J. D. ALVORD.

Binder Guide for Sewing Machines.

No. 32,037. Patented April 16, 1861.

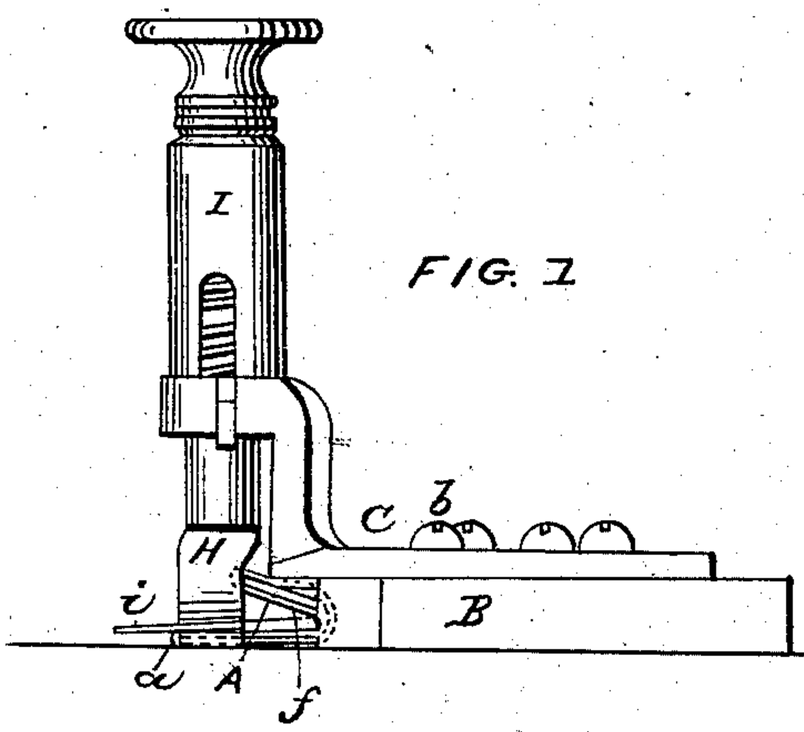


FIG. 1

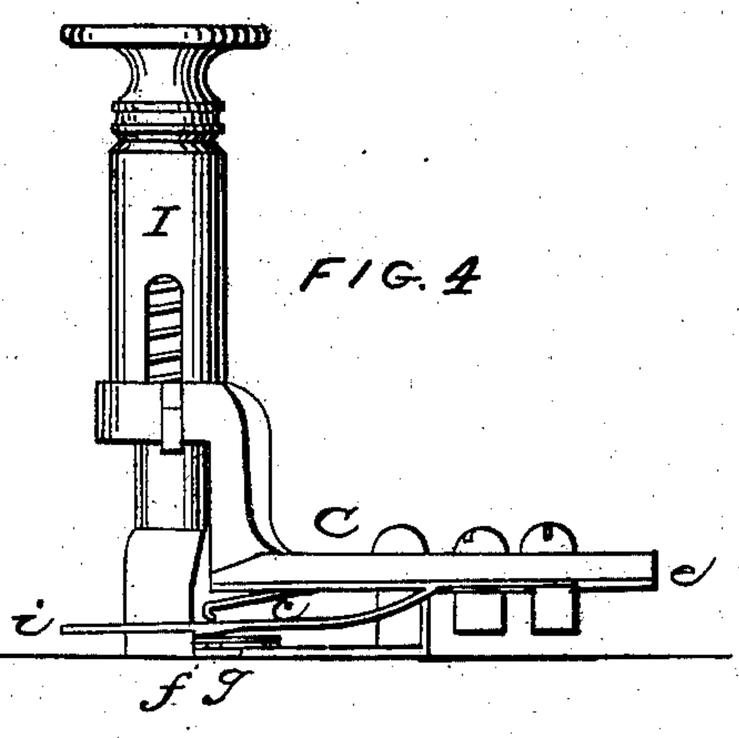


FIG. 4

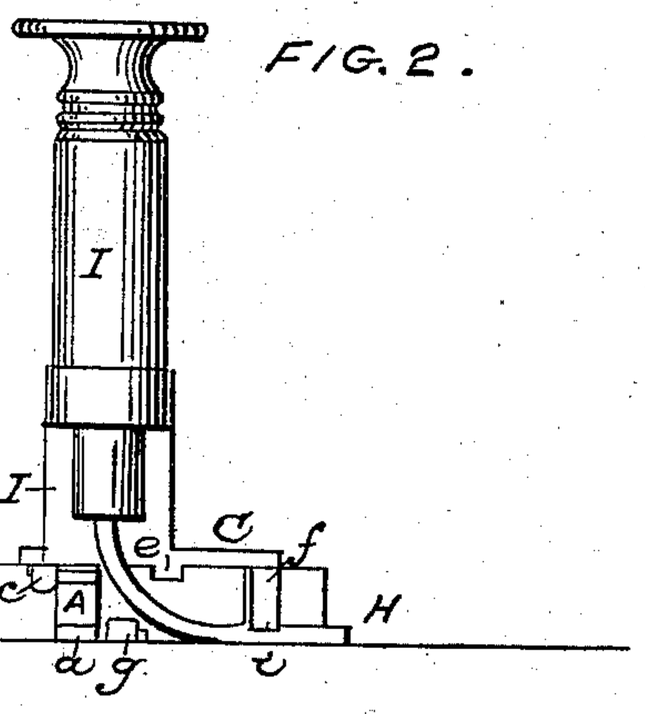


FIG. 2.

FIG. 3.

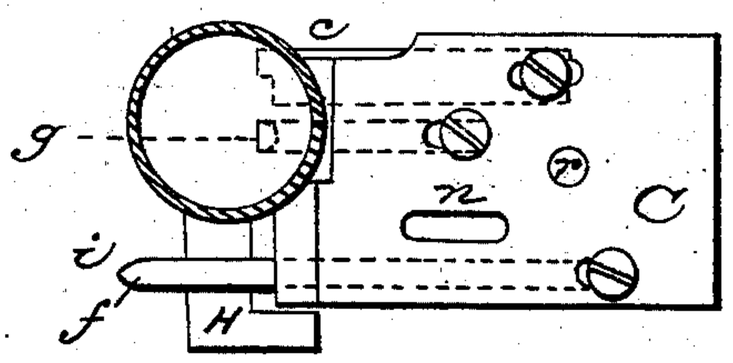
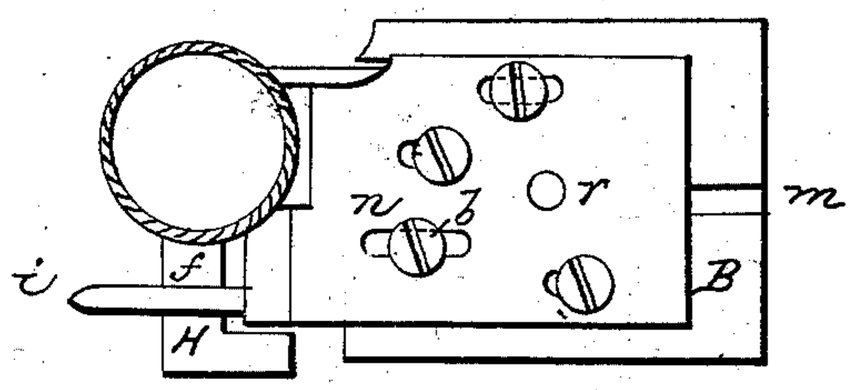
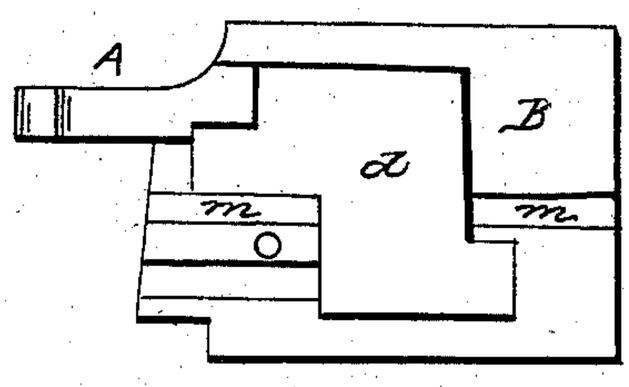


FIG. 5.

FIG. 6





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UNITED STATES PATENT OFFICE.

JOSEPH D. ALVORD, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN BINDER-GUIDES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **32,037**, dated April 16, 1861.

To all whom it may concern:

Be it known that I, JOSEPH D. ALVORD, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Binder-Guides for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a side view of a complete binder-guide embodying my improvements, and adapted to use on a Wheeler & Wilson sewing-machine. Fig. 2 represents an end view of the same, and Fig. 3 a plan of the same. Fig. 4 represents a side view of the guide-lip stock and presser-foot detached from the stock of the binding-turner, and Fig. 5 represents a plan of the same. Fig. 6 represents a plan of the binding-turner and its stock detached from the guide-lip stock and presser-foot.

My invention has reference to the instrument by which binding is turned upon the edge of an article and presented to the action of the needle in a sewing-machine, which instrument is usually denominated a "binder-guide."

The object of my invention is to enable the instrument to be set with facility to turn and apply binding of different widths upon the articles to be bound, with a capacity for adjustment to apply more or less of the binding to either side of the article, and also to facilitate the application of the instrument to a sewing-machine and its detachment therefrom.

Binder-guides as constructed heretofore are composed of a binding-turner (to turn the binding round the edge of the article) and of hook-formed guide-lips, (to guide the edges of the binding and determine their position upon the article,) the whole secured to a common stock, but separately adjustable thereon. Hence when the binder-guide is to be adjusted to binding of a different width the guide-lips have to be adjusted separately, and this operation requires both skill and time.

The first part of my invention is designed to facilitate the setting of the guide-lips; and it consists in combining the guide-lips with a stock which is separate from the stock of the binding-turner, so that all the lips may be set at one operation to operate upon binding of any width; or all of the guide-lips may be permitted to retain their position in reference to the needle, while the binding-turner is set at one operation in a proper position with reference to all the guide-lips to turn binding of any width.

The second part of my invention consists in combining the guide-lips with a presser-foot by means of one common stock, so that all that is necessary to apply the binder-guide to the sewing-machine is to displace the usual presser-foot of the machine and the plain guide and apply the binder-guide in place of the latter, with the certainty of having the guide-lips and binding-turner in their proper positions with reference to the needle and the acting presser-foot, which is then the supplementary presser-foot of the binder-guide.

The binder-guide represented in the accompanying drawings embodies my improvements. In it the binding-turner A has the form of a curved slot, and is made fast to a stock, B.

As binding is sometimes applied with its lower edge extended farther upon the rim of the article to be bound than its upper edge is, the lower leg, *a*, of the binding-turner is made longer than the upper leg thereof.

The turner-stock is made in skeleton form for lightness, and it serves as a base for the guide-lip stock. The latter has the form of a plate, C, which has a tongue, *e*, upon its lower side to fit into a groove, *m*, made in the upper side of the turner-stock B, so that either stock may be moved longitudinally with reference to the other without turning. The two stocks are connected by a clamp-screw, *b*, which passes through a slot, *n*, in the guide-lip stock, and can be tightened or loosened to secure the two stocks together or permit their movement, as desired.

The guide-lip stock is fitted with three hook-formed guide-lips, *c*, *g*, and *f*, each of which has a spring-shank that is secured at its butt by an adjustable clamp-screw to the stock.

The office of the guide-lips is to determine the position of the binding upon the article to be bound by guiding the edges of the binding upon the article. One of these lips, *c*, is in a proper position to act upon the upper edge of the binding as it is turned over the edge of the article and before it is sewed. Its spring-shank projects partly over the upper leg of the binding-turner and applies itself thereto, so that the guide-lip is always in the proper position with reference to the turner, however the latter may be moved to turn bindings of

different widths. A second guide-lip, *g*, is in a proper position to act upon the lower edge of the binding before it is sewed. The third lip, *f*, is in a proper position to act upon the lower edge of the binding after it is sewed fast to the article. Its shank terminates in a tongue, *i*, which projects beyond the lip over the presser-foot, and the spring of the shank permits the lip to accommodate itself to the thickness of the article.

The guide-lip stock is perforated with a hole, *r*, for the insertion of a clamp-screw, by means of which it may be made fast to the plate of the sewing-machine. This clamp-screw passes through the opening *d* of the skeleton turner-stock beneath, so that the latter may be slid to and fro to admit binding of different widths without affecting the relation of the guide-lips to each other, as they are all maintained in their proper relative positions by the common stock C, to which they are all secured.

The guide-lip stock is fitted with a spring presser-foot, H, constructed in the usual manner, its shank being received in a standard, I, secured to the guide-lip stock. From this combination of a presser-foot with the guide-lips it results that the guide-lips are always in their proper positions with reference to the presser-foot and the needle when the binder-guide is applied to the machine, in the place of the plain guide, and secured by the same clamp-screw.

To apply the binder-guide thus described to a sewing-machine, the attachment of the arm that holds the usual presser-foot of the machine is slacked and the presser-foot is turned out of the way. The plain guide (if there be one) on the plate of the machine is removed and the binder-guide is screwed fast in its place. The binder-guide is then set to the width of the binding to be used by moving the turner-stock B from or toward the needle, and the two stocks are clamped fast by simply tightening the clamp-screw that screws the binder-guide to the plate of the sewing-machine. If it at any time happens that the relative position of the two edges of the binding is to be changed, this is to be effected by adjusting the guide-lips separately; but as this operation is rarely required the setting of the instrument to binding of different widths is practically done, simply and quickly, by the movement of one stock of the instrument with reference to the other.

Having thus described a binder-guide embodying all my improvements, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the guide-lips of a binder-guide with a common stock that is separate from the stock of the binding-turner, so that the lips need not be separately adjusted when the instrument is to be set to apply binding of a different width to an article to be bound, substantially as herein set forth.

2. The combination of the stock of the guide-lips of a binder-guide with a presser-foot which is independent of that of the sewing-machine to which the binder-guide is to be applied, substantially as herein set forth.

In testimony whereof I have hereunto subscribed my name.

J. D. ALVORD.

Witnesses:
WM. H. NOBLE,
R. R. CRAWFORD.