P. J. SUMMERS.

KNEE PAD.

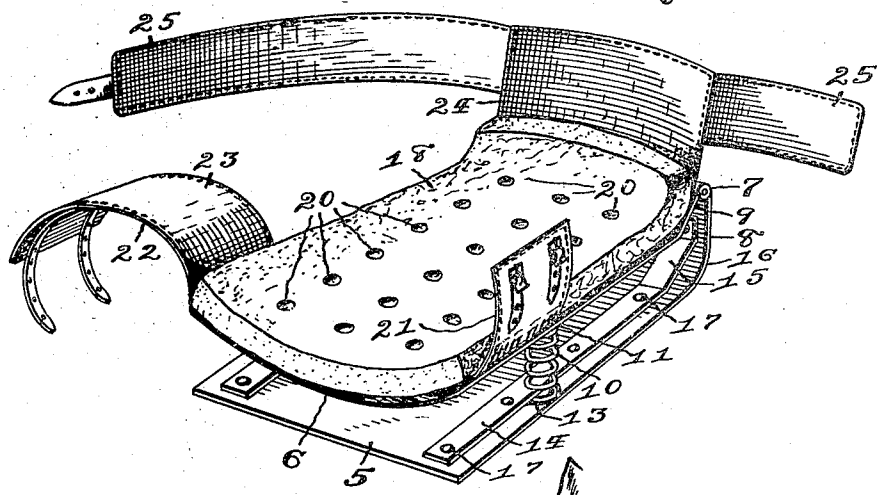
APPLICATION FILED FEB. 6, 1917.

1,293,240.

Patented Feb. 4, 1919.

2 SHEETS—SHEET 1.

Fig. 1.



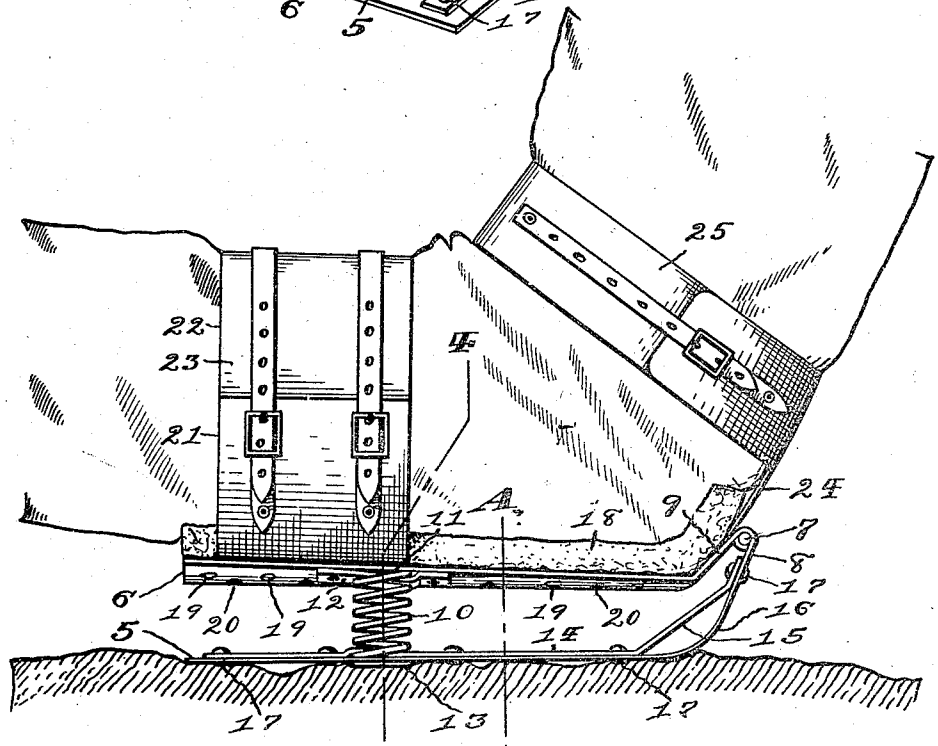


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

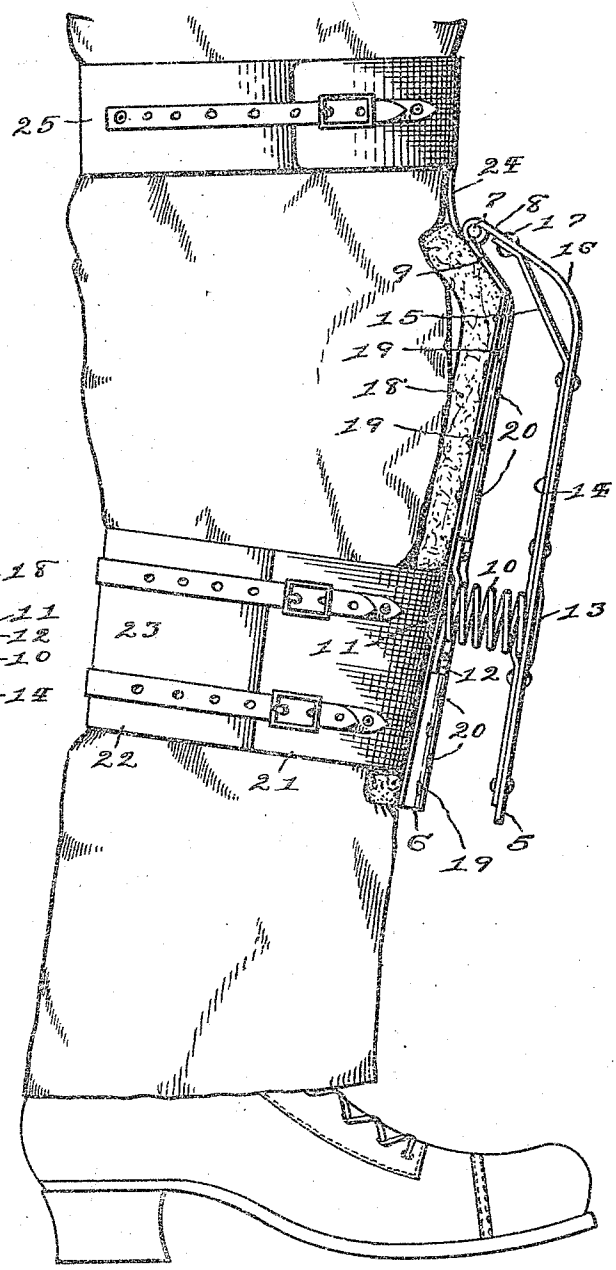
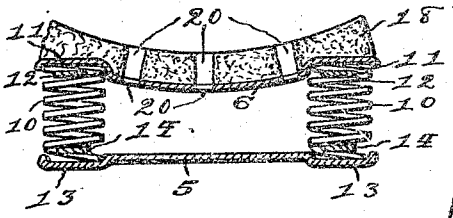


Fig. 4.



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KNEE-PAD.

1,293,240. Specification of Letters Patent. Patented Feb. 4, 1919.

Application filed February 6, 1917. Serial No. 146,921.

To all whom it may concern:

Be it known that I, PAUL J. SUMMERS, a citizen of the United States, residing at Mangum, in the county of Greer and State of Oklahoma, have invented certain new and useful Improvements in Knee-Pads, of which the following is a specification, reference being had to the accompanying drawings.

The invention pertains to improvements in knee pads, such as are used by cotton pickers or others who work in a kneeling position.

An object of the invention is to provide a more comfortable device of this kind.

Another object is to provide ventilation for that part of the knee which comes in contact with the pad.

Other objects and advantages of the invention will be set forth in the ensuing description.

The accompanying drawings show one embodiment of the invention in practice.

Figure 1 is a perspective view of the improved knee pad.

Fig. 2 is a right-hand side elevation, showing the pad worn by a person in a kneeling position.

Fig. 3 is a similar view, but with the person in a standing position.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 2, but showing no parts in front of the line A—A.

Like characters of reference designate like parts in all the figures.

In carrying out the objects stated, the improved device includes two portions—a lower sheet-metal plate 5 adapted to rest directly in contact with the ground as a tread, and an upper sheet-metal plate 6 which forms a seat for the knee and is in turn supported from the lower plate by resilient means.

The connection between the plates 5 and 6 should be such as to prevent or limit relative lateral or fore-and-aft movement of the two, and in the present instance the connection includes a hinge 7 or some suitable equivalent which joins the upturned front ends 8 and 9, respectively, of the two plates.

At points well back toward their rear ends, the two plates 5 and 6 are connected by compression springs 10, and these springs, taken with the limited amount of resiliency in the upper plate 6 between said springs and the hinge 7, form a yielding and very comfortable support for the knee.

To hold the springs 10 in place, the upper end of each rests in a depression 11 formed in the side edge of the upper plate 6, the upper coil of the spring being caught under a strap-iron keeper 12 which is riveted to said plate.

The lower end of each spring 10 likewise rests in a similar depression 13 formed in the edge of the lower plate 5, the lower coil of the spring being caught under a strap-iron keeper 14 which is secured to said plate.

Each strap-iron keeper 14 of the lower plate 5 extends forward and forms a brace 15 to relieve bending strain on the curved front portion 16 of said plate, the keeper and its brace formation being secured to the plate 5 by rivets 17.

As a further comfort, the upper plate 6 is cushioned with felt 18 or other suitable cushion material, which is held in place by rivets 19 or other approved means.

This pad 18 and the upper plate 6 are provided with registering perforations 20 which allow free ventilation and keep said pad from sweating or irritating the knee.

The spacing of the upper and lower plates 6 and 5 apart allows a better and freer circulation of air through the ventilating perforations 20 than could be obtained if the upper plate 6 were in direct contact with the ground.

To hold the device in place on the knee, the two separable sections 21 and 22 of a wide strap 23 are secured to the side edges of the rear end of the upper plate 6, this strap being drawn around the calf of the leg and buckled as shown in Figs. 2 and 3.

The strap 23, being of greatly increased width, does not severely impress itself into the flesh as a narrow strap, but forms a housing which holds the plate 6 and pad 18 in place without interfering with blood circulation.

The front end of the pad is provided with a flexible flap 24 which is secured to the front end of the upper plate 6 and projects upward; and this flap 24 is in turn provided

with a separable strap 25 which is drawn around the limb above the knee and buckled as shown.

Having thus described the invention, I claim:—

1. In a device of the class described, a lower or tread plate, and a second plate arranged over the tread plate, the two plates being held in spaced relation at their front ends by a hinge connection and at their rear ends by compression springs, the upper plate being padded to form a support for the knee, said upper plate and the padding being perforated for purposes of ventilation, and means carried by the upper plate for securing it in place on the knee.

2. In a device of the class described, a lower or tread plate, and a second plate arranged above the tread plate, the two plates being held in spaced relation at their front ends by a hinge connection and at their rear ends by compression springs, that portion of the upper plate between said springs and hinge connection being resilient.

3. In a device of the class described, a lower or tread plate, and a second plate arranged above the tread plate, the two plates being held in spaced relation at their front ends by a hinge connection and at their rear ends by compression springs, a flexible flap extending upward from the front or hinge end of the upper plate, a strap carried by the upper end of said flap for embracing the leg above the knee, and means carried by the rear end of said upper plate for embracing the leg below the knee.

Witness my hand this 2nd day of February, 1917.

PAUL J. SUMMERS.

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