J. J. CRALL.
Quilting-Machine.

No. 206,004. Patented July 16, 1878.

Fig. 1.

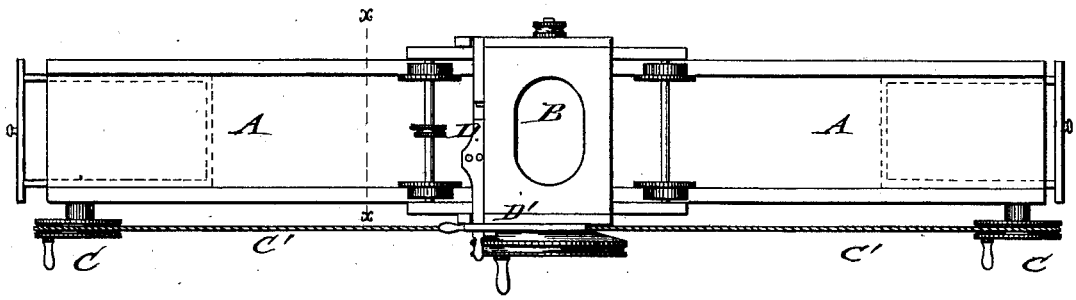


Fig. 2.

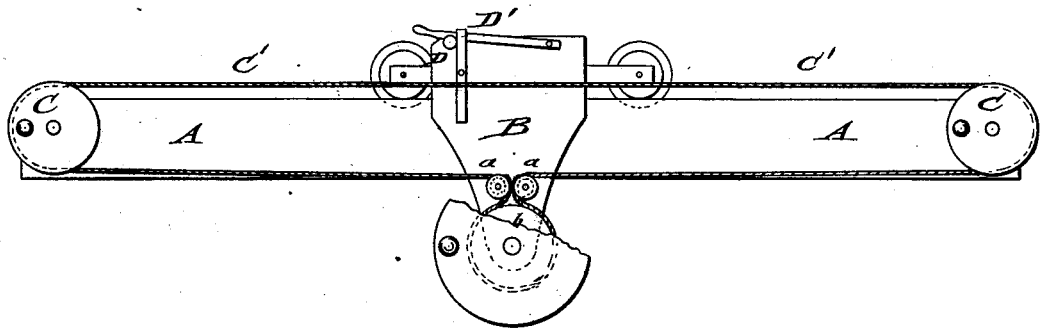
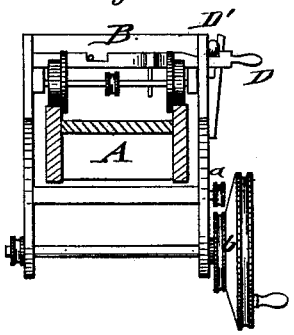


Fig. 3.



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UNITED STATES PATENT OFFICE

JOHN J. CRALL, OF LINN CREEK, MISSOURI.

IMPROVEMENT IN QUILTING-MACHINES.

Specification forming part of Letters Patent No. **206,004**, dated July 16, 1878; application filed February 25, 1878.

To all whom it may concern:

Be it known that I, JOHN J. CRALL, of Linn Creek, in the county of Camden and State of Missouri, have invented a new and Improved Quilting-Machine, of which the following is a specification:

The object of this invention is to improve the quilting-machine for which Letters Patent have been granted to me, dated August 7, 1877, and numbered 193,852, so that the stitching of the quilts may be accomplished in a more rapid manner, and the sewing-machine and carriage passed more steadily to and fro over the guideway and over the fabric stretched to be quilted, the improved device admitting, also, the stopping of the carriage of the sewing-machine for the purpose of filling bobbins.

The invention consists of the combination of the guideway, having end drive-wheels, with a pulley of the driving-shaft of the carriage of the sewing-machine, and with guide-pulleys and an endless belt passing over the same.

It consists, further, of the sliding and notched clutch-setting lever and of a stop-lever, to retain the clutch mechanism, and thereby the carriage of the sewing-machine, and admit the filling of bobbins.

In the accompanying drawing, Figure 1 represents a top view of the guideway and carriage of my improved quilting-machine, to which my improvements are attached. Fig. 2 is a side elevation; and Fig. 3, a vertical transverse section of the same on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawing, A represents a longitudinal guideway or track for the wheels of the carriage B of the sewing-machine that is used for quilting. The carriage of the sewing-machine is propelled forward, but the motion regulated when at work by carriage-feed, and backed by unclutching the carriage-feed and reversing the driving-pulleys C, that run on fixed shafts at the ends of the guideways, in place of running the carriage back by hand, as heretofore.

The endless driving-belt C′ is stretched over the end drive-pulleys C and passed over small guide-pulleys *a a* applied to the side standard of the carriage B, passing first over one of the guide-pulleys, then around a fixed pulley, *b*, on the driving-shaft of the carriage, then over the second guide-pulley, and then to the end pulley. The two drive-pulleys at the ends of the guideway admit the turning of the endless belt in the direction of the carriage when at work, the operator remaining at either end of the guideway while one line of stitching is made by the sewing-machine.

In my former arrangement the operator had to move with the carriage, which was inconvenient, and which is overcome by this arrangement, as thereby a steady driving power is applied to the carriage in the same direction with the forward motion of the same. The carriage may also be returned by reversing the motion of the drive-pulleys and unclutching the feed of the carriage without the operator moving from his place. This arrangement relieves the feed mechanism of the carriage of the pulling heretofore required, and gives a more steady and regular motion to the carriage. Another object is that the track is perfectly steady, while heretofore the power applied by the crank-wheel of the carriage caused the track to spring, and also to produce irregular work when the power was not applied evenly.

The differential feed and clutch mechanisms are employed in the same manner as in my former patent and set by a laterally-sliding lever, D. The slide-lever D is notched at the top, and is engaged by a pivoted drop-lever, D′, that drops into the notch when the lever is drawn toward the operator for throwing the carriage-feed out of gear. The drop-lever D′ holds the slide lever and clutch in position until, by raising the drop-lever, the spring of the clutch throws the slide-lever back and causes the reclutching and forward motion of the carriage. The unclutching and stop mechanism serves for the purpose of stopping the carriage for filling bobbins, the carriage being placed against a pin in the track, so as to be held steadily while the filling of the bobbins is accomplished.

The sewing-machine is applied in any suitable manner to the top or table of the carriage, and a machine of any suitable construction employed, the essential feature of this improvement being the steady motion of the carriage and the unclutching and stopping of the same

for filling bobbins, and also allowing the operator to stand still or be seated, while heretofore the operator moved with carriage when at work.

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

1. The endless belt C′, passing over small pulleys *a a*, fixed pulley *b*, and large pulleys C C, combined with the slide-lever D and drop-lever D′, as and for the purpose specified.

2. In a quilting-machine, the combination of the sewing-machine carriage, having laterally-sliding lever for setting the clutch device, with a pivoted drop-lever engaging a notch on the slide-lever for unclutching and stopping the carriage for the purpose of filling bobbins, as described.

JOHN J. CRALL.

Witnesses:
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