Sept. 30, 1930. G. C. HORATH 1,777,088

KNEE AND SHIN PROTECTOR

Filed Oct. 19, 1929

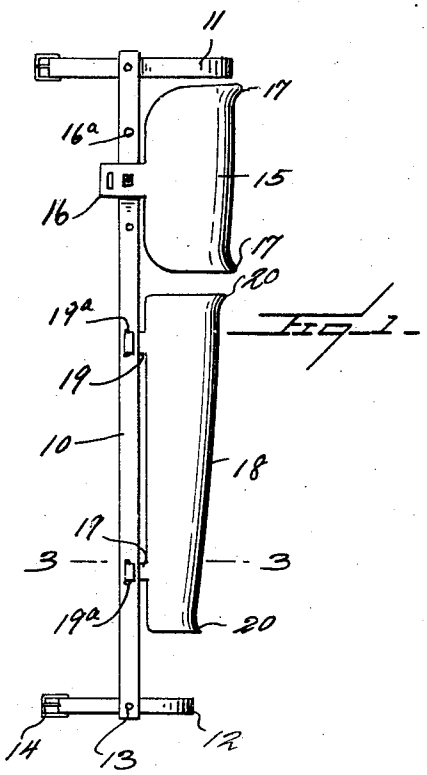



Fig. 1.

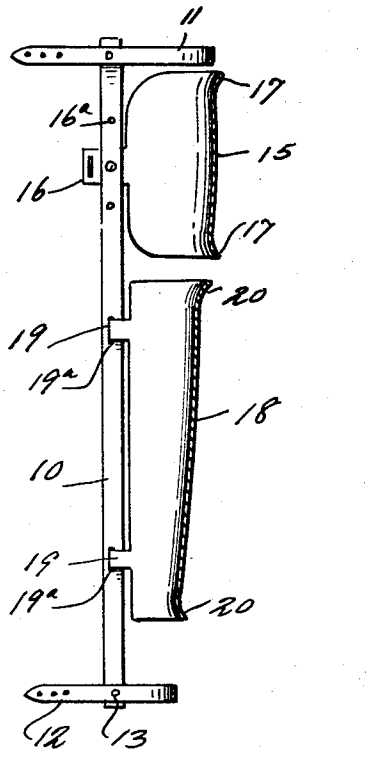



Fig. 2.

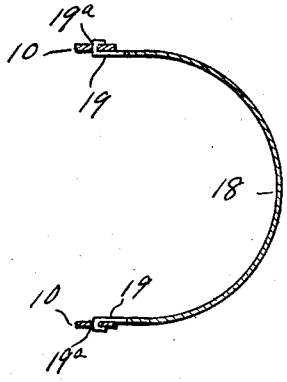



Fig. 3.

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# UNITED STATES PATENT OFFICE

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## KNEE AND SHIN PROTECTOR

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The present invention relates to body protectors and more particularly to protectors designed for attachment on the shin and knee of the wearer.

An important object of this invention is to provide a device which will adequately protect the knee and shin of a miner, athlete or the like so that the limb cannot be injured.

Another object of this device is to provide separate protectors for the knee and shin of the wearer, the device being readily removable from the limb.

A further object of this invention is to provide a device of this character wherein the component parts are inter-connected and may be applied or removed as a unit.

The above and various other objects and advantages of this invention will in part be described in and in part understood from the following detailed description of the present preferred embodiment, the same being illustrated in the accompanying drawing wherein:—

Fig. 1 is a detailed side elevation of a protector constructed according to the present invention.

Fig. 2 is a longitudinal section taken substantially through the center of the device, and

Fig. 3 is a transverse section taken on the line 3—3 of Fig. 1.

Referring to the drawing, the numeral 10 designates a pair of upright straps or the like which are adapted to be mounted on the opposite sides of the limb. The strap 10 may be constructed of any desired material such as leather, cloth or the like, and may also be constructed of flexible metal so as to conform closely to the configuration of the limb.

The straps 10 are provided with an upper member 11 and a lower binding member 12 which may be secured to the upright straps 10 at the opposite ends thereof in any suitable manner, but in the present preferred embodiment, they may be secured by engaging the upright straps 10 by rivets 13 or the like. The securing members 11 and 12 may be provided with the usual buckles 14 or the like for holding the straps about the limb of the wearer. The straps 11 and 12 may be constructed of any desired material which is flexible, such as leather, cloth or the like.

A knee protector 15 which is constructed to substantially embrace the outer side of the knee is mounted at the inner open ends 16 on the straps 10 at a point where it will adequately protect the knee of the wearer. The knee protector 15 may be constructed of metal or any suitable material which will properly protect the knee from injury. The straps 10 adjacent the upper end thereof are provided with spaced openings 16A so that the rearwardly extending lugs 16 of the knee-cap protector may be adjustably mounted at the desired point.

The lugs 16 may be secured to the upright straps 10 in any desired manner and are adapted to have relative pivotal movement on the straps 10 so that when the limb is flexed the protector will at all times be positioned forwardly of the knee or knee-cap so as to adequately protect the same from injury.

The opposite outer end portions of the knee protector are preferably inclined outwardly, as at 17, from the body of the protector so as not to present a sharp edge which might possibly injure the limb of the wearer.

A shin protector 18 is mounted on the straps 10 below the lower end of the knee protector 15. The shin protector 18 is curved or bent so as to closely follow the configuration of the legs and is provided at the rear edge portions thereof with a plurality of rearwardly extending lugs 19 which are adapted to be mounted on the straps 10 in any desired manner through the openings 19A in the straps 10.

It will, of course, be understood that the lugs 16 of the knee-cap and the lugs 19 of the shin protector may be provided with straps or the like for adjustably positioning the knee-cap and shin protector on the limb of the wearer. The shin protector 18 may be made of metal or other suitable material, and where metal is used the protector with

its rearwardly extending lugs may be stamped out of a piece of metal.

The opposite end portions of the shin protector may be curved outwardly as at 20 so as to prevent chafing of the limb from the sharp edges of the protector. It will, of course be understood that the shin protector may also be made of cloth having reenforcing stays positioned thereon.

It is, of course, understood that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of the invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claim.

I claim:—

A protector of the character described comprising a metallic knee guard, a metallic shin guard, means for connecting said knee guard and shin guard together, said shin guard having rearwardly extending lugs, said lugs having hooked portions adapted for engagement with said connecting means, and a strap secured to each end of said connecting means and adapted to removably secure said connecting means on the limb of the wearer.

In testimony whereof I hereunto affix my signature.

GROVER C. HORATH.