

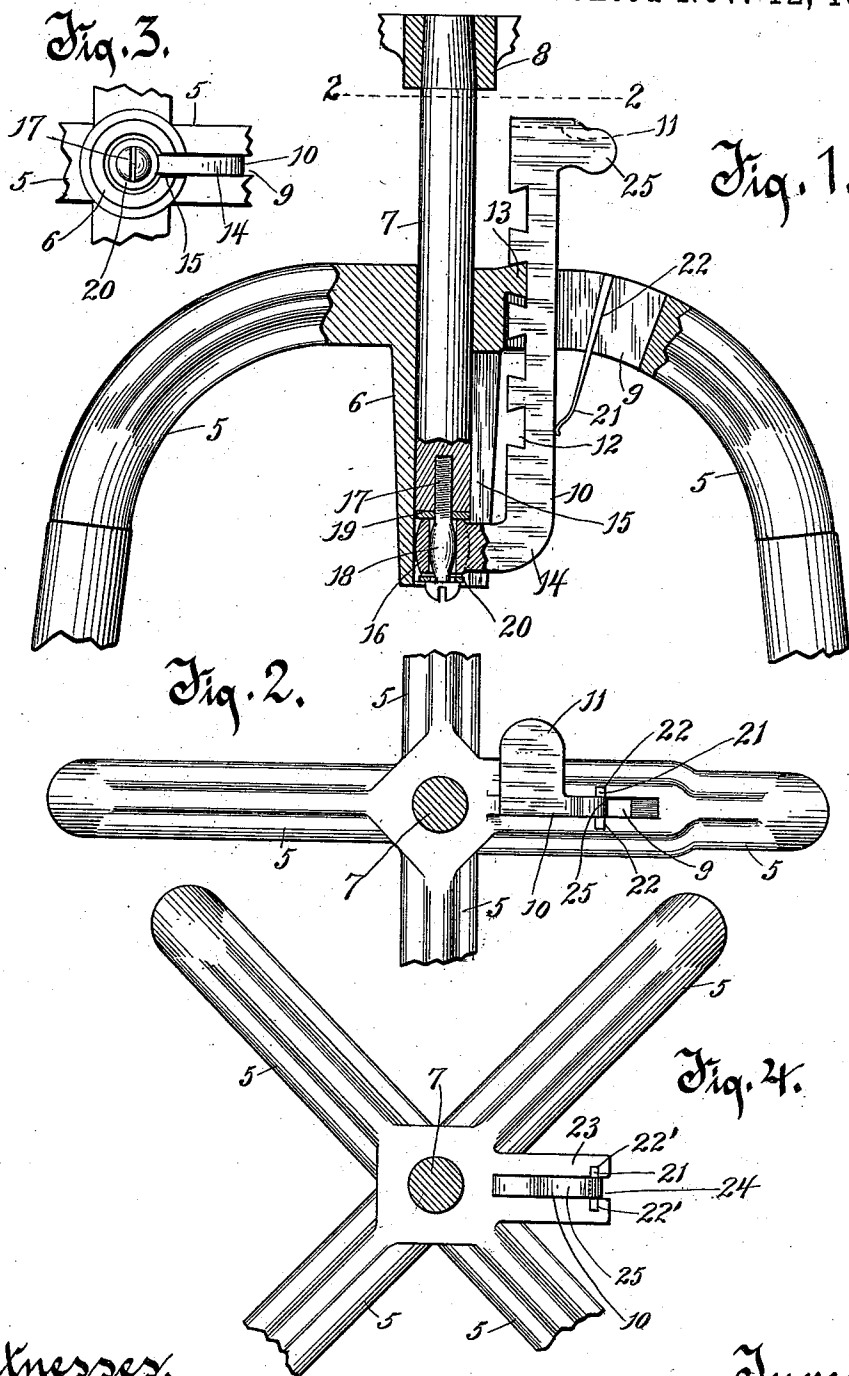
(No Model.)

2 Sheets—Sheet 1.

M. A. HANSON.
REVOLVING CHAIR.

No. 549,567.

Patented Nov. 12, 1895.



Witnesses.

A. K. Kiley.

Anna V. Faust.

Inventor.

Miles A. Hanson.

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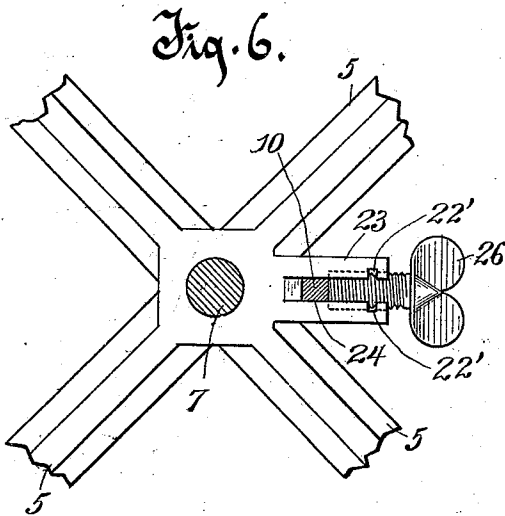
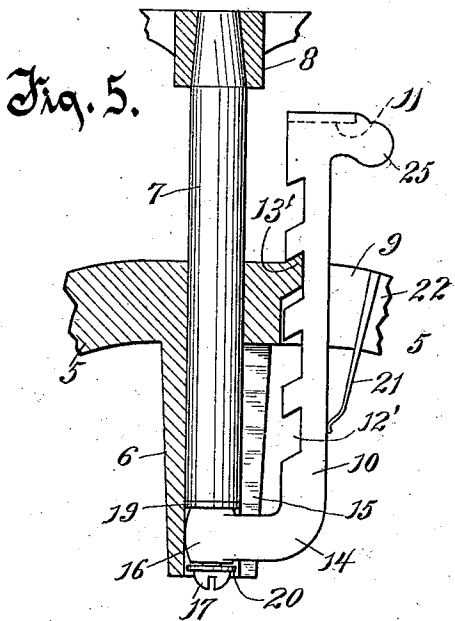
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2 Sheets—Sheet 2.

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Witnesses.

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UNITED STATES PATENT OFFICE.

MILES A. HANSON, OF PORT WASHINGTON, WISCONSIN.

REVOLVING CHAIR.

SPECIFICATION forming part of Letters Patent No. 549,567, dated November 12, 1895.

Application filed May 1, 1895. Serial No. 547,769. (No model.)

To all whom it may concern:

Be it known that I, MILES A. HANSON, of Port Washington, in the county of Ozaukee and State of Wisconsin, have invented a new and useful Improvement in Revolving Chairs, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in revolving chairs, having particular reference to that class wherein the seat is permitted to revolve without raising it with respect to the legs, the adjustment up and down being secured by independent mechanism.

The invention is preferably applied, although not necessarily, to office-stools.

The object is to provide an improved construction of adjusting mechanism.

The invention consists of the devices and parts or their equivalents, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is an elevation of the improvements with parts broken away. Fig. 2 is a cross-section on the line 2 2 of Fig. 1. Fig. 3 is an under view of a fragment of Fig. 1. Fig. 4 is a plan view of a modified form of construction. Fig. 5 is a sectional view showing a slightly-modified construction of the slots of the adjusting-arm and the lug to engage the same; and Fig. 6 is a fragmentary plan view of a form in which the intermediate lug is used, and which lug is adapted for receiving a thumb-screw.

Like numerals of reference denote like parts throughout the several views.

Referring to the drawings, the numerals 5 indicate the supporting-legs, from the upper converging ends of which depends a metal hub 6. A spindle 7 extends down from the stool or chair seat, (not shown,) to which it is fixed conveniently by means of a suitable flange from the head 8.

In the form of construction shown in Figs. 1, 2, and 3 one of the legs 5 is provided with a horizontally-elongated slot 9. In this slot fits a spindle-adjusting arm 10, said arm having projecting from one side at its upper end a finger-piece 11. The inner edge of the arm is provided with a series of dovetail notches 12, any of which are adapted to receive a correspondingly-shaped lug 13, which projects from the inner bordering edge of the slot 9,

said lug being slightly less in width than the width of a notch. The lower end of the arm is bent inwardly at right angles, as indicated at 14, said inwardly-bent portion working in a vertically-elongated slot 15 in the hub and terminating in an apertured head 16. The spindle extends into the depending hub 6 and receives the end of a screw 17, said screw having that portion which is within the aperture of the head unthreaded and of oval shape, as indicated at 18. Between the end of the spindle and the upper end of the head is a washer 19, and between the head of the screw and the lower end of the head is another washer 20. Instead of having the part 17 in the form of a screw it could, of course, simply be a stem depending from the spindle. The screw, however, is preferred, inasmuch as it provides for readily disconnecting the parts. The spindle-adjusting arm is held up to locked position by means of a spring 21, the free end of which bears against the outer edge of the arm. The edges of this spring are received in wedge-shaped recesses 22 22, formed in the bordering sides of the slot.

In the operation of my device, when it is desired to raise or lower the spindle for the purpose of adjusting the height of the stool or chair seat, the finger-piece at the upper end of the spindle-adjusting arm is grasped and the upper end of said arm thereby pulled outwardly, so as to free the engaged notch 12 from the lug 13. The adjusting-arm can then be readily raised or lowered, and the spindle thereby correspondingly raised or lowered. After the desired position is obtained, the upper end of the adjusting-arm is pushed inwardly, so that the appropriate notch may be engaged by the lug 13, and the spindle thereby held in adjusted position. The oval-shaped portion 18 of the screw is provided so as to permit a necessary turning of the inwardly-extending portion of the arm on the screw when the upper end of said arm is thus forced inwardly for engagement or outwardly for disengagement. It will be noticed, also, that the outer surface of the head 16 is also of oval shape, so that when said head is within the hub, as shown in Fig. 1, the slight turning just referred to is not interfered with by the wall of the hub.

The dovetail form of the notches 12 and the

lug 13 is provided in order to prevent any upward movement of the spindle in case a pull is given upwardly on the chair-seat. In such event the lower edge of the notch will contact against the corresponding edge of the lug.

From the above description it will be seen that I provide a simple adjusting mechanism involving a secure lock, after the proper adjustment is secured. The invention is, furthermore, simple in construction and has but few parts liable to derangement.

In Fig. 4 I show a slightly-modified construction. Instead of providing an elongated slot, such as 9, in one of the legs 5, I have the parts cast with a radially-projecting lug 23, having an open-ended slot 24 therein for the reception of the adjusting-arm. The side walls of this slot are provided with wedge-shaped recesses 22' 22', within which the spring fits. In Figs. 1 and 2 I prefer to bend over the upper end of the adjusting-arm, so as to form the finger-piece 11 projecting laterally from the side of the arm, so as to place the finger-piece in the most convenient position to be grasped without the fingers coming in contact with the chair-legs. In the modified form of construction, however, as the lug 2 projects out radially between two of the legs, that portion of the adjusting-arm indicated by the numeral 25 in Fig. 1 may serve as the finger-grasp, without the necessity of bending over laterally the upper end of the adjusting-arm.

In Fig. 5 the spindle-adjusting arm is shown as provided with slots 12', in which both the upper and lower bordering edges incline downwardly, while the lug 13' has a corresponding inclination. It will be remembered that in the form shown in Fig. 1 the slots and the lug which engages the slots were so arranged that an upward pull or lift on the chair-seat would not free the spindle-adjusting arm from the engaging-lug. This form of construction, (illustrated in Fig. 5,) however, is adapted for the purpose of allowing an upward lift or pull on the chair-seat to throw the spindle-adjusting arm out of engagement with the lug, whereby the height of the spindle may be adjusted from above as well as below.

Fig. 6 illustrates a modification in the form in which the intermediate lug 23 is used, the open-ended slot 24 being provided with threads to receive a thumb-screw 26. This thumb-screw is designed to take the place of the spring 21, the screw being turned so as to cause its inner end to bear against the outer edge of the spindle-adjusting arm, and thereby hold said arm up to firm engagement with the lug 13.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. The combination, of a chair iron, provided with a horizontally-elongated slot, said slot having a lug projecting therein, and the chair iron further provided with a hub having legs extending therefrom, said hub in turn provided with a vertically-elongated slot, a spindle passing into the hub, and an adjusting arm having a loose connection with the spindle to permit lateral play of the arm, said arm extending out laterally through the vertically-elongated slot of the hub, and provided with an upwardly-extending branch, said branch extending through the horizontally elongated slot of the chair iron, and provided with a series of notches, any of which are adapted to be engaged by the lug of the horizontally elongated slot, substantially as described.

2. The combination, of a chair iron, provided with a horizontally-elongated slot, said slot having a dove-tail lug projecting therein, and the chair iron further provided with a hub having legs extending therefrom, said hub, in turn, provided with a vertically-elongated slot, a spindle passing into the hub, and an adjusting arm having a loose connection with the spindle to permit a lateral play of the arm, said arm extending out laterally through the vertically-elongated slot of the hub, and provided with an upwardly-extending branch, said branch projecting through the horizontally elongated slot of the chair iron, and provided with a series of dove-tail notches, any of which are adapted to be engaged by the correspondingly-shaped lug of the horizontally-elongated slot, substantially as described.

3. The combination, of legs, a hub depending therefrom, and provided with a longitudinal slot, a spindle passing into the hub, an adjusting arm working vertically in an elongated slot, said arm having its lower end provided with an angular extension terminating in an apertured headed portion which is adapted to fit the bore of the hub, the outer surface of said headed portion being oval shaped, a stem passing through the aperture of the headed portion and rigidly connected to the spindle, said stem having an oval shaped portion within the aperture of the head, and means for holding the adjusting arm locked in adjusted position, substantially as set forth.

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

MILES A. HANSON.

Witnesses:

O. W. NICHOLS,
J. A. ZILLIER.