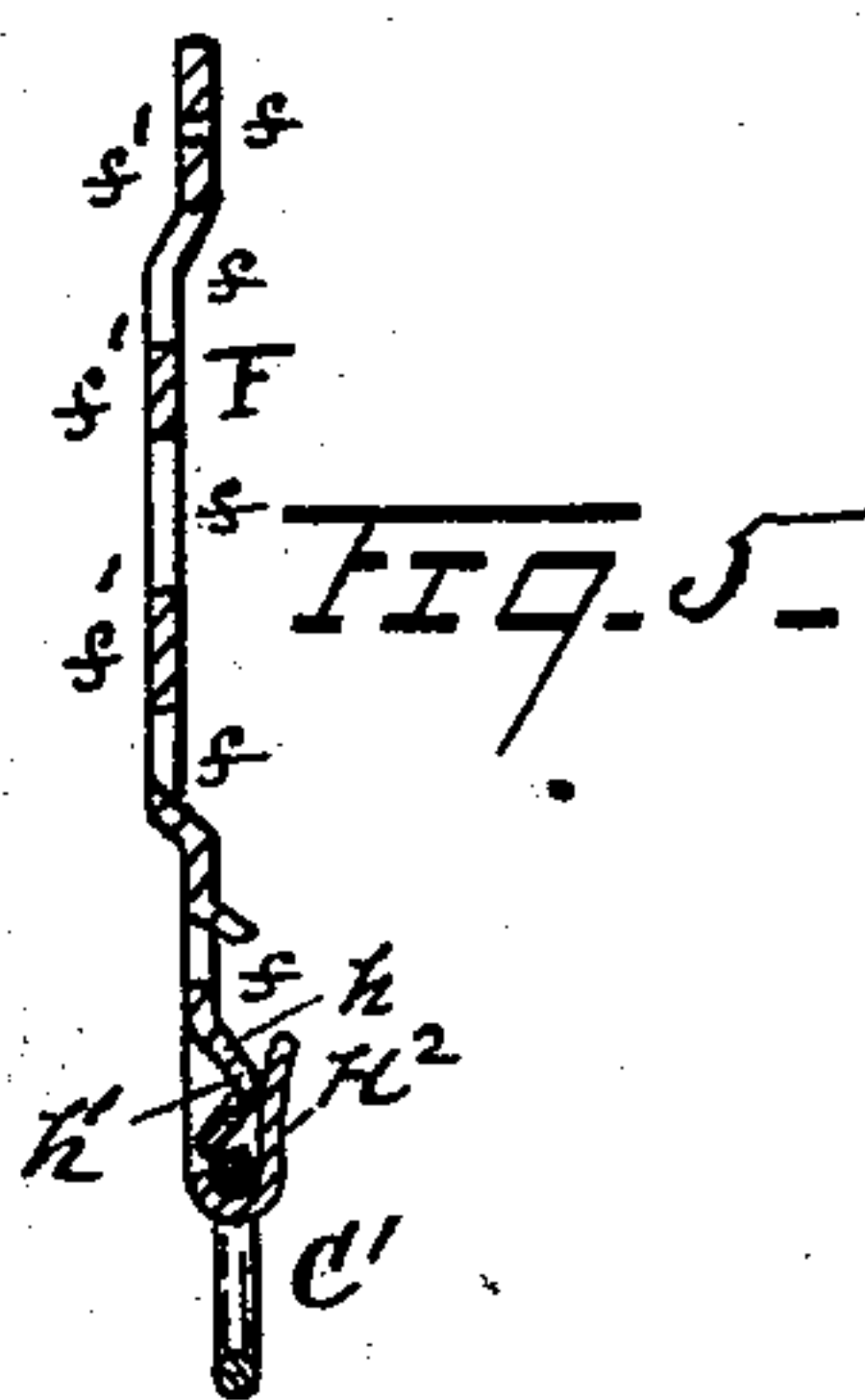
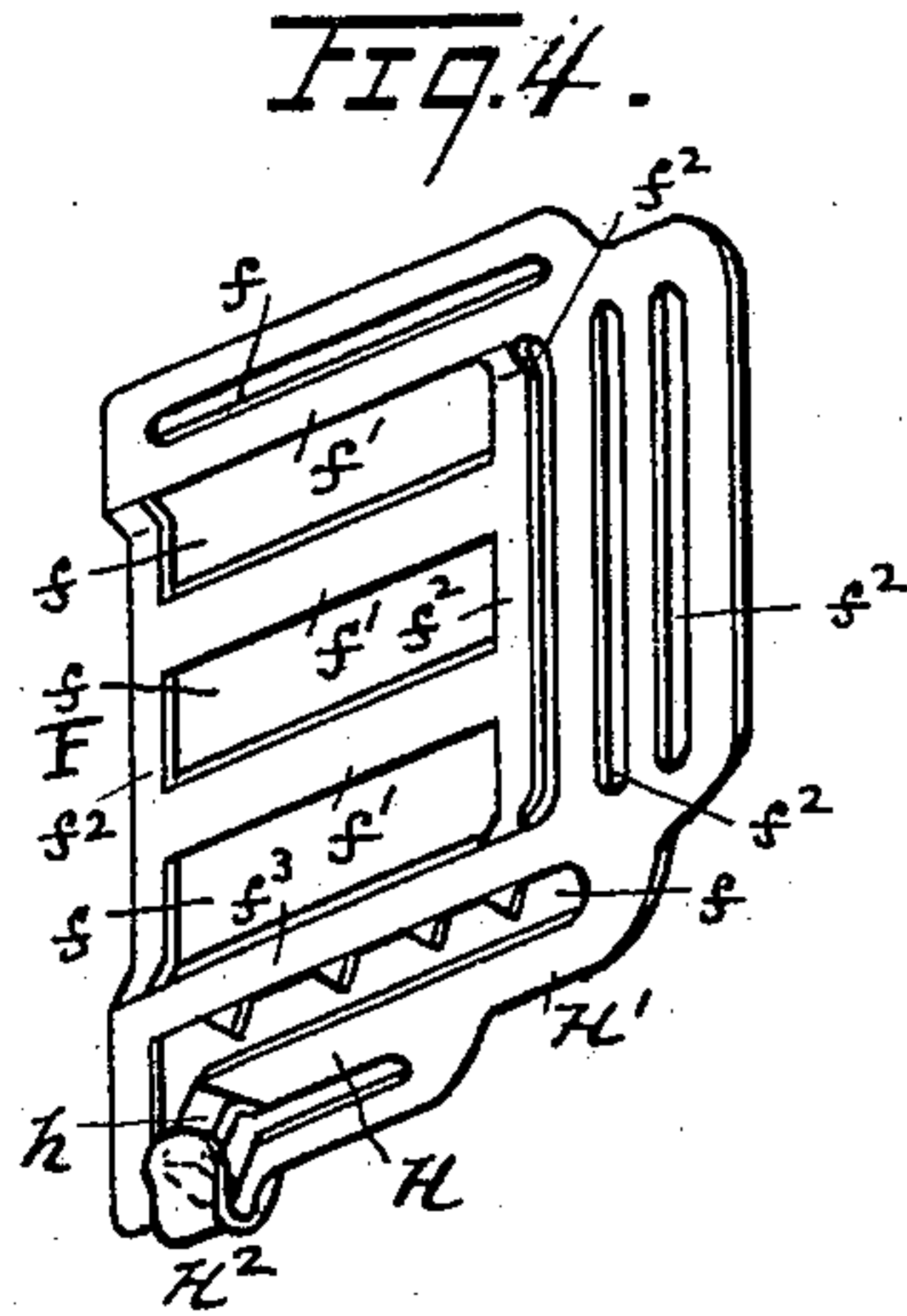
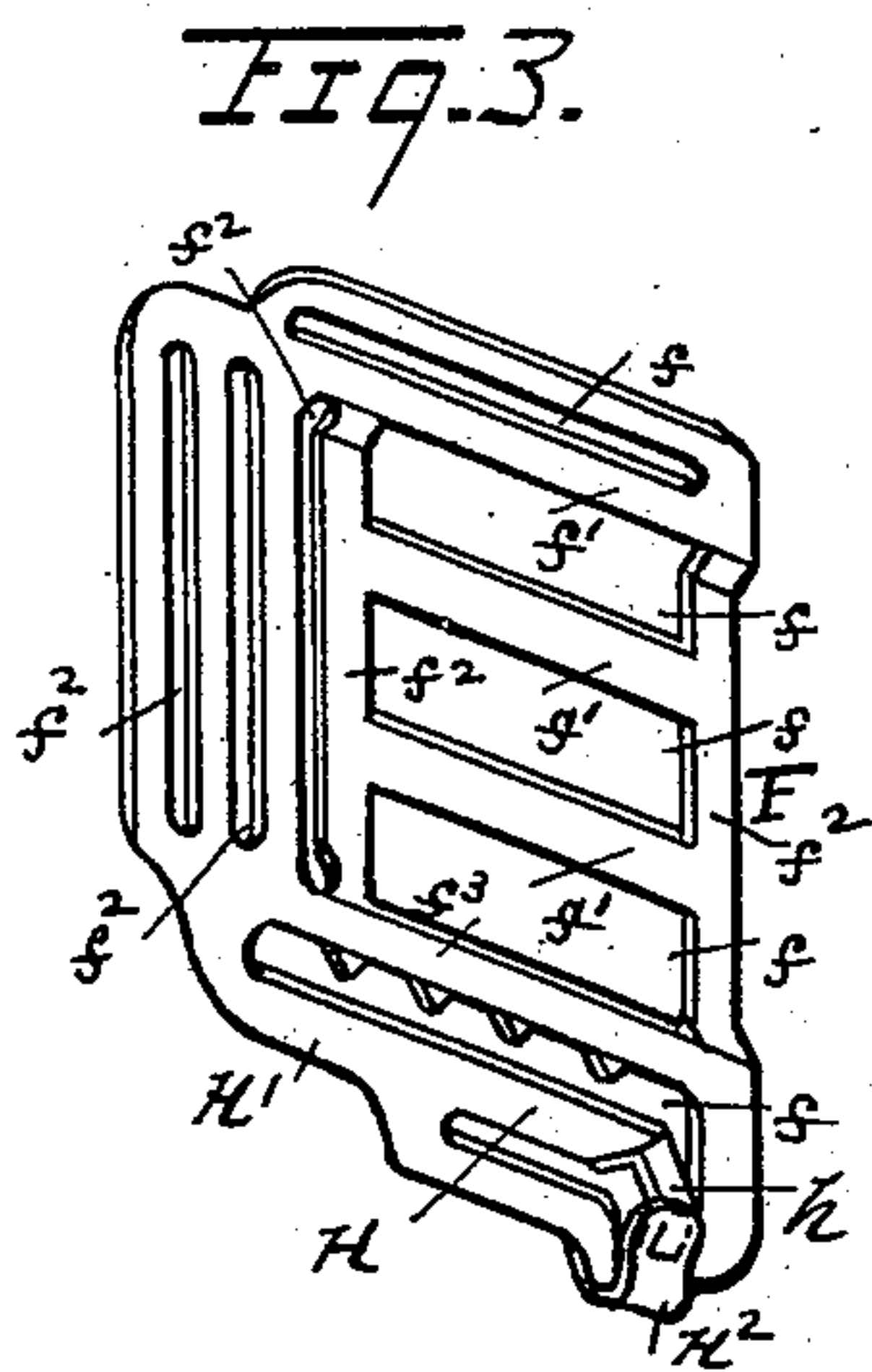
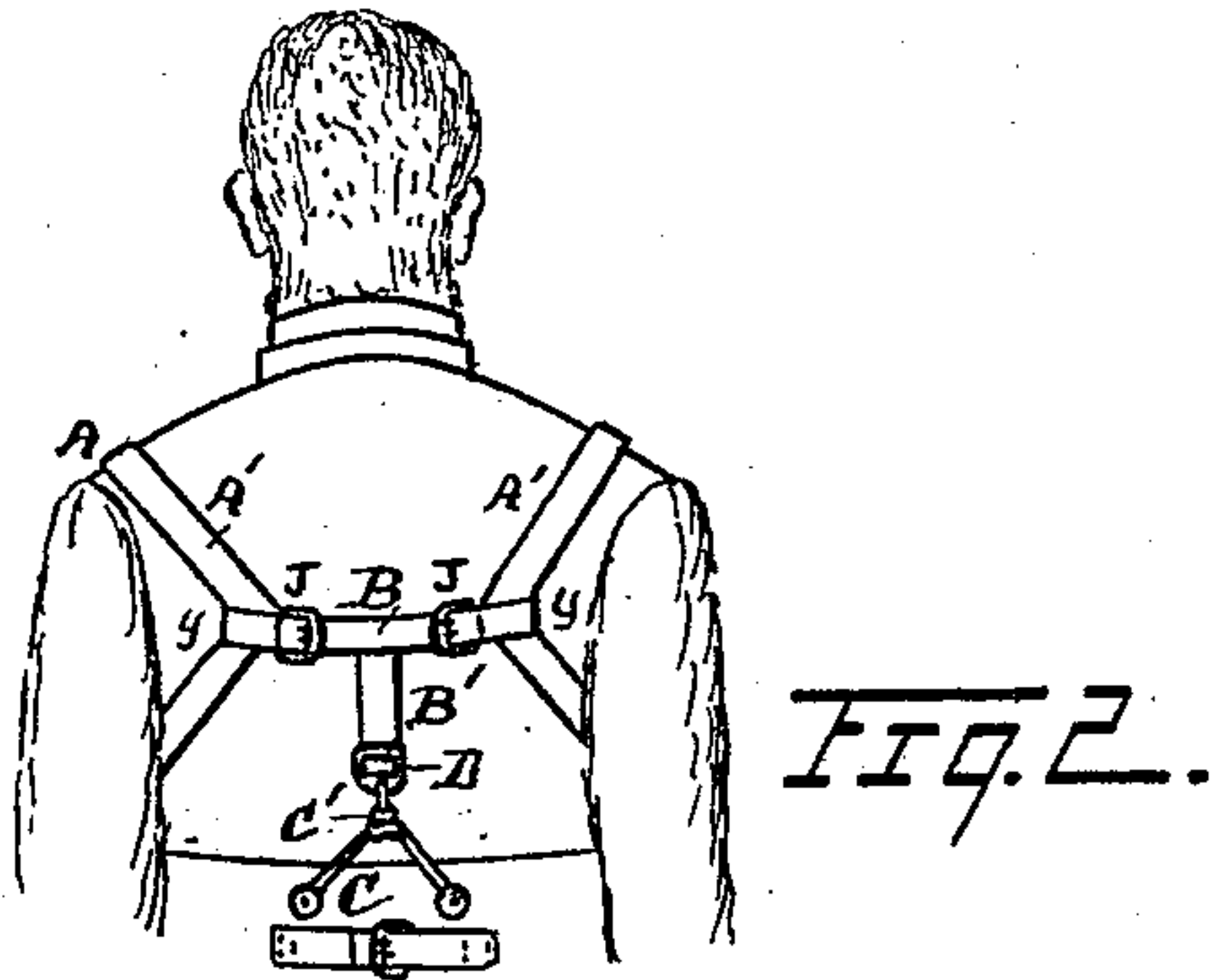
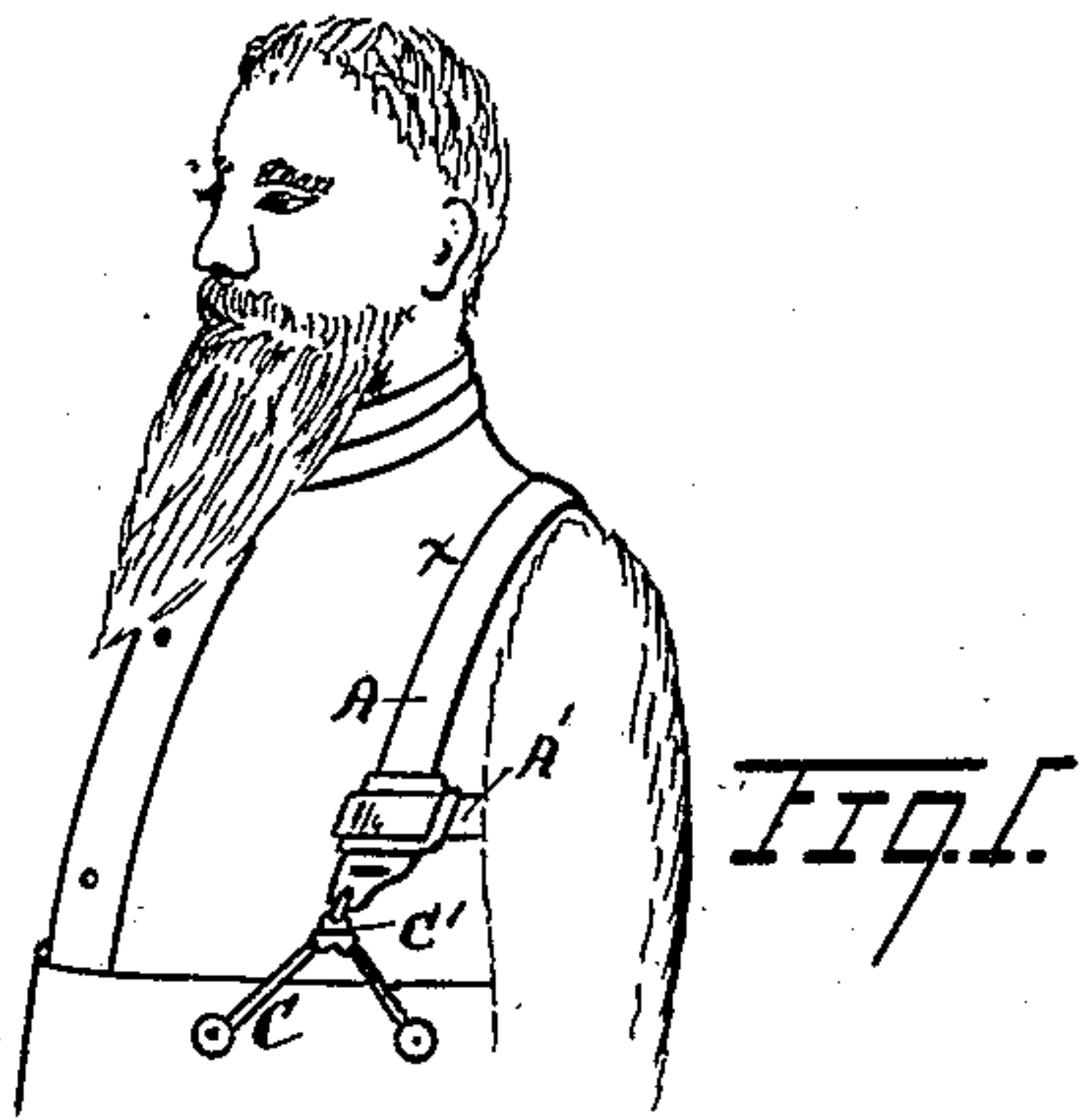


(No Model.)

D. CARPENTER.  
COMBINED SLIDE AND BUCKLE.

No. 528,628.

Patented Nov. 6, 1894.



Witnesses  
John Schuman.  
John F. Miller

Inventor  
Delos Carpenter  
By his Attorney.  
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# UNITED STATES PATENT OFFICE.

DELOS CARPENTER, OF ORION, MICHIGAN.

## COMBINED SLIDE AND BUCKLE.

SPECIFICATION forming part of Letters Patent No. 528,628, dated November 6, 1894.

Application filed February 4, 1892. Serial No. 420,287. (No model.)

*To all whom it may concern:*

Be it known that I, DELOS CARPENTER, a citizen of the United States, residing at Orion, county of Oakland, State of Michigan, have  
5 invented certain new and useful Improvements in a Combined Slide and Buckle for Shoulder-Braces or Suspenders; and I declare the following to be a full, clear, and exact description of the invention, such as will enable  
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in a combined slide and buckle for shoulder braces and suspenders, and it consists of the devices and appliances, their construction, combination and arrangement as hereinafter described and claimed  
15 and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective showing features of my invention as applied to the human figure. Fig. 2 is a view showing my invention as applied to the rear portion of suspenders and shoulder braces. Fig. 3 is a detail  
25 view of a slide embodying my invention. Fig. 4 is a similar view of a modification. Fig. 5 is a vertical section through the slide and its hook.

My invention contemplates as another of its features an improvement whereby in slides and buckles for analogous purposes, the ring of the button strap may conveniently, quickly  
35 and easily be disengaged from the hook by one hand without the necessity of touching the spring directly by hand, as readily as the ring can be first engaged in place, and by a simple lift upon the ring. This is accomplished mainly by an improved construction  
40 and arrangement of the spring and hook.

I carry out my invention as follows:

A represents the webbing of shoulder braces or suspenders.

45 A' denotes the loops passed over the shoulders, the loops in the device shown herewith being connected at the back by a strap B provided with a suspending strap B'.

50 C denotes the usual button strap provided with an engaging ring C'.

D is a buckle engaged upon the suspending strap B'.

The slide shown herewith to which my improved hook and spring are attached is preferably provided with upper and lower loops, 55 side bars and diagonal marginal loops, the side bars being bent out of the plane of the said upper and lower loops. To this end F represents said slide constructed with loops "f" intermediate cross bars "f'" and upright 60 side bars "f<sup>2</sup>". The marginal diagonal loops are shown at "f<sup>3</sup>".

The slide F, it will be seen is constructed with two series of loops, one series located diagonal to the other series as in said patent 55 above referred to. The upright portion of the webbing is engaged in the loops f and the end of the shoulder loop with the marginal, diagonal loops. The cross bar "f<sup>3</sup>" located above the lower loop "f," in accordance with my 70 present invention, is toothed on its lower edge, the teeth preferably bent outward. Below said lower loop is a cross spring H. A rim H' extends from one end of the cross bar "f<sup>3</sup>" under the extremity of the spring bar H to 75 ward the opposite side of the slide. This arm H' is formed with an upturned hook H<sup>2</sup>. The spring cross bar is formed with a spring tongue "h" bent forward intermediate its ends, and adjacent to the hook, the lower extremity of 80 the spring tongue being bent as shown at "h'" inward toward and away from the hook, leaving a V-shaped exit between the lower end of the tongue and the hook allowing the uplifted ring to enter the exit, and press back the 85 spring tongue without the necessity of touching the hand to the spring. The spring cross-bar, tongue, rim and hook are all constructed to yield. I prefer to so construct and arrange the parts that the hook shall be at the lower 90 corner of the slide on the side opposite the marginal loops, as such a construction allows the button straps and webbing to set and hang better, the one in relation to the other. I do not however limit myself alone to its location 95 at said lower corner of the slide. The slides F as shown are made rights and lefts, for the two ends of the webbing A. This button strap fastening device thus formed integral with the slide enables me moreover to dispense with a 100 separate buckle therefor and so permits me to move my slide down much farther on the webbing than if a separate buckle were used for engaging the button straps. This permits



me also to carry the end of the shoulder loops down farther away from the arm pit. The formation of the slide and buckle in a single device is a matter of obvious importance, simplicity and economy, as the slide, buckle and button strap fastening device in a single integral piece can be made much cheaper than separate slides and buckles.

One special feature of my improvement is to so construct and arrange the webbing A and shoulder loop A' that the webbing will bear firmly in front on the shoulder joint, as at *x*, while at the rear the loop bears upon the point of the shoulder blade as at *y*. The bearing of the webbing thus on the point in front and upon the point of the blade at the rear, carrying the webbing down free and clear of the arm pit beneath the shoulder are important matters in a device of this kind.

The slide enables me to accurately adjust the point of connection of the button straps therewith, also the engagement of the end of the shoulder loops. By this construction any slack caused by the stretching of the webbing, or any pulling up of the webbing can be readily adjusted as required by taking up or letting out the webbing in connection with the slide as circumstances may require. Thus the stretching of the webbing may be counteracted by the adjustment of the slide. Thus

by means of the slide the webbing can be so adjusted as to fit man or child.

The back strap B' is connected to the shoulder loops at the rear by buckles J J, by means of which the loops are adjusted on the back strap. Should all take-up on the back strap B be at an end, as by the buckles reaching the center, then the slides may be readjusted upon the webbing so as to permit the buckles to be moved back toward the extremities of the back strap whereby the desired take up may be again started upon. Thus the possible take-up at the back can never be fully exhausted.

What I claim as my invention is—

The combination with the slide F of a buckle formed integral therewith, of a single piece of sheet metal, said slide constructed with two series of loops, one series located diagonal to the other series, and said buckle provided with a spring tongue and adjacent hook constructed and arranged substantially as and in the manner described.

In testimony whereof I sign this specification in the presence of two witnesses.

DELOS CARPENTER.

Witnesses:

N. S. WRIGHT,  
JOHN F. MILLER.