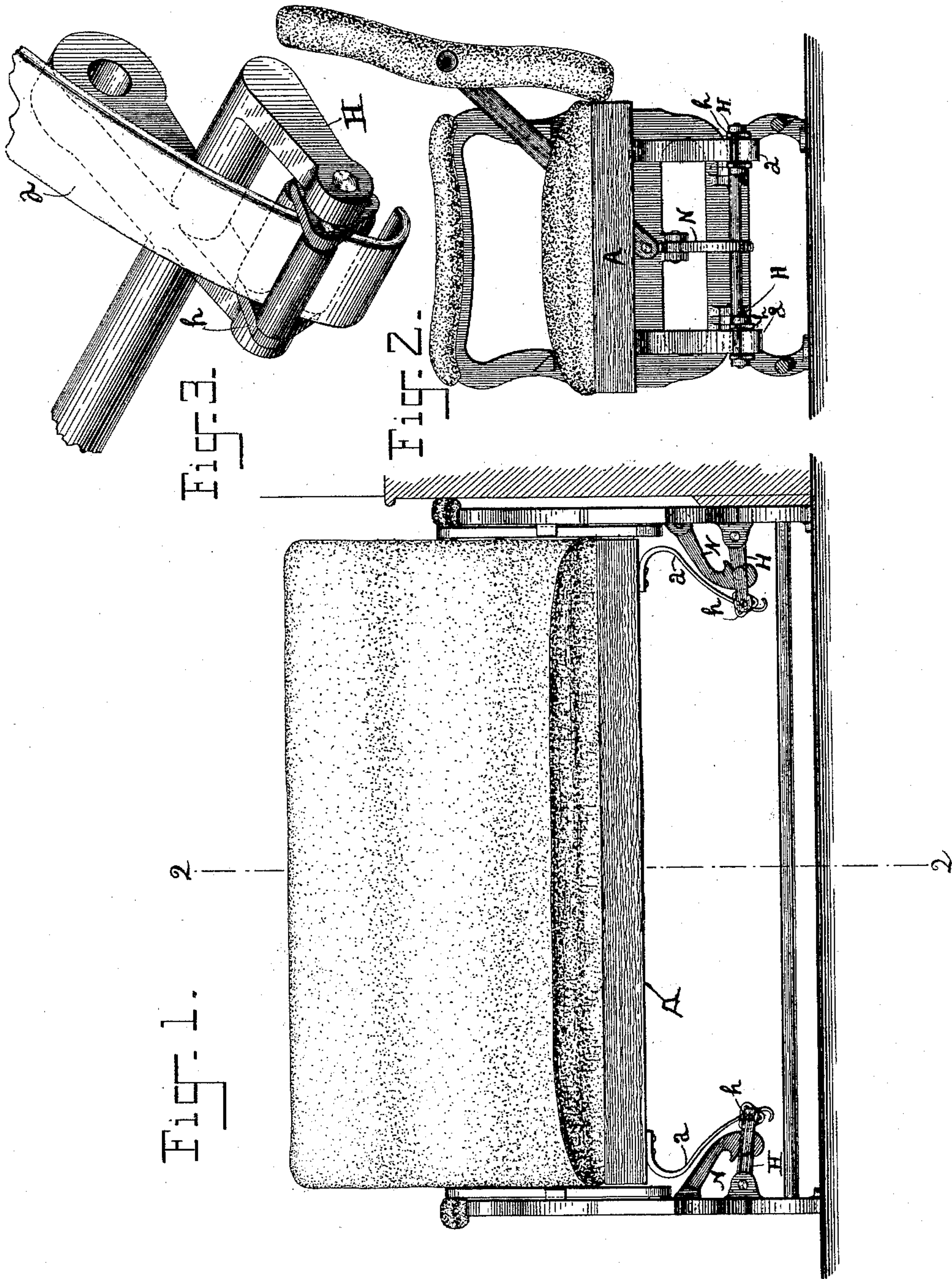


(No Model.)

S. L. SAUNDERS.
SPRING FOR SHIPS' BERTHS, CAR SEATS, &c.

No. 476,823.

Patented June 14, 1892.



Witnesses.
John F. Nelson.
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Att'y

UNITED STATES PATENT OFFICE.

SAMUEL L. SAUNDERS, OF LYNN, MASSACHUSETTS.

SPRING FOR SHIPS' BERTHS, CAR-SEATS, &c.

SPECIFICATION forming part of Letters Patent No. 476,823, dated June 14, 1892.

Application filed October 30, 1891. Serial No. 410,300. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL L. SAUNDERS, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Springs for Car-Seats and Similar Devices, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to springs for supporting car-seats and similar devices, as more fully described and specifically claimed hereinafter.

In the accompanying drawings, Figure 1 is a side elevation of a car-seat embodying this invention. Fig. 2 is an end elevation of a section on line 2 2 of Fig. 1. Fig. 3 is a detail to be referred to hereinafter.

In carrying out this invention as represented in the present instance the car-seat A is constructed in the usual and customary way, and attached to the same, preferably at the corners thereof, are springs *a*. Said springs, respectively, are extended through bearing-blocks. Said bearing-blocks are preferably composed of three rolls, (see Fig. 3,) between which the spring is passed, so that the rolls bear on opposite sides of the spring. The rolls are journaled in a frame *h*, which itself is journaled to turn in a larger frame H. This construction permits the rolls to adapt themselves so as to prevent the parts from cramping, and thus wedging tightly the spring. The frame H itself is journaled to permit rocking movements in brackets secured to the frame-work adjacent to the seat, as represented. The frame H is provided at each end with a bearing-block to accommodate the springs at those places, and intermediate is a swinging pawl N, by which the frame H may be adjusted to different heights in order to bring the bearing-blocks into engagement with their respective springs at different altitudes.

It will be understood that the movement downwardly of the seat operates the springs in their respective bearing-blocks, so that they are moved inwardly to a point such that

the tension of the springs may overcome and counterbalance the seat and its occupant, and while thus supported all jar or joggle is taken up by vibration of the springs and prevented from reaching the occupant of the seat.

By making the frame H having teeth adapted to swing and engage with the pawl N, I obtain facilities for differently adjusting the bearing-blocks to better adapt the seat for accommodating occupants of different weight without liability of movement so extensive as to unduly clamp the parts.

While I have illustrated my invention as applied to a car-seat, it will be understood that the same may be applied to other uses—such as for supporting ships' berths and the like—and my invention is broad enough to include all such uses and applications.

I claim—

1. In combination with the seat, as A, springs, as *a*, secured at one end thereto, and bearing-blocks pivotally connected with the seat-support and through which said springs are passed and by which they are supported, and means for adjusting the height of the bearing-blocks, substantially as described.

2. In combination with the seat A, springs, as *a*, secured at one end thereto, a suitable frame, as H, pivoted to the seat-support, and bearing-blocks, as *h*, for the springs, pivotally secured to the frame H, substantially as described.

3. In combination with the seat A, springs, as *a*, secured at one end thereto, a suitable frame, as H, pivoted to the seat-support, bearing-blocks, as *h*, for the springs, pivotally secured to the frame H, and a pawl, as N, attached to the seat-support and having teeth to engage the frame H, whereby the height of the frame can be adjusted.

Signed at Lynn, Massachusetts, this 21st day of October, A. D. 1891.

SAMUEL L. SAUNDERS.

Witnesses:

A. M. TUTTLE,
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