

R. W. GROVE.
FASTENING DEVICE.

(Application filed Apr. 21, 1902.)

(No Model.)

FIG. 1.

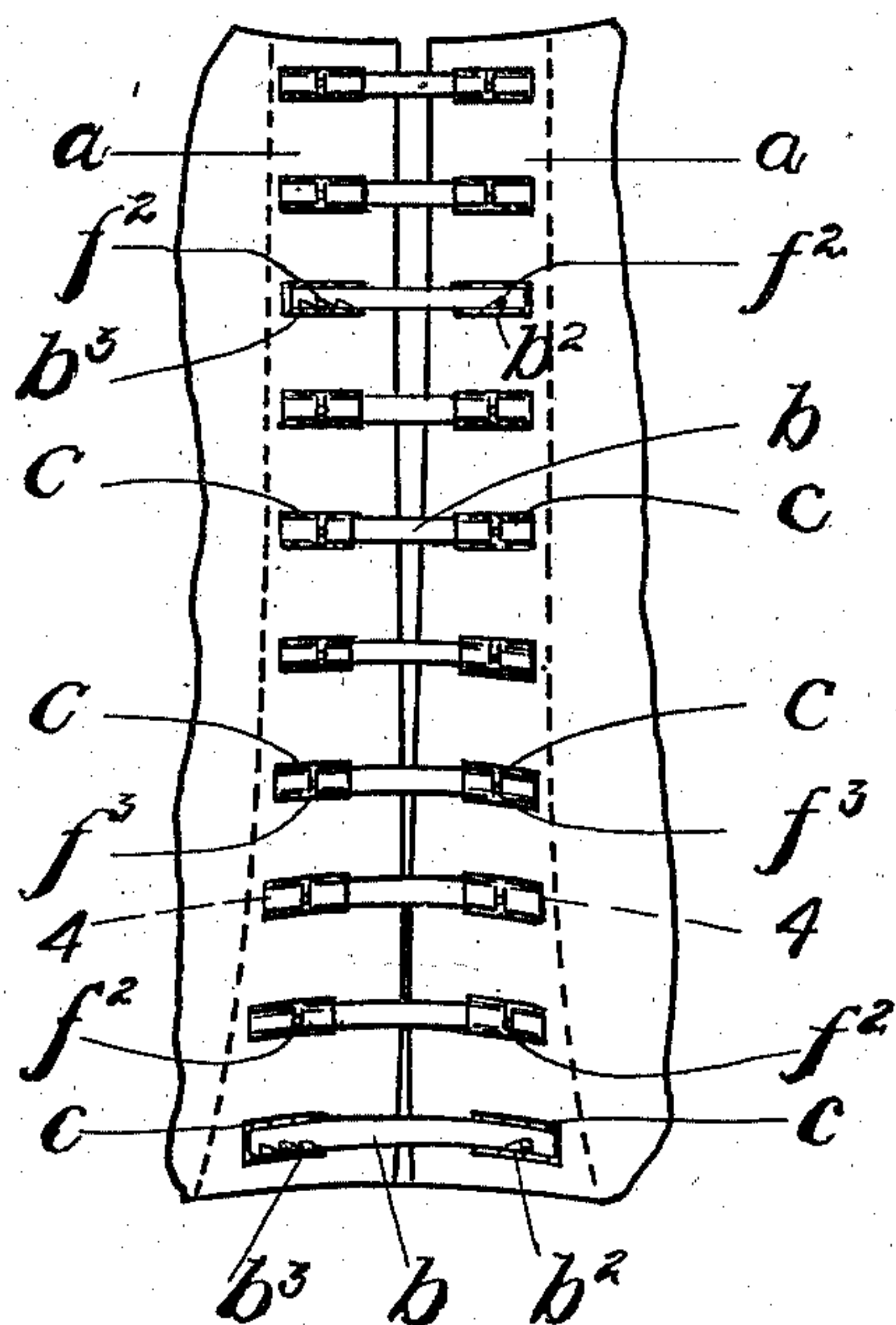


FIG. 2.

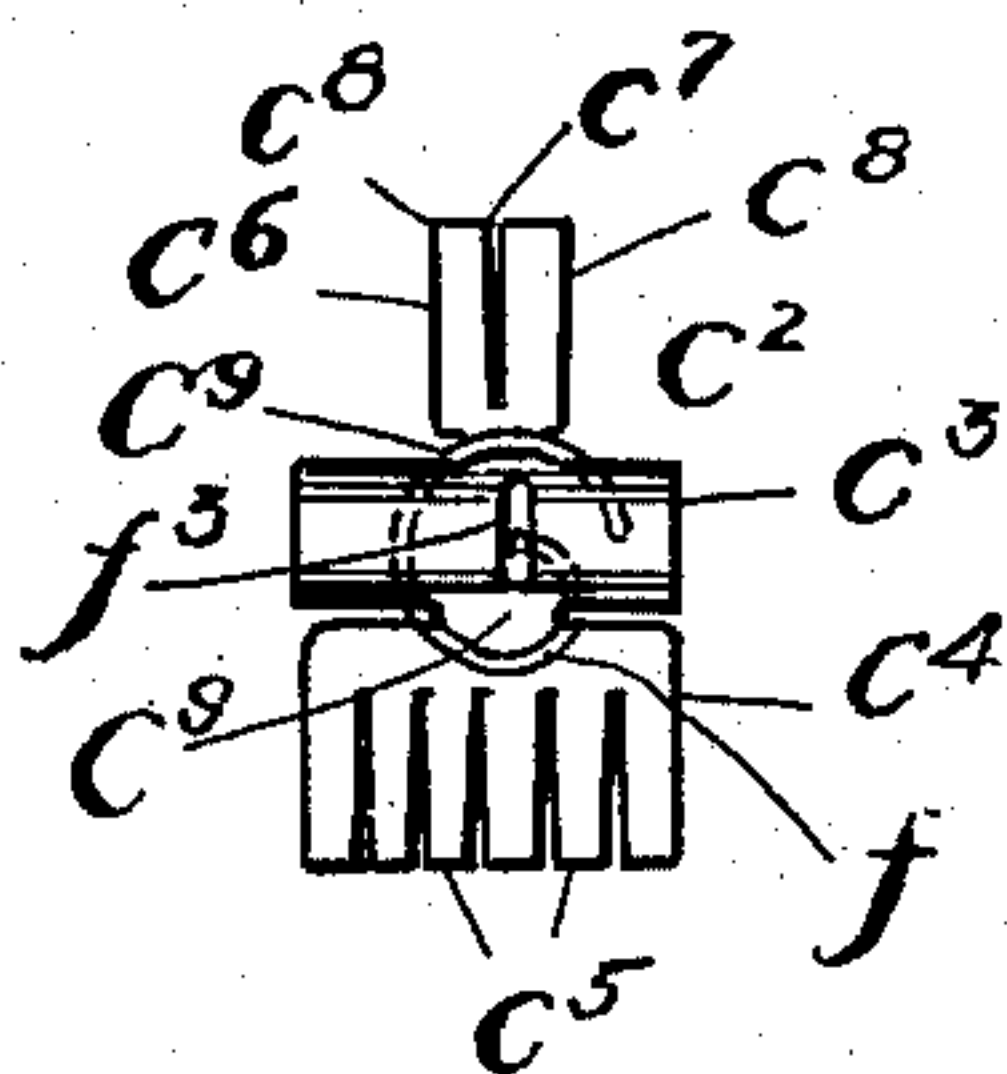


FIG. 3.

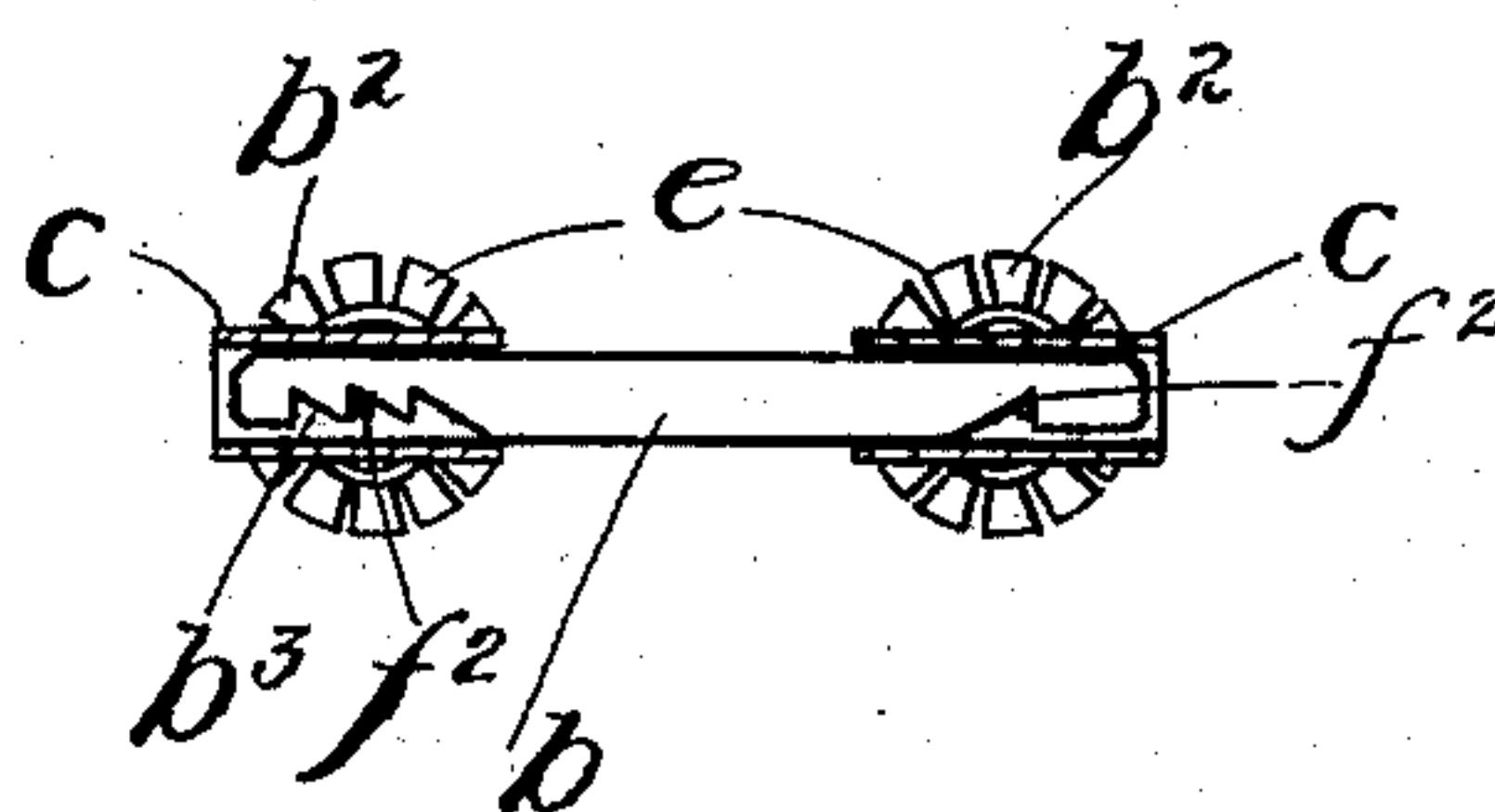
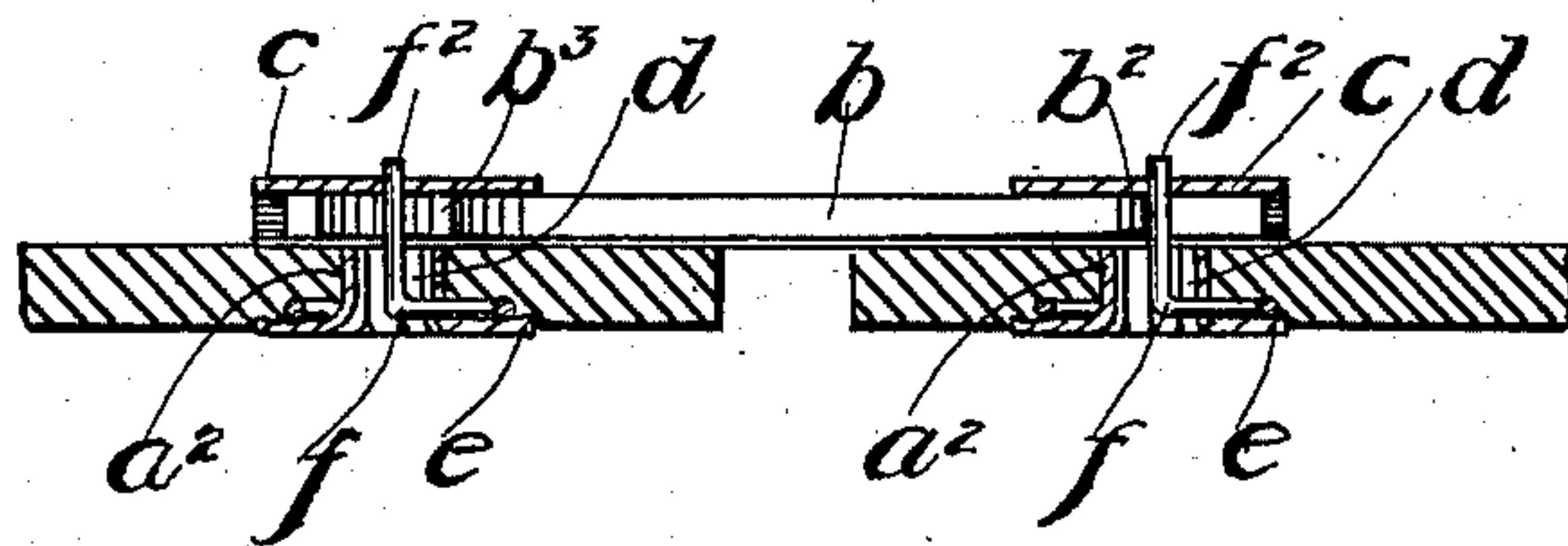


FIG. 4.



WITNESSES

R. P. Tobie.
F. A. Stewart

INVENTOR

BY Ray Willard Grove
Edgar Sale & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

RAY WILLARD GROVE, OF LEWISTOWN, MONTANA.

FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 705,836, dated July 29, 1902.

Application filed April 21, 1902. Serial No. 103,847. (No model.)

To all whom it may concern:

Be it known that I, RAY WILLARD GROVE, a citizen of the United States, residing at Lewistown, in the county of Fergus and State of Montana, have invented certain new and useful Improvements in Fastening Devices, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved fastening device which may be used in connection with various articles of apparel—such as corsets, shoes, belts, cloaks, and other articles of this class—and which may also be used on horse-blankets and horse furnishings and for other and similar purposes; and with this and other objects in view the invention consists in a fastening device constructed as hereinafter described and claimed.

In the drawings forming part of this specification, in which the separate parts of my improvement are designated by the same reference characters in each of the views, Figure 1 is a front view of the flaps of a shoe provided with my improved fastening device; Fig. 2, a plan view of a blank from which a part of my fastening device is made and showing also a spring-wire attachment which I employ in connection therewith; Fig. 3, a sectional plan view of the fastening device, and Fig. 4 a section on the line 4 4 of Fig. 1.

In the drawings forming part of this specification, Figs. 2, 3, and 4 are on a larger scale than Fig. 1, Fig. 4 being much enlarged, and in said drawings I have shown at *a* the flaps of a shoe, and in the practice of my invention I provide a fastening device of the class specified which comprises a bar *b* and two keepers *c*, which are secured to the opposite flaps *a* and into which the ends of the bars *b* are inserted.

The keepers *c* are formed from a blank sheet *c*², (shown in Fig. 2,) which comprises a transverse body portion *c*³, a side portion *c*⁴, having projecting tongues *c*⁵, and an opposite side portion *c*⁶, which is also preferably divided at *c*⁷ to form tongues *c*⁸, and the side portions *c*⁴ and *c*⁶ are connected with a transverse body portion *c*³ by narrow necks *c*⁹.

In practice the transverse body portion *c*³

of the blank *c*² is folded at the sides to form the keepers *c*, and in this operation the side portions *c*⁴ and *c*⁶ are bent into tubular form or neck-shaped portions *d*, and the keeper is connected with the flaps *a* by passing the tubular members formed by the sides *c*⁴ and *c*⁶ through the holes *a*² formed therein, the necks *c*⁹ forming tubular members which pass through said holes, and the tongues *c*⁵ and *c*⁸ being spread outwardly to form locks *e*, as shown in Figs. 3 and 4, which securely hold the keeper *c* in position. I also provide a spring-wire *f*, which is folded around the neck or tubular portion of the keeper at *d* and secured in any desired manner, as shown in Fig. 4, and one end thereof is passed upwardly through the keeper to form a spring-finger *f*², which passes through a transverse slot *f*³ in the body portion *c*³ of the blank in the top portion of the keepers *c*.

The bars *b* are each provided at one end with a single notch or recess *b*² and at the opposite end with a number of notches or recesses *b*³, and that end of said bars which is provided with one notch or recess closely fits the corresponding keeper, and the corresponding spring-finger *f*² locks the said bars in said keeper, while the other end of said bars is so formed that the spring-finger *f*² in the corresponding keeper may be moved outwardly, so as to allow the bar to slide into and out of said keeper, while the said spring-finger normally operates to engage the notches or recesses *b*³ formed therein.

The ends of the bars *b* containing one notch or recess are called the "fixed" ends and the other ends the "loose" or "detachable" ends, and said loose or detachable ends are so formed that they may be inserted into the corresponding keepers, in which operation the corresponding spring-finger *f*² will be forced laterally and will automatically engage with the teeth formed by the notches or recesses *b*³, and in this position of the parts the fastening of a shoe or other article is complete, and whenever it is desired to unfasten the same the spring-fingers *f*² at the loose or detachable ends of the bars *b* are moved laterally, so as to be disconnected from the teeth formed by the notches or recesses *b*³, at which time the bars *b* may be withdrawn from said keepers and the said

spring-fingers f^2 project through the keepers c at the loose or detachable ends of the bars b sufficiently far to enable said fingers to be operated, as clearly shown in Fig. 4, and when
5 necessary or desirable the opposite ends of said bars may also be detached from the keepers by moving the corresponding fingers f^2 in the same manner.

The object of providing one end of the bars
10 b with a plurality of notches or recesses is to provide means whereby the fastening devices may be tightened or loosened or adjusted, as will be readily understood, and in Fig. 1 of the drawings I have shown two
15 pairs of keepers in section, so as to better illustrate the operation, the others being shown in full lines; but the details of the construction can best be seen in Figs. 3 and 4.

My invention is not limited to the details
20 of construction herein shown and described, and I reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention.

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

1. A fastening device comprising two keepers and a bar, the ends of which are inserti-

ble into said keepers, said keepers being pro- 30
vided with means for holding said ends of said bar therein, said means consisting at one end of a laterally-movable spring-finger connected with the keepers and a plurality of
35 notches or recesses formed in the side of the bar and in connection with which the spring-finger operates, substantially as shown and described.

2. The herein-described fastening device comprising two keepers, a bar, the ends of
40 which are insertible into said keepers, one end of said bar being provided with a notch or recess and the keeper with a spring-finger adapted to enter the same and the other end of the bar being provided with a plurality of
45 notches or recesses and the keeper with a laterally-movable spring-finger adapted to enter the same, substantially as shown and described.

In testimony that I claim the foregoing as 50
my invention I have signed my name, in presence of the subscribing witnesses, this 14th day of April, 1902.

RAY WILLARD GROVE.

Witnesses:

WM. M. BLACKFORD,
JAMES M. BLACKFORD.