R. M. ROSE.

Darning Attachment for Sewing-Machine.

No. 199,315. Patented Jan. 15, 1878.

Fig. 1

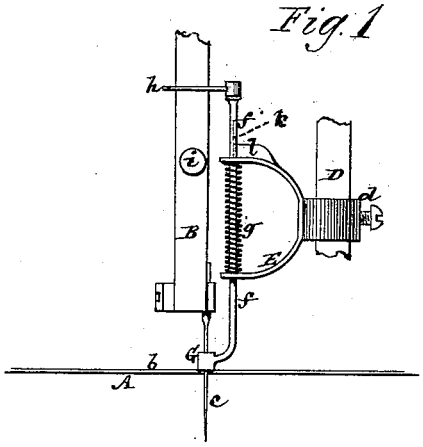
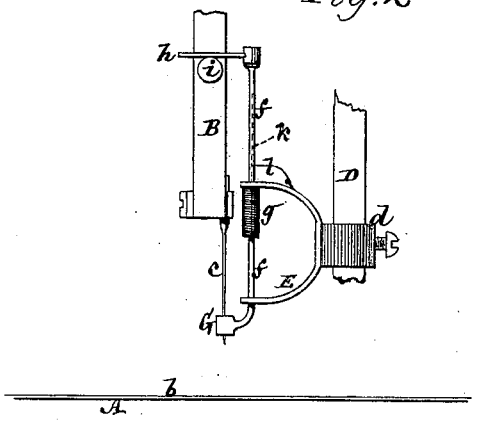


Fig. 2



Witnesses
John Becker
Jno. Haynes

Inventor
Reuben M. Rose
by his Attorneys
Brown & Allen

UNITED STATES PATENT OFFICE.

REUBEN M. ROSE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN DARNING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **199,315**, dated January 15, 1878; application filed November 22, 1877.

To all whom it may concern:

Be it known that I, REUBEN M. ROSE, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Attachments to Sewing-Machines for Fancy Stitching, Embroidering, and Darning Purposes, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

The invention consists in a novel, simple, and light spring-pressure attachment, adapted to admit of its being easily attached to and detached from the presser-bar or other fixed portion of an ordinary sewing-machine, and organized to be relieved by the action of the needle-carrier from pressure on the material as the needle is withdrawn from the latter, and so to permit the movement of the cloth or material by hand in various directions, and to any desired distance, as the varying nature of the work to be done in fancy stitching, embroidering, or darning may require.

In the accompanying drawings, Figures 1 and 2 represent elevations of the needle and a part of the needle-bar of a sewing-machine with my improved attachment applied to the presser-foot bar of the machine, and in different positions, respectively, with the throat-plate or cloth-bed of the machine.

A represents the cloth-bed, and *b* the cloth under operation on or over the same. B is the needle-bar, and *c* the usual or any suitable eye-pointed needle. D is the presser-foot bar, to which my improved attachment is or may be applied.

Said attachment is represented as consisting of an independent presser-carrier and guide, E, having an eye-piece, *d*, provided with a set-screw, by which said frame is slipped onto or over the presser-foot bar D, and secured thereon; also of a rod, *f*, arranged to slide up and down through said frame, and provided with a collar or presser proper, G, at its lower end. A spring, attached at its lower end to the rod *f* of the presser, and bearing at its upper end against the presser-carrier and guide E, induces a downward action of the presser G on the material under operation over the throat-plate of the machine. Furthermore, said rod *f* is provided with a tappet, *h*, which a stud or protuberance, *i*, on the needle-bar strikes as said bar rises, and, compressing the spring *g*, lifts the collar or presser G off the material under operation. Said stud or projection *i* might be the head of the screw used to secure the needle.

The tappet *h* may be constructed by simply bending over the upper end of the rod *f*, or in any other suitable manner.

The operation is as follows: Supposing the improved attachment to be carried by the presser-foot bar D, instead of being attached to some other fixed portion of the machine, then the ordinary presser-foot is either removed or raised, and locked from contact with the cloth; and the presser G, which operates differently from an ordinary presser-foot, is made to take its place by securing the carrier E of the attachment by its eye-piece *d* to the presser-foot bar, and so that the eye or opening through the collar or presser G is in line with the needle *c*, for permitting its passage.

The normal position of the collar or presser G is down on the material under operation, by reason of the action of the spring *g*, which, being distinct from the needle, leaves the latter free to move independently of the spring. Said collar or presser G remains down upon the material during the descent of the needle through the latter, and during the ascent of the needle till it is clear of the material, or nearly so, when, or at which point in the action, the stud *i* strikes the tappet *h*, and, lifting the rod *f*, compresses the spring *g*, and raises the presser G off the material, thus affording an opportunity for the operator to manipulate or feed the cloth by hand to any desired distance, and in various directions, as the varying nature of the work to be done in fancy stitching, embroidering, or darning may may require.

The presser G or G *f* also serves as a guide for the needle, to steady and support it when out of the cloth, and so that when shifting the latter by hand on or over the table the needle will be supported laterally by said presser and guide against pull on it by the needle-thread.

To keep the rod *f* from turning, and the

collar or presser G in line with the needle, the rod *f* is constructed with a longitudinal groove, *k*, and the presser-carrier and guide E with a guide, *l*, entering said groove; or any other equivalent means may be used to prevent the presser from turning.

I claim—

The combination of the presser-carrier and guide E, the presser and needle-guide G *f*, the spring *g*, and the tappet *h*, the whole organized substantially as herein described, to be attached to and detached from a sewing-machine, and, when attached thereto, to be operated by the action of the needle-carrier on said tappet, as herein set forth.

REUBEN M. ROSE.

Witnesses:

FRED. HAYNES,

EDWARD B. SPERRY.