

No. 663,749.

Patented Dec. 11, 1900.

F. W. GORSE.
KNEE OR ELBOW CAP.

(Application filed Dec. 28, 1899.)

(No Model.)

2 Sheets—Sheet 1.

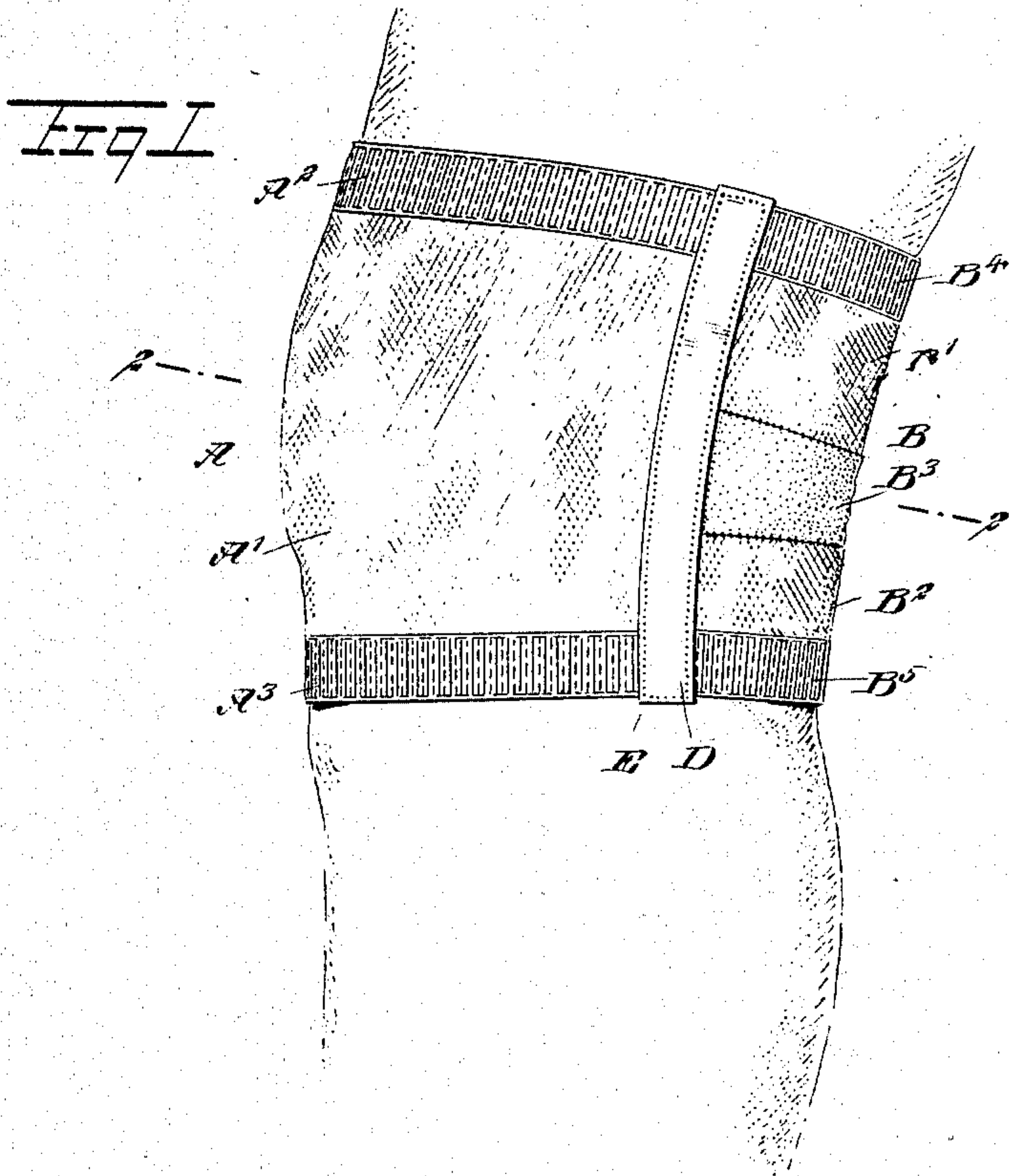
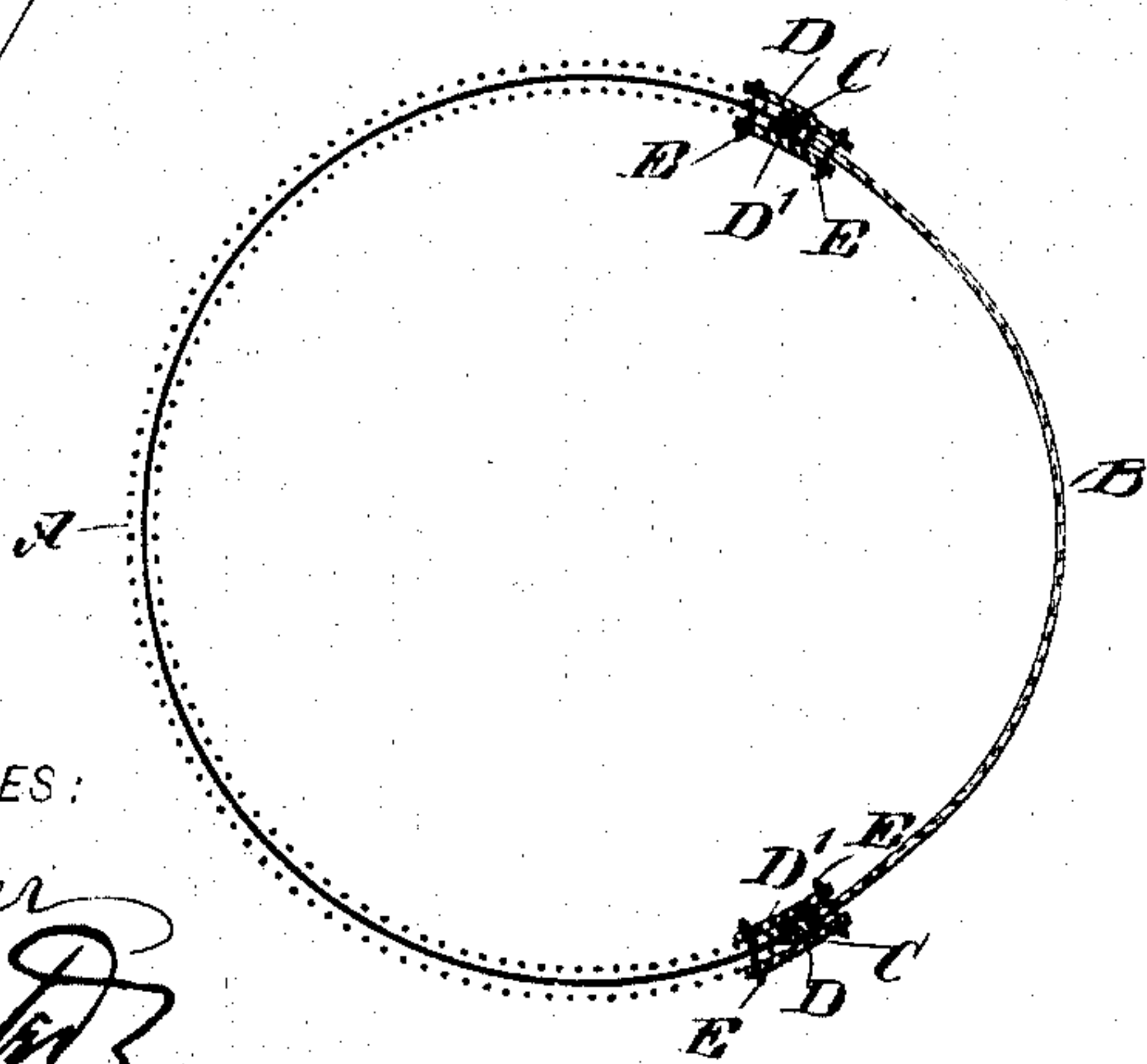


Fig 2



WITNESSES:

H. Walker
Prof. H. H. H. H.

INVENTOR

Frank W. Gorse

BY

M. H. H.

ATTORNEYS

No. 663,749.

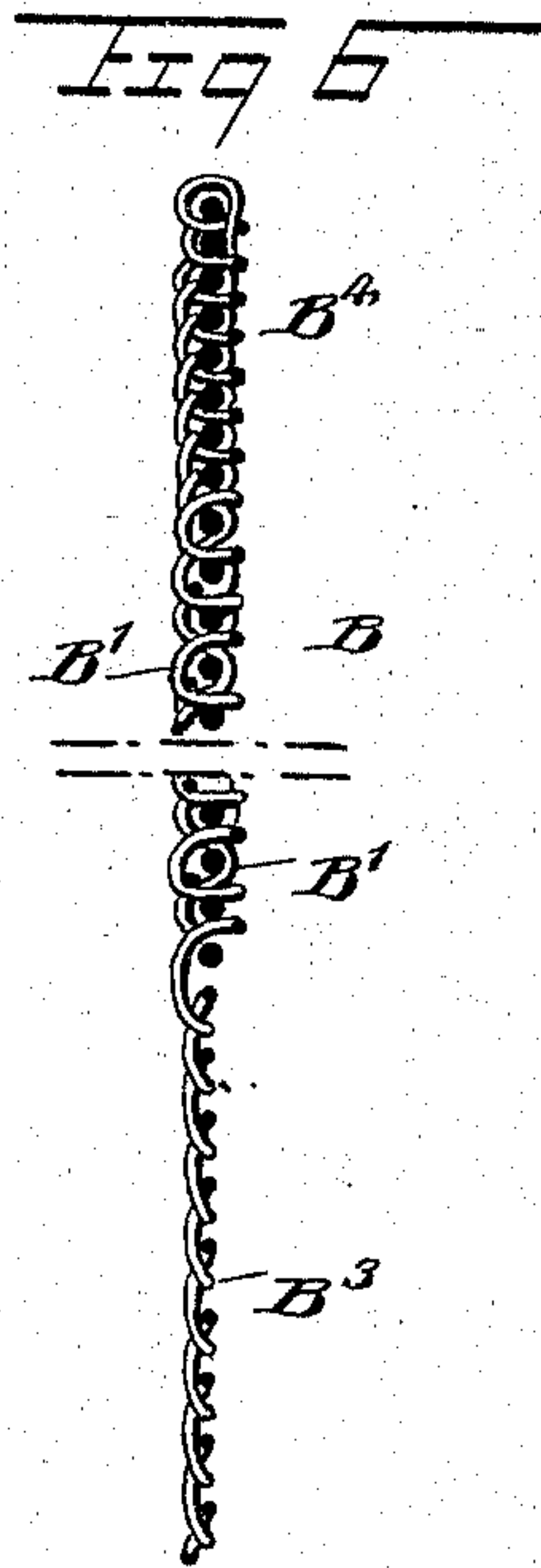
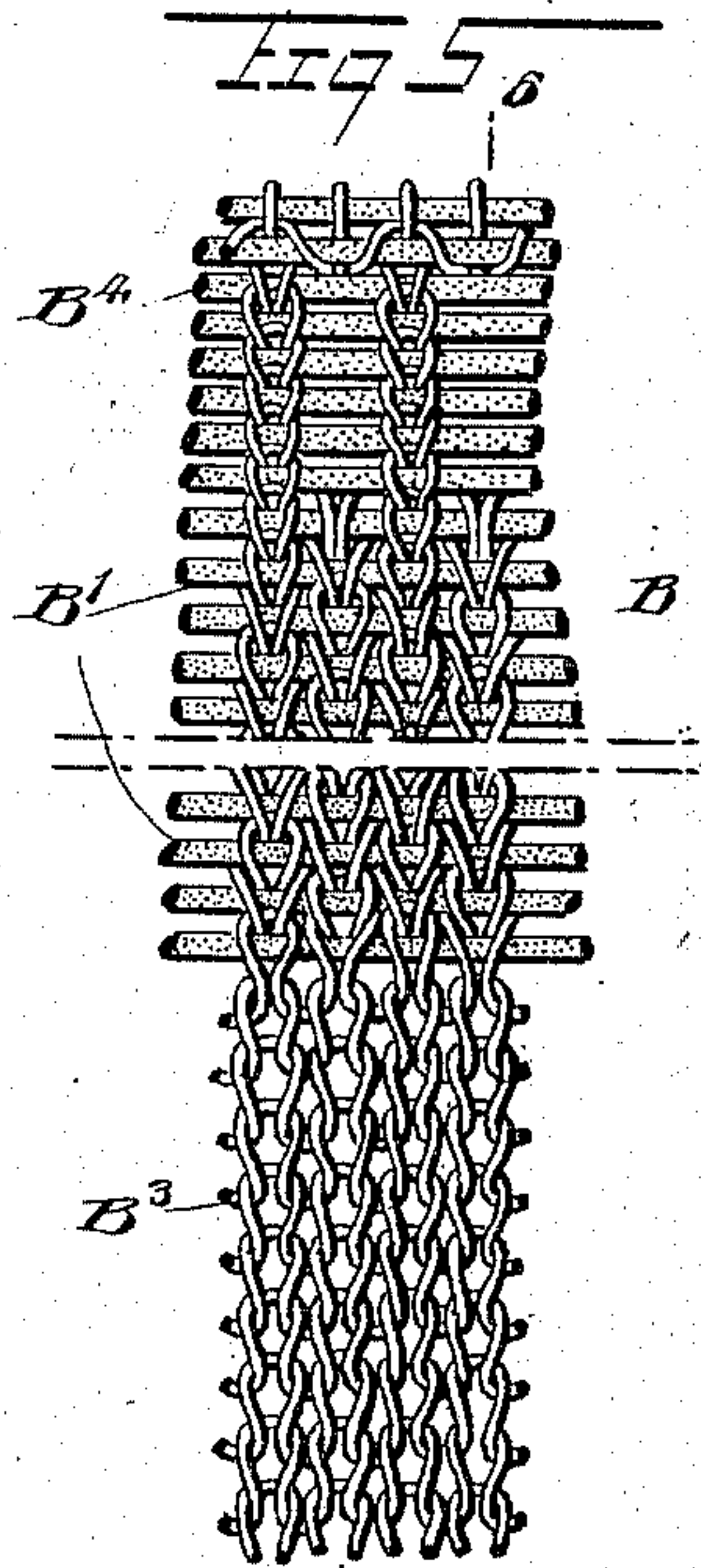
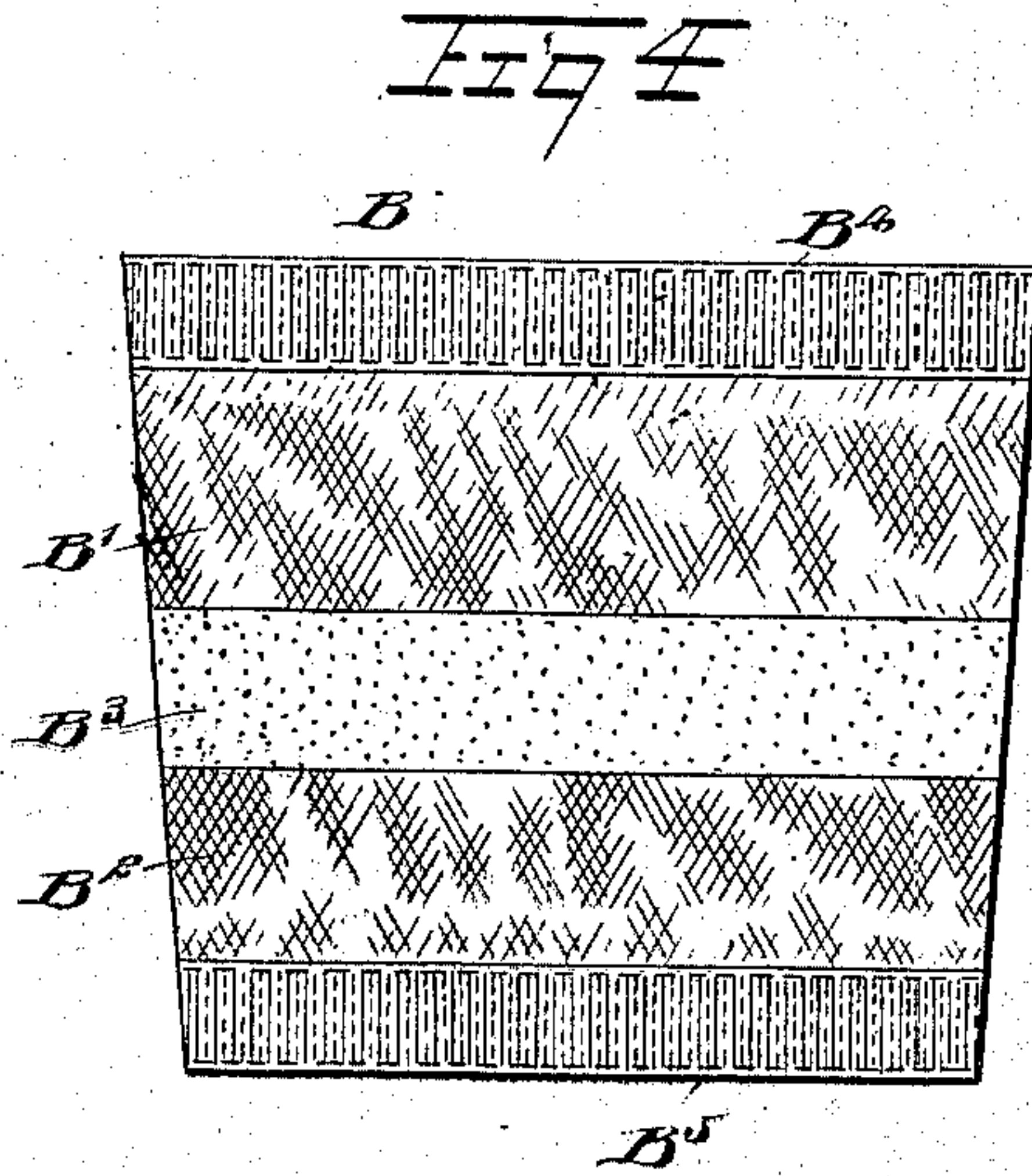
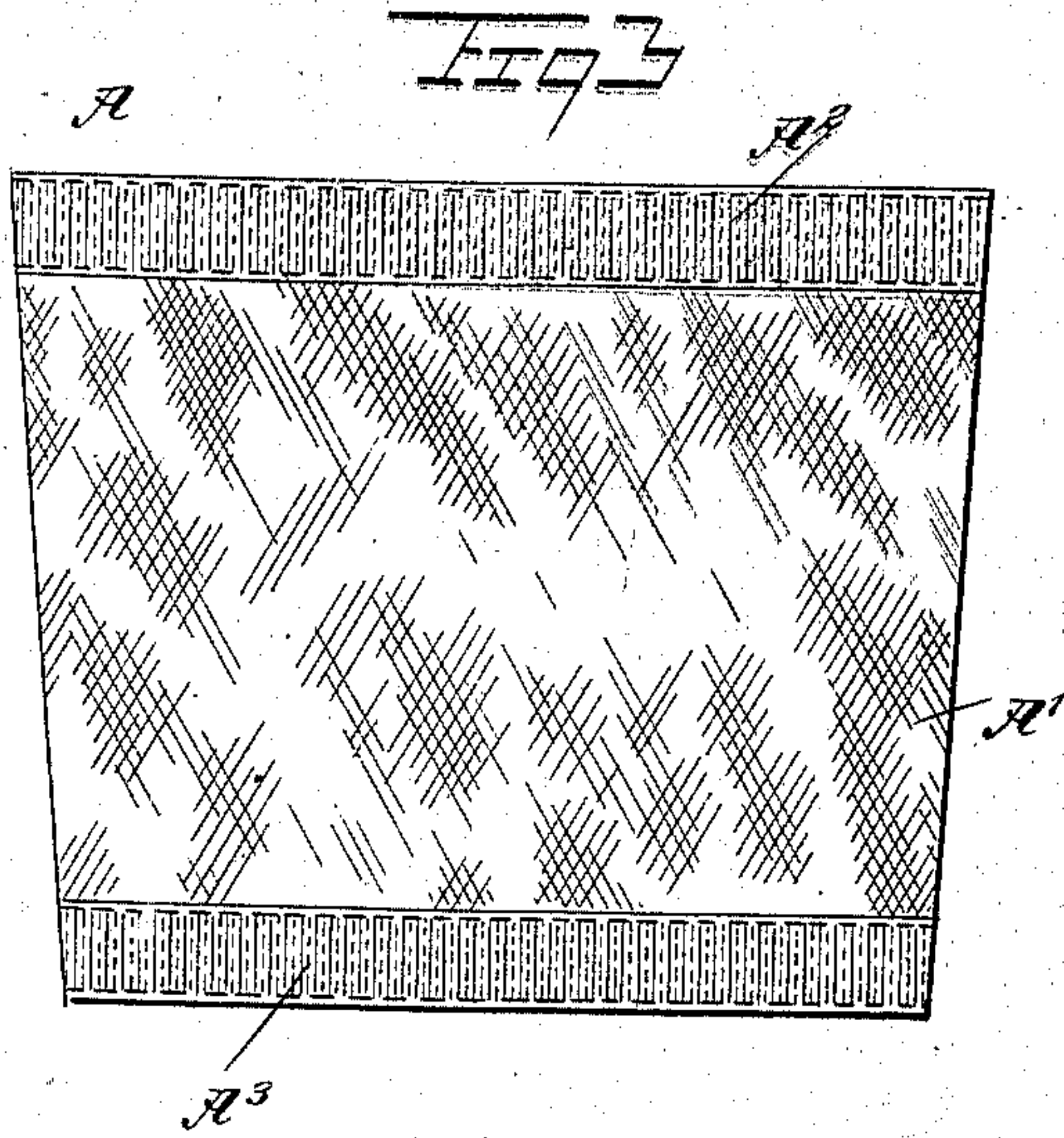
Patented Dec. 11, 1900.

F. W. GORSE.
KNEE OR ELBOW CAP.

(Application filed Dec. 28, 1899.)

(No Model.)

2 Sheets—Sheet 2.



WITNESSES:

H. Walker
Rev. J. Foster

INVENTOR

Frank W. Gorse

BY

Munn & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

FRANK W. GORSE, OF HIGHLANDVILLE, MASSACHUSETTS.

KNEE OR ELBOW CAP.

SPECIFICATION forming part of Letters Patent No. 663,749, dated December 11, 1900.

Application filed December 28, 1899. Serial No. 741,824. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. GORSE, a citizen of the United States, and a resident of Highlandville, in the county of Norfolk and State of Massachusetts, have invented a new and Improved Knee or Elbow Cap, of which the following is a full, clear, and exact description.

The invention relates to bandages used by physicians and other persons; and its object is to provide a new and improved knee or elbow cap or protector arranged to prevent irritation and gouging of the flesh at the joint where the protector is used and at the same time combine strength with softness at the joint to allow of readily placing the bandage in position without danger of tearing it.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement in the form of a knee-cap and shown as applied. Fig. 2 is a sectional plan view of the improvement on the line 2 2 in Fig. 1. Fig. 3 is a face view of the blank for the front piece of the cap or protector. Fig. 4 is a like view of the blank for the rear or joint piece. Fig. 5 is an enlarged face view of part of the rear piece, and Fig. 6 is an enlarged transverse section of the same on the line 6 6 in Fig. 5.

Knee-caps or elbow-protectors as heretofore constructed were made from a single piece of elastic knitted fabric material sewed together at the ends to form a tubular fabric and had a seam at the rear portion and the front part of the fabric had added rounds to give the desired shape to the article. The seam at the rear of the cap was liable to irritate and gouge the flesh of the joint when the cap was used, and as the entire cap was made of a single piece of elastic fabric it is evident that the entire rear portion was as hard as the front, and consequently the rear portion was also liable to irritate the skin at the joint.

With my improved cap or protector, pres-

ently to be described in detail, the above-mentioned objections are completely removed, and for this purpose the protector or cap is essentially made of a front piece A and a rear piece B, connected with each other at the sides by loops C to form side seams, reinforced both on the outside and inside by reinforcing-tapes D D', fastened to the pieces A and B by stitches E, as is plainly indicated in Fig. 2. As indicated in Figs. 3 and 4, the blanks for the pieces A and B are made trapezoidal in shape, so that when the side edges are fastened together a tubular fabric is produced which bulges out at the front and is concaved at the rear or inner portion to readily follow the contour of the knee, as shown in Fig. 1. The side edges of the front piece A are somewhat longer than the side edges of the rear piece, and when the corresponding side edges of the pieces A and B are joined the shorter side edges of the piece B are stretched or drawn out somewhat to produce a protector having what is known as a "fashioned" shape. Thus the front portion of the cap or protector is bulging out and is longer than the rear portion to insure a proper fitting on the leg. The upper diameter of the tubular fabric is somewhat larger than that of the lower end to securely hold the cap in position on the leg when it is used, as will be understood by reference to Fig. 1. The front piece A has its body portion A' formed with longitudinally-extending elastic warp-threads, and also with top and bottom borders A² A³, woven similarly to the body-piece A', but somewhat closer, so as to give a tighter hold on the leg at the top and bottom of the cap or protector to prevent the top and bottom ends of the cap from creeping toward each other. The rear piece B has upper and lower body portions B' B², which are woven similarly to the body-piece A', and the said upper and lower body portions B' B² are connected with each other by a middle portion B³ of a fine loose weave without longitudinal elastic warp-threads, as plainly shown in Fig. 5. The upper portion B' is provided with a border B⁴, and a similar border B⁵ is arranged on the lower end of the body portion B², said borders B⁴ B⁵ being of similar construction to the borders A² A³ and extending in alignment therewith, the tapes D D' extending over the body portions A' B' B², as

well as the middle piece B³, the borders A² B⁴, and the borders A³ B⁵.

Now by having the middle portion B³ of the rear piece B made of a fine loose weave without elastic threads it is evident that this portion, owing to its soft nature, is not liable to irritate the skin at the joint of the knee or elbow, but at the same time allows bending of the part on which the bandage is used without undue binding of the flesh at the joint. It is understood that when the knee or elbow is bent the said soft middle portion B³ readily forms into folds or wrinkles, the same as the skin, and consequently irritation of the latter is entirely prevented.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. An elastic tubular bandage, comprising a front piece and a rear piece, the side edges of the latter being shorter than the side edges of the front piece, the said pieces being fastened together at said side edges, the said rear piece having its upper and lower portions formed with elastic warp-threads and the middle portion in the form of a fine loose weave of inelastic threads, substantially as shown and described.

2. A bandage in tubular form and having its rear formed at its upper and lower parts

with elastic warp-threads, and a middle finely-woven portion of inelastic threads and connecting the said upper and lower parts, the said middle portion extending to the sides of the bandage, substantially as shown and described.

3. A bandage comprising a front piece and a rear piece joined at their edges to form a tubular fabric, the rear piece having its side edges shorter than the side edges of the front piece, the shorter side edges being stretched when joining the edges together, the said bandage having the seams at the sides, and tapes for reinforcing said seams and extending over the seams at both the inside and outside of the fabric, the front piece being formed with elastic warp-threads, and the rear piece having an upper and a lower portion formed with elastic warp-threads, and a fine loosely-woven middle portion of inelastic threads and extending to the sides of the bandage, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK W. GORSE.

Witnesses:

A. H. WHETTON,
J. J. WHETTON.