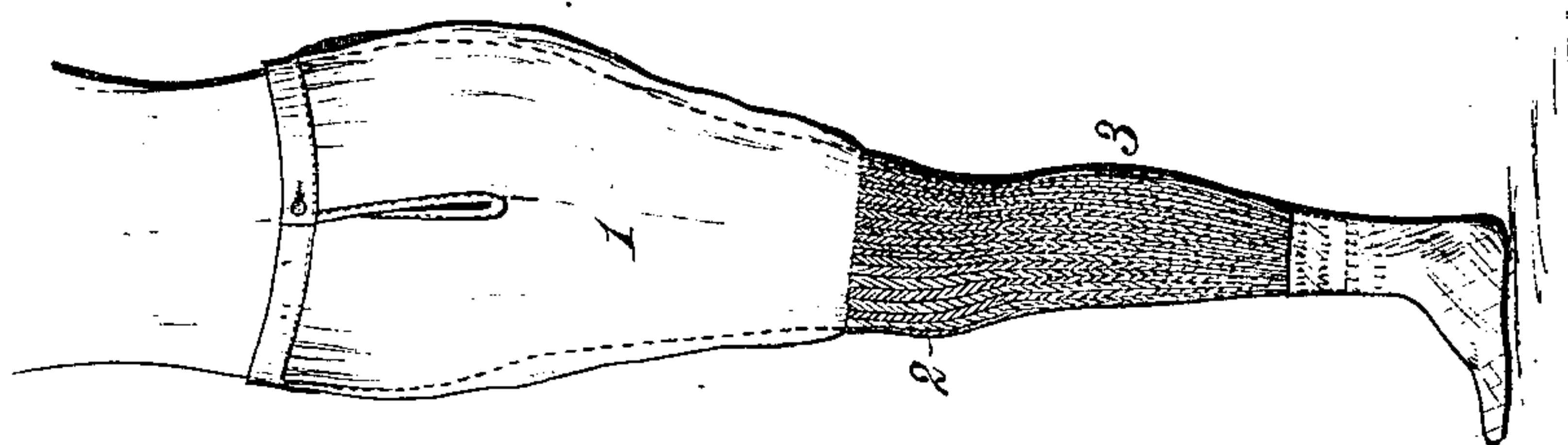
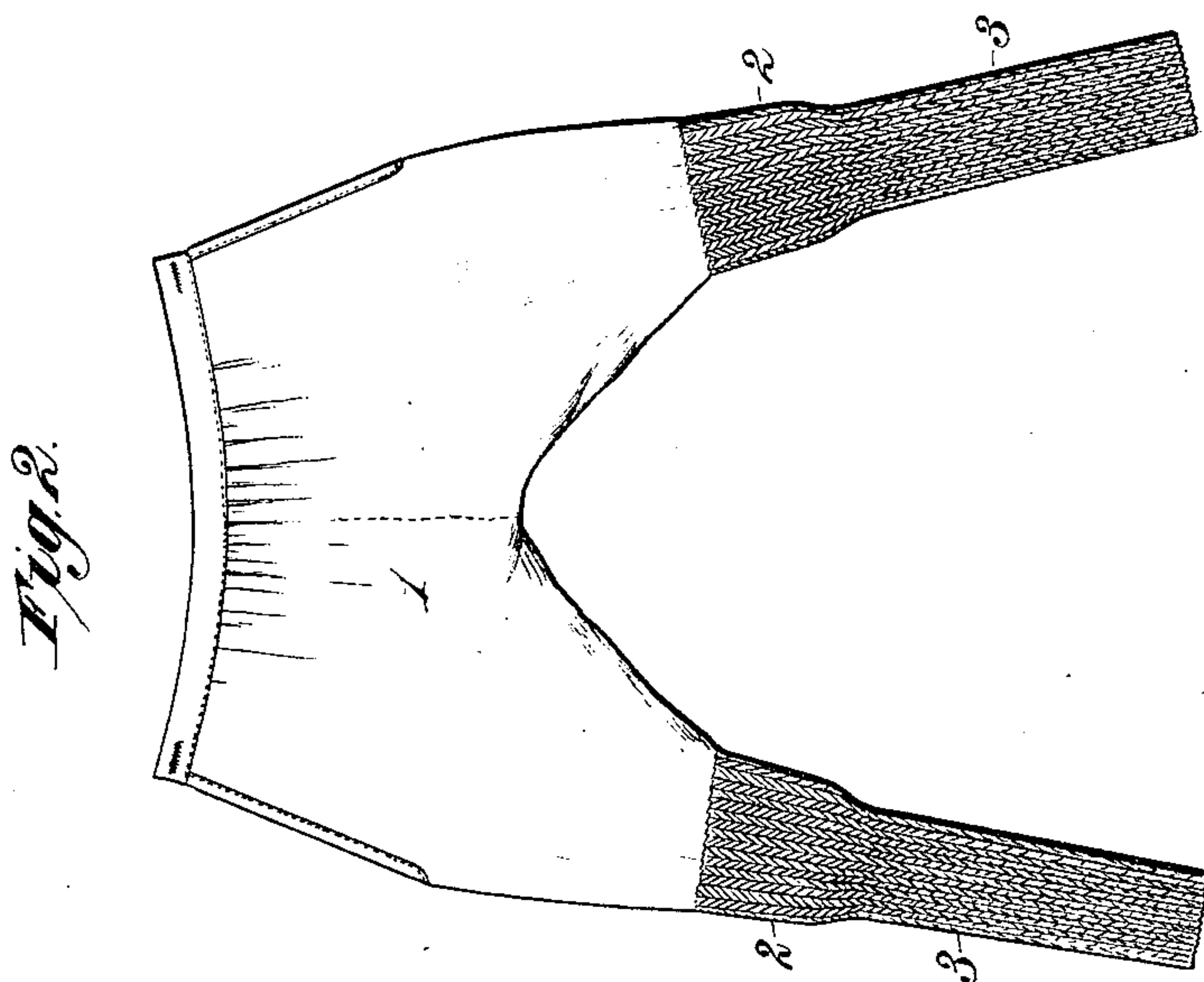


(No Model.)

C. F. NORTH.
DRAWERS, &c.

No. 405,903.

Patented June 25, 1889.



Witnesses:
Robert Swatt.

Dennis Sumbly.

Fig. 1.

Inventor:
Charles F. North.
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Atty.

UNITED STATES PATENT OFFICE.

CHARLES F. NORTH, OF COHOES, NEW YORK.

DRAWERS, &c.

SPECIFICATION forming part of Letters Patent No. 405,903, dated June 25, 1889.

Application filed December 13, 1888. Serial No. 293,448. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. NORTH, a citizen of the United States, residing at Cohoes, in the county of Albany and State of New York, have invented new and useful Improvements in Under-Garments, of which the following is a specification.

My invention relates to underwear for men, women, and children—such, for example, as the drawers, pants, or pantalets worn by different sexes and ages.

It is the purpose of my invention to provide a garment which shall be loose and easy about the thighs and seat in the usual manner, but shall be close-fitting or glove-fitting from a point above the knee to the ankle, thereby avoiding all wrinkling beneath the stocking, provision being made for the free and unobstructed use of the knee, while above the latter point the garment is of the ordinary amplitude.

The invention consists in the several novel features of construction and new combinations of parts hereinafter fully set forth, and then definitely pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation showing my invention upon the person of the wearer. Fig. 2 is a view of a garment made in accordance with my invention spread out upon its back.

In the said drawings, the reference-numeral 1 denotes the upper portion of a pair of drawers or pantalets, said upper portion from the waistband to a point a little above the knee being formed of the usual material and style and having the ordinary fullness to render it loose and easy around the thighs and seat.

The numeral 2 designates the knee portion, or that part which incloses the knee-joint, and extends a little below and above the same. This portion I form of material knitted with a "tuck-stitch" to impart the necessary elasticity. This knee-section is united to the upper portion 1 in any suitable manner—as, for example, by sewing them upon a turning-off machine in the manner well known to those skilled in the art. The knee-section 2 is so far contracted relatively to the upper portion 1 that it closely surrounds the joint, the elastic yield of the fabric producing this glove fit, and at the same time providing for the

free movement of the limb and unobstructed use of the knee-joint.

Below the knee-section 2 is the calf or ankle portion 3, also of elastic knitted fabric, and preferably knitted with the knee-section 2 and with the same stitch. The portions 3 are, however, of contracted dimensions relatively to the knee-sections to secure a close or glove fit upon the lower portion of the limb.

By this invention the under-garments are caused to fit the limbs closely and smoothly from a point just above the knee to the ankle, whereby the stocking is much more easily adjusted and the unsightly wrinkling of the under-garment beneath the stocking-leg, which often has the appearance of a physical deformity, is wholly avoided. At the same time the fullness of the parts surrounding the thighs and seat gives a loose easy garment, permitting free movement of the body of every kind.

Heretofore and prior to my invention an under-garment has been made consisting of an upper cloth part and two closely-fitting lower knit extremities, the latter having two more contractile parts about the ankle and two similarly contractile parts above the calf and below the knee, as shown in a patent granted January 10, 1882, to T. B. Farrington, No. 252,201. Circular seamless drawers or tights have also been made, the body and thigh parts knit in tuck-stitch, while the knee portions are knit in plain stitch and the leg parts partly in plain and partly in tuck stitch, as shown in a patent granted to R. M. Appleton the 18th day of April, 1882, No. 256,532. Finally, a leg-covering has been made consisting of a pair of stockings having each component member provided with an upper thigh-covering portion and a ribbed calf-covering portion made in one piece with the thigh-covering portion and a welt or pocket, the thigh-covering portion being left open at or nearly to the point of the welt or pocket, the whole comprising, practically, a pair of long stockings connected to supporting thigh portions, which fit closely, as shown in Letters Patent to Holmes granted June 14, 1887, No. 364,650. I make no claim to any of these constructions.

In my invention the upper portion of the garment from the waistband to just above the

knee is of the ordinary size or fullness, while below the said point they are suitably contracted to give a close and smooth fit, and these latter portions are knitted with an elastic
5 stitch. No cuffs or ribs are required, as the lower portions 3 are themselves of the fabric of which the ribs are made, and while the garments may be seamless I prefer to manufacture them on the spring-needle knitting-
10 frame. That portion of the garment from the point of junction above the knee to the ankle is knitted upon a flat knitting-frame or a latch-needle frame, the knee-sections 2 and lower sections 3 being knitted with a tuck-
15 stitch, as already stated. It should be noted, however, that the lower portions 3 are made of contracted dimensions relatively to the knee portions to secure the close glove fit around the calf and ankle.
20 The characteristic or distinguishing features of my invention are the ample and usual fullness of the garment from a point just above the knees, the formation of the knee-sections of a contracted size to closely surround the
25 knee-joints and of the fabric commonly known

as "ribs," which has considerable elasticity, and finally the lower portions formed of a similar fabric and of contracted size relatively to the knee-sections.

What I claim is—

30 As a new article of manufacture, the pantallets herein described and shown, consisting of the upper portion 1, extending from above the knee to the waist, of the ordinary fullness and dimensions to render the same loose and
35 easy around the waist, hips, seat, and thighs, the contracted knitted tuck-stitch knee-sections 2, to closely fit and form braces for the entire knees and stitched to the loosely-fitting upper portion, and the knitted calf and ankle
40 sections 3, contracted from the knee-sections downward to closely fit the calves and ankles and forming continuations of the tuck-stitch knee-sections, substantially as set forth.

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

CHARLES F. NORTH.

Witnesses:

WALTER S. DOTY,
JAMES A. RYAN.