

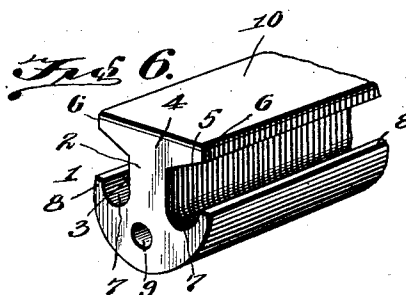
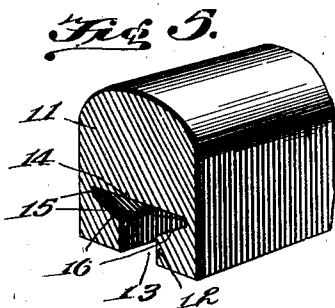
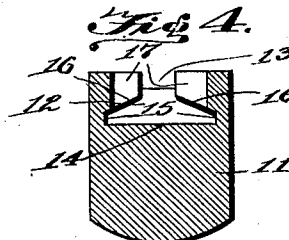
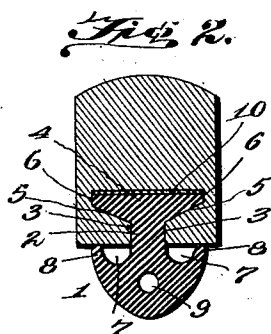
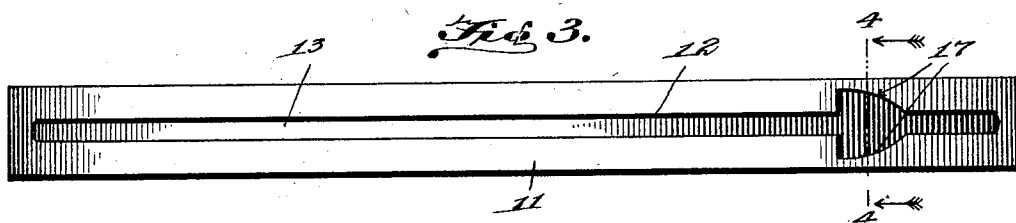
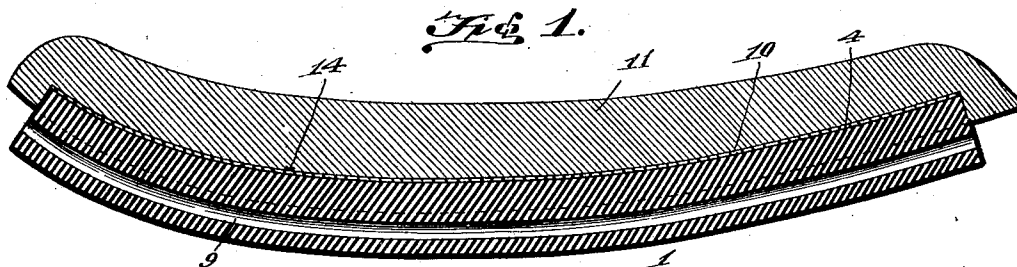
No. 721,904.

PATENTED MAR. 3, 1903.

J. M. MARTIN.
CUSHIONED ROCKER OR WHEEL.

APPLICATION FILED JULY 15, 1902.

NO MODEL.



James M. Martin Inventor

By

E. J. Siggers

Attorney

Witnesses
John Maupin.
H. F. Shepard.

UNITED STATES PATENT OFFICE.

JAMES MONROE MARTIN, OF KNOXVILLE, TENNESSEE.

CUSHIONED ROCKER OR WHEEL.

SPECIFICATION forming part of Letters Patent No. 721,904, dated March 3, 1903.

Application filed July 15, 1902. Serial No. 115,688. (No model.)

To all whom it may concern:

Be it known that I, JAMES MONROE MARTIN, a citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented a new and useful Cushioned Rocker or Wheel, of which the following is a specification.

This invention relates to cushioned rockers for chairs, cradles, and the like and also to cushioned tires for vehicle-wheels, and is designed to provide an improved form of cushion which is particularly adapted for convenient application to the bottom of a rocker and is arranged to be connected thereto in a very strong and durable manner, so as to prevent displacement thereof, especially when the chair is being dragged sidewise across the floor, and at the same time to give the desired cushioning effect.

Another object is to provide for connecting the cushion to the rocker without employing fastenings piercing the cushion, and thereby to obviate weakening the cushion.

It is furthermore designed to have the cushion cooperate with the rocker in such a manner as to form a cushioning air-space between the two members, and thereby to add to the natural elasticity of the cushion itself.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a longitudinal sectional view of a rocker having the present form of cushion applied thereto. Fig. 2 is a cross-sectional view. Fig. 3 is an inverted plan view of the rocker, showing the groove or seat therein cut away for the introduction of the cushion. Fig. 4 is a transverse sectional view on the line 4 4 of Fig. 3. Fig. 5 is a sectional perspective view of the rocker. Fig. 6 is a detail perspective view of a portion of the cushion.

Like characters of reference designate cor-

responding parts in all of the figures of the drawings.

Referring at first more particularly to Fig. 6 of the drawings, it will be seen that the present cushion consists of a practically solid continuous strip of rubber, the body 1 of which is substantially semi-elliptical in shape and has a convex lower or outer face. From the middle of the top of the body rises a straight integral neck portion 2, which has opposite parallel side walls 3 and merges upwardly into a laterally-enlarged integral head 4, the top of which is straight and flat. The opposite under faces 5 of the head incline upwardly and outwardly and terminate short of the top of the head, so as to provide the opposite straight parallel side edges 6. The shoulders formed by the top of the body portion at opposite sides of the neck 2 are provided with longitudinal channels or recesses 7, the inner edges of which merge into the respective sides of the neck 2 and the outer edges of which terminate short of the outer sides of the body portion, so as to provide upstanding ribs or flanges 8, the tops of which lie in the same plane. While not absolutely necessary, it is sometimes desirable, especially in large cushions, to provide a longitudinal bore or opening 9 throughout the center of the body portion, so as to give additional elasticity to the cushion.

It is designed to strengthen the cushion, particularly when made of inferior stock, by means of a strip of canvas 10, vulcanized or otherwise secured to the flat top face of the body, so as to prevent cracking of the latter when it is being bent in applying the same to a rocker, as will be hereinafter explained.

To apply the present cushion to a rocker, a conventional form of which has been shown at 11 in Figs. 1 to 4, inclusive, of the drawings, a longitudinal groove or seat 12 is provided in its under side and terminated short of the opposite ends of the rocker, so as to close the seat at opposite ends. In cross-section this groove or seat corresponds to the neck and head portions of the cushion, as it has a narrow comparatively straight entrance portion 13 opening through the bottom of the rocker and corresponding to the neck 2 of the cushion, the inner portion of the groove

or seat being enlarged and provided with a flat back 14, opposite straight parallel side portions 15, and the downwardly and inwardly inclined faces 16, corresponding to the inclined portions 5 of the head of the cushion.

In applying the cushion to the rocker one end of the neck and head portion of the former is inserted endwise into the groove or seat of the rocker, this operation being rendered possible by having the opposite side walls of the narrow portion 13 of the groove or seat cut away at opposite sides, as indicated at 17 in Fig. 3 of the drawings, the cut-away portion being large enough to receive the head into the enlarged back portion of the groove or seat. The cushion is then worked forwardly until stopped by the opposite end of the seat, and then the rear end of the cushion is bent and crowded in through the cut-away portion of the groove and forced rearwardly, so as to be properly seated in that portion of the groove which is in rear of the cut-away portion 17. It will of course be understood that the cushion is of a size to fit snugly within a groove or seat, particularly at the ends thereof, so as to prevent the cushion from creeping and working loose in the seat, and in addition to this comparatively snug feature any suitable glue or cement may be employed to fasten the cushion in the seat.

From the foregoing description it is apparent that I obviate the use of such fastenings as would pierce, and thereby weaken, the rubber strip or cushion and at the same time provide a strong and durable connection between the cushion and the rocker. Moreover, by terminating the seat or groove 12 short of the opposite ends of the rocker the ends of the neck and head portions of the cushion are not exposed, but are protected and housed by the rocker. By terminating the cushion short of the opposite ends of the rocker said ends overhang the corresponding ends of the cushion, and thereby protect the same from blows which would ordinarily tend to break the terminal body portions from the neck portion.

A very important feature of the present form of cushion resides in the provision of the grooves or channels 7, which are closed throughout their upper sides by the bottom of the rocker, as the top edges of the flanges 8 or, in other words, the top of the body portion of the cushion bears flat against the under side of the rocker, thereby providing a pair of air-cushions which extend throughout the length of the solid cushion and add elasticity thereto without weakening the rubber cushion in any manner whatsoever. Moreover, the flanges 8 serve to brace the body and prevent cracking or breaking of the latter along the line of its connection with the neck portion 2, particularly when the chair is being dragged sidewise over the floor.

Although I have shown and described the

cushion as applied to chair-rockers, I contemplate, and it is of course obvious, that the rims of vehicle-wheels may be grooved and provided with the present form of cushion to constitute a tire therefor, and therefore I do not wish to be understood as limiting myself to a cushion for rockers only, for the cushion may be employed as a tire without any alteration whatsoever.

What I claim is—

1. The combination of a body having a longitudinal groove or seat formed therein, the back of the groove being laterally enlarged and the narrow mouth portion thereof having parallel sides, and a cushion having a body provided with a rounded outer face and a reduced neck portion having parallel side faces and fitting the mouth of the groove or seat and terminating at its top in a laterally-enlarged head fitting the laterally-enlarged back of the groove or seat, the body of the cushion at the opposite sides of the neck lying against the member.

2. The combination of a body having a longitudinal groove or seat formed therein, the entrance-opening of the groove having parallel sides, the back of the groove being laterally enlarged and having opposite parallel sides and inwardly-inclined sides, and a cushion having a body portion which is rounded upon its outer side and flat upon its inner side to rest against the body, and provided throughout the middle of its inner side with a reduced neck portion having opposite parallel side faces to fit the entrance-opening of the groove or seat and terminating at its top with a laterally-enlarged head having opposite parallel sides and inclined sides to fit the correspondingly-shaped back portion of the groove or seat in the body.

3. The combination of a rocker having a longitudinal groove or seat formed in its under face and terminated short of its opposite ends, the back of the groove being laterally enlarged and the narrow mouth portion thereof having parallel sides, and a cushion having a body provided with a rounded lower face and an upstanding reduced neck portion having parallel side faces fitting the mouth of the groove or seat and terminating at its upper end in a laterally-enlarged head fitting the laterally-enlarged back of the groove or seat, the top of the body of the cushion at the opposite sides of the neck lying against the under side of the rocker.

4. The combination of a rocker having a longitudinal groove or seat in the under side thereof, the entrance-opening of the groove having parallel sides, the back of the groove being laterally enlarged and having opposite parallel sides and inwardly and downwardly inclined lower sides, and a cushion having a body portion which is rounded upon its under side and flat upon its upper side to rest against the lower side of the rocker, and provided throughout the middle of its top with a reduced neck portion having opposite par-

allel side faces to fit the entrance-opening of the groove or seat and terminating at its top with a laterally-enlarged head having opposite parallel side and downwardly-inclined under faces to fit the correspondingly-shaped back portion of the groove or seat in the rocker.

5 The combination with a body, of a cushion having a central reduced portion or neck and secured to the outer side of the body, and an elastic air-chamber between the cushion and the body located at one side of the central neck.

15 6. The combination with a body, of a cushion provided with a central neck and applied to the outer side of the body, one of these members provided at one side of the central neck with a groove which is closed by the other member and forms an elastic air-cushion between the two members.

20 7. The combination with a body, of a cushion having a central neck and applied to the outer side of the body, the inner side of the cushion being provided at one side of the central neck with a longitudinal groove which is closed by the body and forms an elastic air-cushion between the two members.

25 8. The combination with a body having a groove or seat in the under side thereof, of a cushion having a neck rising from the middle of the top thereof and fitted in the groove or seat, the top of the body of the cushion fitting against the under side of the body and provided with longitudinal grooves at opposite sides of the neck and closed by the body, thereby forming elastic air-cushions between the cushion and the body.

30 9. A rocker having a longitudinal groove or seat formed in the under side thereof and terminated short of the opposite ends of the rocker, the back of the groove being laterally enlarged, and portions of the opposite sides of the entrance-opening of the groove being cut away to expose the enlarged back of the

35 45 groove.
10. A cushion of the character described, comprising an elastic body having a reduced longitudinal integral neck rising from the middle of the top thereof and provided with
50 opposite straight parallel side faces, the up-

per end of the neck having an integral laterally-enlarged head provided with opposite parallel longitudinal side faces.

11. A cushion of the character described, comprising an elastic body having an integral longitudinal neck rising from the middle of the top thereof and provided with opposite parallel longitudinal side faces, the top of the neck having an integral laterally-enlarged head provided with opposite parallel longitudinal side edges and inwardly and downwardly inclined under faces.

12. A cushion of the character described, provided with a central neck and having at one side thereof a longitudinal groove to form an air-cushion.

13. A cushion of the character described, comprising a body having a longitudinal neck portion rising from the middle of the top thereof, and the top of the body being provided with longitudinal grooves at opposite sides of the neck to form air-cushions.

14. A cushion of the character described, comprising an elastic body which is substantially semi-elliptical in cross-section with a convex lower side and a flat top, and having an integral longitudinal reduced neck rising from the middle of the top and provided with opposite parallel longitudinal sides, the top of the neck being provided with a laterally-enlarged head projected at opposite sides thereof and having opposite parallel side edges and inwardly and downwardly inclined under sides, the top of the body being provided with longitudinal grooves located at opposite sides of the neck.

15. A cushion comprising an exterior body portion provided with opposite longitudinal grooves to form air-cushions, and means located between the grooves for securing the cushion in position, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES MONROE MARTIN.

Witnesses:

C. G. WAYLAND,
A. A. SCHMID.