

S. DeL. GRANGER.
Sewing-Machine Chairs.

No. 199,535.

Patented Jan. 22, 1878.

Fig. 1.

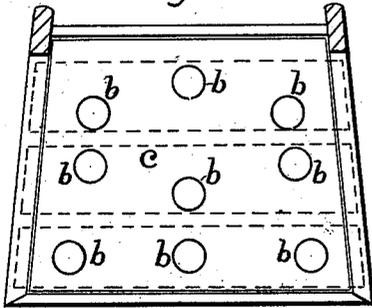


Fig. 3.

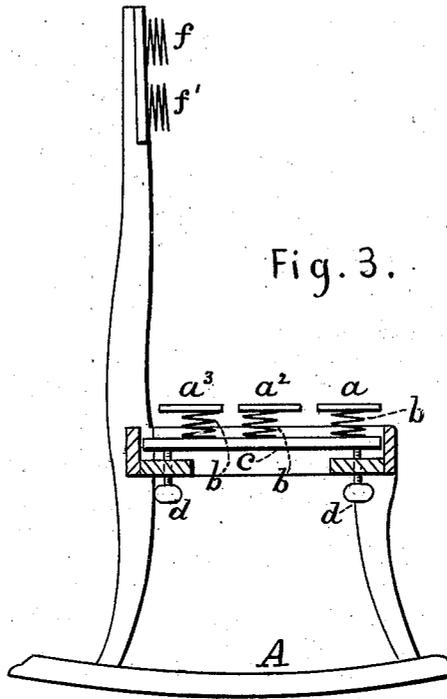
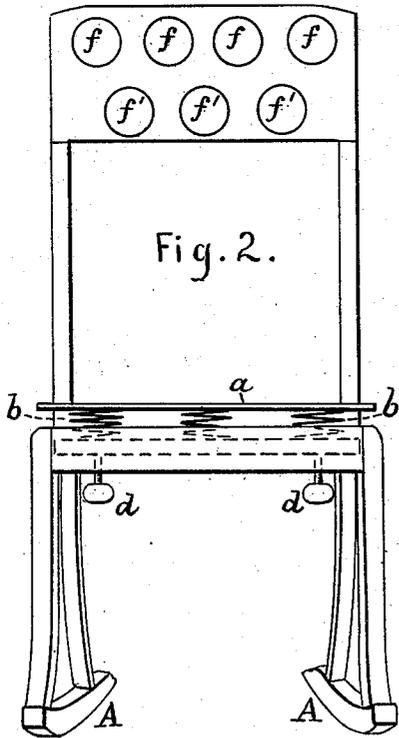


Fig. 2.



Witnesses :

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UNITED STATES PATENT OFFICE.

SUSAN DE LAMATER GRANGER, OF ANN ARBOR, MICHIGAN.

IMPROVEMENT IN SEWING-MACHINE CHAIRS.

Specification forming part of Letters Patent No. **199,535**, dated January 22, 1878; application filed March 28, 1877.

To all whom it may concern:

Be it known that I, SUSAN DE LAMATER GRANGER, of the city of Ann Arbor, in the county of Washtenaw and State of Michigan, have invented an Improved Sewing-Machine Chair; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which drawings—

Figure 1 is a plan view of the seat, showing the springs, the slats being indicated by dotted lines. Fig. 2 is a front view of the chair. Fig. 3 is a side elevation, partially in section, showing the seat and adjusting-screws.

My invention relates to a sewing-machine chair, constructed as hereinafter described.

The chair is provided with rockers *A*, curved very slightly to allow slight oscillation of the chair, to conform to the forward and backward movements of the body of a person occupying the chair and operating a sewing-machine.

The seat of the chair is provided with three separate slats, *a a² a³*, supported by spiral springs *b b*, resting on the bottom *c* of the seat, which is fitted loosely in the frame of the chair and supported by the set-screws *d*, arranged to be operated separately, for adjusting the height and inclination of the seat.

The springs supporting the front slat *a* are placed equidistant from each other on a line extending longitudinally through the middle of the slat, to allow an easy rocking motion of the slat with the forward and backward movements of the occupant of the chair, preventing stricture or strain of the limbs, and allowing

free circulation of the blood in the limbs of a sewing-machine operator.

The end springs under the central slat *a²* are placed near the rear edge, and the central spring is placed near the front edge of that slat, and the end springs under the back slat *a³* are placed near the front edge, and the central spring near the rear edge of the slat. By this arrangement of the springs the central and back slats readily incline under pressure toward each other, while the front slat rocks backward and forward; and there being but three springs under each slat, the ends readily yield under the pressure caused by the side inclination of the body, and thus the seat readily conforms to the different positions of the body of the occupant of the chair.

The back of the chair is nearly at right angles to the plane of the seat, and is slightly curved near the seat, and the upper part is provided with springs, as shown at *f*, to support the shoulders, and springs, as shown at *f'*, to support the back, below the shoulders. The seat and back are upholstered with elastic materials, applied so as to allow and aid the free action of the slats and springs.

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

1. A chair having a seat provided with the separate slats *a a² a³*, each supported by the springs, arranged as described, for the purposes set forth.
2. A chair having the back provided on the upper part with two rows of springs, *f f'*, substantially as and for the purposes described.

SUSAN DE LAMATER GRANGER.

Witnesses:

PETER D. HORTON,
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