April 10, 1951 L. PUSKI 2,548,557

ABDOMINAL TRUSS

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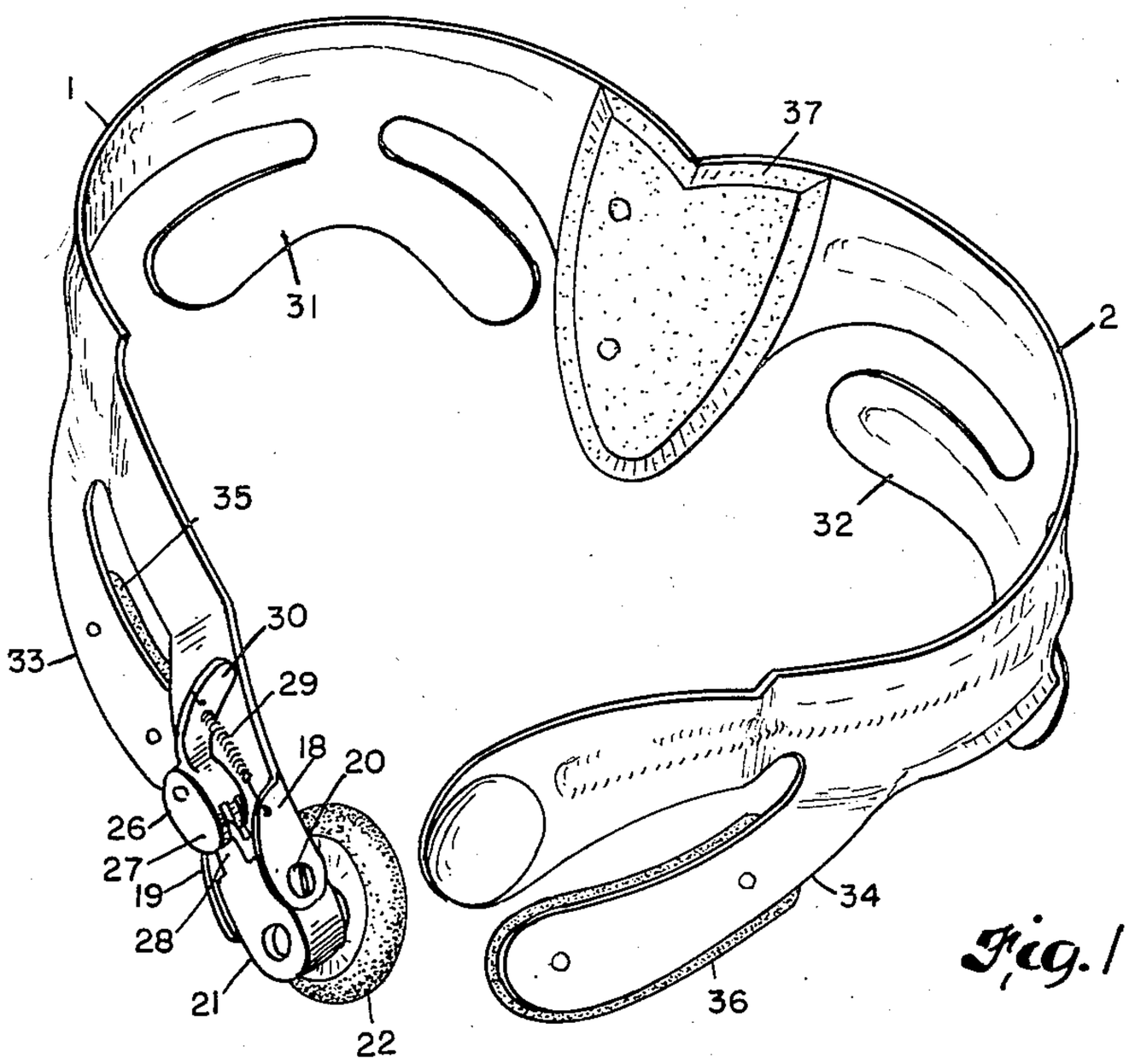

Fig. 1

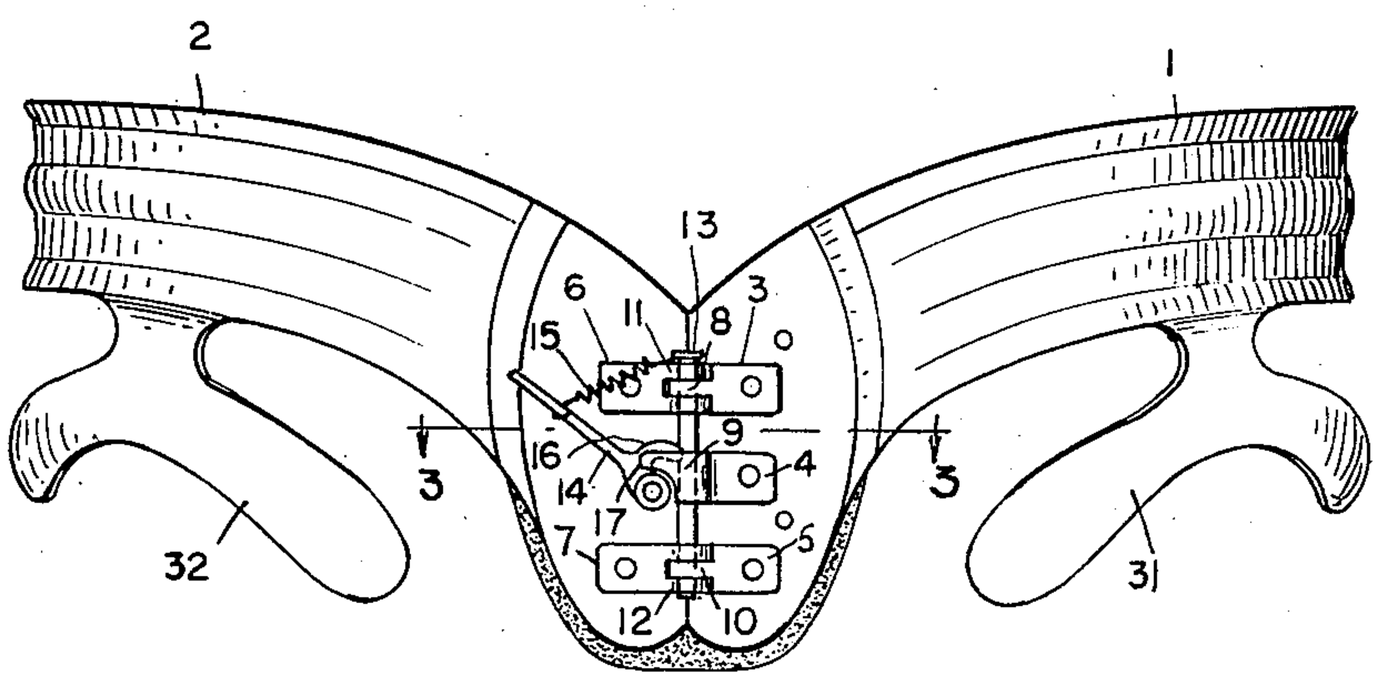

Fig. 2

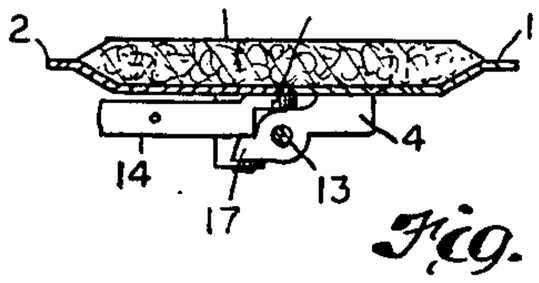

Fig. 3

INVENTOR.
LOUIS PUSKI
BY
Oberlin & Limbach
ATTORNEYS.

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L. PUSKI

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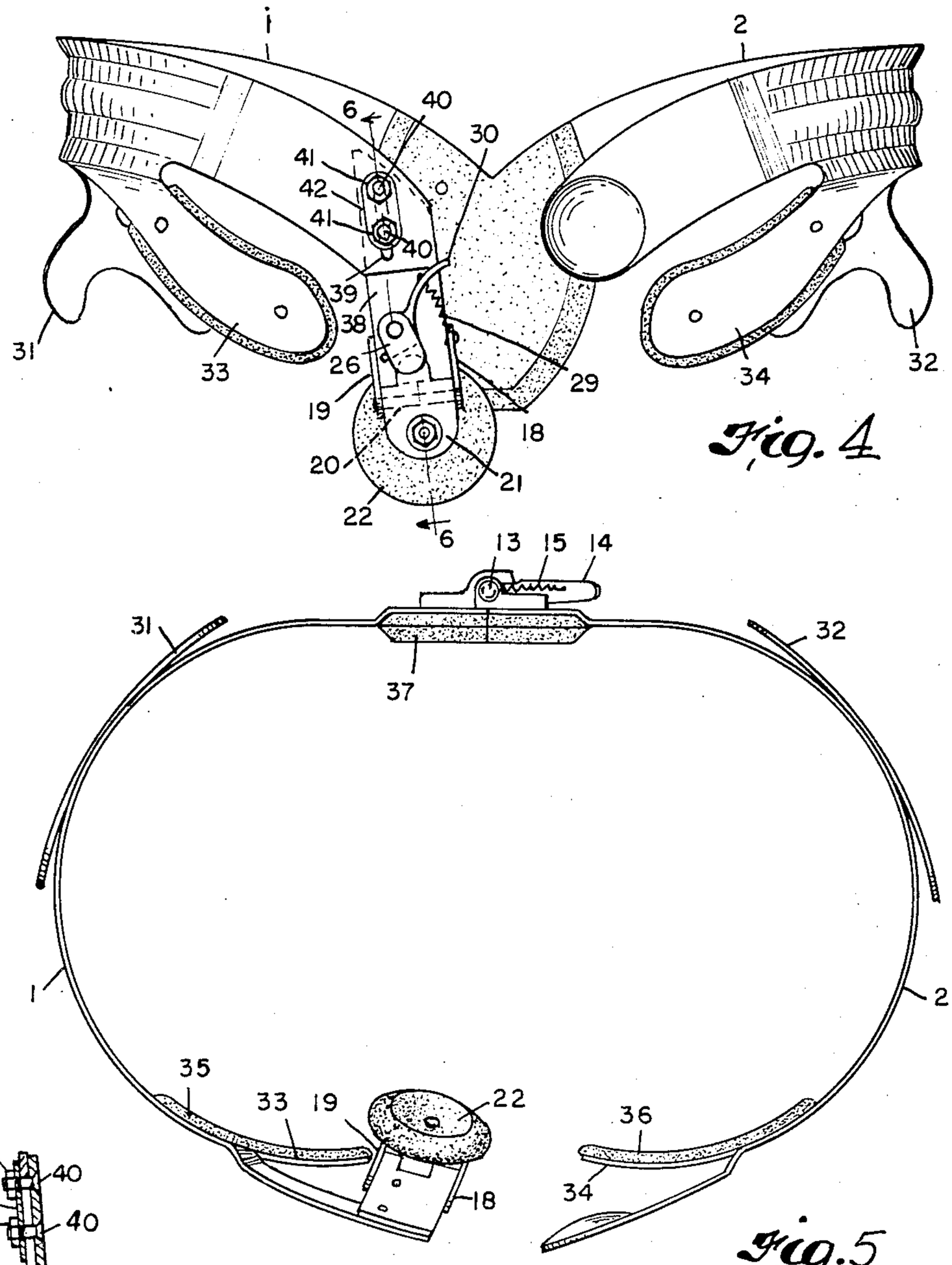

Fig. 4

Fig. 5

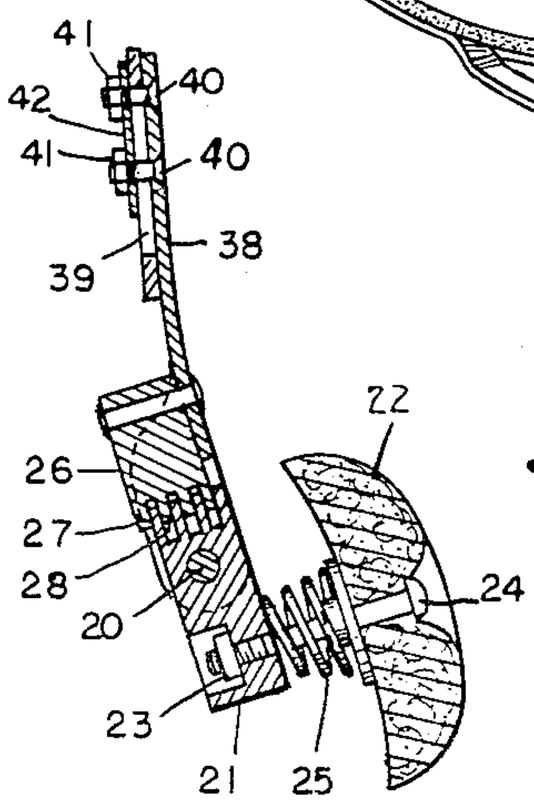

Fig. 6

INVENTOR.
LOUIS PUSKI
BY
Oberlin & Limbach
ATTORNEYS.

April 10, 1951

L. PUSKI

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3 Sheets-Sheet 3

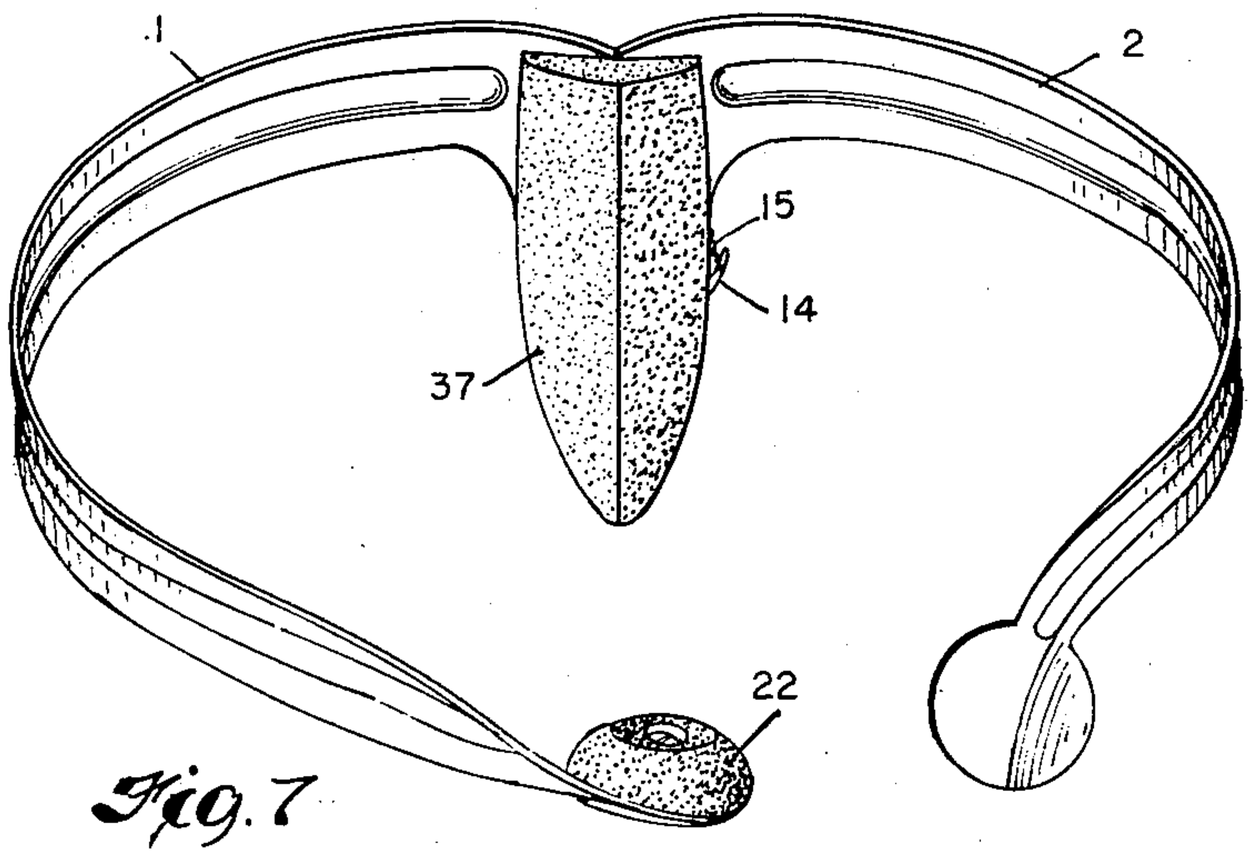

Fig. 7

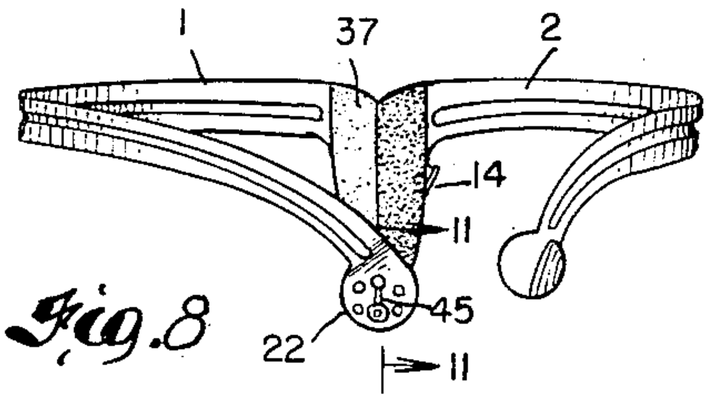

Fig. 8

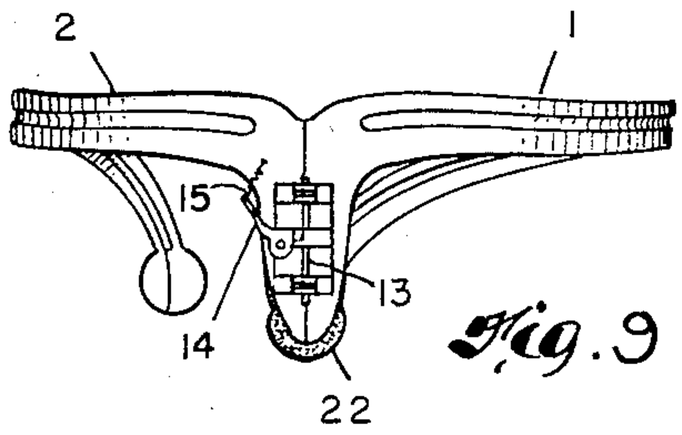

Fig. 9

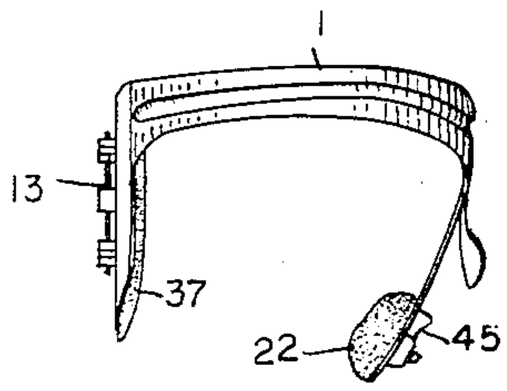

Fig. 10

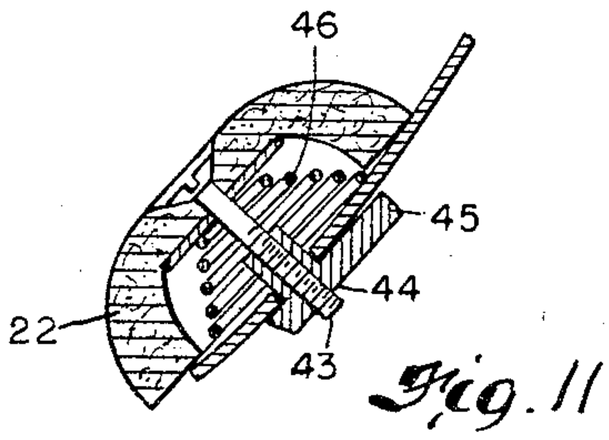

Fig. 11

INVENTOR.
LOUIS PUSKI
BY
Oberlin & Limbach
ATTORNEYS.

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2,548,557

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ABDOMINAL TRUSS

Louis Puski, Cleveland, Ohio

Application October 26, 1949, Serial No. 123,747

3 Claims. (Cl. 128—96)

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This invention relates to abdominal trusses, and more particularly to devices of the nature employed in the treatment of hernia and the like.

One object of this invention is to provide, in an abdominal truss, locking means whereby such truss may be quickly and easily locked in position on, or removed from, the body of the wearer.

Another object is to provide means whereby the pressure pad of such truss may be easily adjusted to suit the needs of the wearer.

Other objects and advantages will become apparent as the following description proceeds.

To the accomplishment of the foregoing and related ends, the invention, then, comprises the features hereinafter fully described and particularly pointed out in the claims, the following description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but a few of the various ways in which the principle of the invention may be employed.

In said annexed drawings:

Fig. 1 is a perspective view of a preferred form of abdominal truss in accordance with the principle of my invention;

Fig. 2 is a rear view of the form of truss illustrated in Fig. 1;

Fig. 3 is a sectional view taken along the line 3—3 in Fig. 2;

Fig. 4 is a front view of another form of abdominal truss;

Fig. 5 is a top view of the form of truss illustrated in Fig. 4;

Fig. 6 is a sectional view taken along the line 6—6 on Fig. 4;

Fig. 7 is a perspective view of still another form of abdominal truss;

Figs. 8, 9 and 10 are front, rear, and side views, respectively, of the form of device shown in Fig. 7; and

Fig. 11 is a sectional view of a pressure pad employed in conjunction with the form of truss illustrated in Figs. 7, 8, 9 and 10.

Broadly stated, the abdominal truss of my invention comprises hingedly joined side plates with a latch pivotally secured to one of such plates, adapted to engage such hinge and lock the same in closed position, and a pressure pad secured to the free end of one of the plates.

Referring now to the drawing and more particularly to Figs. 1 and 2 thereof, the form of device there illustrated comprises resilient side plates 1 and 2 which are curved to fit the body of the wearer and hingedly joined together at the back, the free ends of such plates extending

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to the front of the wearer. The hinge provided to join the plates at the back comprises hinge members 3, 4 and 5, and hinge members 6 and 7, riveted to the plates 1 and 2, respectively, having knuckle portions 8, 9, 10, 11 and 12, respectively, adapted to receive a hinge pin 13. A latch or keeper 14, actuated by a spring 15 secured at its ends to the stem portion of the latch and the head of the hinge pin, respectively, is pivotally mounted on the plate 2, having a lateral extension or lug 16 adapted to engage a similar extension 17 on the hinge member 4. Thus, as the truss is closed about the body of the wearer, the extension 17 slides from beneath the lug 16 of the latch permitting the latter to fall into locking position (see Fig. 3), by action of the spring 15. To remove the truss, the latch 14 is merely pivoted against the influence of its spring to disengage the lug 16 from the extension 17, unlocking the hinge and permitting the plates 1 and 2 to be swung outwardly.

Flanges 18 and 19 are formed at the free end of the plate 1 and are adapted to receive a pin 20, having pivotally mounted thereon a block 21. A pressure pad 22 is secured to the depending portion of the block 21 by means of nut 23 and bolt 24 (more clearly illustrated in Fig. 6 of the drawings), such nut and bolt assembly providing transverse adjustment of the pressure pad. The pressure pad is further resiliently supported as by a spring 25. An eccentric 26 is pivotally mounted adjacent the free end of the plate 1, such eccentric and block 21 having interengaging projections 27 and 28, respectively, to retain the block 21 and the pressure pad 22 mounted thereon in fixed angular position with respect to the plate 1. A tension spring 29 secured at its ends to the flange 18 and the finger 30 of the eccentric 26, respectively, is provided to hold the eccentric in proper angular position, such that the respective projections 27 and 28 are in locking engagement with each other. Thus, to vary the angular position of the pressure pad 22, the eccentric 26 is merely pivoted against the action of its spring 29 to disengage the respective projections of eccentric and block, and thus the block may be rotated within limits to a selected angular position, whereupon the eccentric is released permitting it to return to its normal position under the influence of its spring, thereby interengaging the respective projections to retain the block in such selected angular position.

Downwardly depending, shaped projections 31 and 32 are provided respectively for the plates 1 and 2 as are fingers 33 and 34 which help to

retain the truss in proper fitting position on the body of the wearer. Fingers **33** and **34** are further provided with pads **35** and **36**, respectively, and a back pad **37** is secured to the rear portion of the plate **1** as by rivets, in order that the truss may rest comfortably on the body of the wearer.

Referring now to Figs. 4, 5 and 6, a generally similar form of my invention is there illustrated, and like parts are identified by like numerals. The embodiment there illustrated differs from the one previously described in that the block **21**, and the pressure pad **22** supported thereby, are mounted on the depending portion of a bracket **38** which is adjustably secured in the elongated slot **39** of the plate **1** as by means of bolts **40**, nuts **41**, and clamping plate **42**. Thus, the bracket **38** may be adjusted upwardly or downwardly, within the limits provided by the slot **39**, to suit the particular needs of the wearer.

Referring next to Figs. 7, 8, 9, 10 and 11, a simplified form of my invention is there illustrated. In this embodiment, the depending projections (Nos. **31**, **32**, **33** and **34** in the previously described embodiments) are eliminated, and the pressure pad is mounted on the free end of the plate **1** as by means of bolt **43** and nut **44**, such latter being provided with a lateral extension or lever **45**. Thus, to make transverse adjustment of the pressure pad **22**, the nut **44** is merely turned by its lever **45** causing it to move axially upon the screw **43**. The pressure pad is further resiliently supported by means of a spring **46**. The elongated back pad **37** insures not only that the truss will rest comfortably on the wearer's body as in the previous embodiments, but also provides backing for the pressure pad **22**. Thus, it will be noted that the depending portion of such back pad **37** extends downwardly approximately to the level of the pressure pad (Figs. 8, 9 and 10), thereby holding the latter firmly in place against the body of the wearer.

In each of the embodiments thus illustrated, the plates are preferably constructed of a lightweight metal, e. g., aluminum or plastic sheet material, provided such members will have the necessary resilience. The inner surface of the plates may be provided with a covering of chamois leather or other soft material so that the truss will rest comfortably on the body of the wearer.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the features stated in any of the following claims, or the equivalent of such, be employed.

I therefore particularly point out and distinctly claim as my invention:

1. The combination with an abdominal truss including two hingedly joined, resilient plates curved to fit respective sides of the body of the wearer; of a mounting block having a depending portion, said mounting block being pivotally secured adjacent the free end of one of such plates whereby the distance the depending portion of said mounting block extends inwardly of such plate end may be varied, a transversely adjustable pressure pad resiliently supported by such depending portion, and an eccentric pivotally secured to such plate adjacent said mounting block, said eccentric and mounting block having interengaging projections whereby said mounting block may be retained in selected angular positions.

2. The combination with an abdominal truss including two hingedly joined, resilient plates curved to fit respective sides of the body of the wearer; of a bracket adjustably secured adjacent the free end of one of such plates, a mounting block having a depending portion, said mounting block being pivotally secured adjacent the free end of said bracket whereby the distance the depending portion of said mounting block extends inwardly of said bracket may be varied, a transversely adjustable pressure pad resiliently supported by such depending portion, and an eccentric pivotally secured to said bracket adjacent said mounting block, said eccentric and mounting block having interengaging projections whereby said mounting block may be retained in selected angular positions.

3. The combination with an abdominal truss including two hingedly joined, resilient plates curved to fit respective sides of the body of the wearer and a pressure pad secured to the free end of one of such plates; of a plurality of downwardly extending projections from such plates adapted to assist in retaining the truss in proper position on the body of the wearer.

LOUIS PUSKI.

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