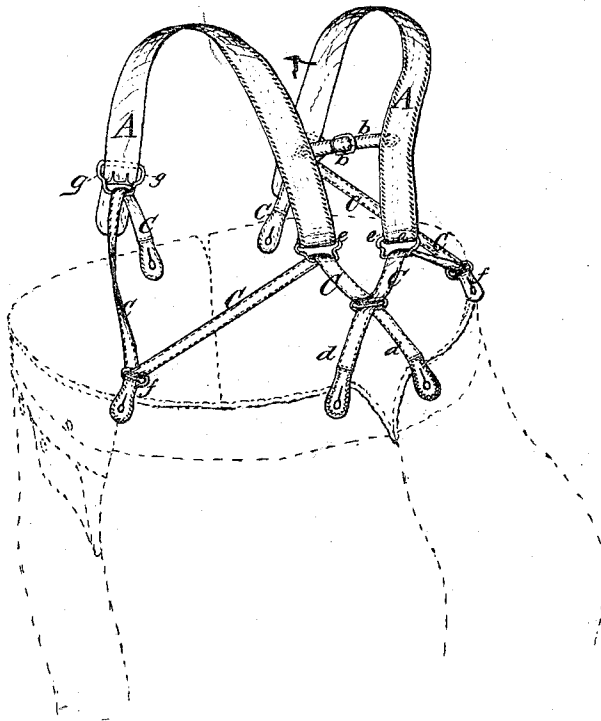


W. P. VROOMAN.
SUSPENDERS.

No. 172,356.

Patented Jan. 18, 1876.



Witnesses:—

Jacob Latchler
Leonard Lyon

Inventor,

W. P. Vrooman,
By J. W. Latchler
Att'y.

UNITED STATES PATENT OFFICE.

WILLIAM P. VROOMAN, OF JOHNSTOWN, NEW YORK.

IMPROVEMENT IN SUSPENDERS.

Specification forming part of Letters Patent No. 172,356, dated January 18, 1876; application filed July 9, 1875.

To all whom it may concern:

Be it known that I, WILLIAM P. VROOMAN, of Johnstown, in the county of Fulton and State of New York, have invented a Suspender, of which the following is a specification:

The object of my invention is to make suspenders in such a manner as to dispense with elastic web in their manufacture, by the use of a continuous web or cord, alternately connected to the ends of the shoulder-webs and pantaloons, (or button-tips connected to the pantaloons,) the said continuous web being arranged in a zigzag course around the body of the wearer, the strain being applied diagonally or crosswise to said continuous web.

The drawing exhibits a perspective view of my invention, with pantaloons represented in dotted lines.

To enable those skilled in the art to fully understand and construct the same, I will proceed to describe it as follows:

A A represent the shoulder-webs usually employed, and connected together by means of a transverse strap or straps, *b b*, affixed to said shoulder-webs at or near the position shown in the drawing. This, also, is not new. I use a continuous web or cord, C, to each end of which is attached a button-tip in the usual manner. The central portion of the web C receives the rear button-tips *d d*, as shown in the drawing; then the web C is passed over the pulleys attached to the shoulder-webs at the ends *e e*; then the web C continues down-

ward and forward to connect with the side button-tips *f f*, passing round the pulley of the same; thence upward and forward to the adjusting-buckles *g g*, connected to the front ends of the shoulder-webs A, passing over pulleys; thence downward to the front of the pantaloons; the ends of the webs or tips thereof being attached to the pantaloons, as will be readily understood.

I have discovered that in the use of a continuous web, as is here shown, comparative comfort is attained, compensating all unequal strain by a ready paying out or taking up of the web C round the body of the wearer, which cannot be accomplished except by the use of elastic web, which is expensive and liable to become useless by continued tension, and tendency to become impaired by perspiration, as is well understood. Two buckles only are requisite, and applied to the webs A A in the usual manner, to secure perfect adjustment of the suspender to the person of the wearer.

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

The combination, in a suspender, substantially as described, of a continuous web or cord, C, with the parts *d e f g* arranged to operate as set forth.

WM. P. VROOMAN.

Witnesses:

C. L. VAN ALLEN,
G. McKELLY.