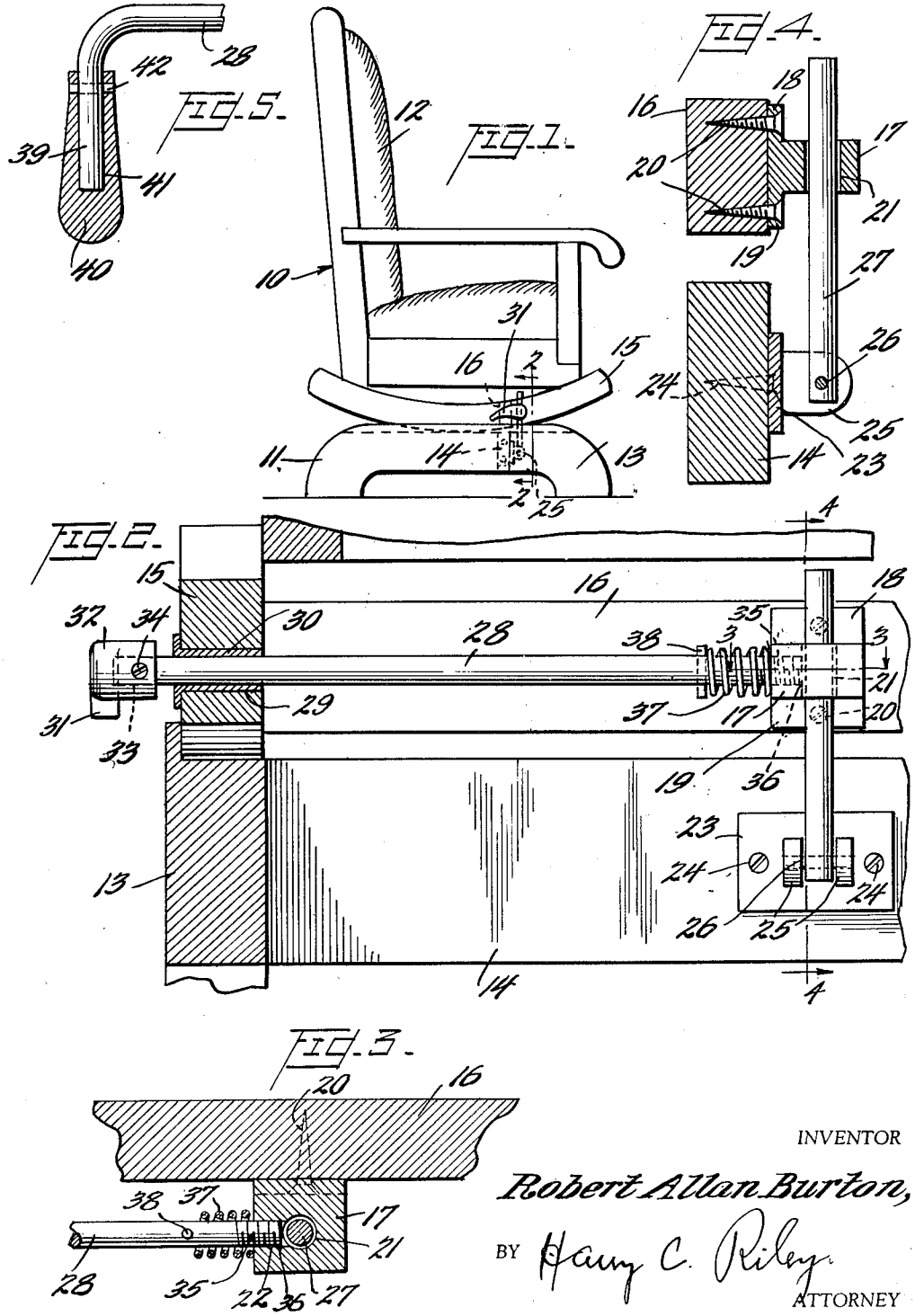
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LOCKING MECHANISM FOR PLATFORM ROCKERS

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LOCKING MECHANISM FOR PLATFORM ROCKERS

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1

This invention relates to platform rockers and particularly to mechanism for locking the rocker member to the base member or platform.

An object of the invention is to provide a platform rocker with locking mechanism consisting of a minimum number of parts, which may be easily and quickly installed, yet function efficiently to lock the rocker and base members against relative movement in different positions of adjustment.

A further object is the provision of locking mechanism which may be installed on the usual type of platform rocker without remodeling or changing the rocker except for boring a hole through one of the side frame pieces of the rocker member to permit insertion of the locking bar in operative position.

Another object is to provide means for insuring that the locking mechanism, when in inoperative position, will not accidentally move to operative locking position when the rocker member is adapted to be rocked on the base member during its use as a rocker.

With the foregoing and other objects in view, the invention will now be more fully described, reference being had to the accompanying drawings in which:

Figure 1 is a side elevation of a platform rocker embodying the locking mechanism of the present invention.

Figure 2 is an enlarged fragmentary view showing portions of the side and transverse frame elements of the rocker and base members with my locking mechanism applied thereto.

Figure 3 is a horizontal section on lines 3—3 of Figure 2,

Figure 4 is a vertical section on lines 4—4 of Figure 2, and

Figure 5 is a view partially in section of a modified form of handle.

Referring now to Figure 1, there is disclosed a platform rocker 10 and, since this may comprise a construction conforming to the usual type of furniture of this character, I have illustrated only those elements with which my invention is associated.

As is usual in these devices, there is a base member 11 and a chair or rocker member 12, the base member having spaced sides 13, connected by a front transverse frame element 14. The rocker member 12 is provided with spaced rockers 15 connected by a front transverse frame element 16 which preferably is located above and in substantial alignment with the transverse frame element 14 when the base and rocker

2

members are in the position shown in Figure 1.

Referring now to Figures 2 and 4, I provide a block 17 of solid metal or the like having upper and lower flanges 18 and 19 provided with openings for the reception of screws 20 or other suitable fastening means for securing the block to the front face of the transverse element 16. The block 17 has a smooth vertical bore or opening 21 extending therethrough and a horizontal passage or opening 22 communicating with the bore 21 and extending through one wall of the block. This passage is screw threaded for a purpose to be presently described.

Mounted on the transverse element 14 of the base member below the block 17 is a bracket 23 having holes for the reception of screws 24 or the like, by which the bracket is secured to said element 14. This bracket is provided with spaced arms 25 between which a pivot pin 26 extends and to which it is secured by riveting or in any other suitable manner. A rod 27 has a transverse bore at its lower end through which the pin 26 extends to pivotally mount the rod on the bracket between the arms 25. The upper portion of the rod 27 passes through the bore 21 of the block 17 and is adapted to slide therein during relative movement between the rocker and base members. As clearly shown in Figures 3 and 4, there is sufficient clearance between the diameters of the rod and bore 21 to prevent binding between these elements during rocking of the rocker member upon the base member.

Referring particularly to Figure 2, the numeral 28 designates a locking bar which is spaced from and extends substantially parallel to the transverse frame element 16. This bar passes through an opening 29 in one of the rockers 15 and may be journalled in a bearing or bushing 30 lining the opening 29. The opening 29 is in alignment with the horizontal passage 22 and the inner end portion of the bar 28 is threaded and screwed into the threaded passage 22.

To facilitate operation of the locking bar, a handle 31 is mounted on its outer end and extends transversely thereof along the outer face of the adjacent rocker 15, as shown in Figure 1. This handle is formed from a solid piece of metal and has a transverse portion 32 at its inner end provided with a socket 33 for receiving the outer threaded end of the locking bar 28. This portion 32 has a threaded opening connecting with the bore 33 for the reception of a set screw 34 or the like to secure the handle on the locking bar.

The inner end portion of the bar 28 is threaded

as at 35 and is screwed into the threaded passage 22 of the block 17 (see Figure 3). With this arrangement the bar may be rotated so that its extreme inner end 36 will come into contact with the bar 27 and force the latter into locking engagement with the block, that is, the end of the bar will move the rod into binding engagement with the bore 21 of the block and since the block is fixed to the transverse frame element 16, the rod is effectively locked against movement in the block, thereby locking the rocker and base members against relative movement. These members may be locked in the position shown in Figure 1 or, if desired, the rocker member may be locked in an inclined position with respect to the base member.

When it is desired to convert the device to a rocker, the handle is actuated to reverse the rotation of the bar and move the extreme end 36 thereof out of contact with and away from the rod 27 to the position shown in Figure 3, thereby permitting the bar to slide through the block and thus allowing the rocker member to rock upon the base member.

In order to insure that the locking bar 28 will not accidentally rotate from its inoperative position during rocking movement of the rocker member 12, I provide a coil spring 37 surrounding the inner end of the locking bar and held in operative position against sliding movement on the bar by a pin 38 extending transversely through said locking bar. The distance between the pin and block is such that the spring will be compressed in both the operative and inoperative positions of the locking bar. While the spring 37 will be compressed to a greater extent when the bar is in locking engagement with the rod 27 than when it is moved away from the same into inoperative position, nevertheless in this latter position the spring will be compressed sufficiently to frictionally lock the bar 28 against accidental rotation. Since movement of the bar 28 toward the rod 27 increasingly compresses the spring 37, this constitutes a further guarantee against accidental movement of the bar toward the rod.

It is to be understood that the threads 35 of the bar and those formed in the transverse passage 22 may be either right or left hand threads as desired. Furthermore while it has been stated that the handle extends along the outer face of the adjacent rocker, as shown in Figure 1, it is to be understood this is only one position of the handle and that when it is grasped and moved to rotate the bar in one direction or the other, it will rotate therewith and may eventually extend substantially vertically, overlying the base portion 13, as shown in Figure 2. Obviously the parts may be reversed, with the block, bar and handle mounted on the base member and the rod and its bracket mounted on the rocker member.

Figure 5 discloses a modified form of handle construction. In this arrangement the outer end of locking bar 28 is extended and bent at substantially right angles to the rest of the bar to provide a handle receiving portion 39. A handle 40 of plastic, wood or any other suitable material is formed with a bore or socket 41 to mount the portion 39 of the bar 28 and a pin 42 passes through the transverse openings within handle and portion 39 to secure these members together and thus lock the handle to the bar.

It is to be further understood that the invention is not limited to the details of construction shown in the drawings and that the phraseology employed in the specification is for the purpose of description and not of limitation.

I claim:

1. A locking device for rocking chairs of the platform type having a base member and a rocker member, comprising a bar having one end thereof adapted to be pivoted to one of said members, a block adapted to be secured to the other member and having a bore extending therethrough for receiving said bar and in which said bar is adapted to slide during movement of the rocker member, said block having a passage extending transversely of and communicating with said bore and extending through one wall of said block, a locking rod adapted to be mounted on said last mentioned member and having one end thereof located in said transverse passage and movable into engagement with said bar to force said bar into locking engagement with said block and thereby lock said base and rocker members against relative movement, and means connected with said locking rod and block to retain said rod against accidental movement in any position of adjustment.

2. A locking device for rocking chairs of the platform type having a base member and a rocker member, comprising a bar having one end thereof adapted to be pivoted to one of said members, a block adapted to be secured to the other member and having a bore extending therethrough for receiving said bar and in which said bar is adapted to slide during movement of the rocker member, said block having a threaded passage extending transversely of and communicating with said bore and extending through one wall of said block, a locking rod adapted to be rotatably mounted on said last mentioned member and having a threaded end engageable with the threaded transverse passage of the block, whereby rotation of said rod in one direction will move its threaded end into engagement with said bar to force said bar into locking engagement with said block and thereby lock said base and rocker members against relative movement, and means connected with said locking rod and block to retain said rod against accidental movement in any position of adjustment.

3. A locking device for rocking chairs of the platform type having a base member and a rocker member, comprising a bar having one end thereof adapted to be pivoted to one of said members, a block adapted to be secured to the other member and having a bore extending therethrough for receiving said bar and in which said bar is adapted to slide during movement of the rocker member, said block having a threaded passage extending transversely of and communicating with said bore and extending through one wall of said block, a locking rod adapted to be rotatably mounted on said last mentioned member and having a threaded end engageable with the threaded transverse passage of the block, whereby rotation of said rod in one direction will move its threaded end into engagement with said bar to force said bar into locking engagement with said block and thereby lock said base and rocker members against relative movement, and a coil spring mounted on said rod and in all positions of adjustment thereof compressed against said block to thereby retain said rod against accidental rotation.

4. A locking device for rocking chairs of the platform type having a base member and a rocker member, comprising a bar having one end thereof adapted to be pivoted to one of said members, a

block adapted to be secured to the other member and having a bore extending therethrough for receiving said bar and in which said bar is adapted to slide during movement of the rocker member, said block having a threaded passage extending transversely of and communicating with said bore and extending through one wall of said block, a locking rod adapted to be rotatably mounted on said last mentioned member and having a threaded end engageable with the threaded transverse passage of the block, whereby rotation of said rod in one direction will move its threaded end into engagement with said bar to force said bar into locking engagement with said block and thereby lock said base and rocker members against relative movement, said rod

having an abutment adjacent its inner end and a coil spring mounted on said rod between said abutment and said block, and in all positions of adjustment of said rod, compressed against said block to thereby retain said rod against accidental rotation.

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