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(No Model.)

3 Sheets—Sheet 1.

C. B. HUNT.
SEWING MACHINE.

No. 483,454.

Patented Sept. 27, 1892.

Fig. I.

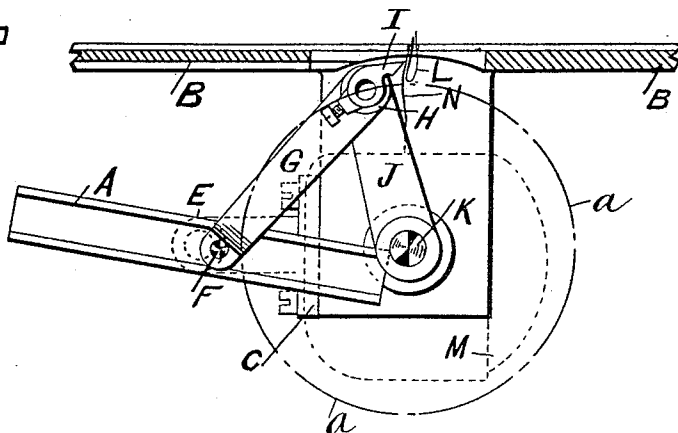


Fig. II.

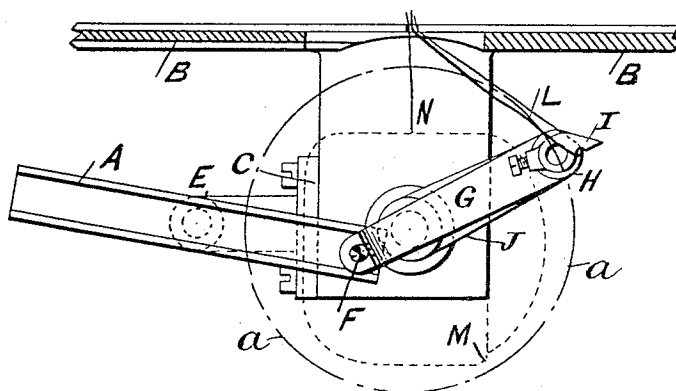
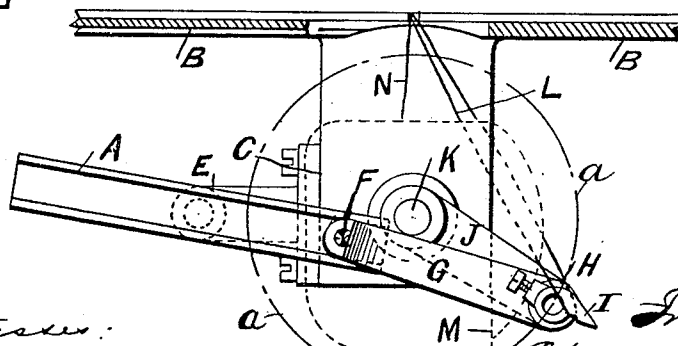


Fig. III.



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Fig. II

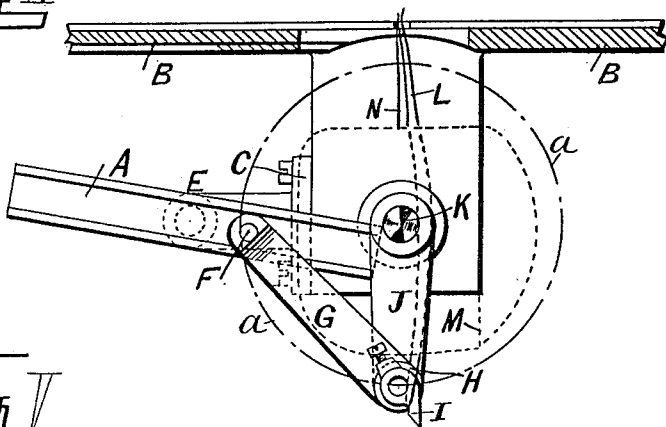


Fig. I

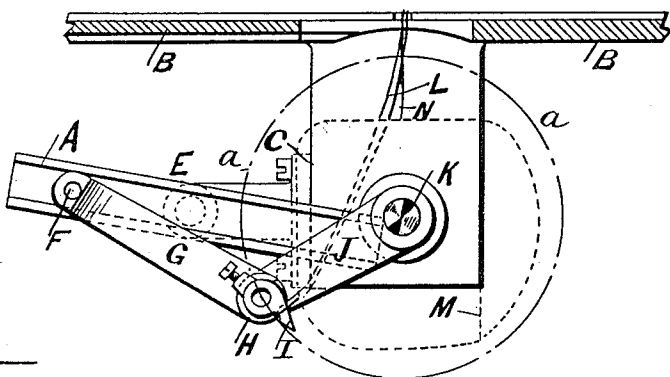
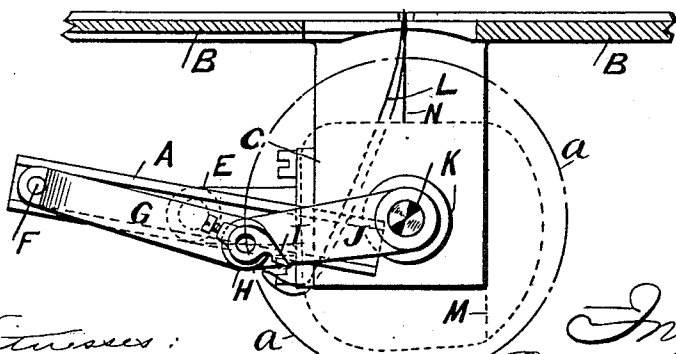


Fig. III



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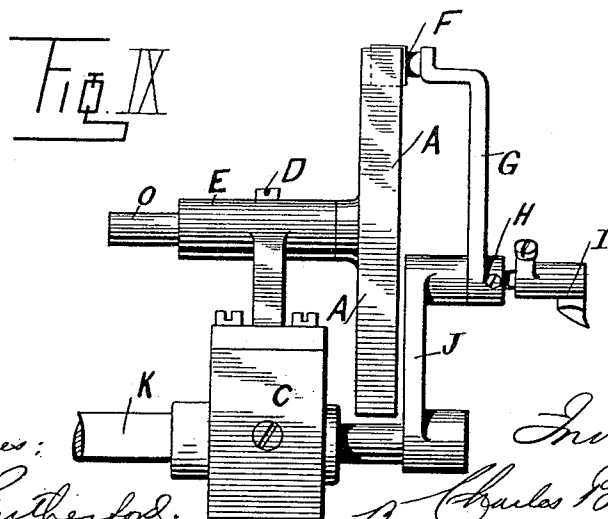
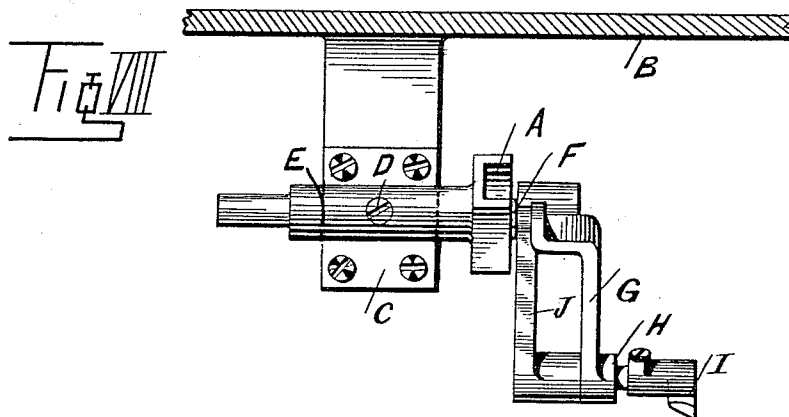
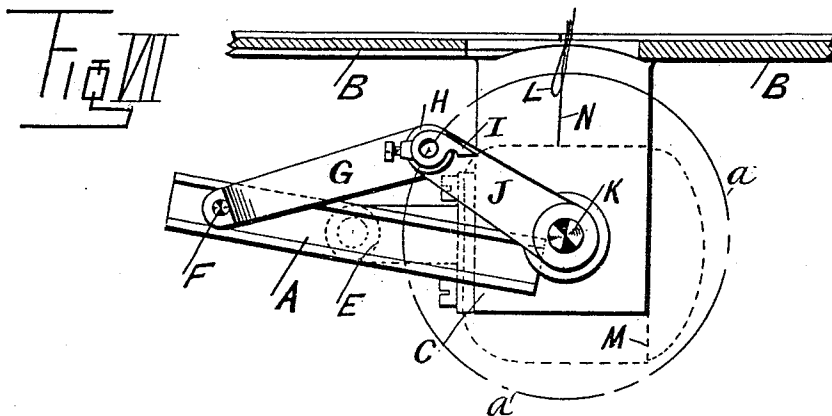
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3 Sheets—Sheet 3.

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SEWING MACHINE.

No. 483,454.

Patented Sept. 27, 1892.



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

CHARLES BRANSTON HUNT, OF LONDON, ENGLAND.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 483,454, dated September 27, 1892.

Application filed July 25, 1892. Serial No. 441,186. (No model.) Patented in England June 11, 1892, No. 11,039.

To all whom it may concern:

Be it known that I, CHARLES BRANSTON HUNT, a subject of the Queen of Great Britain, and a resident of 59 Holborn Viaduct, in the city of London, England, have invented certain new and useful Improvements in Sewing-Machines, (for which I have obtained a patent in Great Britain, No. 11,039, dated June 11, 1892,) of which the following is a full, clear, and exact specification.

This invention relates to sewing-machines, particularly that type employing two reels; and it has for its object to provide novel means for operating the looper to disengage it from the loop and leave the latter free to be drawn back by the take-up, whereby the looper is available for under reels or spools arranged vertically or horizontally, and a very short needle can be employed, which is advantageous. To accomplish this object, my invention involves the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure I is a detail sectional side elevation showing the looper in position as it is about engaging the loop of the upper thread. Fig. II is a similar view showing the loop as it is opening to pass round the lower reel. Fig. III is a similar view showing the looper farther advanced. Fig. IV is a similar view showing the looper as it has completed a half-revolution. Fig. V is a similar view showing the looper in position to release the thread-loop. Fig. VI is a similar view showing the looper withdrawn from the loop. Fig. VII is a similar view showing the position of the parts when the loop is partly drawn by the take-up. Fig. VIII is a sectional side elevation, and Fig. IX is a plan view omitting the bed-plate of the machine.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The letter B indicates the bed-plate of a sewing-machine, to the under side of which is rigidly secured in any suitable manner a depending bracket C, which constitutes the bearing for a rotary under shaft K, having at one end a crank-arm J, in the outer extrem-

ity of which is journaled the cylindrical stem of a looper I in such manner that the looper-stem is adapted to axially rotate in the crank-arm for rocking the looper. The bracket C also supports a projecting socket E, (more clearly shown in Figs. VIII and IX,) and in this socket is arranged a rod O, which carries a grooved guide-bar A. The rod O is secured in the socket by means of a set-screw D, Figs. VIII and IX, and the guide-bar is held in an inclined position relatively to a horizontal plane. The angle of inclination of the guide-bar can be varied by turning the rod O in the socket E and tightening up the set-screw D. To the stem of the looper is rigidly secured a collar H at one end of a link G, which latter is provided at its opposite end with a roller or stud F, adapted to travel back and forth in a rectilinear path in the guide-bar A in such manner that as the under shaft K and crank-arm J revolve the looper I will be rocked by means of the motion imparted to the link G through the medium of the stud or roller F traversing the grooved guide-bar A.

In Fig. I the looper I is about entering the loop L of the upper thread, and the rotation of the under shaft will place the parts successively in the positions represented by Figs. I to VII, inclusive. As the crank-arm revolves after the looper engages the thread-loop L the nose of the looper will be turned to point down, as in Fig. III, to draw the upper thread from the take-up, the loop gradually sliding into the neck of the looper while being carried down and under the lower reel M, which carries the lower thread N, as in Figs. IV, V, and VI, and then the looper will be turned to cause its nose to gradually point upward, so that the thread-loop will slide off and be free to be drawn by the take-up to make the stitch.

By my improved construction the looper is particularly suited for under reels or spools arranged vertically or horizontally in a cage or holder, and a very short needle can be employed, which is an advantage in a sewing-machine, in that it obviates the tendency of the needle to yield or become out of shape in entering and passing through the fabric.

Having thus described my invention, what I claim is—

1. The combination of the under shaft K, having a crank-arm J, the inclined guide-bar

A, the looper I, having a stem axially rotatable in the crank-arm, and a link G, connected at one end with the looper-stem and having at its opposite end a sliding engagement with the inclined guide-bar for rocking the looper, substantially as described.

2. The combination of a bed-plate B, having a pendent bracket C, provided with a socket or bearing E, an under shaft K, having a crank-arm J and journaled in the bracket, an inclined guide-bar A, supported by the socket or bearing, a looper I, having a stem axially rotatable in the crank-arm, and a link G, connected at one end with the looper-stem

and having at its opposite end a stud or roller adapted to traverse the guide-bar for rocking the looper, substantially as described.

In witness whereof I have hereto signed my name, in the presence of two subscribing witnesses, this 5th day of July, 1892.

CHARLES BRANSTON HUNT.

Witnesses:

FREDK. J. NAYLOR,

Notary Public, 140 Leadenhall Street and 19 Change Alley, London.

HAROLD J. MOORE,

19 Change Alley, London, E. C., Notary's Clerk.