Feb. 21, 1933. M. STERN 1,898,272

BATHTUB BACK REST

Filed April 2, 1931

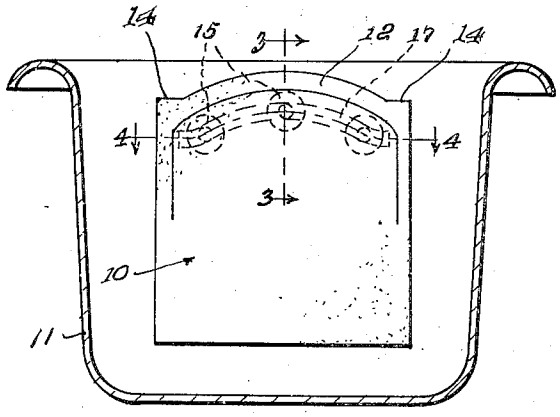


Fig. 1.

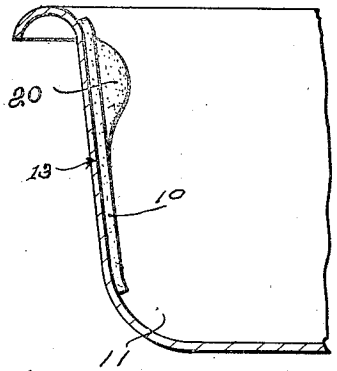


Fig. 2.

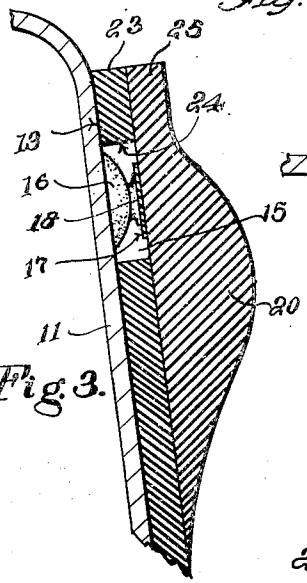


Fig. 3.

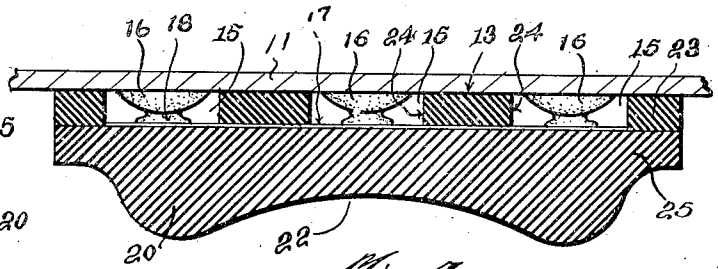


Fig. 4.

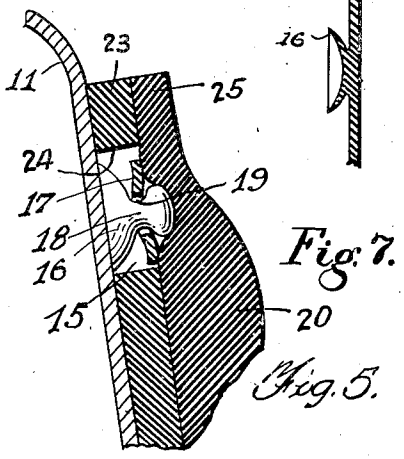


Fig. 5.

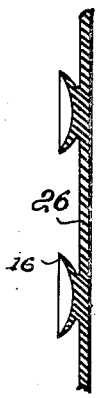


Fig. 7.

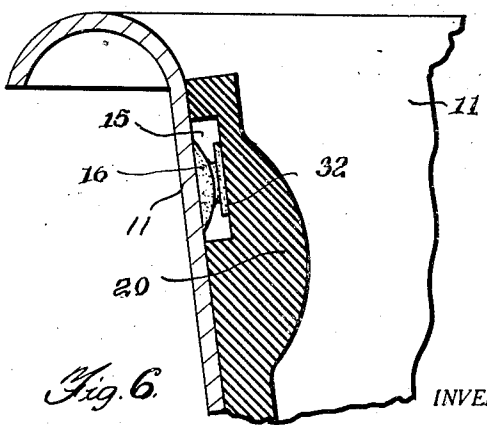


Fig. 6.

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Patented Feb. 21, 1933 1,898,272

UNITED STATES PATENT OFFICE

MITCHEL STERN, OF PHILADELPHIA, PENNSYLVANIA

BATHTUB BACK REST

Application filed April 2, 1931. Serial No. 527,314.

The invention relates to back rests of the character shown in my Patent No. 1,740,791 issued December 24, 1929, and has for an object to effect improvements in the appliance contributing to its efficiency and the comfort of the user. It is a purpose to afford a combined back and head rest which will be free from ungainly appearance, and also liable in a minimum degree to impairment by damage to the attaching devices. A further important object is to provide a back rest utilizing suction cup attaching devices, in which the cups will be protected from access of fouling material, such as soapy water, hair, and other matter in suspension in the bath water or afloat thereon. To this end it is an aim to enable the incorporation of the suction cups in such manner that they will be completely sealed from access casually while attached to a tub, yet will be of that construction recognized as most efficient in attaching devices of this kind, including the utilization of an extremely thin edge on the suction cup, freedom of the cup from contact with heavy parts of the pad while in course of application or after being applied, and permitting the use of the most effective material for construction of the cup while enabling the production of the body of the rest in different materials more satisfactory for the rest, or more economical for use therein.

It is an aim also to enable the use of the rest in alternative peculiar ways, as, for a neck support or as a head rest, according as may be desired, in addition to its function as a back rest; and further to afford a novel form of head and neck rest.

It is also an important aim to present a rest of this character which, when applied to the side of a tub will have less the appearance of an addition than an integral or normal unitary element thereof.

Additional objects, advantages and features of invention reside in the construction, arrangement and combination of parts, as will be understood from the following description and accompanying drawing, wherein

Figure 1 is a front view of a rest embodying my invention and applied to a tub.

Figure 2 is a lateral edge view thereof.

Figure 3 is a fragmentary vertical section on the line 3—3 of Figure 1.

Figure 4 is a horizontal section on the line 4—4 of Figure 1.

Figure 5 is a view similar to Figure 3 of a modification.

Figure 6 is a view similar to Figure 3, of a further modification.

Figure 7 shows how the cups 16 may be formed integrally on the reinforcing and mounting strip 26 corresponding to the strip 17 before described.

There is illustrated a back and head rest 10 for bath tubs 11, although the invention is not limited to such application, be it understood, and may be found to have utility elsewhere and adaptable to various other uses, within the scope of the claims. It may be applied to various styles of tubs, upon all of which it will tend to snugly lie against the inner face of the tub and present a neat appearance, as well as attaining the special objects and advantages above stated.

The rest preferably comprises an elastic body portion molded integrally in sponge rubber in accordance with familiar practice in production of rubber articles of such material, and may be of such contour in plan as best meets the requirements of the uses involved. As shown, it is substantially rectangular, the upper edge being preferably curved and extended upwardly at its central part 12 a distance. The back face 13 of the article is preferably planiform initially, although readily yieldable to distortion to conform to the curved faces of tubs, and to permit its upper edge to yield to the pressure of the head, as will be described. The dimensions of the rest in one embodiment are such that when the article is fastened against the inner side of a tub at one end, with its upper part in position to receive the head and shoulders of a user seated upon the bottom of the tub the lower part will be so disposed as to afford support and cushion for the hips of such a person. The upper part has corners 14, between which the curved edge 12 is formed, and in the back face of the rest a short distance below the upper edge, there

are formed recesses 15 in suitable number on a horizontal line, within each of which a suction cup 16 is incorporated. In the present instance, a strip of reinforcement 17 is incorporated in the body of the pad alined with the recesses and being exposed in each of the recesses 15. This reinforcement may be of various kinds, the purpose being for it to be the supported part immediately engaged with the suction cups, and serving to prevent the body of the rest from becoming distorted, weakened or worn by long continued tugging of the rest this way and that, from the normal initial position. This reinforcement may be of elastic or hard rubber strap material, or may be of metal or other stiffening material. Made in rubber quite flexible and elastic, it has been found to be highly satisfactory and effective. It may be of semi-rigid rubber or other material. The suction cup may be formed integrally on the reinforcement, or may be formed as a separate element having a shank portion 18 with a knobbed extremity, insertable through apertures 19 in the reinforcement 17. By this arrangement new suction cups may be quickly substituted for deteriorated ones, by simply pulling the old ones out and inserting the shanks of the new cups. The member 17 may form the back wall or extreme inner part of each recess 15, and the material of the rest immediately back of the reinforcement may be separable therefrom so as to permit the knobs of the cups to be properly inserted.

The upper part of the rest is substantially thickened to form a pillow part 20 on the front face, and extending on to the central upper portion 21 within and immediately below the curved edge 12. This thickened portion is also centrally recessed on a medial line forming a sort of groove 22 in which the head or neck, or both, of the user may rest.

The recess 15 may be formed by providing a suitable lug on the face of the mold to shape the recess, as in Figure 6, or as in Figure 3 the body of the rest may comprise a plain planiform sheet 23 of sponge rubber of moderate thickness with circular apertures 24 entirely therethrough located in a position and relation corresponding to the recesses 15. To the face of this there is then secured the pillow section 25, which is formed with a planiform back face vulcanized to the sheet 23. The pillow section is so shaped and of just sufficient size to afford a raised part corresponding in size and shape to that 20 shown in Figures 1 and 2, when it is affixed to the sheet 23. For this purpose a vertical section through the pillow section 25 is substantially of the same shape as one-half of a longitudinal section of a pear, inverted, its upper part rising abruptly from the sheet 23 while its lower part is tapered to a very thin edge meeting the face of the sheet 23 at a practically imperceptible angle.

In the attachment of the suction cups it may be found preferable to form them integrally on a strap 26 of elastic rubber corresponding to the form and location of the reinforcement 17 before referred to and also serving the same purpose, this strap 26 being materially thickened so that it affords material support to the parts of the rest intervening between the suction cups. In case of the one-piece back rest and pillow, the cup strip 26 may be suspended in the mold so as to become integrally incorporated, with the sponge rubber and afford in the latter a band of dense elastic rubber which will resist tearing apart of the cells of the sponge rubber adjacent the suction cups by unusual strains on the cups, or upon the rest when the cups are attached to a tub or the like. The cups in any of the forms indicated are so located in the recesses of the rest that the lips clear the sides of the recesses, and when the rest is adjusted in proper location within a bath tub where it is desired to attach it, the face of the rest immediately behind or over the respective recess may be pressed by the thumb or finger, the cup being thereby flattened out against the face of the tub and the air more or less completely exhausted therefrom. Relief of the manual pressure permits the cup by its inherent resilience to tend to return to normal form with greater depth and space content, thereby producing the usual vacuous condition as is well understood in such devices, and whereby the cup is held fixed upon the tub as a fastening and support. In this condition the distance from the plane of the lip of the cup at the face of the engaged tub surface to the inner face of the bottom of the recess 15 is less than the depth of the recess. Consequently, the adjacent face surfaces of the rest are pressed firmly against the face of the tub, causing the back face of the rest to lie snugly against the wall of the tub and holding the edges of the recesses 15 with especial firmness against the face of the tub excluding all water or foreign material from the cup and preserving the cup against rapid deterioration, as will be understood. The appliance will, consequently, require less frequent removal for cleaning.

As in Figure 6, the cup 15 may be formed with a base or attaching flange 32 on the extremity of the shank. This flange may be cemented to the bottom of the recess or to any object requiring to be suspended by such a device.

I claim:—

1. In a rest of the character described, a sponge rubber pad having a normally flexible back face, recesses formed in said back face and suction cup devices in respective recesses constructed and arranged that when engaged with a supporting surface their dimension from base to lip is less than the normal depth of the respective recesses, a reinforcement

incorporated in the body of the pad connecting the suction cups and adjacent pad portions, and connecting the suction cups to each other.

2. The article recited in claim 1 in which the reinforcement is formed with apertures alined with the recesses and the cups have resilient shanks formed with knobbed ends adapted to be pressed through the apertures under compression.

3. A rest of the character described comprising a base pad of sponge rubber substantially planiform and of uniform thickness, a series of apertures being formed therethrough in the upper part, a pillow section of similar material having a planiform back face united with the base pad and covering said apertures, and suction cup devices secured to the rest and located within said apertures, the normal thickness of the base pad being greater than the corresponding dimension of the cups when applied.

4. The structure of claim 3 in which a reinforcement is secured between the base pad and pillow section in alinement with the apertures, said cups being connected to the reinforcement, and lying in respective apertures.

In testimony whereof I affix my signature.

MITCHEL STERN.