

(No Model.)

H. E. GARDINER.
OPERA OR SCHOOL SEAT.

No. 376,738.

Patented Jan. 24, 1888.

Fig. 2-

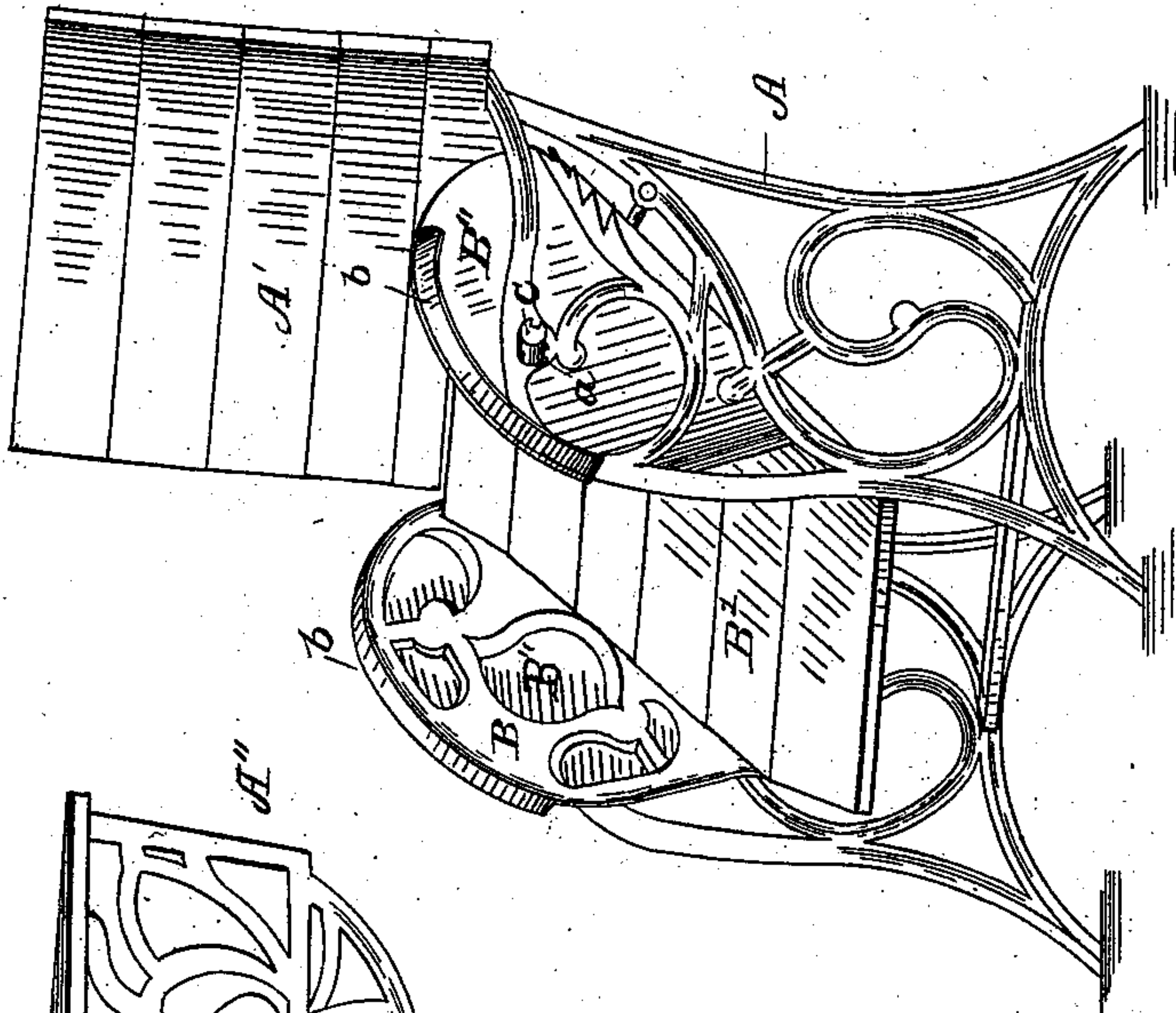


Fig. 1-

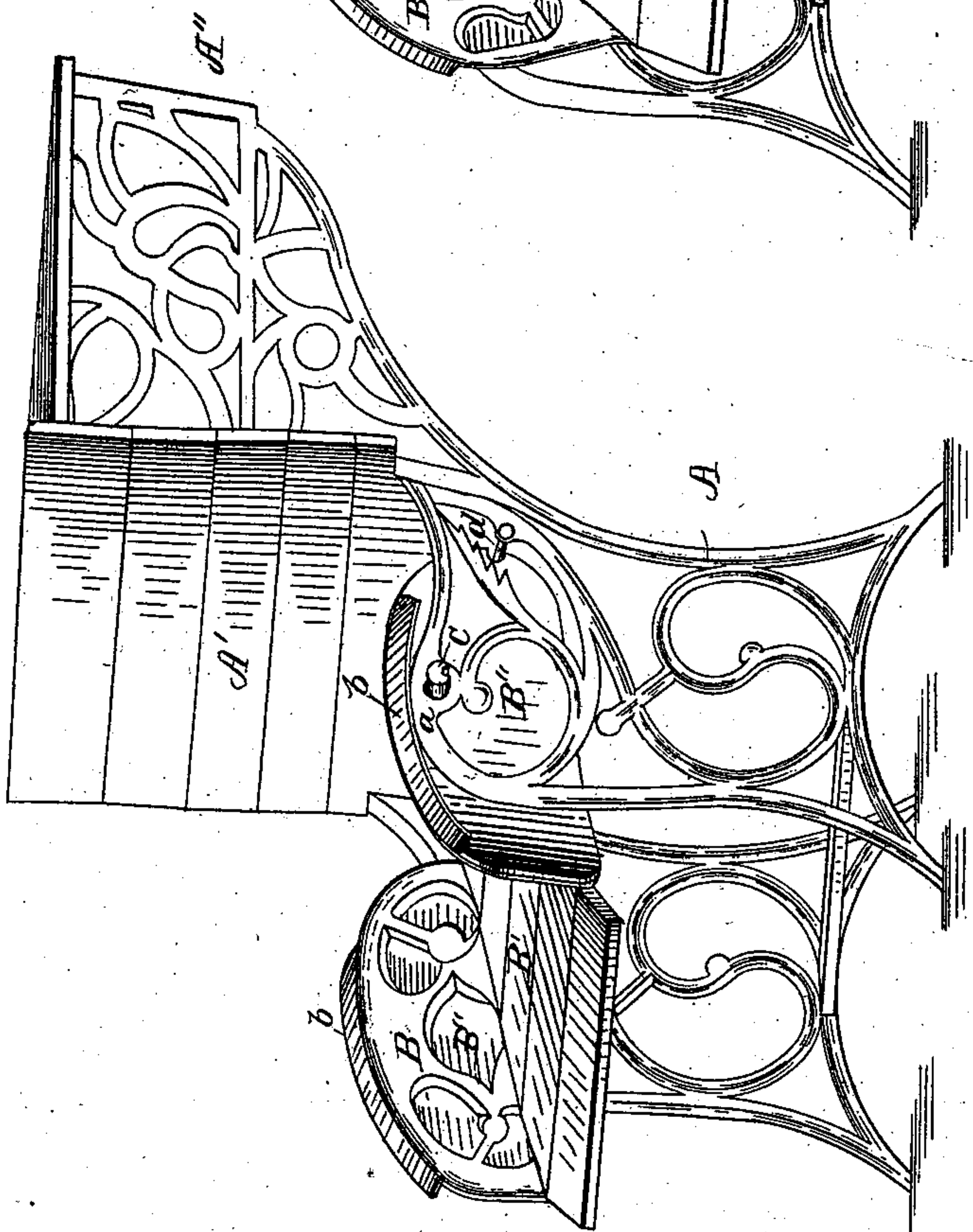


Fig. 3-



Witnesses

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UNITED STATES PATENT OFFICE.

HOWELL E. GARDINER, OF BATTLE CREEK, MICHIGAN.

OPERA OR SCHOOL SEAT.

SPECIFICATION forming part of Letters Patent No. 376,738, dated January 24, 1888.

Application filed June 1, 1887. Serial No. 239,967. (No model.)

To all whom it may concern:

Be it known that I, HOWELL E. GARDINER, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Opera and School Seats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of opera-chairs or school-seats that will adapt themselves to the movement of the body of the occupant as he sits down or rises up—that is to say, to that class which will enable the occupant to rise readily, and which affords a free passage when one seat is in front of another and permits the occupant to rise at a desk without stepping sidewise into the aisle.

The object of the invention is to simplify the construction of seats of this character; and the invention consists, generally, in the combination, with a suitable frame or support, of a seat hung in bearings above the plane thereof and behind a vertical plane passing lengthwise through the middle of said seat.

It consists, also, in the combination, with a seat hung as above described, of means for holding it and releasing it from its horizontal position.

It also consists in certain other combinations, which will be hereinafter more particularly described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a chair and school-desk, the seat being raised to position for use. Fig. 2 is a similar view of a single chair with the seat folded up. Fig. 3 is a detail showing one means for holding the seat in its raised position, ready for use.

A A are the side standards of the chair, usually made of cast-iron in any suitable form, substantially such as shown. These side standards are provided with flanges or feet, as shown, by which they may be screwed to the floor. The back A' is secured firmly to the standard-castings by means of bolts or otherwise, and they are thereby braced and supported in a fixed relation with each other, and the whole constitutes the chair-frame.

The side standards in this instance are pro-

vided with slightly-elongated sockets or bearings *a*, from which is suspended the seat, as shown. When used for school purposes, the standards will be provided with brackets A'', to constitute the desk-support, as shown in Fig. 1. The seat is composed of side pieces or hangers, B, having, by preference, flanges *b b* for arm-rests, and the seat portion B', connected in any suitable manner with the hangers.

C C are gudgeons or journals secured to or cast with the hangers B, and they are arranged, substantially as shown, in rear of a plane which would pass lengthwise through the middle of the seat.

In order to protect the occupant and to avoid accidents by reason of the movement of the seat within the sides of the standards, I provide side pieces, B''. These may either be cast integral with the hangers B, or may be wooden pieces attached to such hangers. By hanging a seat as above described and shown in the drawings it naturally swings back out of the way, with the top or finished side of the seat outward, as shown in Fig. 2. The weight of an occupant, however, being always greater near the rear edge, will bring and hold the seat in position shown in Fig. 1, and thus afford the usual support of a chair or seat. For limiting the movement of the seat, and for taking up a large part of the weight of the occupant, I provide supports *d d* for the rear edge of the seat.

With a seat hung as above described it is advantageous to have some means for holding it in its horizontal position before the occupant's weight is applied to bring it to such position. There are many ways in which this may be accomplished by snap-catches, counterpoises, &c.; but I find that a projecting rib or cam, *a'*, formed in the socket to operate in connection with a corresponding notch in the journal, is effective for the purpose. By having the journal or gudgeon nearly fit against the sides of the socket and the notch to fit well over the rib the shoulders of the ribs and notches will lock together and hold the seat in position shown in Fig. 1; but upon downward and backward pressure against the front edge of the seat the gudgeons are raised, and the shoulders slip past each other, and the seat drops by gravity into the position shown

in Fig. 2. The socket-hole should be elongated, as shown, to permit the gudgeon to rise above the rib, and the supports *d d* should be provided with buffers to avoid shocks and noises.

A seat hung and operating in the manner herein described has no tendency to fall in such way as to produce hammering sounds and noises, as is the case with those mounted on swinging bars or arms.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A chair or seat consisting of side standards carrying a fixed back and provided with forwardly-extending arms, in combination with a seat having rigid upwardly-projecting brackets or hangers pivoted to said arms above the plane of the seat and behind the middle line thereof, substantially as described.

2. A chair or seat consisting of the combination of a suitable frame or support, a folding seat suspended by rigid hangers in bear-

ings above said seat and behind the middle line thereof, and means for holding said seat in and for releasing it from a horizontal position, substantially as described.

3. A chair or seat consisting of a frame or support having bearings provided with ribs or shoulders and a rearwardly-folding seat suspended from said bearings by rigid hangers having gudgeons provided with notches, substantially as described.

4. The combination of a frame or support, rearwardly-folding seat suspended by rigid hangers in bearings above said seat, the bearings being provided with ribs and the pivots with notches for holding and releasing the seat and limiting and supporting stops, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HOWELL E. GARDINER.

Witnesses:

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