

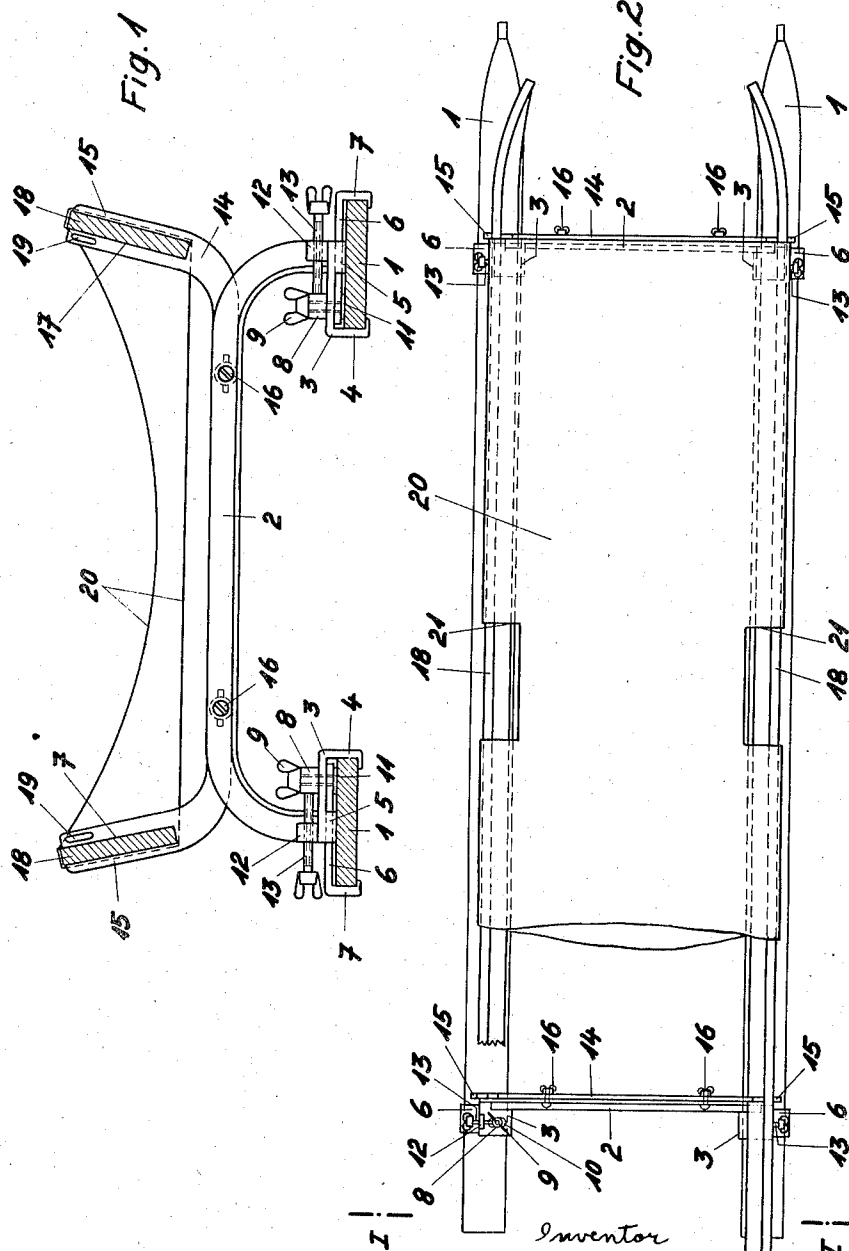
June 11, 1940.

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2,203,909

EMERGENCY STRETCHER CONTRIVANCE FOR USE ON SKI TOURS

Filed April 28, 1938



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## UNITED STATES PATENT OFFICE

2,203,909

EMERGENCY STRETCHER CONTRIVANCE  
FOR USE ON SKI TOURSTheodor Insam, Kitzbuhel, Germany, assignor to  
Degenhard Graf von Wurmbrand-Stuppach,  
Vienna, GermanyApplication April 28, 1938, Serial No. 204,868  
In Austria March 12, 1938

2 Claims. (Cl. 280—12)

This invention relates to emergency stretchers, more particularly for use on skiing expeditions, of the type in which the stretcher proper is adapted to be mounted on a pair of skis serving as runners to form a sledge for the purpose of transporting injured persons over snow-covered country.

The emergency stretcher according to my invention is composed of a specially designed knapsack of the type to be carried on the back and commonly known as a "rucksack," two poles constituting longitudinal carrying members, and two transverse spreading members, and is adapted to be clamped to a pair of skis by means of suitable bridging members.

The rucksack, which serves in the extended condition for the supporting of the injured person to be transported, consists of an elongated bag open at both ends, and of which the lower portion is adapted to be rolled or wrapped around the transverse members and bridging members after these two sets of members have been folded up together to form a U-shaped unit. For this purpose the clamping devices provided at the ends of the bridging members are furnished with specially fitted protecting caps or pouches which are connected together by means of a strap or band adapted to bear against the small of the back when the emergency stretcher is being carried and thus to distribute the load.

The emergency stretcher according to the invention is easily and rapidly folded up and unfolded. Its weight and bulk do not exceed greatly those of a normal rucksack, so that when carried on a skiing tour, even over long distances, it entails a hardly noticeable additional load.

A form of construction embodying the invention is shown, by way of example, in the accompanying drawing, in which:

Fig. 1 is an elevation looking in the direction of the length of the contrivance according to the invention.

Fig. 2 is a plan view of the same.

Referring to the drawing, the skis 1 serving as runners are coupled together for example by means of two U-shaped bridging members 2 of such cross-sectional shape as to resist bending, e. g., L or T-shaped cross-section, and made for instance of iron or preferably of light metal. At the ends of these bridging members there are provided clamping devices designed to allow of rapid clamping of the stretcher to the skis to form a rigid sledge-like structure. These clamping devices comprise plates 3, 6 which are slideable relatively to each other and provided with

gripping elements 4, 7 bent over at right angles, the plate 6 being for example longitudinally guided in keeping means 5 on the other plate 3. On one of the two plates, e. g., on the plate 6, there is mounted a nut 8 engaged by a winged screw 9 furnished with an end plate 11 and adapted to serve for clamping the ski 1. The nut 8 extends through a slot 10 in the other plate 3. Into a lug 12 on the plate 3 there is screwed a further winged screw 13 which bears against the nut 8. Screwing in of the screw 13 causes the gripping elements 4, 7 pertaining to the two plates 3, 6 to be drawn together and pressed against the narrow sides of the skis. An additional clamping action against the ski may then be exerted by tightening up the screw 9.

To the bridging members 2 there are clamped the likewise substantially U-shaped transverse strut members 14, for example as shown in Figs. 1 and 2 by means of detachable wing screws 16. The limbs 15 intended for the reception of the longitudinal carrying members are equipped with slots 17 through which for example a second pair of skis 18 may be passed to serve as longitudinal members. It will be clear that narrow battens of any kind, ski sticks, or the like may alternatively be used for this purpose. At the ends of the limbs 15 there are further provided engaging apertures 19 for the attachment of straps or the like. Instead of wing screws 16 for connecting the members 14 and 2 together there may alternatively be used hinges, in which case the assembling of the stretcher for use merely necessitates hinging up of the transverse members 14 and may therefore be effected more rapidly than with the previously described form of construction. Bayonet-joints may also if desired be provided for the same purpose.

The emergency stretcher sledge contrivance according to the invention also has the advantage of making it unnecessary to lift the injured person off the stretcher and to transfer him into an ambulance vehicle, a procedure which is often exceedingly painful and troublesome, since, after slackening the screws 16 or disengaging the hinges or bayonet-joints used in place of these screws, the stretcher proper, together with its load, may be lifted bodily off the improvised sledge frame consisting of the parts 1 and 2. If the members 2 and 14 are indissolubly connected together the clamping devices may be loosened and detached from the skis constituting the runners of the sledge, by slackening of the screws 9 and 13.

To form the hammock for the supporting of

- the injured person there is used a specially designed rucksack which consists of a sack or bag open at both ends and adapted to be unfolded or extended to the required length of the stretcher. After unrolling, the body of the rucksack is simply passed over the longitudinal carrying members of the stretcher, and then constitutes a slightly sagging resilient hammock 20, while the longitudinal carrying members 18 consisting for example of skis support the injured person effectively at the sides, so that no strapping down of the injured person on to the stretcher is necessary. The hammock 20 has cutaway portions 21 intermediate its ends.
- 15 For the purpose of packing up the emergency stretcher contrivance for transport the bridging members 2 and the transverse strut members 14 are adapted to be folded up to form a U-shaped unit.
- 20 Finally, the emergency stretcher contrivance according to the invention may also be used as a reclining chair, for which purpose skis and ski-sticks are used to form a frame and the unrolled rucksack to form a hammock.
- 25 I claim:
1. An emergency stretcher contrivance com-

prising U-shaped bridging members 2 provided at the ends with clamping devices and detachably connected with the transverse stretcher members 14, the clamping devices each consisting of two plates 3, 6 displaceable relatively to each other and provided with gripping elements 4, 7, of which the one plate 6 has mounted on it a clamping screw 9 passing through a slot 10 in the other plate 3, while against the nut 8 engaged by the said screw and firmly mounted on the said plate 6 there bears a pressing up screw 13 pertaining to the plate 3 and adapted to exert a pressing action in a direction parallel to the plane of the said plate.

2. In an emergency stretcher, an inverted U-shaped bridging member, a pair of clamping plates carried by each end of said member, the plates of a pair being slidable relatively to one another and each having a bar gripper, one of said plates being slotted, a nut member secured to the other of said plates and projecting through said slot, a clamping screw passing through said nut for engaging a bar held by said grippers, and a pressure screw carried by the slotted plate and engaging the side of said nut.

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