

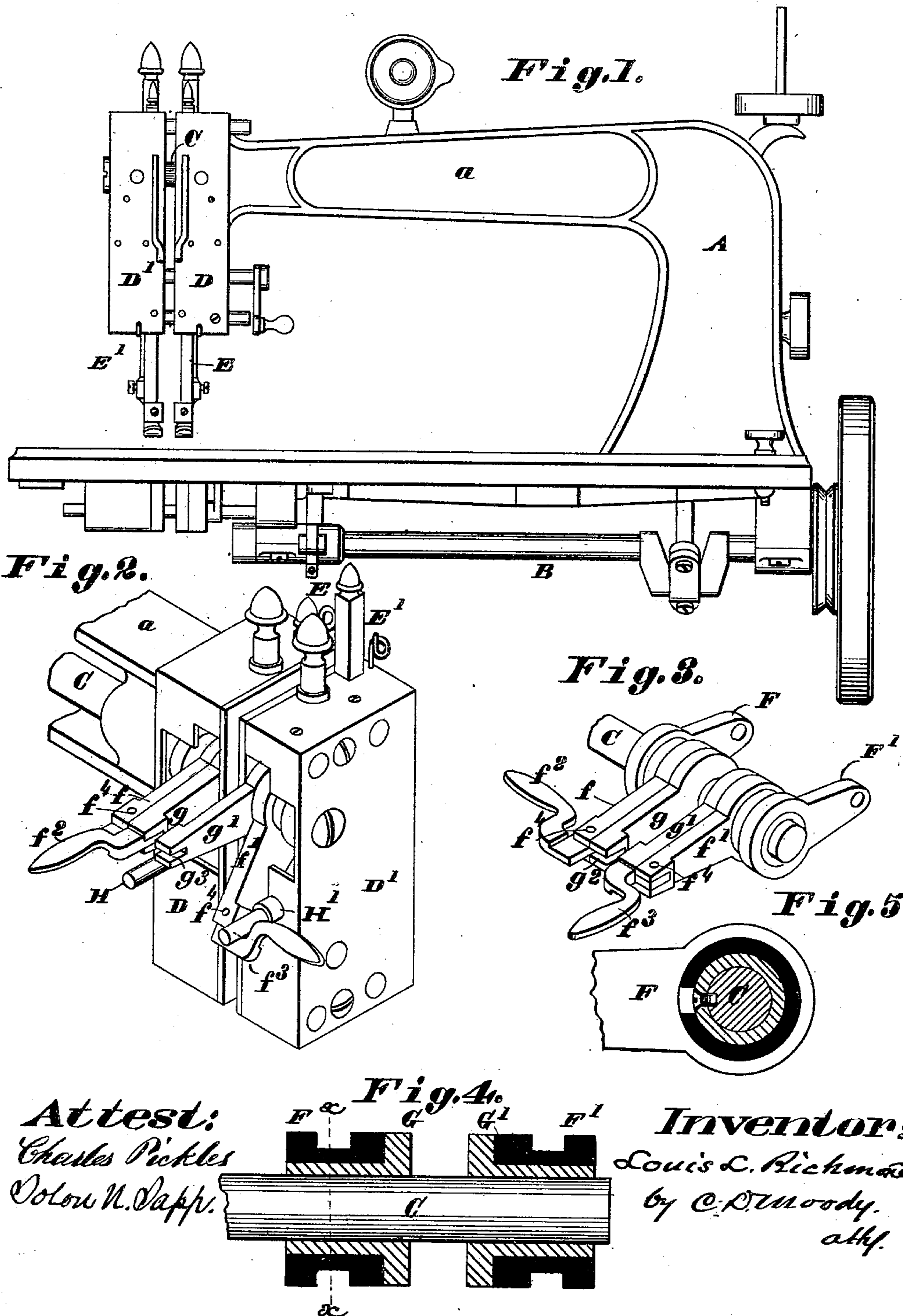
(No Model.)

L. L. RICHMOND.

SEWING MACHINE.

No. 251,638.

Patented Dec. 27, 1881.



UNITED STATES PATENT OFFICE.

LOUIS L. RICHMOND, OF ST. LOUIS, MISSOURI.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 251,638, dated December 27, 1881.

Application filed October 4, 1881. (No model.)

To all whom it may concern:

Be it known that I, LOUIS L. RICHMOND, of St. Louis, Missouri, have made a new and useful Improvement in Sewing-Machines, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a side elevation of that part of a sewing-machine with which the improvement in question is immediately connected; Fig. 2, a view in perspective, showing the outer end of the overhanging arm and parts therewith connected; Fig. 3, a view in perspective of the needle-bar cranks and parts immediately therewith connected; Fig. 4, a side elevation of the outer end of the shaft that works in the overhanging arm, and showing the collars and cranks thereon in section; and Fig. 5, a section taken on the line *x x* of Fig. 4.

The same letters denote the same parts.

The present invention is an improvement in sewing-machines working two needles. As such machines have hitherto been constructed the two needle-bars and needles always work together. When one needle-bar and needle is in operation the other needle-bar and needle must also be in operation, and when one stops the other must stop. It is sometimes desirable in such machines—for instance, in turning a corner—to operate but one needle at a time; and to provide for this is the aim of this invention, which consists in the means used in transmitting the motion of the driving-shaft in the overhanging arm to the needle-bars.

The improvement is adaptable to various sewing-machines. It is illustrated in connection with a McKay machine, A being the head, having the overhanging arm *a*; B, the main driving-shaft; C, the shaft in the overhanging arm; D D', the frames upon the outer end of the overhanging arm; E E', the needle-bars, and F F' the cranks connected with the shaft C and operating the bars E E', respectively, all of the usual form saving as modified by the present improvement. In place, however, of attaching the cranks F F' directly and rigidly to the shaft C, as heretofore, they are held loosely upon collars G G', which, in turn, are fastened to the shaft C, and are provided with

arms *g g'*. The cranks F F' are also furnished with arms *f f'*.

The machine being in motion, the collars G G' and arms *g g'* constantly oscillate with the shaft C. The cranks F F', however, being loose upon the collars, do not oscillate with the latter, and the needle-bars will not be moved until the cranks F F' are fastened to the collars. This is accomplished conveniently by locking the arms *g g'* and the arms *f f'*, respectively, together; and this, in turn, is preferably effected by means of the latches *f² f³*, which are pivoted to the arms *f f'*, respectively, at *f⁴*, and which, when desired, can be turned to engage in the slots *g² g³*, respectively, of the arms *g g'*. When thus engaged the cranks, collars, and shaft C oscillate together, and the needle-bars are driven in the usual manner. The motion of either one or both of the needle-bars can thus be stopped at will. For instance, if it is desired to operate the needle-bar E only, the arms *f* and *g* are interlocked by means of the latch *f²*, as shown in Fig. 2. The arms *f g* and crank F and collar G now move together, causing the needle-bar E to move in the usual manner. The bar E' from the arms *f' g'*, not being interlocked, does not move. When it is desired to use the last-named bar, E', the parts are arranged as in Fig. 3; and to work both bars the two sets, *f g* and *f' g'*, of arms are interlocked.

To prevent the cranks F F' from being accidentally moved by reason of the friction of the parts, the latches *f² f³* are suitably shaped and extended to pass, when turned on the pivots *f⁴*, around and be held by the stops H H' upon the frames D D', as seen in Fig. 2.

The shaft C and frame D' can be adjusted in the usual manner, so as to bring the needle-bars nearer to or farther from each other.

I claim—

1. The combination, in a sewing-machine, of the shaft C, the collar G, having the arm *g*, and the crank F, having the arm *f* and latch *f²*, substantially as described.

2. The combination of the shaft C, the collars G G', having the arms *g g'*, and the cranks F F', having the arms *f f'* and latches *f² f³*, substantially as described.

3. The combination of the frame D, the stop

H, the shaft C, the collar G, the arm *g*, the latch *f*², and the crank F, substantially as described, and for the purpose set forth.

4. The combination of the shaft C, the crank
5 F, and the collar G, said collar being fastened to said shaft, and said collar and crank being capable of being interlocked, when desired, for the purpose set forth.

5. The combination of the shaft C, having

a lateral extension fastened thereto, and the 10 crank F, said crank being loose upon said shaft, and mechanism, substantially as described, for locking said crank to said lateral extension at a point at the side of said shaft.

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