

No. 694,751.

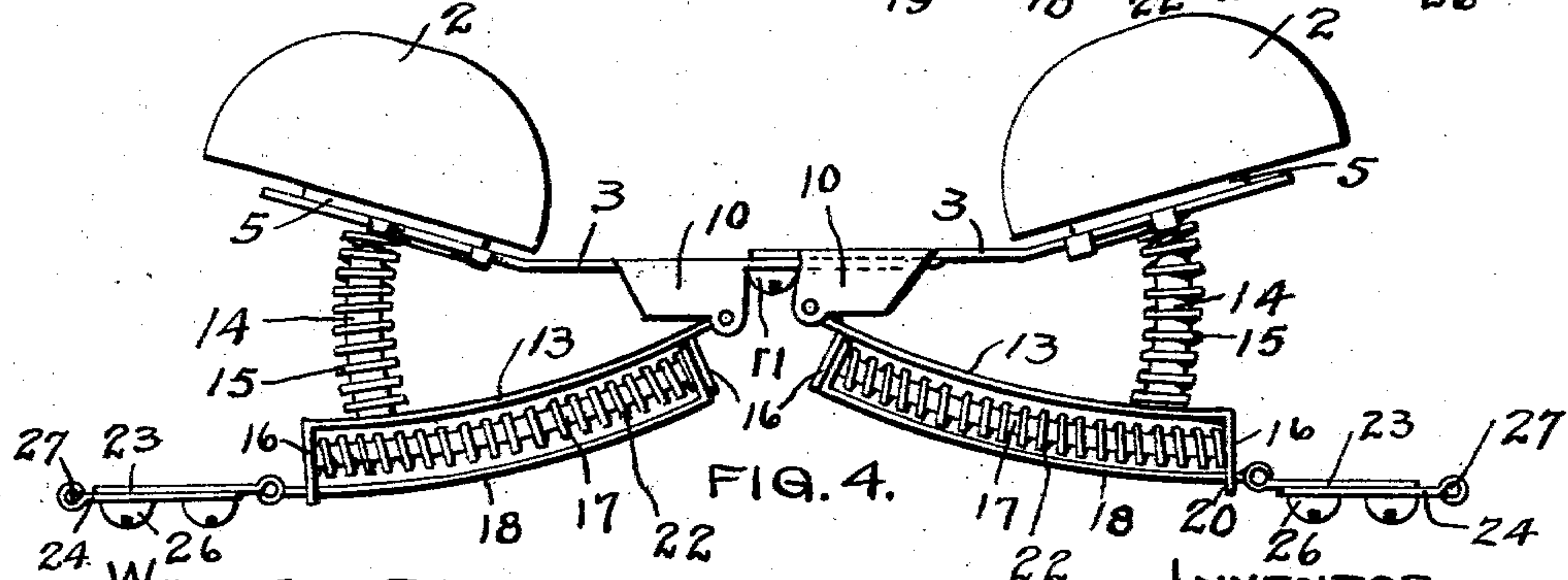
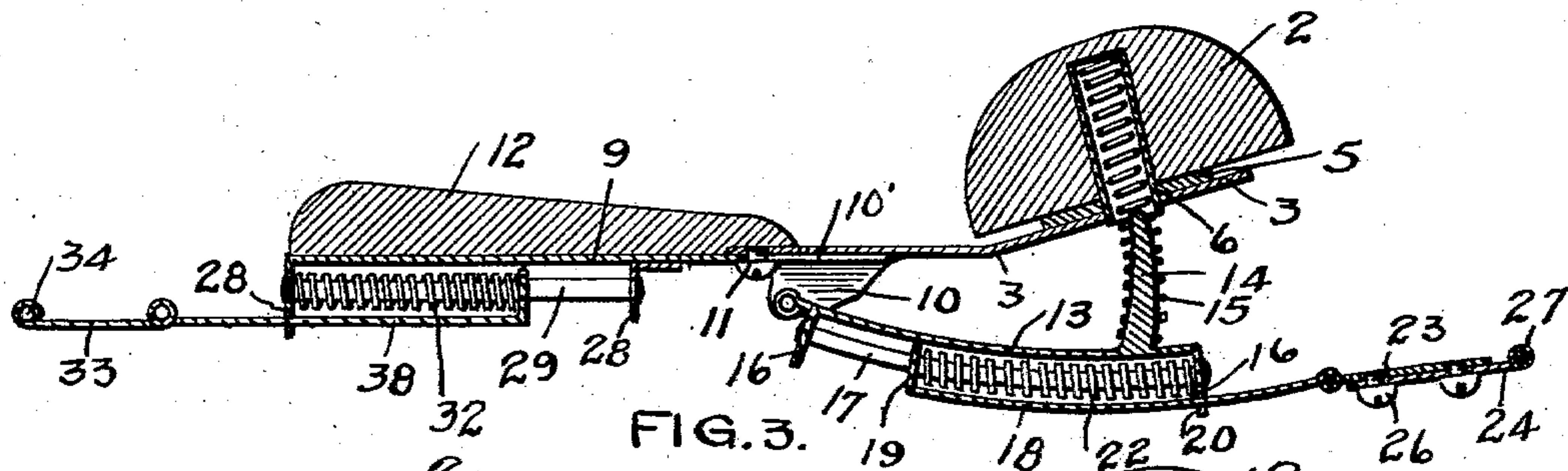
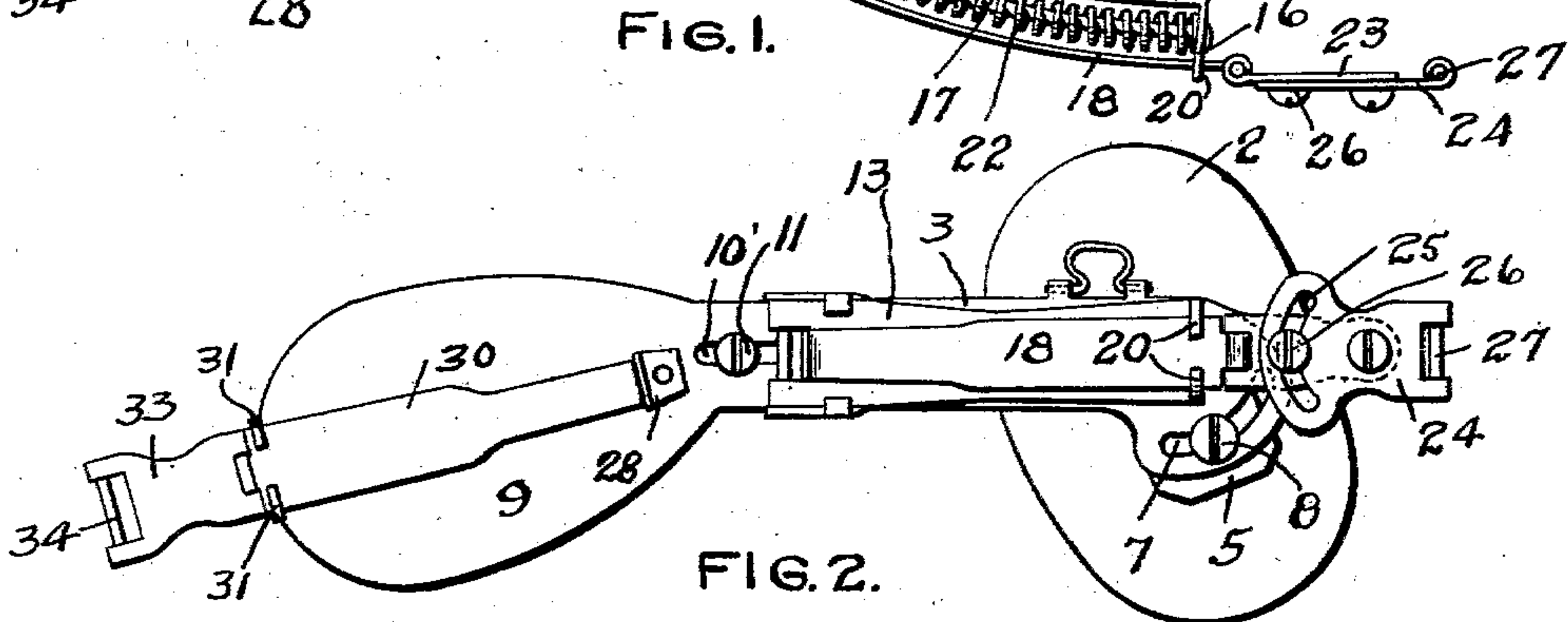
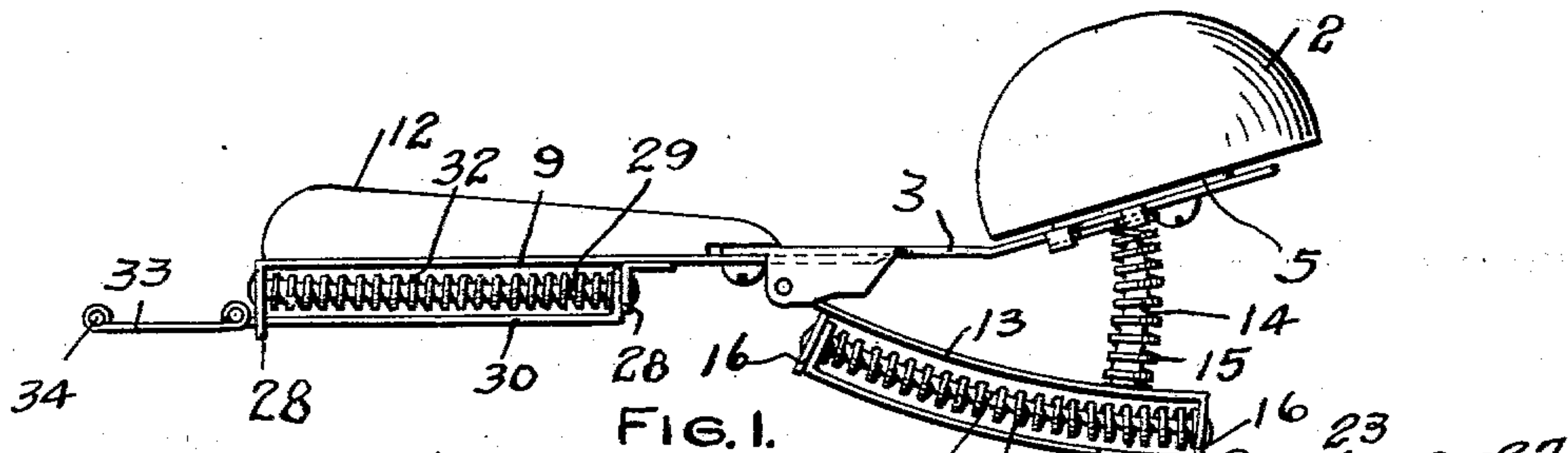
Patented Mar. 4, 1902.

D. E. HUFFMAN.

HERNIAL TRUSS.

(Application filed May 18, 1901.)

(No Model.)



WITNESSES.

E. G. Stause
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INVENTOR

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UNITED STATES PATENT OFFICE.

DATUS E. HUFFMAN, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-HALF
TO ANDREW G. NELSON, OF MINNEAPOLIS, MINNESOTA.

HERNIAL TRUSS.

SPECIFICATION forming part of Letters Patent No. 694,751, dated March 4, 1902.

Application filed May 16, 1901. Serial No. 60,466. (No model.)

To all whom it may concern:

Be it known that I, DATUS E. HUFFMAN, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Trusses, of which the following is a specification.

This invention relates to improvements in trusses designed for use in cases of hernia; and the objects I have in view are to provide an improved construction of truss which can be easily and quickly adjusted in any required position to suit the requirements of the case to be treated.

Other objects of the invention will appear from the following detailed description, taken in connection with the accompanying drawings, in which—

Figure 1 is a top view of a truss embodying my invention. Fig. 2 is a front elevation of the same. Fig. 3 is a longitudinal section, and Fig. 4 is a top view showing the truss made double or provided with two pads.

In the drawings, 2 represents the truss-pad, which is of any usual or suitable form and which is secured to a suitable plate 3, so as to be capable of a pivotal movement thereon. I prefer to secure the pad 2 to a suitable plate 5 and to pivot this plate upon the plate 3 by means of a tube 6, which passes through the plate 3 and into the body of the pad. (See Fig. 3 of the drawings.) The plate 3 is provided with the slot 7, and a screw 8, passing through this slot, engages a threaded opening in the plate 5. By loosening this screw the pad on the plate 5 may be turned about the tube 6 so as to bring the pad into any desired position in reference to said plate 3, thereby permitting the pad to be adjusted axially so as to bring it into the proper position to fit against the required portion of the body of the wearer.

The plate 3 has adjustably connected to it a plate 9. The connection between these two plates may be made in any desired manner. As here shown, the plate 3 is provided with lugs 10, and the plate 9 fits between these lugs and is provided with a slot 10', that is engaged by a screw 11, that screws into a threaded hole in the plate 3. By loosening the screw 11 the plate 9 may be adjusted upon the plate 3 to any extent within the limits of

the adjustable connection. The plate 9 carries the supporting-pad 12, which may be of any suitable form and size and which will bear upon the body of the wearer and prevent the plates 3 and 9 from coming in contact therewith. The tube 6, already described, forms a socket in the back of the pad 2. A plate 13, hinged to the lugs 10, extends substantially in line with the plate 3 and is provided with a stud 14, that is adapted to enter the tube 6 in the pad 2. A spring 15 is arranged between the plate 13 and the pad and surrounds the stud 14 and projects to the bottom of the tube 6. This spring tends to force the pad 2 at all times away from the plate 13. Arranged upon the plate 13 are the projections 16, and a rod 17 is mounted in these projections. A plate 18 is arranged over this rod and is provided with an inturned end 19, that is engaged by the rod 17. The opposite end of the plate 18 is held in position by the ears 20 upon the projection 16, said ears being bent over the plate 18 and holding the same in position. A spring 22 surrounds the rod 17 and is arranged between the outer projection 16 and the inturned ends 19 on said plate 18. This spring tends to move the plate 18 inward or toward the lugs 10 on the plate 3. To the outer end of the plate 18 I prefer to hinge a short plate 23, and upon this is pivoted a plate 24, having a slot 25 and a screw 26, passing through this slot and screwing into the plate 23. The outer end of the plate 24 is provided with the rod or wire 27, by means of which a belt or a belt-buckle may be connected to the plate 24. The plate 9 is also preferably provided with projections 28, in which a rod 29 is secured. A plate 30 engages this rod, being held in position by the lugs 31, and a spring 32 surrounds the rod and engages the plate 30 and is arranged to hold said plate normally at the limit of its movement toward the inner end of the plate 9. A plate 33 is hinged to the plate 30 and is provided with the rod or wire 34 for engagement with a belt or a belt-buckle.

In Fig. 4 I have shown the truss provided with two pads. As here shown, the plate 9 and the supporting-pad 12 are omitted, and the pad 2 and the parts connected therewith are duplicated, and the inner ends of the plate

3 are adjustably connected together, so as to permit the pads 2 to be adjusted toward or from each other.

The advantages of this truss are that the pads may be adjusted in any desired position, and the spring-pressure on the truss may be applied in any direction, and it is impossible for the truss at any time to get out of position or to cease applying the desired pressure to the required portion of the body. With ordinary trusses when the wearer stoops over or in various positions of the body the pressure of the pad upon the ruptured surface ceases, thereby causing serious results. With my improved truss the pressure of the pad upon the surface to which it is applied is always the same. The truss can readily be changed from a single to a double truss, and the parts are so constructed that the truss never gets out of order, and it will last for an indefinite time.

I claim as my invention—

1. In a truss, the combination, with two adjustably-connected plates, of pads mounted thereon, a plate hinged upon one of said pad-supporting plates, a spring tending to separate said hinged plate and the pad-plate to which it is connected, a spring carried by said hinged plate, and a plate 18 normally retracted by said spring and provided with a suitable belt connection.

2. The combination, with the plate 3, of the pad 2 adjustably connected to said plate, the plate 13 hinged to the plate 3, a spring arranged between the plate 13 and the pad and tending to press the pad away from the plate 13, a second plate arranged substantially in line with and adjustably connected to the plate 3, and spring connections for connecting the belt to the plate 13 and to the plate that is adjustably connected to the plate 3, substantially as described.

3. The combination, with the two plates 3, 3, adjustably connected together, of a pad 2 adjustably supported upon each of said plates, a plate 13 hinged to the inner portion of each of said plates 3, a spring 15 arranged between the plate 13 and each of the pads 2, and means for yieldingly connecting a belt to the outer end of each of the plates 13, substantially as described.

4. The combination, in a truss, with two plates adjustably secured together, of suitable pads secured upon said plates, a plate hinged to the inner portion of one of said pad-supporting plates, a spring tending to force the corresponding pad away from said hinged plate, and a yielding belt-supporting connection to said hinged plate, substantially as described.

5. In a truss, the combination, with a plate

3 having a slot 7 and a tube 6, of a plate 5 centrally pivoted on said tube and having near one end an adjustable connection with said slot, a pad secured to said plate 5 and having a socket to receive said tube, a plate 13 hinged to said plate 3 and having a stud to enter said tube, a spring provided in said tube for normally holding said pad and plate 13 apart, and a suitable belt connection provided on said plate 13, substantially as described.

6. The combination, with a plate 3, of a pad 2 pivoted thereon, a plate 13 hinged to said plate 3, a spring for normally holding said pad and plate 13 apart, a rod 17 carried by said plate 13, a spring thereon, the plate 18 normally retracted toward the hinged end of said plate 13 by said last-named spring, and means for attaching a belt to said plate 18.

7. A truss, comprising plates 3 and 9 adjustably connected, pads mounted on said plates, a plate 13 hinged to said plate 3, a spring interposed between said plates 3 and 13, a rod 17 carried by said plate 13, a spring 22 on said rod, a plate 18 normally retracted by said spring and provided with a suitable belt connection, and a yielding belt connection provided on said plate 9, substantially as described.

8. In a truss, the combination, with two plates 3 and 9 adjustably connected together and each provided with a suitable pad secured thereon, lugs 10 provided on said plate 3, a plate 13 hinged on said lugs, a spring between said plates 3 and 13 and tending to hold them apart, a yielding belt connection provided on said plate 13, and a second yielding connection for the other end of the belt provided on said plate 9, substantially as described.

9. A truss, comprising plates 3 and 9 adjustably connected, pads mounted on said plates, a plate hinged to said plate 3, a spring interposed between said plate 3 and said hinged plate, a rod carried by said hinged plate, a spring 22 on said rod, and a plate 18 normally retracted by said spring 22 and provided with a suitable belt connection.

10. A truss, comprising plates 3 and 9, pads mounted on said plates, a plate hinged to said plate 3, a spring interposed between said plate 3 and said hinged plate, a rod 17 carried by said hinged plate, a spring 22 on said rod and a plate 18 normally retracted by said spring 22 and provided with a suitable belt connection.

In testimony whereof I have hereunto set my hand, this 11th day of May, 1901, at Minneapolis, Minnesota.

DATUS E. HUFFMAN.

In presence of—

RICHARD PAUL,
M. C. NOONAN.