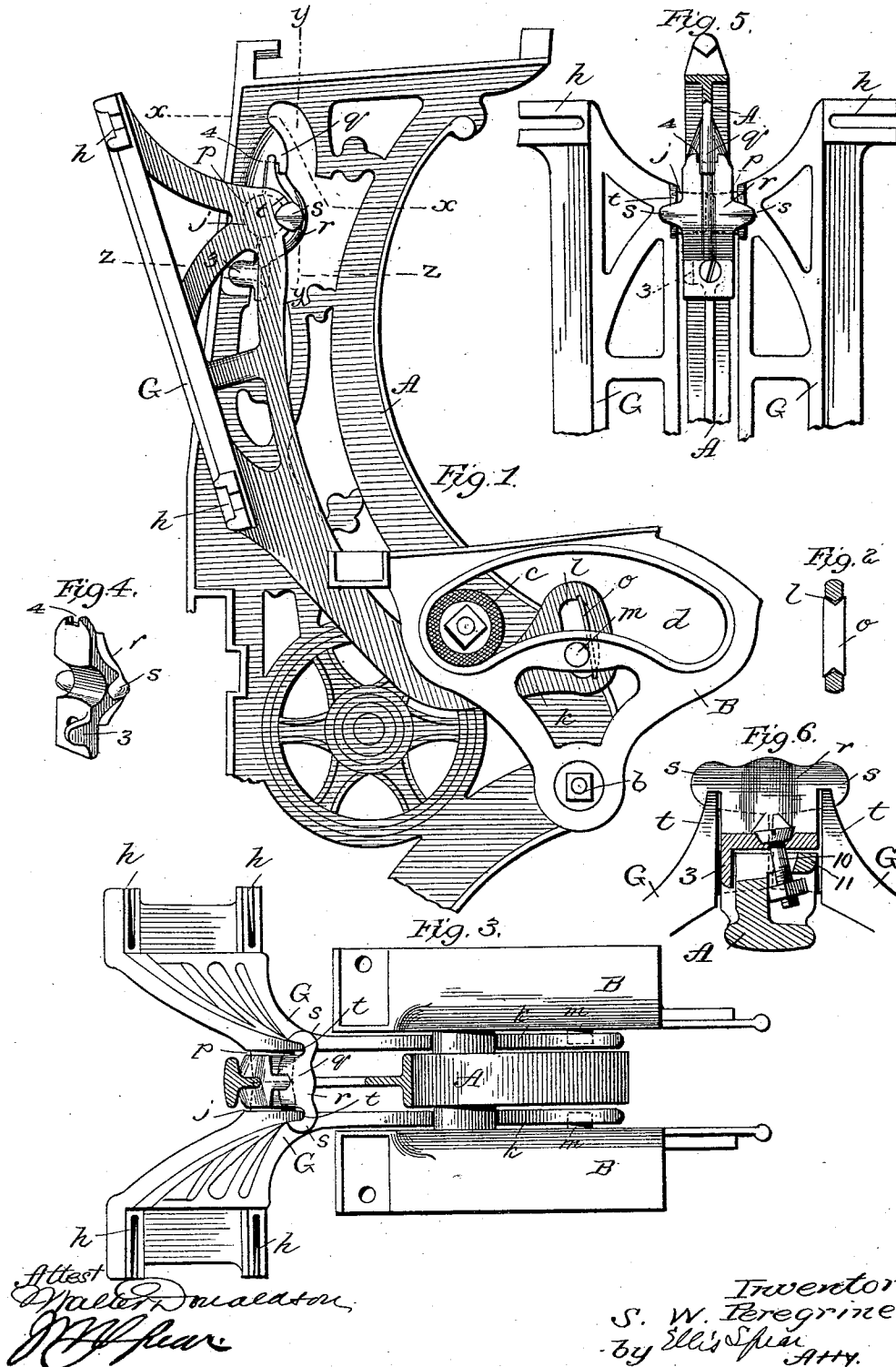


(No Model.)

S. W. PEREGRINE.
OPERA CHAIR.

No. 464,388.

Patented Dec. 1, 1891.



UNITED STATES PATENT OFFICE

SEYMOUR W. PEREGRINE, OF GRAND RAPIDS, MICHIGAN.

OPERA-CHAIR.

SPECIFICATION forming part of Letters Patent No. 464,388, dated December 1, 1891.

Application filed July 8, 1891. Serial No. 398,834. (No model.)

To all whom it may concern:

Be it known that I, SEYMOUR W. PEREGRINE, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Opera-Chairs, of which the following is a specification.

My said invention relates, particularly, to the structure which supports the backs and seats of opera and similar chairs in which the seats are tilted and the backs movable with the seats.

The special objects of the invention are, first, to secure the moving parts so as to prevent rattling; second, to render the construction of the parts simple and economical and to facilitate the putting of the parts together, and finally to render them durable in use.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a side elevation of a portion of the chair-standard, the seat-bracket and back-bracket being pivoted thereto. Fig. 2 represents the end of the slotted arm connecting the movable back to the seat-bracket in cross-section. Fig. 3 is a cross-section taken horizontally on line *xx* of Fig. 1. Fig. 4 is a perspective view of the clip detached. Fig. 5 is a view of the clip which holds the adjacent arms of the seat-back to the common supporting-frame, the frame being in section on line *yy*, Fig. 1. Fig. 6 is a detail sectional view on line *zz*, Fig. 1.

In the drawings, A represents the frame or standard, which is usually of cast-iron, which supports the ends of the seat. The seat bracket or frame is shown at B. It is pivoted at *b* and tilts on this pivot. When it is down in the position to be used as a seat, it is in the position shown in Fig. 1 and it is supported upon an elastic stop *c*, which works in the groove or slot *d*. The bracket or frame of the seat-back is marked G. It is pivoted at *g* on the upper part of the standard A. The parts *h* represent the connections to which the back is attached, it being understood that the frame G is the part only to which one end of the back is fixed. This frame G extends downward, and the downward extension bent forward, as shown at *k*, forms an arm having

a vertical slot *l*, into which works a stud *m* on the inner face of the seat-bracket. The difficulty heretofore with this construction is that the stud worked loose in the slot of the arm and caused rattling. In order to prevent this I have provided a spring-piece *o*, the ends of this piece being notched, and the ends of the slot on one side are fitted to receive the notched ends at points which are a sufficient distance from the opposite side of the slot to allow a close fit for the stud, so that the stud will bear against the spring-piece when it is in place. The spring-piece is sprung into place before the stud is introduced by means of suitable pliers, and when once in position is held firmly by its own tension, as well as by the presence of the stud. The piece bears against the stud and prevents any wobbling or rattling. The upper end of the frame has also a pivotal stud *p*. The standard A is formed with a half-round seat into which this stud fits, there being ordinarily one on each side, the standard supporting the opposite ends of two seats. Above the half-round bearing for the stud is a lug *q*, which receives the upper end of a clamping-piece *r*. The lower end of the clamping-piece has a hole which registers, when the piece is in place, with a hole tapped into the back-rail of the frame just below the half-round bearing. When the studs of the back-frames are in place in the half-round seat, the clamp is slipped under the lug *q* at its upper end, and the lower end is brought down over the studs or under surfaces of the studs, being also half-round to form a journal for the round studs. In construction I prefer to make the bearing of the clamp a little less than half-round, so that it may be clamped closely upon the journals or studs and hold the parts tightly in place.

In order to secure the frames against any lateral movement which would displace the studs from their seats, I provide on the cap an ear *s*, one on each side, which fits over the edge *t* of the back-frame, this edge being formed on a curve concentric with that of the stud-bearing, so that it turns under the ear. This by simple means forms the perfectly secure bearing for the back-frames, the same clamp serving for the frame on each side, and as the clamp is brought down snugly

on the bearing there can be no rattling in the movement of the seats and backs.

It will be understood that the backs and seats move in unison in the ordinary manner.

5 The cap-piece also has lugs 3 3 at its lower end, which fit on each side of the standard, and thus hold the cap against lateral displacement. At its upper end also the cap is held laterally by a notch 4, into which portion
10 the lug *q* fits. The screw 10, Fig. 6, which holds the clip *r* to the standard, passes through an opening in a lug 11 on the standard, and a nut on the threaded end of the screw serves to hold the clip in place.

15 I claim as my invention—

1. In combination, the seat-bracket and back-frame pivoted at separate points *b* and *p*, respectively, the said parts extending into proximity to each other, a pin on one part entering an elongated slot in the other, and means to prevent play of said pin laterally of the said slot, consisting of a spring-plate extending longitudinally of the slot and constituting a yielding bearing-wall for the pin, substantially as described.
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2. In combination, the seat-bracket and back-frames separately pivoted and connected by a pin and slot, and means for preventing lateral play of the pin in the said slot, consisting of a spring-plate having notched ends sprung into the slot and extending longitudinally thereof and parallel with the wall of the slot and fixed at both ends rigidly to the wall of the slot, the portion of the wall inter-

mediate of the spring ends extending away 35 from the spring, substantially as described.

3. In combination, the standard having the bearing-socket and a projection *q*, the tilting back-frame having a stud and the clamping-clip having a half-round bearing for the said 40 stud, said clip fitting under the projection *q* at its upper end, and the screw for securing its lower end to the standard, substantially as described.

4. In combination, the standard, the back- 45 frame having a pivot-stud, and the clamping-clip fitting over said stud and secured to the standard, said clip having an ear extending over the rounded edge of the back-frame, substantially as described. 50

5. In combination, the standard, the back-frame having pintles, a bearing-clip, a projection on the standard to engage the clip, a lug on the clip to engage the standard, and means to hold the parts together, substantially as described. 55

6. In combination, the standard, the back-frames, one on each side thereof, each having a pintle, and the clip fitting over both pintles and secured to the standard, said clip engaging 60 the back-frames and holding them against lateral displacement.

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

SEYMOUR W. PEREGRINE.

Witnesses:

JOHN L. BUCHANAN,
E. J. REUKER.