fall with the presser-plate, as set forth.

4. Enlarging the presser-plate to extend over the needle-hole in the sewing-machine, and forming therein a longitudinal opening for the needle to work through under various adjustments of the binder, as set forth.

5. Combining with the spring binding-hooks and presser-plate a rigid body grooved underneath to contain the blade of the lower hook, and provided with a curved guide for giving the binding the proper curvature previous to engaging it into the hooks, and with a longitudinal slot for adjusting of the binder to various widths of binding, substantially as set forth.

6. The attachment of the spring pressing-plate of the binder to the body, so that it will move with the body when being adjusted to different widths of binding.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

S. B. COCHRAN.

Witnesses:
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GEORGE HARRIS.