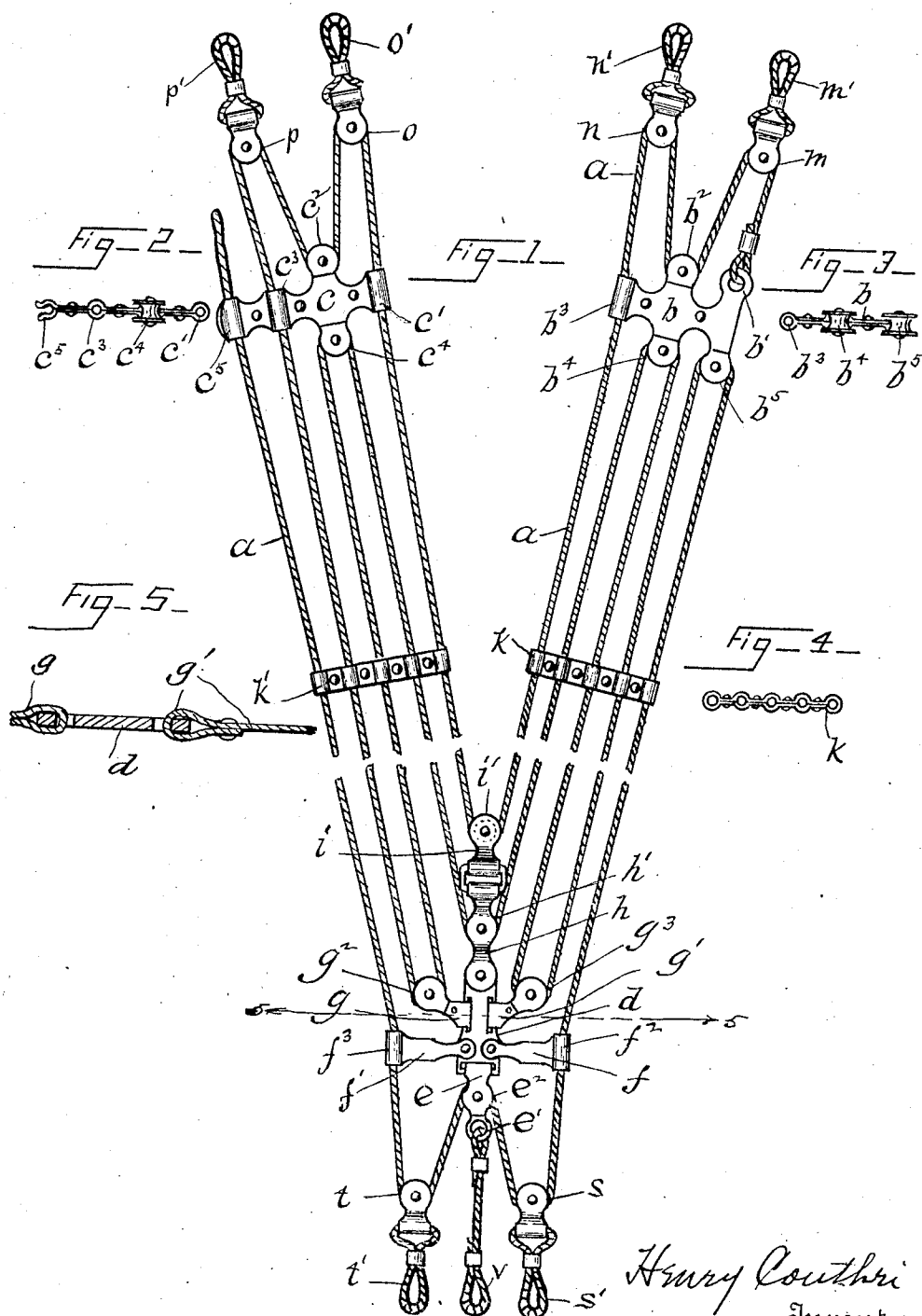


No. 878,508.

PATENTED FEB. 11, 1908.

H. COUTHRI.
SUSPENDERS.

APPLICATION FILED AUG. 6, 1906.



Witnesses
Frank C. Palmer.
Francis L. Allen.

S. Henry Couthrie
Inventor,
Frank H. Allen

By

Attorneys

UNITED STATES PATENT OFFICE.

HENRY COUTHRI, OF UNCASVILLE, CONNECTICUT.

SUSPENDERS.

No. 878,508.

Specification of Letters Patent.

Patented Feb. 11, 1908.

Application filed August 6, 1906. Serial No. 329,333.

To all whom it may concern:

Be it known that I, HENRY COUTHRI, a citizen of the United States, residing at Uncasville, in the county of New London and State of Connecticut, have invented a certain new and useful Improvement in Suspenders, which improvement is fully set forth and described in the following specification, reference being had to the accompanying sheet of drawings.

The object of this invention is to provide a cheap form of suspender, having its strap portions formed of a single continuous piece of cord or string, that is so supported that it may readily yield to follow any and all movements of the body of the wearer. Incidentally, I have also provided means for taking up, or letting out, said cord in order to shorten or lengthen the complete suspender.

My said invention is clearly illustrated in the accompanying drawings, Figure 1 being a view of a complete suspender embodying my present improvement. Fig. 2 is an edge view of the plate *c*. Fig. 3 is an edge view of the plate *b*. Fig. 4 is an edge view of the guide plate *k*. Fig. 5 is a section on the line 5—5 of Fig. 1.

Referring to these drawings, the letter *a* indicates a cord, preferably braided, and of such length that it may be carried around suitable pulleys, and through suitable guides, as I shall explain in detail, and be thus supported in proper position to serve the same purpose as the "straps" of ordinary suspenders.

One end of the cord is fixedly secured in place and the other end of said cord is held by a spring clasp in such manner that it may be easily released whenever it becomes necessary, or desirable, to lengthen or shorten the suspender. The said fixed end of the cord is fastened to an eye *b'* formed as a part of a light metallic plate *b* which is so formed that it provides a guide-eye *b³* and also pivotal supports for pulleys *b²*, *b⁴* and *b⁵*; said plate *b* being located near one of the front end portions of the suspender. Near the other front end portion of said suspender, and corresponding in position and in general function, to said plate *b*, is a somewhat similar plate *c* formed with guides *c'*, *c³*, a spring clasp *c⁵*, and also as the pivotal support for pulleys *c²*, *c⁴*. At the rear portion of said suspender is a plate *d* to whose extreme rear end is pivoted a plate *e* that terminates in an eye

e' and also supports pivotally a pulley *e²*. Pivoted in the opposite edges of the plate *d* are plates *f f'*, whose free ends carry the guides *f²* *f³* respectively. Above these plates *f f'* are the plates *g* and *g'* also carried by the plate *d* and carrying at their free ends the pulleys *g²* *g³*. The plates *g* and *g'* are shown as mounted on the plate *d* by having a portion bent around a portion of the latter to form a pivot, as shown in detail section in Fig. 5. The plate *i* is mounted in substantially the same manner. Pivoted to the extreme front end of plate *d* is a plate *h* which serves as the pivotal support for a pulley *h'*, and which also has pivoted to its free end a plate *i* in which is pivoted a pulley *i'*. *k k'* are guide plates through which the cord *a* is passed.

Having described, in a general way, the construction of my newly improved suspender, I will trace out, and describe the course followed by the cord *a*, beginning at the fixed end of said cord which, as I have already stated, is secured to the eye *b'*. Said cord passes from eye *b'* to the pulley *b²*, and upon that portion between said eye and pulley is hung a pulley *m* to which is fastened a loop *m'* that serves as a button loop. The cord then passes from pulley *b²* to the guide *b³*, and upon the portion between pulley *b²* and guide *b³* is hung a pulley *n* to which is fastened a button loop *n'*. Said cord passes from the guide *b³* to pulley *i'* and thence to, and through, the guide *c'*. From said guide *c'* it passes to pulley *c²*, and upon the portion between said last named guide and pulley is hung a pulley *o* to which is fastened a button loop *o'*. From pulley *c²* the cord passes to the guide *c³*, and upon the portion between the pulley *c²* and the guide *c³* is hung a pulley *p* to which is fastened a button loop *p'*. From the guide *c³* the cord passes to pulley *g²*, at the rear portion of the suspender, and thence returns to, and around pulley *c⁴*; then to and around pulley *h'*. From pulley *h'* it passes to and around pulley *b⁴*, then around pulley *g³*, then to and around pulley *b⁵* and thence to the guide *f²*. From the guide *f²* it passes to the pulley *e²*, and upon the portion between the guide *f²* and pulley *e²* is hung a pulley *s* to which is fastened a button loop *s'*. From the pulley *e²* the cord passes to the guide *f³* and upon the portion between the pulley *e²* and guide *f³* is hung a pulley *t* to which is fastened a button loop *t'*. From

the guide f^3 the cord passes to the spring clasp c^5 , the free end of the said cord being left of such length that it can be let out if it is desired to lengthen the complete suspender.

Whenever it is desired to shorten the suspender it is only necessary to release the free end of the cord a from the spring clasp c^5 and to then draw the cord through the several guides, and around the several pulleys, until enough of the cord has been taken up to shorten the suspender to the desired length. The free end of the cord is then drawn tightly into the spring clasp and the suspender is ready for use. At the rear end portion of the suspender I provide a button loop v that is secured to the described eye e' , this loop v being, however, necessary only when three buttons are provided upon the rear portion of the waist-band of trousers.

Having thus described my invention, I claim as my invention and wish to secure by Letters Patent:

1. A suspender comprising front plates formed with pulley supports and guide-eyes, a back plate, pulley supports pivotally mounted thereon, pulleys in said supports, laterally extending plates carrying guide-eyes pivoted to said back plate, and a single cord having one end secured to one of said front plates, and passed around said pulleys

and through said guide-eyes on the front and back plates.

2. A suspender comprising front plates formed with pulley supports and guide-eyes, a back plate, pulley supports pivotally mounted thereon, pulleys in said supports, laterally extending plates carrying guide-eyes pivoted to said back plate, a single cord having one end secured to one of said front plates and passed around said pulleys and through said guide-eyes on the front and back plates, and a spring clasp on one of the front plates to engage the free end of said cord.

3. A suspender comprising front plates formed with pulley supports and guide-eyes, a back plate, pulley supports pivotally mounted thereon, pulleys in said supports, laterally extending plates carrying guide-eyes pivoted to said back plate, a single cord having one end secured to one of said front plates and passed around said pulleys and through said guide-eyes on the front and back plates, and pulleys hung from said cord and carrying button loops.

HENRY ^{his} × COUTHRI.
mark

Witnesses:

ROBERT BARLOW,
FRANK H. ALLEN.