

(No Model.)

F. WIELAND.
SUSPENDERS.

No. 518,383.

Patented Apr. 17, 1894.

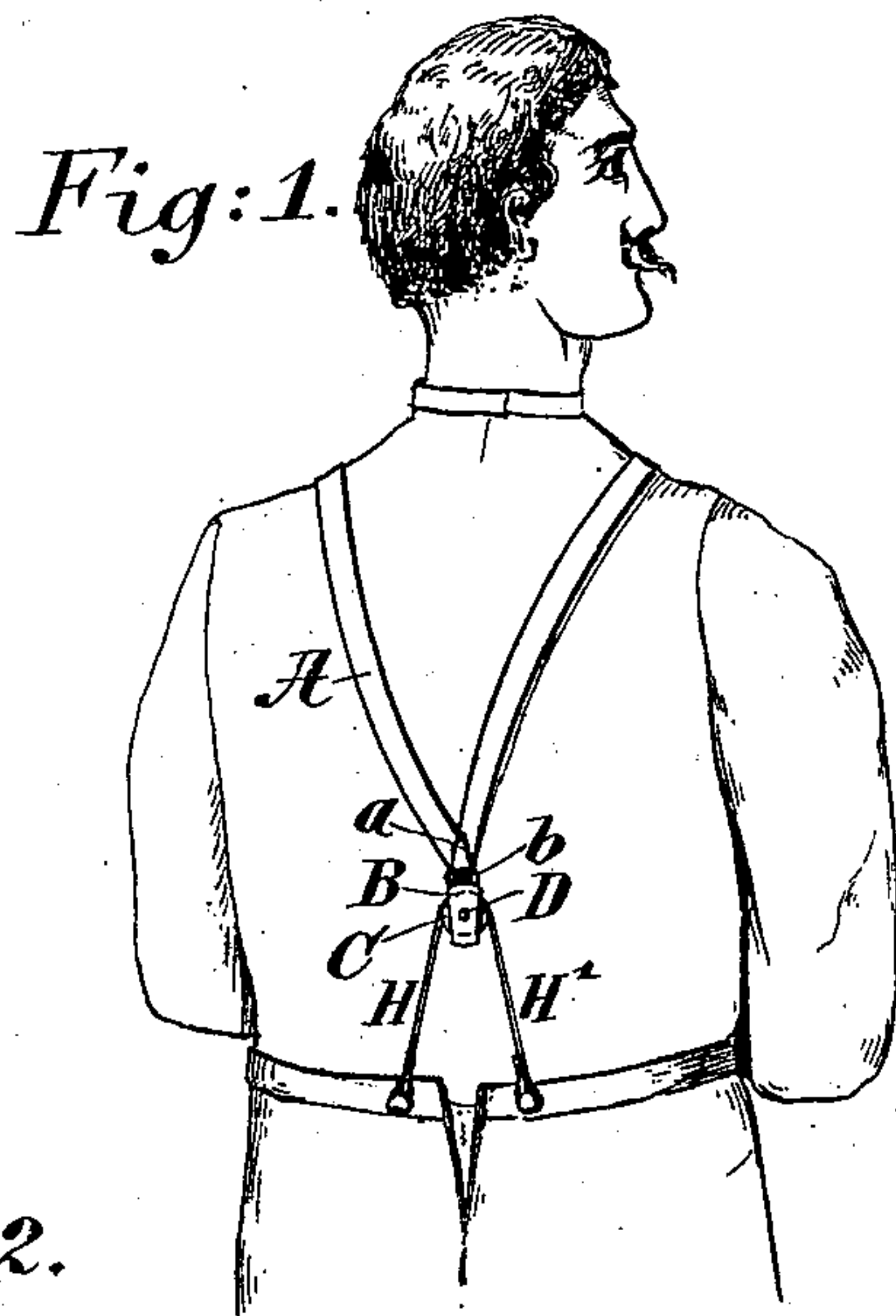


Fig:2.

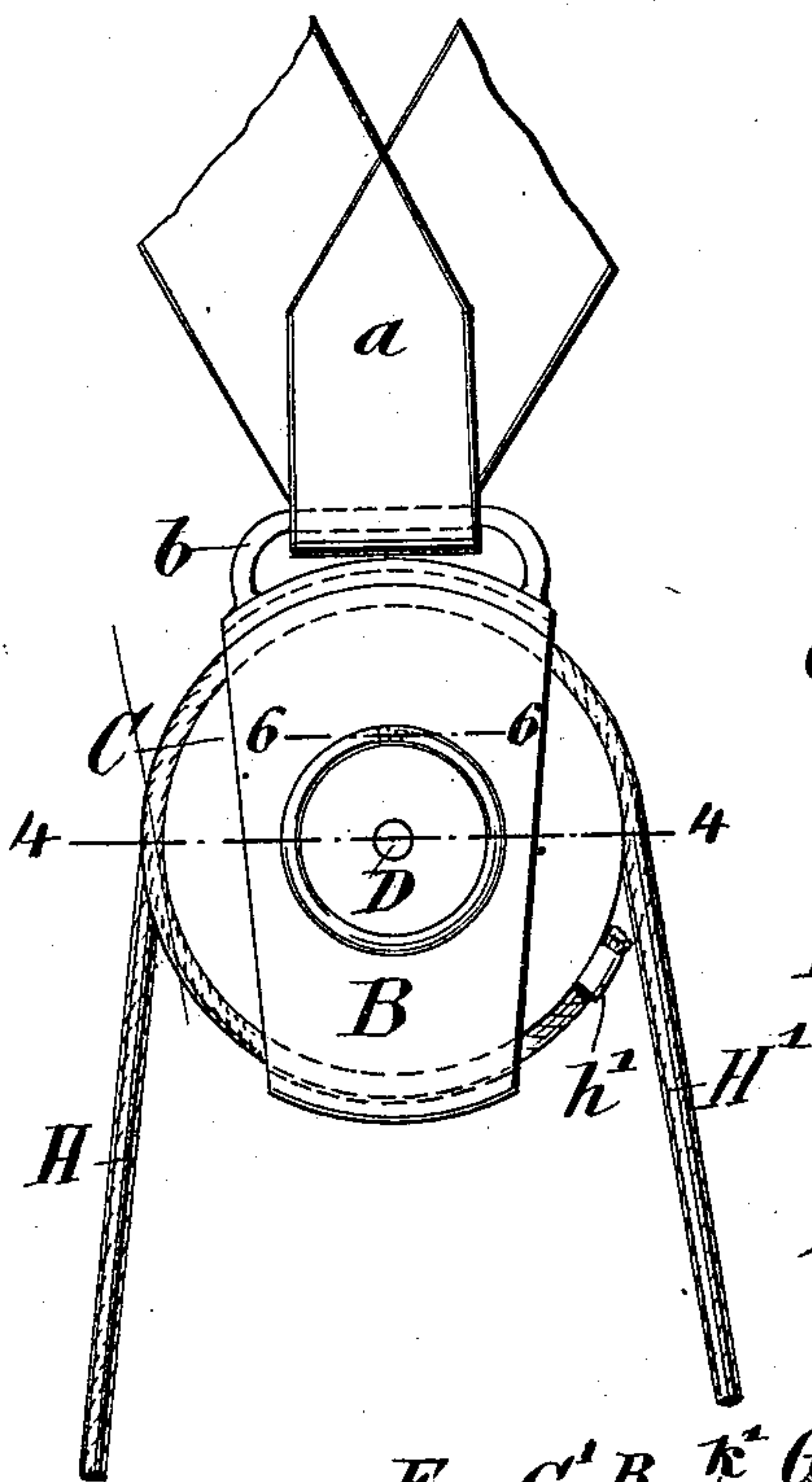


Fig:5.

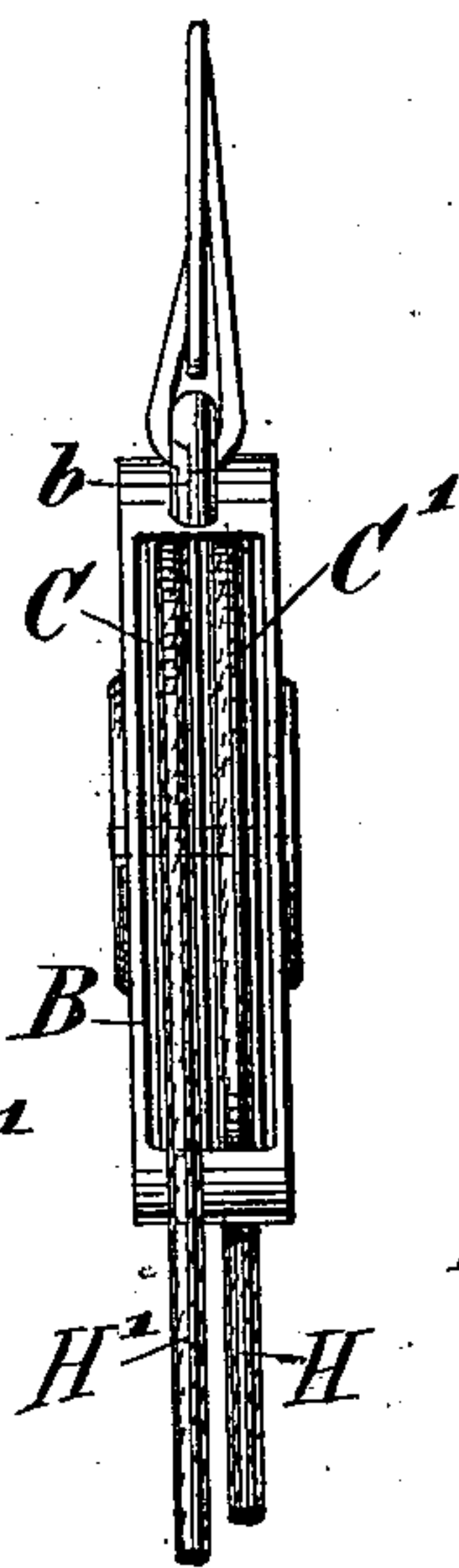


Fig:3.

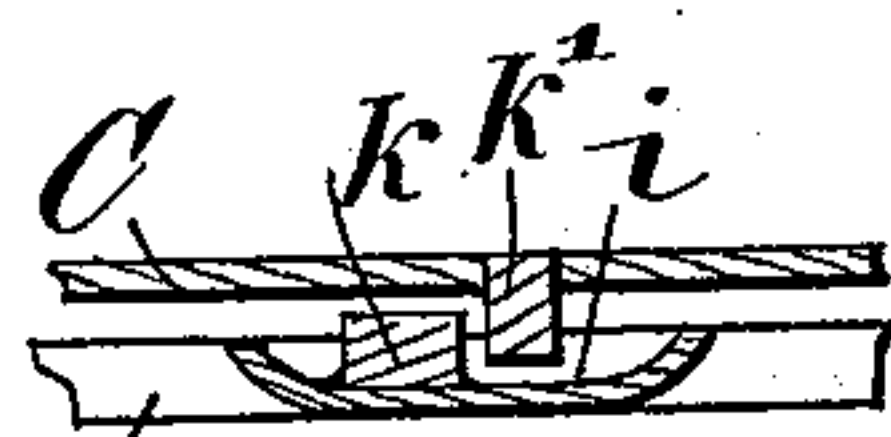
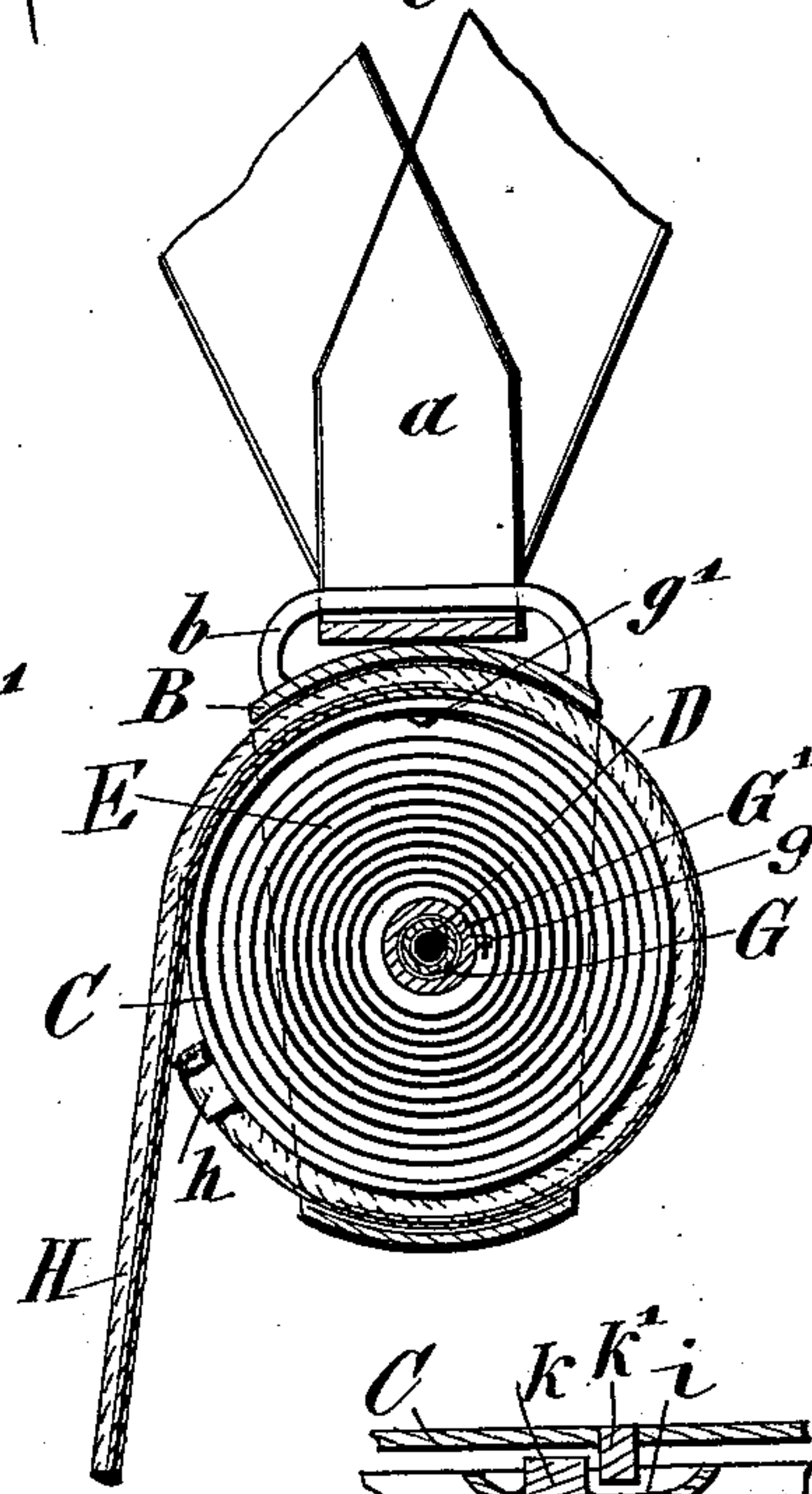
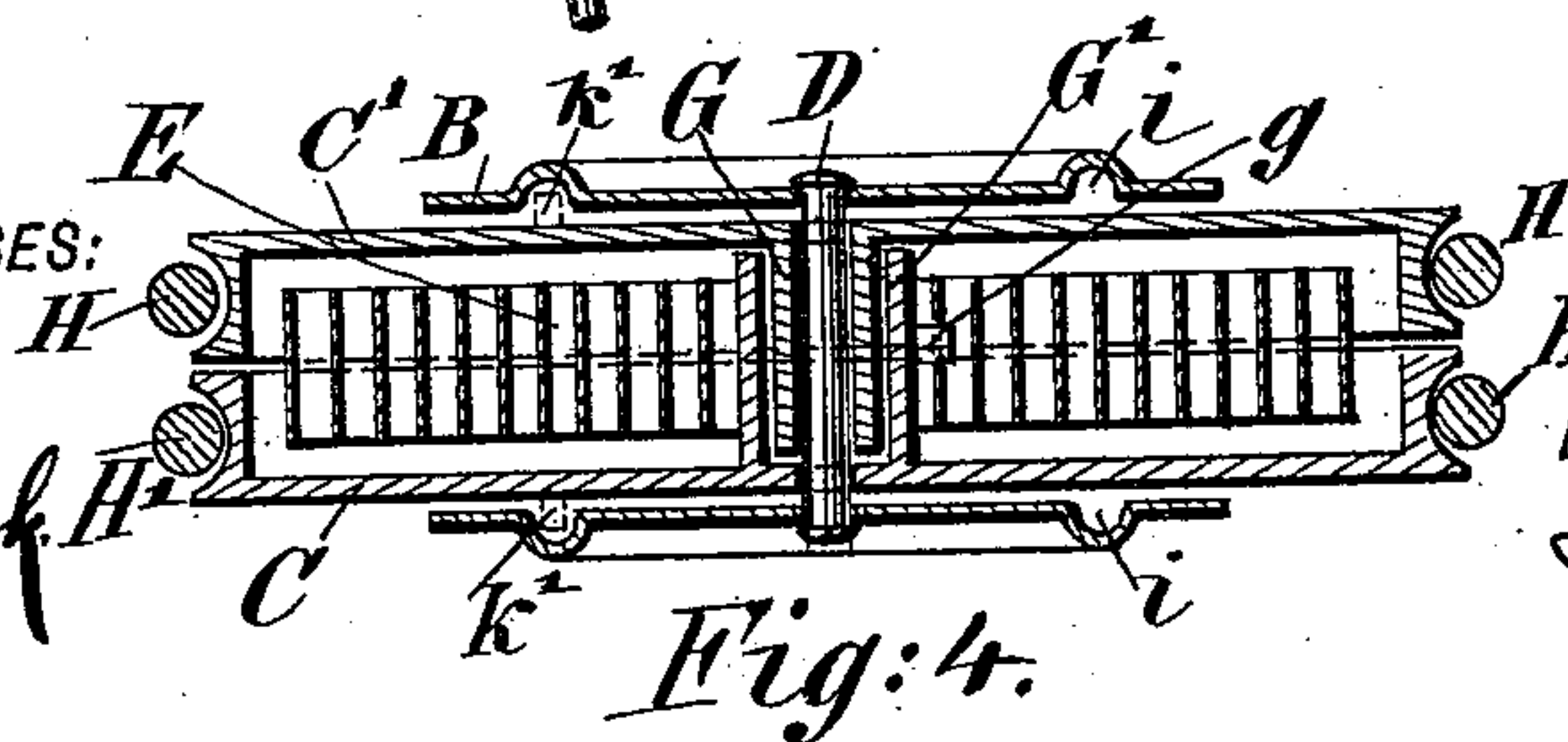


Fig:4.

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UNITED STATES PATENT OFFICE.

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SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 518,383, dated April 17, 1894.

Application filed November 25, 1893. Serial No. 492,009. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH WIELAND, a citizen of the United States, residing at Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Suspenders, of which the following is a specification.

My invention relates to certain improvements in suspenders, and its object is to provide comparatively simple, durable, and cheap suspenders, whereby a high degree of elasticity is imparted to the ends of the same so that the wearer will have greater comfort in the use of the suspenders.

The invention consists of a pair of suspenders which are provided at the rear end with a casing in which are located spring-actuated drums, arranged side by side so as to have the same center of rotation and to which the suspender-ends are attached.

My invention also consists of other features of construction and combinations of parts to be hereinafter described and then specified in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of my improved suspenders, showing them in using position. Fig. 2 is an elevation of the rear end of the suspenders, drawn on a larger scale. Fig. 3 is a rear view, showing the casing in section and one of the drums removed. Fig. 4 is an enlarged transverse section on line 4—4, Fig. 2. Fig. 5 is a side view of Fig. 2. Fig. 6 is a broken detail view on line 6—6, Fig. 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a pair of suspenders of any approved construction, and B a casing suspended by its eye *b* from the tab *a* of the suspenders. The casing is open at each side and receives a pair of drums C, C', which are located side by side so as to be capable of revolution on an axial pin D secured to the sides of the casing, preferably by riveting it thereto. These drums are hollow and their adjacent sides are open so as to permit them to fit over and inclose a coiled steel spring E. The drum C' has an elongated tubular member G projecting toward the drum C and turning on the pin D,

while the drum C has an elongated tubular member G' projecting toward the drum C' but enlarged so as to receive and turn upon the member G. In order that the coiled spring may have the desired spring-action on the drums C, C', its inner end is secured at *g* to the tubular member G' and its outer end is secured at *g'* to the inner side of the peripheral rim of the drum C'. The respective suspender-ends H, H', are coiled once around the grooved peripheries of the drums, they being secured thereto at *h, h'*, and as they extend respectively through the opposite open sides of the casing, a downward pull exerted on either overcomes the action of the coiled spring so that the said ends follow every movement of the body. As a coiled spring always tends to restore itself to its normal shape or position, a single one is utilized by attaching the drums to the respective ends thereof so that they may have a spring-action in opposite directions.

In order to provide means for limiting the movement of the suspender-ends H, H', each side-wall of the casing is provided with an annular groove *i* concentric with the axis D and in which is located a stop *k* adapted to be engaged by a lug *k'* on each drum. The lug *k'* travels in said groove as a drum is rotated by its attached suspender-end and limits the movement of the latter when said lug impinges against stop *k*. By mounting the drums within the same casing and on the same pin the size of the device is reduced to the smallest possible compass, for one possessing the advantages enumerated. If desired, the front ends of the suspenders can also be provided with the described attachment, to impart a spring-action to the same, although in most cases the yielding rear ends are sufficient.

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

A pair of suspenders provided with a casing, a pin connecting the side walls of the casing, stops on said casing, rotatable drums mounted within the casing having lugs adapted to come in contact with said stops and provided with peripheral flanges, one of said drums

having an inwardly projecting hub turning on
said pin, and the other drum having a tubu-
lar portion turning on said hub, an actuat-
ing spring for said drums, and suspender ends
5 independently attached to the respective
drums, substantially as described.

In testimony that I claim the foregoing as

my invention I have signed my name in pres-
ence of two witnesses.

FRIEDRICH WIELAND.

Witnesses:

PAUL GOEPEL,

GEO. L. WHEELLOCK.