June 21, 1932. M. HART 1,864,434

HOSPITAL PAD AND RING

Filed March 29, 1927

FIG. 1

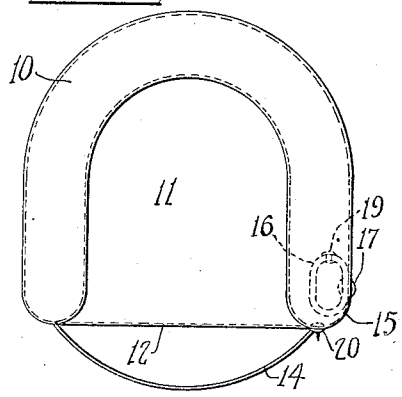


FIG. 2

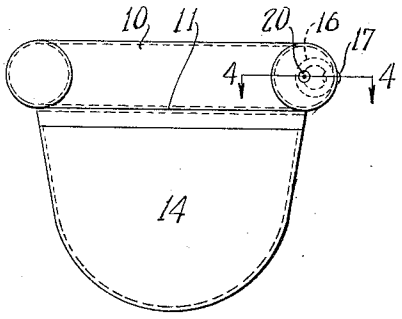


FIG. 3

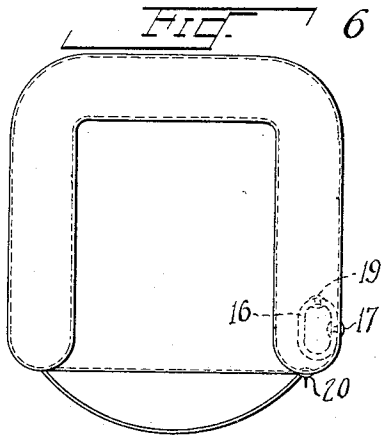


FIG. 4

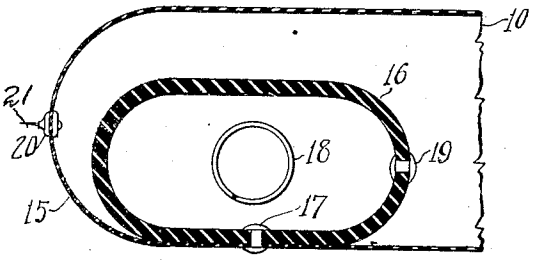


FIG. 5

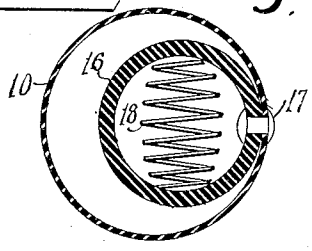
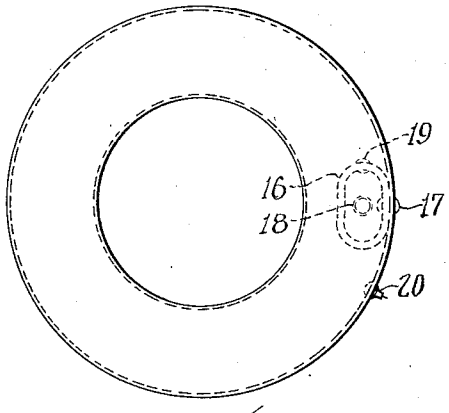


FIG. 6

FIG. 7



INVENTOR
M. Hart
BY E. B. Birkenbeuel.
ATTORNEY

Patented June 21, 1932 1,864,434

UNITED STATES PATENT OFFICE

MARJORIE HART, OF VANCOUVER, WASHINGTON, ASSIGNOR OF ONE-HALF TO JOHN R. FOLEY, OF KELSO, WASHINGTON

HOSPITAL PAD AND RING

Application filed March 29, 1927. Serial No. 179,280.

This invention relates generally to medical and surgical appliances, and particularly to a special form of hospital pad and ring in which a pneumatic element of a somewhat U-shaped and also ring shaped form is employed to form a seat cushion.

The first object of this invention is to provide a hospital pad and ring, or similar pneumatic device, having an internal means for inflating same in order to avoid the necessity of using the mouth for this purpose, or the employment of an additional outside pumping mechanism.

The second object is to make it easily possible to vary the degree of inflation while the patient is resting on the pad.

The third object is to provide a special form of inflating mechanism for pneumatic devices in which the inflating means is confined within the device itself.

These, and other objects, will become more apparent from the specification following as illustrated in the accompanyng drawing, in which:

Figure 1 is a plan of the device of which Figure 2 is a front elevation and Figure 3 a side elevation. Figure 4 is an enlarged horizontal section taken along the line 4—4 in Figure 2. Figure 5 is a vertical section taken along the line 5—5 in Figure 4. Figure 6 illustrates a modified form of the device showing a somewhat square rear portion. Figure 7 is a plan of the ring.

Similar numbers of reference refer to similar parts throughout the several views.

Referring in detail to the drawing, the device itself consists of a somewhat U-shaped inflatable member 10 whose under side is covered by a rubber web 11 whose forward edge 12 is extended to form an apron 13 at the bottom of which is formed a catch pocket 14. Inside of the end 15 of the member 10 is placed a relatively stiff and heavy but compressible bulb 16 which is attached to the side of the portion 15 by means of a clamp 17 which includes a check valve through which air can enter the bulb 16 from the exterior of the inflatable member 10.

In some cases it is desirable to insert a spring 18 within the bulb 16 to improve its expanding qualities.

The bulb 16 is provided with an outlet check valve 19 through which air can pass from the exterior of the bulb 16 into the inflatable member 10. The end of the portion 15 of the member 10 is also provided with a check valve 20 which can be unseated by a pin 21, or in any other convenient manner which would not be apt to cause same to be unseated by accidental contact therewith. The pin 21 of course is removable.

In some instances it may be desirable to eliminate the apron 13 with its attached pocket 14 and to modify the shape of the rear side of the device, making same more nearly in the form of a square, although the particular shape of the pneumatic portion is unimportant.

In Figure 7 the pneumatic ring 22 is not closed by a web for reasons well understood by those versed in the art. It is preferable to provide a fabric lining 23 for the pneumatic elements to prevent fracture at weakened places during over-pressures. In the U-shaped form of the device it is sometimes desirable to provide an inflating means at each side of the pad instead of at one side, as shown, merely as a matter of convenience.

It can be seen that the internal inflating means herein described is applicable to a great variety of pneumatic devices wherein changes in the degree of inflation may be required and where it would be inconvenient to carry an auxiliary pumping device, as is ordinarily necessary.

It is also preferable to provide tabs on the rear margin of the pad for the purpose of suspending same while disinfecting or drying.

In operation the attendant merely takes the portion 15 of the ring in hand and squeezes the bulb 16 until the member 10 is inflated to the desired degree. If at any time it is desired to decrease the inflation it is only necessary to allow the air to escape through the valve 20.

It can be seen that by this construction the unpleasant necessity of inflating the ring by lung power or the awkward expedient of attaching a pump of any sort to an inlet valve

is entirely avoided by incorporating the pump within the ring, making same always available and always out of the way.

It is a matter of common knowledge that hospital pads and rings have long been in use and it is not my intention to cover such devices broadly, but only in combination with the internal pumping mechanism whereby the degree of inflation of the ring can be perfectly controlled.

I claim:

In a hospital ring, the combination of a web provided with a depending pocket, a U-shaped inflatable member extending along the side and rear edges of the web and having its ends terminating at the sides of the pocket for causing fluids deposited on the web to flow into the pocket, the interior of the U-shaped member providing a single chamber extending from end to end of the U-shaped member, an inflating bulb positioned within said chamber, attached to the outer side of the inflatable member and having an inlet valve communicating with the atmosphere at the point of attachment, said bulb also having an outlet valve communicating with the interior of the chamber, said bulb providing means for inflating said U-shaped member from end to end of the latter, and means for discharging air from said chamber when the U-shaped member is to be deflated.

MARJORIE HART.