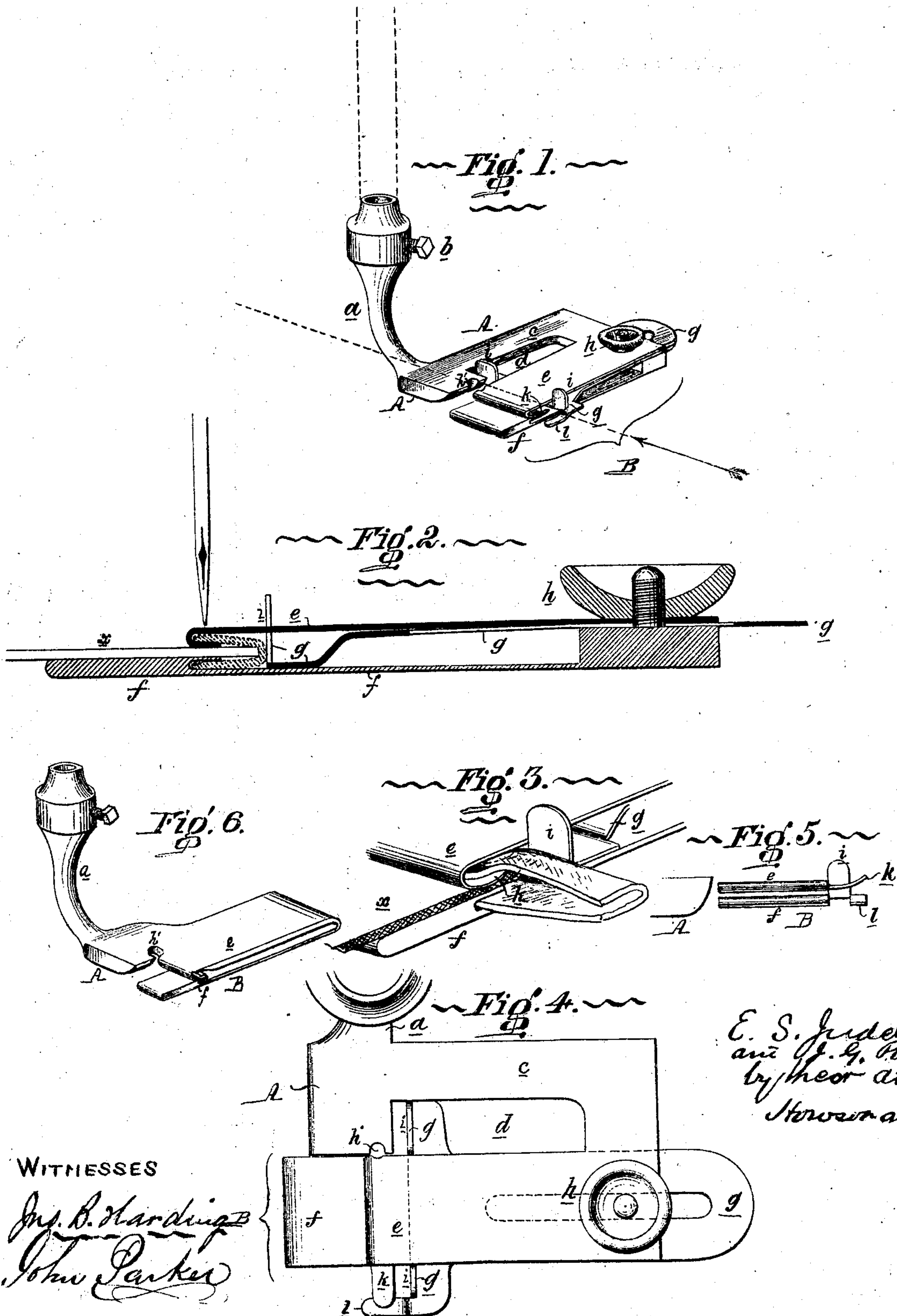


F. S. JUDD & JOHN G. POWELL.

Improvement in Binders for Sewing Machines.

No. 116,195.

Patented June 20, 1871.



E. S. Judd
and J. G. Powell
by their atty
Horn and Co

WITNESSES

Jas. B. Harding
John Parker

UNITED STATES PATENT OFFICE

FRANK STEPHEN JUDD AND JOHN G. POWELL, OF PHILADELPHIA, PA.

IMPROVEMENT IN BINDERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 116,195, dated June 20, 1871.

To all whom it may concern:

Be it known that we, FRANK STEPHEN JUDD and JOHN G. POWELL, both of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Attachment for Sewing-Machines, of which the following is a specification:

Nature and Objects of our Invention.

Our invention consists of a sewing-machine attachment composed of a presser-foot and binding device secured together or formed in one piece, all of which is too fully explained hereafter to need minute description here.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of our improved sewing-machine attachment; Fig. 2, an enlarged sectional view of the same; Fig. 3, a perspective view, also enlarged; Fig. 4, a plan view; Fig. 5, an end view; and Fig. 6, a view of a modification:

General Description.

The presser-foot A and bending device B are formed in one piece or are secured together so as to form an attachment complete in itself, which can be secured to the presser-foot arm of a sewing-machine by means of a curved arm, *a*, with which it is provided. The presser-foot and bender are connected together by an angular plate, *c*, so shaped as to form between the said foot and binder an oblong slot, *d*. The binder consists of two flexible lips, *e* and *f*, the latter extending beyond the former, as shown, and both being bent inward toward each other or hooked at or near their outer ends, as best observed in Fig. 2. Between these hooked lips *e* and *f* is arranged an adjustable guide, *g*, controlled by a set-screw, *h*, and having bent ends *i* and *i'* arranged to slide in the oblong slot *d* and along the outer edge of the binder.

The operation of the binder is substantially the same as in others of its class, the tape or binding being doubled or folded and introduced between the hooked lips *e* and *f* and there retained by the gauge *g*, which is adjusted to suit the width of the binding. The fabric *x* to which the binding is to be sewed is passed between the hooked lips and between the folds of the binding, as shown in Figs. 2 and 3, the

flexible lips yielding and permitting the introduction of material of any thickness, as well as the passage between them of thick seams, &c. The binding is sewed to the fabric by a needle passing through the hole *h'*, and the work is moved uniformly, as usual, by an under feed arranged beneath the presser-foot A. A curved tongue, *k*, which projects from the hooked end of the flexible lip *e*, facilitates the passage of the fabric beneath the latter, as it prevents the said fabric from catching upon or scraping against the edge of the upper lip, and enables the latter to be raised sufficiently to permit the passage between the lips of a seam or thick portion of the fabric. The under lip *f* might also, in some cases, be provided with a tongue, *k*. A projecting lip, *l*, of the adjustable gauge aids the tongue or tongues *k* in facilitating the passage of the fabric between the lips of the binder.

The principal advantage, however, arising from this compact arrangement of presser and binder is the facility which it affords of properly placing the needle-hole.

As the needle is the pivot upon which the work must be turned in sewing scallops, angles, &c., it is important that it should be arranged close up to the edge of the binder, so as to enable the work to be turned without withdrawing it from between the hooked lips of the latter. It is also important that the needle should be comparatively close to the presser-foot; but with the attachments heretofore used it has been impossible to bring the presser-foot and binder sufficiently close together to enable the needle to be properly placed in respect to each, an objection which is entirely overcome in our invention, as the presser-foot and edge of the binder are almost or quite in contact, and the needle-hole is formed between them and partly in each.

It is not necessary that the binder should be of the exact form above described, or that it should have two flexible lips. It might, in some cases, be of the form shown in Fig. 6, where the upper lip *e* is rigid and takes the place of the plate *c*.

Claims.

1. The presser-foot, notched at its forward end for the passage of the needle, the binding-

guides with their edges lying close to the edge of the presser, and the adjustable guide for the back of the binding, all arranged, in relation to each other, as described, and forming a presser-foot binder.

2. The combination of the flexible lips *e* and *f* having bent ends, and a guiding-tongue or tongues, *k*, extending from the edge of one or both of the lips, as specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANK S. JUDD.
JOHN G. POWELL.

Witnesses:

WM. A. STEEL,
FRANK B. RICHARDS.