No. 762,876. PATENTED JUNE 21, 1904.

N. BRAY.

FASTENER.

APPLICATION FILED DEC. 5, 1903.

NO MODEL.

Fig. 1.

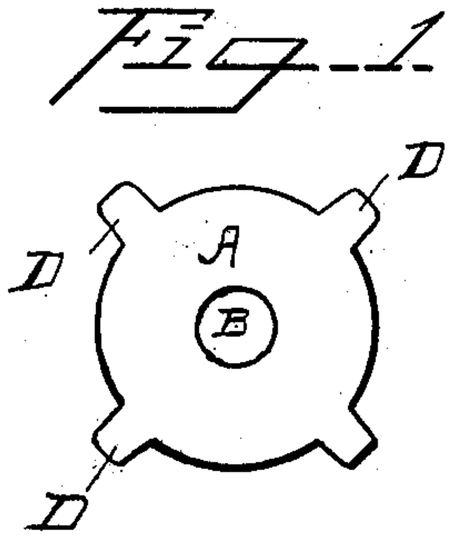


Fig. 2.

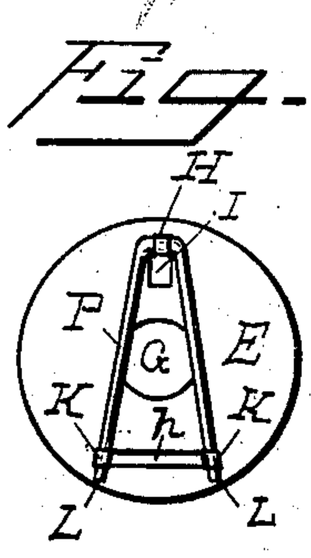


Fig. 3.

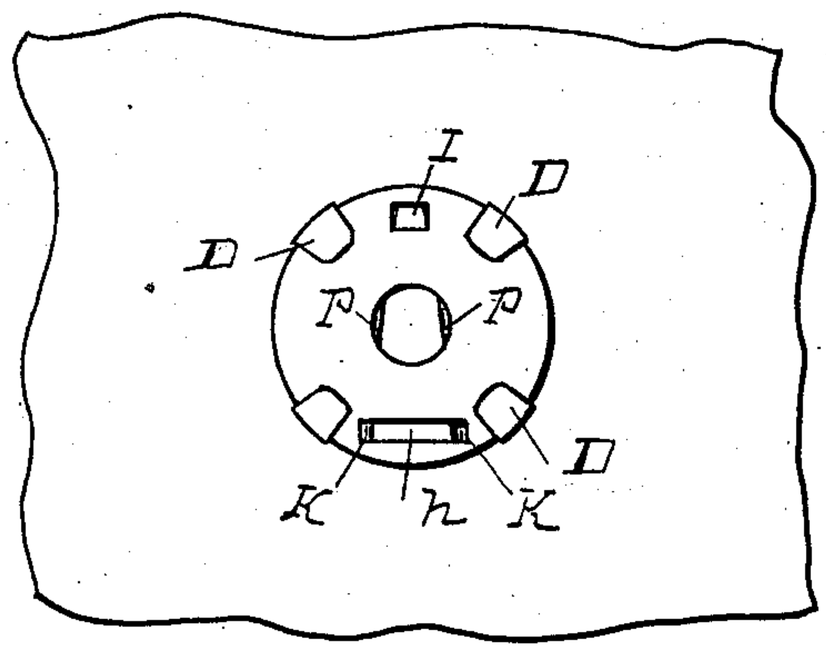
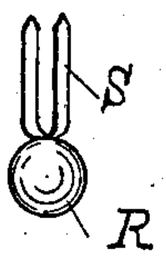
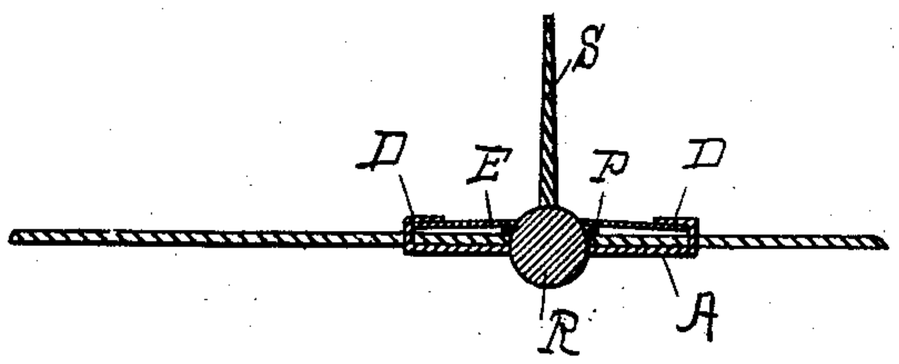


Fig. 4.

Fig. 5.





WITNESSES:

E. E. Cady

M. R. Hemmer.

INVENTOR.

Nicholas Bray

BY M. M. Cady

ATTORNEY.

No. 762,876. Patented June 21, 1904.

UNITED STATES PATENT OFFICE.

NICHOLAS BRAY, OF DUBUQUE, IOWA.

FASTENER.

SPECIFICATION forming part of Letters Patent No. 762,876, dated June 21, 1904.

Application filed December 5, 1903. Serial No. 183,873. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS BRAY, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented new and useful Improvements in Fasteners, of which the following is a specification.

My invention relates to fasteners such as are used on gloves, carriages, curtains, and the like; and the object is to provide a neat, convenient, and inexpensive buttonhole or eyelet in combination with a stud or button, which buttonhole shall be sufficiently yielding for convenience in use without danger of unbuttoning or disengagement from constant wear.

It consists in an outer plate, preferably ornamented, provided with an opening and with prongs upon its periphery. It also consists in an inner plate provided with an opening coincident with the opening in the outer plate, to which is secured a spring-wire around said opening by loops formed out of the inner plate, the two plates when united together to be used in combination with a button or knob provided with a fastening pin or staple.

The details of construction and the mode of its operation will be fully set out in the following specification when taken in connection with the drawings accompanying the same and forming a part hereof.

Figure 1 is a plan view of the outer plate. Fig. 2 is a perspective view of the inner plate, showing the spring and the mode of fastening the spring to one side of the plate. Fig. 3 is a view from the under side of the fastener with the curtain between the plates. Fig. 4 is a section of Fig. 3 with the button or knob in engagement with the fastener. Fig. 5 is a perspective view of a knob attached to a staple.

Like letters of reference denote corresponding parts in each of the drawings.

Referring to the drawings, A designates the outer plate, B the opening in the plate, and D the prongs or clasps integral with the outer plate. The inner plate E consists, preferably, of a circular plate of metal of the size of the plate A without the prongs D and provided with a circular opening G. Out of this plate E is cut a loop H, leaving the slot I, and also loops K, leaving the slot *h*. Upon this plate E is secured a spring P, which is preferably bent into the form of a staple or triangle rounded at one angle with the two ends disconnected. This spring P is held at the rounded part by the loop H and at the two ends by the loops K, and it extends nearly across the plate over the outer edge of the opening G, as shown in Fig. 2. The button R consists of a metal ball secured to a pin S. This pin S may be a staple, as shown in Fig. 5, and if used as a curtain-fastener for carriages is driven into the frame of a carriage-top or a body of a carriage to nearly the head or knob. By this mode of construction and manner of attaching the spring to a plate it will be observed that as the ends of the spring are secured so there is no outer expansion at the ends when the button is inserted through the opening G the two arms of the spring will yield outwardly at the center and remain in the same relative position at the ends, and in this manner the tension on the button will always remain practically the same till the spring is worn out. This is a great advantage, as this construction frees it from the annoyance of unbuttoning by constant use.

The mode of uniting the parts and operation of the device when used as a curtain-fastener on carriages is substantially as follows: Upon the plate E is first placed the spring P, and the strips which form the loops H and K are cut out, leaving the slots I and *h* in the plate E. The loop H is bent over the spring at the rounded part of the triangle, and then the loops K are bent over the two ends L of the spring, thus securing the spring upon the plate E and partly over the hole G. An opening is made in the curtain, and the plate A is placed against the outside of the curtain, with the opening B coincident with the opening in the curtain, and the prongs D are bent at right angles to the plate and inserted through the curtain. Then the plate E is placed on the opposite side of the curtain, with the opening G coincident with the opening B and the spring P next to the curtain. The prongs D are then bent down onto the plate E, holding

the two plates securely together, with the curtain between them and the spring-wire next to the curtain, as shown in Fig. 3.

The pin or staple is inserted in the frame of a top or body of a carriage till the knob R just comes in contact with the frame or bow, and thus the frame forms a shoulder which limits the insertion of the knob in the buttonhole. The curtain is then brought against the knob, and the knob is forced into the buttonhole, at the same time pressing outwardly the two arms of the spring P, which will close tightly around the neck of the knob and prevent it from unbuttoning except when sufficient force is used to overcome the action of the spring P.

It will be observed that the outside of the plate A is not perforated except at the center and furnishes an unbroken surface for ornamentation. It will also be observed that as the loops hold the spring the position of the wire relative to the opening G will not be changed, but will always be in position to grasp the neck of the knob. It will further be seen that this construction is exceedingly simple and that the cost of constructing is small, while its durability and effectiveness is at the maximum.

Having now described my invention, what I claim is—

A fastener consisting of an outer plate provided with a central opening, an inner plate provided with a central opening, a spring P bent to cross the openings on opposite sides and secured at a bend of the spring by a loop H integral with the plate and its opposite ends secured by loops K integral with the plate, in combination with a knob adapted to engage the openings in the plates and be held by the action of the spring P, substantially as and for the purposes shown.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NICHOLAS BRAY.

Witnesses:
M. M. CADY,
M. R. HEMMER.