C. H. KEENEY.

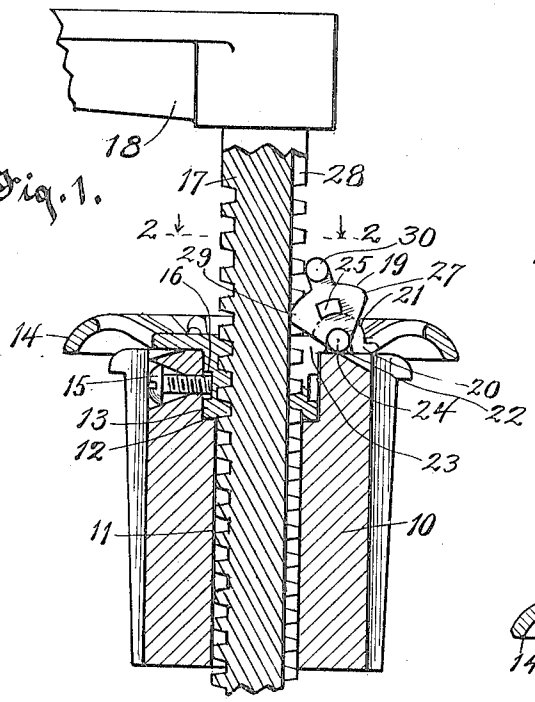
CHAIR IRON.

APPLICATION FILED SEPT. 28, 1912.

1,207,412.

Patented Dec. 5, 1916.

Fig. 1.



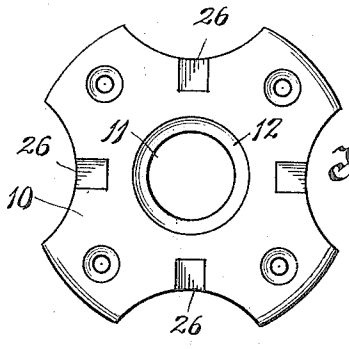


Fig. 3.

Fig. 4.

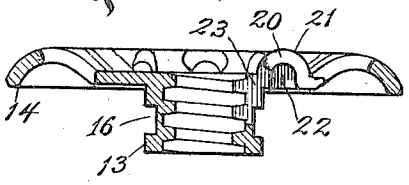


Fig. 2.

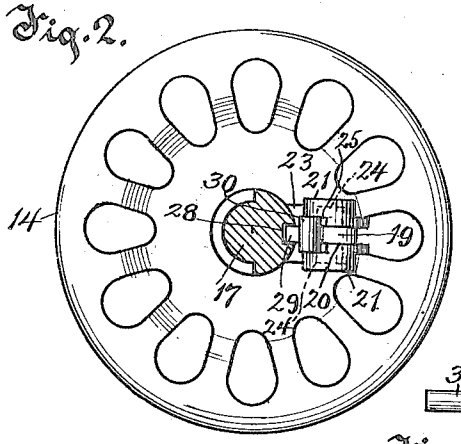


Fig. 5.

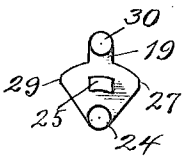
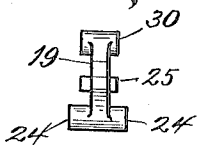


Fig. 6.



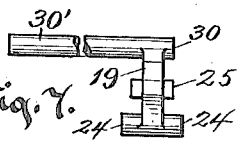


Fig. 7.

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CHAIR-IRON.

1,207,412. Specification of Letters Patent. Patented Dec. 5, 1916.

Application filed September 28, 1912. Serial No. 722,824.

To all whom it may concern:

Be it known that I, CHARLES H. KEENEY, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Chair-Irons, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in chair irons and more particularly to irons of the revolving type.

It is one of the objects of this invention to provide a chair iron of such construction that the hub portion of the iron may be separated from the spindle portion, for convenience in shipping in "knock down" form without in any manner separating the other parts of the mechanism from the spindle, and when so separated the parts of the mechanism connected to the spindle will remain attached thereto and in proper position to engage the hub when the iron is again assembled.

A further object of the invention is to provide a chair iron in which the revoluble portion of the iron is adapted to operatively hold the locking member to the spindle portion when the hub is removed from the spindle portion, and to permit of the removal of the locking member when the revoluble portion is separated from the spindle.

A further object of the invention is to provide a chair iron which is simple in construction, strong and durable, and which consists of the minimum number of parts.

With the above and other objects in view, the invention consists of the improved chair iron and its parts and combinations, as set forth in the claims, and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views: Figure 1 is a vertical sectional view of the improved chair iron, the revoluble portion of the iron being shown locked to the spindle to provide for rotating the spindle without changing the elevation of the spindle. Fig. 2 is a sectional view thereof taken on line 2—2 of Fig. 1; Fig. 3 is a top view of the hub portion of the chair iron; Fig. 4 is a vertical sectional view of the revoluble member removed from the other portions of the chair iron; Fig. 5 is a side view of the locking dog of the chair iron; Fig. 6 is an edge view thereof; and Fig. 7 is an edge view of a slightly modified form of locking dog.

Referring to the drawing the numeral 10 indicates the hub portion of the improved chair iron which is provided with a bore 11 and with leg attaching means of ordinary construction. The upper portion of the bore is enlarged to form a sleeve recess 12 to accommodate the depending sleeve 13 of the revoluble member 14 of the chair iron. The revoluble member is revolubly attached to the hub by means of a locking screw 15 which is threaded through the side of the hub and enters an annular recess or groove 16 formed in the sleeve of the revoluble member.

A spindle 17, attached to a chair spider 18, is threaded through the revoluble member and its sleeve and enters the bore 11 of the hub so that when the seat which is attached to the spindle is revolved and the threaded member is held revolubly fixed to the hub, the spindle and seat will be raised or lowered according to the direction the seat is turned. In order to provide for locking the revoluble member against turning with relation to the spindle, when it is desired to change the adjustment of the chair, or to lock the spindle to the threaded member when in ordinary use, a locking dog or member 19 is provided which is adapted to accomplish the desired result.

The revoluble member is provided with an elongated slot 20 and with curved upstanding projections 21 forming sockets 22 on opposite sides of the elongated slot 20. The entrances to these sockets are formed by increasing the width of the elongated slot 20 from the said sockets to the bore of the revoluble member, as indicated by the numeral 23. The lower portion of the locking member extends through the elongated slot of the revoluble member and is provided with trunnions 24 on opposite sides thereof which enter and have their bearings in the sockets 22 of the said member. The trunnions are also held in the sockets by means of projecting stops 25 on opposite sides of the member which ride over the upper curved portions of the socket projections 21. The

curved portions of the projections are concentric with the sockets to provide for a true bearing in all positions of movement of the locking member.

The upper portion of the hub has formed therein locking recesses 26 into any one of which the outer upper edge 27 of the locking dog 19 enters to lock the revoluble member to the hub and permit the height of the chair seat (not shown) to be adjusted. The spindle is provided with a longitudinally extending slot 28 into which the upper inner edge 29 of the dog 19 is swung to lock the spindle to the revoluble member when the seat is adjusted to the desired height.

It will be noted that the pivotal connection of the locking dog with the revoluble member is so positioned that the dog will remain in either position to which it may be swung. The upper medial portion of the dog is provided with projections 30 for convenience in grasping the dog by the hand, and in the modified form shown in Fig. 7 one of the projections 30′ is extended to a position to be easily engaged by the foot of the person sitting in the chair.

In assembling the chair iron the trunnions of the dog are passed through the entrances to the sockets of the revoluble member before the member is threaded on the spindle. The dog is then swung to its outermost position with the stop projections resting on the upper curved surfaces of the socket projections and when in this position the revoluble member may be easily threaded on the spindle. When these parts are thus assembled the spindle and the depending sleeve of the revoluble member may be inserted in the bore of the hub and the locking screw turned to enter the annular recess or groove of the sleeve. The iron is now completely assembled and if it is desired to ship in "knock down" form it is only necessary to turn the locking screw to release the sleeve, and the hub may then be separated from the spindle and the revoluble member and the separated parts shipped without the liability of the spindle and the revoluble member and the dog member becoming accidentally separated and lost.

I disclaim the following invention: A locking means for an adjustable chair iron, having a hub portion and a grooved spindle, comprising a movable member provided with a bore through which the chair spindle is adapted to extend, said revoluble member provided with a socket and a locking dog engaging in said socket, whereby the dog is removably secured in said socket and pivotally connected to the revoluble member, said dog being adapted to be moved to a position in vertical alinement with the bore of said revoluble member to lock said member to the spindle.

From the foregoing description it will be seen that the chair iron is of very simple construction and is well adapted for the purpose desired.

What I claim as my invention is:

1. A locking means for adjustable chair irons, comprising a spindle, a revoluble member provided with an opening through which the spindle passes, said revoluble member also provided with a slot, said slot having an opening leading thereto, a locking means freely turnable in the slot of the revoluble member, and adapted, under one adjustment thereof, to lock the spindle to the revoluble member so that the spindle and revoluble member will rotate together, and a fixed member with which the locking means is thrown into engagement, under another adjustment of said locking means, said revoluble member having means coacting with one or the other of said members for raising or lowering the spindle, and said locking means and revoluble member being, respectively, so constructed as to nonremovably maintain the pivotal connection of the locking member to the revoluble member, when the revoluble member is surrounding the spindle, and permitting the locking member to be freely withdrawn through the opening of the revoluble member which leads to the slot of said revoluble member, only when said revoluble member is separated from the spindle.

2. A locking means for an adjustable chair iron, having a hub portion and a grooved spindle, comprising a revoluble member provided with a bore through which the chair spindle is adapted to extend, said revoluble member provided with an elongated slot communicating with the bore and with upstanding projections forming sockets communicating with the slot, the said slot having its greater width between the sockets and the bore of the revoluble member, and the upper portions of the upstanding projections being curved approximately concentrically with relation to the sockets, and a locking dog extending into the elongated slot of the revoluble member and having trunnions which enter the sockets of said member to pivotally connect the dog to the revoluble member, said dog adapted to be swung to a position in vertical alinement with the bore of said revoluble member to lock the said member to the spindle, said dog also provided with projections which ride on the curved portions of the upstanding projections of the revoluble member.

3. A locking means for adjustable chair irons, comprising a longitudinally grooved spindle, a revoluble member with which said spindle has threaded engagement, said revoluble member provided with a slot having one end open, and which open end extends to and communicates with the spindle opening of the revoluble member, a locking

means freely turnable in the slot of the revoluble member and adapted, under one adjustment thereof, to engage the groove of the spindle so that the revoluble member and spindle will rotate together, and a hub member surrounding the revoluble member and spindle, and provided with means for engagement therewith of the locking means, said locking means when thrown into engagement with the hub member, permitting the spindle to be raised or lowered on its threaded engagement with the revoluble member, and said locking means and revoluble member, respectively, being so constructed as to non-removably maintain the pivotal connection of the locking member to the revoluble member, when the revoluble member is surrounding the spindle, and permitting the locking member to be freely withdrawn through the open end of the slot of the revoluble member, only when said revoluble member is separated from the spindle.

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

CHARLES H. KEENEY.

Witnesses:
CLARA V. MUEHLBACH,
KATHERINE HOLT.

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