No. 619,624. Patented Feb. 14, 1899.

# J. R. SCOTT & C. DANCEL.

## SEWING MACHINE.

(Application filed Apr. 7, 1898).

(No Model.) 3 Sheets—Sheet 1.

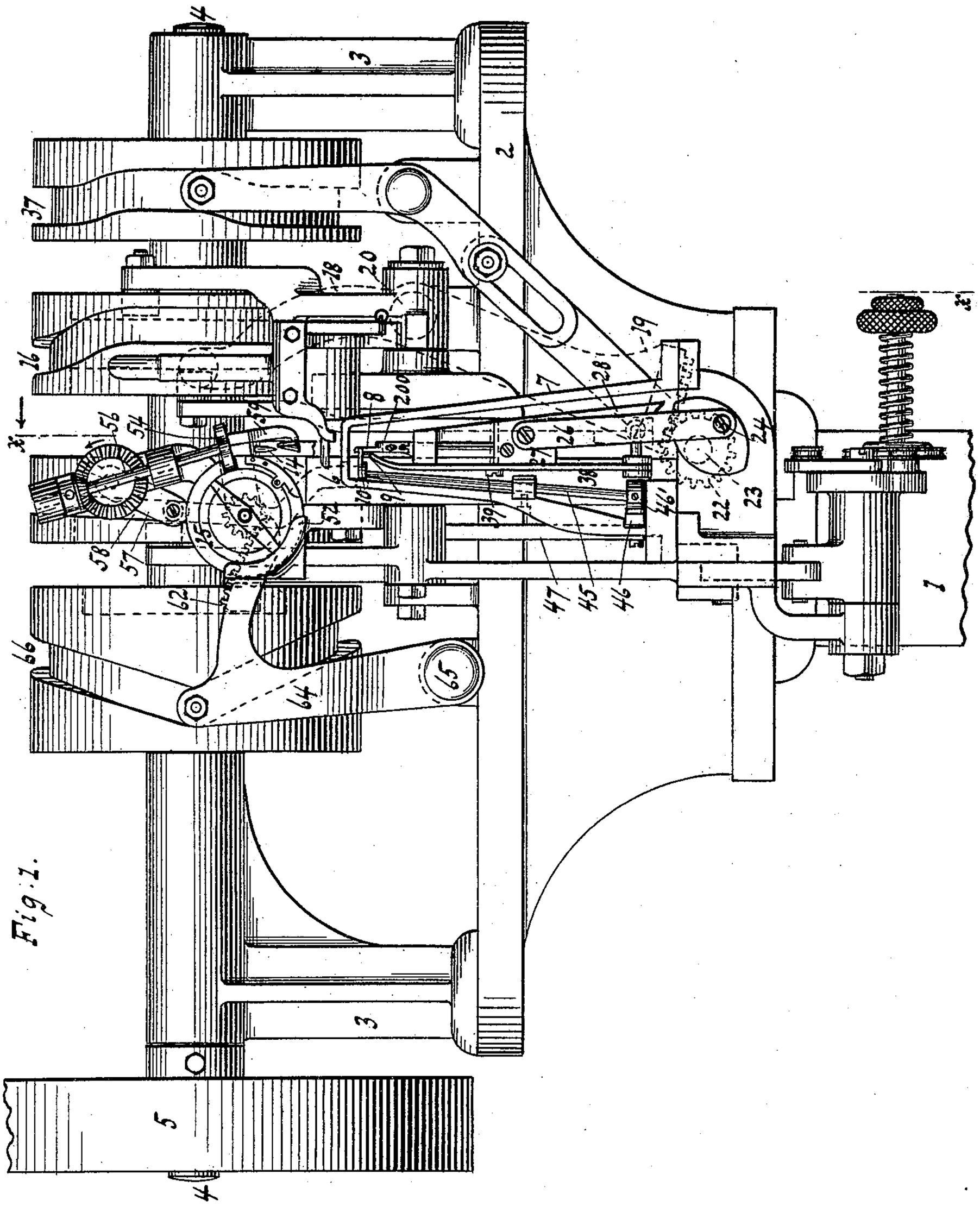


Fig. 1.

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Fig. 2.

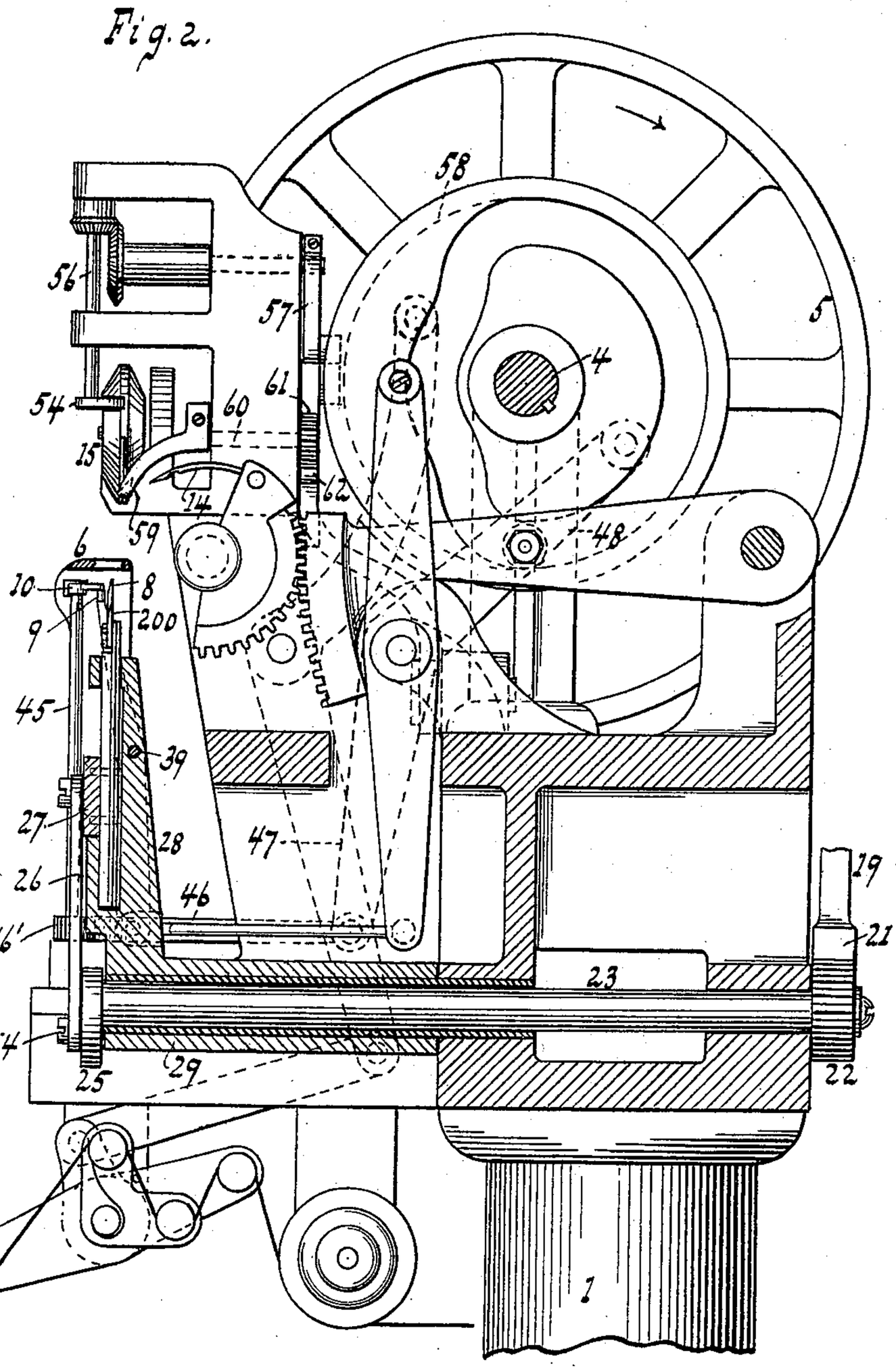
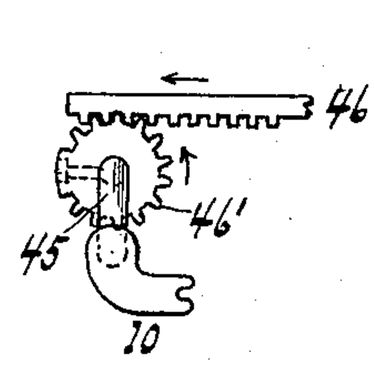



Fig. 3.

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(No Model.) 3 Sheets—Sheet 3.

Fig. 4.

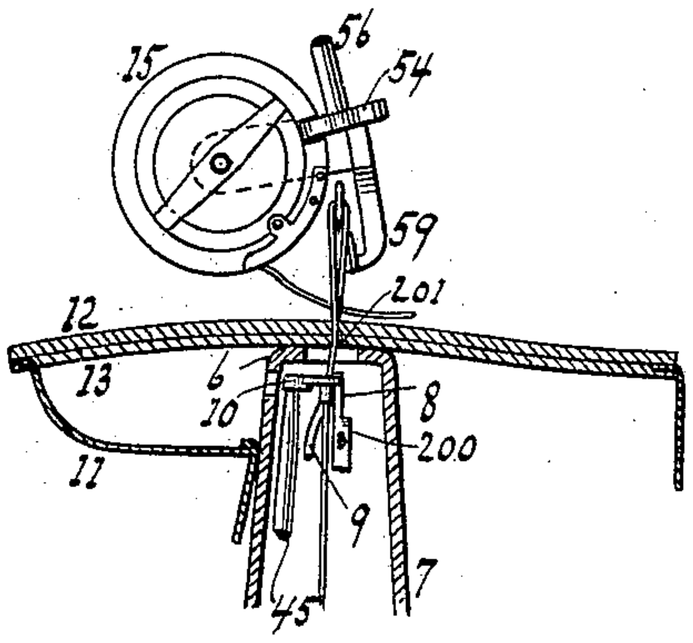



Fig. 5.

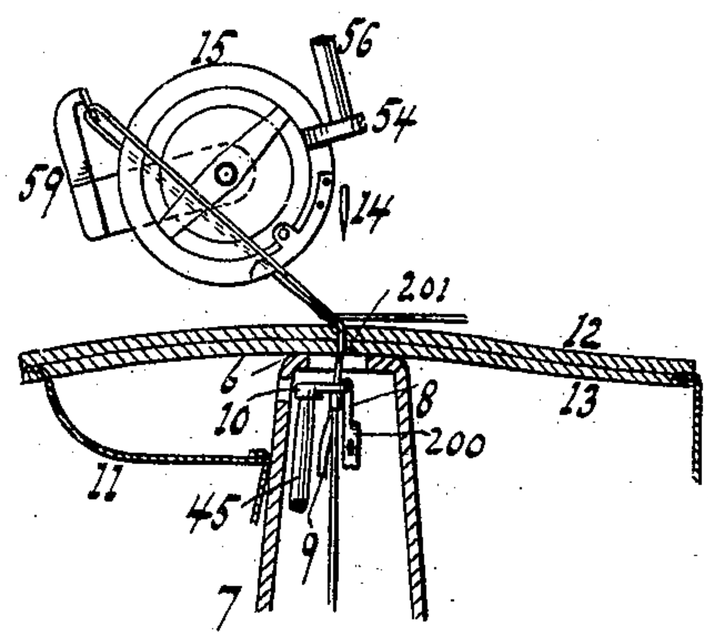



Fig. 6.

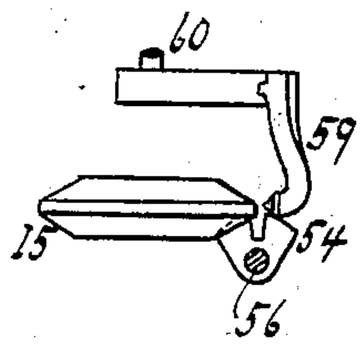



Fig. 7.

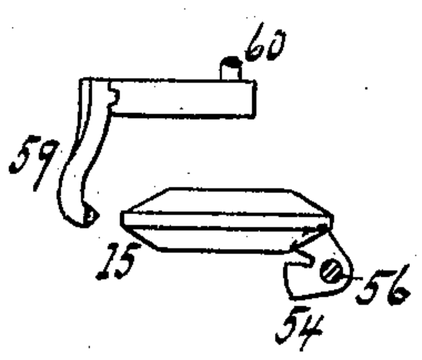



Fig. 8.

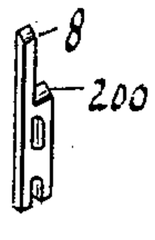
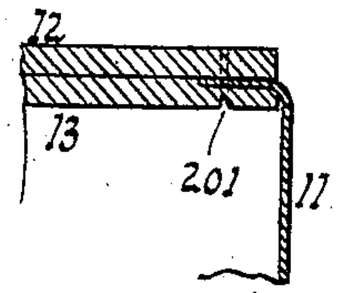



Fig. 9.

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# UNITED STATES PATENT OFFICE.

JACOB R. SCOTT AND CHRISTIAN DANCEL, OF NEW YORK, N. Y.; MARY DANCEL AND CHRISTIAN DANCEL ADMINISTRATORS OF SAID DANCEL, DECEASED.

## SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 619,624, dated February 14, 1899.

Application filed April 7, 1898. Serial No. 676,809. (No model.)

*To all whom it may concern:*

Be it known that we, JACOB R. SCOTT, residing at New York, in the county of New York, and CHRISTIAN DANCEL, residing at New York, (Brooklyn,) in the county of Kings, State of New York, citizens of the United States, have invented new and useful Improvements in Sewing-Machines, of which the following is a specification.

This invention relates to certain improvements in sewing-machines of the kind described in United States Letters Patent No. 584,675, granted June 15, 1897, said improvements being set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a front elevation of a sewing-machine. Fig. 2 is a section along *x x*, Fig. 1. Fig. 3 is a detail view of the thread-measurer. Fig. 4 shows the revolving hook in one position. Fig. 5 shows the revolving hook after having drawn a loop of thread over the thread-case. Fig. 6 is a plan view of Fig. 4. Fig. 7 is a plan view of Fig. 5. Fig. 8 shows a cutter or channeler and awl. Fig. 9 shows a portion of a shoe or work with an inner channel.

As already explained in said patent, the machine resting on column 1 comprises a base 2, bearings 3, cam-shaft 4, driver 5, work-support 6, with chambered support 7, awl 8, Fig. 2, looper 9, thread-measurer 10, and needle 14 for operating on the work 11 12 13. The machine shown is of the lock-stitch kind, having thread-case 15.

The awl-driving parts comprise cam 16, lever 18 19, fulcrumed at 20, and by gears 21 22, drive-shaft 23, with eccentric 24, and link 26, with awl-carrying slide 27. The cam 37 for giving feed motion to the awl or to guide 28 is shown in Fig. 1.

The eye or looper 9 is carried by lever 38, Fig. 1, fulcrumed at 39 on the guide of slide 27, so as to partake of the lateral or feed motion of this guide 28. The looper-lever 38 being reciprocated back and forth and the fulcrum 39 being reciprocated laterally, the four motions are given to the looper.

The thread-measurer is carried by or forms part of a rock-shaft 45, Figs. 1, 2, and 3, which being somewhat inclined, as seen in Fig. 1, appears in perspective in the plan view, Fig. 3. The link 46 is toothed or rack-shaped and engages gear 46′, Fig. 3, on shaft 45, said link 46 being connected to lever 47 48, actuated by a cam on shaft 4. As the lever-arm 47 and link 46 oscillate, the shaft 45, with measurer 10, is rocked or given a suitable movement—say about a quarter-turn—to measure thread, as required.

The thread-case 15 is held on seat 52, Fig. 1, by arm 54, Figs. 4, 5, 6, and 7, on rock-shaft 56. This arm 54 is slotted or fork-shaped and engages into a slot in the edge of case 15. The arm or crank 57, Fig. 2, is oscillated by cam 58 and connects by gears with shaft 56, so that at suitable moments the arm or fork 54 is swung to the position shown in Figs. 5 and 7 to allow the thread loop to slip back or over the thread-case. At the same time the arm 54 does not release its hold on the thread-case, so that the latter cannot leave its seat or place.

The revolving hook 59, Figs. 4 to 7, extends from rock-shaft 60, Fig. 2, which by gear 61 engages the rack or arm 62, Fig. 1, extending from lever 64, fulcrumed at 65 and actuated by cam 66. When the needle draws up a loop of thread, Fig. 4, the revolving hook 59, seizing such loop, carries the same about the thread-case to the position shown in Fig. 5, where the loop then leaves or slips off the revolving hook. When the needle draws up a thread loop, a shank of said loop rests in the slot or cut of arm 54, which latter is at the time in the position shown in Fig. 6. When the revolving hook 59 has reached the position shown in Fig. 5, the slotted holder or arm 54 has moved to the position shown in Fig. 7, allowing such thread shank to pass or slip out of the cut or recess in arm 54 and past the thread-case, as indicated by the front shank of the thread loop. (Shown in Fig. 5.) In case such thread shank should tend to stick to the thread-case the fork 54 will force or strip such thread shank free from the thread-case.

Secured to or moving with awl 8 is a cutter or channeler 200, Figs. 2, 5, and 8, and as the awl pierces and feeds the work the blade or cutter 8 forms a channel 201, Fig. 9, at the insole 13 or interior of the work. The thread or seam lies in this inner channel so as not

to protrude. The interior of the work is thus left smooth. The cutter 200 being properly set or adjusted will form the channel 201 of the required depth. The actuation of the thread-measurer, it is noticed, is independent of that of the awl and looper.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a shoe-sewing machine, a shoe-support made to enter the shoe, an awl made to act from the support to the shoe and outward through the latter, and a cutter made to act with the awl, in combination with sewing mechanism and means for actuating the said awl and cutter, substantially as described.

2. A shoe-sewing machine comprising a shoe-support, combined with a cutter, an awl, a looper and a thread-measurer located at one side of the support, and a needle located at the opposite side of the support substantially as described.

3. In a shoe-sewing machine a support over which the shoe is adapted to be fitted, an awl made to pierce outward from said support and to move laterally for feeding the shoe, and a cutter made to move with the awl for channeling the interior of the shoe, in combination with sewing mechanism, and means for actuating the said awl and cutter, substantially as described.

4. In a shoe-sewing machine a suitably-actuated needle and stitch-forming mechanism complemental thereto, a suitably-actuated awl and awl-support, in combination with a cutter carried by the awl-support, a thread-measurer, and actuating mechanism substantially as described for the measurer.

5. A sewing-machine comprising an awl, a reciprocating arm for guiding the awl, a looper mounted on and made to reciprocate with the arm, and a thread-measurer and rock-shaft mounted independently of the arm substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

JACOB R. SCOTT.
CHRISTIAN DANCEL.

Witnesses:
W. C. HAUFF,
E. F. KASTENHUBER.