E. D. SMITH.

Sewing-Machines.

No. 154,291. Patented Aug. 18, 1874.

Fig. 1.

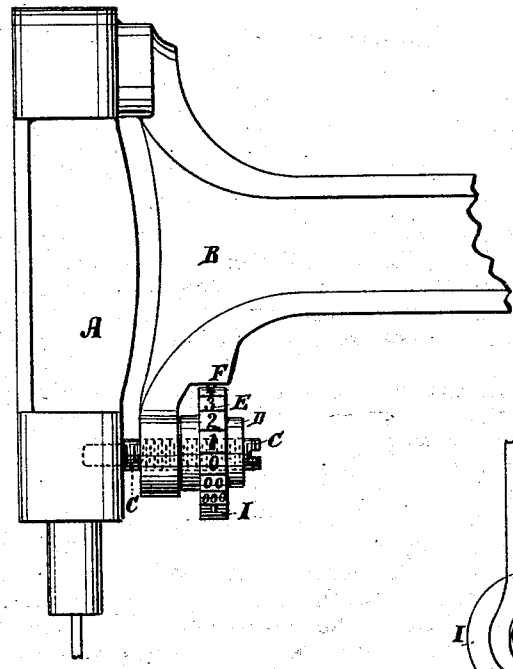


Fig. 3.

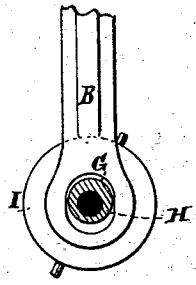
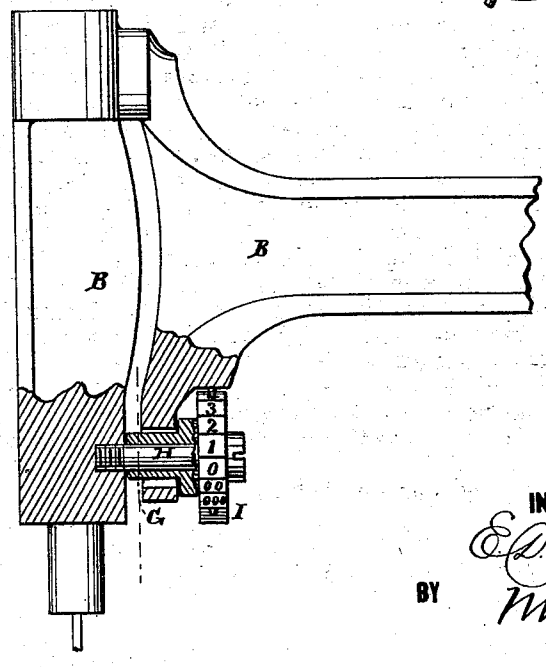


Fig. 2.



WITNESSES:

A Bennenendorf.

P Sedgwick

INVENTOR:

E. D. Smith

BY Munn & Co

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UNITED STATES PATENT OFFICE.

EDWIN D. SMITH, OF NEW YORK, N. Y., ASSIGNOR TO HOWE MACHINE COMPANY, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **154,291**, dated August 18, 1874; application filed July 11, 1874.

To all whom it may concern:

Be it known that I, EDWIN D. SMITH, of the city, county, and State of New York, have invented a new and useful Improvement in Sewing-Machines, of which the following is a specification:

My invention consists of a graduated scale, applied to the adjusting device by which the head is adjusted for setting the needles of different sizes in proper relation to the shuttle race, the said scale being the index by which the adjusting device is set—that is to say, the mark on the adjusting device corresponding to the size of the needle in the bar requiring to be adjusted to the race is so placed that, when it stands at the index-point, the needle will be in its required position relatively to the shuttle-race, so that all the operator is required to do when putting in a new needle is to turn the mark on the adjusting device corresponding to said needle to the index-point, which he can readily do, and thus save much time and labor now spent in adjusting, without any guide whatever.

The invention is alike applicable to the adjusting device whether it be a screw, cam, or lever. In this case it is represented as applied to a screw and a cam.

Figure 1 in the drawing is a side elevation of the head, and a portion of the supporting-arm of a sewing-machine with a screw device for adjusting the head, and an indicator applied to the nut of the screw. Fig. 2 is a sectional elevation of the same, showing a cam for adjusting the head, with the indicator applied to it. Fig. 3 is a section of Fig. 2 on line *x x*.

Similar letters of reference indicate corresponding parts.

A is the head in which the needle-bar works, and which is to be adjusted to swing the needle toward or from the needle-race to adjust it according to the size of the needle, so that the shuttle will be certain to enter the loop, and thus not fail of locking the stitches, as it may, if the needle is too far away from it.

In such machines as have the shuttle-race at right angles to the arm B, which supports the head, a screw, C, and a nut, D, are used to spring the head toward and from the shuttle-race, and in this case I apply the scale E to the face of the nut or the disk I thereon, for turning it in such relation to the nut and the front corner F of the part of the arm under which the nut turns, that said corner serves for the index-point.

In other machines having the shuttle-race parallel with the arm B, a cam, G, is used together with a stud-pin, H, for shifting the head forward and backward across the plane of the arm, and said cam has a thumb-disk, I, for turning it, corresponding to the nut for the screw in Fig. 1, whereon I arrange the indicator the same as in Fig. 1.

It will be evident from the foregoing that if a lever were used in place of either of these devices, as it might be, the indicator could be combined with it according to the same principle; but it would probably be marked on the surface of the head or arm, along which the lever would swing.

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

The combination, with the needle head and arm, of the cam-screw, or equivalent, provided with an index, as and for the purpose described.

EDWIN D. SMITH.

Witnesses:

T. B. MOSHER,

ALEX. F. ROBERTS.