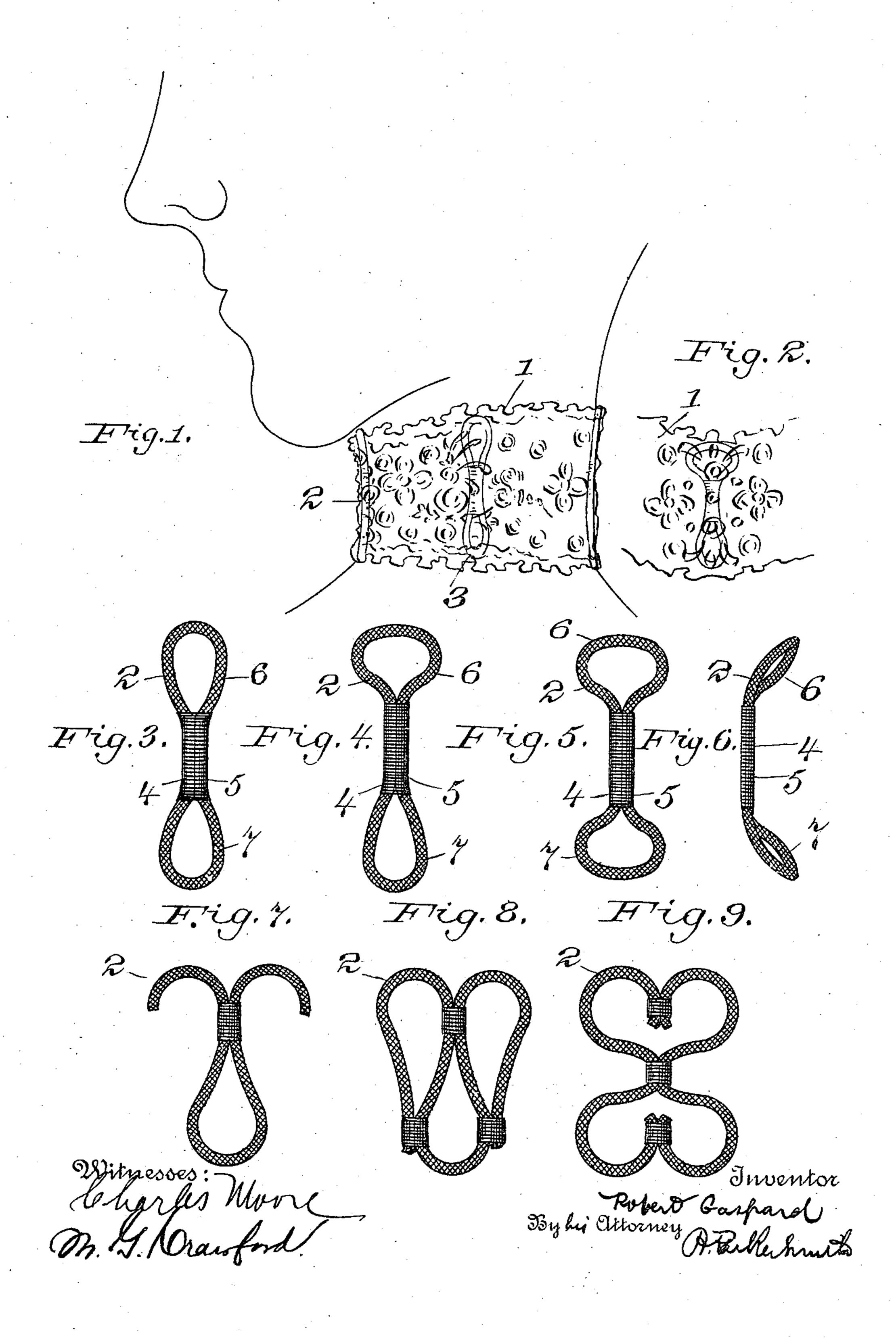
## R. GASPARD. STIFFENER FOR GARMENT COLLARS. APPLICATION FILED JAN. 23, 1908.

965,383.

Patented July 26, 1910.



## UNITED STATES PATENT OFFICE.

ROBERT GASPARD, OF PARIS, FRANCE.

STIFFENER FOR GARMENT-COLLARS.

965,383.

Patented July 26, 1910. Specification of Letters Patent.

Application filed January 23, 1908. Serial No. 412,362.

To all whom it may concern:

Be it known that I, Robert Gaspard, a citizen of the Republic of France, and a resident of the city of Paris, Republic of 5 France, have invented certain new and useful Improvements in Stiffeners for Garment-Collars, of which the following is a specification.

My invention relates to stiffeners for 10 garment collars and comprises an efficient stiffener for such collars which at the same time has the capacity of yielding elastically at the points and in the directions necessary to give freedom of motion to the head of 15 the garment wearer, but without permitting any permanent deformation of the collar.

The best form of apparatus at present known to me embodying my invention, and certain modifications, are illustrated in the 20 accompanying sheet of drawings in which:

Figure 1 is an outline side view of a portion of the head and neck of a person wearing a collar provided with my invention. Fig. 2 is a front view of such collar. Fig. 25 3 is a detail front view of the preferred form of my stiffener. Fig. 4 shows the same with one end loop slightly distorted, as in Fig. 2. Fig. 5 shows both loops distorted. Fig. 6 is a side view showing lateral distor-30 tion, and Figs. 7, 8 and 9 show modifications.

Throughout the drawings, like reference

figures indicate like parts.

1 represents an ornamental garment collar 35 formed of cloth, lace or other flexible and yielding material which in use is not self supporting.

2 and 3 represent stiffeners applied thereto. Each stiffener is formed of a strip or 40 strips of some light strongly resilient laterally flexible but longitudinally incompressible light non-metallic material, such as feather-bone for instance. Preferably this is bent into a figure 8 form with a long cen-45 tral portion 4, which may be reinforced by a winding 5 of cord, thread, or other material, and broad end loops 6 and 7. As shown in Figs. 3 to 6, the middle portion 4 is approximately equal in length to one third 50 the length of the entire figure. The middle part of the figure 8 is flattened and straightened and the normal form of the loops 6 and 7 is approximately an oval, with their narrower ends connected by the straight 55 middle portion 4 which is formed of extensions of the sides of the ovals and is in

line with their major axes. Each stiffener of the form shown in Figs. 1 to 6 is made of one continuous strip with the free ends abutting at some point within the winding 5. 60

In use the stiffener is usually stitched or otherwise fastened to the collar at the middle and ends with the middle portion 4 at right angles to the direction of length of the collar, and the end portions adjacent 65 to the edge of the collar. The stiffener then permits the edges of the collar to bend sidewise without wrinkling by the action illustrated in Fig. 6. The central portion 4 being straight and longitudinally incom- 70 pressible, prevents any wrinkling of the central portion of the collar, but the major portion of the material forming the loops 6 and 7 being bent at different angles to the middle portion varying from zero to 90 de- 75 grees, easily permits a distortion of these end loops by broadening and shortening the same, as shown in Figs. 2, 4 and 6. This allows the edges of the collar to be pressed inwardly, as by a downward movement of 80 the chin of the wearer, (see Figs. 1 and 2), without serious wrinkling of the collar. On removal of the pressure, the resilient stiffener resumes its original shape, carrying with it the collar, and no permanent dis- 85 tortion is produced.

If desired, the material may be arranged in various ornamental shapes, as shown in Figs. 7, 8 and 9, so long as said shapes retain an intermediate portion or portions ar- 90 ranged approximately at right angles to the direction of length of the collar, and outer or end portions curved approximately at right angles to the intermediate portions and consequently approximating parallelism 95 to the edges of the collar and lying adjacent thereto.

The main advantage of my invention results from the fact that it combines practically rigid support of the middle part of the 100 collar with a yielding elastic support of the edges. It permits a pushing inward of either or both edges of the collar without unnecessary wrinkling and insures a prompt recovery of form when the distorting pres- 105 sure is removed. It does all this without presenting any sharp or unyielding points to dig into the neck or chin of the wearer when the head is moved, and without presenting any material resistance to the free move- 110 ment of the head and neck of the wearer. A further advantage to the manufacturer

results from the fact that the stiffener may be lengthened or shortened within limits at or before attachment to the collar, and so a standard size of stiffener, or a few standard sizes, will serve for use on collars of all widths. All these advantages of my invention and the various functions described result from the fact that it is formed of a strip of material incompressible in the line of the axis of said strip but equally

line of the axis of said strip, but equally resilient in all directions at right angles to said longitudinal axis of the strip. This permits the strip to bend laterally at any point in any direction or in any plane pass-

ing through the axis of the strip, and consequently the loops or folds formed of it may not only bend sideways as shown in Fig. 6 of the drawing to allow the edges of the collar to be bent over, but said loops are compressible endwise as shown in Figs. 2, 4 and 5 of the drawings so as to permit

of a downward deformation of the collar edge and immediate recovery of shape upon removal of the pressure causing said deformation. A further advantage results from the fact that the material featherbone or other non-metallic resilient substance will not rust or tarnish under the influence of moisture so is not affected by perspiration

of the wearer or the usual climatic influences. Having, therefore, described my invention, I claim:

1. A collar supporter comprising a strip of light, non-metallic material equally resilient in all directions at right angles to its

longitudinal axis but incompressible in the line of said axis, bent to the outline of an approximately oval loop with the ends at the narrower end of the oval brought together and extended to form a straight portion in line with the major axis of the oval, and a winding of thread about the parts forming said straight portion.

2. A collar supporter comprising a strip of featherbone bent to the outline of two 45 approximately oval loops with their sides at the narrower ends of the ovals brought together, extended and joined to form a straight connecting portion in line with the major axes of the ovals, and a winding of 50 thread about the parts forming said straight

portion.

3. A collar supporter comprising a single continuous strip of material equally resilient in all directions transversely of its length, 55 said strip being bent to the outline of two oppositely disposed loops with an intermediate straight portion connecting said loops, the straight connecting portion comprising two strands or thicknesses of said strip 60 placed side by side, together with a binding of thread around said straight connecting portion.

Signed at Paris, France, this 17th day of

Decr., 1907.

## ROBERT GASPARD.

Witnesses:

L. B. DE LA RANCHERA,
RICHARD HOFFMANN.