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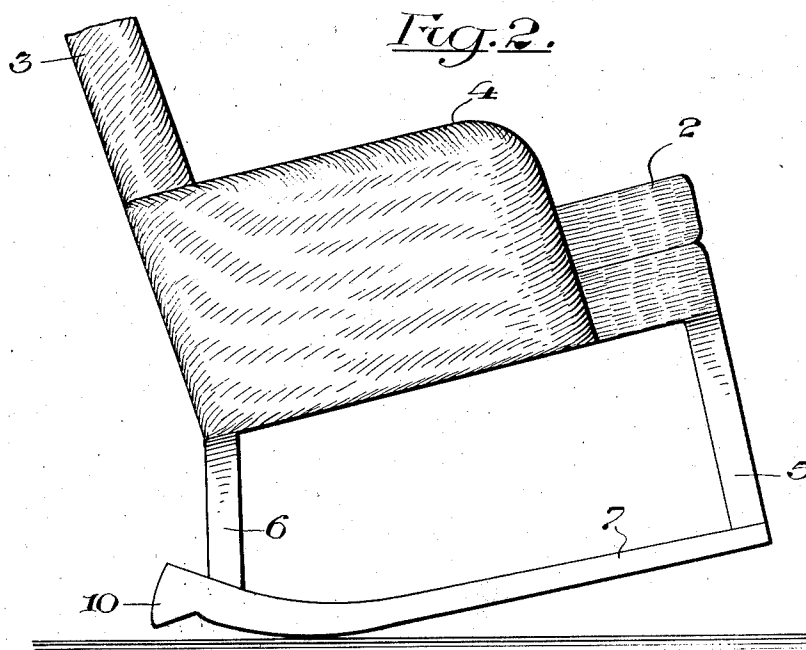
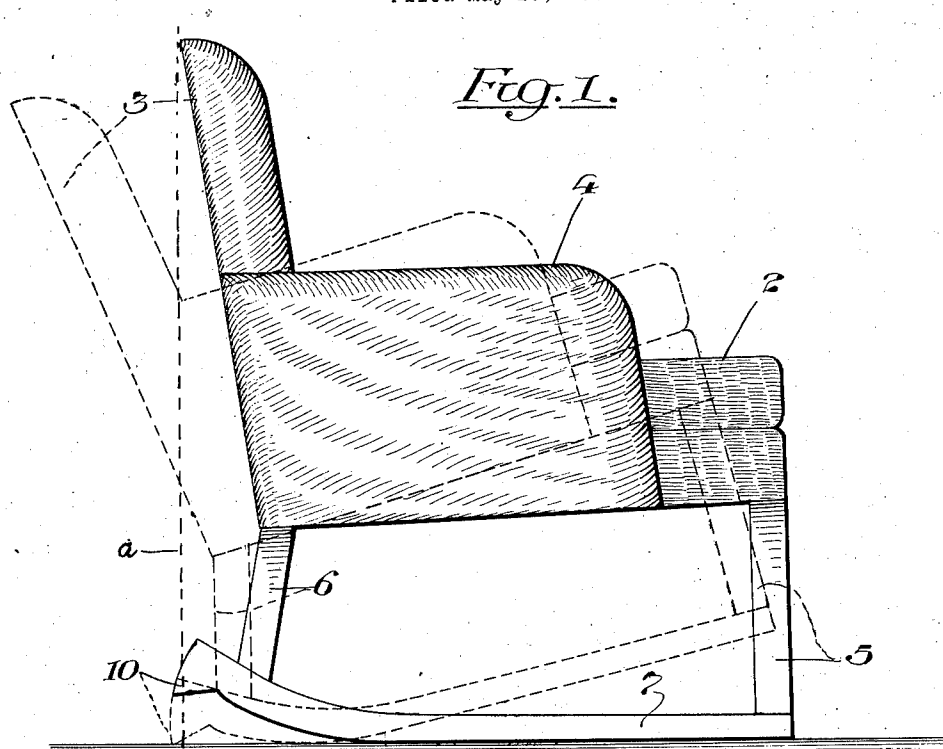
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1,983,207

ROCKING CHAIR

Filed May 10, 1934

2 Sheets-Sheet 1



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ROCKING CHAIR

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2 Sheets-Sheet 2

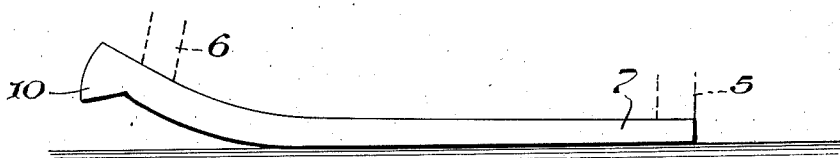
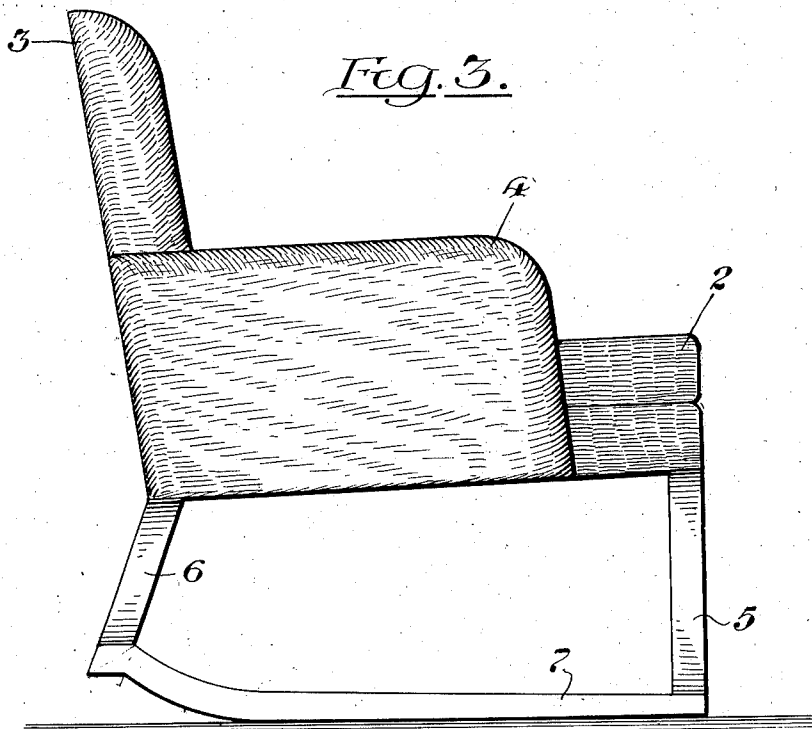


Fig. 4.

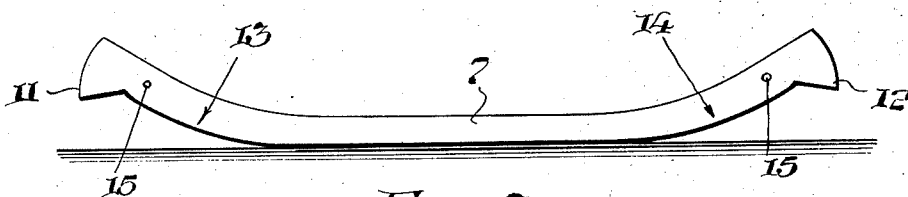


Fig. 5.

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UNITED STATES PATENT OFFICE

1,983,207

ROCKING CHAIR

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Application May 10, 1934, Serial No. 724,847

12 Claims. (Cl. 155—69)

This invention has primarily to do with convertible rocking chairs, the principal object being to provide such a chair in which the rockers or rocker elements, having no relatively movable parts, do not extend substantially beyond the body or seat or the legs, thereby doing away with the annoying and at times dangerous projections commonly present in rocking chairs and which rockers are of such shape that the chair will always normally remain in an upright position whether unoccupied or occupied and even when the user normally leans against the back, or can be used as a tilting or reclining chair, or as a rocking chair and which, notwithstanding the shortened form of rocker will have a comfortable and adequate rock and when in a tilting or reclining position will not tip over.

A further object of the invention is the provision of an improved rocker or rocker element having no relatively movable parts and provided with an elongated straight portion, a shorter curved portion and a stop projecting below the rear terminus of the curved portion and which may be readily attached to ordinary straight chairs by a simple fastening means thereby converting it into the improved chair hereinbefore referred to.

A still further object of the invention is the provision of an improved convertible chair or other article, simple in construction, efficient in use, inexpensive to manufacture and which, without any movable parts or the adjustment of any parts, can be readily converted by a slight motion of the body from an ordinary straight chair into a reclining chair or a rocking chair and in which the rockers do not materially project beyond the front and rear legs of the chair.

Rocking chairs, as ordinarily constructed with the rockers engaging the floor, have these rockers projecting forwardly and rearwardly of the legs and these projecting and elevated portions are not merely annoying but dangerous to anyone moving about, especially in an unlighted room. Not only this, but the long rearwardly extending ends frequently mar and injure other articles of furniture, take up considerably more room than other chairs and are a nuisance generally. Therefore, the present improvement provides a rocking chair eliminating these disadvantages and yet takes up no more room than an ordinary chair and less room therefore than the usual rocking chair, it having no projecting portions that will injure or mar other furniture or injure or annoy anyone coming into contact therewith by day or night.

The present improved rocker is an improvement upon that shown and described in my contemporaneously pending application, Serial Number 655,706, filed February 8, 1933, in that, in the present instance, the stop is carried by the rocker whereas, in the prior application, the stop is shown carried by the rear leg of the chair which necessitated that the rocker terminate above the lower end of the rear leg and in the practical manufacture thereof, required that it be doweled into the rear leg whereas the present form of rocker extends under the rear leg so that the rear leg may be either doweled into it or the rocker may be detachably secured to the rear as well as the front leg by suitable fastening means such as bolts, thus allowing the entire rocker element comprising the elongated straight portion, curved portion and stop to be manufactured as one integral member, very simply and inexpensively and requiring no skilled workmanship for its attachment.

In the drawings accompanying and forming a part of this specification, Fig. 1 is a side view of one form of a chair embodying the present improvement, the full lines illustrating the chair when used as an ordinary straight chair and the dotted lines illustrating the same when used as a reclining chair.

Fig. 2 is a similar view but illustrating the chair when used as a rocker.

Fig. 3 is a view of a slightly different form of rocker applied to a chair.

Fig. 4 is a side view of one form of this improved rocker detached, a pair of which may be readily attached to any ordinary straight chair by a simple expedient, and this rocker when properly enlarged for use on a chair is suitable for a chair having about a twenty-inch depth at the seat line and will give a five-inch rocking radius, and;

Fig. 5 illustrates the rocker having stops at both ends whereby it may be useful with certain articles of manufacture.

Similar characters of reference indicate corresponding parts in the several views.

Before explaining in detail the present improvement and mode of operation thereof, I desire to have it understood that the invention is not limited to the details of construction and arrangement of parts illustrated in the accompanying drawings since the invention is capable of other embodiments, and that the phraseology which I employ is for the purpose of description and not of limitation.

This improvement, while primarily adapted for

use with chairs, may be applied to such other articles of manufacture as have rockers and whereby the advantages herein referred to are obtained. In the present instance, in Figs. 1, 2 and 3, the improvement is shown applied to an upholstered chair having a seat 2, a back 3 and arms 4, forming what may be considered the body of the chair. The base of the seat carrying or supporting the back, is provided with a pair of depending front supports or legs 5 and a pair of depending rear supports or legs 6 which usually are rearwardly inclined. The depths of chair seats vary somewhat according to the size of the chair but the depth of an upholstered chair such as that shown in the drawings but which is but one form of chair to which the improvement may be applied, is usually about 20".

Certain more or less set rules must be adhered to by all chair manufacturers if their product is to be saleable. These rules relate to the height of the back, depth of the seat, pitch of the back, pitch of the rear legs, etc. The pitch of the back is particularly important for the primary object of this invention is to confine the rocker members as far as possible within a straight line touching the top of the back (see dotted line *a*, Fig. 1) for by so confining the rockers, the possibility of bumping into or marring other objects of furniture or walls and of tripping over or coming into contact with those rockers is eliminated.

Intersecting a front and rear leg at each side of the chair is a runner or rocker 7 and this rocker terminates adjacent to the front and rear legs. In the form of chair shown, it extends under both the front and rear legs and for which purpose, the legs may be doweled into the rockers thereby forming a rigid construction. Each of these rockers comprises a relatively long or elongated straight portion of sufficient length to enable the chair to normally assume an upright position at all times whether occupied or unoccupied and when occupied whether the user sits forward or leans against the back and this elongated straight portion merges into a curved portion materially shorter than the long straight portion. This curved portion extends upwardly toward the rear legs, the rear legs being cut somewhat shorter than the front legs to permit this. As shown, the length of the straight portion is between two and three times that of the curved portion.

At or adjacent to the rear leg, the rocker is provided with a stop 10 which, in the form shown in Fig. 3, is located immediately below the rear leg while, in the form shown in Figs. 1 and 2, it extends just beyond the rear leg, being adjacent thereto. This stop is shown of wedge-shaped form and projects below the rear terminus of the curved portion of the rocker and while shown integral with the rocker element, it of course, could be made independently thereof and rigidly attached thereto if desired. Thus, it will be observed that, in the present improvement the elongated straight and curved rocking portions of each rocking element terminate substantially at the legs of the chair. In both forms, however, the stop is shaped to project below the rear terminus of the curved portion of the rocker and it will be observed that in all instances shown, the stop is spaced from the leg by the depth of the curved portion of the rocker. In other words, the stop is carried by the rocker at the terminus thereof and not by the leg, it being shown as integral with the rocker although, as previously stated, it may be rigidly attached to the rocker so that the term

"integral" as used, is intended to cover a stop that is rigid with and carried by the rocker itself rather than by the leg.

The weight of the body of the user usually comes fairly close to or at the back of the chair and consequently is approximately in line with that part of the rocker adjacent to where the curved and straight portions thereof meet. The result of this is that when the occupant sits normally in the chair and leaning against the back, the straight portion of the rocker will engage the floor and the chair can be used as a stationary or ordinary upright chair. When, however, the occupant uses his feet to tilt the chair farther back, the curved portion of the rocker is then brought into engagement with the floor, whereupon the chair is useable as a rocker, and when he leans still farther back, the chair can be tilted to the rear and used as a reclining chair, in which position the stop 10 of the rockers which project sufficiently below the rockers, engage the floor and stop the tilting of the chair any farther and also prevents tipping over except under unusual circumstances. In fact, as has been demonstrated in practice, the chair even under extraordinary efforts does not easily tilt over and when it does, it seems to have a very gradual tilt so that it is not practicable for the chair to suddenly and unexpectedly tilt over.

Experiment has demonstrated that only a comparatively small portion of the ordinary rocker of a chair engages the floor so that the long rearward extensions of the rockers do not perform any useful work, necessarily being provided to stabilize the chair and prevent its tilting over when rocked and are otherwise a waste of material. By actual test, it has been found that the comparatively short rocking portions of this improved chair are amply sufficient to provide a full rocking action of the chair so that this improved chair can be readily converted from the ordinary straight chair into a rocking chair or into a reclining chair at the will of the user by a slight motion of the body and without the addition of any movable parts to the rocker or other mechanism or the adjustment of any part of the chair.

Thus, I have provided an improved chair which is readily convertible from an ordinary chair to a rocking chair or into a reclining chair and in which the rockers do not materially project beyond the front and back of the seat. In other words, the straight and rocking portions of the rockers do not at all project beyond the legs or body of the chair, it being usual to rearwardly incline the back and it will be observed that the straight and curved portions of the rockers do not project beyond the extreme tip of the back, or in fact, the legs and, as a matter of fact, very little if any of the stop projects beyond the body of the chair. Thus, less material is required and cost of manufacture is lessened without in any way interfering with the efficiency of the chair.

In some articles of manufacture, it may be desirable to limit forward as well as rearward tilting of the article and in such instances, the rockers may be provided with stops 11 and 12, Fig. 5, at both ends and for this purpose the elongated straight portion is curved upwardly at each end as at 13 and 14 and each upwardly curved portion terminates in a stop, the curvature at both ends being the same and similar to the curvature shown in the other figures of the drawings.

By utilizing the rockers herein shown and boring, for instance, a couple of holes 15 of small

diameter therethrough and using, say, a pair of stove bolts for each rocker, they may be readily attached to the legs of any ordinary straight chair, thus converting it into, as it were, a three-in-one chair, to wit, a straight chair, a rocking chair and a reclining or tilting chair. Anyone having the ability to saw off the rear portion of the legs and bore small holes can easily convert the average straight chair into this improved chair and do away with the annoying and dangerous features of the usual rocking chair while, at the same time, having a much improved chair. Obviously, these rockers could be readily sold in the five and ten cent stores since they are comparatively simple and inexpensive to manufacture.

Thus it will be observed that, without the addition of a single movable part to the integral rocker, I have so shaped that rocker that it comprises in an integral structure, an elongated straight part, a shorter curved part and a stop readily attachable to the legs or other supports of an article of manufacture, thus making a three-in-one article and at the same time, I have eliminated the long extensions of the usual rocker. Further, these improved rockers are so constructed that the article supported thereby normally sits upon the floor as a straight or upright article whether occupied or unoccupied and if occupied whether the user leans forward or against the back so that, in a normal upright position, the front ends of the rockers are never elevated off the floor but are in engagement therewith even when the article is unoccupied so that there is no danger of anyone moving around in the dark tripping over or being injured by the elevated front ends of rockers or by the long projecting rear ends thereof. In other words, there is no danger of "barking the shins" which has injured many not only painfully but seriously.

Prior to my invention, attempts to make convertible chairs resulted in chairs which, like the ordinary rocking chairs, normally tilted back as soon as the user sat therein or leaned against the back and to use them as a straight chair, the occupant had to sit forward, not leaning against the back and these structures were primarily rocking chairs with extended rockers to stabilize them, whereas, my chair is primarily a straight chair without the extended rockers and needing none to stabilize it and yet it is easily converted into a rocking or tilting chair.

Another advantage of my improved chair is that, being primarily a straight chair supported on runners as it were, it can be easily moved around on its rockers over the edge of a rug by a woman without the necessity of lifting the chair as is the case with the ordinary four-legged heavy upholstered chair. Another of its advantages is that it has all of the comforts when it is tilted of the old style Morris chair without its unsightly appearance and the necessity of adjusting the back and is much more easily handled. In other words, unlike the Morris chair and the convertible chairs of the prior art with which I am familiar, this improved chair normally sits in an upright position upon the floor whether, as hereinbefore stated, occupied or unoccupied and whether the user is leaning forward or against the back and is only converted into a rocking chair or into a reclining chair at the will of the user while the convertible chairs to which I have referred are converted into a rocking or tilting chair the moment the user leans against the back.

It is to be understood that by describing in detail herein any particular form, structure or arrangement, it is not intended to limit the invention beyond the terms of the several claims or the requirements of the prior art.

Having thus explained the nature of my said invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the modes of its use, I claim:

1. A rocker for attachment to an article of manufacture and having no movable parts and comprising an elongated straight portion and a shorter upwardly curved portion terminating in a rigid stop extending below the rear terminus of the curved portion.

2. A rocker for attachment to an article of manufacture and having no movable parts and comprising an elongated straight portion and a shorter upwardly curved portion terminating in an enlarged end shaped to form a rigid stop extending below the rear terminus of the curved portion.

3. A rocker for attachment to an article of manufacture and having no movable parts and comprising an elongated straight portion terminating at each end in a shorter upwardly curved portion.

4. A rocker for attachment to an article of manufacture and having no movable parts and comprising an elongated straight portion terminating at each end in a shorter upwardly curved portion, each such curved portion terminating in a stop.

5. A rocker for attachment to an article of manufacture and having no movable parts and comprising an elongated straight portion terminating at each end in a shorter upwardly curved portion, each such curved portion terminating in an enlarged end shaped to form a stop.

6. An article of manufacture comprising a seat provided with legs connected by rockers, said rockers having no movable parts and having an integral floor engaging part between the legs constructed normally to hold the article in an upright position, another part integral therewith between the legs constructed to rock the article and another part constructed to act as a stop to assist in holding the article in a reclining or tilted position, said first two integral parts terminating substantially at the legs so as not to project therebeyond whereby projecting rocking portions are eliminated from the article.

7. A convertible chair comprising a seat and front and rear legs provided with rigid rocking members supporting said legs and having no movable parts, each rocking member comprising a one-piece member having a long straight portion to hold the chair in its normal upright position and terminating in a curved portion for rocking movement, said curved portion carrying and terminating in a stop spaced from the adjacent rear leg to hold the chair in a tilted position, said curved and straight portions being within the limits of the front and rear legs.

8. An article of manufacture comprising a body provided with rockers in position to engage the floor, each rocker having no movable parts and comprising an elongated straight portion and an upwardly curved rear portion, the latter carrying and terminating in an integral stop to permit the article to be tilted into a reclining position, said stop being spaced below the rear terminus of the rocker and the elongated straight and curved por-

tions not projecting substantially beyond the legs or beyond the seat body.

9. An article of manufacture comprising a body having depending supporting members, rocker elements carried by said depending members and having no relatively movable parts, each of said rocker elements having an elongated straight portion and at each end thereof a shorter upwardly curved portion.

10. An article of manufacture comprising a body having depending supporting members, rocker elements carried by said depending members and having no relatively movable parts, each of said rocker elements having an elongated straight portion and at each end thereof a shorter upwardly curved portion, each of said curved portions terminating in a stop projecting below the terminus of said curved portion to stabilize said body in its tilted position, whereby the article may be used in a normally straight position, in a rocking position or in a reclining or tilting position.

11. An article of manufacture comprising a body having a plurality of depending supports, rocker elements carried by said supports, each of said rocker elements having no movable parts and comprising an elongated straight middle portion and

at each end an upwardly curved portion, said rocker elements having a part projecting therebelow adjacent the terminus of each upwardly curved portion to form a stop and to stabilize the article in tilted position whereby the article may be used normally as a straight article, a rocking article or a reclining or tilting article.

12. An article of manufacture comprising a body having depending front and rear supporting members or legs, rocker elements carried thereby and having no relatively movable parts, each of said rocker elements having an elongated straight portion and a shorter curved portion of less than half the length of said straight portion and not extending substantially beyond the depending members or body whereby the body will always remain in a normally straight or upright position even when the user normally leans back, and a rigid stop spaced from the adjacent rear leg and carried by said rocker element and projecting below the terminus of the curved portion adjacent to one of the depending supporting members or legs to stabilize the body in a tilted or reclining position, whereby the article may be used in a straight position, a rocking position or in a tilted or reclining position.

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