No. 617,324. Patented Jan. 10, 1899.

H. EARL, JR.

AUTOMATICALLY LOCKING STOOL OR CHAIR.

(Application filed Dec. 17, 1897.)

(No Model.)

Fig 1

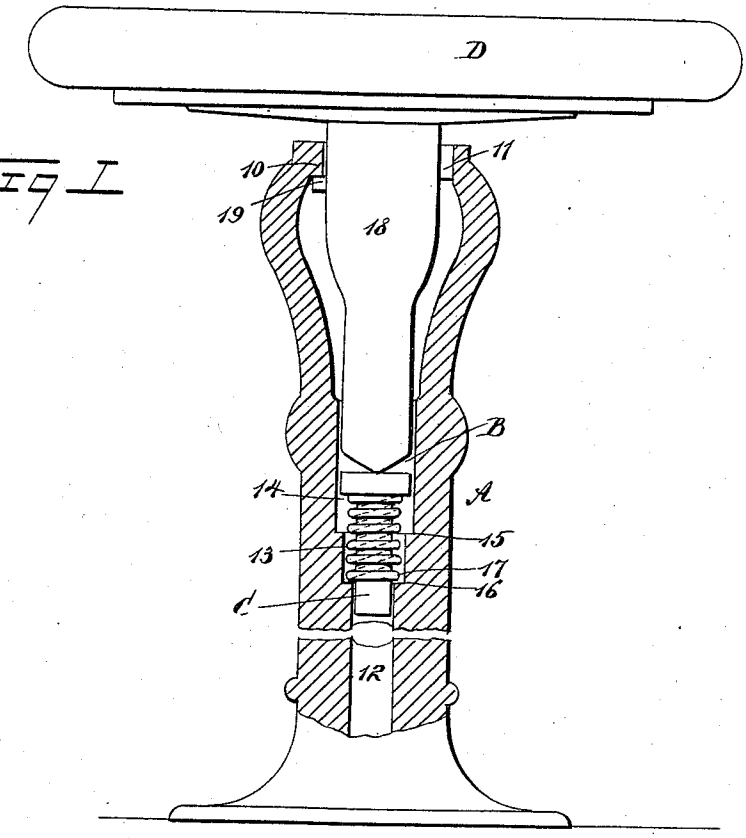
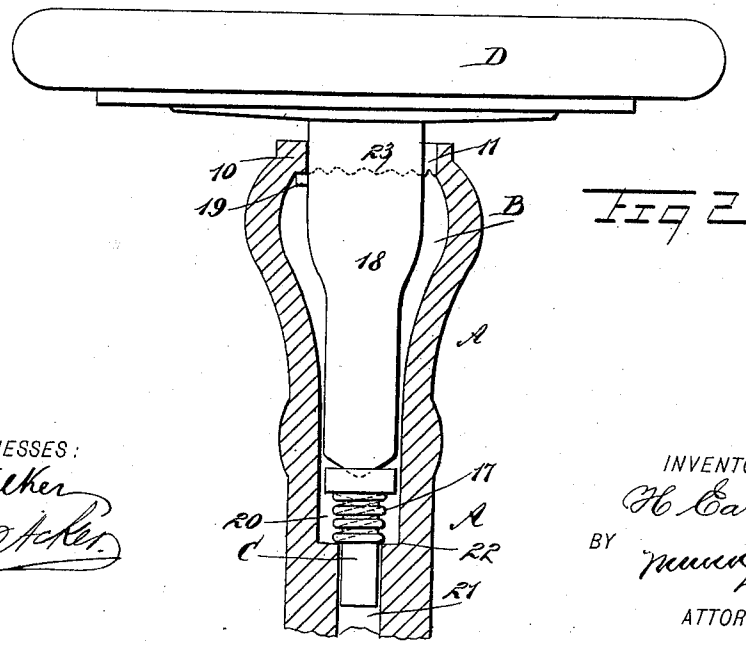



Fig 2




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# UNITED STATES PATENT OFFICE.

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## AUTOMATICALLY-LOCKING STOOL OR CHAIR.

SPECIFICATION forming part of Letters Patent No. 617,324, dated January 10, 1899.

Application filed December 17, 1897. Serial No. 662,281. (No model.)

*To all whom it may concern:*

Be it known that I, HUGH EARL, Jr., of New York, (Flushing,) in the county of Queens and State of New York, have invented a new and Improved Automatically-Locking Stool or Chair, of which the following is a full, clear, and exact specification.

The object of the invention is to provide a stool or chair so constructed that the seat will be revoluble only when the weight of a person is sustained thereby, thus preventing the possibility of the pivoted seats of chairs or stools being accidentally turned when said seats are unoccupied and avoiding the annoyance in stores and other public places where such seats are used caused by children playfully turning empty seats.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a vertical central section through the standard of a pivotal seat, the seat and its pivot being in side elevation; and Fig. 2 is a view similar to Fig. 1, illustrating a slight difference in construction.

A represents a standard which is provided with an interior longitudinal chamber B. The upper portion of the chamber is preferably made wider than the other portions, and at the open top of the standard an interior annular flange 10 is formed, which flange at a desired point is provided with a slot 11 extending through it from top to bottom.

Under the construction shown in Fig. 1 the lower portion of the chamber B is made in three diameters, producing an extreme lower section 12 of smallest diameter, a next upper section 13 of slightly-increased diameter, and a further upper section 14 of greater diameter than the section 13. Under this formation of the lower part of the chamber B two shoulders 15 and 16 are obtained.

A T-pin C is located in the lower portion of the chamber B, the head of the pin being square or polygonal, so that the pin cannot turn in the section 14 of the said chamber in which the said head is to be located, the shank of the T-pin being passed through the section 13 of the chamber into the smallest section 12, in which latter section of the chamber the shank of the T-pin may have vertical movement. The head of the pin, however, may be given any desired shape.

A spring 17 is coiled around the shank of the pin C, having bearing against the under face of the head of the said pin and against the shoulder 16 in the chamber B. When the pin C is pressed downward as far as the spring 17 will permit, the head of the pin may rest upon the upper shoulder 15 in the said chamber.

The seat D may be of any approved construction and is provided with a pivot-section 18, secured in any suitable or approved manner to its under face. The pivot-section 18 of the seat is of such diameter at its upper portion that it may neatly, yet loosely, fit in the open upper end portion of the standard, while the lower end of the pivot-section of the seat is so reduced in diameter that it may neatly, yet loosely, fit in the section 14 of the standard-chamber. The lower end of the pivot-section of the seat may be given any desired shape; but preferably it is made conical, and the conical top of the pivot-section is adapted to bear upon the head of the pin C.

Near the upper end of the pivot-section of the seat a spur 19 is formed at one side, and when the pivot-section of the seat is to be introduced into the standard the spur 19 is brought opposite the opening 11 in the flange 10 of the standard, and the seat is pressed downward until the spur 19 will be brought to an engagement with the under face of the flange 10, at which time the conical lower end of the pivot-section of the seat will have bearing on the head of the pin C. The spring 17 will now exert upward tension upon the pivot-section of the seat and cause the spur 19 to bind so tightly against the flange 10 that the seat cannot be turned without considerable effort; but the moment that the seat sustains the weight of a person the pin C will be forced downward, compressing the spring 17 and carrying the spur 19 from engagement with

the flange of the standard. Thereupon the pivot-section of the seat will be free to turn on its support in the standard.

In the event the spur 19 should accidentally be opposite the opening 11 when a person rises from the seat the seat could not be turned, because the spring 17 will not have sufficient power to raise the pivot-section of the seat high enough to carry the spur entirely beyond the top of the standard.

Under the construction shown in Fig. 2 but two reductions in the dimensions of the standard-chamber B are needed. Therefore the chamber is provided with a reduced section 20 near its lower end and a communicating section 21 of still less diameter at the lower end. The same style of pin C is employed, and likewise a spring 17, the spring 17 being seated at one end upon the single shoulder 22, formed in the chamber, and bearing at the other end against the head of the pin. Under this construction the head of the pin will not have any fixed bearing to limit its downward movement, the spring being made sufficiently strong to provide for all emergencies.

Under the construction shown in Fig. 2 I have also illustrated the lower surface of the flange 10 as provided with a series of depressions 23, whereby the lower face of the flange is scalloped or serrated. The scallops in the flange serve to receive between them the spur 19 when the seat is unoccupied and tend to render it more difficult to turn the seat at that time. It will be understood that the scallops or serrations 23 may be produced upon the flange when the arrangement shown in Fig. 1 is employed and with equally good results.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A stool or chair, having a standard and a revoluble seat having limited vertical movement thereon, means for normally holding said seat raised, and a positive lock for said seat, operative to prevent its rotation when elevated, and released by depression of the seat.

2. A standard, a revoluble seat mounted within the standard, and a spring-support for the seat within said standard, the seat and standard having interlocking engagement when the seat is raised, the seat and standard disengaging from each other when the seat is depressed.

3. A standard provided with an interior flange having a serrated surface and a seat revoluble and spring-supported within the standard, a portion of the pivot of the seat being normally in contact with the serrated surface of the flange, whereby when the seat is occupied it is free to revolve and when unoccupied is locked against turning, substantially as described.

4. The combination, with a standard provided with a longitudinal chamber, the said chamber being open at the top and provided at the top with an inner annular flange provided with a slot therein, the lower portion of the chamber being in different diameters, a pin the shank of which enters one section of the chamber, the head of the pin being in the next section, and a spring coiled around the shank of the pin, the said spring resting upon a shoulder within the standard-chamber and having bearing also against the head of the pin, of a seat, a pivot-section attached to the seat, extending within the chamber of the standard, a projection from a side of the pivot-section of the seat, which projection is arranged for engagement with the under surface of the flange of the standard, the lower end of the pivot-section engaging with the head of the said pin when the projection from the pivot-section engages with the said flange of the standard, for the purpose specified.

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