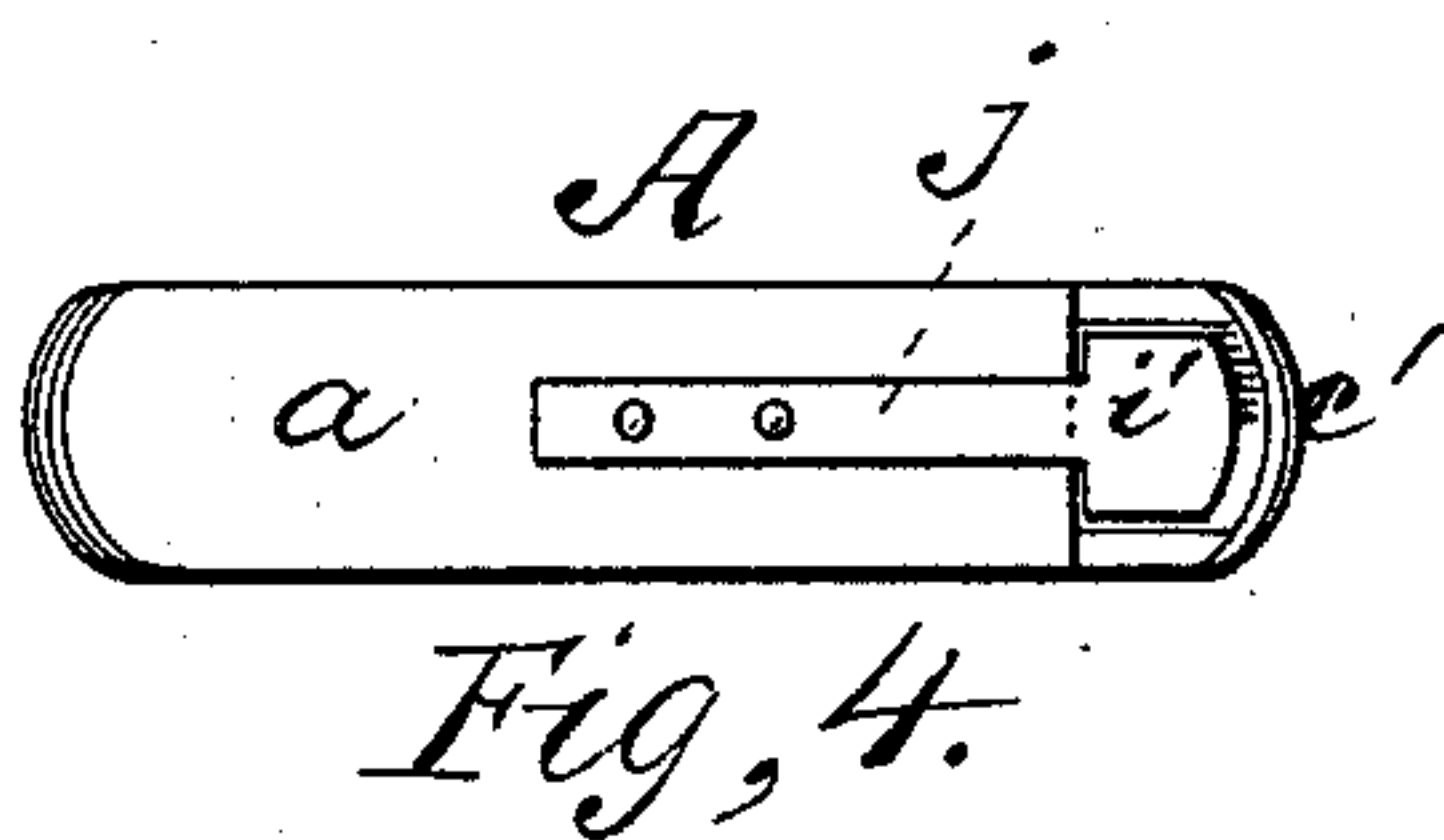
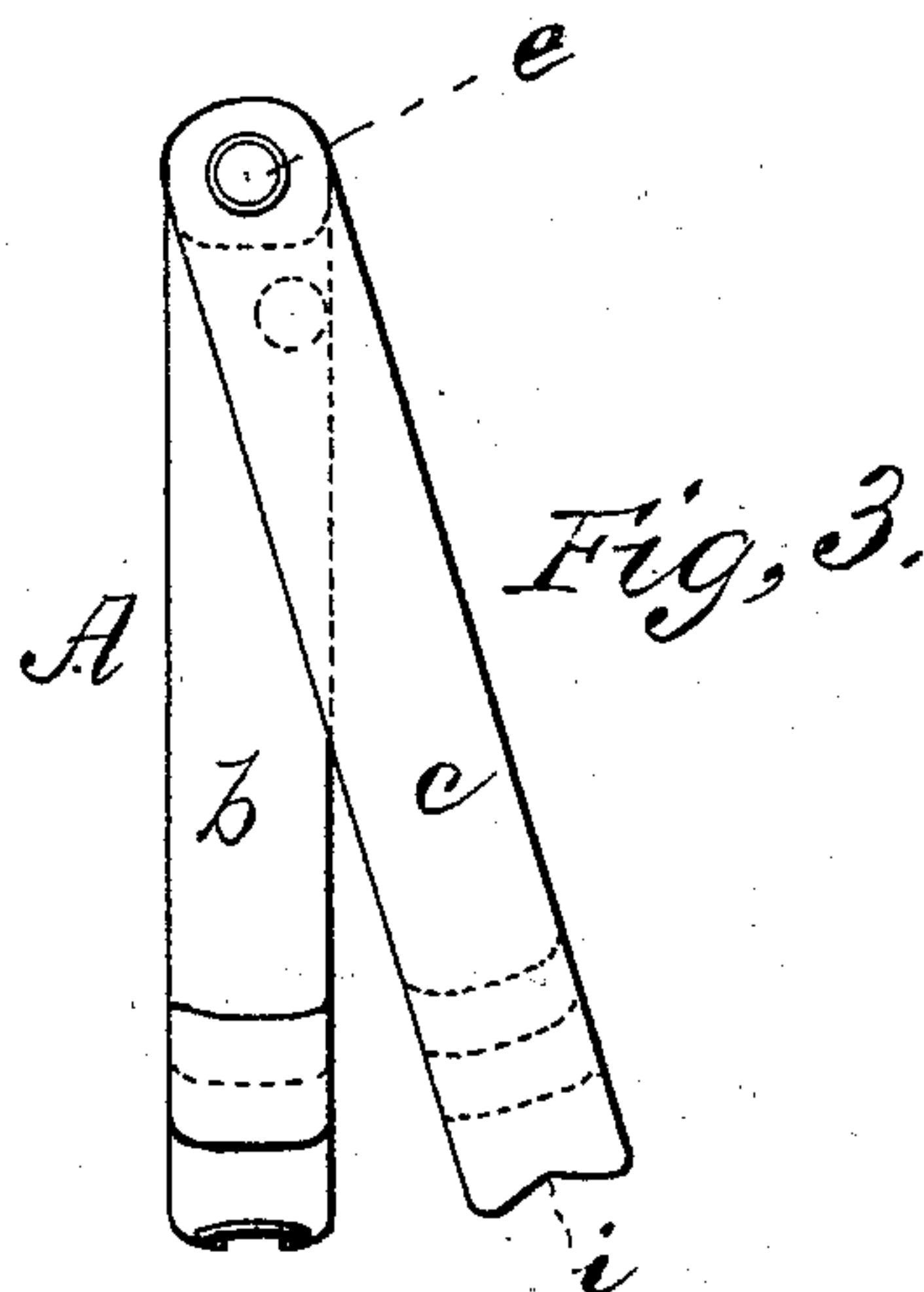
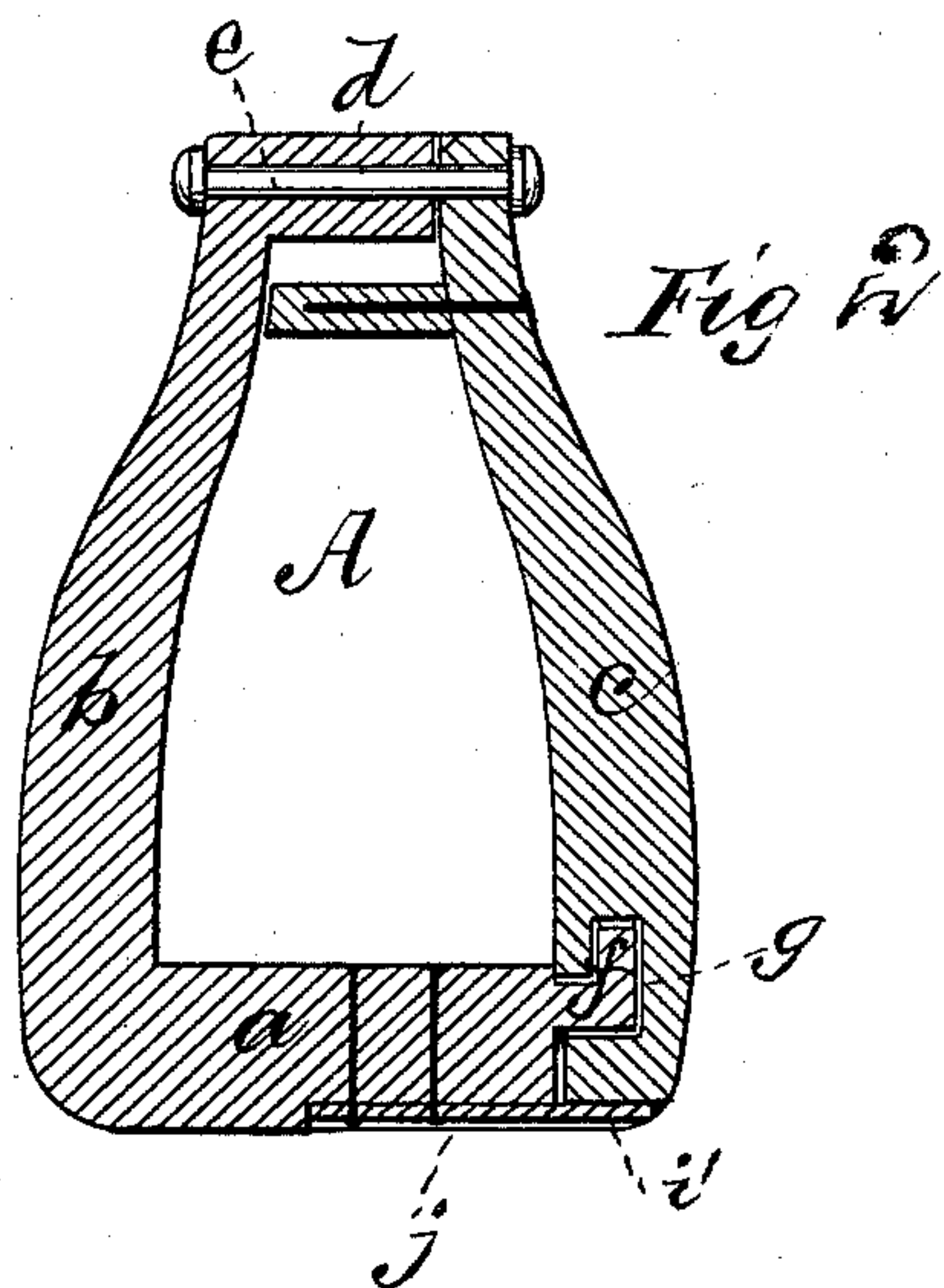
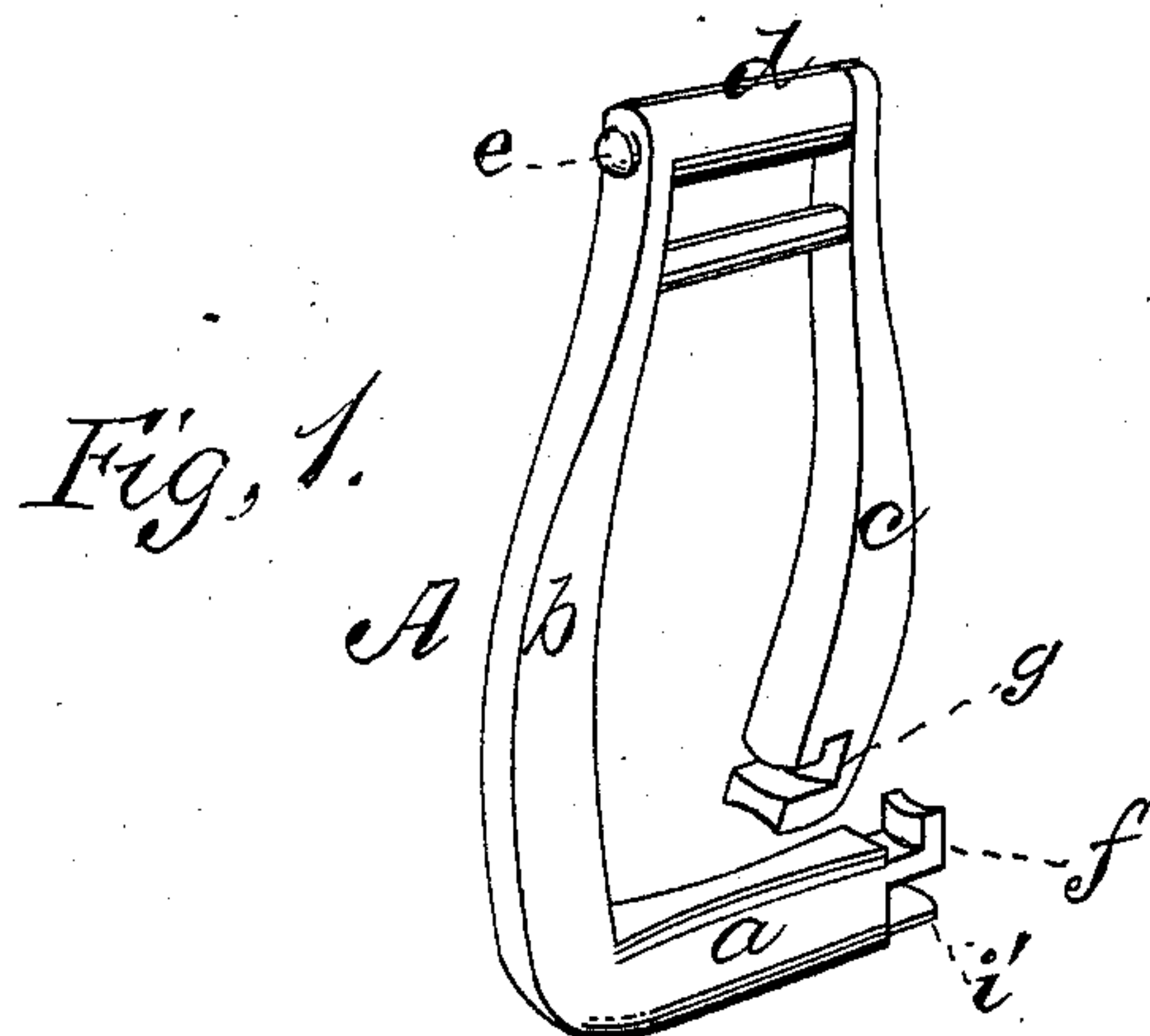


H. D. ADEL.  
Stirrup.

No. 223,690.

Patented Jan. 20, 1880.



WITNESSES  
*Willet Anderson.*  
*Frank J. Masi.*

INVENTOR  
*H. D. Adel,*  
*by E. W. Anderson.*  
*his* ATTORNEY



# UNITED STATES PATENT OFFICE.

HENRY D. ADEL, OF MANSFIELD, ILLINOIS, ASSIGNOR OF ONE-HALF OF HIS  
RIGHT TO H. H. KNEPPER, OF BASIL, OHIO.

## STIRRUP.

SPECIFICATION forming part of Letters Patent No. 223,690, dated January 20, 1880.

Application filed June 21, 1879.

*To all whom it may concern:*

Be it known that I, HENRY D. ADEL, of Mansfield, in the county of Piatt and State of Illinois, have invented a new and valuable  
5 Improvement in Stirrups; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this  
10 specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my improved stirrup, showing its parts disengaged. Fig.  
15 2 is a vertical longitudinal section thereof with the parts engaged. Fig. 3 is an edge view, showing the stirrup-sections disengaged; and Fig. 4 is a bottom view, showing the latch-spring.

20 This invention has for its object the improvement of that class of stirrups that open to release the foot should it hang therein when a rider is thrown; and the nature of the invention consists in a stirrup made in two  
25 sections, one of which—the side bar—is pivoted to the other to swing at right angles to the plane of the stirrup, and has at its lower end an L-shaped groove or notch adapted to receive a correspondingly-shaped tenon or  
30 tongue on the tread-plate, and maintained in engagement therewith by means of a spring recessed in the under side of the tread-plate, and engaging at its free end a notch in the  
35 lower end of the swinging side bar, as herein-after shown and described.

In the annexed drawings, the letter A designates a metallic stirrup not differing in shape from those in common use, and consisting, essentially, of a foot-plate or tread, *a*, two  
40 side bars, *b* and *c*, and a round or rounded connecting-bar, *d*, for the stirrup-leather. The side bar *b*, tread *a*, and bar *d* are cast or made in one piece, and the side bar *c* in a second  
45 piece. Extending through the connecting-bar *d* is a strong bolt, *e*, upon which the side bar *c* is journaled as upon a spindle, so as to vibrate in a plane at right angles to that of the stirrup.

50 The tread or foot-plate has upon its end an L-shaped projecting tenon, *f*, the upper and lower horizontal edges of which are concentric arcs of circles described by a radius from

the center of bolt *e* to said edges. The tenon *f* has one of its branches horizontal and the other vertical, as shown in Fig. 2, and extending up above the plate *a*. The swinging  
55 bar *c* has formed in it a correspondingly-shaped groove, *g*, adapted to receive the tenon *f*, but in no way binding thereon. Thus, while the said bar has free vibration relative to the body  
60 of the stirrup and in a plane at right angles thereto, it is incapable of all other displacement. In the lower end of the swinging bar *c* is a spring friction-catch, consisting of concave or angular depression or recess *i*, in  
65 which is received a correspondingly-shaped head, *i'*, of a spring-latch, *j*, recessed in the under side of the tread, and of sufficient strength to hold the sections of the stirrup together under ordinary circumstances. 70

Should a horseman be thrown and his foot remain entangled in the stirrup, the spring will yield, its head escape from the recess of the swinging bar, and the latter, being thus released, will vibrate upon its bar and release  
75 the foot.

I am aware that a sectional stirrup has been made with its branch pivoted at its lower end to revolve outward and downward in the plane of the stirrup; but I do not claim such construction. 80

What I claim as new, and desire to secure by Letters Patent, is—

1. A sectional safety-stirrup having one of its side bars pivoted at its upper end to swing  
85 at right angles to the plane of the stirrup, and engaging with a spring friction-catch, substantially as specified.

2. In a sectional safety-stirrup, the part consisting of the tread *a*, side bar *b*, and connecting-bar *d*, the through-bolt *e*, extending through  
90 bar *d*, the side bar *c*, vibrating at right angles to the plane of the stirrup on said bolt *e*, and provided with L-shaped notch *g* and L-shaped tenon *f*, fitting in said notch, substantially as  
95 specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY D. ADEL.

Witnesses:

ISAAC J. ROSEBERRY,  
GEORGE LATIMER.