March 27, 1956 E. H. RIEDELL 2,739,642

ORTHOPEDIC BODY SUPPORT

Filed Aug. 6, 1953

Fig. 1.

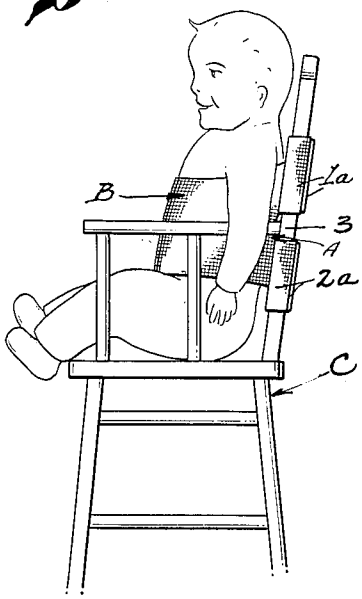


Fig. 2.

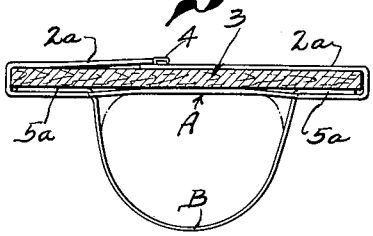


Fig. 4.

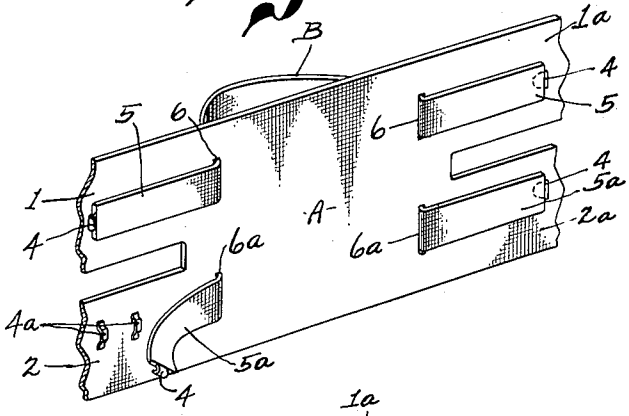
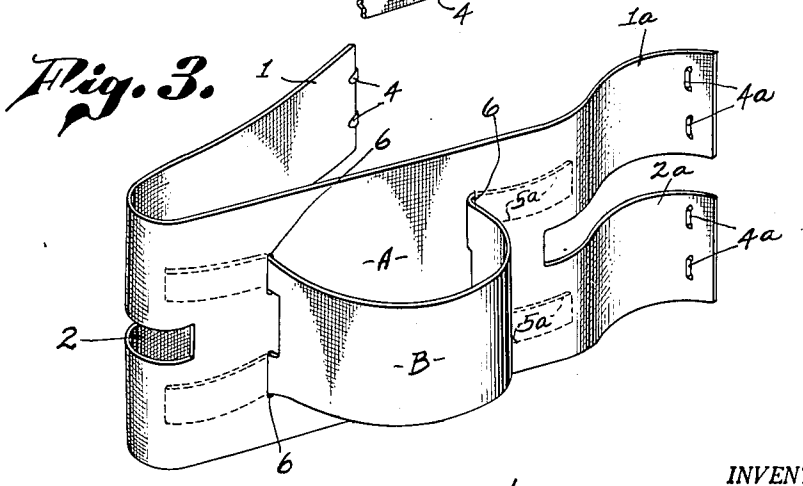


Fig. 3.



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United States Patent Office 2,739,642 Patented Mar. 27, 1956

2,739,642

ORTHOPEDIC BODY SUPPORT

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Application August 6, 1953, Serial No. 372,648

7 Claims. (Cl. 155—189)

This invention relates to and has for an object the provision of an orthopedic appliance for supporting invalid adults, children and infants for the dual purpose of supporting a person in erect sitting position on a seat against possibility of dislodgement and resultant injury, while at the same time affording support to weak areas of the human body and thereby strengthening the muscles and frame.

An imporant object is to provide a flexible appliance made of heavy and strong fabric such as canvas formed with relating adjustable abdominal and dorsal sections between which the torso of a seat occupant is confined and securely held while the legs hang from the front of the seat and the head and chest areas are held comfortably erect, connecting straps being extended laterally from each side of the dorsal section and arranged to be extended around the back of a seat and secured together for holding the back or dorsal section stretched to a desired tension behind the occupant, the abdominal section having laterally extended straps, threaded through slats in and adjustably secured to the rear side of the dorsal section and held so as to confine the torso of an occupant between the back and front section.

Thus, when the attaching straps of the back section are secured together and are extended around a chair back, at different elevations the back section will constitute a band bearing against and serving to support a wide area of the back while the abdominal section which is affixed at opposite extremities to the back section applies support to the front of the torso and together with the dorsal section, serves to confine and hold an occupant in the seat against accidental or self-intended displacement, and when used on invalids and infants avoids possibility of injury to the occupant user.

Other objects may appear as the description progresses.

I have shown a preferred form of appliance embodying the invention in the accompanying drawings, in which,

Fig. 1 is an elevational view of an infant seated in a chair and held against displacement and injury by my improved appliance;

Fig. 2 is a sectional plan view of the chair of Fig. 1 and the appliance secured thereto; and

Figs. 3 and 4 are perspective views of the appliance detached and respectively viewed from the front and rear.

Preferably a satisfactory appliance for the purpose of the invention includes an elongated wide main section formed with a back or dorsal portion A from opposite lateral boundaries of which pairs of straps **1** and **2** and **1***a* and **2***a* are adapted for extrusion around the rigid back **3** of a chair C. The straps **1**—**2** and **1***a*—**2***a* are suitably secured together at the rear of chair C as by fasteners **4**, and **4***a* so as to tension the band A on the chair back **3**.

An abdominal band B is adjustably supported on band A by providing pairs of lateral straps **5** adapted to be threaded through slots **6**, and **6***a* respectively in band

A and secured to the rear side of band A as by means of similar fastenings **4** and **4***a* or otherwise. Preferably more than a single fastener **4***a* is provided for fasteners **4** of straps **5**, **5**, **5***a* and **5***a*, in order to provide a degree of adjustment of the tension of band B. Straps **1** and **1***a* of band A are horizontally alined as are straps **2**, **2***a* of band A. Similarly, straps **5**—**5** and **5***a*—**5***a* of band B are horizontally paired.

I claim:

1. An orthopedic appliance comprising: a main band of fabric adapted to overlie the front of a chair back and having attaching straps extended from opposite lateral boundaries of said main band and thence behind said chair back to a point of attachment whereat said straps are connected for tensioning said band on the chair, and a second band overlying the intermediate area of said main band and adjustably attached to the main band for independent adjustment with respect to said main band whereby it may be tensioned over the abdominal region of a chair occupant positioned between said bands.

2. An orthopedic appliance comprising: a main band of fabric adapted to overlie the front of a chair back and having attaching straps extended from opposite lateral boundaries of said main band and thence behind said chair back to a point of attachment whereat said straps are connected for tensioning said band on the chair, and a second band overlying the intermediate area of said main band and adjustably attached to the main band whereby it may be tensioned independently on the main band over the abdominal region of a chair occupant positioned between said bands, said bands being of a width corresponding to the areal extent of a human body including the lumbar, abdominal and chest regions, said second band having straps extended from opposite lateral margins thereof through slots in the main band, and adjustably fastened to the reverse side of the main band.

3. An orthopedic appliance comprising: a main band of fabric adapted to overlie the front of a chair back and having attaching straps extended from opposite lateral boundaries of said main band and thence behind said chair back to a point of attachment whereat said straps are connected for tensioning said band on the chair, and a second band overlying the intermediate area of said main band and adjustably attached to the main band whereby it may be tensioned independently of said main band over the abdominal region of a chair occupant positioned between said bands and means at the ends of the strap of said main band for connection to simultaneously tension both of said bands.

4. An orthopedic appliance comprising: a pair of fabric bands the first of which adapted to be tensioned and held on the back of a chair and the second of which is detachably mounted and secured on said first band by adjustable fasteners, said first band bearing against the dorsal regions and said second band bearing against the abdominal region of a chair occupant.

5. An orthopedic appliance comprising: a pair of fabric bands the first of which is adapted to be tensioned and held on the back of a chair and the second of which is detachably mounted and secured on said first band, said first band bearing against the dorsal regions and said second band bearing against the abdominal region of a chair occupant, and separate adjustable means for attaching the first band to a chair and for attaching the second band to the first band whereby said secured band may be adjusted independently of said first band.

6. An orthopedic appliance comprising: a pair of fabric bands the first of which is adapted to be tensioned and held on the back of a chair and the second of which

is adjustably tensioned independently of and with respect to said first band, said first band bearing against the dorsal regions and said second band bearing against the abdominal region of a chair occupant, and separate adjustable means for attaching the first band to a chair and for attaching the second band to the first band, said attaching means for said first band including pairs of straps leading from opposite lateral margins of said bands respectively around and secured together rearwardly of the chair back, said attaching means for said second band including pairs of straps extending from the lateral margins thereof and adjustably securable to the reverse side of said first band.

7. An orthopedic appliance comprising: a dorsal band extended over the obverse side, lateral edges and reverse side of a chair back, and fasteners borne by opposite marginal portions of said band for adjustably tensioning said band on the chair back, an abdominal band adjustably tensionable with respect to and borne by said dorsal band, and fasteners borne by portions of said abdominal band engageable with fasteners on the reverse side of said dorsal band for adjustably tensioning the abdominal band relative to the dorsal band for confining a chair occupant between said bands.

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