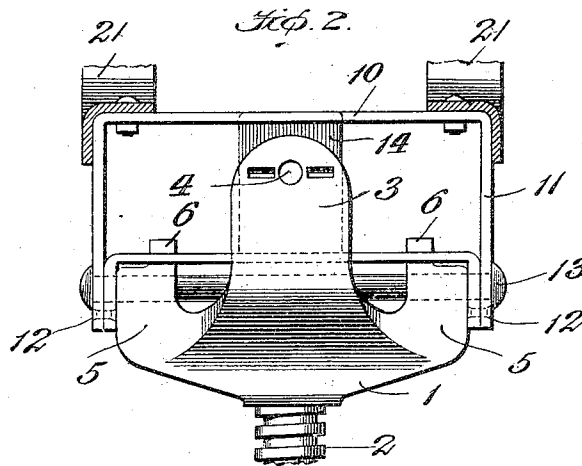
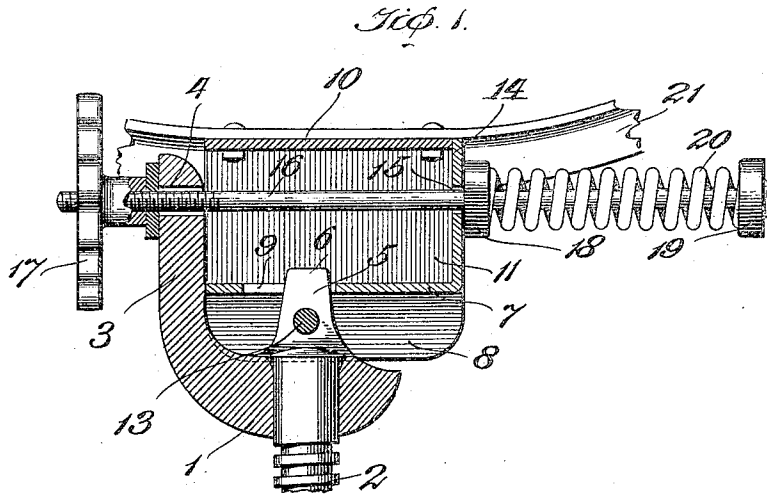


H. W. BOLENS.
CHAIR IRON.
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HARRY W. BOLENS, OF PORT WASHINGTON, WISCONSIN.

CHAIR-IRON.

942,432.

Specification of Letters Patent.

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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 new and useful Improvements in Chair-Irons, of which the following is a specification.

This invention relates to improvements in chair irons of that class known as "low fulcrum irons" and employed as a means of supporting the seats upon the bases of tilting and revolving chairs.

The objects and advantages of the invention, together with the novel features thereof, will hereinafter appear and be particularly pointed out in the claims.

Figure 1 is a central, vertical, longitudinal, sectional view, of a chair-iron embodying my invention; and, Fig. 2 is a front elevation of the same with the tension-device removed for the purpose of clearness of illustration.

Similar numerals of reference indicate similar parts in both figures of the drawing.

In carrying out my invention, I employ a somewhat triangular cast-metal yoke 1, the base of which is provided with an opening for the reception of the upper end of the usual threaded spindle or screw 2. The yoke is further provided, at its center, with an upwardly disposed standard 3, having a transverse perforation 4, near its upper end; and, also with opposite upwardly disposed side lugs or ears 5, somewhat shorter than the central standard, and formed at their inner sides with stop-lugs or shoulders 6.

A horizontal stop-plate 7, is provided at its ends with depending ears 8, that embrace the lugs or ears 5 of the yoke, and between its ends said stop-plate is provided with a transverse slot 9, upwardly through the end portions of which stop-lugs or shoulders 6 of the yoke project or separate slots may be provided for said stop-lugs or shoulders. This stop-plate, like the spreader, hereinafter described, is preferably formed of sheet-metal of suitable gage or thickness.

The spreader 10, surmounts the parts described, and, like the stop-plate, is provided with depending side-ears 11, the ears of the spreader being somewhat longer than and embracing the ears of the stop-plate, to which latter, they are riveted as at 12, so that the horizontal portion of the spreader is some distance above the stop-plate.

The ears 8 of the stop-plate 7 and 11 of the spreader, as well as the lugs 5 of the

yoke, are all bored transversely and in alinement, and through these bores is passed the usual transverse pintle 13, which, coacting with the rivets 12, serves to rigidly connect the stop-plate and spreader and to pivot those two elements upon the yoke, whereby the stop-plate and spreader are capable of rocking in unison. As will be obvious, the pivotal or rocking movements of these two parts are limited by the width of the slot 9, the ends of which come in contact with the stop-lugs 6 of the yoke.

At the rear edge of the stop-plate, is a vertically disposed cross-plate 14, that extends upwardly from the stop-plate and abuts against or may be secured to the rear edge of the transverse portion of the spreader. This cross-plate may be and preferably is formed integral with the stop-plate, as shown.

To form a passage for the usual tension-rod 16, the plate 14 is provided with a perforation 15, the latter being in transverse alinement with the perforation 4 of the standard 3.

The tension-rod 16 has its front end threaded to receive the usual washer and hand-wheel or nut, and at its rear end supports the clamping washers 18 and 19 and tension-spring 20, though, as will be obvious, the inner washer 18 may be omitted and the spring permitted to bear directly against the plate 14. These, however, are details of construction having no particular bearing upon my present invention. This completes the construction of the chair-iron with the exception of the addition of the usual spider-arms 21, which, in the present instance, are L-shaped in cross-section, being stamped from sheet-metal, and are riveted at suitable points along the opposite angles of the spreader.

Having described my invention, what I claim, is:

1. In a chair-iron, the combination, of a cast-metal yoke comprising a central upwardly disposed perforated standard and opposite similarly disposed shorter lugs or ears transversely bored and terminating at their upper ends in stop-lugs or shoulders, a sheet-metal stop-plate terminating in depending side-ears embracing said shorter lugs or ears of the yoke and between its ends provided with a transverse slot receiving the stop-lugs or shoulders of the yoke, an inverted U-shaped sheet-metal spreader hav-

ing depending side-ears longer than and embracing those of the stop-plate and riveted thereto, a transverse pintle passing through the depending side-ears of the stop-plate and the spreader and through the transverse shorter lugs or ears of the yoke, a perforated cross-plate extending upwardly from and formed integral with the rear of the stop-plate and abutting against the horizontal portion of the spreader, and a tension-rod carrying the usual tension-devices passing through the perforation in said cross-plate and through the perforation of the standard of the yoke.

2. In a chair-iron, the combination, of a yoke comprising a central upwardly disposed perforated standard, located at the front of the yoke, and opposite vertically disposed side-standards somewhat shorter than the central standard and provided with stop-shoulders or lugs, a stop-plate provided with opposite depending side-ears embracing the side-standards of the yoke and between its ends having a transverse slot receiving the stop-shoulders of the yoke, an inverted U-shaped spreader surmounting the stop-plate and having opposite depending side-ears embracing those of the stop-plate, a pintle passing through the side standards and ears of the stop-plate and spreader, means for rigidly connecting the ears of the stop-plate and spreader together, a tension-bolt passed through the perforation in the central standard of the yoke, and means located in rear of the spreader and supported thereby for receiving and supporting the rear end of the tension-rod.

3. In a chair-iron, the combination, of a yoke having a centrally located and vertically disposed perforated standard and opposite similarly disposed shorter standards in rear of the central standard, a stop-plate having depending side-ears embracing the shorter standards and provided between its ends with stops for coacting at each side of and with the said shorter standards, an inverted U-shaped spreader surmounting the stop-plate and having depending side-ears embracing those of the stop-plate and secured rigidly thereto, a pintle passing through the ears of the spreader and the stop-plate and the shorter standards of the yoke, and a tension-rod carrying the usual tension-devices mounted in the perforation of the central standard and supported at its rear end in rear of the spreader.

4. In a chair-iron, the combination, of a cast-metal yoke having a centrally located vertically disposed perforated standard at its front and in rear thereof and at opposite sides provided with shorter standards termi-

nating at their upper ends in shoulders, a sheet-metal stop-plate having its ends downturned to form ears embracing the shorter standards of the yoke and its rear portion reduced and upwardly disposed to form a cross-plate, and between its ends slotted to receive the shoulders at the upper ends of the shorter standards of the yoke, an inverted U-shaped spreader formed of sheet-metal and having its opposite ends downturned to form ears embracing those of the stop-plate and at its rear edge supporting the upper end of the cross-plate, a pintle passed transversely through the ears of the spreader and stop-plate and through the shorter side-standards of the yoke, rivets connecting the ears of the spreader and stop-plate, a tension-rod extending through the perforation in the centrally located standard of the yoke and through a similar perforation in the cross-plate and between the horizontal portions of the stop-plate and the spreader, a hand-wheel at the front of the tension-rod, and a spring tension-device on the rod in rear of the cross-plate.

5. In a chair-iron, the combination with a spreader having depending ends, of a plate connecting said ends and having at its rear an upturned portion formed integrally therewith and at its end engaging the upper portion of the spreader, and a tension-device the spring of which abuts against said upturned portion.

6. In a chair-iron, the combination with an inverted U-shaped spreader, a stop-plate having its ends connected to those of the spreader, a yoke upon which the spreader is pivoted, and a stop carried by the yoke and coacting with the stop-plate.

7. In a chair-iron, the combination with an inverted U-shaped spreader, a stop-plate having its ends connected to those of the spreader and at its rear bent to form an abutment, a tension-device having its spring bearing against the abutment, and a yoke pivotally supporting the spreader and having stops coacting with the stop-plate.

8. In a chair-iron, the combination with an inverted U-shaped spreader, a stop plate connected to the ends of the spreader and having an opening, a yoke having a stop entering and coacting with the opening in the stop-plate, and a pintle connecting the ends of the spreader and the yoke.

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

HARRY W. BOLENS.

Witnesses:

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JOHN GILSON, Jr.