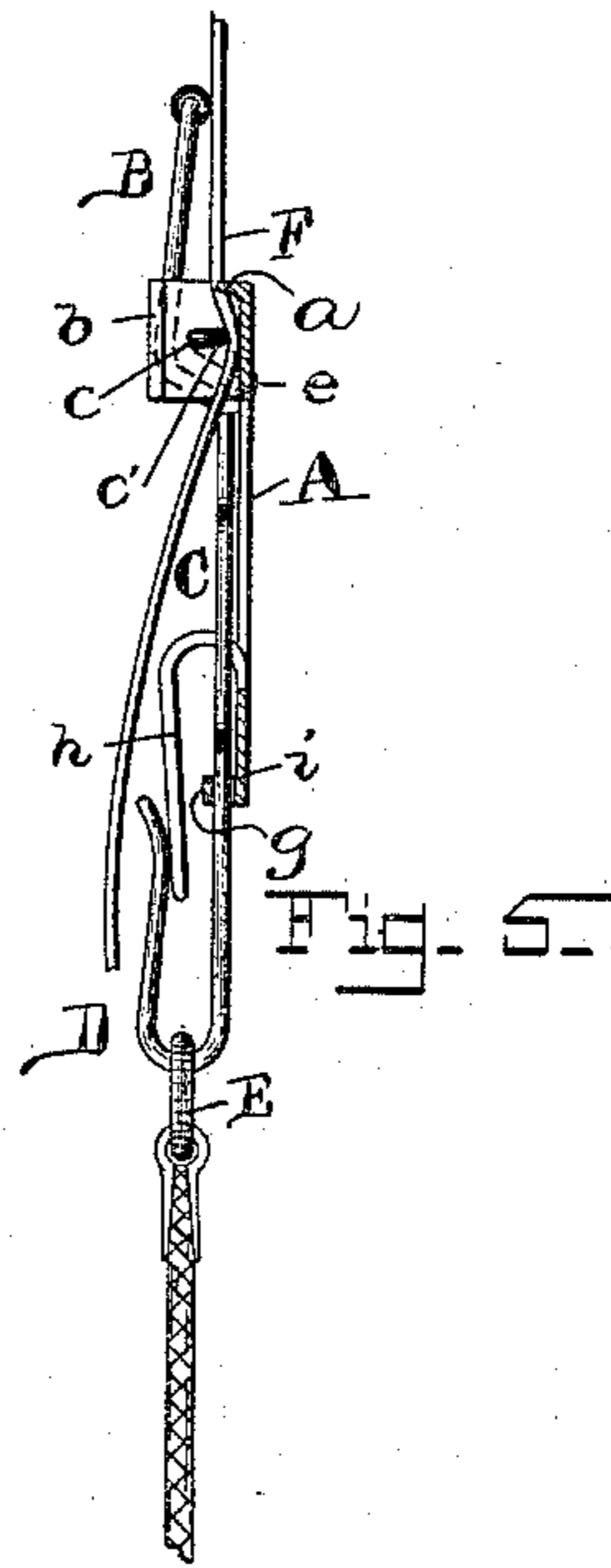
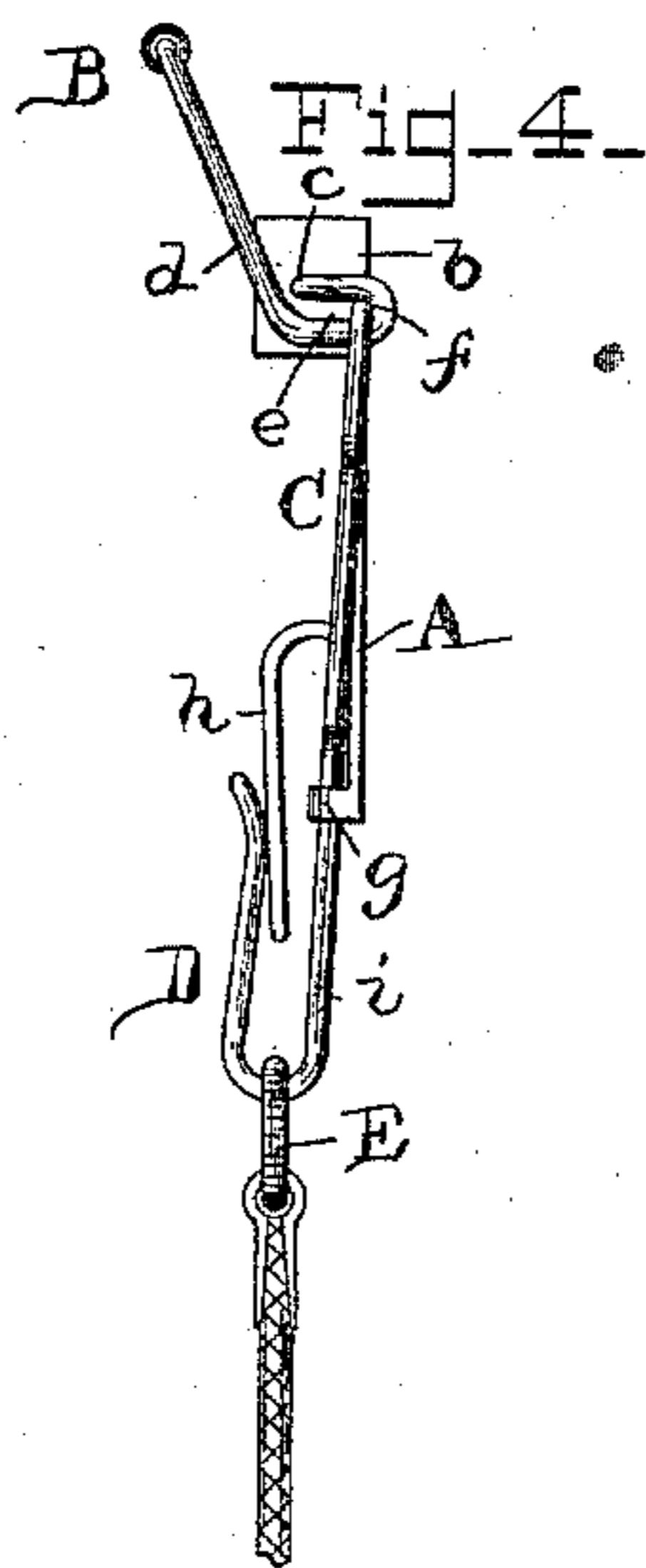
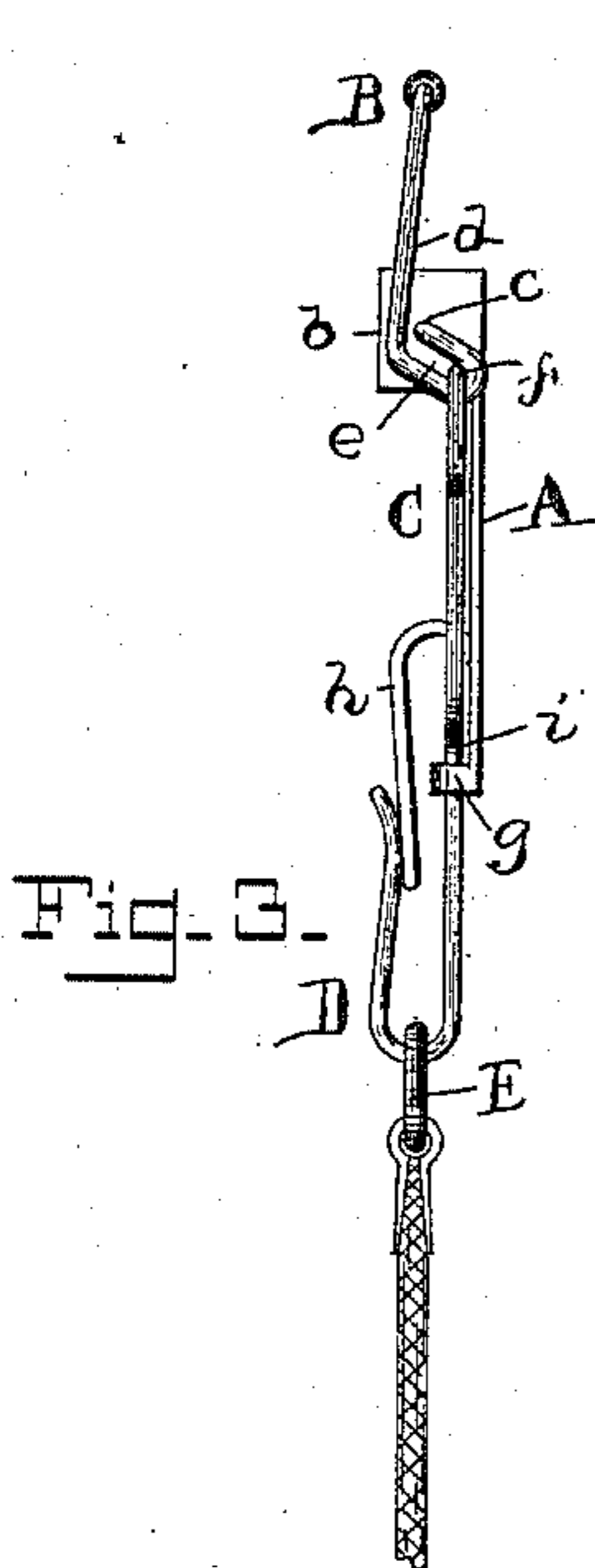
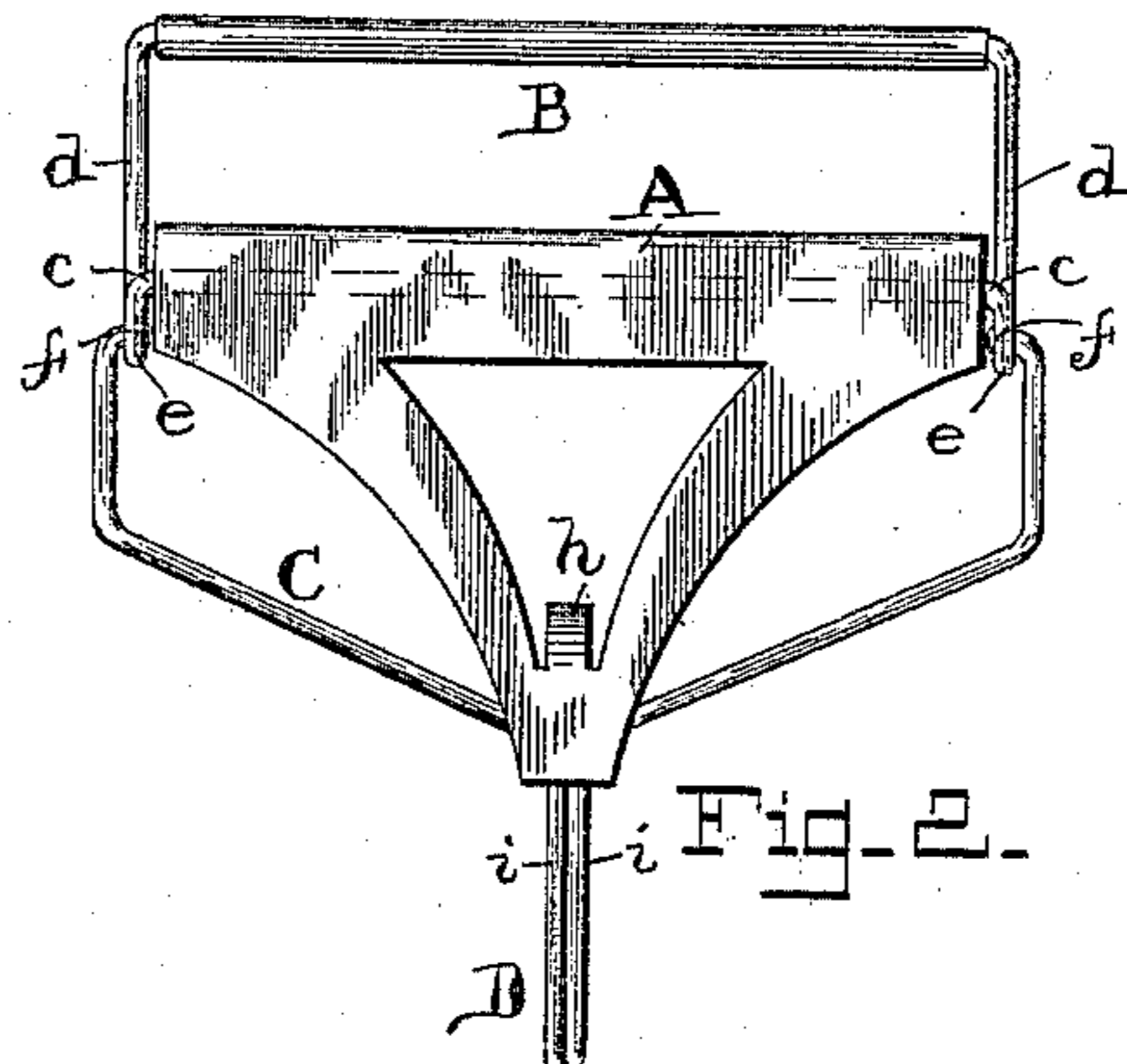
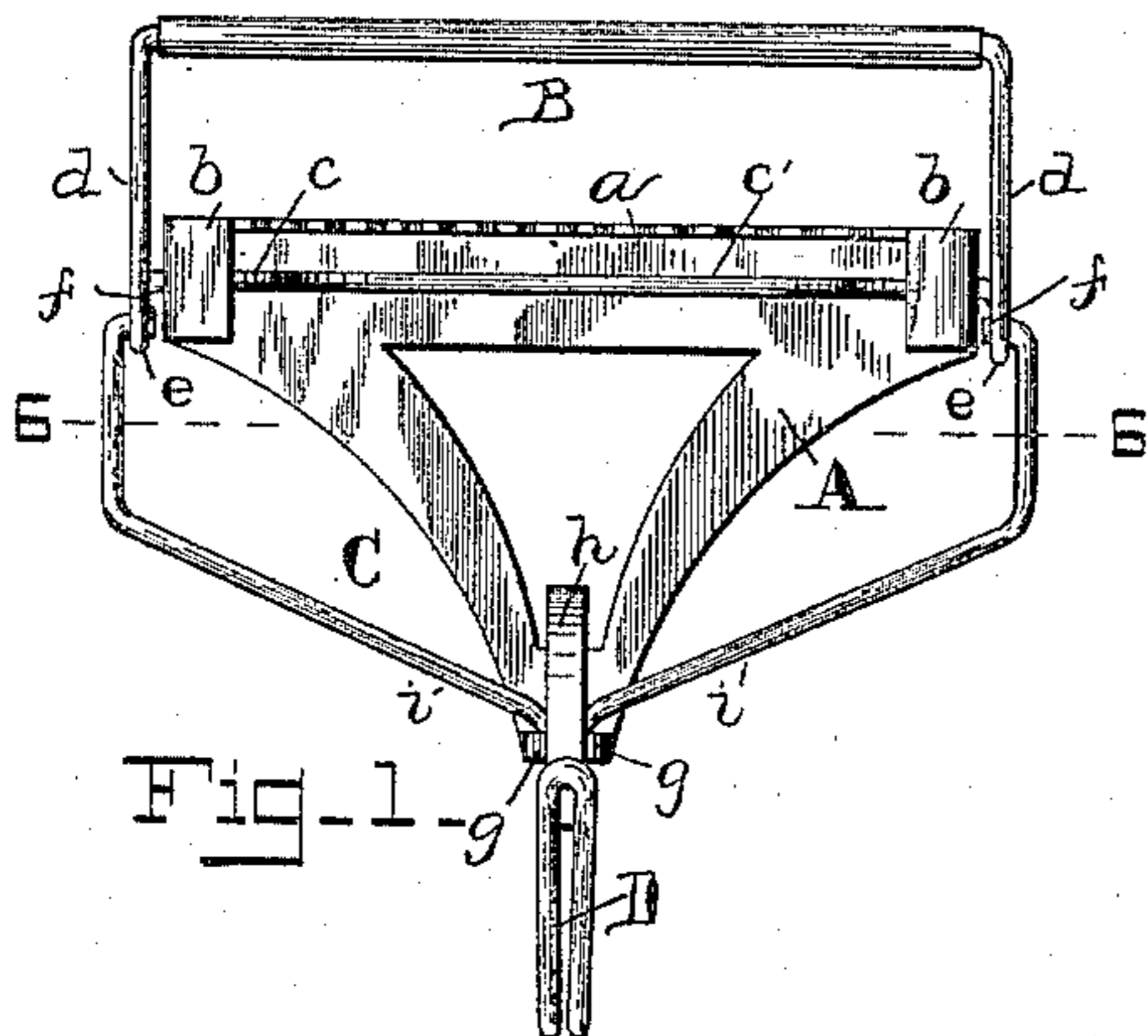


(No Model.)

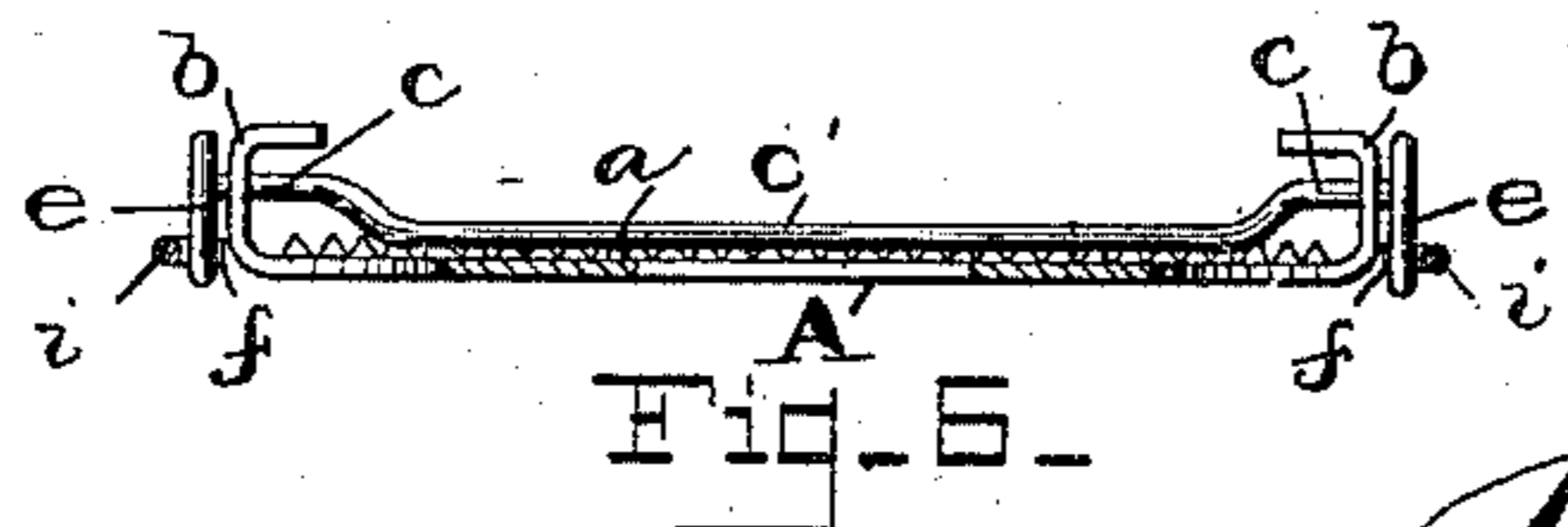
J. FRITZ.
SUSPENDER BUCKLE.

No. 474,599.

Patented May 10, 1892.



Witnesses:
Otto H. Ehlers.
Frank P. Davis



Inventor:
Joseph Fritz.

By Chas B. Mann
Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH FRITZ, OF BALTIMORE, MARYLAND.

SUSPENDER-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 474,599, dated May 10, 1892.

Application filed November 4, 1891. Serial No. 410,814. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH FRITZ, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Suspender-Buckles, of which the following is a specification.

This invention relates to an improvement in suspender-buckles; and the object is to provide a buckle which in its use will not tear the suspender-webbing and which cannot loosen its hold on said webbing until manipulated in the proper manner.

To this end the invention may be said to consist in the novel features of construction and combinations of parts hereinafter described and claimed.

In the accompanying drawings, which illustrate my invention, Figure 1 is a front view of the buckle. Fig. 2 is a rear view. Fig. 3 is a side or edge view. Fig. 4 is a similar view showing the position of the parts when the buckle is released from the webbing. Fig. 5 is a vertical section showing the suspender-webbing clamped by the buckle, and Fig. 6 is a cross-section on line 6 6 of Fig. 1.

The device comprises a triangular plate A, having one edge turned up and serrated, as shown at *a*, and an inturned ear *b* at each end of said flange. A rectangular wire frame or bail B is hinged to the plate as follows: A side bar *c* of the frame extends across the plate below the teeth *a* and passes through the ears *b*, in which it may turn. The central part *c'* of this bar is bent inward, so that it may be brought close to the plate. The end pieces *d* of the frame have position on the outer side of the ears *b*, and between them and the bar *c* elongated loops *e* are formed out of the frame-wire, which loops extend at right angles to the said bar *c* and constitute cranks for turning the frame on its pivots, as will hereinafter appear. These loops extend on a downward angle to the side pieces of the frame and work close to the ears *b*. Their lower ends receive inturned trunnions *f* of a wire frame C, the side pieces or wires *i* of which extend downward and converge. They come together at the lower part of the triangular plate A and thence extend downward side by side and are together turned or bent

up to form a hook D, which takes the ring E of the suspender-end. The two wires are held together by portions *g* of the plate, which are bent over the said wires, as shown, and also form a guide in which the wires may slide up and down. A spring-tongue *h* is formed out of the central portion of the plate and bent downward to extend behind the end of the hook for the purpose of holding the ring of the suspender-end in the hook, and this tongue is of sufficient length to allow a sliding movement of the frame C over the face of the plate.

In the use of the buckle the hinged frame B is turned down to the position shown in Fig. 4 and the suspender-webbing F is introduced between the teeth *a* and the central in-bent portion of the bar *c*. The frame is then turned up against the webbing, and it will be seen that the in-bent portion *c'* will be forced against the webbing of the suspender and will bind the same down over the teeth *a*, (see Fig. 5,) whereby it is securely held. In this operation of the buckle the portion *c* of the frame serves as a rock-bar, the upper portion of the frame constituting a handle by which it is turned. This rock-bar, by reason of its bent central part, behaves like an eccentric or cam to bind the webbing over the teeth of the plate. It will be observed that the swinging down of the frame B causes the sliding up of the frame C by reason of the crank-loops *e* being raised by the turning of the bar *c*. Hence it will be apparent that a downward pull on said frame C, acting on said crank-loops, will draw the hinged frame B to its upright position and turn the binding-bar *a*, so as to force its central part *c'* against the suspender-webbing. Thus with the suspenders applied the buckle can never release accidentally from the webbing, for there is always a downward strain on the hook through the ring E of the suspender-end. The downward angle of the crank-loops assists this binding function of the bar *c* because it keeps the trunnions *f* always at the outer extremity of said loops, whereby the greatest leverage is obtained. By arranging for the tooth-plate to remain stationary I avoid the tearing of the webbing incident to the use of a hinged tooth-plate.

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

1. A suspender-buckle comprising a plate
5 having a toothed flange along one edge and
inturned ears at opposite ends of said flange,
a rock-bar extending lengthwise of said plate
and journaled in the inturned ears, the cen-
tral part of said rock-bar bent and forming
10 a cam and the bar having cranks on its ends
and a suitable handle for turning it, and a
depending frame jointed to said cranks and
constructed to connect with a suspender-end.

2. A suspender-buckle comprising a plate
15 having a toothed flange along one edge and
inturned ears at opposite ends of said flange,
a hinged frame one side of which constitutes
a rock-bar extending lengthwise of said plate
and journaled in the inturned ears, the cen-
tral part of said rock-bar bent and forming a
20 cam and the frame having crank-loops at the
opposite ends of the rock-bar, and a depend-
ing frame having trunnions engaging in the

ends of said crank-loops and constructed to
connect with a suspender-end. 25

3. A suspender-buckle comprising a plate
having a toothed flange along one edge and
inturned ears at opposite ends of said flange,
a rock-bar extending lengthwise of said plate
and journaled in the inturned ears, the cen- 30
tral part of said rock-bar bent and forming a
cam and the bar having cranks on its ends
and a suitable handle for turning it, and a de-
pending frame jointed to said cranks, two
side pieces of said frame brought together to 35
form a hook and held together by portions of
the plate bent over them, a portion of said
plate also forming a spring-tongue extending
past the end of the hook, for the purpose de-
scribed. 40

In testimony whereof I affix my signature in
the presence of two witnesses.

JOSEPH FRITZ.

Witnesses:

FRANK P. DAVIS,
JNO. T. MADDOX.