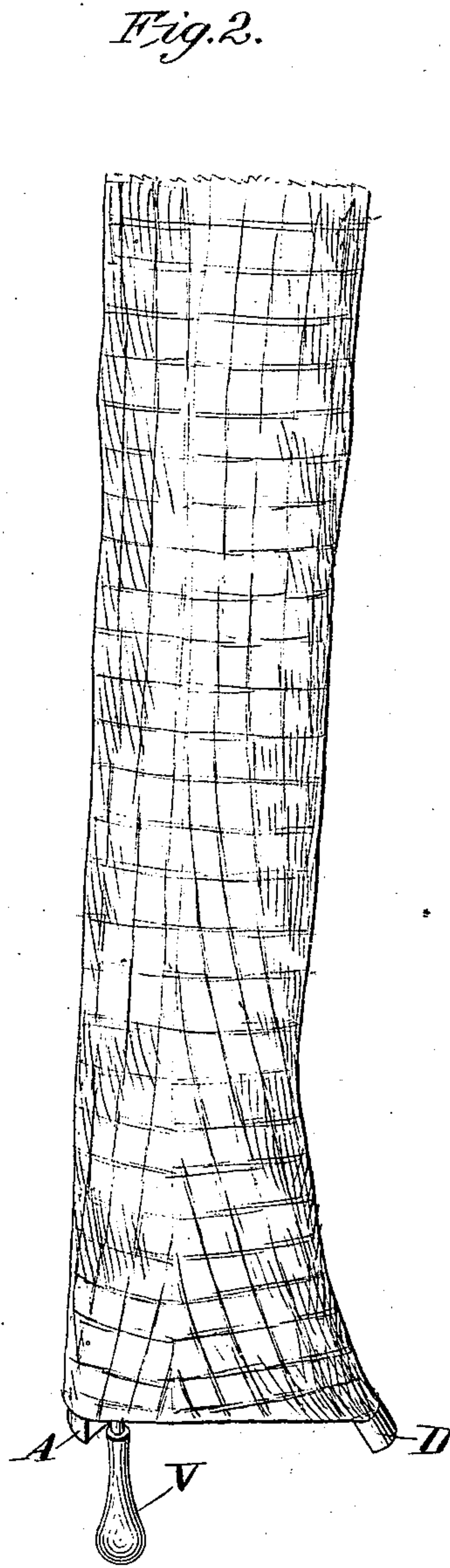
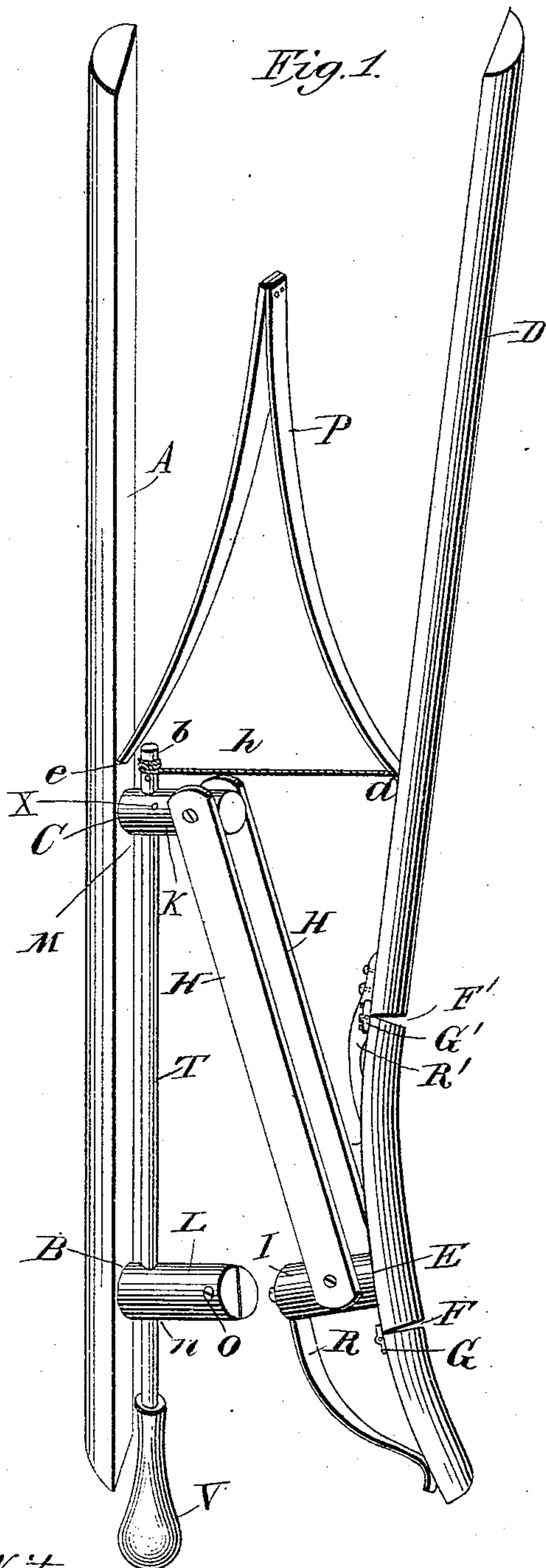


(No Model.)

C. N. RAND.
TROUSERS STRETCHER.

No. 454,666.

Patented June 23, 1891.



Witnesses:
J. S. Lowe
H. B. Tibbitts

Inventor.
Charles N. Rand

UNITED STATES PATENT OFFICE.

CHARLES N. RAND, OF GENEVA, OHIO.

TROUSERS-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 454,666, dated June 23, 1891.

Application filed October 9, 1890. Serial No. 367,600. (No model.)

To all whom it may concern:

Be it known that I, CHARLES N. RAND, a citizen of the United States, residing at Geneva, in the county of Ashtabula and State of Ohio, have invented a new and useful Trousers-Stretcher, of which the following is a specification.

My invention relates to improvements in trousers-stretchers which are designed to remove creases and wrinkles from trousers without the aid of hot irons or steam.

Figure 1 is a perspective view of my stretcher, and Fig. 2 shows the same applied to trousers.

A and D are two half-round rods, made of any suitable material, sufficiently long to stretch the entire leg of the trousers. The rod A is straight, but the rod D is curved at the lower part. The rod D has a hinge G' on the flat side at the point F'; also a hinge G at the point F. These hinges allow the loose parts to swing in; but when pressed out the ends of the rods come together when a proper curve is reached, and do not pass beyond it. One end of the flat curved spring R' is fastened to the main part of the rod D on the flat side, and extending over the joint at F' presses the lower curved part of the rod and holds it in a curved position, but allows it to be bent or swung in under certain pressure.

R is a flat curved spring, one end of which is fastened to the standard I, and extending over the joint at F the other end presses against the flat side of the lower end of the rod D, thus holding this end of the rod in its curved position, but allowing it to be bent or swung in. The spring R is weaker than the spring R', and R' is weaker than the spring P, thus giving a succession of graded springs controlling the jointed rod D. The object of having the rods A and D half-round is to furnish a wide and rounded surface to press against the trousers, so that they may not be creased thereby, and also that the stretcher may be as light as possible.

At the points C and B on the rod A the standards K and L are fastened. A similar standard I is also fastened to the rod D opposite the standard L. The two rods A and D are then fastened or hinged together par-

allel to each other, with the rounded sides turned out, by the two flat strips or bars H H being fastened to the standards I and K. The flat swallow-tail spring P is placed between the two rods at or near the middle, at the points e and a. A rod T, with handle V, passes through the two standards L and K at the points m and n. The rod has a groove around it opposite the point x on the standard K, and a nail or rivet holds it in position so that it can be turned by the handle V, but not drawn out of position. The standard L has a slot extending to the rod T, and a screw at the point O forms a friction-clutch upon the rod, so that it may not turn too easily. At the point a one end of the cord h is fastened to the rod D and the other end is fastened and wound upon the rod T at b. As the rod T is turned and the cord is wound upon it the two rods A and D may be drawn close together, in order to make it convenient to insert the stretcher into the trousers, when the rod T may be turned by the handle V, unwinding the cord h and allowing the spring P to press the two rods A and D against the trousers, the flexible portion of the lower part of the rod D making the stretcher conform to the spring-bottoms of the trousers.

Fig. 2 shows the stretcher applied to the trousers. The two rods A and D having been drawn close together by means of the rod T and cord h, the stretcher is then inserted in the trousers-leg with the rod D against the front part. The trousers are drawn down to the curved end of the rod D. Then the handle V is turned, so that the string H is unwound from the rod T, and the spring P presses the rods D and A against the front and back of the trousers-leg. The rod D, being hinged and held in position by flexible springs, also adjusts itself to the size of the bottom of the trousers-leg, as shown. The trousers are slightly moistened with water and allowed to dry on the stretcher, thus removing too much fullness at the knee, creases, and wrinkles.

What I claim as my invention is—

A trousers-stretcher which embodies and combines the half-round rod A, with its standards L and K, and the half-round and curved

rod D, with its flexible spring-joints and
standard I, the two rods being placed paral-
lel with each other and hinged together by
movable flat strips or bars H H being fastened
5 to the standards I and K, with the swallow-tail
spring P, placed between the two rods A and
D near their middle, and the rod T, with fric-

tion-clutch O, and cord h, which regulates the
spring P and the rods A and D, substantially
as described and set forth.

CHARLES N. RAND.

Witnesses:

J. S. LOWE,

H. B. TIBBITS.