2 Sheets--Sheet 1.

S. SQUIRES.

Sofa-Bedstead.

No. 166,566. Patented Aug. 10, 1875.

Fig. 2.

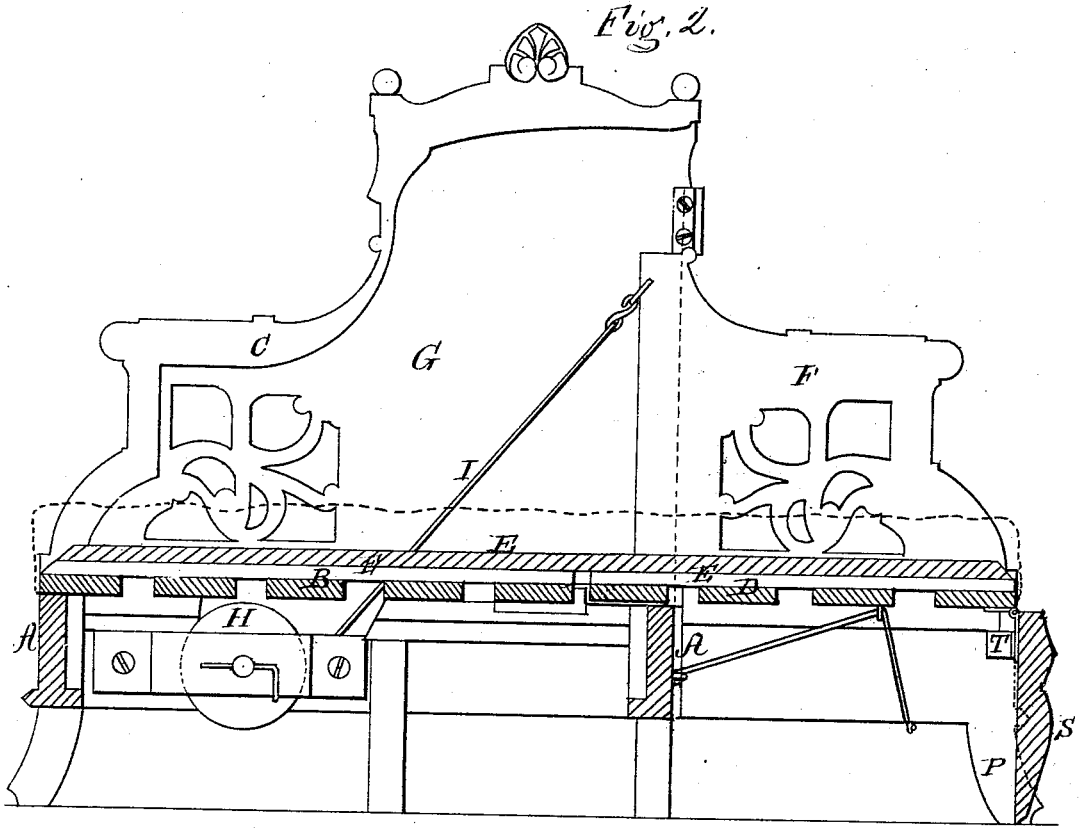
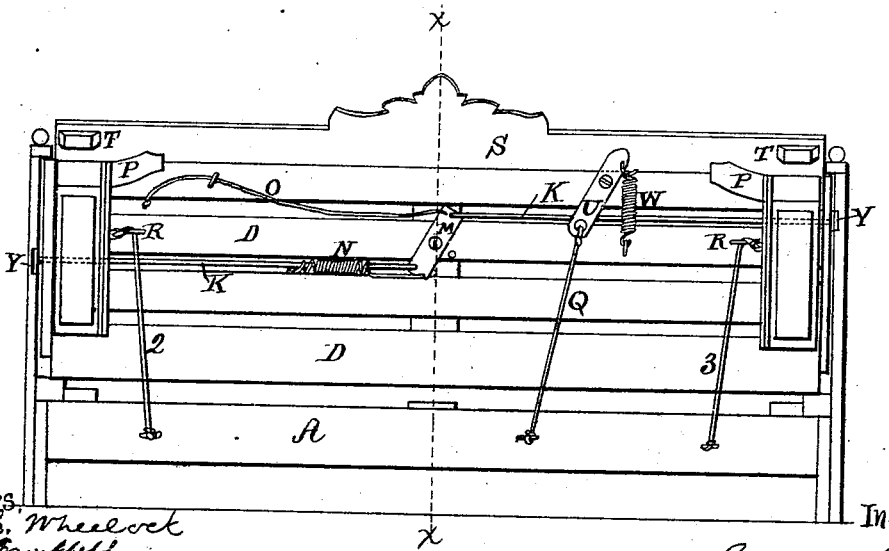


Fig. 1.



Witnesses,
Chas. C. Wheelock
Jas F. Campbell

Inventor.
Sidney Squires

2 Sheets--Sheet 2.

S. SQUIRES.

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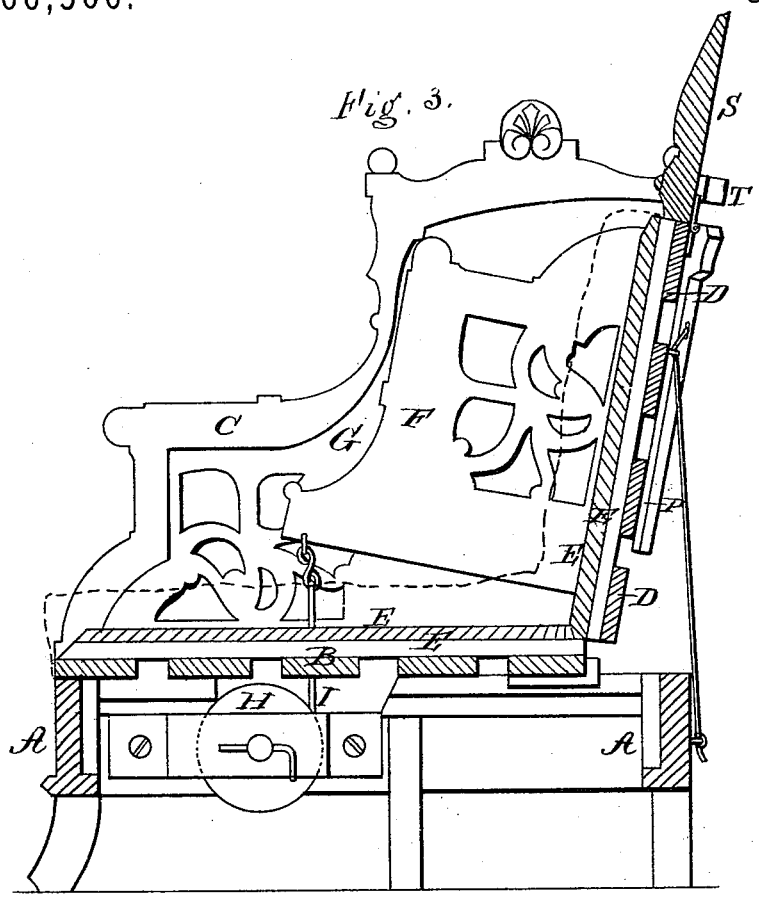
Fig. 3.



Witnesses.
Chas. C. Wheelock,
James F. Campbell

Inventor.
Sidney Squires

UNITED STATES PATENT OFFICE

SIDNEY SQUIRES, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SOFA-BEDSTEADS.

Specification forming part of Letters Patent No. **166,566**, dated August 10, 1875; application filed November 6, 1874.

To all whom it may concern:

Be it known that I, SIDNEY SQUIRES, of Boston, State of Massachusetts, have invented an Automatic Sofa-Bedstead, of which the following is a specificacion:

My invention consists of a sofa-bedstead of such construction that by the exercise of a very slight muscular exertion the sofa is automatically unfolded and fixed in position as a bedstead, and the bedstead is automatically folded up and fixed in position as a sofa, and of the devices conducing to this automatic action.

Figure 1 of the drawings is a view of the rear of the sofa. Fig. 2 is a transverse section through the line *x x* of the sofa unfolded and in position as a bedstead. Fig. 3 is a transverse section through the line *x x* of the sofa folded up.

A A is the seat-frame of the sofa, from which the seat B swings up toward the back D to allow bedding to be stowed within the seat-frame. C C are the standing arms of the sofa. D is the back which swings back into a horizontal position to form the bed, as seen in Fig. 2. A continuous cushion, E E, is shown in the drawings as covering the seat B and back D. This cushion may serve as a hinge between them, or each may be otherwise hinged to the seat or seat-frame to swing as above specified. F F are arms, one attached rigidly by its base to each end of the back D, at right angles with it, and of such shape and in such position that when the back is folded up they slide inside of the standing arms C C, as seen in Fig. 3, into a rabbet, G, formed on the inner side of each arm C, as shown in Fig. 3, thereby becoming inclosed within the arms C C, so as not to project beyond them in any direction, and so as to be concealed therein in a vertical or end view of the sofa. A coiled spring, H, or other suitable spring or mechanism, is fixed upon the inner side of the frame A A, and a cord, I, so connects each spring with the adjacent arm F that the tension of the spring will raise, or nearly raise, the back D from the horizontal position, as in Fig. 2, to the perpendicular position, as in Fig. 3. Two rods K K extend along the back D into suitable sockets on the arms C C. These rods are attached to a bar, M, as shown in Fig. 1, and this bar is pivoted on the back D so as to swing. A helical spring, or other suitable mechanism, N, attached to the back D and the bar M, keeps the latter in such position that the rods K K are kept in the sockets on the arms C C, and the back D is thereby supported in the perpendicular position shown in Figs. 1 and 3. These rods are withdrawn from their sockets to let the back D fall by turning the bar M on its pivot by a cord, O, or other suitable means. When the back D is raised from the horizontal to the perpendicular position the ends of the rods K K slide over inclined surfaces Y Y on the arms C C into their sockets. Legs P P are hinged upon the back D, so that they may be swung up against the back or away from it in a direction lengthwise with it, and swing under it into a perpendicular position as it is lowered, and they then support it in the horizontal position, as seen in Fig. 2. These legs, in one arrangement used by me, are raised up flat against the back D, as it is raised by means of cords 2 3 attached at one end to the swinging edge of the leg, and at the other end to the frame A, and passing through staples or pulleys R R on the back D. A top, S, is hinged to the upper edge of the back D in such a manner that it will swing down at right angles with the back as the latter falls, and forms a false rail to the bed, as seen in Fig. 2. Projections T T on each end of the top piece S, having inclined surfaces, slide against the legs P P until their outer ends rest firmly against the legs, and thus serve to keep them perpendicular under the back D. As the back D is raised the projections T T act by their inclined surfaces to swing the top-piece S outward, and a bar, U, pivoted on the back D, and swung by the tightening of the cord Q, which is fast at one end to it, and at the other end to the frame A, by its fluted upper end raises the top-piece S into it, and holds it in the perpendicular position when the back D is perpendicular, as seen in Fig. 1. When the cord V is loosened by the falling of the back D the spring W pulls down the fluted end of the bar U, so as to release the top-piece S. By means of the mechanism above described, when the bar M is turned so as to withdraw the rods K K from their sockets the lowering of the back turns

up the arms F F to form part of the head and foot board, and lets down the legs and top-piece, and the raising of the back D slides the arms F F in place inside the arms C C, and swings up the legs and top-piece and fastens itself in place, the back D being so weighty that it will fall by gravity, and the spring H will with a little aid fold it up.

I claim—

1. In a sofa-bedstead, the combination of the swinging back D, with the arms F F arranged to slide into the rabbets G G in the arms C C, so as to be concealed from view, substantially as and for the purposes described.

2. The combination of the springs H, fixed within the sofa-frame and under the sofa-seat, arms F F, and swinging back D, as and for the purposes set forth.

3. The combination of the swinging back D with the legs P P, constructed as described, to be folded toward or away from said swinging back, in a direction lengthwise with it, as and for the purposes set forth.

4. The combination of the swinging back D, frame A, legs P, cord Q, and staples or pulleys R, as and for the purpose set forth.

5. The combination of the swinging back D and hinged top S, as and for the purpose set forth.

6. The combination of the swinging back D, hinged top S, frame A, cord V, bar U, and spring W, as and for the purpose set forth.

SIDNEY SQUIRES.

Witnesses:

CHAS. C. WHEELOCK,

JAMES F. CAMPBELL.