No. 891,222. PATENTED JUNE 16, 1908.

H. W. BOLENS.

CHAIR IRON.

APPLICATION FILED DEC. 9, 1907.

Fig. 1.

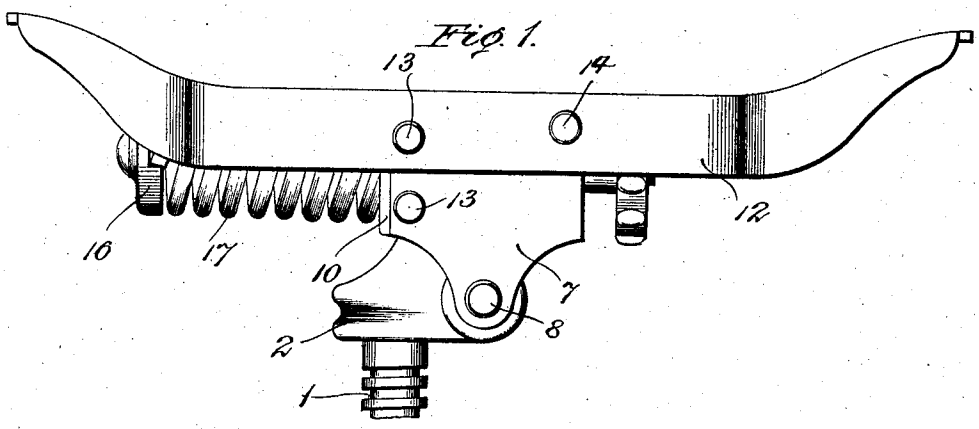


Fig. 2.

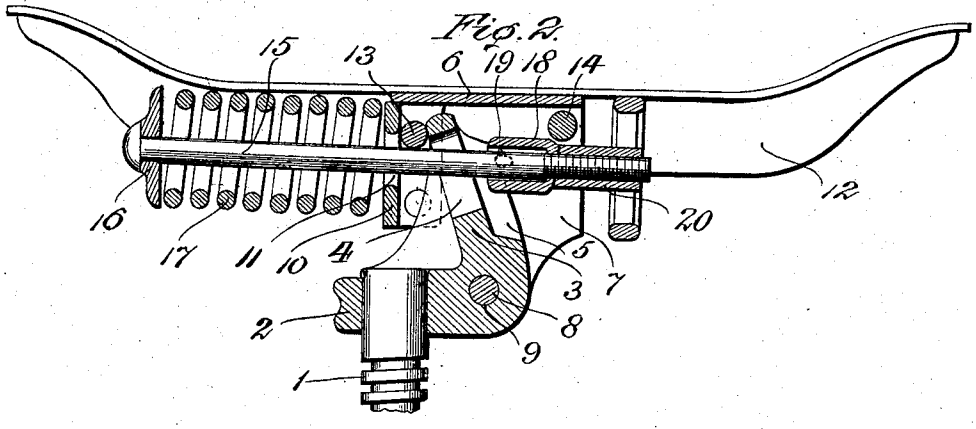
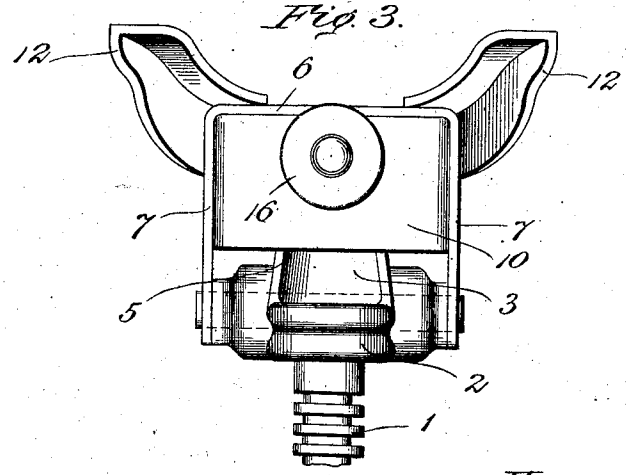


Fig. 3.



Witnesses:

T. L. Mockabee

C. F. Duvall.

Inventor:

Harry W. Bolens,

By W. D. Duvall,

Attorney.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HARRY W. BOLENS, OF PORT WASHINGTON, WISCONSIN.

CHAIR-IRON.

No. 891,222. Specification of Letters Patent. Patented June 16, 1908.

Application filed December 9, 1907. Serial No. 405,817.

To all whom it may concern:

Be it known that I, HARRY W. BOLENS, a citizen of the United States, residing at Port Washington, in the county of Ozaukee and State of Wisconsin, have invented a new and useful Chair-Iron, of which the following is a specification.

This invention relates to that class of chair-irons or "spiders," the spreader and arms of which are formed of sheet-metal, these two elements being riveted together, and in which class there is employed a standard that rises from the cast-metal yoke or head located at the upper end of the supporting-post, and which standard, as the spreader tilts, comes in contact with suitable stops arranged in its path, whereby the tilting-movement of the spreader, and, consequently, the chair, is limited.

Heretofore, in the class of chair-irons referred to, it has been customary to provide special stops for limiting the tilting-movement of the spreader, but by my present invention, as will hereinafter appear, it will be seen that I omit this special provision, and hence simplify and cheapen the construction to that extent, accomplishing this by utilizing the usually employed rivets for connecting the spreader and arms, for this purpose.

Referring to the drawing: Figure 1 is a side elevation of a chair-iron embodying my improvements; Fig. 2 is a central vertical longitudinal sectional view; and, Fig. 3 is a rear-elevation of the same.

Corresponding numerals of reference designate corresponding parts in all the figures of the drawing.

The post or support, 1, has affixed to its upper end the usual cast-metal head or yoke, 2, from the front of which rises the inclined standard, 3, having an opening, 4, formed transversely therein, and strengthening side-flanges or webs, 5.

The spreader is of inverted U-shape in cross-section, and therefore comprises, the upper horizontal or transverse-portion, 6, and the opposite depending bearing-ears, 7, these parts being formed of a single piece of sheet-metal.

The yoke 2 is transversely bored, as at 9, and the opposite bearing-ears of the spreader which depend outside of and embrace the yoke, are pivoted thereon by a transverse pintle 8; so that, as will be apparent, the spreader is capable of tilting.

At the rear end of the spreader is located, in the present instance, the bridge, 10. This bridge 10 may be of any other desired construction, but is herein shown as a transverse sheet-metal plate, having a central opening, 11, in line with the opening 4 of the standard, and having its two opposite ends forwardly disposed or bent and embraced by the depending bearing-ears of the spreader.

12 designates the spider-arms, the same being formed of sheet-metal and being angular in cross-section and embracing the opposite corners of the spreader. Through the side-flanges of these arms, the depending ears 7 of the spreader and the forwardly disposed or bent ends of the bridge 10, is passed a transverse rivet 13, the same lying immediately back of the standard 3 of the yoke. A corresponding or companion rivet, 14, extends through the side-flanges of the arms and the flanges or depending-ears 7 near the front edges of the latter and is therefore disposed transversely in front of the standard 3, the result being, that as the spreader is tilted forward or backward it comes in contact with either the rivet 13 or the rivet 14, the said rivets thus forming efficient stops for limiting the tilting of the spreader, and, hence, the chair.

15 designates the usual tension-rod, the same, as shown, passing through the openings 4 and 11 of the standard and bridge respectively. At the rear end, the rod terminates in the usual head, 16, between which and the bridge, there is interposed the tension-spring 17. The front end of the rod is threaded and passes through a bearing-sleeve, 18, the opposite bearing-lugs, 19, of which rest in bearing-notches formed in the front edges of the flanges or webs 5, and beyond said sleeve there is located on the rod the usual hand-wheel 20.

This completes the detail description of my invention, and it will be obvious that the chair-iron illustrated and described is very simple, strong, durable, and comprises few parts, that essential element, the spreader, requiring no special formation for the purpose of producing stops, but the same being formed or produced by those elements, the rivets, whose presence would ordinarily be required to hold the arms and spreader together.

Having described my invention, what I claim, is:

1. A chair-iron, comprising a supporting-post, a yoke secured to the upper end thereof

and having a standard rising therefrom, an inverted U-shaped sheet-metal spreader-plate having its opposite terminals or ears pivoted to the opposite side of the yoke, a bridge carried by the spreader, a tension rod extending through the bridge-piece and terminating in a head, a coiled spring interposed between the head and the bridge-piece, a hand-nut and bearing-sleeve located at the front end of the rod, opposite sheet-metal spider-arms angular in cross-section and embracing the angles of the spreader-plate, and rivets passed through the side-flanges of the spider-arms and the depending sides of the spreader-plate and across in front and rear of the standard of the yoke and forming stops for limiting the tilting movement of the spreader-plate.

2. A chair-iron, comprising a supporting-post, a yoke having a projection rising therefrom, an inverted U-shaped sheet-metal spreader-plate having its opposite sides pivoted to the yoke, sheet-metal spider-arms angular in cross-section applied to the opposite angles of the spreader-plate, and transverse rivets connecting the side-flanges of the opposite spider-arms and the sides of the spreader-plate and located at each side and in the path of the projection on the yoke, whereby the tilting movement of the spreader-plate is limited.

3. A chair-iron, comprising, a supporting-post, a cast-metal yoke located at the upper end thereof, transversely bored and provided with an upwardly disposed standard having an opening, an inverted U-shaped sheet-metal spreader, the opposite depending ears of which embrace the yoke and are perforated in line with the bore thereof, a pintle passed through the bore and perforations of the ears, opposite spider arms formed of sheet-metal and angular in cross-section and embracing the angles of the spreader, front and rear rivets passed through the side-flanges of the spider-arms and the side-flanges of the spreader and lying at front and rear of the standard of the yoke for limiting the oscillating movement of the spreader, a transverse bridge-piece having inwardly forwardly disposed angular ends embraced by the depending sides of the spreader, and perforated for the passage of the rear rivet mentioned, and between its ends having an opening alining with that of the standard, a tension-rod, having an adjusting nut and sleeve, passed through the openings in the standard and bridge-piece and terminating at its rear end in a head, and a coiled spring encircling the rod and interposed between the said head thereof and the bridge-piece.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY W. BOLENS.

Witnesses:
T. A. BOERNER,
AUG. BOERGER.