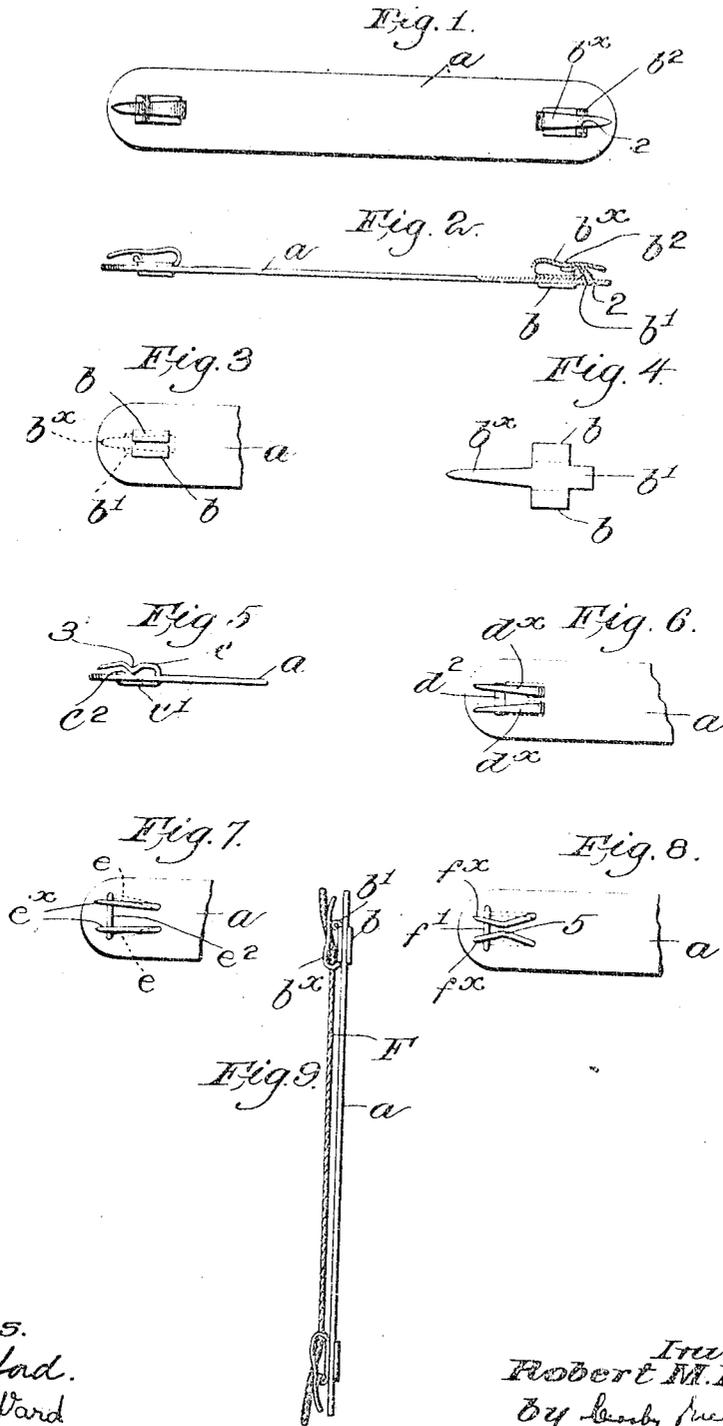


No. 851,278.

PATENTED APR. 23, 1907.

R. M. DEAN.  
DETACHABLE COLLAR SUPPORTER.

APPLICATION FILED AUG. 30, 1906.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## DETACHABLE COLLAR-SUPPORTER.

No. 851,278.

Specification of Letters Patent.

Patented April 23, 1907.

Application filed August 30, 1906. Serial No. 332,616.

To all whom it may concern:

Be it known that I, ROBERT M. DEAN, a citizen of the United States, and a resident of Wakefield, county of Middlesex, State of Massachusetts, have invented an Improvement in Detachable Collar Supporters or Stiffeners, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a simple, and efficient device to support and stiffen or hold extended light and thin fabric used as wearing apparel, and it is particularly adapted for use in supporting and stiffening lace or other thin fabric collars worn by women.

The supporting and stiffening device is readily and quickly applied to or detached from the fabric, and I have provided means to prevent accidental detachment of the supporter.

The novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a plan view of a supporter or stiffener embodying one form of my invention; Fig. 2 is a side elevation thereof, the body and one of the attaching devices being shown in section at one end; Fig. 3 is an under side view of one of the ends of the body, to show the manner in which the prong is secured to the body; Fig. 4 is a plan view of the blank from which the attaching device or prong is formed; Fig. 5 is an edge view of a modification to be described; Figs. 6, 7 and 8 are plan views showing modified forms of attaching prongs, the prong in each of such modifications having two points to enter the fabric; Fig. 9 is a sectional detail showing the supporter applied thereto.

In accordance with my present invention the supporter or stiffener comprises a thin, resilient and flexible body, an attaching prong mounted at or near the end thereof with its pointed end outturned and adapted to be detachably inserted in the fabric, and a retaining device to prevent accidental withdrawal of the prong from the fabric.

I prefer to make the body as a thin, flat strip *a* of flexible and resilient material of light weight, such as celluloid, of the proper length, and at or near each end of the body an attaching prong is secured.

Referring to the embodiment of my inven-

tion illustrated in Figs. 1, 2, 3 and 4, I stamp or die out of thin spring metal, such as brass, a blank of substantially the shape shown in Fig. 4, the side portions *b, b* being bent over along the dotted lines, the tail *b'* being bent up and over upon itself to form a transverse projection *b<sup>2</sup>*, Figs. 1 and 2. The pointed extension or prong *b<sup>x</sup>* is bent over as shown in Fig. 2, and the base of the prong is passed up through a suitable cross slit in the body *a*, while the side portions *b* are pushed down through longitudinal slits in the body. Said portions are then bent over upon the adjacent face of the body, see Fig. 3, holding the attaching prong firmly in place on the opposite face of the body, the outturned point of the prong extending nearly to the end of the body. The prong is given a slight bend at 2, see Fig. 2, just above the projection *b<sup>2</sup>*, the spring of the prong normally holding the bend 2 pressed onto the projection.

When the prong is inserted in the fabric *F*, Fig. 9, the fabric passes between and beyond the bend 2 and projection *b<sup>2</sup>*, said parts then coming together again and serving to close the space between the body and the free end of the prong, retaining the fabric from accidental removal.

By means of the retaining device the supporter cannot become displaced accidentally by movements of the wearer, but the prong can be withdrawn from the fabric only by positive effort directed thereto.

In the modification Fig. 5 the prong *c* is given an inward bend at 3, the spring or elasticity of the prong normally pressing the bend against the adjacent face of the body *a*, the bend acting as the retaining or locking device for the fabric, and dispensing with a co-operating projection as in Figs. 1 and 2. This construction is readily adapted to be made of wire, the prong being secured to the body by the base *c'* and overturned tail *c<sup>2</sup>*.

The prong in Fig. 6 is made of sheet metal, as in Figs. 1 and 2, but is bifurcated to form two extensions or points *d<sup>x</sup>, d<sup>x</sup>*, preferably slightly bent as described of the prong *b<sup>x</sup>* to normally co-operate with the transverse projection *d<sup>2</sup>*, which latter corresponds to the projection *b<sup>2</sup>*, Fig. 2.

In Fig. 7 a double-pointed attaching prong is shown, made of a piece of spring wire pointed at its ends and bent to present the extensions *e<sup>x</sup>, e<sup>x</sup>*, which normally bear on the transverse projection *e<sup>2</sup>* on the same side of the body *a*. The dotted lines *e* show the

bending of the wire between the bases of the extensions  $e^x$  and the projection  $e^2$ , such dotted portion of the wire being on the opposite side of the body.

5 A wire attaching device is shown in another form in Fig. 8, the double-pointed prong being formed by the extensions  $f^x, f^y$ , which are bent at 5 toward each other, and while the wire is extended across the adjacent face of the body  $a$  at  $f'$  it does not necessarily en-  
10 gage the prong extensions, for the intumed bends 5 and the flare of the points beyond such bends act to prevent accidental withdrawal of the prong from the fabric. In this  
15 modification the function of the part  $f'$  is to hold the prong securely on the body.

To attach the supporter the prong at one end of the body is inserted in the fabric, and the body is somewhat bent or flexed to  
20 shorten the distance between its ends, whereupon the other prong is inserted in the fabric and the body, released by the fingers, straightens out and holds the fabric flat and distended. The supporter is removed by  
25 bending the body and positively pulling the fabric off from one prong, past the retaining device, and then in like manner detaching the other prong.

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

1. In a device of the class described, an elongated, thin and flat resilient body, a pointed spring prong mounted on each end  
35 thereof and adapted to be detachably inserted in and passed through the fabric to be supported, the point of each prong being always located on the same side of the body, and extending outwardly nearly to the ad-

40 jacent extremity thereof, and a locking projection to normally engage each prong near its free end or point, after its passage through the fabric, to prevent accidental withdrawal of the prong from the fabric, the resiliency of the body causing it to hold separated the en-  
45 gaged portions of the fabric after bending of the body to insert the prongs into the fabric.

2. In a device of the class described, an elongated, thin and flat flexible, resilient body, a double-pointed spring metal prong  
50 mounted on each end of the body, having its points intumed, and adapted to be detachably inserted in the fabric to be supported, and a retaining or locking projection to normally engage each prong near the free ends  
55 or points thereof and prevent accidental withdrawal of a prong from the fabric.

3. In a device of the class described, an elongated, thin and flat, flexible, resilient body, a spring-metal, pointed prong mounted  
60 on each end of the body, and adapted to be detachably inserted in and passed through the fabric to be supported, and retaining or locking means integral with each prong and normally engaging the same near the free end  
65 or point thereof to prevent accidental withdrawal of the prong from the fabric, the prongs being oppositely turned on their points near the adjacent extremity of the body, said points always lying on the same  
70 side of the body.

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

ROBERT M. DEAN.

Witnesses.

JOHN C. EDWARD,

ELIZABETH R. MORRISON.