

No. 880,133.

PATENTED FEB. 25, 1908.

J. FINK.
SEWING MACHINE.

APPLICATION FILED MAR. 2, 1907.

2 SHEETS—SHEET 1.

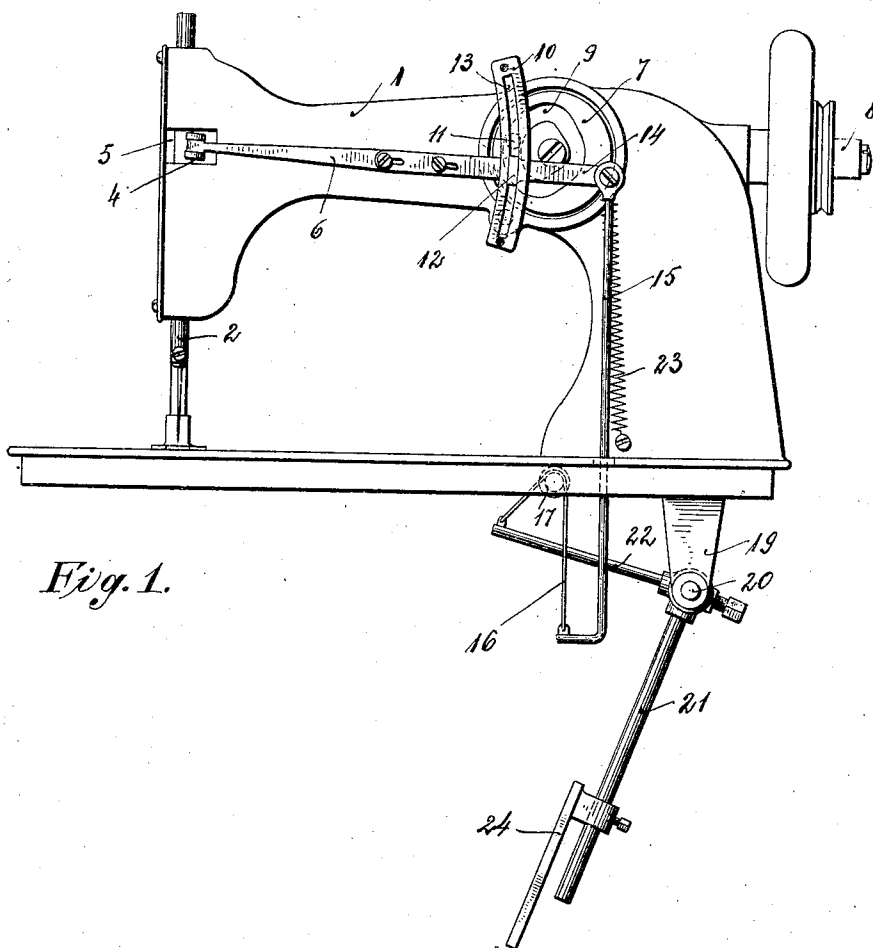
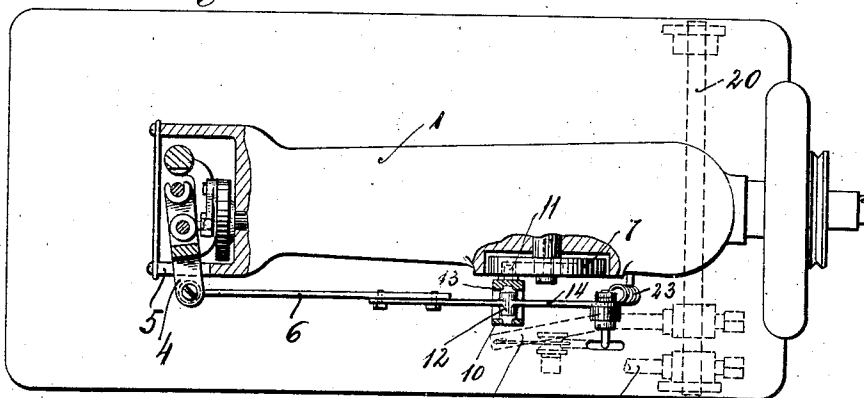


Fig. 1.

Fig. 2.



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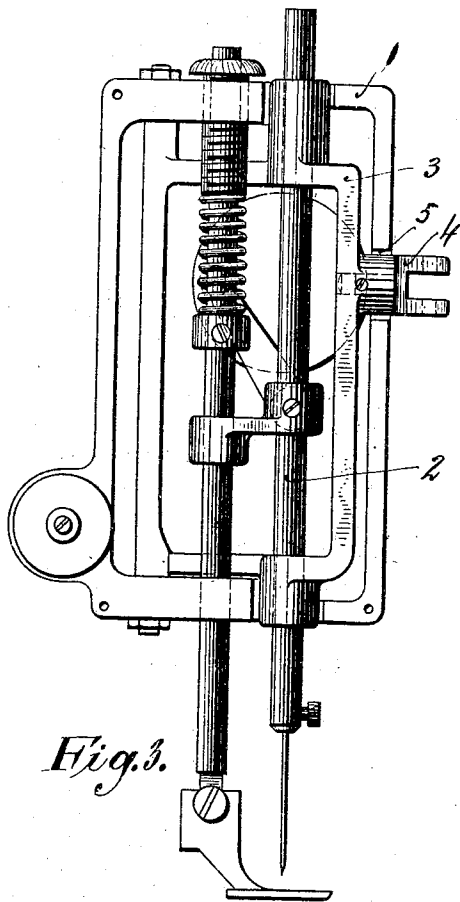


Fig. 3.

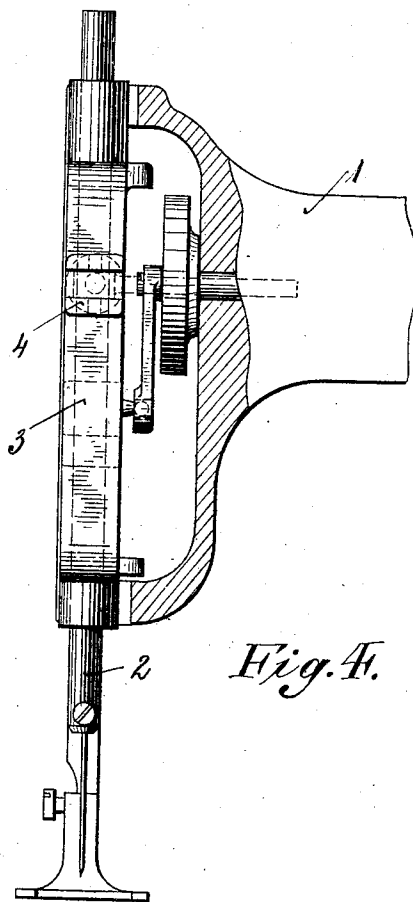


Fig. 4.

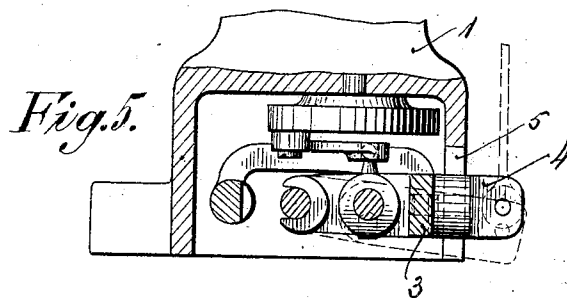


Fig. 5.

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UNITED STATES PATENT OFFICE.

JOHN FINK, OF NEW YORK, N. Y.

SEWING-MACHINE.

No. 880,133.

Specification of Letters Patent.

Patented Feb. 25, 1908.

Application filed March 2, 1907. Serial No. 360,238.

To all whom it may concern:

Be it known that I, JOHN FINK, a citizen of the United States, and a resident of New York, county and State of New York, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a specification.

The present invention pertains to sewing machines, and more particularly to an appliance therefor, whereby zig zag stitches varying from the width of a single seam line to any desired width can be attained and which allows of the controlling of the width of the stitches by hand, foot or knee, during the operation of the machine:

Hitherto, to obtain different widths in the stitches, an adjusting device has been used that permits of the adjustment of the needle only when the machine is at rest, so that the latter cannot be used for the production of patterns of different shape, as flowers or the like, which is possible with my appliance, so far as the adjustment of the needle for different widths of the zig zag stitches can take place while the machine is in operation.

To make my invention more clear, I have illustrated the same in the accompanying drawings, in which similar reference numerals denote corresponding parts and in which Figure 1 is a side view of the sewing machine equipped with my device; Fig. 2 a top plan view thereof, partly in section; Fig. 3 a front view of the machine, from which the cover at the forward end of the machine frame is removed; Fig. 4 is a vertical section of the forward end thereof, and Fig. 5 is a cross section through Fig. 3.

With reference to the drawings, 1 denotes the frame of the sewing machine, the latter being of ordinary construction and having the needle bar 2 secured in a swinging bracket 3. The latter has a bifurcated projection 4 which extends through the aperture 5 in the frame of the machine, and to which an extendible pitman 6 is hinged.

7 is a circular disk at the rear end of the machine that is geared to the driving shaft 8 and that is provided with a cam groove 9.

10 is a connection link that has a projecting pin 11 guided in the cam groove 9, whereby the connecting link 10 during the rotation of the cam disk 7 is given an oscillating movement.

12 is a slide, movable in guide grooves 13 in the connecting link and connected or integral with the pitman 6. According to the

adjustment of the slide 12 within the link 10 the width of the stitches can be varied at will.

Thus far, the device is old. Hitherto, for the purpose of effecting the said adjustment, a set screw has been used, upon the slackening of which the position of the slide could be changed. This adjustment, however, could take place only when the machine was at rest.

The novel feature of my invention consists now in the provision of means whereby the adjustment of the slide 12 can be accomplished by foot, knee or hand during the operation of the machine. For this purpose, the pitman 6 has an extension 14 at the rear side of the slide 12 and is hinged to a rod 15 that extends downwards therefrom. To the lower end of the rod, a cord 16 chain or the like is attached, that is guided over a pulley 17 rotatively borne in the frame of the machine. Borne in brackets 19 is a swinging shaft 20 that extends transversely to the machine and that at one end carries an arm 21 for the manipulation thereof. Rigidly secured to the said shaft 20 is a bar 22 the forward end of which is connected with the rope or chain 16.

A coil spring 23 secured with one end to the frame of the machine and with the other to the extension 14 of the pitman 6 or rod 15 tends to pull the pitman 6 and the slide 12 respectively into initial position. By swinging the arm 21 rearwards, the rod 22 pulls the rope or chain 16 to lift the rod 15 that displaces the slide 12 in the link 10. Thus without interrupting the work, the slide 12 can be adjusted and according to its position, the width of the stitches can be varied at will. When it is desired to operate the device by the knee, a knee plate 24 may be adjustably secured to the arm 21.

My device can be readily applied to different kinds of sewing machines, as for instance also to the so called universal feed sewing machines.

I do not wish to restrict myself to the construction shown and specified, as the same may be easily changed without deviating from the spirit of my invention, but

What I claim and desire to secure by Letters Patent is:

In a sewing machine, the combination with the needle bar, of a swinging bracket for said bar, a pitman hinged to said bracket, a cam disk operated from the driving shaft, a con-

necting link oscillated by said cam disk, a
slide formed on said pitman and movable in
the connecting link, a rod hinged to said pit-
man and projecting downwards, a pulley se-
cured to the frame of the machine, flexible
5 means attached to the lower end of said rod
and guided over said pulley, a swinging shaft
supported in the frame of the machine, a bar
rigidly secured to said shaft and having its
10 free end connected with the flexible means, a

rod or handle for manipulating the said shaft
to adjust the slide, and a spring tending to
return the latter into initial position, sub-
stantially as and for the purpose specified.

Signed at New York this 28 day of Febru- 15
ary 1907.

JOHN FINK.

Witnesses:

JOHN T. CARMODY,
MAX D. ORDMANN.