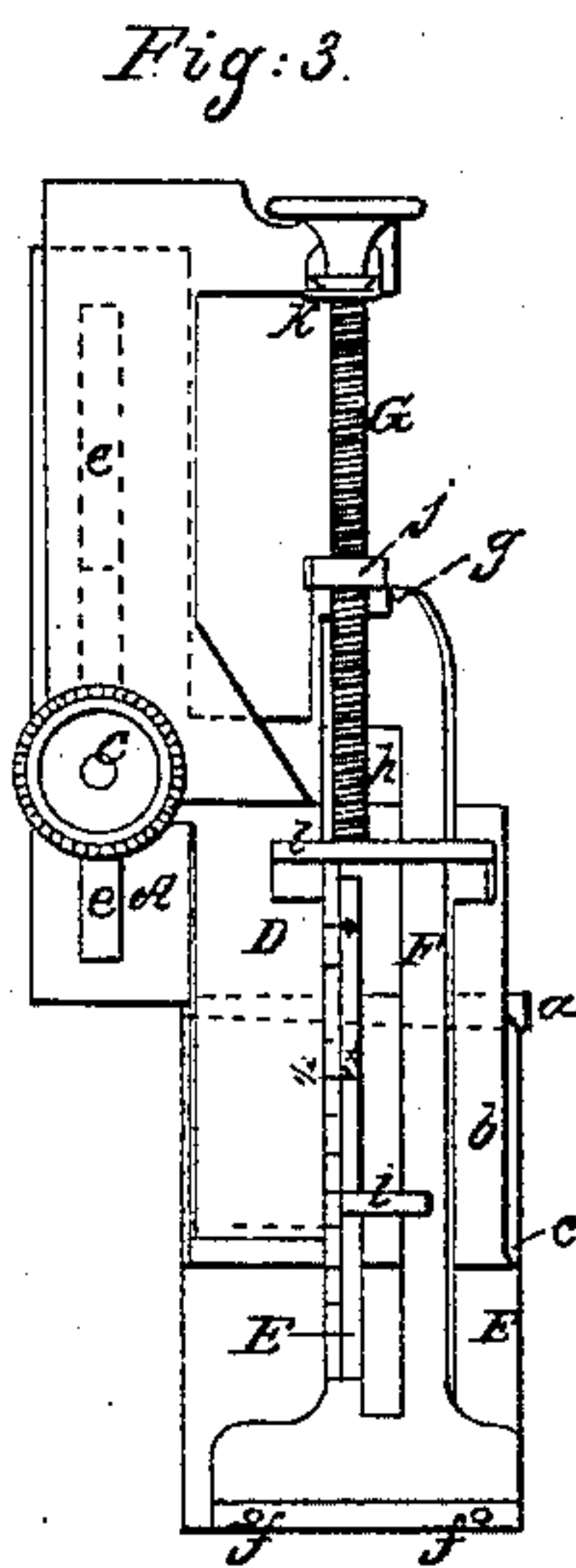
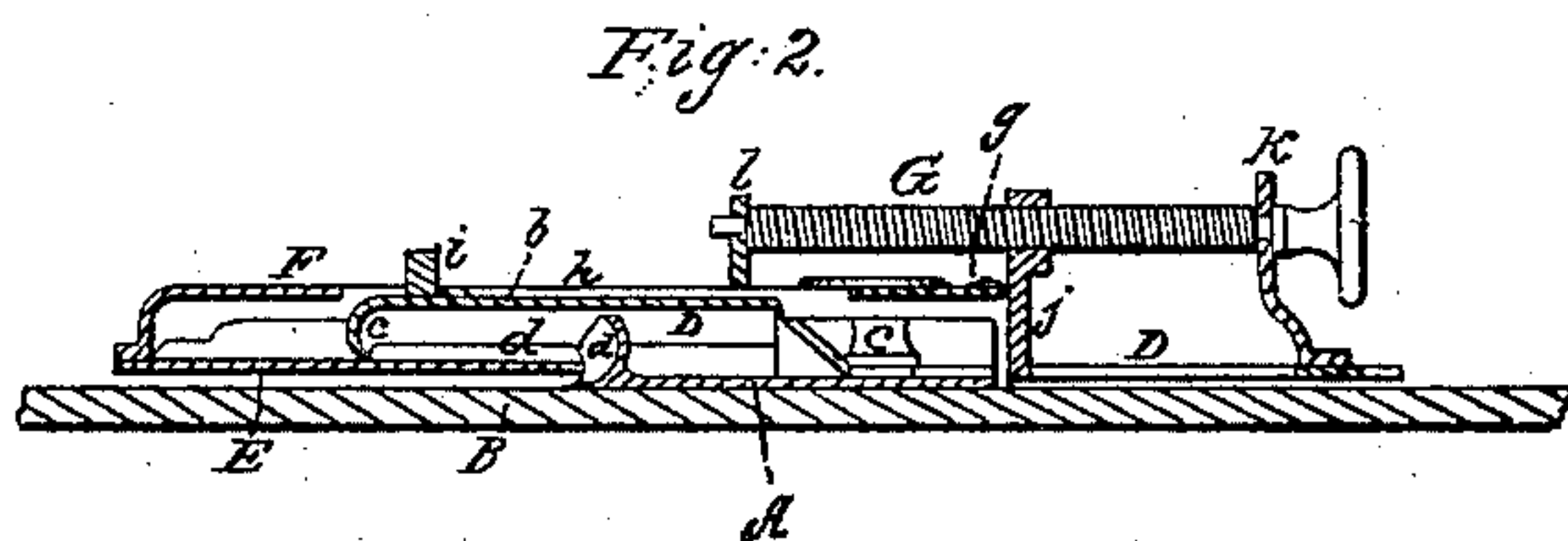
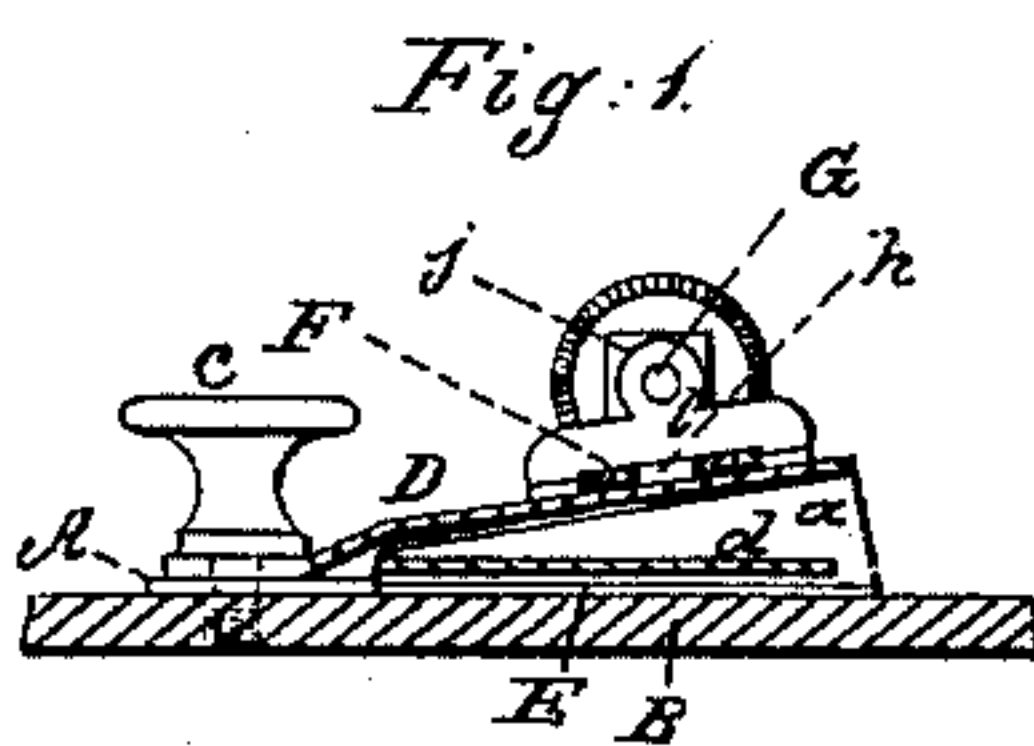


J. HOWELL.
Sewing Machine Hemmer.

No. 31,602.

Patented March 5, 1861.



Witnesses:

J. W. Loomis
R. S. Spencer

Inventor:

J. Howell
per Munn & Co
attorneys.

UNITED STATES PATENT OFFICE.

JOSIAH HOWELL, OF SACRAMENTO, CALIFORNIA.

IMPROVEMENT IN HEMMING-GUIDES.

Specification forming part of Letters Patent No. 31,602, dated March 5, 1861.

To all whom it may concern:

Be it known that I, JOSIAH HOWELL, of Sacramento, in the county of Sacramento and State of California, have invented a new and useful Improvement in Hemmers for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are vertical sections, at right angles to each other, of a hemmer with my improvements. Fig. 3 is a plan of the same.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to hemmers of the tubular kind.

It consists in a certain construction of the tube of the hemmer in three pieces, whereby the hemmer is made adjustable to turn hems of various widths in a very simple manner and without the complication of parts which is found in adjustable hemmers of other construction.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the bottom plate of the hemmer, which is intended to be screwed to the bed B of the sewing-machine by a screw, C, and which has attached to or formed on it the curved side *a* of the flattened taper-tube *a b c d* of the hemmer, such side being that by which the outer fold of the hem is turned.

D is the upper plate, having forme dupon or attached to it the upper flat portion, *b*, of the tube and the curved side, *c*, thereof, by which the inner fold of the hem is turned. This plate is furnished with a straight projection on its under side to fit into a slot, *e*, in the bottom plate, and is secured to the bottom plate by the screw C, which passes through a hole in B, and through the slot *e*, and screws into the bed B.

E is a flat plate, part of which forms the bottom *d* of the tube, said plate being arranged a little higher than the bottom plate in order to permit the cloth to pass under it, and fitting closely under the curved side *c*. This plate E is attached to the bottom plate, A, by a metal bar, F, which passes over the top of

the upper plate, the said bar being riveted or otherwise rigidly attached to the plate E at *f f*, and to the plate A at *g*. The bar F is represented with a longitudinal slot, *h*, which is fitted to a button, *i*, secured to the upper plate D. This slot and button secure the bar and plate against displacement, but provide for the adjustment of the plates A and D for hems of different widths. The bar F may, however, be made without a slot and fitted within one or more strap-pieces secured to the plate D.

G is a screw for adjusting the plate D relatively to the plates A and E, said screw having its thread fitted to a tapped hole in an upright piece, *j*, that is rigidly secured to the plate A, and having journals which are fitted in such a manner to two bearings, *k l*, rigidly attached to the upper plate, D, that by turning the said screw in one direction or the other the plate D may be shifted relatively to the plate A in such manner as to place the curved side *c* of the tube nearer to or farther from the curved side *a* thereof, or, in other words, to make the tube narrower or wider to produce a narrower or wider hem. In this adjustment the plate E always remains in the same relation to the plate A. The screw G is not, however, an essential part of my invention, as without it, when the screw C is slackened the plate A may be shifted by hand more expeditiously, if not so accurately.

On the top of bar F there is a graduated scale of inches and fractional parts, (see Fig. 3,) to which the button *i* is an index, showing the width of hem for which the hemmer is set.

The operation of the hemmer when adjusted does not differ from the operation of other tubular hemmers.

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

The division of the tube into three parts, *a*, *d*, and *b c*, of which the two lower parts *a* and *d* are connected together by a bar, F, passing over the plate, D, of which the upper portion, *b c*, forms part, the whole arranged and applied substantially as herein set forth.

JOSIAH HOWELL.

Witnesses:

ROBT. C. CLARK.

FRANCIS TUKEY.