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R. D. FOULKE

SURGICAL SPLINT

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Fig. 1.

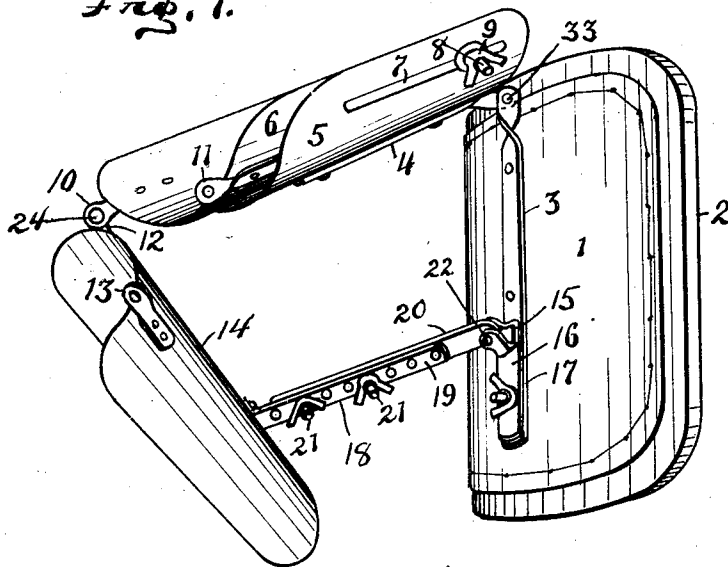


Fig. 2.

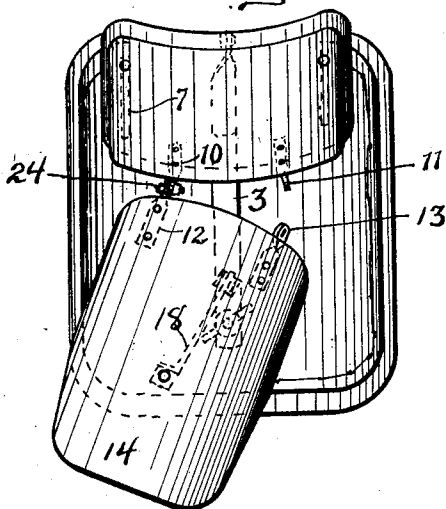
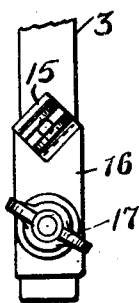


Fig. 3.



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SURGICAL SPLINT.

Application filed December 5, 1925. Serial No. 73,361.

This invention relates to improvements in surgical splints of that class used for sustaining the arm of a patient in fixed position relative to the body so as to facilitate healing of dislocated joints or fractures of the bone of the arm that have been reset. The objects of the improvement are: First, to provide apparatus of its class that may be applied to the trunk of a patient so as to move bodily therewith and afford fixed support for the patient's arm in such adjusted position as may be determined by the surgeon to insure the comfort of the patient. And, second, to provide a splint of the class described that may be adjusted readily so as to be applicable to either the right or left side of the patient.

These objects are accomplished by the construction illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of a construction embodying the invention, the parts being shown as adjusted for the left arm, and the point of vision being from the rear;

Fig. 2 is an elevation, the point of vision being from the side; and

Fig. 3 is a detail view showing the means for securing the pivotal connection of the strut in adjusted positions.

The characters appearing in the description refer to parts shown in the drawings and designated thereon by corresponding characters.

The invention comprises a trunk-rest consisting of a plate 1 and a pad 2 of felt or other soft material secured thereto. On the front face of the plate 1 is fixed a bar 3 at the upper end of which is secured a swinging arm 4. In connection with the arm 4 is arranged a cradle composed of two sections 5 and 6 respectively, the cradle 5 being riveted to the arm and provided with longitudinal slots 7 through which corresponding studs 8 fixed on the other section 6 extend, there being a thumb-nut 9 on each stud that when tightened on the stud, secure the section 6 adjustably on the former section 5. At the outer end of the adjustable section 6 are fixed a pair of brackets 10 and 11 spaced apart that are engageable selectively with correspondingly spaced brackets 12 and 13 that extend from the upper end of a fore-arm cradle 14.

A hinge member 15 having a square base

is pivoted on the bar 3 of the body-rest and is held in adjusted positions thereon by a jaw 16 that is shaped to bear against two sides of the base of the hinge member, the jaw being held in place on the bar by a fastening 17. The hinged member forms a pivotal connection for a strut 18 at one end thereof, which strut has connection at its outer end with the fore-arm cradle 14 adjacent the lower part thereof. Said strut is adjustable as to length being composed of two perforated overlapping bars 19 and 20 secured in adjustable positions by bolts 21.

The plate 1, the cradle sections 5 and 6 and the fore-arm cradle 14 are preferably made of light sheet metal, such as aluminum, suitably curved so as to conform to those parts of the body to which they are respectively to be applied.

In utilizing the invention the trunk-rest is positioned against the body of the patient immediately beneath the fractured arm and is bandaged in place in the customary manner. The cradle sections 5 and 6 are then adjusted so as to conform with the length of the upper arm, and the strut is adjusted so that the fore-arm cradle will be sustained at the desired angle relative to the upper arm cradle.

Owing to the angular position of the hinged member 15 in which it is held by the jaw, the axis 22 upon which the strut is sustained in said hinge member is maintained out of parallelism with the axis 23 at the connection between the upper cradle member and the trunk-rest, and also the bolt 24 connecting the ears of the cradle section 6 and the fore-arm cradle extends with its axis out of parallelism with both axes 22 and 23, so that when the adjustments have been completed swinging movement of the cradles out of their adjusted positions is thereby prevented.

In applying the device to the left arm the brackets 10 and 12 on the cradle members 6 and 14 are connected by the bolt 24, and when the device is to be applied to the right arm the brackets 10 and 12 are disconnected and instead the bolt 24 is transferred to the brackets 11 and 13 and the hinge member 15 is turned to its opposite position which is accomplished by removing the jaw 16 and replacing it after the hinge member has been re-adjusted. In this manner the

fore-arm cradle is positioned and held upon an incline in conformity with that of the arm to which it is applied.

The upper and fore-arm are confined to the corresponding cradle members by the application of bandages in the manner customary in the practice of surgery.

What I claim is:—

1. A surgical splint comprising a trunk-rest including a padded plate and a fixed vertically disposed bar; an upper arm cradle composed of two overlapping sections, one of which has pivotal connection with the upper end of said bar; and the other section being longitudinally adjustable on the former section and having at its outer end a pair of fixed brackets spaced apart; a fore-arm cradle having at its upper end a pair of fixed brackets spaced apart disposed so that either one or the other of said brackets may be connected with the corresponding bracket on the upper arm cradle, there being a bolt forming the connection therefor; a pivotally secured hinge member on said bar adjacent the lower end thereof; a fastening for securing said hinge member in adjusted positions; and a strut adjustable as to length, and having connection with said hinge member at one end and at its opposite end with said forearm cradle, the axes of the connection between the trunk-rest and upper arm cradle, and between said upper arm cradle

and fore-arm cradle and between the strut and hinge member being out of parallelism with each other.

2. A surgical splint consisting of a trunk-rest; an upper arm cradle adjustable as to length and having detachable pivotal connection with said rest at the upper end thereof; a fore-arm cradle having a pair of spaced brackets separately connectable with corresponding brackets on the outer end of the upper arm cradle; an adjustably secured hinge member on the trunk-rest adjacent the lower end thereof; and a strut pivotally connected at one end with said hinge member and secured at its opposite end with said fore-arm cradle; the axes of the pivotal connections between the several parts being out of parallelism with each other.

3. In a surgical splint, a trunk-rest; an upper arm cradle composed of two sections so as to be adjustable as to length, and having pivotal connection with said rest at the upper end thereof; a fore-arm cradle having means in connection therewith for pivotal attachment with said upper arm cradle selectively at different angles; and a supporting connection between the fore arm cradle and the trunk-rest including a strut and a hinge member, said hinge member being adjustably secured on said rest.

In testimony whereof I affix my signature.

ROY D. FOULKE.