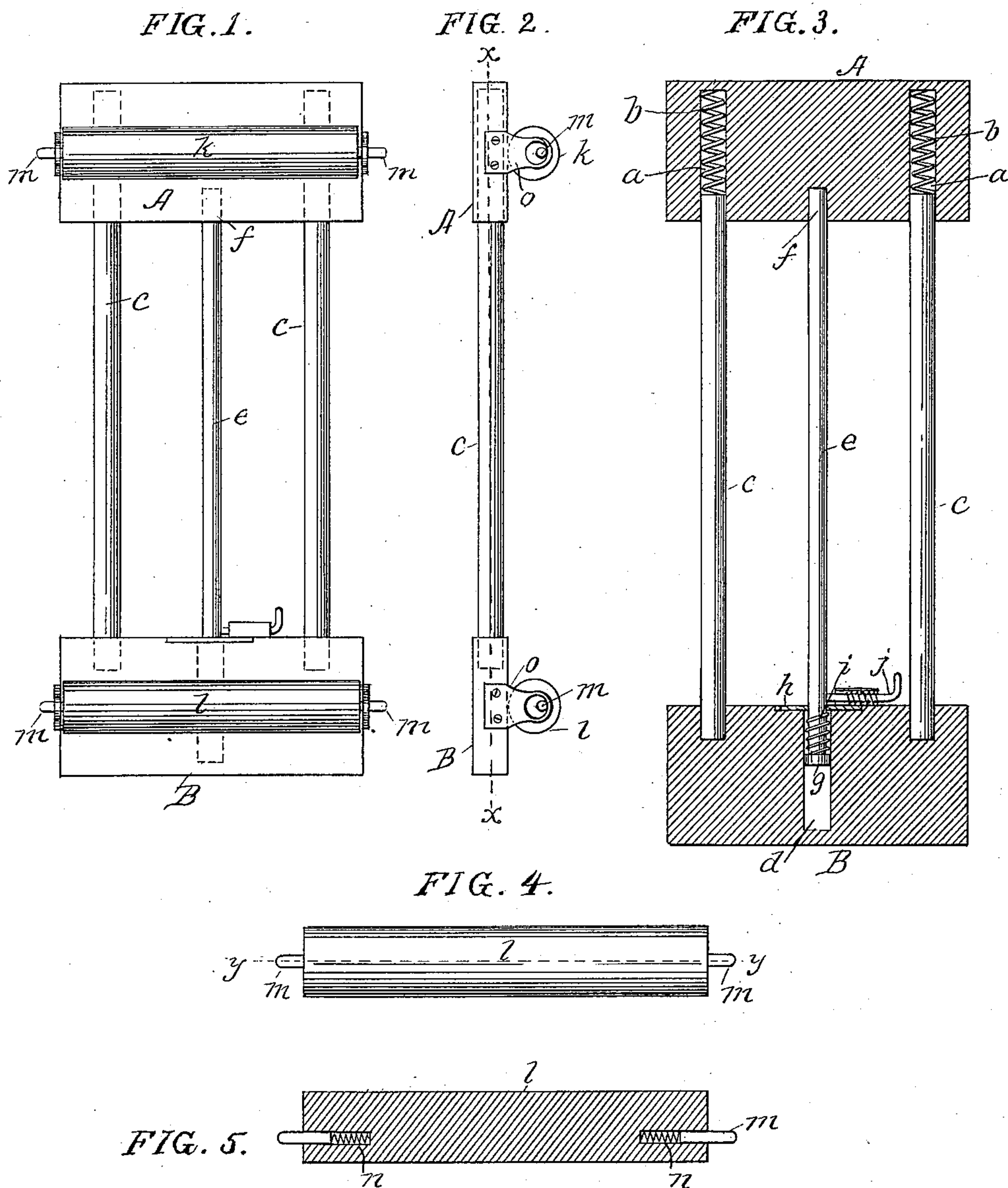


(No Model.)

J. B. HALE.
TROUSERS STRETCHER.

No. 364,012.

Patented May 31, 1887.



WITNESSES:

Richd H Jones
A. Brown.

INVENTOR

Joshua B. Hale.
BY *Might, Brown & Crossley.*
7 " ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSHUA B. HALE, OF HUBBARDSTON, MASSACHUSETTS.

TROUSERS-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 364,012, dated May 31, 1887.

Application filed February 14, 1887. Serial No. 227,635. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA B. HALE, a citizen of the United States, residing at Hubbardston, (post-office address at Williams-ville,) county of Worcester, and State of Massachusetts, have invented a new and Improved Trousers-Stretcher, of which the following is a specification.

My invention relates to "trousers-stretchers," so called—that is, devices designed to remove the "baggy" appearance and wrinkles in the knees and other portions of the legs of trousers occasioned by wear, and provide a smooth, uniform, and dressy appearance therein.

It is the object of my invention to produce improvements in contrivances of the character mentioned which will secure at once a thoroughly-efficient, easily-operated, and cheaply-constructed trousers-stretcher, as I will now proceed to describe and claim, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming a part of this specification, the same letters indicating the same parts wherever they occur.

Of the drawings, Figure 1 represents a plan view of my improved trousers-stretcher. Fig. 2 is a side elevation thereof. Fig. 3 is a sectional view on the line *x x*, Fig. 2. Fig. 4 is a plan view, on an enlarged scale, of one of the cam or eccentric rollers detached from the complete device. Fig. 5 is a sectional view of the cam or eccentric roller shown in Fig. 4, the section being taken on the line *y y* of said figure.

In carrying out my invention I construct two blocks or parts of wood, A B, of suitable dimensions, and bore two holes, *a a*, in the former block, near the ends thereof, for the reception of the quite stout spiral springs *b b*, as also one end of the rods *c c*, which are adapted to rest or bear on one end of said springs, the other ends of which bear upon the bottoms of the holes in said block. The other ends of rods *c c* are rigidly secured in any suitable manner to block B, which latter block has a hole, *d*, bored therein to accommodate in a loose manner one end of a rod, *e*, the other end of which is secured, as at *f*, to block A. The end of rod *e*, adapted to slide in the hole or bore *d* of block B, is provided with an offset or shoulder, *g*, between which and a plate, *h*,

secured to the inner face of block B, is arranged a spiral spring, *i*, which acts as a buffer on the sudden moving apart of blocks A B by the action of springs *b b*; the entire construction at the point of connection of rod *e* with block B serving also to prevent the blocks A and B and their attached parts from being separated.

By the construction thus far described it will be seen that blocks A and B may be pressed toward each other against the tension of springs *b b*, and in order to hold them in this position, for a purpose to be presently explained, I provide a latch of any suitable character, connected with block B and adapted to engage rod *e*, the contrivances for this purpose here shown being a catch or spring-bolt, *j*, adapted to engage a notch or lug (not shown) on rod *e*. This latching device is a desirable, though not an essential, adjunct of the device.

k l represent rollers provided in each end with a pin, *m*, set in a hole formed in the end at a point eccentric to the longitudinal axis of the roller, a spring, *n*, being interposed between the pin and the hollow of said hole, for the purpose of permitting the pin to be pressed inward in order to remove the roller from the machine when desired, said rollers being held to operate with the upper or outer face of said blocks by means of ears or lugs *o*, secured to the ends of the blocks, in holes *p* of which ears or lugs pins *m* operate as journals to rollers *k l*.

The operation of my improved trousers-stretcher may now be described as follows: Blocks A B are pressed toward each other against the tension of springs *b b*, and latched or locked in this position, as described, when the trousers to be operated upon are placed in position with, say, the waist or upper portion on block A and between it and roller *k*, and the lower portion of the legs on block B and between it and roller *l*, the knee portion of the trousers being arranged between said blocks, and the rollers *k l* being so arranged as that by reason of their eccentric relationship to the blocks upon which they are journaled they will hold the parts of the trousers with which they are engaged securely in place and bind more closely thereon as tension is put upon the trousers, as will be readily understood. Rod *e* being now unlocked or released, blocks A B will be forced in opposite directions by

means of springs *bb*, putting the trousers under tension, in which position they may be left until the wrinkles and bag at the knees are removed.

5 By my improvements a trousers-stretcher is provided which is to all intents and purposes rigid and strong, is easily operated, and simple and cheap of construction, and in which the trousers may be kept under a uniform and
10 continuous tension while in the device.

It is obvious that my improved means for putting trousers under tension may be employed with any known means for clamping the trousers in a machine, and that the eccentric-rollers and their adjuncts, as hereinafter
15 claimed, may be employed with any known means for putting the trousers under tension.

Having thus explained the nature and object of the invention and the manner of using
20 the same, what I claim is—

1. In a trousers stretcher, the combination, with a block provided with holes or sockets, springs in said sockets, and rods adapted at one of their ends to rest on said springs and move
25 in said holes or sockets, of a second block to

which the other ends of said rods are secured, an independent rod secured to said first-mentioned block and being loosely connected with and having a limited movement with respect to said second block, and clamping devices connected with each of said blocks for securing a garment in the device, substantially as set forth.

2. In a trousers-stretcher, a pair of clamps, each comprising the following devices, viz: a block, ears or lugs *o*, secured to the ends of said block, a roller, holes formed in the ends of the roller at a point eccentric to the longitudinal center of the roller, springs *n* in said holes, and pins *m*, set in said holes on said
35 springs, and devices for expanding or forcing apart a pair of clamps thus constructed, combined and operating substantially as hereinbefore set forth.

Williamsville, Massachusetts, February 2, 1887.

JOSHUA B. HALE.

Witnesses:

JOSEPH FISHER,

ANNAS A. BABBITT.