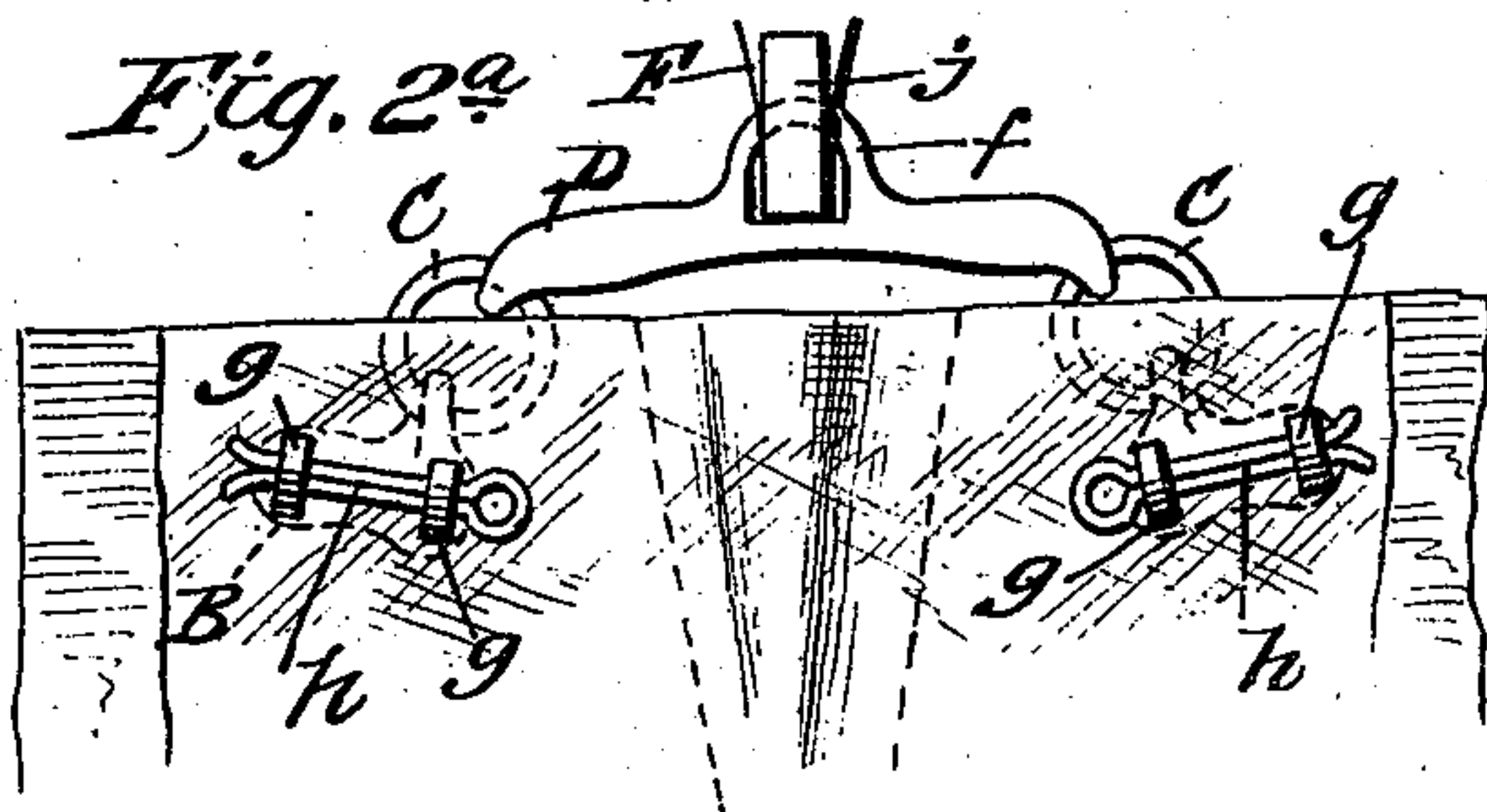
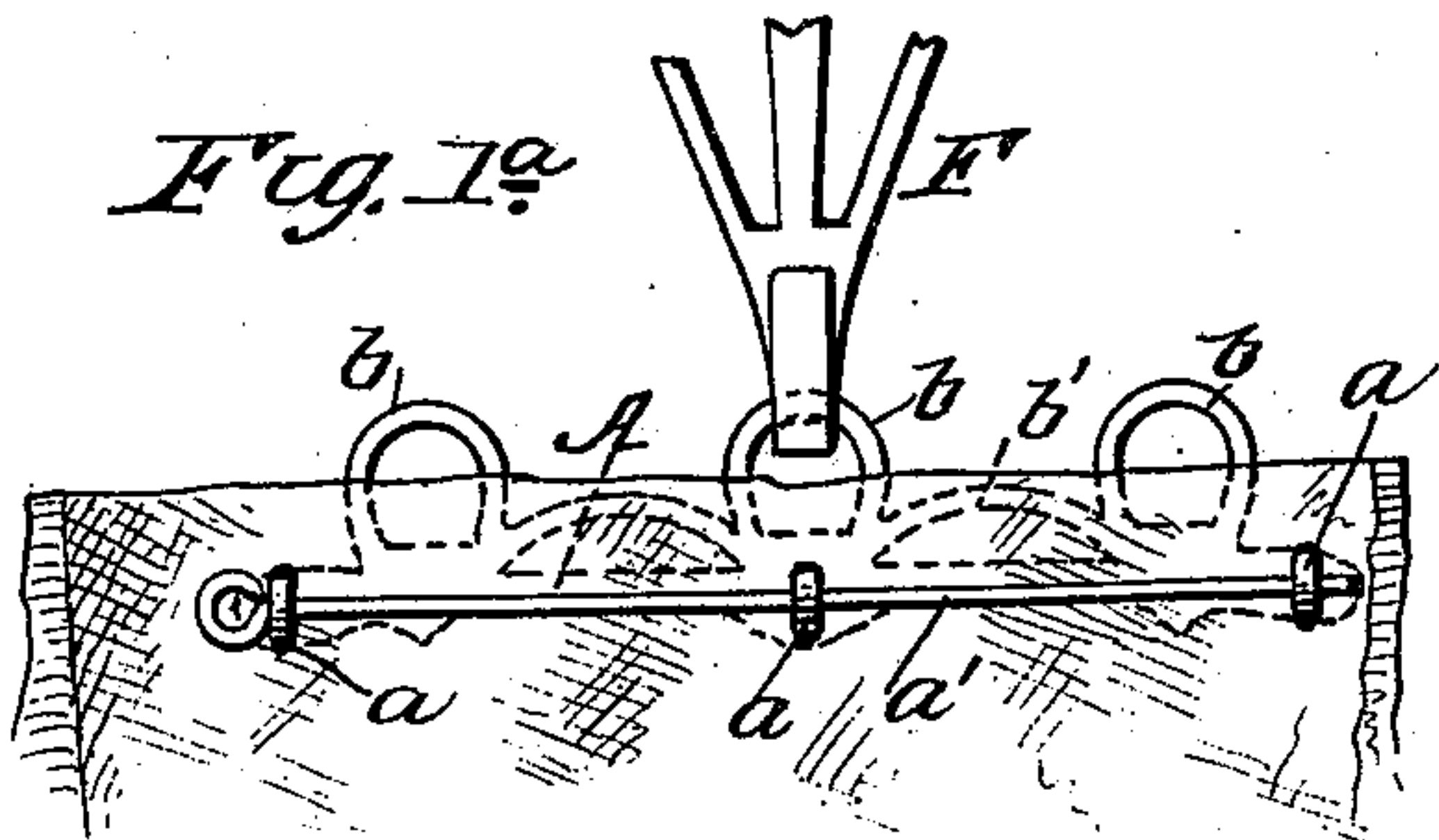
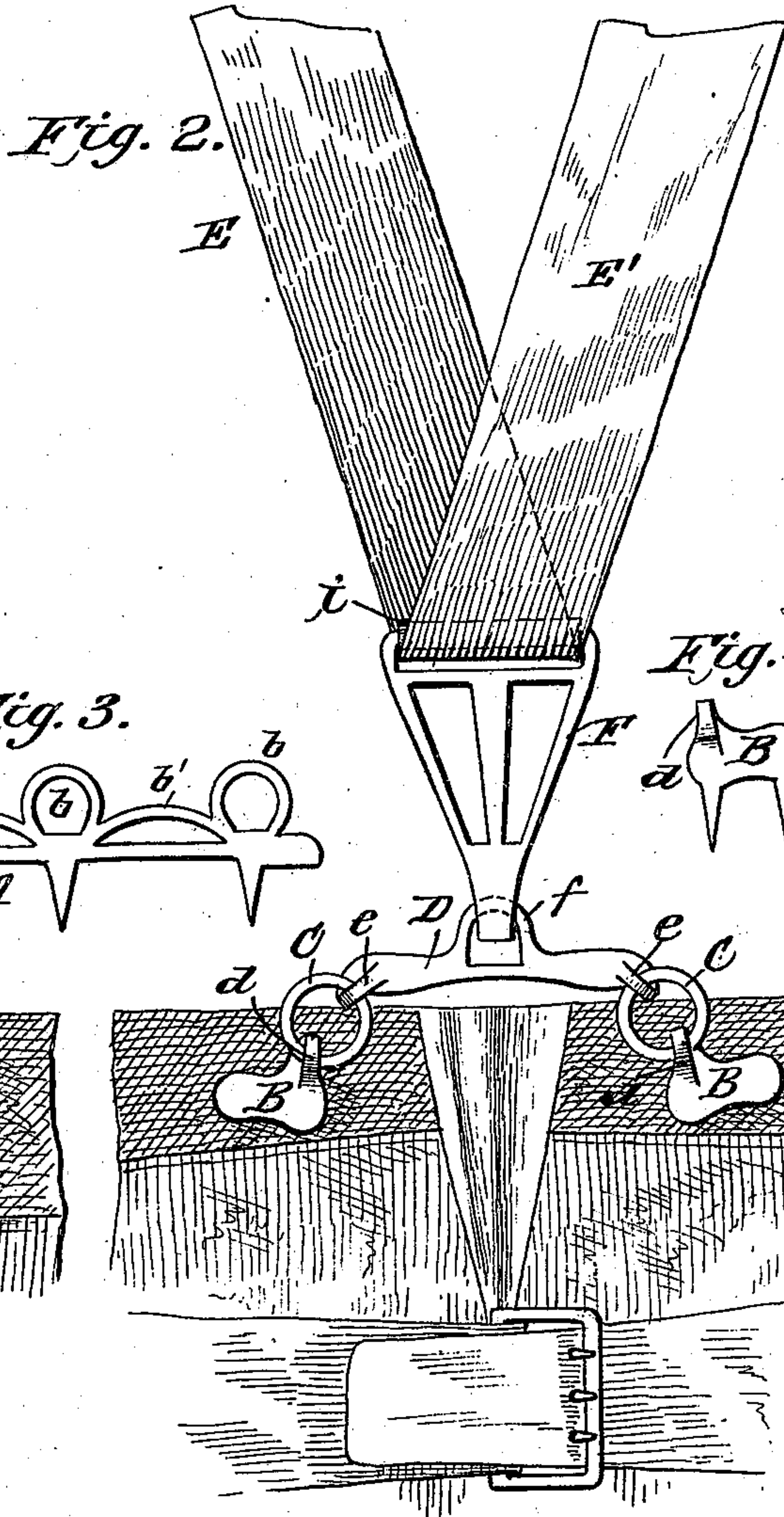
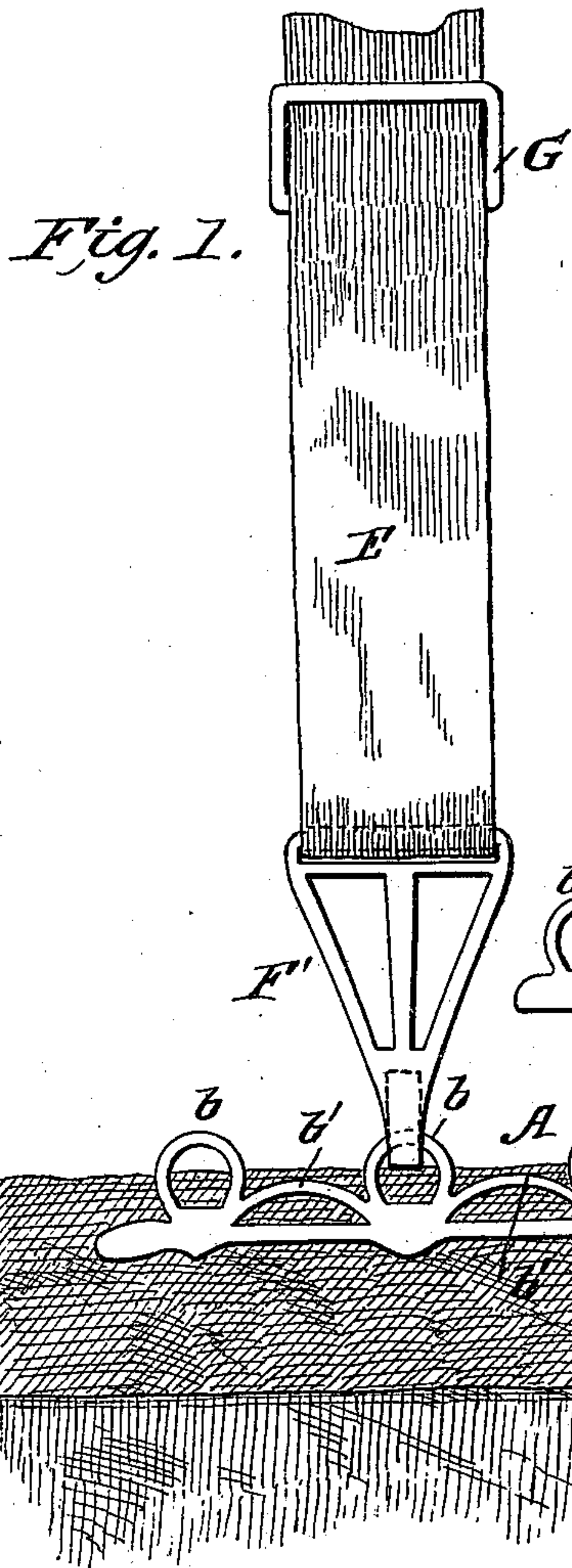


(No Model.)

G. L. HEULER.
SUSPENDER ATTACHMENT.

No. 504,217.

Patented Aug. 29, 1893.



WITNESSES:

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BY

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ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORG LORENZ HEULER, OF ST. LOUIS, MISSOURI.

SUSPENDER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 504,217, dated August 29, 1893.

Application filed May 4, 1893. Serial No. 472,929. (No model.)

To all whom it may concern:

Be it known that I, GEORG LORENZ HEULER, of St. Louis, in the State of Missouri, have invented a new and useful Improvement in Suspenders, of which the following is a specification.

The object of my invention is to provide a set of suspender attachments to be fastened to the waist band of trousers for connection with the suspenders, which attachments shall furnish great flexibility at said points of fastenings, promoting the ease, comfort, and convenience of the wearer, and which shall be adapted to different sizes and shapes of men, or the different positions which their occupations may necessitate, and which parts can be quickly and conveniently adjusted or removed, and are not liable to become accidentally detached.

It consists in the peculiar construction and arrangement of the attachments for the suspenders, and their combination with the suspenders, as will be hereinafter fully described with reference to the drawings in which—

Figure 1 is a front view of a portion of the trousers and suspenders with the attachments shown applied. Fig. 2 is a similar view of the rear connections. Figs. 1^a and 2^a are rear views of the attachments applied, the lining of the trousers and the suspender hooks being broken away and Figs. 3 and 4 are modifications.

In the drawings A represents the front attachment, which consists of a bar of metal or other similarly strong material whose rear side is provided with lugs *a a* which are perforated with holes by which they are fastened to the upper edge of the waist band of the trousers on the outside by means of a long pin *a'* which passes through the perforated lugs between the fabric of the trousers and the lining. This bar A is provided along its length with a series of loops *b b'* which form connecting points for the hooks of the suspenders. Of these loops, *b* are raised above the others and are nearly round, while the alternating ones *b'* are elongated segments on a lower level.

In Fig. 2 is shown the rear attachment for the suspenders. This consists of two clips B B having each a perforated lug *d*, two rings C C secured in these lugs, and a middle bar D which has eyes *e* at its opposite ends that

hold the rings C C. This middle bar D itself has a central hole or ring *f* in which is hooked the suspender fastening. The clips B B are detachably fastened to the rear upper edge of the trousers and for this purpose are provided with eyes *g g* like a button eye that pass through the outer cloth and receive a split key *h* on the inside between the outer cloth and the lining. This enables the fastening to be readily taken off and applied to other trousers when desired. This rear fastening has its clips B B fastened centrally to the rear of the trousers, the clips being arranged at an equal distance upon each side of the seat seam.

The suspenders are made in one piece of elastic webbing E-E' whose middle part passes freely through a transverse slot in a hook plate F at the rear, the hook plate being provided at the outer margin of the slot with a roller sleeve *i* to facilitate the movement of the suspender through the same, and prevent wearing it out. The hook of the plate F is an upturned end *j* which lies parallel to the body of the plate, and a distance away from it but little more than the thickness of the middle bar D so that it cannot easily turn and come out, and as the hook is a long one, its end will strike against the bottom of the eye in the middle bar before it is disconnected, so that unless canted to the proper angle it will not come out. This prevents the accidental disconnection of the hook from the middle bar, while the loose connection of the ends of the middle bar permit the suspender hook to freely move with it in all directions.

The front hook plates F' F' of the suspenders are constructed in a manner similar to the rear one, and the suspender passes through them and doubles on itself and is provided with a buckle G at each end for adjusting the suspender as to length in a well known way. These front plates F' have the same action in relation to the loops *b b'* of the front attachment A that the rear hook has to the single eye or loop of the rear attachment, except that this front connection is susceptible of adjustment horizontally *i. e.* the hooks may be adjusted to any of the loops according to the size or shape of the body, or the position which it is compelled to assume. The multiplicity of these loops *b b'* also furnishes different spaces for the attachment of other articles, as for in-

stance a watch, bell punch, money pouch or bunch of keys, thereby contributing to the safety of these articles by making a firm and reliable attachment for the same. These front plates are also especially well adapted to corpulent persons who require special means for connecting the suspenders to the trousers.

Instead of providing the attachments A and B with eyes and securing them by pins or keys, they may be provided with spurs as shown in Figs. 3 and 4, which spurs after having been passed through the cloth are to be bent down upon the same.

By disconnecting the hooks F F' of the suspenders from the loops of the attachments and securing the hook F to one ring C of the rear attachment and the two hooks F' to the other ring C of the said rear attachment, the suspenders can be readily converted into a double body belt, thus rendering the suspenders especially adapted for gymnasts, workmen, soldiers and sailors.

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

1. The rear suspender attachment for trousers consisting of the two clips B B with perforated lugs *d*, rings C C secured in the latter, and the middle bar D with central opening *f* and eyes *e e* engaging the rings, substantially as and for the purpose described.

2. The combination of the two clips B B with perforated lugs *d*, rings C C secured in the same, and the middle bar D with central opening *f* and eyes *e e*, engaging the rings, the front bar A with loops *b b'*, means for attaching the fasteners to the trousers, and the suspenders made in one piece and having a rear hook plate F arranged in the middle and other similar hook plates F' F' in front, substantially as shown and described.

GEORG LORENZ HEULER.

Witnesses:

OTTO KOLLME,

THEODOR KOLLME.