(No Model.)

C. MANSFELD.

FEED MOTION FOR SEWING MACHINES FOR BOOTS AND SHOES.

No. 332,812. Patented Dec. 22, 1885.

Fig. I.

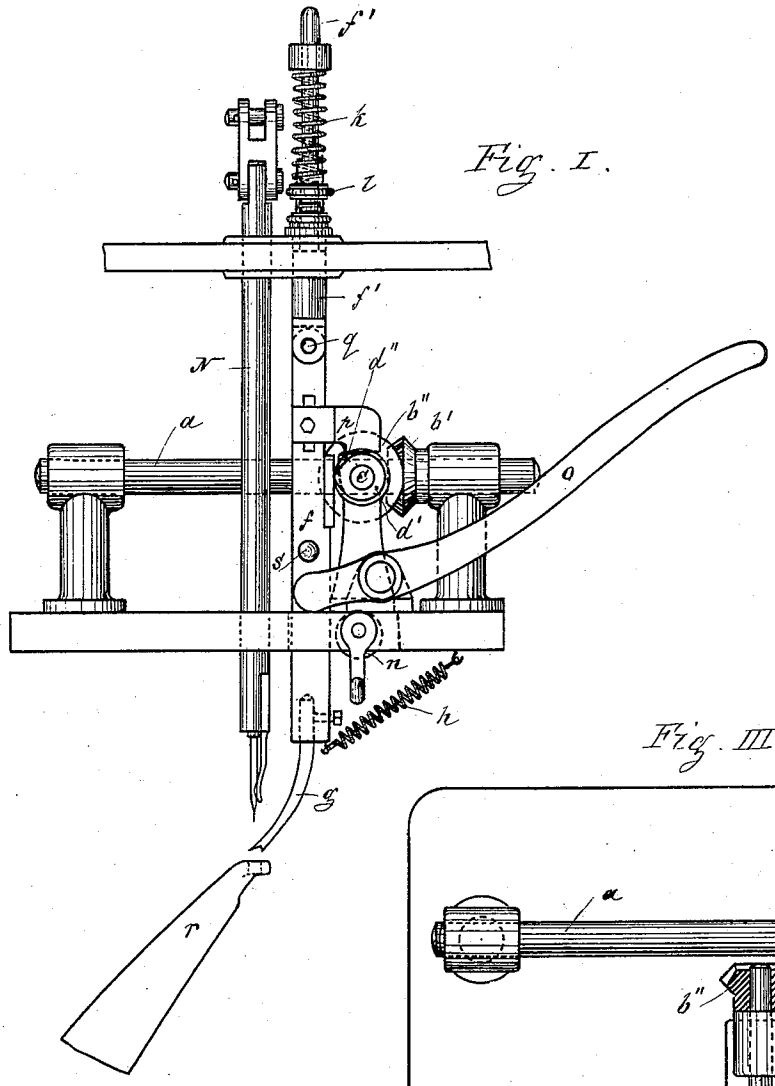


Fig. II.

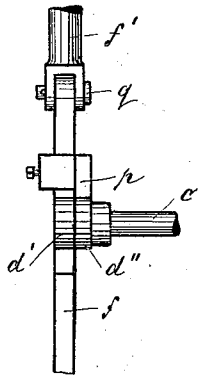
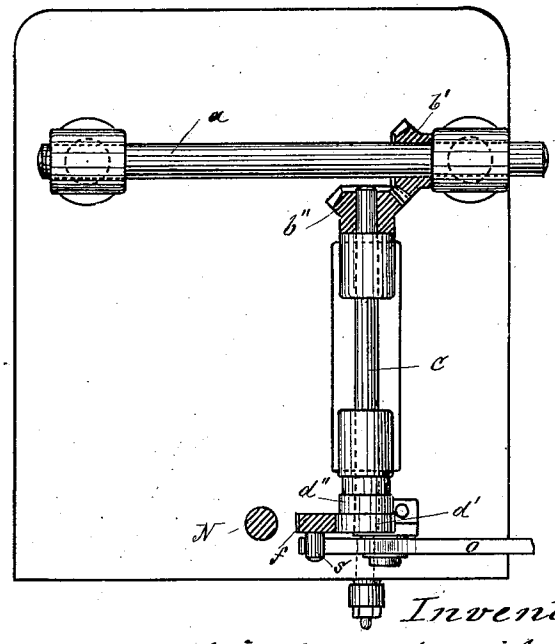


Fig. III.



Witnesses.
R. F. Cooke
M. E. McHugh

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UNITED STATES PATENT OFFICE.

CHRISTIAN MANSFELD, OF REUDNITZ, LEIPSIC, GERMANY.

FEED-MOTION FOR SEWING-MACHINES FOR BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 332,812, dated December 22, 1885.

Application filed December 26, 1884. Serial No. 151,277. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN MANSFELD, a citizen of Germany, residing at Reudnitz, Leipsic, in the Empire of Germany, have invented a new and Improved Feed-Motion on Sewing-Machines for Boots and Shoes, of which the following is a specification.

In the accompanying drawings, Figure I represents a front view of a sewing-machine for boots and shoes, showing only the feeding mechanism with my improvement attached and operated by cams. Fig. II is a side view of part of the same; and Fig. III is a top view of the same, partly in section.

Similar letters represent similar parts in all the figures.

From the driving-shaft *a*, Figs. I and III, the shaft *c* receives its motion by means of bevel-wheels *b' b''*. Upon the end of this shaft *c* cams *d' d''* are attached.

f is the feed-rod, having at its lower end the feeding-foot *g*, attached and hinged at its upper end at *q* to the guiding-rod *f'*. To the feed-rod *f* an arm, *p*, is attached, capable of being regulated or moved higher or lower on said feed-rod *f*. The guiding-rod *f'* is provided with a spiral spring, *k*, capable of being regulated by a suitable nut, *l*, and operating so as to force said guiding-rod *f'*, and consequently the feeding-rod *f*, downward, and consequently the feeding-foot *g* upon the material operated upon, which latter is placed upon the usual-shaped horn, *r*. To the lower end of the feeding-rod *f* a spiral spring, *h*, is attached, operating in such a manner as to draw this end of the feeding-rod *f* backward. During the rotation of the shaft *c* the cam *d'* will act against the face of the feeding-rod *f*, so as to move the same at the required time forward, and the cam *d''* will act against the arm *p*, so as to lift the same, and consequently the feeding-rod *f*, upward at the required time.

n is a small eccentric, operated by hand, to regulate the amount of backward motion produced by the spiral spring *h*, and consequently regulating the length of the stitch.

The position of the arm *p* is regulated upon the feeding-rod *f* according to the thickness of the material operated upon.

To facilitate the introduction of the material upon the horn *r* and below the foot *g*, a lever, *o*, is arranged, operated by hand when required, and acting against a suitable projection or pin, *s*, attached to the feeding-rod *f*, whereby this feeding-rod can easily be moved upward when required.

N is the needle bar, arranged in the usual manner.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of driving-shaft *a*, bevel-gear *b' b''*, shaft *c*, double cam *d' d''*, feeding-rod *f*, with arm *p*, guide-rod *f'*, spring *k*, spring *h*, and eccentric *n*, arranged to operate in the manner and for the purpose substantially as described.

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

CHRISTIAN MANSFELD.

Witnesses:
EDMUND BACH,
HEINRICH L. ZUSKE.