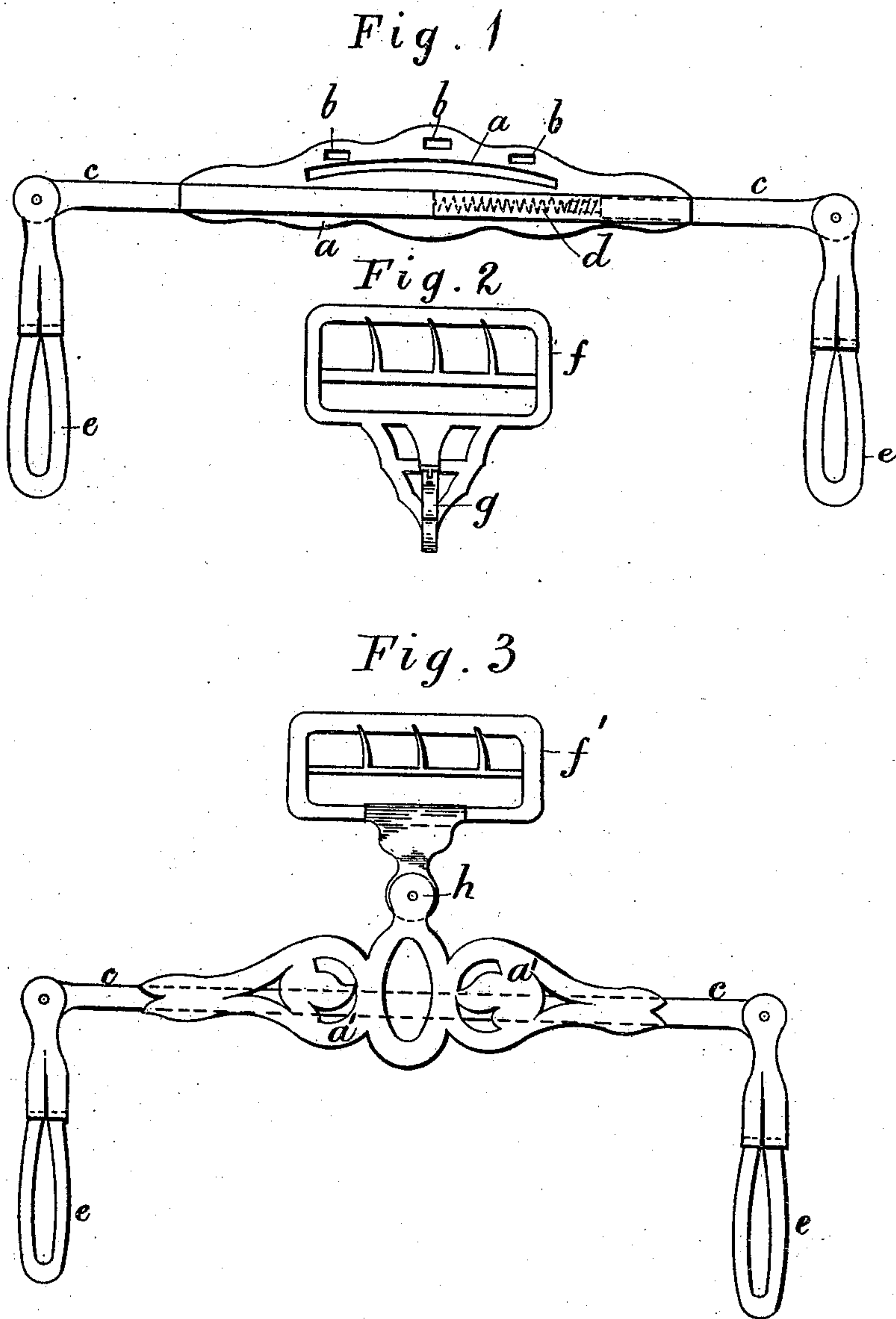


(No Model.)

R. LEWIS.
SUSPENDERS.

No. 370,630.

Patented Sept. 27, 1887.



Witnesses
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Robert Emmett

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UNITED STATES PATENT OFFICE.

RICHARD LEWIS, OF KILBURN, COUNTY OF MIDDLESEX, ENGLAND.

SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 370,630, dated September 27, 1887.

Application filed August 2, 1887. Serial No. 245,963. (No model.) Patented in England April 7, 1887, No. 5,196.

To all whom it may concern:

Be it known that I, RICHARD LEWIS, a subject of the Queen of Great Britain, residing at 4 Victoria Villas, Kilburn, in the county of Middlesex, England, tea merchant, have invented certain new and useful Improvements in Braces or Trouser-Suspenders, (for which I have obtained a patent in Great Britain, No. 5,196, dated April 7, 1887,) of which the following is a specification.

The object of my invention is to manufacture braces for suspending trousers in an improved manner, my improvements adding greatly to the comfort of the wearer.

My invention consists in the application of extensible metallic or other struts to the loops at about the points where they form junctions with the straps of the braces. Each strut consists of three pieces of metal united together by rivets, loops, studs, or buttons, sliding in slots or clips and extended by springs, such springs being capable of yielding to an inward draft of the loops and of pressing the same outward to a limited extent when such draft is absent. In some cases the spring may be dispensed with and the extension and contraction of the plate otherwise provided for. The struts counteract the tendency of the loops to draw the fabric together and cause the upward draft of the brace and its adjuncts to be direct and vertical, or thereabout. At the back of the braces, where they suspend the back of the trousers, I fit one of the plates, as above described, the length of the plate being arranged and adjusted to the width apart of the two buttons attached to the upper part of the back of the trousers. The form of the struts may be made either plain or ornamental, and the loops may be attached thereto by rivets; or, if preferred, their upper ends may be made to run upon pulleys fitted to the ends of the struts or otherwise, for affording greater freedom of movement to the wearer.

I do not confine myself to any particular material in manufacturing the struts or plates or to the method of forming the loops or of attaching the loops to the plates, as their construction may be very much varied, (especially in reference to design or pattern,) the essential feature of my invention being the

application of expansible or extensible struts or plates for sustaining the trousers in a vertical direction without any tendency to draw the buttons toward each other.

In order that my said invention may be particularly described and ascertained, reference is hereby made to the accompanying drawings, in which similar letters of reference indicate corresponding parts.

Figure 1 is an elevation of my improved brace-strut as applied on each side of the front of the trousers to the right and left. Fig. 2 shows the combined buckle and hook for suspending the strut shown on Fig. 1 to the brace, and Fig. 3 shows the form of my improved strut as arranged for suspending the back part of the trousers.

Referring to Fig. 1, *a* is the middle plate, in which apertures *b b b* are formed. *c c* are two ends, which are made to slide in suitable slots, clips, or other provisions formed in the plate *a*. These struts are fitted with a spring or springs, *d*, to impart a pressure outward and allow the ends to accommodate themselves to the distance apart of the buttons upon the trousers, so that the strain may always be vertical, or thereabout. *e e* are the loops to be attached to the buttons fixed to the trousers.

The springs *d* may in some cases be dispensed with, and instead thereof ratchets may be formed in the plate *a*, into which hooks formed on the inner ends of *c c* may be made to engage, or other analogous means may be adopted for the same purpose, the object being to prevent the loops *e e* drawing the band of the trousers together or having a tendency to loop the same.

The buckle *f* is attached to the plate *a* by inserting the hook *g* into one of the apertures *b b b*. By shifting the hook *g* into one or other of the apertures *b b b*, the trousers may be adjusted and the strain apportioned as desired, to promote the comfort of the wearer.

The construction of the back plate, *a'*, shown in Fig. 3 is similar to that shown in Fig. 1, with the exception of the method of uniting the same to the buckle, which is effected by the rivet *h*, upon which it is made to pivot. The two ends of the braces at the back are attached to the buckle *f'*.

The plates may be made of elastic material,

so as to bend to the form of the body in a horizontal direction.

I claim—

1. The combination, with a buckle, of a plate,
5 *a*, suspended from said buckle and provided with adjustable sliding struts *c c*, and the loops *e e*, suspended from the ends of said struts, substantially as described.

2. The combination, with a buckle having
10 hook *g*, of the plate *a*, having apertures *b b b*,

the adjustable struts *c c*, adapted to slide in said plate and projecting beyond each end thereof, and the loops *e e*, suspended from the ends of the struts, substantially as described.

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