F. CHICHESTER.
Sewing-Machine Chairs.

No. 200,508. Patented Feb. 19, 1878.

Fig: 1.

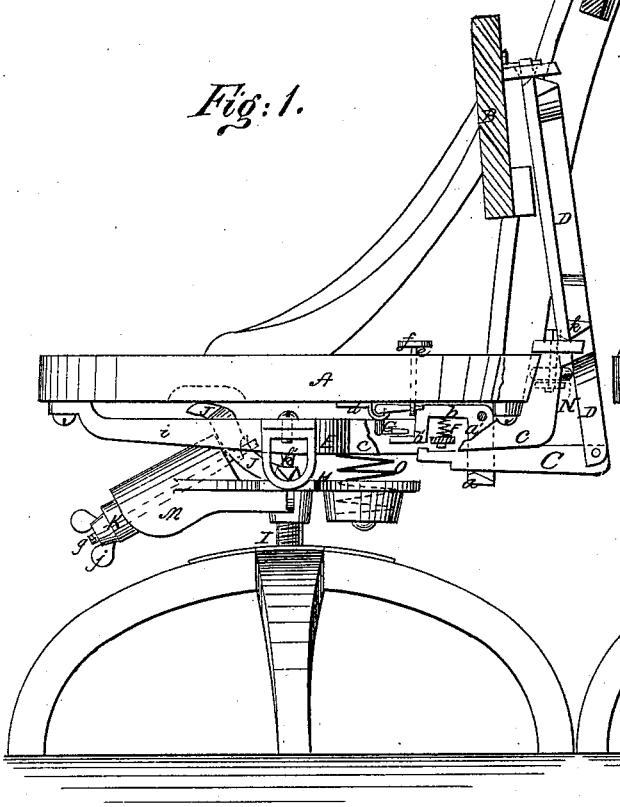


Fig: 2.

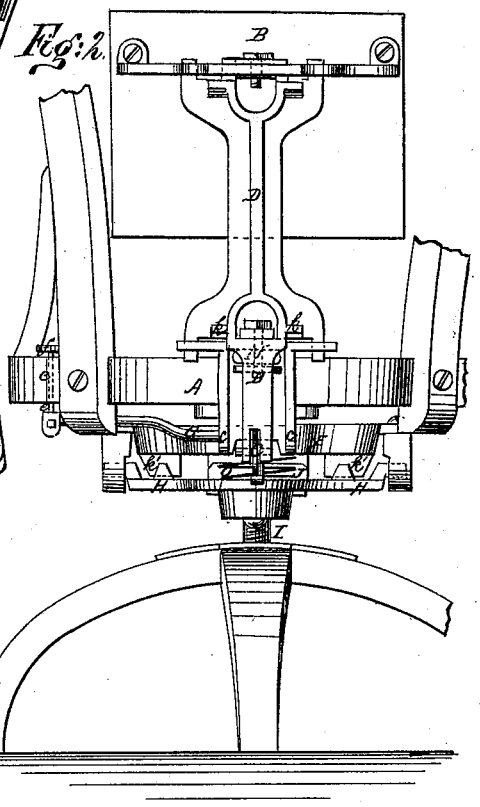


Fig: 3.

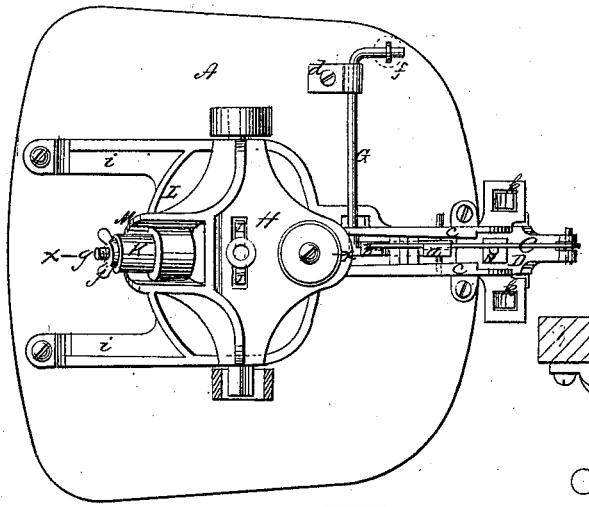


Fig: 5.

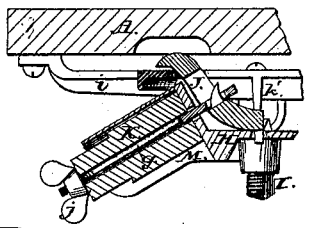
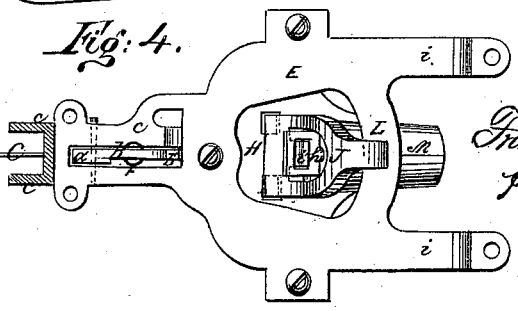


Fig: 4.



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UNITED STATES PATENT OFFICE.

FRANKLIN CHICHESTER, OF POUGHKEEPSIE, NEW YORK.

IMPROVEMENT IN SEWING-MACHINE CHAIRS.

Specification forming part of Letters Patent No. **200,508**, dated February 19, 1878; application filed May 7, 1877.

To all whom it may concern:

Be it known that I, FRANKLIN CHICHESTER, of Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and Improved Sewing-Machine Chair; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

This invention is in the nature of an improvement in sewing-machine chairs; and the invention consists in a sewing-machine chair with an adjustable panel in the back, constructed with a device that regulates the extent of the projection of the panel from the back to any extent desired by the occupant without the necessity of tipping the chair to produce such a result, and also constructed with an adjustable rubber spring, whereby the tilting of the seat of the chair is regulated, the several members being constructed and combined as hereinafter more particularly described.

In the accompanying sheet of drawings, Figure 1 is a side view, partly in section, of my improved sewing-machine chair. Fig. 2 is a rear view of chair. Fig. 3 is a view of under side of chair-seat with my improvements, and Fig. 4 a plan or top view of the supporting-spider. Fig. 5 is a vertical section on line *x x* of Fig. 3.

Similar letters of reference indicate like parts in the several figures.

A represents a chair, more particularly designed to be used with sewing-machines. This chair is provided with an adjustable panel, B, fitting into the back, and constructed to afford support to the back of the occupant of the chair when leaning forward or sitting in a position near the front of the seat, when the ordinary chair-back will afford no support whatever. Chairs with this feature have been patented before, particularly in my patent dated August 1, 1876; but in the chair so patented by me, and on which this is an improvement, the adjustment of the panel B of the back depended to some extent upon the position or tilting of the seat to affect the adjustment of the panel; and, besides, the panel in the chair so patented by me was susceptible of little or no variation in the adjustment—that is to say, the panel of the back could only be thrust outward to its full extent, and back again between the back-posts. By my improved chair, however, the panel B may be thrust outward to any extent desired, and remain fixed at any position it may be wished to place it. This variation of adjustment of the panel is accomplished by permitting a bar, C, which is pivoted to the lower end of the vertical lever D, to rest with its lower edge on a cam, *a*. This cam is formed on the lower end *a'* of a bell-crank lever, *b*, which lies within and is pivoted to the rear arm *c* of the supporting-spider E of the chair. This lever has placed between its under side and a suitable stop formed in the arm *c* of the spider a spring, F, and the leg *b'* of this bell-crank lever *b*, that lies within the spider, has resting upon its end one end of a lever, G, (see Fig. 1,) which is secured to the seat by a bearing, *d*. The other end of the lever G is bent substantially at right angles, and is secured to a plunger, *e*, which passes up through the seat, terminating in a button or head, *f*.

To a plate, H, to which the supporting-pivot or swivel-screw I is secured, is fitted a rubber spring, K. This spring is retained in position by a stem, *g*, which passes through it, having formed at one end a head and eye, *h*, through which passes a tongue, *i'*, cast or otherwise formed onto a curved rocking yoke, J, which has its lower end pivoted to the plate H, and its upper end resting against a bar, L, which spans or unites the two forward arms *i i* of the supporting-spider E, before referred to. The front end of the stem *g* has formed on it screw-threads, onto which is placed a thumb-nut, *j*. Surrounding the rubber spring K is a hood, M, which forms part of the plate H.

My chair, being constructed substantially in the manner described, is operated in this wise: When the occupant desires to have the panel B thrust outward as a support, the button *f* is pressed downward, causing the plunger *e* to press downward the bent end of the lever G, causing the lever to turn slightly, and force down thereby the leg *b'* of the bell-crank *b* that rests within the arm *c* of the spider E, releasing the cam *a* from immediate contact with the under surface of the bar C, and per-

mitting the back to project outward, which it does by the action of a spring, N, fitted immediately beneath the pivots or knife-edges *k k* of the vertical arm D, to the upper end of which the panel B is secured. This outward throw of the panel B is regulated to any extent desired by pressing down the plunger, as before stated, and then releasing it, when the panel is protruded to the extent desired, for when the pressure on the plunger *e* is released the spring F throws or forces the arm *a'* of the bell-crank *b* upward, causing the cam *a* to bite the edge of the sliding bar C, holding it firmly in the required position, whether protruded more or less outward or pressed back between the back-posts, as in an ordinary chair.

To tilt the chair, a spiral spring, O, is placed in the rear of the swivel or supporting-screw I, which restores the seat to its horizontal position in connection with the rubber spring K before named, the two springs combining to produce elastic cushions, enabling the occupant to rock the chair freely to and fro, as in an ordinary rocker, and the extent to which this rocking may be produced consistently with ease and comfort may be regulated by the thumb-screw *j*, which, when screwed inward, compresses the rubber spring K, thereby increasing its density.

The backward movement or oscillation of the seat is in this way, to a great extent, regulated, and the backward oscillation is caused by the oscillating of the curved rocking yoke J, which permits the backward rocking by turning on its pivots, and also the knife-edges *k' k'* of the spider E in their respective bearings.

As before stated, all the movable portions or bearings of my chair rest on knife-edges, which facilitate their easy adjustment.

The hood M serves as a stop to the forward position of the chair, and at the same time protects the rubber spring K from injury.

Having now described my improved sewing-machine chair, what I claim as new, and desire to secure by Letters Patent, is—

1. A sewing-machine chair provided with an adjustable back-panel, constructed with a sliding bar, pivoted to the vertical arm or lever supporting the adjustable back-panel, and resting in contact with a cam formed on one end of a bell-crank lever, said bell-crank lever being pivoted to the rear arm of the supporting-spider, and combined with an operating-lever and plunger, substantially as and for the purpose described.

2. In a sewing-machine chair, the combination of a cam, a series of levers, whereby the cam is operated, and an adjustable back-panel and its pivoted support, substantially as and for the purpose described.

3. In a sewing-machine chair, the combination of a cam, bell-crank lever, operating-lever, and plunger, substantially as and for the purpose shown and described.

4. In a sewing-machine chair, a bell-crank lever and cam, combined with a spring, F, operating in effecting the adjustment of the back-panel, substantially as described.

5. In a sewing-machine chair, the combination of a vertical lever or arm supporting the adjustable back-panel with a spring, whereby the panel is protruded, substantially as and for the purpose described.

6. In a sewing-machine chair, a rubber spring, with its upper surface protected by a curved shield, in combination with a set-screw, whereby the same is made adjustable, substantially as and for the purpose described.

7. In a sewing-machine chair, a rocking yoke, in combination with an adjustable rubber spring, substantially as and for the purpose described.

FRANKLIN CHICHESTER.

Witnesses:
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