

No. 689,837.

Patented Dec. 24, 1901.

C. B. WHITNEY.
JOINT GUARD.

(Application filed May 16, 1900.)

(No Model.)

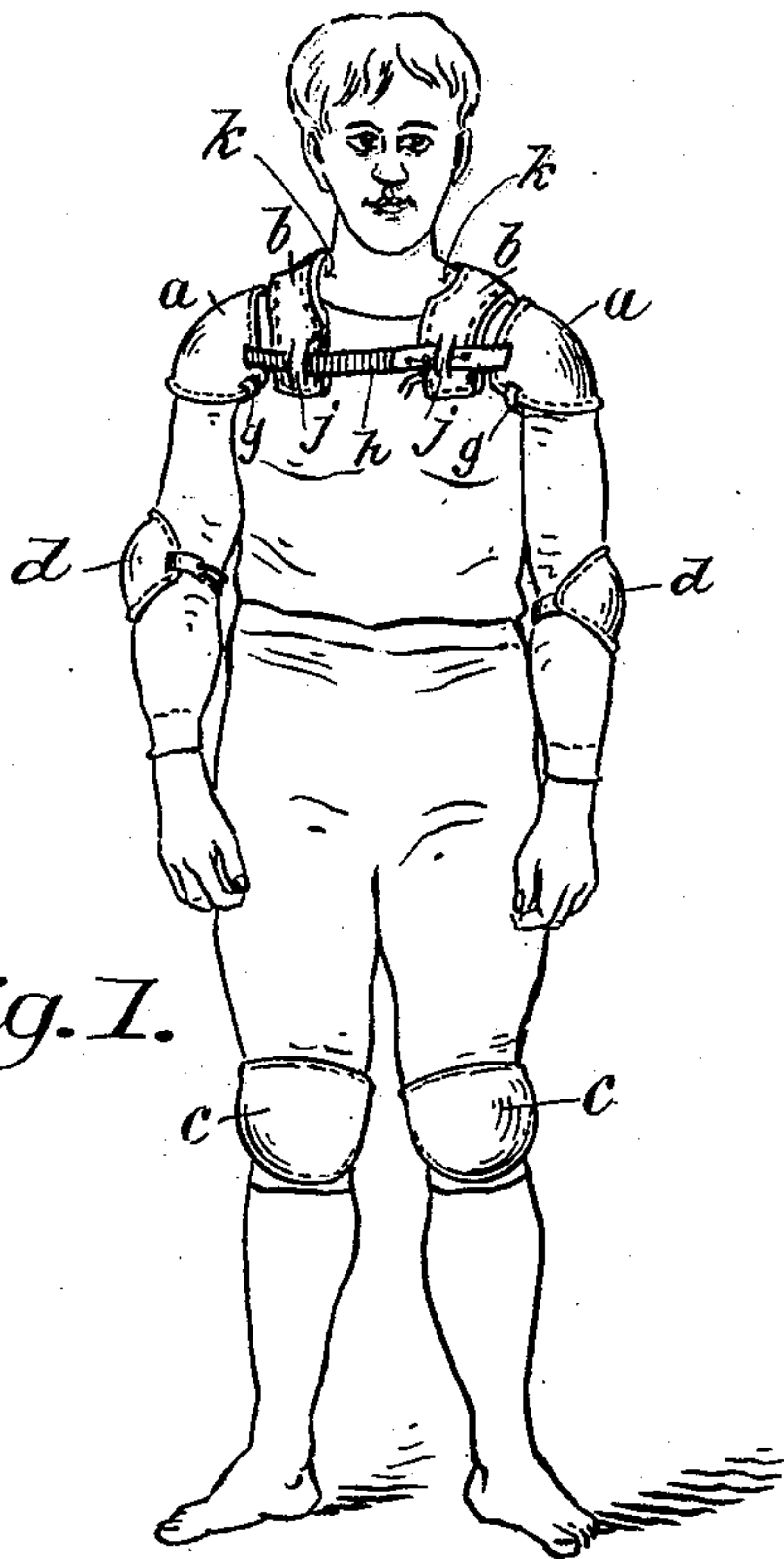


Fig. 1.

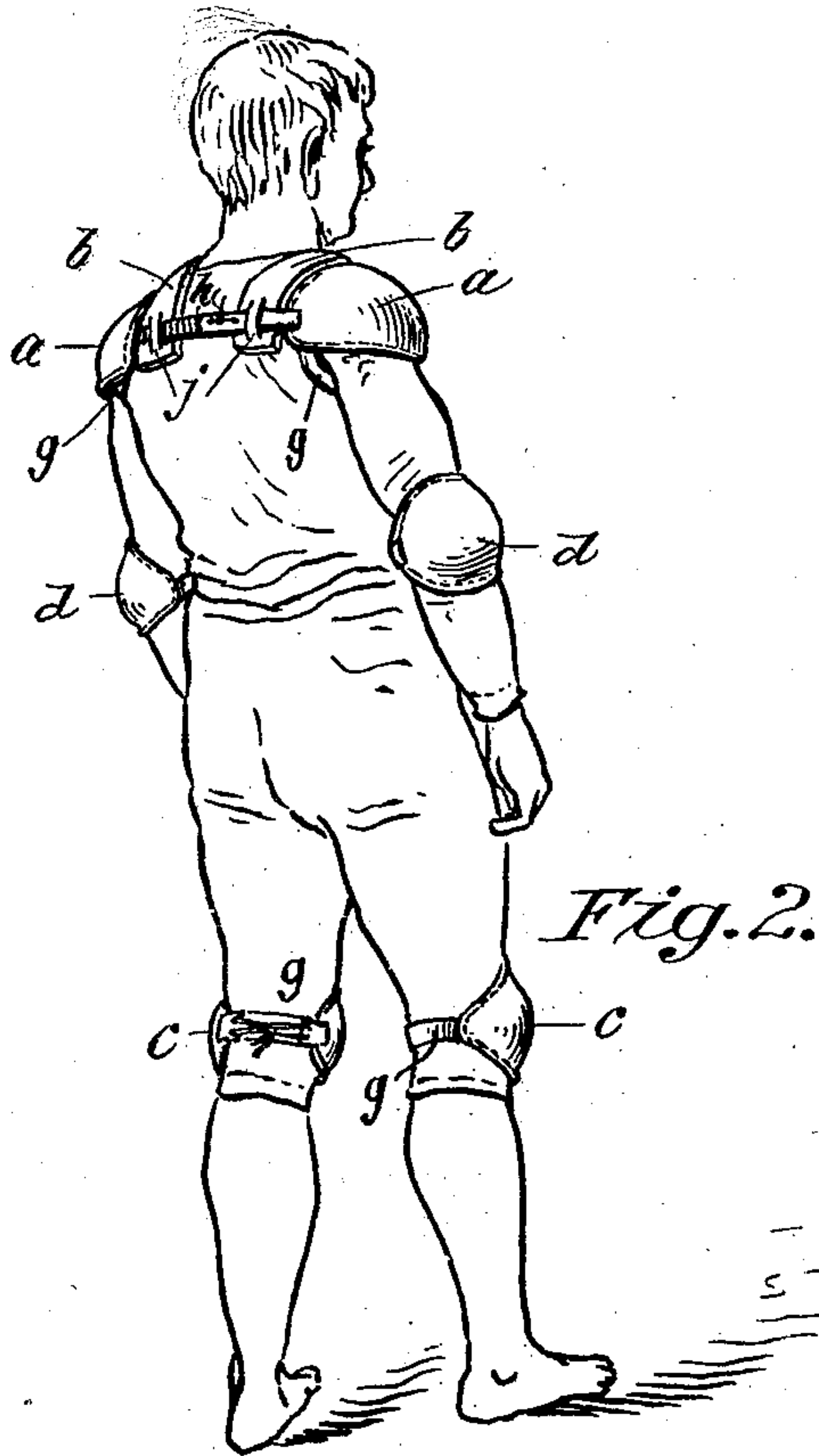


Fig. 2.

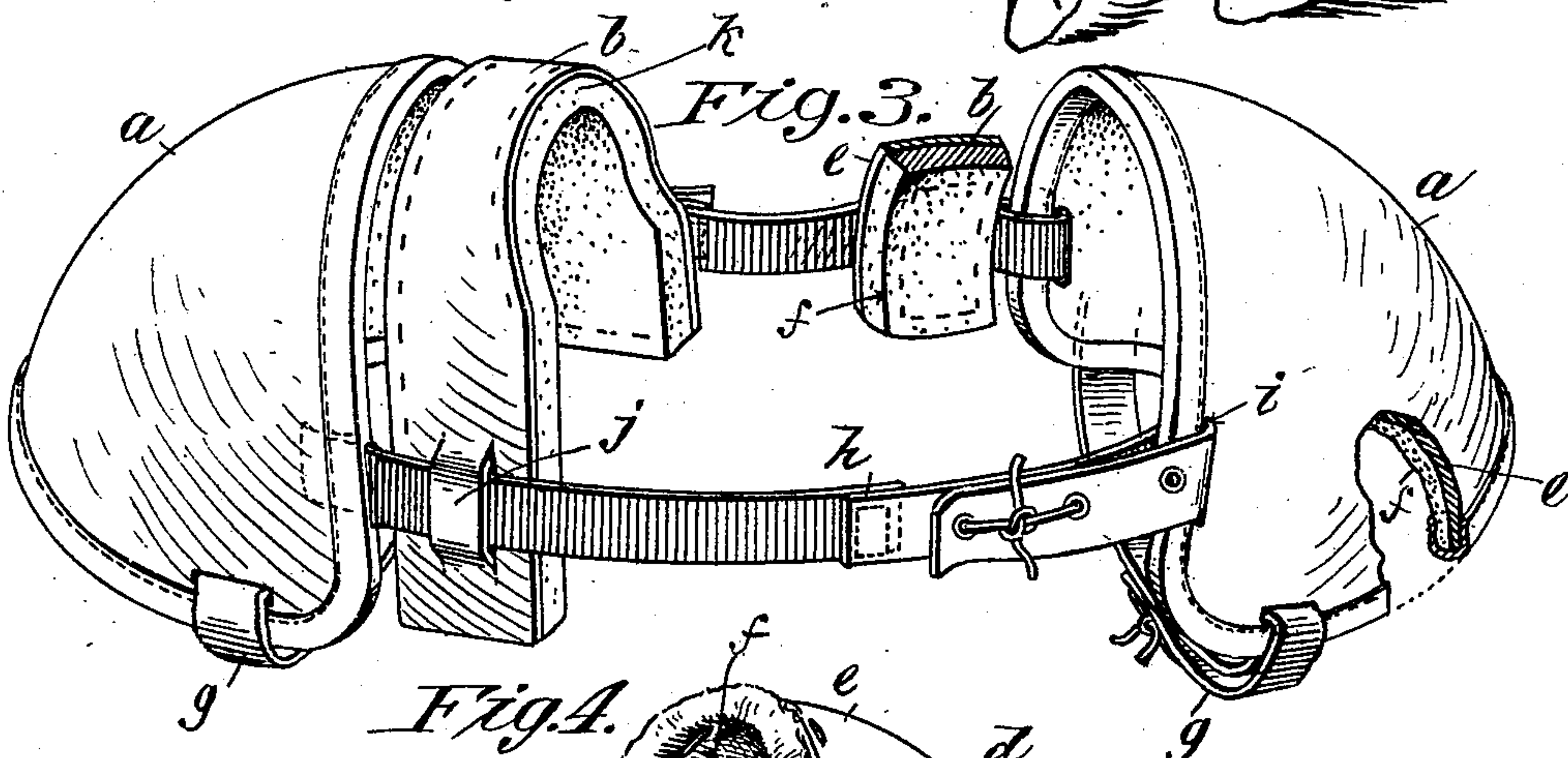
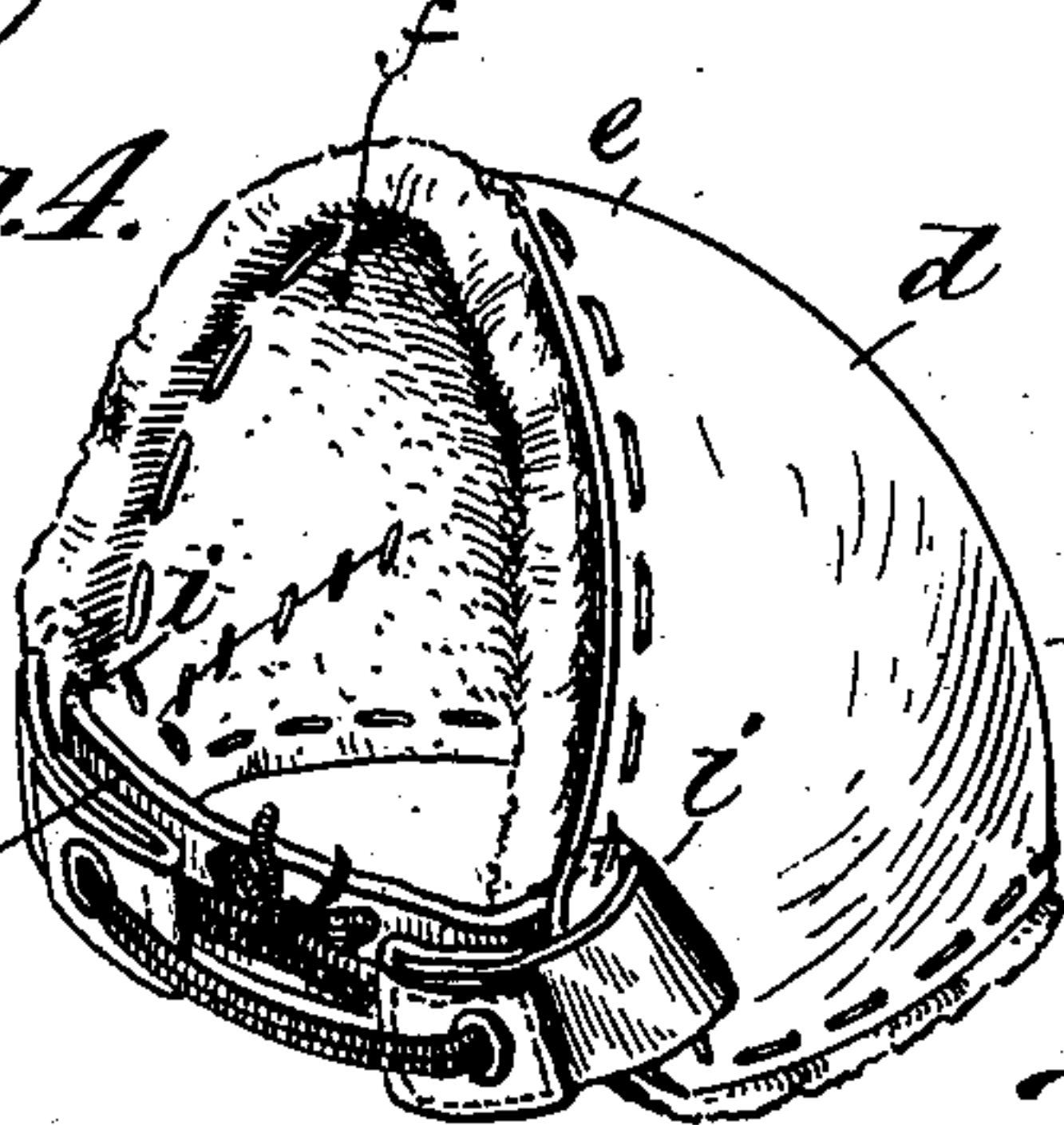


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

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JOINT-GUARD.

SPECIFICATION forming part of Letters Patent No. 689,837, dated December 24, 1901.

Application filed May 16, 1900. Serial No. 16,869. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. WHITNEY, a citizen of the United States of America, residing at Chicopee Falls, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Joint-Guards, of which the following is a specification.

This invention relates to guards or protectors worn by athletes who participate in certain games; and the object of the invention is to provide improved knee, elbow, and shoulder guards which while affording complete protection to those parts of the body most liable to injury in such games, as foot-ball, for example, may yet be worn under the outer clothing without discomfort and without obstructing the movements of the wearer in any way.

The invention consists in the construction of the said guards, all as fully described in the following specification and set forth in this claim.

In the drawings forming part of this specification, Figure 1 shows in front elevation the figure of a man having applied to him the guards which form the subject of this invention. Fig. 2 is a side and rear view of the same. Fig. 3 is an enlarged perspective view, partly in section, showing the construction of the shoulder-guards. Fig. 4 is an enlarged perspective view of one of the knee or elbow guards and shows a slight modification of the fastening device as compared with that of the other figures.

Referring now to the drawings, the shoulder-guards comprise two separate pieces for each shoulder—viz., the joint-guard proper (indicated by *a*) and the narrow strip *b*, lying between the edge of the guard *a* and the neck of the wearer, as shown in Figs. 1 and 2, and designed especially to protect the collar-bone and adjacent parts. A glance at Fig. 3 shows how the parts *a* and *b* are supported on the wearer and how they are held in certain relation one to the other, and it shows also the means of adjustment of the fastening devices, whereby the guards may be adapted to persons having different chest measurements.

The shoulder-guards *a* and *b* and the knee

and elbow guards *c* and *d* are all made from stiff leather *e*, heavily padded with felt *f*, whereby the wearer is protected against abrasion in case of a fall or if a blow is delivered on one of the protected parts. All of the guards except the members *b* are made of sole leather, which is moistened and pressed into the proper shape for the shoulder, knee, or elbow, and then the padding *f* is stitched to the edges of the guards. This may be of felt or any other material having the requisite softness, and it generally is trimmed off flush with the guards; but, if desired, for some purposes it may be allowed to project a little beyond the edge of the guards, as shown in Fig. 4. Straps *g g* are looped through the edges of the shoulder-guards and pass under the arms, as shown, and are made adjustable, whereby the guards *a* may be drawn down onto the shoulder as firmly as desired. Straps *h h* extend from one of the guards *a* across the chest and back of the wearer. One end of each strap is preferably secured to one guard and the other end is looped through an aperture *i* in the other and then is turned back upon itself. This part is provided with eyelets or holes punched in the strap, through which a cord may be passed to bind the turned-back end to the other part of the strap. By this means the two guards may be adapted to people having varying chest dimensions. Of course buckles cannot be used as a fastening device for these straps, as they would be likely to inflict wounds. The guards *b* are also supported on the straps *h*, as shown in Fig. 3, the straps being passed through loops *j j*, cut in the leather covering of the guards near their ends, as shown. These guards *b* may be moved along the straps *h* until they bear on that part of the shoulder which it is desired to protect. Preferably the inner edges of the guards *b* are curved, as shown at *k k*, to adapt them to fit the neck of the wearer.

The guards *b* are, as stated, made of thinner leather than the other guards, the latter being substantially unyielding, whereas the guards *b* should be more or less pliable to fit the shoulder properly. It is obvious that other materials than leather may be used for the guards *a, c, and d*. For instance, "leather-

board," so called, might be substituted therefor; but leather is preferable.

If desired, the form of fastening shown in Fig. 4 may be used. This consists in passing both ends of the strap *h* or *g* through apertures in the edge of the guards and then turning back both ends upon the strap and passing the cord through holes in each end of the strap and by means of the cord drawing the ends together.

The knee and elbow guards are of substantially the same form, but differ slightly in dimensions, the knee-guard being somewhat the larger. These are pressed into shape in the same manner as the shoulder-guards *a* above described and are suitably padded and provided with straps, as shown in the drawings.

In making these guards, the leather or other material is first cut into pieces having substantially the shape of the segment of a sphere whose ends have been rounded off. These pieces are then put between suitable disks and pressed into spherical shape, whereby they are so formed that they will be well adapted to cover the shoulder, elbow, or knee,

the rounded ends of the guard constituting the natural points of attachment for the retaining-straps, and the spherical-shaped segment allowing ample room for the easy flexure of the joint.

By means of these guards the wearer is protected against injury by reason of violent falls, such as are frequent in various athletic games, and, as they are molded to fit the form closely, they may be worn under the outer garments.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

A guard for the purpose described consisting of two molded shells of leather or analogous material secured together by straps, in combination with two U-shaped guards whose ends have a sliding engagement with said straps, said shells and said U-shaped guards being provided with a lining of resilient material, substantially as described.

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