

G. W. HUNTER.
Sewing-Machine.

No. 131,062.

Patented Sep. 3, 1872.

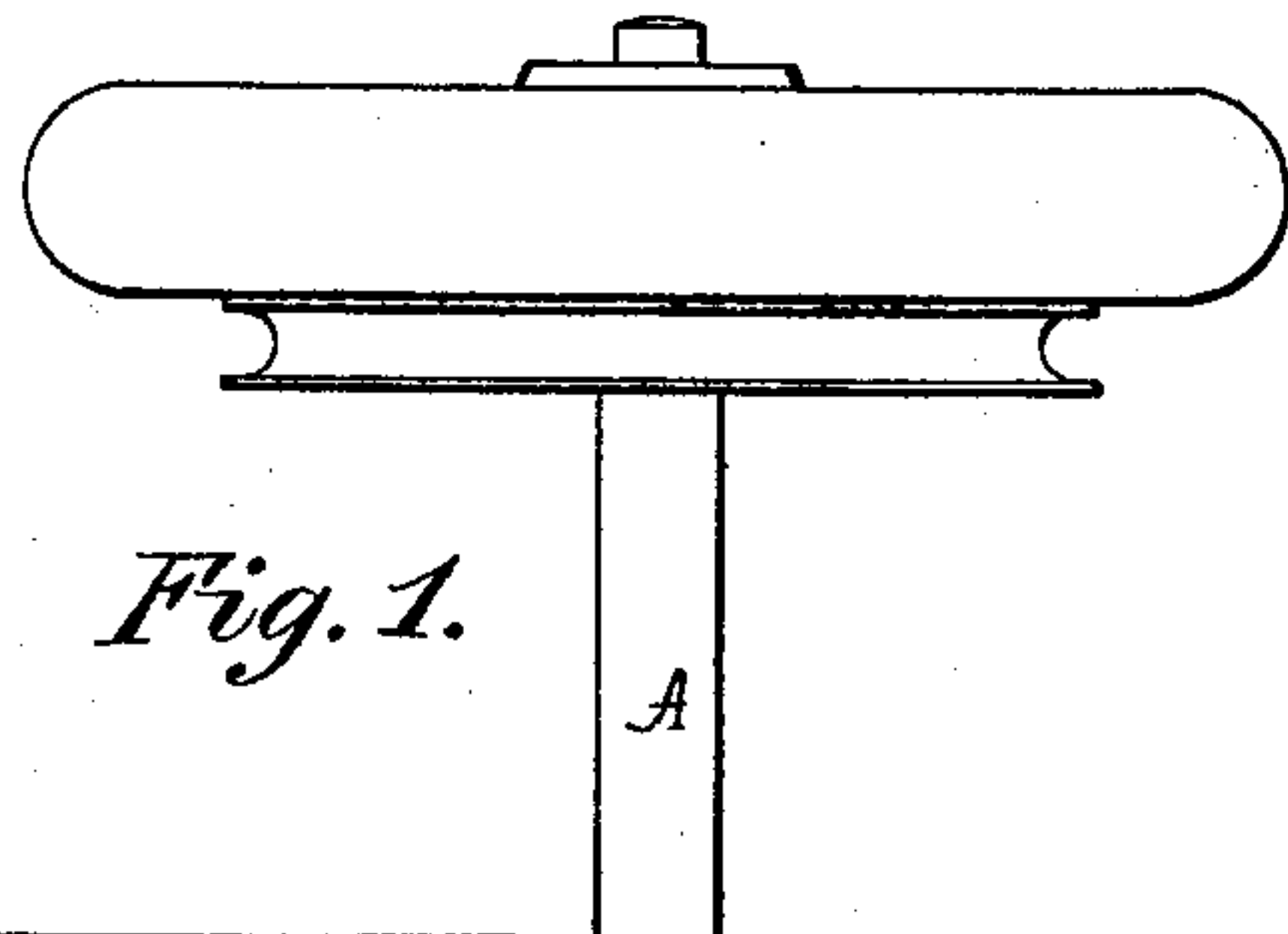


Fig. 1.

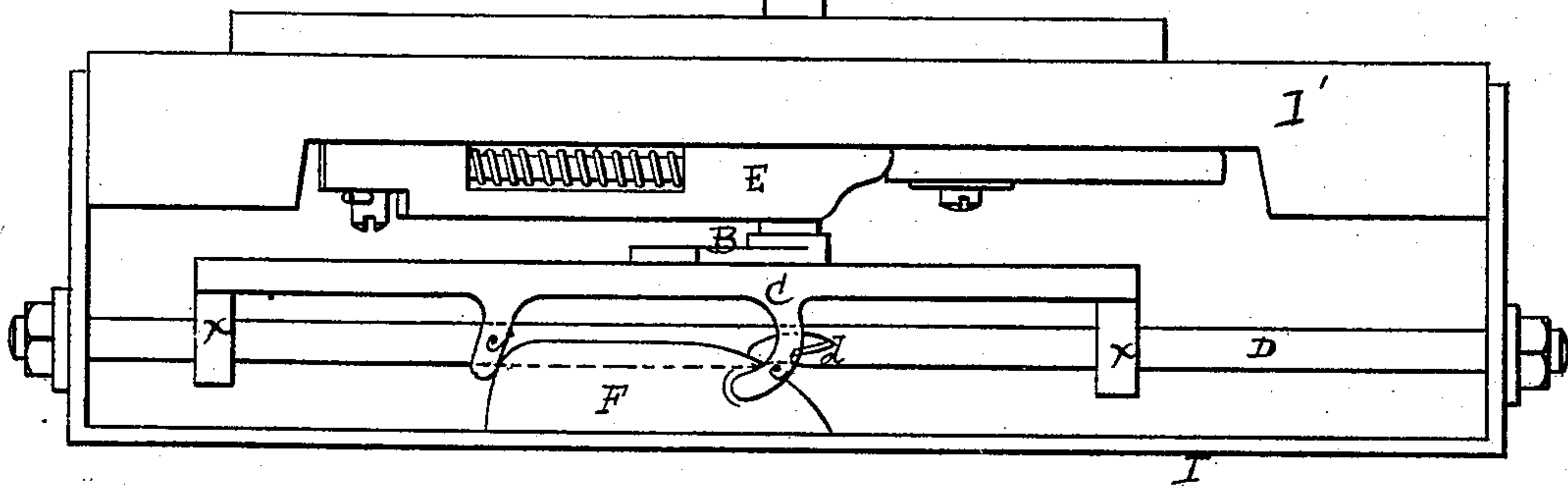


Fig. 2.

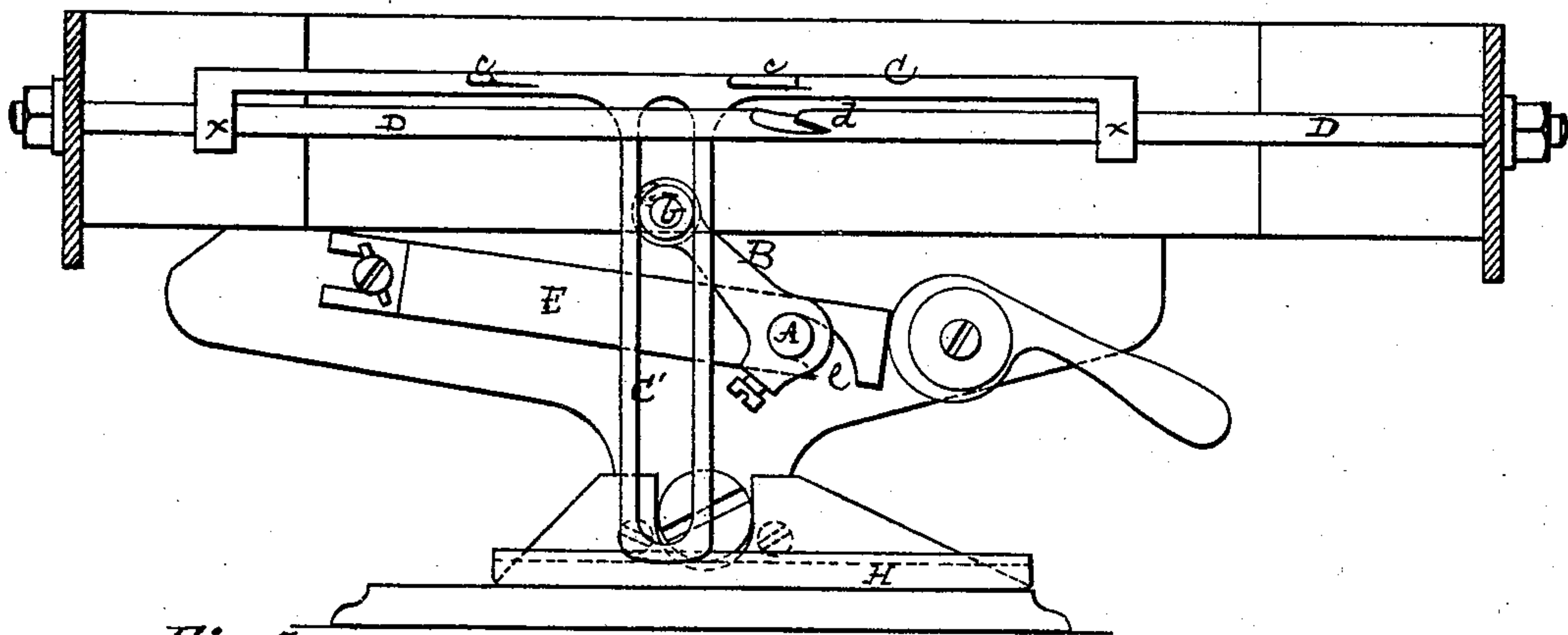


Fig. 3.

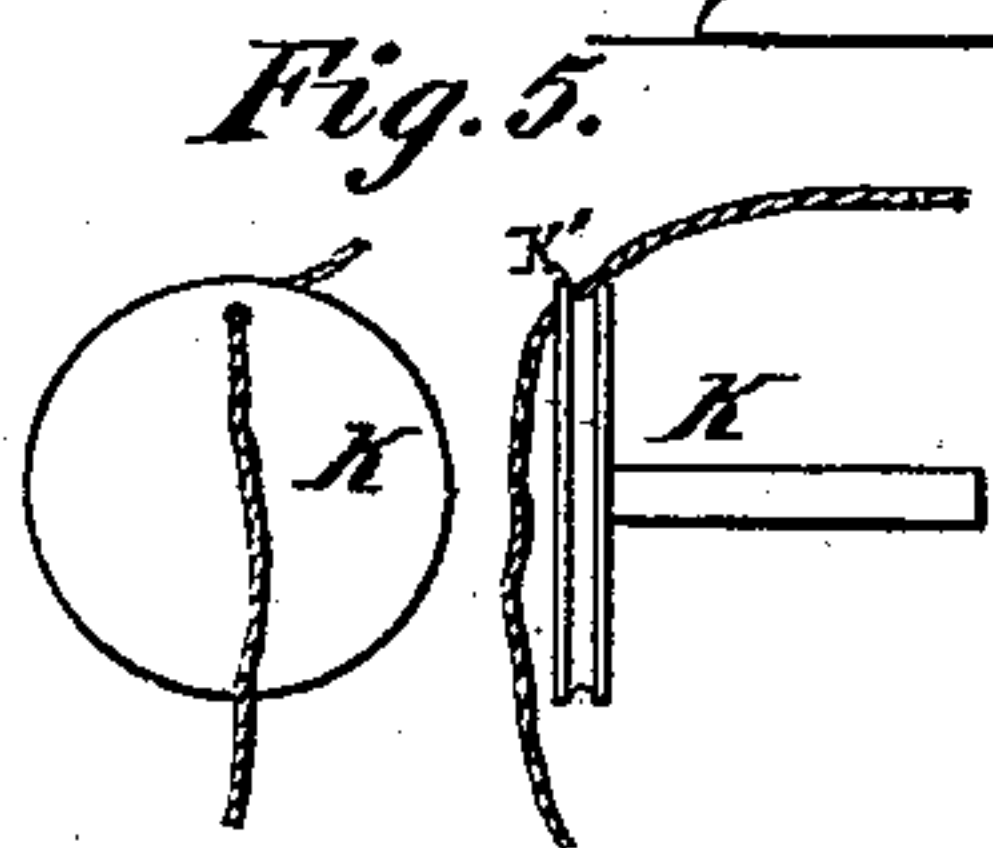


Fig. 5.

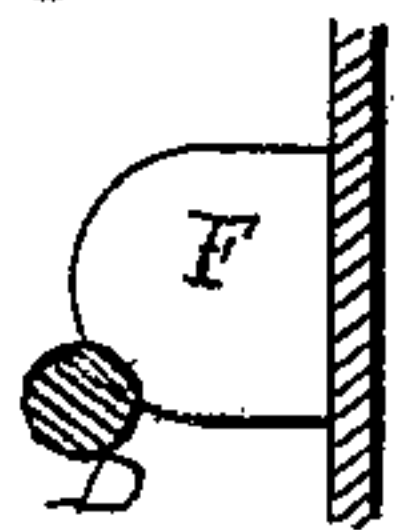


Fig. 4.

Witnesses.

W. F. Stone
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Inventor.

Geo. W. Hunter

UNITED STATES PATENT OFFICE.

GEORGE W. HUNTER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
OF TWO-THIRDS HIS RIGHT TO WM. F. STONE AND O. A. DAILEY, OF
SAME PLACE.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **131,062**, dated September 3, 1872.

To all whom it may concern:

Be it known that I, GEO. W. HUNTER, of Washington, in the county of Washington and District of Columbia, have invented a new and useful Improvement in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, so that one skilled in the art to which it appertains can make and use the same, reference being had to the annexed drawing forming a part of this specification, in which—

Figure 1 is a plan view of my improvement, and Fig. 2 is a front view of the same with the front plate removed. Fig. 3 is section of the front plate and traversing-rod, and end elevation of the shuttle; and Fig. 4 is a view of a section of the traversing-rod, showing the catch or hook thereon. Fig. 5 is a view of a circular or disk take-up.

The object of my invention is to produce a shuttle or lock-stitch sewing-machine with the least possible number of simple parts, and thereby reduce the cost of making and the liability of such machines getting out of order, and, at the same time, retaining all the advantages of more complicated and expensive machines; and to this end my invention consists in a novel construction, combination, and arrangement of mechanism more particularly hereinafter described, and specifically pointed out in the claims.

Similar letters of reference indicate corresponding parts.

A represents the driving-shaft, arranged in a suitable frame or bearings, and in this case is analogous to that in the "Willcox & Gibbs" machine. B is a crank, fixed to the inner end of the shaft A, and operates or drives the shuttle-carrier C, which is provided with a slot or groove in the cross or T-part thereof, as shown in Fig. 2. The shuttle-carrier C is made of the form shown in Figs. 1 and 2, with ears *x x*, to embrace the traversing-rod, and shuttle-clasps *c c*, and slotted T-piece C', and all from a single piece of metal. D represents the rod for carrying the shuttle-carrier C, arranged as shown, in relation with the front plate or part of the frame I, so that the rod not only serves to guide and carry the shuttle-carrier, but

forms, in connection with the front plate I, the shuttle-race. The rod D is also provided with a notch or hook, *d*, to catch and hold or prevent the thread of the loop from being taken along with the shuttle in its forward movement, and thereby obviates the difficulty of taking up a long loop or loops of irregular and varying lengths. E represents the feed-bar, of ordinary construction, except the cam-slot *e*, which is made open at one end so that said bar may be removed for repairs or adjustment, and may be first attached without removing or disturbing the other mechanism. F represents the shuttle, provided with a recess or groove in one side thereof, to adapt it to work without jarring or rattling in the race, consisting of the rod and front plate. The groove also serves to hold the loop, so that the hook on the rod is more sure to catch the same. H represents a tongue, projecting upward into a groove in the lower end of the part C' of the shuttle-carrier, to act as a guide for said carrier and keep the same steady and in its relative and proper position. It is obvious that a groove for the lower end of the part C' to traverse in, would amount to the same as the rib or tongue H. I represents the front plate of a frame, of which I' forms the rear part, which is designed to be made of a single piece with the main frame in which the shaft A works, and which supports the rod D.

It will be observed that the plate I is smooth on the inside, and forms the front bearing for the shuttle, and that it, in connection with the rod, in consequence of the modified form of the shuttle, forms a convenient shuttle-race without the trouble and expense of making and adapting a groove for the shuttle, which, in turn, requires special adaptation of the contiguous mechanism.

K, Fig. 5, represents a circular or disk take-up, provided with ears K', through which the thread passes, and also with a groove around or in its periphery, the thread from each of the ears falling into the groove as the take-up moves forward, and its movement is less than would be required if the same were a straight bar or the segment of a circle. There is also

less atmospheric friction in this case than is due to any other form known to me.

The operation of this machine has already been sufficiently described in the particular reference to the separate parts.

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

1. A rod on which a shuttle-carrier traverses, when the same is provided with a notch or hook to prevent the thread or loop from being taken along with the shuttle, as described.

2. In combination with the rod provided with a hook, I claim the grooved shuttle, whereby the loop is more sure to be caught by said hook, substantially as set forth.

In testimony that I claim the foregoing I have, this 9th day of March, 1872, signed the same in the presence of two subscribing witnesses.

GEO. W. HUNTER.

Witnesses:

W. F. STONE,

T. C. CONNOLLY.