R. R. BODE.

HINGE FOR ARTIFICIAL LEGS.

APPLICATION FILED NOV. 26, 1919.

1,337,817.

Patented Apr. 20, 1920.

Fig. 1.

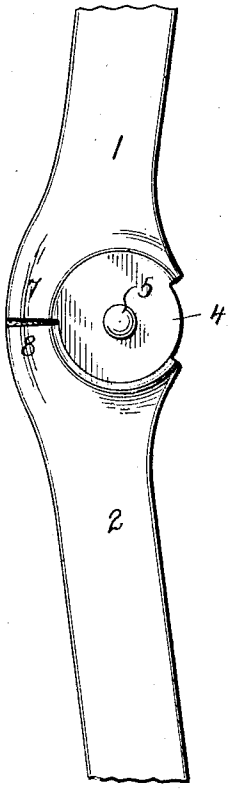


Fig. 2.

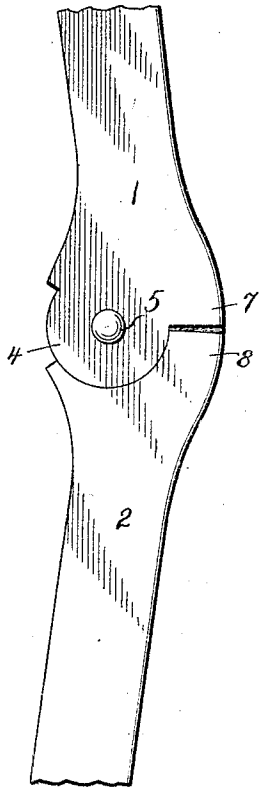


Fig. 3

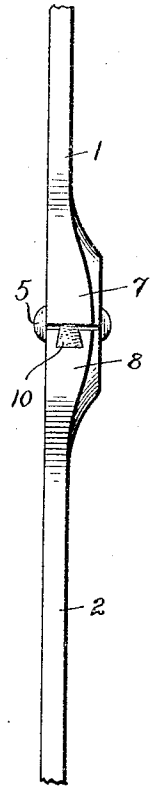


Fig. 4

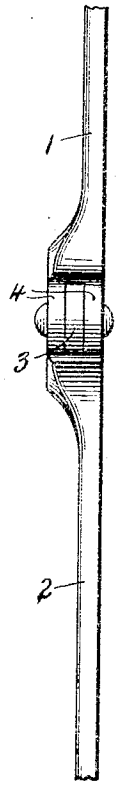


Fig. 6.

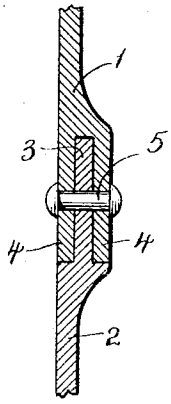


Fig. 5.

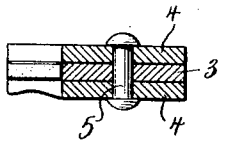
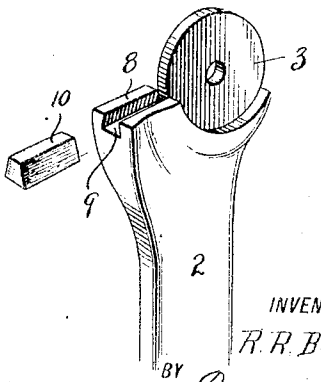


Fig. 7.



WITNESSES

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HINGE FOR ARTIFICIAL LEGS.

1,337,817. Specification of Letters Patent. Patented Apr. 20, 1920.

Application filed November 26, 1919. Serial No. 340,781.

To all whom it may concern:

Be it known that I, ROBERT RUDLAND BODÉ, a subject of the King of Great Britain, and a resident of Honolulu, county of Honolulu, and Territory of Hawaii, have invented a new and Improved Hinge for Artificial Legs, of which the following is a full, clear, and exact description.

This invention relates to a hinge. More particularly it relates to hinge construction providing a soft and yieldable back stop for hinges.

An object of the invention is to provide a hinge fitted with a soft pad buffer or stop which will render the closing operation of the hinge soft and resilient, eliminating all closing sounds of the hinge.

With the above principal objects in view the invention has relation to a certain combination and arrangement of hinge parts taken in connection with a stop or buffer pad, an example of which is described herewith, pointed out in the appended claim, and illustrated in the accompanying drawings, wherein:

Figures 1 and 2 show reverse sides of an example of my hinge.

It is a particular purpose to provide a hinge which may be used in the construction of artificial limbs for the human body, and which will have a soft and yieldable closing action, rendering less tiring, the use of artificial limbs. The use of hinge will render unnecessary the use of the back check usually employed on artificial legs.

Figs. 3 and 4 show reverse end or edge views of the hinge.

Figs. 5 and 6 show sectional views taken through the hinge member.

Fig. 7 shows a perspective view of one hinge member with the back stop pad removed.

In the drawings, the numerals 1 and 2 designate the hinged leaf members constructed similar in design to the ordinary hinge. One of the hinge leaves is provided with a projecting ear 3 with a bore formed in the center part thereof. The other hinge leaf is provided with a pair of projecting spaced ears 4 with a bore adapted to register with the bore of the ear 3. A hinge pin 5 is passed through the hinged ears, thus establishing the two hinge leaves in a pivotal relation one upon the other. The hinge member 2 carrying the single ear is provided with arcuate shoulders adjacent the outline of the ear 3. The projecting ears 4 of the member 1 lie in abutment with the shoulders thus forming a close jointed member. The hinge leaves are provided with extended back stops 7 and 8 adapted to limit the motion of the hinged members. One of the back stops is grooved as designated by 9 and a stop or bumper pad 10 is formed the same cross sectional shape as the shape of the slot or groove 9. The slot and bumper pad will preferably have angular disposed walls so as to retain the bumper pad within the slot of the back stop to prevent its possible displacement from position. The stop or bumper pad is pressed into the slot 9 with the upper edge of said pad projecting slightly above the surface of the back stop.

When the back stops of the hinge come together in a closed motion a bumper pad receives the impact of the back stop of the adjacent hinge leaf and prevents the grating contact of the two back stops of the hinge leaves. The bumper pad will be made of rubber, leather, fabric or other suitable material or compositions of material such that the pad will properly compress under the closing action of the hinge leaves.

This form of hinge provides a soft and easy working member capable of use in many ways. It can be put to effective use in artificial limbs where the soft, flexible and resilient operation of joints is essential for the operation of artificial members appurtenant to the human body. This form of hinge may also be used in various other ways, and on other articles of manufacture and commodities where noiseless hinges are needful. This type of hinge will be no heavier in weight than the usual form of hinge. It can be built in various forms and designs, the present design of hinge being illustrated merely for the purpose of showing a practical embodiment of my idea.

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

A hinge improvement for artificial limbs comprising, parts to be resiliently hinged to-

gether, a back stop formed on each part, ears spaced apart and projecting outwardly from each part to be hinged, said ears provided with a bearing hole made therethrough forward of the back stops to cause the back stops to move into abutting position, a pivotal pin inserted through the bearing hole of the ears, and a bumper pad fixed to one of the back stops to form a resilient seat against which the back stops impinge, said pad being locked within a dove-tail groove made in the back stop.

ROBERT RUDLAND BODÉ.