No. 798,032. PATENTED AUG. 22, 1905.

J. GILSON, JR.

CHAIR IRON.

APPLICATION FILED JULY 22, 1904.

2 SHEETS—SHEET 1.

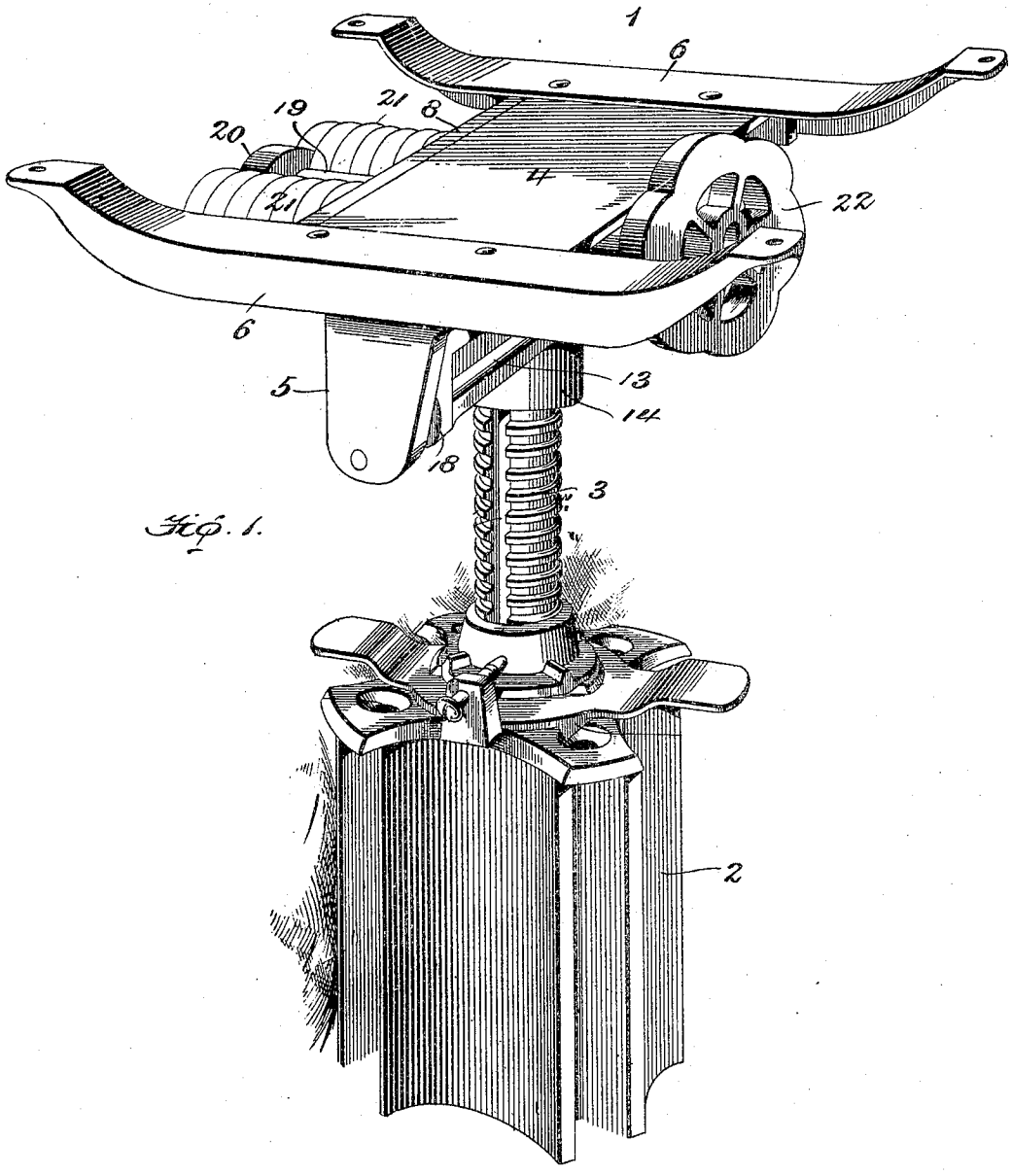


Fig. 1.

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Witnesses
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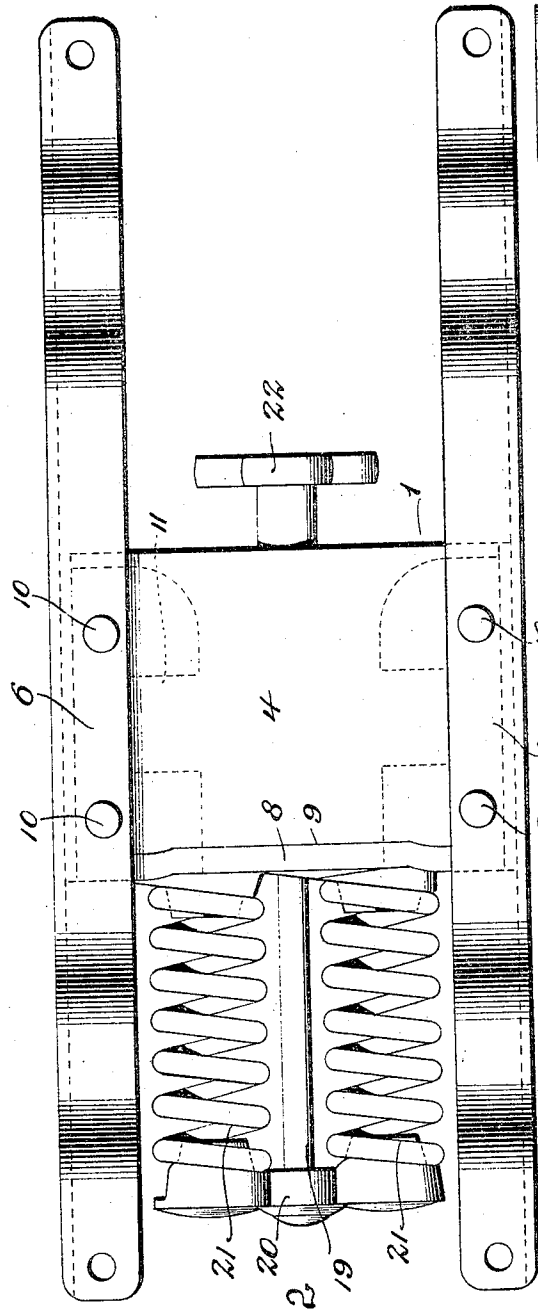


Fig. 2.

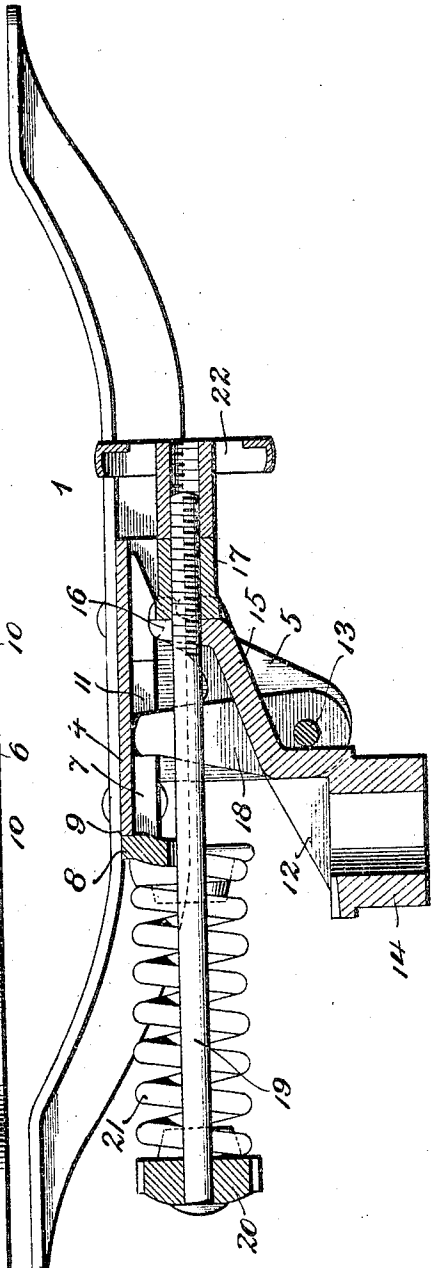


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN GILSON, JR., OF PORT WASHINGTON, WISCONSIN, ASSIGNOR TO THE GILSON MANUFACTURING COMPANY, OF PORT WASHINGTON, WISCONSIN, A CORPORATION.

CHAIR-IRON.

No. 798,032. Specification of Letters Patent. Patented Aug. 22, 1905.

Application filed July 22, 1904. Serial No. 217,730.

To all whom it may concern:

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

This invention relates to improvements in chair-irons; and the objects and advantages of the same, together with the novel features thereof, will hereinafter appear and be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a chair-iron embodying my improvements. Fig. 2 is a top plan view of the spreader. Fig. 3 is a central longitudinal sectional view of the same.

Like numerals indicate like parts throughout the drawings.

In carrying out my invention I employ the usual main parts—to wit, the spider 1, the socket 2, and the adjusting-post 3, the latter being rigidly connected to the spider and threaded in the socket.

The spider comprises the central spreader-plate 4, the opposite longitudinal edges of which depend at each side thereof, forming ears 5. At opposite sides of the spreader-plate are the usual curved spider-arms 6, said arms and plate being preferably struck from sheet metal. Located under the spreader-plate is a U-shaped spring-supporting plate 7, the rear end of which depends, as at 8, in rear of the spreader-plate and extends above the same, forming a shoulder 9, against which the rear edge of the spreader-plate abuts. The opposite forward branches or arms of the supporting-plate 7, as before stated, extend under the spreader-plate 4, and rivets 10 may be passed vertically through the spider-arms 6, spreader-plate 4, and spring-supporting plate 7. The arms or branches of the spring-supporting plate may be also provided at their inner edges with recesses 11, the object of which will hereinafter appear.

12 designates the usual yoke located between the depending ears 5 and through which the pintle 13 extends, said pintle serving to pivot the ears upon the yoke. The yoke has formed at its center the eye 14, secured to the upper end of the adjusting-screw 3, and there also extends upwardly from said yoke at its center a standard 15, having an opening 16 at its upper end which receives a washer 17. At its opposite sides stop-arms 18 extend vertically from the yoke and at their upper ends take into the opposite recesses 11 of the spring-supporting plate, whereby the tilting movement of the spreader upon the yoke is limited.

The usual adjusting-rod 19 passes through the washer 17 and also through a rear yoke 20, which like the spring-supporting plate 7 is provided with hubs for receiving the tension-springs 21, lying at opposite sides of the rod 19. These springs are placed under tension through the medium of the usual hand-wheel 22, threaded on the forward or front end of the rod 19. This completes the construction of the improved spider, the novelty of which consists in the employment of the spring-supporting plate 7, constructed as described, whereby it reinforces the lighter sheet-metal spreader-plate 4 and also serves as a stop for engagement by the stop-arms 18 of the yoke. Any construction of socket or swivel connection for giving vertical adjustment may be employed, or I may and preferably do employ that herein illustrated and which I shall now proceed to describe in detail.

So far as the means provided for arresting the tilting of the chair is concerned it will be obvious that one rocker-arm in conjunction with opposite stops will be sufficient, although I prefer to employ two such arms, as shown by the drawings.

Certain novel features of construction herein illustrated and described, but not claimed, form the subject-matter of a pending companion application—to wit, Serial No. 238,770—filed December 29, 1904.

Having described my invention, what I claim is—

1. The combination, in a chair-spider, of a transverse spreader-plate terminating in ears, a yoke for connection with the adjusting-post and provided with a central standard and at opposite sides thereof with rocker-arms, a pintle between the yoke and ears, a U-shaped plate arranged under the spreader-plate at opposite sides of the rocker-arms, said U-shape plate being provided at its rear with one member of a spring-support and having its opposite branches recessed to receive the upper ends of the rocker-arms, an adjusting-rod extending beyond the rear spring-support of said U-shaped plate and the central standard of the yoke, an adjusting-wheel at the front end of said rod, a yoke-piece at the rear end thereof,

and coiled springs interposed between the yoke-piece and the spring-support at the rear end of the U-shaped plate.

2. The combination, in a chair-spider, of a transverse spreader-plate having depending ears, spider-arms arranged on the plate, a yoke having an eye for receiving the adjusting-post and provided with a central standard and opposite rocker-arms, a transverse pintle passing through the yoke and the ears of the spreader-plate, a spring-supporting plate arranged under the spreader-plate to reinforce the same, said spring-supporting plate being of U shape and having its opposite arms or branches recessed to receive and form stops for the rocker-arms and at its rear end provided with a transverse spring-support extending above its arms or branches and having the shoulder 9 against which the spreader-plate abuts, a tension-rod mounted in the central standard and spring-support of said U-shaped plate, a yoke-piece at the rear end of the rod, springs interposed between the yoke-piece and the spring-support of said U-shaped plate, an adjusting-wheel at the front end of said rod, and rivets passed through the spider-arms, spreader-plate and arms or branches of the U-shaped plate.

3. The combination, in a chair-spider, of a transverse spreader-plate having depending bearing-ears, spider-arms arranged on the plate, a yoke having an eye for receiving the adjusting-post and provided with a central standard and opposite rocker-arms, a transverse pintle passing through the yoke and the ears of the spreader-plate, a spring-supporting plate arranged under the spreader-plate to reinforce the same, said spring-supporting plate being of U shape and having its opposite arms or branches recessed to receive and form stops for the rocker-arms, and at its rear end provided with a transverse spring-support extending above its arms or branches and having the shoulder 9 against which the spreader-plate abuts, a tension-rod mounted in the central standard and spring-support of said U-shaped plate, a yoke-piece at the rear end of the rod, springs interposed between the yoke-piece and the spring-support of said U-shaped plate, and an adjusting-wheel at the front end of said rod.

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

JOHN GILSON, JR.

Witnesses:

HARRY W. BOLENS,

EDWARD BARELMAN.