

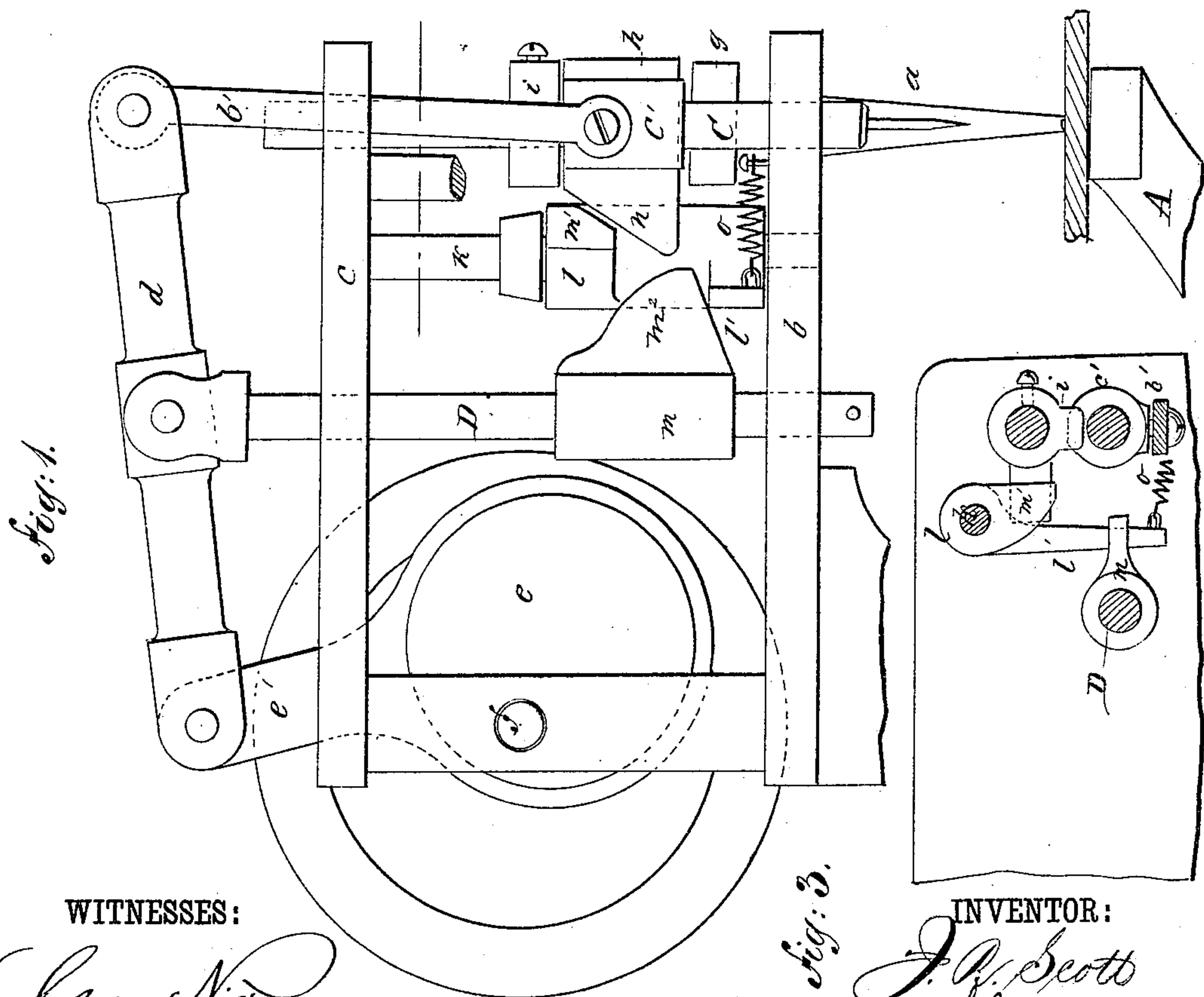
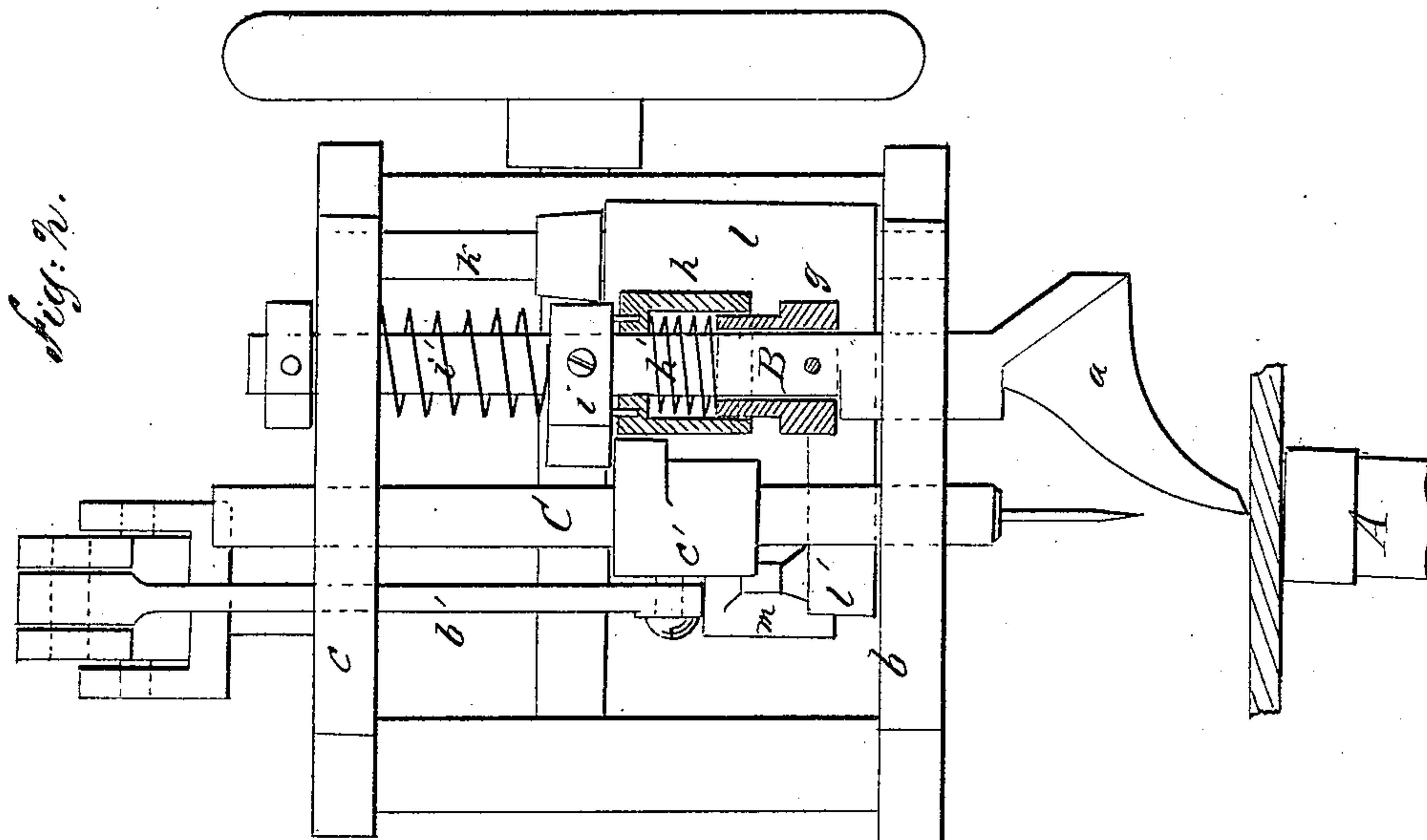
(No Model.)

J. R. SCOTT.

MACHINE FOR SEWING BOOTS AND SHOES.

No. 248,670.

Patented Oct. 25, 1881.



WITNESSES:

*Chas. Nida*  
*C. Sedgwick*

*Fig. 3.*

BY

INVENTOR:

*J. R. Scott*  
*Mum & Co*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JACOB R. SCOTT, OF NYACK, NEW YORK.

## MACHINE FOR SEWING BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 248,670, dated October 25, 1881.

Application filed October 29, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB R. SCOTT, of Nyack, in the county of Rockland and State of New York, have invented a new and useful Improvement in Machines for Sewing Boots and Shoes, of which the following is a specification.

My improvements relate to sewing-machines for sewing boots and shoes or materials varying in thickness, and have for their object to obtain variable stroke of the needle regulated by movement of the presser-bar according to the thickness of material being sewed.

My invention consists in a cam-sleeve fitted for movement by a cam on the presser-bar, and arranged to raise the fulcrum-post of the needle-bar as the presser-bar is raised, so that the presser-bar being positioned by the thickness of material the fulcrum-post of the needle is correspondingly positioned.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a front view, partially in section; and Fig. 3 is a sectional plan view.

Similar letters of reference indicate corresponding parts.

A is a horn the end of which will be fitted with the looping mechanism, as usual.

B is the presser-bar carrying presser-foot *a* and fitted for vertical movement in the plates *b c*, that carrying the mechanism.

C is the needle-bar fitted for reciprocation in plates *b c*.

D is the fulcrum-post sustaining the rocking-lever *d*, one end of which connects by rod *b'* with a collar, *c'*, fast on needle-bar C, while the other end is connected to the rod *e'* from an eccentric-strap of eccentric *e*, that is carried by the operating shaft *f*, whereby the needle-bar is reciprocated.

Upon the presser-bar B a shouldered sleeve, *g*, is attached by a set-screw, so as to be adjustable for varying the lift. Above and around sleeve *g* is a loose sleeve, *h*, and above sleeve *h* is fixed a collar, *i*, upon which bears the spiral spring *i'*, that forces the presser-bar downward. The collar *i* is formed with a lug projecting above the collar *c'* on the needle-bar, so that the presser-bar is raised or given the

usual lift at the moment the feed takes place by contact of collar *c'* with the collar *i* as the needle-bar rises. The sleeve *h* is recessed to set over and slide freely on sleeve *g*, as shown in Fig. 2, and upon bar B is a spiral spring, *h'*, which bears upon the upper edge of sleeve *g* and the top of the recess in sleeve *h*, so that the latter is forced upward against collar *i*. The collar *i* is provided with pins projecting into sleeve *h* to keep the latter from turning.

Between the plates *b c* is fixed a post, *k*, on which is a loose sleeve, *l*, that is provided at its lower end with an arm, *l'*, that extends beneath the inclined projection *m<sup>2</sup>* of a sleeve, *m*, that is fixed on the fulcrum-post D, so that the post D is sustained by the arm *l'* and raised or allowed to fall by movement of the arm to and from said post. A spring, *o*, serves to draw arm *l'* away from the post D, and the sleeve *l* is also formed with a cam-projection, *m'*, extending above an inclined projection, *n*, on sleeve *h*.

In operation the material passing beneath foot *a* raises the presser-bar B more or less. The sleeve *h* being at the same time raised by the spring *h'* its projection *n* acts on the cam-projection *m'* of sleeve *l*, and the sleeve being thereby turned, its arm *l'* is forced beneath the inclined projection *m<sup>2</sup>* of sleeve *m* on fulcrum-post D, the post D is raised and the stroke of the needle thereby regulated according to the thickness of material being sewed. If the material increases in thickness the presser-bar and needle are raised farther, or if it diminishes a reverse movement of the needle-bar and presser-bar takes place, which movements occur without altering the relative distance between the lower end of sleeve *h* and the shoulder of sleeve *g*. As the needle-bar rises it raises the presser-bar to give the lift during the feed by contact of sleeve *c'* with the projection on collar *i*; but that movement of the presser-bar will not allow the sleeve *h* to rise, for the reason that the eccentric at that time is drawing downward on post D, and the pressure on sleeve *m* prevents any movement of said sleeve, the parts being thereby locked. The lift required for feed is allowed by adjustment of sleeve *g* to vary the distance between the shoulder of the sleeve *g* and the lower edge of



sleeve *h*, such space being required to prevent contact of the shoulder as the presser-bar is raised by the needle-bar. At other times the spring *h'* is sufficient to move the parts.

5 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In sewing-machines, the combination of presser-bar *B*, having fixed sleeve *g*, fixed collar *i*, and loose sleeve *h*, provided with projection *n*, fulcrum-post *D* of the needle-bar provided with sleeve *m*, having an inclined projection, and fixed post *k*, carrying sleeve *l*, that is formed with arm *l'*, and cam-projection *m'*,  
10 substantially as shown and described, for operation as specified.

2. In sewing-machines, the combination, with the presser-bar, that is fitted for being raised by the needle, of the cam-sleeve *l*, that is turned by the upward movement of the presser-bar, and cam-sleeve *m*, fixed on the fulcrum-post of the needle-bar for being raised by movement of sleeve *l*, substantially as and for the purposes set forth. 20

JACOB R. SCOTT.

Witnesses:

GEO. D. WALKER,  
C. SEDGWICK.