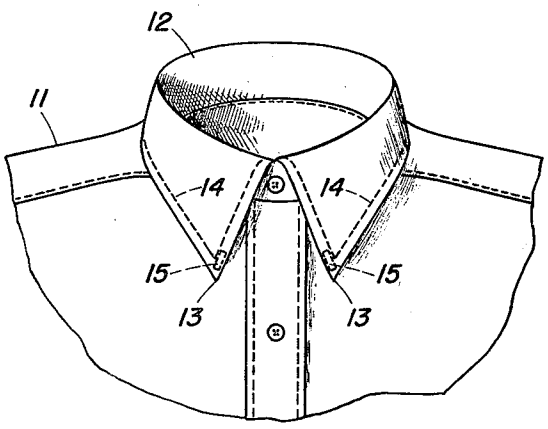
June 3, 1952 C. C. WILM 2,599,421

COLLAR STAY

Filed March 29, 1951

Fig. 1.



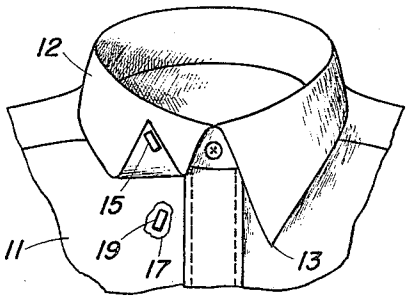


Fig. 2.

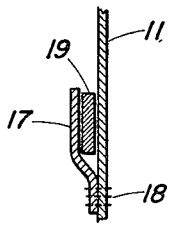


Fig. 3.



Fig. 4.

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COLLAR STAY

Carl C. Wilm, Denver, Colo.

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2 Claims. (Cl. 2—116)

1

This invention relates to collar stays or means for fastening down onto the shirt the points of a turn-down or folded-over collar. The points of the starchless or non-stiff collars of today tend to curl up and become unsightly, so it is an object of this invention to devise means for assuring the lying flat of the collar point against the shirt. This object is attained by supporting a magnet and a piece of magnetically attractable metal respectively in the shirt and in the collar point respectively positioned so that when on the wearer, the magnet and the metal come together close enough so that there is sufficient mutual attraction to hold the collar point down and in close contact with the shirt.

Another object of the invention is to avoid discoloration of the collar or the shirt by the magnetically attractable piece of metal, so this object is realizable by either making it of rust-proof metal or of ordinary metal plated to make it rust-proof. Still another object is to make that metal effective at all times to hold the collar point to the shirt in spite of some relative movement therebetween and this object can be attained by placing the metal in the collar and having it substantially V-shaped to match the shape of the collar point. And yet another object is to make the magnet removable from the shirt, such as during laundering, and this object can be attained by sewing a small pocket on the inside of the shirt just large enough to house the magnet in a way that while being removable, the magnet is unlikely to fall out of the pocket and become lost.

The best embodiment of the invention now known to me is illustrated in the accompanying drawings in which Figure 1 is a partial isometric view of a part of a shirt and its collar with the invention embodied therein. Figure 2 is a partial front elevation of the collar with one of its points turned up to show the metal piece and the location of the magnet inside the shirt.

Figure 3 is a partial cross-sectional view taken through the shirt, its pocket and its magnet, and Figure 4 shows a modified shape of metal piece.

In the drawings the shirt 11 has a folded-over collar 12 with collar points 13. The marginal seam on the collar is shown at dotted lines 14. 15 indicates a piece or slug of magnetically attractable metal sewed into the seam of the collar. This particular slug is rectangular shaped, but it can also be V-shaped at 15', shaped to correspond more or less to the angle of the collar point. The slug is preferably made rust-proof by being plated with cadmium or other rust-

2

preventing coating. On the inside of the shirt is sewed by stitches 18 or other securing means, a small pocket 17 adapted to contain a small magnet 19 of cobalt steel or other magnetism retaining metal. The pocket is on the inside of the shirt so as not to mar external appearance and is just large enough to allow the magnet to be inserted but small enough to make a snug fit so that the magnet will not fall out. The top of the pocket is left unsewed so as to permit intentional removal of the magnet for laundering of the shirt, or replacement or re-magnetization of the magnet, if necessary. The magnet and the slug will be located opposite each other on collar point and shirt so there will be assured contact between the two and they are about the same size and shape.

In operation, the wearer first makes sure that the magnet is in its pocket inside the shirt, then the shirt is put on and the slugs of the collar points are pressed against their corresponding magnets. The slug is held against its magnet even when the shirt is removed from the wearer and the collar point is held down at all times. Only when the shirt is to be laundered is the slug pulled away from its magnet, and the magnet removed from its pocket inside the shirt.

The advantage of using only one magnet with a slug of soft iron is that polarity may be disregarded and the amount of valuable magnetic steel needed is reduced to half, a real consideration for production in quantity. Sewing the magnets and slugs directly into the shirt and the collar points respectively makes it possible to use pieces that are shaped very simply, with no holes or notches for sewing, thus reducing the cost of manufacture, both for the magnets and slugs, and for installing them in the shirt.

Obviously, the relative positions of magnet and slug can be reversed, if desired. A satisfactory magnet is made of Alnico properly magnetized to its saturation point. However, other magnets may be used but my experience is that the allowable limits are from $\frac{1}{2}'' \times \frac{3}{16}'' \times \frac{3}{32}''$ thick, to $1'' \times \frac{3}{8}'' \times \frac{5}{32}''$ thick. Magnets smaller than the lower limit do not have enough strength properly to hold the collar in position, and magnets larger than the upper limit seem to be too large and heavy for practical use and tend to hold the collar more tightly than is desirable, especially if the coacting metal slug is of a size to match, even though thinner.

What is claimed is:

1. A shirt with a turned-down collar and fastening means for detachably securing each of

the points of the collar to the shirt, said means comprising a small magnet supported out of view on the shirt at a place adjacent to the apex of one of the collar points, and a small flat piece of magnetically attractable metal having intersecting side edges the angular relationship of which corresponds generally to the angular relationship of the side edges of the apex area of the collar point, said flat piece of metal being supported out of view in matching relation on and within the confines of said apex area of the collar point, the metal piece being attracted to and held by the magnet on the shirt whereby the collar point is held down in flat condition.

2. A shirt with a turned-down collar and fastening means for detachably securing each of the points of the collar to the shirt, said means comprising a small pocket on the inner side of the shirt located at a place adjacent to the apex of one of the collar points, and said means also including a magnet removably supported in said

pocket, and a small flat piece of magnetically attractable metal having intersecting side edges, the angular relationship of which corresponds generally to the angular relationship of the side edges of the apex area of the collar point, said flat piece of metal being supported out of view in matching relation on and within the confines of said apex area of the collar point, the metal piece being attracted to and held by the magnet on the shirt whereby the collar point is held down in flat condition.

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