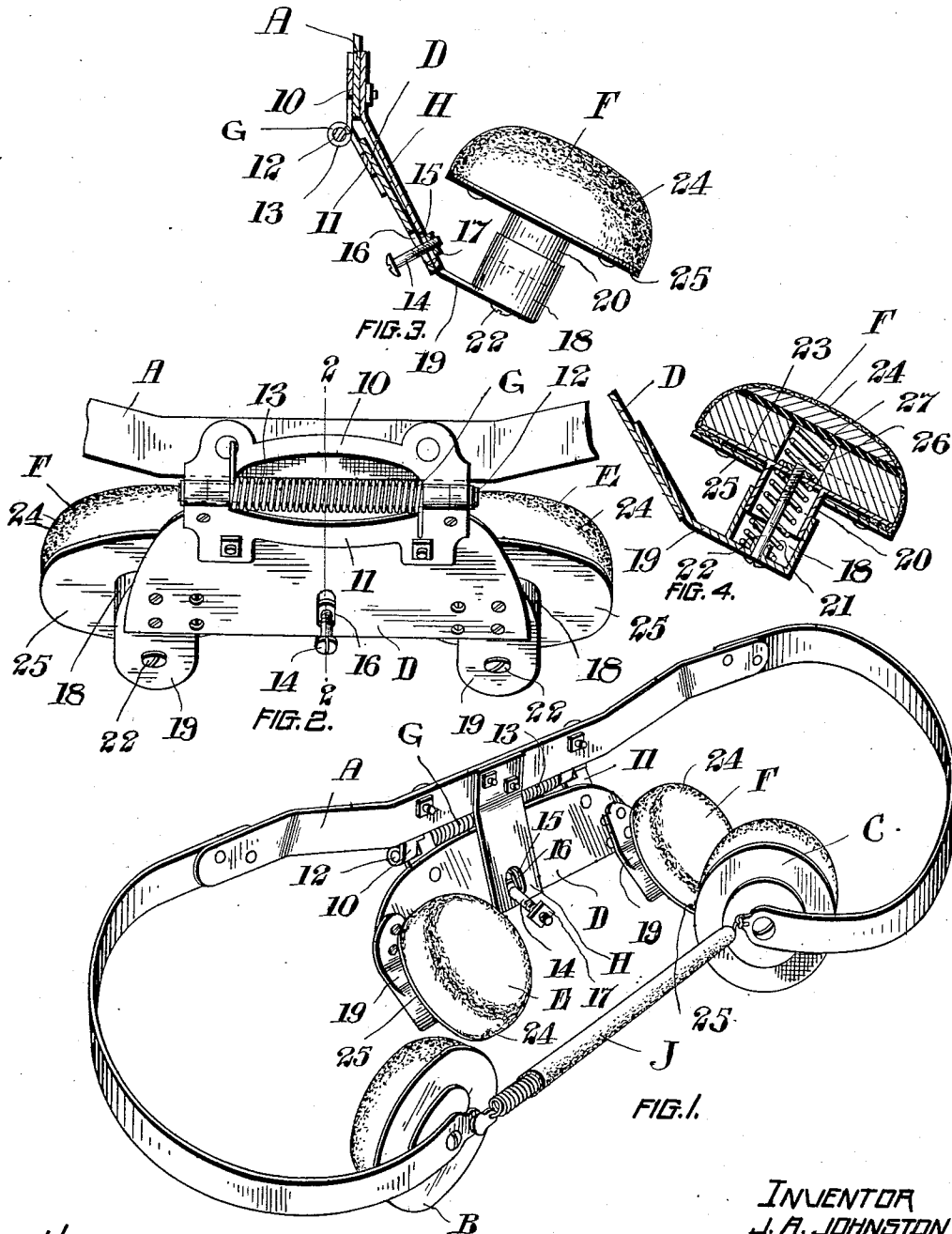


J. A. JOHNSTON.
RUPTURE TRUSS.
APPLICATION FILED MAR. 20, 1911.

1,018,113.

Patented Feb. 20, 1912.



WITNESSES

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RUPTURE-TRUSS.

1,018,113.

Specification of Letters Patent.

Patented Feb. 20, 1912.

Application filed March 20, 1911. Serial No. 615,493.

To all whom it may concern:

Be it known that I, JAMES ALFRED JOHNSTON, a subject of the King of Great Britain, residing at 1954 Eleventh avenue west, in the city of Vancouver, in the Province of British Columbia, Dominion of Canada, have invented certain new and useful Improvements in Rupture-Trusses, of which the following is a specification.

My invention relates to improvements in trusses for rupture or hernia and the general objects of my invention are to improve and simplify the construction of such an appliance to render it more comfortable in use and better adapted to perform the functions required of it.

More specific objects are to provide an improved form of compression pad and to provide means for supporting the compression pad in such a manner that it will not be likely to be displaced, and the pressure of which may be augmented when it has yielded a determined distance.

Further objects are to improve the form of compression pad itself.

In its construction the invention includes a supporting member adapted to encircle the waist and having a compression member hinged thereto and spring compressed toward the rupture, said compression member carrying spring pads and having means for augmenting the spring pressure when it has yielded a determined amount, all as hereinafter more fully set forth and described in the accompanying specification and drawings.

In the drawings: Figure 1 is a perspective view of the truss. Fig. 2 is a detail in elevation of the compression members. Fig. 3 is a sectional view through the compression members on the line 2—2, Fig. 2. Fig. 4 is a sectional detail through one of the compression pads.

In the drawings like characters of reference indicate corresponding parts in each figure.

Referring to the drawings A represents the supporting member of any usual construction and adapted to encircle the waist of the wearer. As illustrated, this member is formed of flat spring metal, but it might equally be formed of a round or otherwise shaped bar.

The free ends of the supporting member carry the usual pads B and C adapted to fit in the hollow of the back just above the hip

joint. While the form of pad illustrated does not form part of the present invention, it may be stated that they have a swiveling connection with the supporting member.

To assist in holding the supporting member in position on the body of the wearer, a spiral spring J may be provided detachably connected to the extremities of the supporting member and extending across the back of the user. The spring, if desired, may be covered with leather or other suitable material.

D represents my improved compression member hinged to the supporting member at the front thereof and adapted to fit as a saddle over the pubic ridge and carrying pads E and F adapted to bear on the abdominal wall in the part necessary.

The compression member is adapted to be spring compressed against the abdomen, which result is accomplished in the embodiment illustrated by the use of a spring hinge G as a connection between the supporting member and the compression member, the form of hinge illustrated including bracket members 10 and 11 on the supporting member and compression member respectively, connected by a pivoting rod 12 around which is wound the spring 13, the ends of which spring bear respectively against the supporting member and pad.

In order to guard against displacement of the compression member by swinging backwardly or through other cause, means are provided for augmenting the spring pressure when the compression member has yielded a determined amount. The form of these means, which I have designed, and illustrated in the present application, comprise a flat spring H secured to the supporting member and offset inwardly slightly, being connected to the supporting member by a loose bolt 14 which extends through perforations 15 and 16 in the spring and supporting member respectively.

It will be seen that by adjusting the nut 17 on the bolt, the distance which the compression member may swing outwardly before the spring H is brought into play, may be regulated. It will be understood that in use, the compression member will normally occupy a position farther outwardly than the spring H.

The pads E and F are each supported with freedom to yield against the spring means, and the construction which I have

adopted to accomplish this comprises cylindrical sockets 18 carried on brackets 19 extending from the supporting member, the pads being formed with tubular plunger members 20 fitting in the sockets, a spiral spring 21 extending between the plunger and seat of the socket, the outward movement of the pad being limited by a bolt 22 extending through the socket 18 and through the plate 23, which forms the base of the pad. The pad itself comprises a dome shaped covering 24 of flexible material such as leather or kid, the edges of which fit over the plate 23 and are retained in position by a clamping plate 25 which may be riveted or otherwise secured to the plate 23. The pad is filled with suitable compressible material such as hair and has a compression spring 26 in the interior which bears against a partition 27 of leather or like material which is near the outer surface of the covering, the object of the partition being to protect the covering from the direct pressure of the spring, so that the wearer will not be made uncomfortable by the direct pressure of the spring.

It will be of course apparent that the size and shape and location of the pads may all be adjusted to suit the nature of the particular user of the appliance. The spring arrangement illustrated gives a maximum degree of flexibility and, combined with the swiveling pads B and C, permits perfect freedom of action to the user.

As many changes could be made in the above construction and many apparently widely different embodiments of my invention, within the scope of the claims, constructed without departing from the spirit

or scope thereof, it is intended that all matter contained in the accompanying specification and drawings shall be interpreted as illustrative and not in a limiting sense.

What I claim as my invention is:

1. In a rupture truss, supporting means, a compression member, a spring hinge connecting the compression member with the supporting means, a flat spring on the supporting member, and connecting means between the flat spring and the supporting member adapted to cause the flat spring to resist the movement of the compression member after the latter has moved a determined amount.

2. In a rupture truss and in combination supporting means, a spring actuated compression member hinged thereto formed with a perforation, a flat spring on the supporting member formed with a perforation and a connecting bolt extending between the perforations in the supporting member and flat spring respectively.

3. In a rupture truss and in combination, supporting means, a compression member carried thereby, brackets on the compression member, sockets carried by said brackets, compression pads formed with two inner plungers fitting within said sockets, springs extending between the sockets and the plungers, and bolts extending through the sockets and pads and adapted to limit the outward movement of the latter.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JAMES ALFRED JOHNSTON.

Witnesses:

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JAS. C. RITCHIE.