R. H. PEABODY.

Button Hole Stitching Machine.

No. 78,821. Patented June 9, 1868.

Fig. 3.

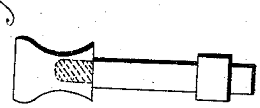


Fig. 5.

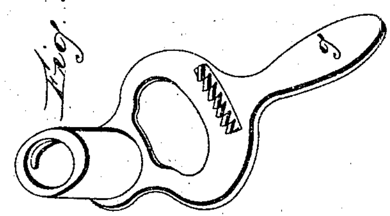


Fig. 2.

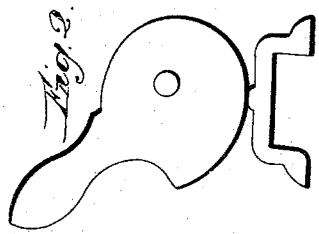


Fig. 4.

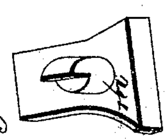
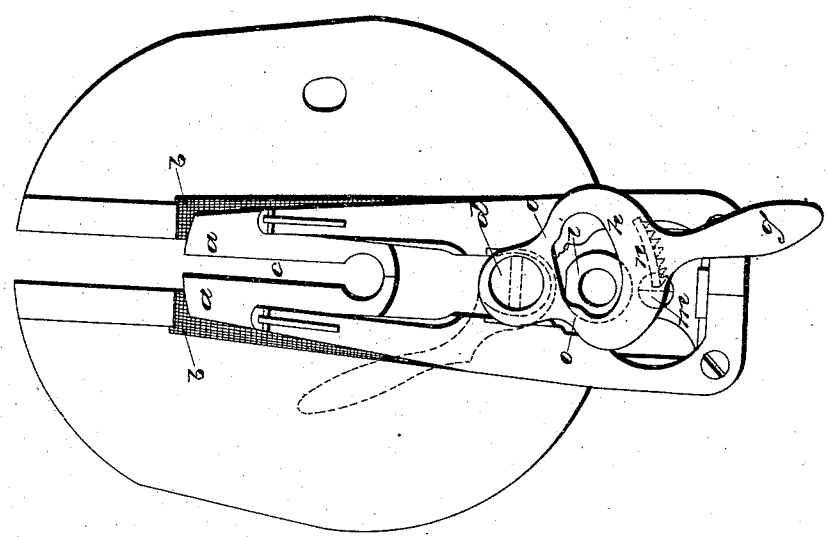


Fig. 1.



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United States Patent Office.

RUFUS H. PEABODY, OF CHELSEA, MASSACHUSETTS.

Letters Patent No. 78,821, *dated June* 9, 1868.

IMPROVEMENT IN BUTTON-HOLE-STITCHING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, RUFUS H. PEABODY, of Chelsea, in the county of Suffolk, and Commonwealth of Massachusetts, have invented a new and useful Improvement in Button-Hole-Stitching Machines applicable to the machines manufactured by the "Union Button-Hole and Embroidery-Machine Company," of Boston, in said Massachusetts; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others to make and use my invention, reference being had to the accompanying drawings, and letters of reference marked thereon, which form a part of this specification.

My improvement is upon what is called the "clamp," used in said machines for holding, spreading, moving, and guiding the button-hole under the needle in the process of stitching, and consists in a new mode of spreading the jaws of said clamp.

Figure 1 of said drawings represents a top view of the clamp with the presser-cam, Figure 2, and guide-pin, Figure 3, removed.

When the garment or material containing the button-hole to be stitched is placed properly in the clamp, the upper jaws, *a a*, of the clamp are pressed down upon the lower jaws, *b b*, said garment or material being thus held firmly between said upper and lower jaws, while the button-hole to be stitched lies centrally along the space *c*, parallel to and between the inner edges of said jaws. Before proceeding to stitch the same, the jaws of the clamp are spread apart laterally, which also spreads or separates the edges of the button-hole for the purpose of allowing the needle to have free passage through said hole in stitching over the edges thereof.

The spreading of said jaws has hitherto been accomplished by means of a lever, with a cam attached, turning between the inner edges of said jaws on the hub *d*. The form and position of said lever, as hitherto used, are indicated on the drawing by red dotted lines, and the form of the spreader-cam is shown by black dotted lines around said hub *d*. The red dotted lines indicate the position of the lever when the jaws of the clamp are not spread apart.

In spreading said jaws, the lever is swung around to the right, across the path of the needle, to a position opposite that indicated on the right of the clamp, and is held in this latter position by the friction on its cam.

There are serious objections to a spreader-lever applied and operating in the manner described.

By being so applied that it projects forward from the hub *d*, on which it turns, and its range of movement being across the path of the needle, it is consequently sometimes broken by being accidentally left within range of and coming in contact with the needle in its descent, and is liable to jar into such a position when the machine is in operation, the friction on its cam not always being sufficient to hold it in its proper position.

The fact that it is wholly dependent upon the friction on its cam to hold it in position, makes it very difficult to properly adjust the spreading of the button-hole with such a lever to the requirements of the various kinds of materials used and the "narrow" and "broad-gauge" machines.

Now, my improvement is designed to obviate these difficulties, and consists in the application of a lever attached to a like cam turning on said hub *d*, said lever projecting backward from said hub, and when in operation swings in an opposite direction from that of the lever just described, and its range of movement is entirely free from that of any other part of the machine.

This lever *g* is constructed with an irregular-shaped slot through it at *h* to allow the pin shown in fig. 3 to pass through it in any position of the lever, and to work freely through it in its hub, *i*. The lever *g*, as shown in fig. 1, is in the position it occupies when the clamp is not spread. It has upon its under side a serrated projection, as indicated by the dotted lines *n*.

In the operation of said lever, the teeth *n* are sprung over and upon the stationary pawl *m* by lifting upon the end of the lever, which is constructed thin at the points *o o* for the purpose of allowing it to spring and bend sufficiently therefor. Thus the lever may be secured in any desired position, and the jaws of the clamp spread more or less, to suit the requirements of the various materials stitched and the "narrow" and "broad-gauge" machines.

Figure 4 is a full view of the stationary pawl *m*.

Figure 5 is a similar view of the lever *g* in an inverted position, showing its cam and serrated projection.

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

The combination, with a clamp substantially as described, of a spreader-lever projecting backward from the hub *d*, and constructed and operating as and for the purposes described.

Also, in combination with said clamp and lever *g*, the device for securing said lever in any desired position within the range of its movement, for the purposes described, consisting of the teeth *n* and stationary pawl *m*, or their equivalent.

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Witnesses:

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