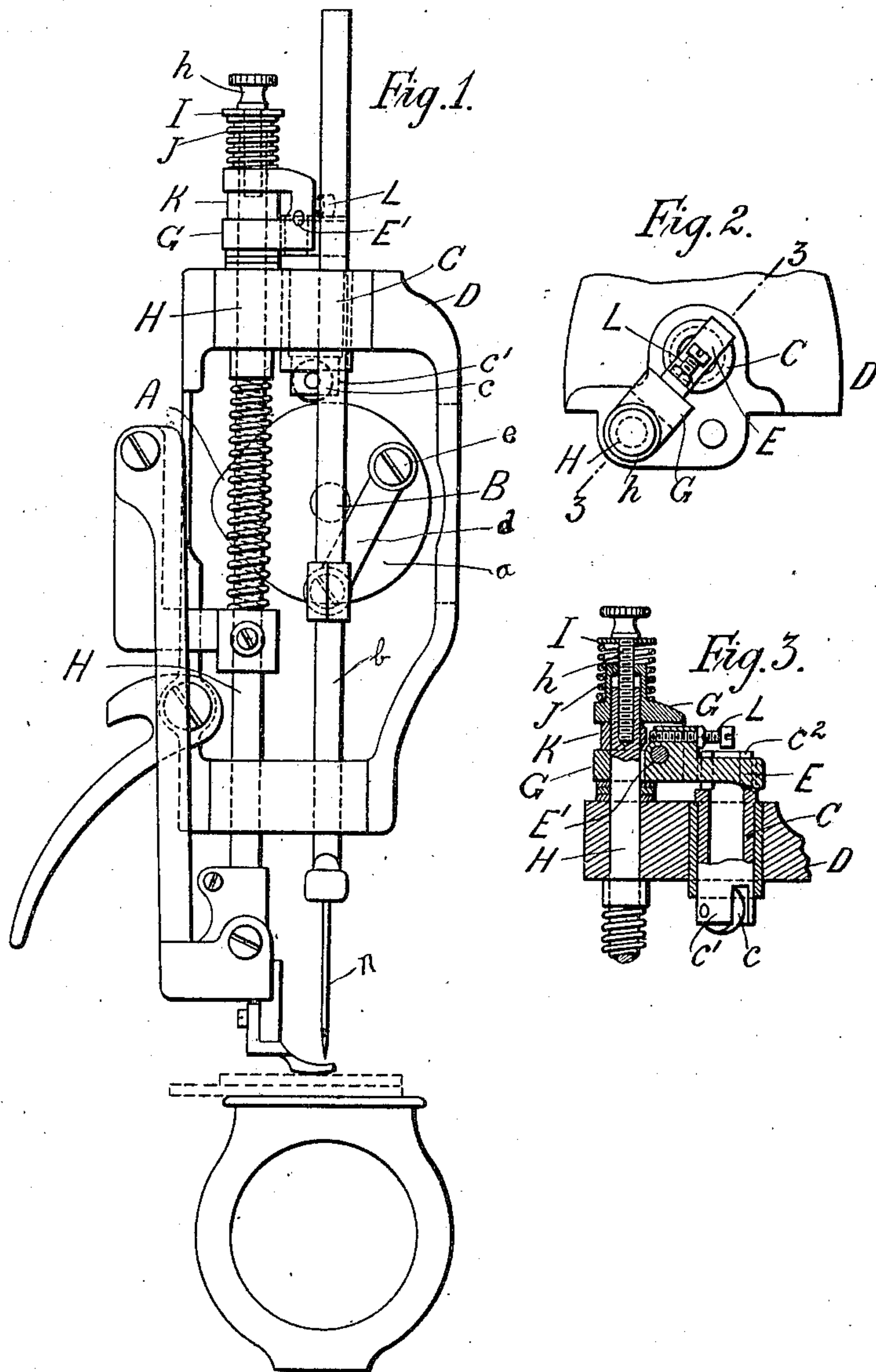


J. HEGGIE.
PRESSER FOOT LIFTING MECHANISM FOR SEWING MACHINES.
APPLICATION FILED FEB. 9, 1909.

998,845.

Patented July 25, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES HEGGIE, OF CLYDEBANK, SCOTLAND, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, OF ELIZABETH, NEW JERSEY.

PRESSER-FOOT-LIFTING MECHANISM FOR SEWING-MACHINES.

998,845.

Specification of Letters Patent. Patented July 25, 1911.

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To all whom it may concern:

Be it known that I, JAMES HEGGIE, a subject of the King of the United Kingdom of Great Britain and Ireland, and residing at Clydebank, Dumbartonshire, Scotland, have invented a certain new and useful Improvement in Presser-Foot-Lifting Mechanism for Sewing-Machines, of which the following is a specification.

This invention relates to sewing machines for use in stitching leather, saddlery and like goods of uneven thickness, in which the feeding of the work is effected by a feed dog below acting in conjunction with a vibrating or feeding presser above the work: and it has for its object to provide a simplified and improved arrangement or combination of mechanism for so actuating the presser that it automatically climbs the stepped or uneven surface of the work as the thickness of the latter increases and in like manner descends as the thickness decreases, while the extent of lift over the goods remains practically uniform throughout and undue pressure or thud on the descent of the presser is avoided.

In the accompanying drawings Figure 1 is a front view of the head of a sewing machine embodying the invention, the face plate being removed, Fig. 2 is a part plan thereof, and Fig. 3 is a part vertical section on the line 3—3, Fig. 2.

Referring to the drawings, the lifting movements of the presser are effected by a cam A formed on or fitted to the usual crank disk *a* on the forward end of the needle bar actuating shaft B. The needle-bar *b*, carrying the needle *n*, derives its usual reciprocatory movements from the actuating shaft B through the pitman *d* connected with the screw-stud *e* carried by the crank-disk *a*. The said cam is tracked by a roller *e* carried by a forked portion *e*¹ at the lower end of a vertical plunger C fitted in the machine head D adjacent the face plate, (not shown). The plunger is slotted at its upper end *e*² and the slot is entered by the end of a short clamping lever E pivoted at E¹ on a jawed sleeve G fitted loosely on the upper end of the presser bar H so that the latter may freely slide within the sleeve G which is held in position by a screw threaded stud *h* entering the end of the presser bar, a washer I and spring J being interposed.

Between the jaws of the sleeve G is a clamping member or collar K through which the presser bar passes freely when no pressure is applied to the clamping collar but which presser bar is rigidly held by the collar K when the end of the pivoted clamping lever E or, as shown, the point of an adjustable set pin or contact screw L carried thereby, is brought to bear on the side of the collar K so as to cause it to engage the presser bar H. As shown in the drawings, the sleeve G is forked to form the two spaced jaws which are perforated to fit the presser-bar H and the clamping member or collar K is also perforated to loosely fit the presser-bar upon which it is locked between and by means of the spaced jaws of the collar G in the desired relation to the other members of the lifting mechanism. As the collar K embraces the presser bar H and engages such part of its length as is within it for the time being, the cam A imparts a lift of uniform extent to the presser from its position of rest on the surface of the work irrespective of the thickness of the latter, while on the descent of the plunger C when cleared by the cam A the presser bar H is released from the collar so that the presser drops to rest on the work. Thus, while the presser climbs upward on to a stepped surface or downward therefrom, the lift remains normal and the thud due to excessive lift and drop of the presser is avoided.

Having now described my invention what I claim and desire to secure by Letters Patent of the United States is:—

1. In a sewing machine, the combination with the needle-bar actuating shaft, a reciprocating needle-bar, an operative connection between the forward end of said shaft and the needle-bar, and a presser-bar, of a sleeve forked and perforated to form two spaced jaws fitted upon and embracing said presser-bar, a clamping member perforated to fit said presser-bar and locked thereon between the jaws of said sleeve, a lever pivoted to said sleeve, a reciprocating plunger adapted on its movement in one direction to move said lever on its pivot and thereby bring the clamping member into clamping engagement with the presser-bar, and a cam on the needle-bar actuating shaft adjacent the connection with the needle-bar for operating the plunger.

2. In a sewing machine, the combination
with the needle-bar actuating shaft, a recip-
rocating needle-bar, an operative connection
between said shaft and the needle-bar, and
5 a presser-bar, of a jawed sleeve embracing
said presser-bar, a clamping collar loosely
fitted upon the presser-bar and locked
between the jaws of said sleeve, a lever
pivoted to said sleeve and provided with a
10 contact pin whose point is adjustable to-
ward and from said collar, a reciprocating
plunger mounted for movement parallel
with the presser-bar and adapted on its

movement in one direction to move said le-
ver on its pivot and thereby bring said col- 15
lar into engagement with the presser-bar,
and a cam on the needle-bar actuating shaft
adjacent the connection with the needle-bar
for operating the plunger.

In testimony whereof I have signed my 20
name to this specification in the presence of
two subscribing witnesses.

JAMES HEGGIE.

Witnesses:

WALLACE CRANSTON FAIRWEATHER,
WALLACE FAIRWEATHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
