

G. W. HUNTER.
Sewing-Machine.

No. 131,061.

Patented Sep. 3, 1872.

Fig. 1.

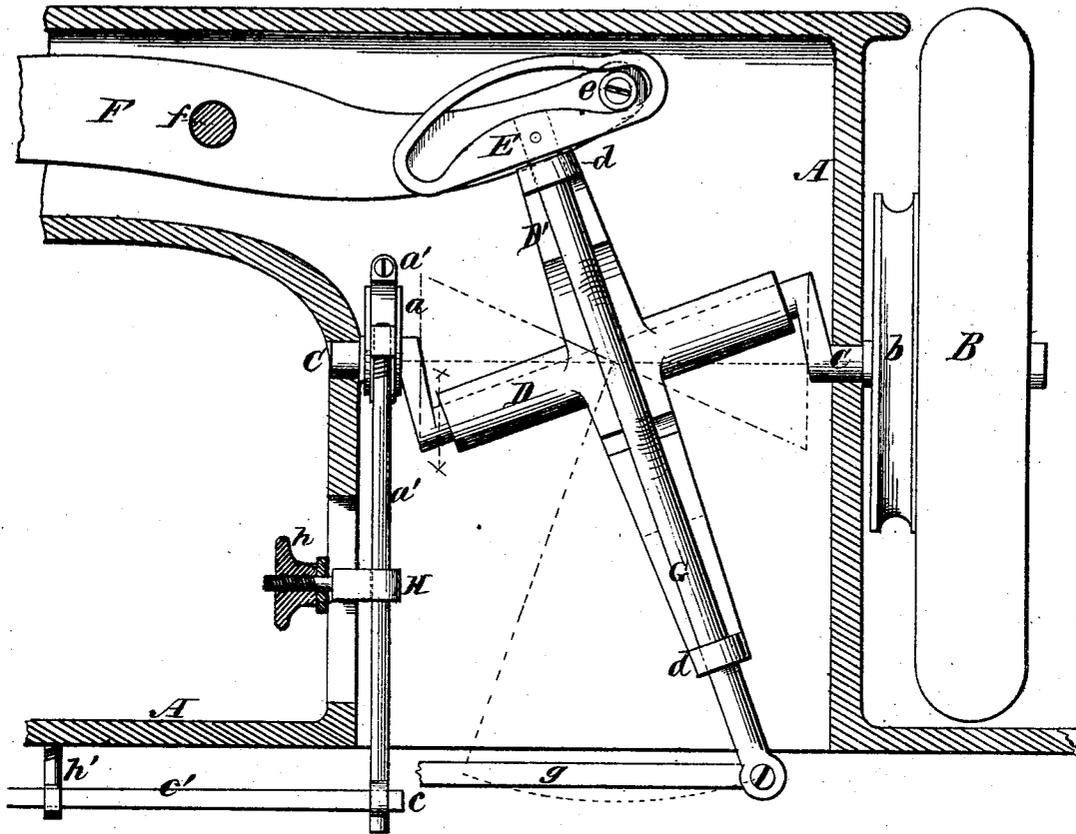


Fig. 2.

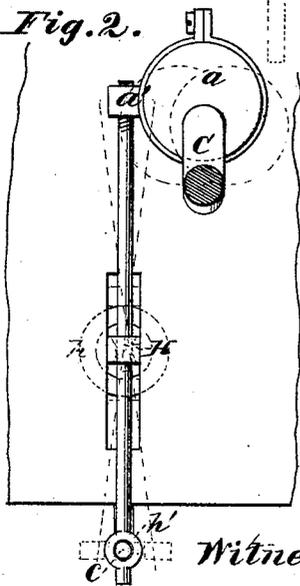
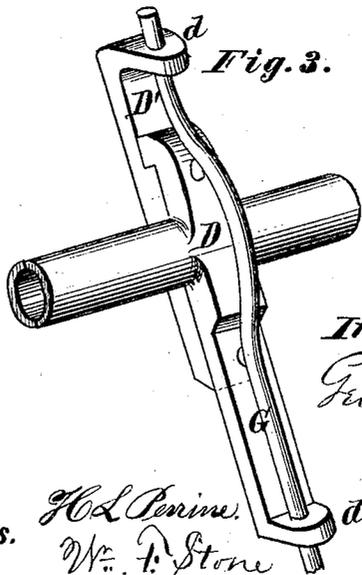


Fig. 3.



Inventor.

G. W. Hunter

Witnesses.

H. L. Penine.

W. F. Stone

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 131,061 dated September 3, 1872.

To all whom it may concern:

Be it known that I, GEO. W. HUNTER, of Washington, District of Columbia, have invented a new and useful Improvement in Sewing-Machines; and I do hereby declare that the following is clear and exact description thereof, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical section of so much of the working parts of a machine as to illustrate my invention, and Fig. 2 is a detail view of the cam for operating and the adjusting device for regulating the feed, and Fig. 3 is a perspective view of the sleeve and vibrating arm and its connecting-rod.

A in the drawing represents the casing, and forms the frame in which the mechanism is inclosed and supported, and B represents the fly-wheel, to which the driving-pulley *b* is attached, both being firmly secured to the bent crank-shaft C, which is supported in the casing, as shown. Upon this crank-shaft near the forward end, and adjacent to the front main casing is a small eccentric, which carries and moves the rod *a'*, which is, in turn, connected at *c* to the rod *c'*, that directly operates the feed, giving to the feed the desired motion, as will be readily understood.

The feed is regulated for short or long stitches by the adjustable fulcrum H, which has a vertical movement in a suitable slot in the casing, and may be set at any desired position by the thumb-screw (or nut) *h*. Upon the bent shaft C is adjusted the sleeve D, carrying with the shaft and rod G the vibrating arm D', which, for convenience of adjustment, is made in two parts, as shown in Fig. 3, said parts being substantially and firmly held together by suitable screws or bolts. The bent crank-shaft being turned in the usual way causes the sleeve to vibrate. A rod, G, is inserted through ears *d* of the arms D', so as to be exactly central

with said arms and shaft, and is adapted to oscillate therein, so as to accommodate for the oscillation of the arms, and so that the cam E upon the upper end may be rigidly secured thereto, which operates the needle-arm F. The lower end of the rod G is connected, as shown, to the connecting-rod *g*, which operates the shuttle-carrier. The needle-arm R is pivoted at *f*, in the casing, and has a stud carrying friction-roller *e*, which works in the slotted cam E.

The operation of the mechanism herein shown and described is obvious, and, therefore, needs no special description, it being sufficient to remark that the needle-arm, shuttle-carrier, and feed are all operated through the medium of a single shaft of peculiar construction, with simple connecting devices, easy and cheap to manufacture, and all inclosed in a neat casing adapted to be conveniently attached to the table.

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

1. In a sewing-machine the combination of the bent crank-shaft and vibrating arms D', whereby the needle-arm and shuttle-carrier are operated, as specified.

2. The sleeve and arms, made in segments, for ready adjustment upon and combination with the bent shaft and rod G, as set forth.

3. The combination, with the vibrating and oscillating arms D', of the rod G and slotted cam E, as and for the purpose set forth.

4. The combination, substantially as herein shown, of the bent shaft, sleeve, and arms and eccentric, whereby the needle, shuttle, and feed are operated as specified.

GEORGE W. HUNTER.

Witnesses:

WM. F. STONE,
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