H. W. BOLENS.

CHAIR IRON.

APPLICATION FILED MAY 6, 1916.

1,282,035.

Patented Oct. 22, 1918.

2 SHEETS—SHEET 1.

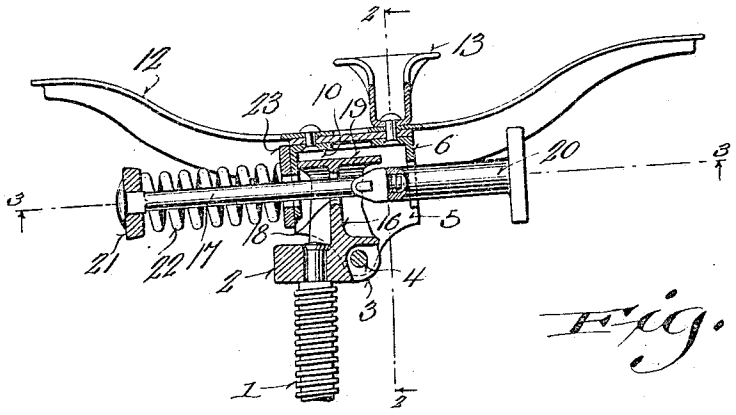


Fig. 1.

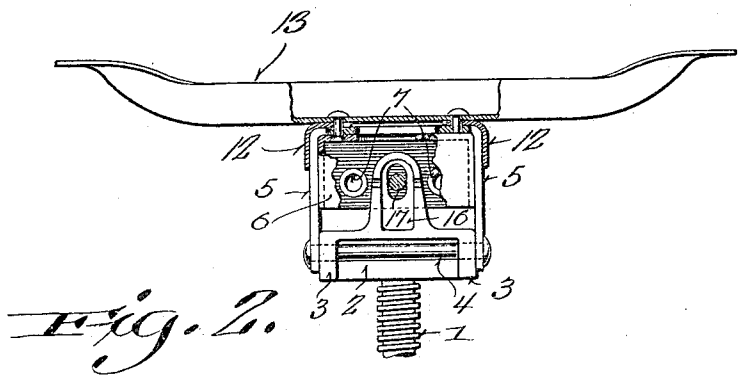


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

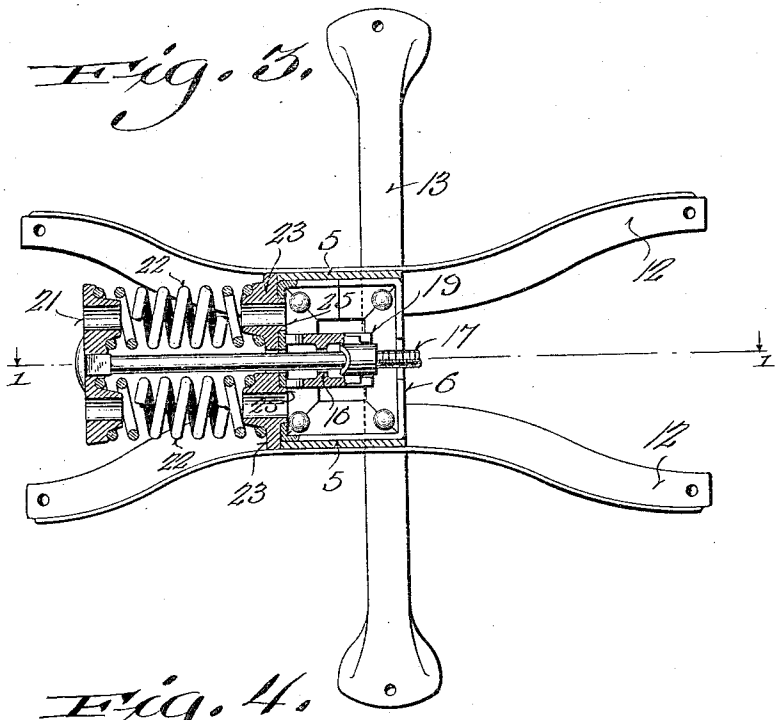


Fig. 4.

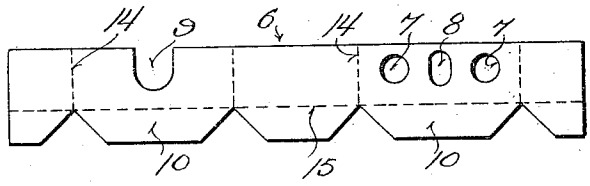
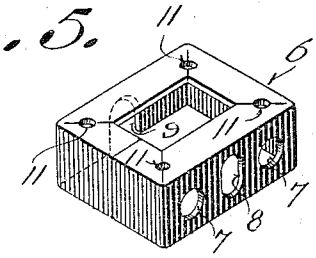


Fig. 5.



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UNITED STATES PATENT OFFICE.

HARRY W. BOLENS, OF PORT WASHINGTON, WISCONSIN.

CHAIR-IRON.

1,282,035. Specification of Letters Patent. Patented Oct. 22, 1918.

Application filed May 6, 1916. Serial No. 95,765.

To all whom it may concern:

Be it known that I, HARRY W. BOLENS, a citizen of the United States, and resident of Port Washington, in the county of Ozaukee and State of Wisconsin, have invented certain new and useful Improvements in Chair-Irons; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to the subject of chair irons especially adapted for use in connection with chairs of the swiveled reclining type.

The primary aim of the invention is to produce a chair iron that is simple in structure, strong and serviceable, and compact in arrangement, and one in which a novel arrangement of spider arms is provided, as well as a novel form of combined tension bar support and an inclosing housing therefor that serves as a stop for said support, whereby the swinging movements of the chair are restricted.

One simple and practical embodiment of the invention is shown in the accompanying drawings wherein—

Figure 1, is a vertical sectional view of the improved chair iron, the section being taken on the line 1—1, Fig. 3.

Fig. 2 is a similar view taken on the line 2—2, Fig. 1.

Fig. 3 is a horizontal sectional view taken on the line 3—3, Fig. 1.

Fig. 4 is a detailed view of a blank form from which the housing forming a part of this invention is formed.

Fig. 5, is a perspective view of the completed housing.

Referring to the accompanying drawings by numerals, 1 designates the adjusting screw connected to the head 2, the head having end ears 3 engaged with a pivot bolt 4 carried by the sides of a saddle 5. The saddle 5 straddles an open bottomed housing 6, which, as shown in Fig. 5 has one side provided with locking openings 7, and between said openings has a larger and preferably oval shaped guide opening 8. In the opposite side of said housing and in alinement with the guide opening 8, a slot or notch 9 is formed. The housing 6 has upper inwardly projecting flanges 10 that engage the top of the saddle 5, said flanges being provided with openings 11 for the reception of rivets or other fasteners that retain the saddle and housing in rigid relation and also serve to fasten the spaced parallel longitudinally arranged spider arms 12 to the saddle 5 as well as the transverse spider arm 13. The housing may be formed from a blank as shown in Fig. 4 of the invention, that is folded on the broken transverse lines 14 to a rectangular form, and also on the longitudinal lines 15 to produce the flanges 10.

The head 2 carries an upstanding guide and support 16 for the transversely arranged tension bar 17, such support having a central opening 18 through which the bar 17 extends, and a top flange 19 that overhangs both sides of said support, and by contacting with the sides of the housing 6, limits the swinging movements of the chair. Bar 17 is equipped with an adjusting nut 20 at one end, the sleeve of said nut extending through notch 9. Bar 17 extends through the guide opening 8, and projects well beyond the housing 6 and carries a spring supporting block 21 for the springs 22, said springs also abutting and seating on the supporting block 23 that is carried by the housing 6, the block 23 having projecting portions 25 that extend through the openings 7 and are upset to rigidly lock block 23 to said housing. Block 23 is also provided with a guide opening that alines with guide opening 8 and through it the bar 19 projects.

It will be understood from the foregoing that the housing 6, saddle 5, arms 12 and 13, and the spring support 23 are firmly fastened together, so that no relative movement of said parts is permitted, and that by the use of the transverse arms 13, coöperating with the arms 12, the chair seat is firmly supported.

The flange or top 19 of the guide and support 16 is a valuable feature of this invention, as the ends of the same by contacting with the sides of the housing 6, limit the swinging movements of the chair.

The mechanism shown herein for regulating the tension of the springs 22, is shown, described, and claimed in my pending application No. 6026 filed Feb. 4, 1915, and is illustrated merely as one form of tension means and the manner of adjusting the same that can be used in connection with this invention.

It will be understood from the foregoing that the saddle 5, housing 6, and arms 12 and 13 form what is known in this art as a spider, the parts of which are rigidly locked together.

I claim:

A chair iron comprising a spider formed of seat supporting arms, a housing, a saddle straddling the housing, means for rigidly fastening the arms, saddle, and housing together, and a head pivotally connected to the saddle, and having a portion projecting into the housing and provided with end projections adapted to abut the sides of the housing to limit the swinging movements of the spider.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

HARRY W. BOLENS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."