

Nov. 1, 1949.

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ANGULAR AND KNEESPLINT
Filed Nov. 30, 1945

2,486,687

Fig. 1.

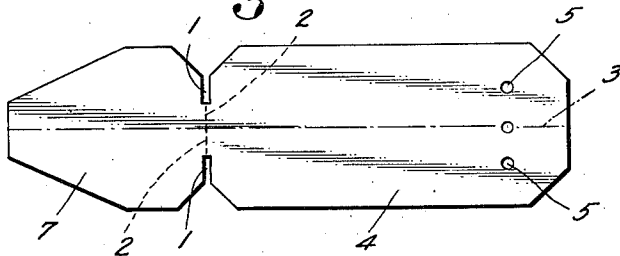


Fig. 2.

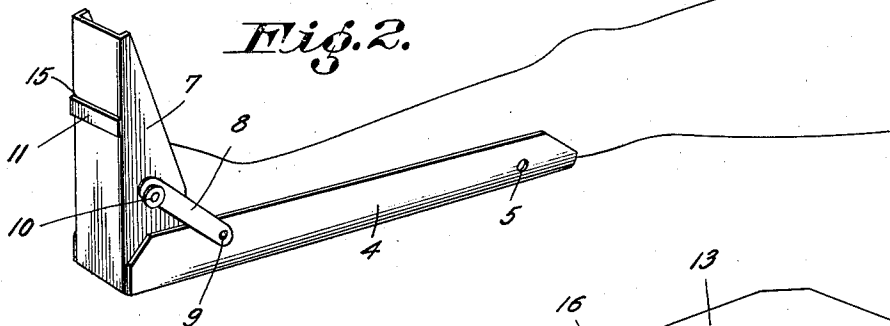


Fig. 3.

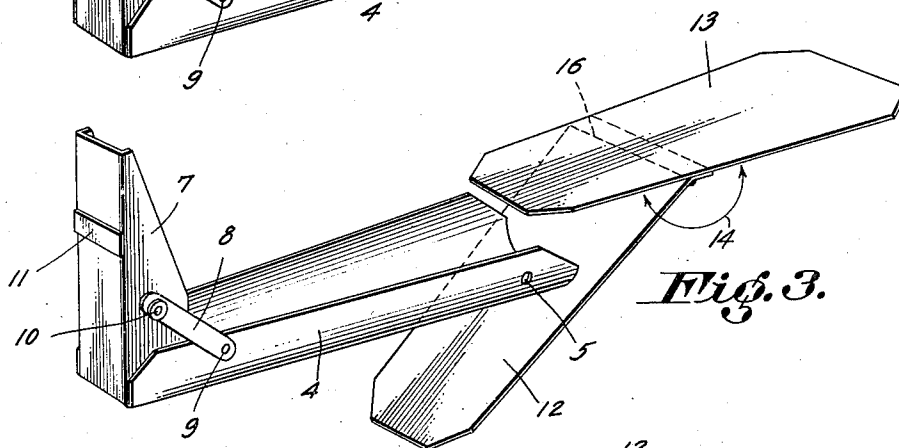
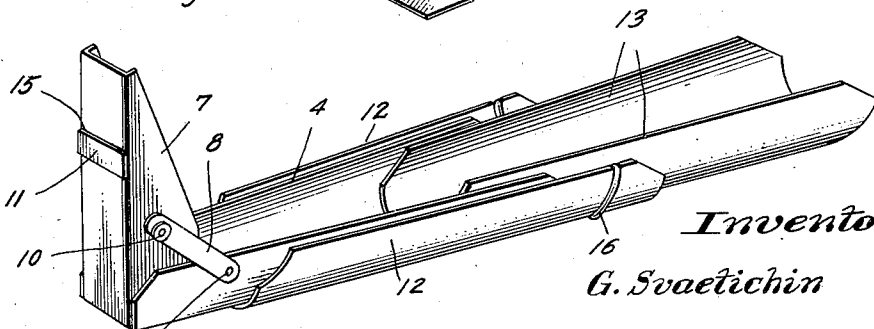


Fig. 4.



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UNITED STATES PATENT OFFICE

2,486,687

ANGULAR AND KNEESPLINT

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Application November 30, 1945, Serial No. 631,870
In Sweden December 4, 1944

1 Claim. (Cl. 128—88)

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The present invention is directed to an immobilization angular splint of cardboard, intended for arm or leg injuries.

An object of the present invention is to provide the greatest possible simplicity in construction, combined with a practical proper shaping and the increased efficiency.

The main characteristics of the present invention are that the angular splint has the form of a coherent, rather long fitting into which incisions have been made in a certain place from each edge and to such a depth that, when folding the fitting from a plane state into a right or almost right angle around a line between the bottoms of the incisions, broad free edges remain whereby upon bending these around the injured limb and fixing the angle between the two legs of the splint, the splint will have the stiffness required to immobilize the injured limb to which applied.

In order that the angular splint have the special form according to the invention, the fitting is cut so as to make its longitudinal edges, on both sides, run absolutely symmetrically in relation to its longitudinal middle line. By this means, one and the same splint may be used for an arm or a leg, a left or a right limb.

For the purpose of fixing the adjusted angular position of the splint according to the invention, there are provided clasps of a strong material, e. g. veneer or metal. These clasps, which are pivotally jointed to one leg and capable of being connected with and disconnected from the other, may be swung over the gap of the angle. By shaping the clasp as a fork, tightly embracing a pin on the last mentioned leg from both sides, perfect stiffness in each direction is obtained.

One of the legs of the angular splint, according to the invention, could be made sufficiently long to reach both over leg and thigh, but this would lead to possible discomfort of the wearer and waste of cardboard. To eliminate these drawbacks, the angular splint, according to the invention, is combined for this purpose with a special knee splint, cut out of cardboard and consisting of two plates, both of which are symmetrical in relation to the longitudinal middle line thereof. One of the cardboard plates is pivotally jointed to the other along a folding line perpendicular to the middle line of the latter and placed at a certain distance from the end edge of the same. The angular splint and the knee splint may be jointed together by inserting the upper end of the knee splint between the two cardboard plates.

These, as well as other characteristics of the

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invention, are set forth in the annexed drawings in connection with which a detailed discussion of a preferred embodiment of the invention will be set forth.

Fig. 1 is a plan view of the splint in flat form.

Fig. 2 is a perspective view of the splint applied to a leg.

Fig. 3 is a perspective view of the splint and showing the extension member in partially assembled position, and

Fig. 4 is a perspective view of the splint and extension in assembled position.

Fig. 1 shows the fitting that forms the angular splint, in flat form before bending and on a reduced scale as compared with the other figures. The incisions into the fitting are marked 1. The dash line 2 indicates the folding line round which the fitting is folded from a flat state in a right or almost right angle to form the angle splint. The longitudinal middle line of the fitting is designated 3. It appears in the drawing that the edges of the fitting run symmetrically in relation to the said middle line.

The outer end part of the leg 4 may be provided with holes 5, which are arranged to be on a level with the shoulder of the wearer. By slitting the end part of the leg, from the end edge up to each hole 5, two lappets which are free from each other may be formed and which may be bent down onto the shoulder and, if bound up, may be utilized for the purpose of firmly arresting the splint.

In Fig. 4 the angular splint is shown as used for the immobilization of an injured leg.

The two legs 4, 7 may be fixed in their angular position by means of clasps 8, one on each side of the splint. These clasps are pivotally jointed to one of the legs 4; on its outer side, by means of pins 9. On the outer side of the other leg, there are pins with isolated heads or cardboard plates 10. In the free end of the clasp 8 a slit-like recess (not shown in the drawing) can be provided which, like a fork, embraces from both sides the pin under its head 10.

A lappet 11, made in two foldable portions of a comparatively stiff material, such as cardboard, is firmly attached to the outer side of the shorter leg 7. This lappet may be folded round a line 15, perpendicular to the longitudinal middle line of the leg. When the leg 7 is placed under the foot and the lap 11, from its unfolded position, is folded double into the position represented in Fig. 2, a stiffening arises, which tends to unfold that part of the leg under the sole of the foot and thereby forms a more or less plane surface.

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By this means, the sole of the foot will better fit the bottom of the leg.

The leg shown in Fig. 2 does not reach to the knee-joint. For the purpose of immobilizing the whole of the leg, including the thigh and consequently the knee-joint, the angular splint 4, 7 is combined with a special knee-splint cut out of cardboard, as shown in Figs. 3 and 4. Fig. 3 shows the first stage of the joining together of the angular splint and the knee-splint, Fig. 4 the final stage. The knee splint consists of two cardboard plates 12, 13, which are symmetrical in relation to the longitudinal middle line of the splint. One of the cardboard plates 12 is, with one end edge, pivotally joined to the other cardboard plate 13 along a folding line 16, perpendicular to the mentioned middle line. The folding line is at such a distance from the end edge of the cardboard plate 13, that in order to make the two cardboard plates ready for use, they may be folded on one another (forwards according to Fig. 3), so as to form a pocket, into which the upper end of the leg 4 is inserted. This pocket keeps tightly closed automatically when the knee splint is bent according to Fig. 4. The free, flexible part of the cardboard plate 12 is of such a length that, when folded in an opposite direction to the cardboard plate 13, it practically coincides with this latter member without sticking out on the sides.

The splint, according to the invention, is arrested after its free lateral edges have been bent round the injured limb, either by binding up splint and limb or by binding together the edges of the splint, such as by means of strings running from edge to edge. Any suitable means of arresting may be utilized and are therefore not included in the drawing.

For the purpose of facilitating the folding of the cardboard round the folding lines 2 and 15, 16, these folding places may be softened and marked beforehand by a pressing treatment generally known in the cardboard industry.

In order to increase the stability of the splint, it may suitably be made of longitudinally rifled cardboard.

As appears from the Figures 1 and 3, the entire splint, for the purpose of packing and storing, may be folded flat, so as to form the smallest possible surface. The leg 7 is folded down on to the leg 4, round the folding line 2, and the card-

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board piece 12 is folded down on to the cardboard piece 13, round the folding line 16. The two aggregates 4-7 and 12-13 are, in this position, of comparable size, so as to form a handy parcel.

What I claim is:

A collapsible splint for immobilizing legs comprising an elongated flat strip of relatively stiff material having two parts integrally formed, said strip having an incision in each longitudinal edge extending partially towards the longitudinal axis of said strip and defining a fold line whereby the said two parts may be bent relative to one another to form an angle with sufficient stiffness when in bent position to immobilize an injured member to which it may be fastened and when removed from said member said two parts may again be restored to flat position for storing and packing for reuse, an extension member for said splint for use in immobilizing the knee joint of a user, said extension member comprising two plate members, being hingedly attached to the other of said plate members, and having a score line therein whereby said hingedly attached member may be swung to enclose an end portion of said strip member between said plate members or to be flat in juxtaposed relation to said other plate member for storing purposes.

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