Aug. 30, 1949. J. C. FORNEY 2,480,406

KNEE SLED

Filed May 1, 1947

Fig. 1.

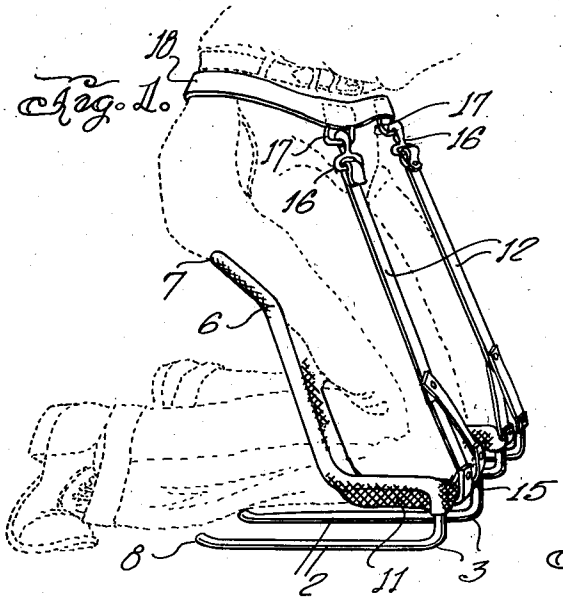


Fig. 2.

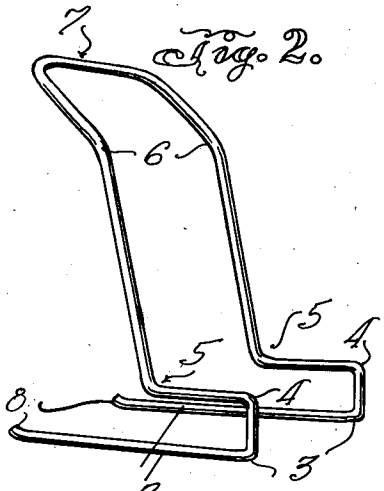


Fig. 3.

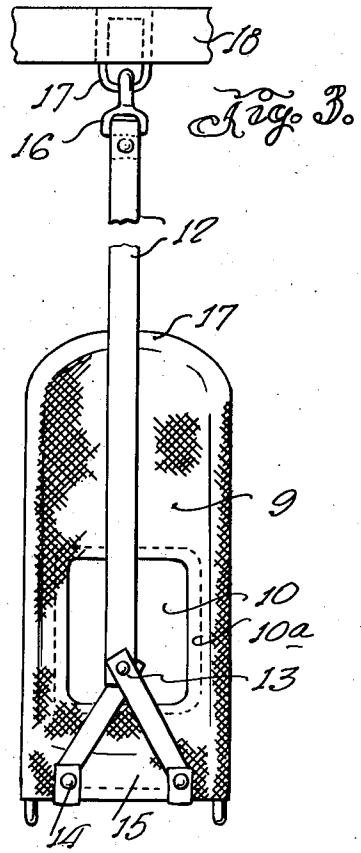
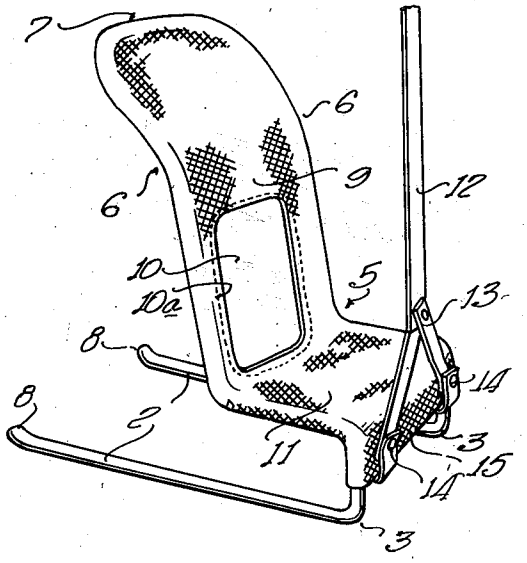


Fig. 4.



Inventor

Jim C. Forney

By

Attorney

Patented Aug. 30, 1949 2,480,406

UNITED STATES PATENT OFFICE

2,480,406

KNEE SLED

Jim C. Forney, Chilton, Tex.

Application May 1, 1947, Serial No. 745,301

3 Claims. (Cl. 155—167)

1

This invention relates to knee pads and protectors, and more particularly to a form of knee sled.

The principal object of the invention is to provide a knee protector or sled which can be worn comfortably and will provide an efficient cushion for the knees when one assumes a kneeling position. It is also an object of the invention to provide a new and novel form of harness for securing the knee protectors in operative position and for preventing the accidental displacement of the knee protectors when the wearer assumes an erect position.

These desirable features are attained by providing a knee rest, or knee sled, consisting substantially of but three main elements, namely a single frame member which is preferably made of spring steel rod, a slip-on cover of strong textile material to receive the knee, the frame including an upwardly extending, inclined portion arranged to support the wearer's thighs when a position of rest is assumed, and a harness or fastening means which secure the knee sleds to the wearer.

The nature and scope of the invention will be more fully understood from that embodiment of which the following is a specification, reference being made to the accompanying drawings forming a part thereof, in which:

Figure 1 is a perspective view of a pair of knee sleds or protectors, showing the same in operative position, and illustrating the harness for securing the protectors in position.

Figure 2 is a perspective view of the sled frame per se.

Figure 3 is a front elevational view of a knee sled showing the harness attachment, and

Figure 4 is a perspective view of the sled frame and fabric cover, showing fragmentarily the attaching harness thereof.

Continuing with a more detailed description of the drawing, the device includes as its principal structural foundation a frame member which is preferably fabricated from a single length of spring steel rod which latter is bent to define ground engaging runners 2. The rod at forward portions of the runners is bent upwardly at 3, to approximate a right angle bend, and is then bent rearwardly as indicated at 4 and thence upwardly as shown at 5. The frame continues through a body-forming bend at 6 to define a curved, thigh conforming support at 7 disposed well above and at an angle with respect to the ground engaging runners 2. The extreme ends 8 of the runners are turned slightly upward

2

to facilitate maneuvering the sleds over the soil or floor, as the case may be. Thus is formed a frame which resembles a chair.

In conjunction with the frame member thus constructed and arranged there is provided a slip-on cover of canvas or the like which is drawn into the upper portion of the frame, as is best shown in Figure 4.

The slip-on cover 9 is provided with an opening 10, suitably reinforced by a seam 10a through which the wearer's leg is passed, in the manner shown in Figure 1, and allows the wearer's knee to cradle in portion 11 of the cover.

A harness strap 12 is provided to support the frame and an inverted Y arrangement is formed thereon at 13 to facilitate control and more stable placement of the sled upon the leg. The arms of the Y are joined to the lower end of the canvas cover 9 by means such as brads 14 which pass through a reinforced section 15 of the cover.

To the upper end of the strap 12 is attached a snap fastener 16, which is connected to a ring 17 attached to a belt 18, the latter being passed around the wearer's waist. Suitable means for the adjustment of the strap 12 may be provided to accommodate one of any stature.

In the operation of this device the legs of the wearer are inserted in the openings 10 of a pair of the sleds and the straps 12 are connected to the belt 18 in the manner described. The wearer is then free to assume standing or kneeling positions at will, and is assured of comfort over long periods of time spent in the latter position. A position of rest in the kneeling position is illustrated in Figure 1 when the wearer rests the backs of his thighs on the support 7, which permits relaxation of the upper portion of the body.

It is realized that considerable variation from the details set forth is possible without departing from the spirit of the invention. Therefore the invention is not limited to the specific form and details herein set forth and described above except as defined in the following claims.

What is claimed is:

1. A knee protector comprising a chair-like frame formed of a length of spring steel rod to define a thigh rest, a knee support receiving portion and parallel runners, a slip-on cover embracing said thigh rest and forming a knee support on the knee support receiving portion of said frame and having an opening therein to receive the limb of the wearer and means for suspending said frame from the waist of the wearer.

2. A knee protector including a frame fabricated from a length of spring steel rod to define

a knee support receiving portion, a thigh rest and parallel runners, a fabric cover for said thigh rest and extending over the knee support receiving portion of said frame to support the knee of a wearer, said cover having an opening to receive the limb of said wearer and means for suspending said protector from the waist of said wearer.

3. A knee sled comprising a frame having a thigh rest and knee support receiving portion, runners carried by said frame below said knee support receiving portion, a slip-on cover for said thigh rest and knee support receiving portion to support the knee of the wearer and having a limb receiving opening and means for suspending said frame from the waist of said wearer.

JIM C. FORNEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
736,648	Steers	Aug. 18, 1903
768,478	Nash	Aug. 23, 1904
1,155,491	Holsey	Oct. 5, 1915
1,269,829	Lumley	June 18, 1918
2,229,411	Hughes	Jan. 21, 1941
2,432,565	Ferguson	Dec. 16, 1947