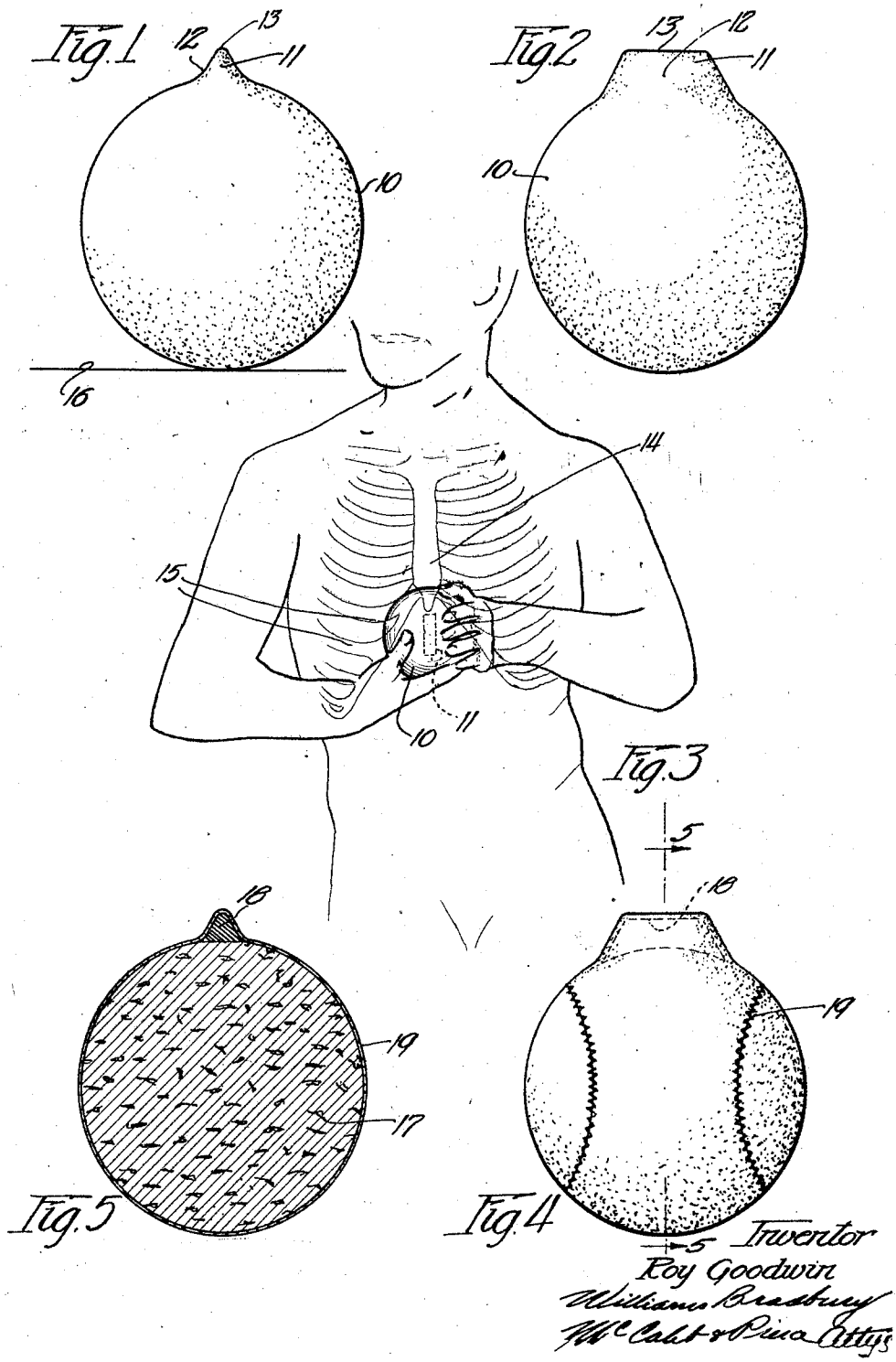
April 28, 1925. 1,535,822

R. GOODWIN

REMEDIAL APPLIANCE

Filed July 5, 1923



Patented Apr. 28, 1925. 1,535,822

UNITED STATES PATENT OFFICE.

ROY GOODWIN, OF WILMETTE, ILLINOIS.

REMEDIAL APPLIANCE.

Application filed July 5, 1923. Serial No. 649,409.

To all whom it may concern:

Be it known that I, ROY GOODWIN, a citizen of the United States, and resident of Wilmette, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Remedial Appliances, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention concerns a remedial device especially designed for the expulsion of gas from the stomach by manipulation by the patient.

One object of the invention is to provide such a device which is adapted to sharply depress the abdominal wall immediately beneath the sternum and opposite the ends of the floating ribs in order, as near as possible, to bring pressure upon the upper part of the stomach to expel the gas therefrom.

Another object of the invention is to so form an appliance of this nature that the weight of the patient's body may be used to effect the necessary pressure, thereby saving a tiring of the arm muscles during the treatment.

A still further object of my invention is to so conform the lower portion of the appliance that it will co-operate with a table, bed, or other supporting surface, to produce a suitable massaging movement of the device against the body.

Other features and advantages of my invention will appear from the following description wherein reference is made to the accompanying drawing, in which:

Figures 1 and 2 are respectively side elevations of the device of my invention;

Figure 3 is a fragmentary view of the front of the human body showing the application of the device, the ribs and sternum being indicated in phantom lines;

Figure 4 is a side elevation of a modified form of my invention, and

Figure 5 is a vertical section thereof taken on the line 5—5 of Figure 4.

As shown in Figures 1 and 2, the gas expelling device of my invention comprises a spherical solid 10 of wood or other material provided with an integral protuberance 11 having an outwardly pointing V cross section 12. As shown in Figure 2, this protuberance is elongated to form a ridge 13 of considerable length. I prefer to round off all of the corners on the device so as to prevent unnecessary pain to the user.

As illustrated in Figure 3, the device is pressed against the upper abdominal wall so that the protuberance 11 sharply indents the region of the abdominal wall which lies just beneath the sternum 14 and opposite the ends of the upper floating ribs 15. In this way it is possible to depress the extreme upper part of the stomach sufficiently to expel the gas therefrom much more effectively than by the mere general pressure against the upper abdominal region, which would not create enough pressure to have the desired result.

Although this appliance may be used successfully while the patient is in an upright position or reclining on the back, the most satisfactory and beneficial results can be obtained when the patient is lying prone—that is, face downwardly—the appliance 10 resting upon a table or bed 16 having a more or less flat surface and the protuberance 11 uppermost so that it depresses the upper abdominal region just below the sternum. When used in this way, the protuberance 11 will protrude beyond the normal surface of the body, allowing the body surrounding the protuberance 11 to rest upon the periphery of the spherical solid 10, so that the weight of the body is, to a considerable extent, supported by the appliance generally, with a more acute pressure at the indentation formed by the protuberance 11.

When using the device in this manner, it is unnecessary for the patient to forcibly manipulate the sphere manually. The hands may be used to position the appliance while the body itself can be given a sufficient oscillatory movement to cause the solid 10 to co-operate with the supporting surface 16 to produce a rocking motion which effects a massaging movement of the protuberance 11 at that portion of the body which is engaged by the protuberance. In this manner, the user may subject himself to a treatment over a considerable space of time without the usual tiring effects which are occasioned by obtaining pressure and movement of similar appliances through the hands and arms.

A somewhat more desirable, though more expensive form of my invention is illustrated in Figures 4 and 5. The appliance there shown comprises a sphere or ball 17

of cork or semi-resilient material having a non-integral block 18 similar in conformation to the protuberance 11 of the previously described embodiment. This block 18, which is, in fact, a triangular prism, may, if desired, be glued or otherwise secured to the cork sphere, although this is not necessary. The cork ball together with the block, which I prefer to form of vulcanized rubber, is encased in a leather cover 19 of the type generally used for covering indoor baseballs and the like. I find that most leather or fabric coverings allow enough stretching to provide for the protuberance 18.

While I have described only these particular embodiments of my invention, it will be understood, of course, that departures may be made from these specific forms which still come within the scope and spirit of my invention.

I claim:

1. A device of the class described comprising a spherical ball of semi-resilient material, a block in the general form of an elongated triangular prism with one side against the periphery of said ball, and a cover tightly jacketing said ball together with said block.

2. A remedial device of the class described comprising a ball upon which the patient can lie and roll in a massaging operation, an elongated protuberance projecting from the spherical periphery of said ball, said protuberance projecting upwardly in use for localizing a concentrated pressure on the abdominal wall below the sternum, the upper convex surface of the ball immediately surrounding said protuberance applying a general pressure to the abdominal wall around said region of concentrated pressure.

3. A remedial device comprising upper and lower curved surfaces permitting the device to roll back and forth whereby the patient can lie upon and roll with the device, a protuberance projecting from the upper curved surface of the device, said protuberance localizing a concentrated pressure on the abdominal wall to expel gas from the stomach, the upper curved convex surface immediately surrounding said protuberance applying a general pressure to the abdominal wall around said region of concentrated pressure.

In witness whereof, I hereunto subscribe my name this 28th day of June, 1923.

ROY GOODWIN.

Witnesses:

J. DAVID DICKINSON,

EMILE J. BOURGEOIS.