

J. A. LUMLEY.
 KNEE PAD AND PROTECTOR,
 APPLICATION FILED MAR. 9, 1917.

1,269,829.

Patented June 18, 1918.

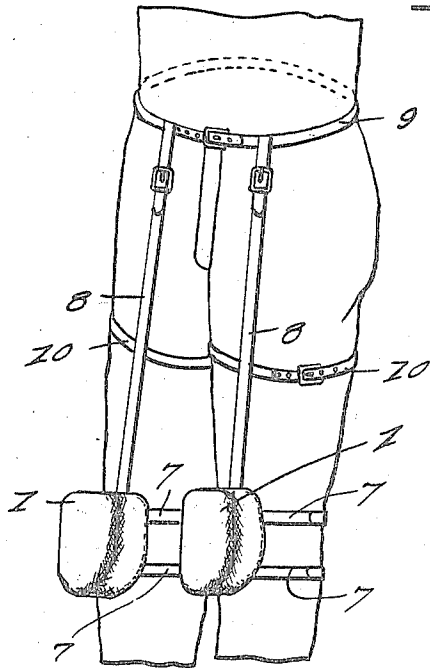


Fig. 1.

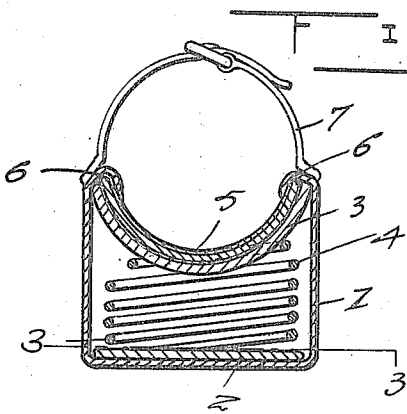


Fig. 2.

Fig. 3.

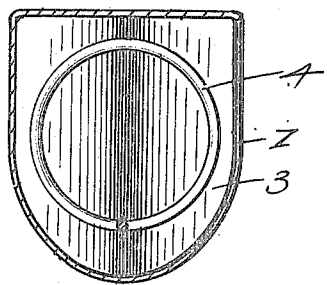
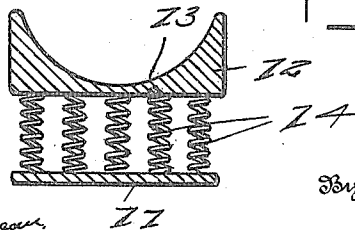


Fig. 4.



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KNEE PAD AND PROTECTOR.

1,269,829.

Specification of Letters Patent. Patented June 18, 1918.

Application filed March 9, 1917. Serial No. 153,594.

To all whom it may concern:

Be it known that I, JOSEPH A. LUMLEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Knee Pads and Protectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in knee pads and protectors, and an object of the invention is the provision of a device of this nature that can be comfortably worn by a person and will provide an efficient cushion for the knees when the person is assuming a kneeling position.

Another object of the invention is the provision of a novel form of harness for securing the pads in operative position and will prevent the pads from becoming accidentally displaced.

Other objects will appear and be better understood from that embodiment of my invention of which the following is a specification, reference being had to the accompanying drawings forming a part thereof, in which:

Figure 1 is a perspective view of a pair of knee pads, showing the same applied in operative position, and also showing the improved harness for securing the pads in position,

Fig. 2 is a transverse sectional view, taken through one of the knee pads,

Fig. 3 is a section taken on the line 3—3 of Fig. 2, and

Fig. 4 is a sectional view of a modified form of cushion element for one of the knee pads.

Referring to the drawings in detail, and particularly Fig. 1, a pair of knee pads is shown applied to the knees of a person and held in such manner as to prevent accidental displacement. As the knee pads illustrated in Fig. 1 are identical in construction, a description of one is deemed sufficient for both. As shown in Fig. 2, each knee pad includes a casing 1 formed of flexible material, preferably leather, but it is to be understood that the casing can be formed of cloth or any other material desired. Located within the casing 1 is a metallic plate 2, which engages against the inner surface of the outer wall of the casing 1 and located in spaced

relation with the plate 2 is a concavo-convex plate 3, which is held in spaced relation with the plate 2 by means of a coil spring 4, which is interposed between the respective plates 2 and 3. The casing 1 has that side at which the plate 3 is located open, and a pad 5 of concavo-convex configuration has the convex side thereof engaged against the concaved side of the adjacent plate 3. The free edges of the side walls of the casing 1 are bent upon themselves, as shown at 6, and engaged over the pad 5, and are secured thereto in any suitable manner. A pair of knee straps 7 are secured to the casing 1, adjacent the inwardly bent edges 6, and are adapted to engage around the knee of the wearer, as shown in Fig. 1, and are adjustable so as to accommodate knees of different sizes.

As shown in Fig. 1, the pads 1 have connection with a pair of straps 8, which are adapted, when the pads are in operative position, to be extended vertically along the legs of the wearer, as shown in Fig. 1, and the upper ends of the straps 8 have connection with a strap 9 adapted to encircle the waist of the wearer and is adjustable so as to accommodate waists of different sizes. Each strap 8 is provided, at a point intermediate its ends, with an adjustable strap designed to encircle the leg of the wearer, as shown in Fig. 1.

When the pads are in operative position on the knees of the wearer the concaved surfaces of the pads 5 receive the knees when the body of the person is assuming a kneeling position, the outer, or that wall of the casing opposing the plate 2, will contact with the floor, or other surface, and be forced inwardly, thereby forcing the plate 2 in the direction of the plate 3, and causing compression of the adjacent spring 4, the spring, therefore, serving as a cushion for the knee.

In Fig. 4 of the drawings, a modified form of cushion is illustrated, the same including a plate 11, which is identical with the plate 2 in Fig. 2 of the drawings, and another plate 12, designed to take the place of the plate 3 illustrated in Fig. 2. The plate 12, shown in Fig. 4, is provided with a concaved cut-out portion 13, designed to receive the knee of the wearer, and interposed between the plates 11 and 12 are a plurality of coil springs 14, designed to take the place of the spring 4 illustrated in Fig. 2.

By virtue of the employment of the straps 8, 9 and 10, the knee pads can be effectively supported in operative position and held against accidental displacement without necessitating the tight adjustment of the straps 7 around the knees of the wearer.

It is evident that various changes might be resorted to in the construction, form and arrangement of the several parts without departing from the spirit and scope of the invention as claimed.

Having thus described my invention what I claim as new, is.

1. A knee protector comprising a casing formed of flexible material and having one side open, a pair of spaced plates mounted within the casing, resilient means interposed between the plates, one of the plates being located at the open side of the casing and having a concaved side, and a knee-engaging

pad positioned within the concavity in the mentioned side of the last-mentioned plate.

2. A protector of the class described comprising a casing formed of flexible material and having one side open, a pair of spaced plates mounted within the casing, one of the plates being located at the open side thereof and being of concavo-convex shape in cross section and having the concave surface thereof disposed outermost, a pad positioned within the concaved surface of the last-mentioned plate, and resilient means interposed between the plates.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH A. LUMLEY.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."