No. 735,432. PATENTED AUG. 4, 1903.

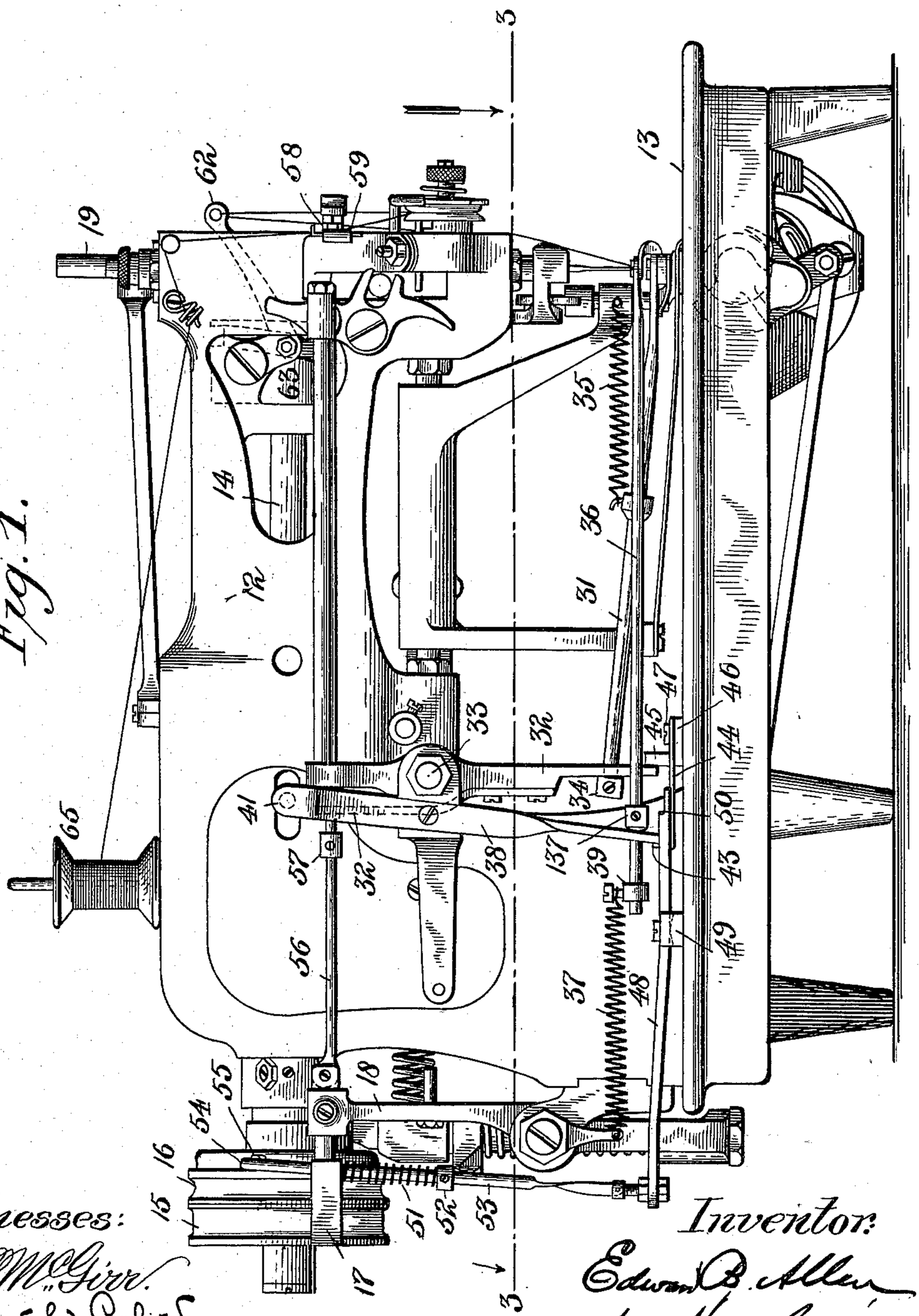
E. B. ALLEN.

THREAD CUTTING DEVICE FOR SEWING MACHINES.

APPLICATION FILED JUNE 13, 1902.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1.

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NO MODEL. 3 SHEETS—SHEET 2.

Fig. 8.

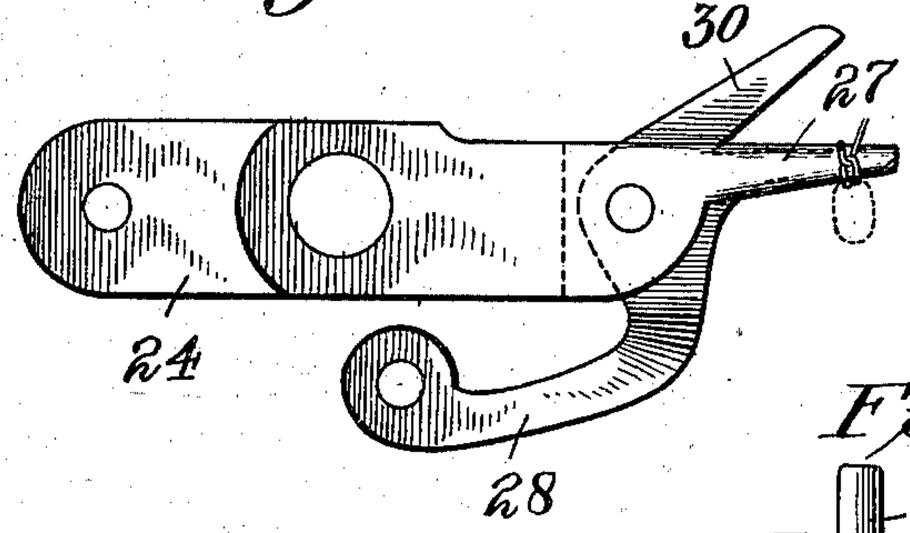



Fig. 9.

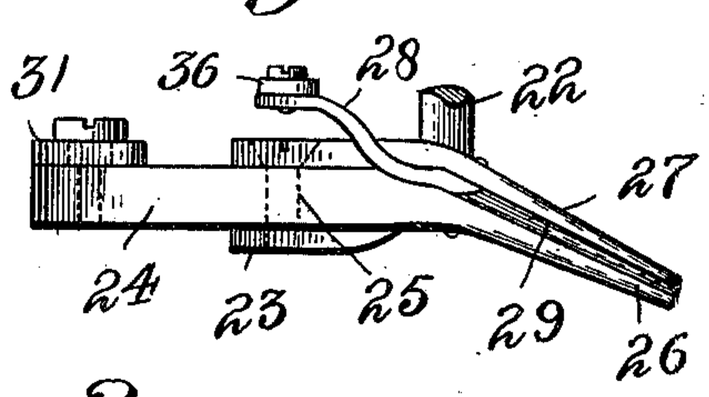



Fig. 2.

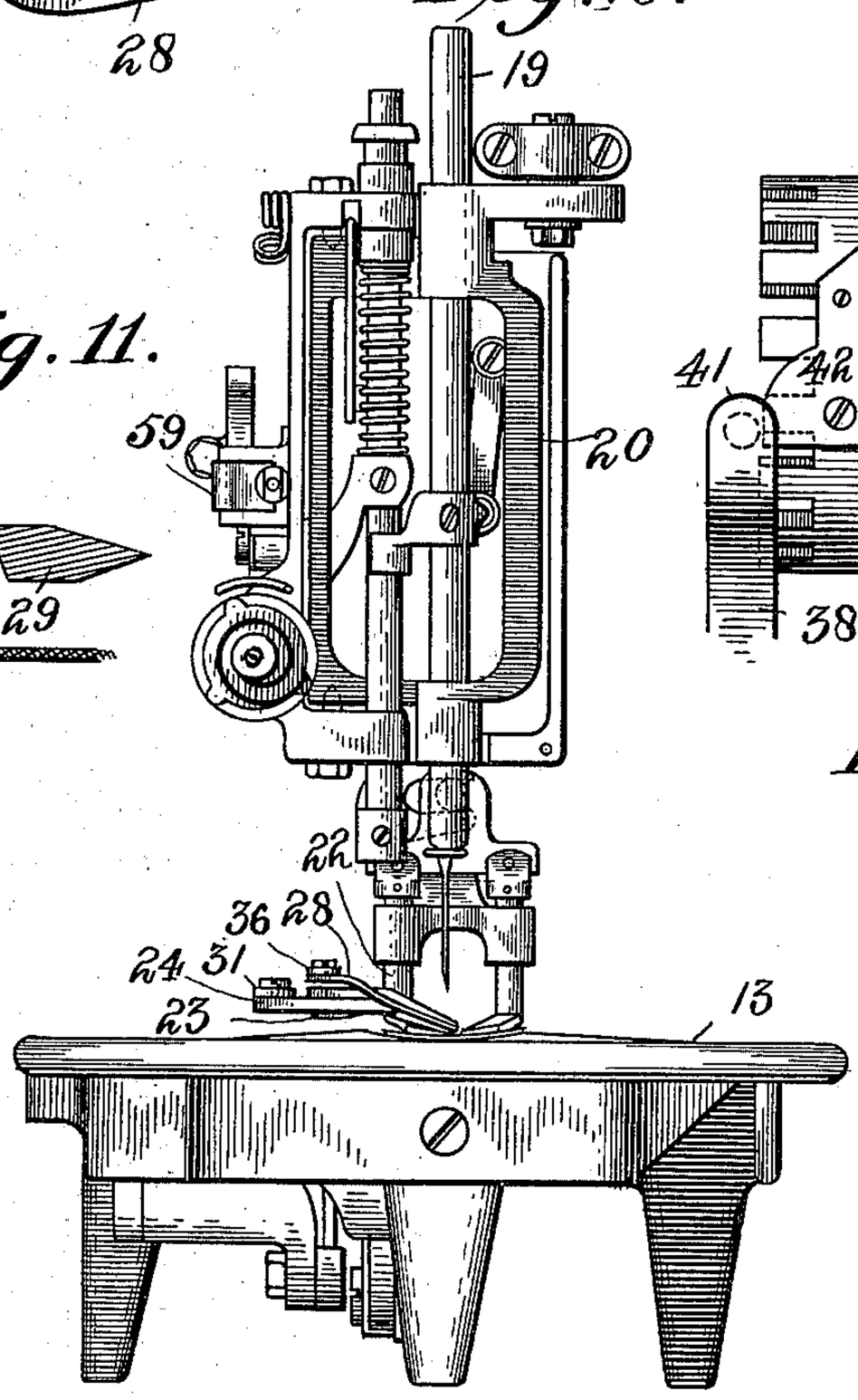
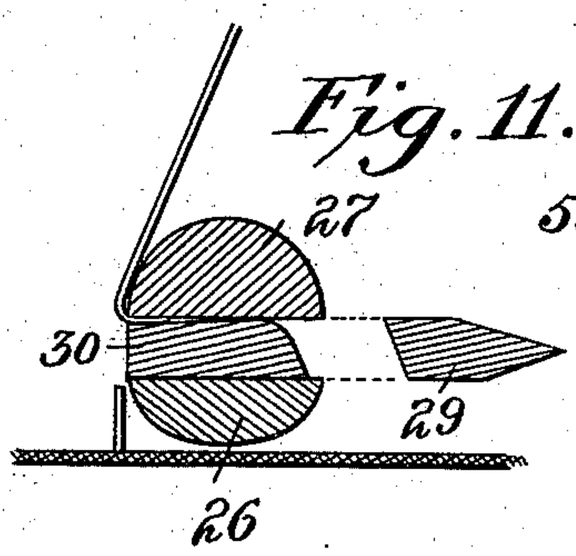



Fig. 11.



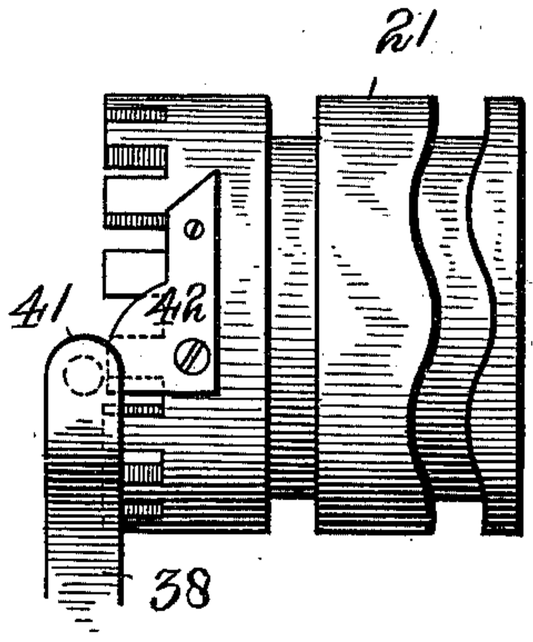
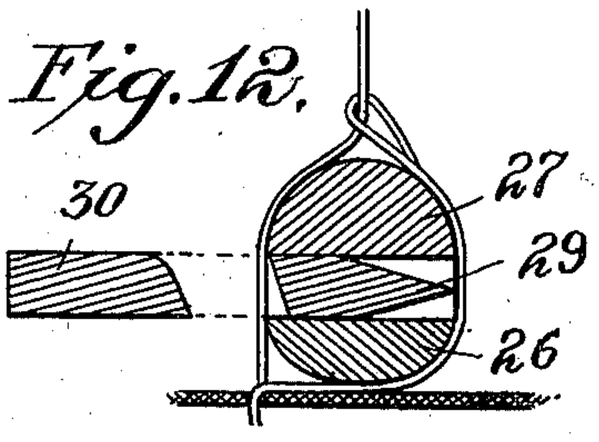




Fig. 10.

Fig. 12.

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# THREAD CUTTING DEVICE FOR SEWING MACHINES.

APPLICATION FILED JUNE 13, 1902.

NO MODEL. 3 SHEETS—SHEET 3.

Fig. 4.

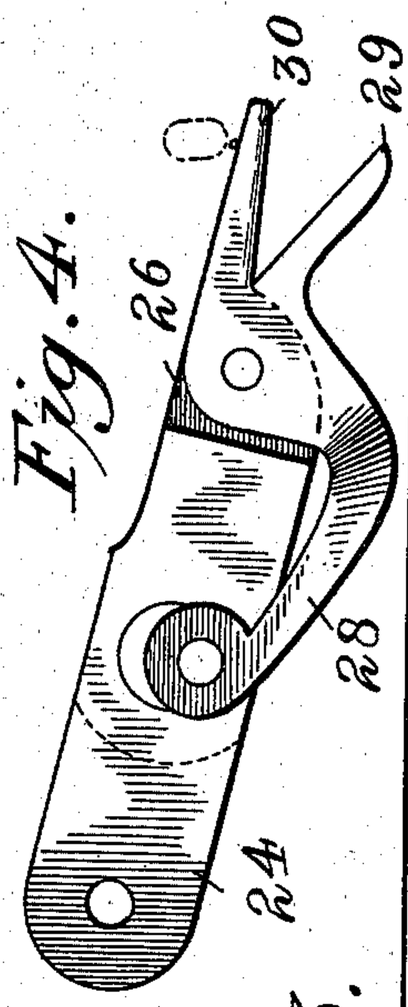


Fig. 3.

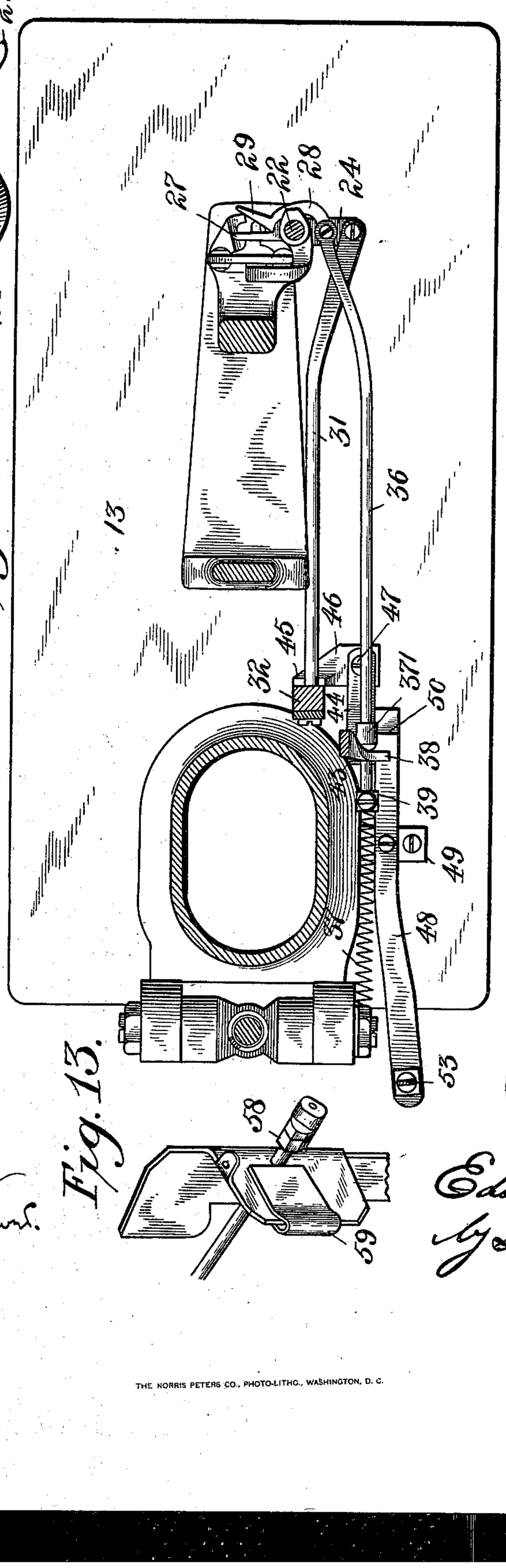


Fig. 6.

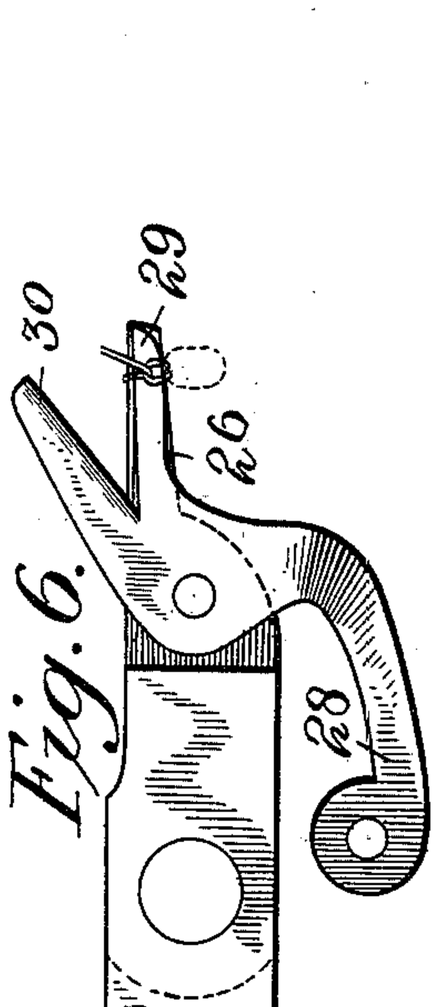


Fig. 1.


Fig. 13.




Fig. 5.


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No. 735,432. Patented August 4, 1903.

# UNITED STATES PATENT OFFICE.

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## THREAD-CUTTING DEVICE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 735,432, dated August 4, 1903.

Application filed June 13, 1902. Serial No. 111,475. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD B. ALLEN, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Thread-Cutting Devices for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has for its object to provide an automatic thread-cutting mechanism for sewing-machines whereby at or after the completion of a group of a predetermined number of stitches—as in barring, staying, stitching buttonholes, sewing on buttons, &c.—the lower or shuttle thread of the machine will be drawn up and severed above the work and the needle-thread will preferably also be automatically severed above the work simultaneously with the severing of the lower thread.

To this end the invention comprises a thread-cutting device arranged above the work and having a knife or blade for severing the lower or shuttle thread, preferably controlled in its action from the stop-motion mechanism of the machine, in combination with automatic means for drawing up a loop or bight of the lower thread at a proper time to bring said lower thread within the range of movement of the said knife or blade, said thread-cutting device also preferably comprising a second knife or thread-cutter and a thread-nipper coöperating therewith to sever the needle-thread at the same time the lower thread is severed and then hold the end of the thread running to the needle until after it is fastened in the work at the next succeeding stitch-forming operation.

In the accompanying drawings, Figure 1 is a side elevation of a "Singer" barring and staying machine with the present invention applied thereto. Fig. 2 is a front end view of the same. Fig. 3 is a plan view, partly in horizontal section on line 3 3, Fig. 1, looking down on the work-plate and showing some of the thread-cutting mechanism in detail. Figs. 4, 5, 6, and 7 are detail views of the thread-cutting device with the parts in different positions in the different views to illustrate their operation, but with the needle-thread-nipping finger omitted for clearness of illustration. Fig. 8 is a view similar to Fig. 6, but showing the thread-nipping finger. Fig. 9 is a detail elevation or edge view of the cutting device. Fig. 10 is a detail view of a part of the cutter opening lever to show its relation to its operating-cam. Fig. 11 is a detail view of the thread-nipping clamp. Fig. 12 is a detail view to show the manner of laying the needle-thread over the thread-finger.

Referring to the drawings, 12 denotes the arm, and 13 the work-plate, of the machine. The driving-shaft 14 is journaled in the upper portion of the arm and is provided with a start and stop motion device of well-known form and comprising a loose pulley 15 and a fast pulley 16, on either of which a power driving-belt may be run by means of a belt-shipper 17, carried by a controlling-lever 18. The needle-bar 19 is mounted in a swinging frame or gate 20, so as to be adapted to be moved horizontally, and the horizontal movements of the needle-bar frame or gate are derived from an intermittingly-rotating cam-cylinder 21, from which horizontal swinging movements of the work-clamp are also derived, all as fully shown and described in United States Patent No. 568,338, granted September 29, 1896, to which reference may be had for a full understanding of such parts of the machine herein shown as do not concern the present invention.

Fixed to the shank 22 of one of the presser-feet forming the upper members of the work-clamp is a plate or bracket 23, on which is mounted a lever 24, pivotally secured to said plate or bracket by a screw 25, said lever supporting the thread-cutting and thread-nipping devices comprising a ledger-blade 26 and a thread-nipping and stitch finger 27, both preferably formed integral with said lever, which in such instance will of course be of steel, as will also be the thread-cutting lever 28, pivoted to the lever 24 between the blade 26 and finger 27, and having the blade 29 for severing the lower or shuttle thread and the blade 30 for severing the needle-thread.

Jointed at its forward end to the lever 24

is a rod 31, passing loosely through the lower arm of a lever 32, pivoted on a stud 33, fixed to the arm 12, said rod having at its rear end a collar 34, held in contact with the said lever 32 by a spring 35, connected with said rod and with the work-clamp. The construction just described affords a loose connection between the lever 32 and the rear end of the rod 31, and which loose connection might be provided for by a ball-and-socket joint or equivalent construction which would permit the forward end of the rod 31 (which is connected with the horizontally-movable work-clamp) to have at times a limited free movement independent of the said lever 32.

The cutter-lever 28 is connected by a rod 36 with a spring 37, which is attached to a collar 39, secured to said rod, and which has a tendency to draw said rod rearward, said rod passing loosely through the lower arm of a lever 38, also pivoted on the stud 33. The rod 36 is provided with a collar 40, which limits the rearward movement of said rod relative to said lever 38 under the influence of said spring, and the upper arm of the said lever 38 is provided with a stud 41, to be engaged at times by a cam 42 on the cam-cylinder 21 to operate the said lever in opposition to the stress of the said spring 37. The rearward movement of the lower arm of the lever 38 under the stress of the said spring 37 is limited by a suitable stop, which in the present instance is an upturned lug 43 on a plate 44, attached to the work-plate 13, and the forward movement of the lower arm of the lever 32 under the stress of the spring 35 is similarly limited by a suitable stop, consisting in the present instance of an upturned lug 45 on a plate 46, also attached to the work-plate by the screw 47, which serves to hold the plate 44 in place.

It is necessary when the needle-thread has been severed that the cutting device should remain closed to retain the end of the thread in the nipper until the said thread has been secured to the work at the formation of the next group of stitches, after which the cutting device must be opened for the next thread-cutting operation. When the cutting device is closed, the lower end of the lever 38 is against the stop 43, with the stud 41 at the upper end of said lever in such position as to be in the path of movement of the cam 42, which will come into contact with the said stud after two or three stitches of the next group have been formed and so as to move the lower arm of said lever forward away from the said stop, and thus acting on the collar 39 will move the rod 36 forward to open the cutting device. In such forward movement of the lower arm of the lever 38 it rides over the forward end of a latch-lever 48 (loosely mounted for a limited vertical movement on a block 49, attached to the work-plate 13) until it passes a stop-shoulder 50, when the said shoulder will be lifted into holding engagement with the said lever 38. To this end the rear end of the said latch-lever is forced yieldingly downward by a coil-spring 51, acting on a collar 52, secured to a rod 53, connected at its lower end to said latch-lever 48 and having at its upper end a hook 54 to engage a tripping-pin 55 on the fast pulley 16, said tripping-pin being so located on said pulley that it will engage the said hook 54 and lift the rod 53 slightly just before the said pulley comes to rest when the machine is automatically stopped at the completion of a group of stitches. When the said latch-lever is thus tripped, the spring 37 suddenly draws the rod 36 rearward to operate the cutters to sever the threads, as will hereinafter appear.

The rod 53 has a jointed connection near its lower end with the latch-lever 48, so that the upper end of said rod is free to follow the back-and-forth movements of the belt-shipper 17, with which the upper part of said rod is loosely connected, so that when the said belt-shipper is in a position to guide the driving-belt on the fast pulley 16 the hook 54 will be out of the path of movement of the tripping-pin 55 on said fast pulley; but when the belt-shipper is moved to transfer the belt to the loose pulley 15 the said hook is brought into the path of movement of the said tripping-pin.

Connected with the belt-shipper 17 is a rod 56, having a collar 57 arranged to engage the upper arm of the lever 32, through which the said rod 56 loosely passes, said rod having at its forward end a suitable abutment, as nut 58, arranged when the said rod is drawn rearward by the belt-shipper to engage a yielding arm or spring of a thread-clamp 59 to grip the needle-thread passing through the said thread-clamp from the spool 65 or other thread-supply to the take-up 62, such thread-gripping action occurring when the belt-shipper is moved rearward to shift the belt to the loose pulley to stop the machine. The collar 57 is so located on the rod 56 that when the machine is running the rod 31 will hold the lever 24 in such position that the finger 27 will be forward or outside of the vertical plane of the needle 60, as indicated by the positions of the parts in Figs. 4 and 5, in which the vertical plane of the needle will be understood by the dotted needle-throat 61; but when the belt-shipper is moved to stop the machine (one stitch, due to momentum, being formed after the belt-shipper is thus moved) the said lever 24 is shifted by the spring 35 to move the finger 27 to the thread-cutting position denoted by Figs. 6, 7, and 8.

The operation of the invention is as follows: When the machine is stopped, the parts of the thread-cutting device will be in the position shown in Fig. 3, with the needle-thread-cutting parts of the cutter closed and with the finger 27 inside or rearward of the vertical plane of the needle. When the belt-shipper is moved to start the machine, the collar 57 on the rod 56, connected with the belt-

shipper, strikes the upper arm of the lever 32, which through the rod 31 swings the lever 24 into the position shown in Fig. 4, with the finger 27 outside or forward of the vertical plane of the needle, but without opening the needle-thread cutting and nipping device, so that the end of the needle-thread will still be retained by the thread-nipper and will be held close to the needle-throat. Owing to the fact that the jointed connection of the cutter-operating rod 36 with the cutter-lever 28 is (when the cutter is closed) coincident, or substantially so, with the vertical plane of the fulcrum of the said lever 24, the said lever 24 may be moved without any relative movement of the said cutter-lever when the needle-thread cutting and nipping device is closed, as will be understood. After the machine has been started and the needle-thread has been attached to the work by the formation of two or three stitches the cam 42 engages the stud 41 at the upper end of the lever 38, causing the lower arm of said lever to engage the collar 40 on the rod 36 to move said rod forward to operate the cutter-lever and open the needle-thread cutting and nipping device, as indicated by Fig. 5, this movement of the cutter-lever also bringing the lower thread-cutting blade into register with the ledger-blade 26 and the finger 27, which overlies the said ledger-blade, but which finger 27 is omitted from Figs. 4, 5, 6, and 7 for clearness of illustration of the other parts, although shown in Fig. 8. The parts of the cutting device remain in the positions indicated by Fig. 5 until the stop-motion-controlling lever 18 is tripped, when the rearward movement of the belt-shipper will withdraw the collar 57 from the upper arm of the lever 32, thus permitting the spring 35 to draw the rod 31 and the lower arm of the said lever 32 forward to swing the lever 24 to the position denoted by Fig. 6 to bring the ledger-blade 26 and the finger 27 inside or rearward of the vertical plane of the needle. When the machine is running by power at the usual speed, the incidental momentum will cause nearly a complete rotation of the driving-shaft to be performed after the belt-shipper has started to move to stopping position, and the needle will consequently make another stroke to form another stitch after the belt-shipper has started to move to stopping position, and in making this last stitch the needle will lay its thread over the finger 27 and the lower-thread-cutting blade 29, as indicated in Figs. 6 and 8. When the belt-shipper reaches its final stopping position, the abutment on the rod 56 acts on the thread-clamp 59 and the needle-thread will be gripped by the said thread-clamp, so that when the take-up 62 (operated, as usual, from the cam 63 on the driving-shaft) reaches its highest or final thread-tightening position it cannot draw needle-thread from the thread-supply, as usual, and it will therefore, owing to such thread-gripping or thread-stopping action, draw up a bight of lower or shuttle thread, (running up from the shuttle 64,) with which said needle-thread is interlooped, over the finger 27 and also over the lower-thread-cutting blade 29, as will be understood from Fig. 12, and the needle-thread will also at this time extend up across the ledger-blade 26 and also across the path of movement of the needle-thread-cutting blade 30. With the threads disposed as indicated in Figs. 6 and 8 a sudden movement of the cutter-lever from the position shown in said figures to the position shown in Figs. 3 and 7 causes the keen forward edge of the blade 29 to sever the lower or shuttle thread quite close to the work, and the blade 30 will also sever the needle-thread and nip the end thereof running to the needle between the upper dull-edged side of said blade 30 and the thread-nipping finger 27, where it will be retained until released after the commencement of the next stitch-forming operation, as already described. The cutter-lever is operated to sever the threads at the finish of the machine-stopping operation, owing to the tripping of the latch-lever 48 to release the cutter-operating rod 36 from the pin 55 on the fast pulley acting through the hooked rod 53, as has been stated.

The invention is not to be understood as being limited to the details of construction herein shown and described, as these may be varied widely without departing from the essential feature of the invention, consisting, broadly, in mechanism for drawing up and severing the lower or shuttle thread above the work-plate of a two-thread sewing-machine and preferably, also, simultaneously therewith severing the needle-thread by the same thread-cutting device which severs the lower thread and nipping the severed end of the needle-thread above the work.

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

1. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of mechanism for drawing up and severing the lower thread above the and adjacent to the work without removing or releasing the latter from its holding means.

2. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of automatic means for drawing up and severing the lower thread above and adjacent to the work.

3. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a thread-cutting device comprising mechanism for drawing up the lower thread and for severing both threads above the work without removing or releasing the latter from its holding means.

4. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a thread-cutting device comprising automatic means for drawing up the lower thread and for severing both

threads, above the work, and also for nipping and holding the end of the upper or needle thread until it has been attached to the work by stitches succeeding the thread-severing operation.

5. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices and a stop-motion mechanism through the instrumentality of which groups each comprising a predetermined number of stitches may be formed, of mechanism for drawing up and severing the lower thread above the work, without disturbing or releasing the latter, at the completion of a stitch-forming operation.

6. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices and a stop-motion device for arresting the operation of the stitch-forming mechanism when a group of a predetermined number of stitches has been formed, of automatic means for drawing up and severing the lower thread above the work at the completion of a stitch-forming operation.

7. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices and a stop-motion device for automatically arresting the operation of the stitch-forming mechanism, when desired, of an automatic thread-cutting device, controlled by said stop-motion device, for drawing up and severing the lower thread above the work at the completion of a stitch-forming operation.

8. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, and a stop-motion device for automatically arresting the operation of the stitch-forming mechanism, when desired, of an automatic thread-cutting device for drawing up and severing both threads above the work at the completion of a stitch-forming operation.

9. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, and a stop-motion device for automatically arresting the operation of the stitch-forming mechanism when desired, of an automatic thread-cutting device, controlled by said stop-motion device, for drawing up the lower thread and for severing both threads above the work at the completion of a stitch-forming operation.

10. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, and a stop-motion device for automatically arresting the operation of the stitch-forming mechanism, when desired, of an automatic thread-cutting device for drawing up the lower thread and for severing both threads above the work at the completion of a stitch-forming operation, and means for holding the end of the upper or needle thread until it has been attached to the work by stitches succeeding the thread-severing operation.

11. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, and a stop-motion device for automatically arresting the operation of the stitch-forming mechanism, when desired, of an automatic thread-cutting device, controlled by said stop-motion device, for drawing up the lower thread and for severing both threads above the work at the completion of a stitch-forming operation, and means for holding the end of the upper or needle thread until it has been attached to the work by stitches succeeding the thread-severing operation.

12. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a thread-cutting device for severing the lower thread above the work and comprising a finger located above the work and a lower thread-severing blade or cutter below said finger, and automatic means for bringing up the lower thread to cutting position.

13. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a thread-cutting device for severing both threads above the work and comprising a finger located above the work and a double-bladed thread-cutter working beneath said finger, and automatic means for bringing up the lower thread to cutting position.

14. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, an automatic thread-cutting device comprising a thread-nipping finger located above the work and a double-bladed thread-cutter working beneath said finger, and automatic means for bringing up the lower thread to cutting position.

15. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, an automatic thread-cutting device comprising a thread-nipping finger located above the work and a double-bladed thread-cutter working beneath said finger, means for drawing up the lower thread to cutting position, and means, controlled by said stop-motion device, for actuating said cutter at the completion of a stitching operation.

16. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, an automatic thread-cutting device comprising a thread-nipping finger located above the work, and a double-bladed thread-cutter working beneath said finger, means for drawing up the lower thread to cutting position, mechanism, controlled by said stop-motion device, for actuating the said thread-cutter at the completion of a stitching operation, and automatic means for releasing the end of the upper or needle thread, held by the thread-nipper, after the said needle-thread has been attached to the work by stitches succeeding the thread-severing operation.

17. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a cutter, for severing the lower thread, located above but adjacent to the work-plate or throat-plate, means for operating the said cutter, a thread-drawing device acting on the upper or needle thread, and a thread-clamping device operated to clamp the needle-thread between the said thread-drawing device and the thread-supply just before the time of the thread-cutting operation, so that the said thread-drawing device, acting through the needle-thread, will draw up the lower thread into position to be severed above the work by the said cutter.

18. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a cutter, for severing the lower thread, located above but adjacent to the work-plate or throat-plate, means for operating the said cutter, a take-up for the upper or needle thread, and a thread-clamping device operated to clamp the needle-thread between the said take-up and the thread-supply just before the time of the thread-cutting operation, so that the said take-up, acting through the needle-thread, will draw up the lower thread into position to be severed above the work by the said cutter.

19. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a thread-cutter, located above the work-plate, for severing the lower thread above the work, means for operating said cutter, a thread-drawing device acting on the upper or needle thread, and a thread-clamping device arranged to act on the said upper or needle thread, between the said thread-drawing device and the thread-supply, at the time of the thread-drawing operation so that the said thread-drawing device, acting through the needle-thread, will draw up the lower thread into position to be severed above the work by the said thread-cutter.

20. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a thread-cutter, located above the work-plate, for severing the lower thread above the work, means, controlled by the said stop-motion device, for operating said cutter, a thread-drawing device acting on the upper or needle thread, and a thread-clamping device arranged to act on the said upper or needle thread, between the said thread-drawing device and the thread-supply, at the time of the thread-drawing operation; so that the said thread-drawing device, acting through the needle-thread, will draw up the lower thread into position to be severed above the work by the said thread-cutter.

21. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a thread-cutter, located above the work-plate, for severing the lower thread above the work, means for operating said cutter, a thread-drawing device acting on the upper or needle thread, and a thread-clamping device controlled by said stop-motion device and arranged to act on the said upper or needle thread, between the said thread-drawing device and the thread-supply, at the time of the thread-drawing operation; so that the said thread-drawing device, acting through the needle-thread, will draw up the lower thread into position to be severed above the work by the said thread-cutter.

22. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a thread-cutter, located above the work-plate for severing the lower thread above the work, means for operating said cutter, a take-up device for the upper or needle thread, a thread-clamping device, arranged to act on the said needle-thread, between the said take-up and the thread-supply, just before the time of the thread-cutting operation, so that the said take-up, acting through the needle-thread, will, after a certain stitch has been tightened in the usual manner, draw up the lower thread into position to be severed by the said thread-cutter, instead of drawing needle-thread from the thread-supply, as usual.

23. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a thread-cutter, located above the work-plate, for severing the lower thread above the work, means, controlled by said stop-motion device, for operating said cutter, a take-up device for the upper or needle thread, a thread-clamping device arranged to act on the said needle-thread, between the said take-up and the thread-supply, just before the time of the thread-cutting operation; so that the said take-up, acting through the needle-thread, will, after a certain stitch has been tightened in the usual manner, draw up the lower thread into position to be severed by the said thread-cutter, instead of drawing needle-thread from the thread-supply, as usual.

24. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a thread-cutter, located above the work-plate, for severing the lower thread above the work, means for operating said cutter, a take-up device for the upper or needle thread, a thread-clamping device, controlled by said stop-motion device, arranged to act on the said needle-thread, between the said take-up and the thread-supply, just before the time of the thread-cutting operation, so that the said take-up, acting through the needle-thread, will, after a certain stitch has been tightened in the usual manner, draw up the lower thread into position to be severed by the said thread-cutter, instead of drawing needle-thread from the thread-supply, as usual.

25. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a double thread-cutter, located above the work-plate, for severing both threads above the work, means for operating said thread-cutter, a thread-nipping device for holding the end of the upper or needle thread when severed, a thread-drawing device acting on the upper or needle thread, a thread-clamping device arranged to act on the needle-thread between the said thread-drawing device and the thread-supply just before the time of the thread-cutting operation, to enable the said thread-drawing device, acting through the upper or needle thread, to draw up the lower thread into position to be severed by the said thread-cutter at the same operation at which the upper or needle thread is severed.

26. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a double thread-cutter, located above the work-plate, for severing both threads above the work, means, controlled by said stop-motion device, for operating said thread-cutter, a thread-nipping device for holding the end of the upper or needle thread when severed, a thread-drawing device acting on the upper or needle thread when severed, a thread-clamping device arranged to act on the needle-thread between the said thread-drawing device and the thread-supply just before the time of the thread-cutting operation; to enable the said thread-drawing device, acting through the upper or needle thread, to draw up the lower thread into position to be severed by the said thread-cutter, at the same operation at which the upper or needle thread is severed, and means for operating said thread-cutter.

27. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices, of a stop-motion device, a double thread-cutter, located above the work-plate, for severing both threads above the work, means for operating said thread-cutter, a thread-nipping device for holding the end of the upper or needle thread when severed, a thread-drawing device acting on the upper or needle thread, a thread-clamping device controlled by said stop-motion device and arranged to act on the needle-thread between the said thread-drawing device and the thread-supply, just before the time of the thread-cutting operation, to enable the said thread-drawing device, acting through the upper or needle thread, to draw up the lower thread into position to be severed by the said thread-cutter at the same operation at which the upper or needle thread is severed.

28. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices and a plate having a needle-throat, of a thread cutting and nipping device above but closely adjacent to the said needle-throat and comprising means for severing both threads above the work, and a finger coöperating with a cutting-blade to hold the end of the upper or needle thread when severed, a movable support or lever carrying the said thread cutting and nipping device, means for operating the said thread cutting and nipping device, means for moving said movable support or lever so that said finger will be at one side of said needle-thread when the stitching commences and also during the general stitching operation, but will be moved to the other side of said throat for the last of a series of stiches, to enable the needle to carry its thread over said finger and will remain in the last-named position for the thread-cutting operation, and means, acting through the upper needle-thread, for drawing up the lower thread into contact with said finger in position to be severed above the work.

29. In a sewing-machine, the combination with upper and lower thread carrying stitch-forming devices and a plate having a needle-throat, of a thread-cutting and thread-nipping device above but closely adjacent to said needle-throat and comprising suitable blades for severing both threads and a thread-finger above the work, and which thread-finger, in coöperation with a blade, holds the end of the upper or needle thread when severed; a movable support carrying the said thread cutting and nipping device, a stop-motion device, means, controlled by said stop-motion device, for operating the said thread-cutting device for closing the cutting and nipping device, means, independent of the said stop-motion device, for opening the cutting and nipping device, and means for changing the position of the said movable support or lever to move the thread cutting and nipping device to opposite sides of the said needle-throat; so that the threads will be cut and the needle-thread nipped on one side of said throat and the said needle-thread will be subsequently released on the other side of said throat.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD B. ALLEN.

Witnesses:
HENRY J. MILLER,
HENRY A. KORNEMANN.