## W. W. SEARLE. METHOD OF MAKING COLLARS.

(Application filed Mar. 6, 1902.)

(No Model.)

2 Sheets-Sheet 1.

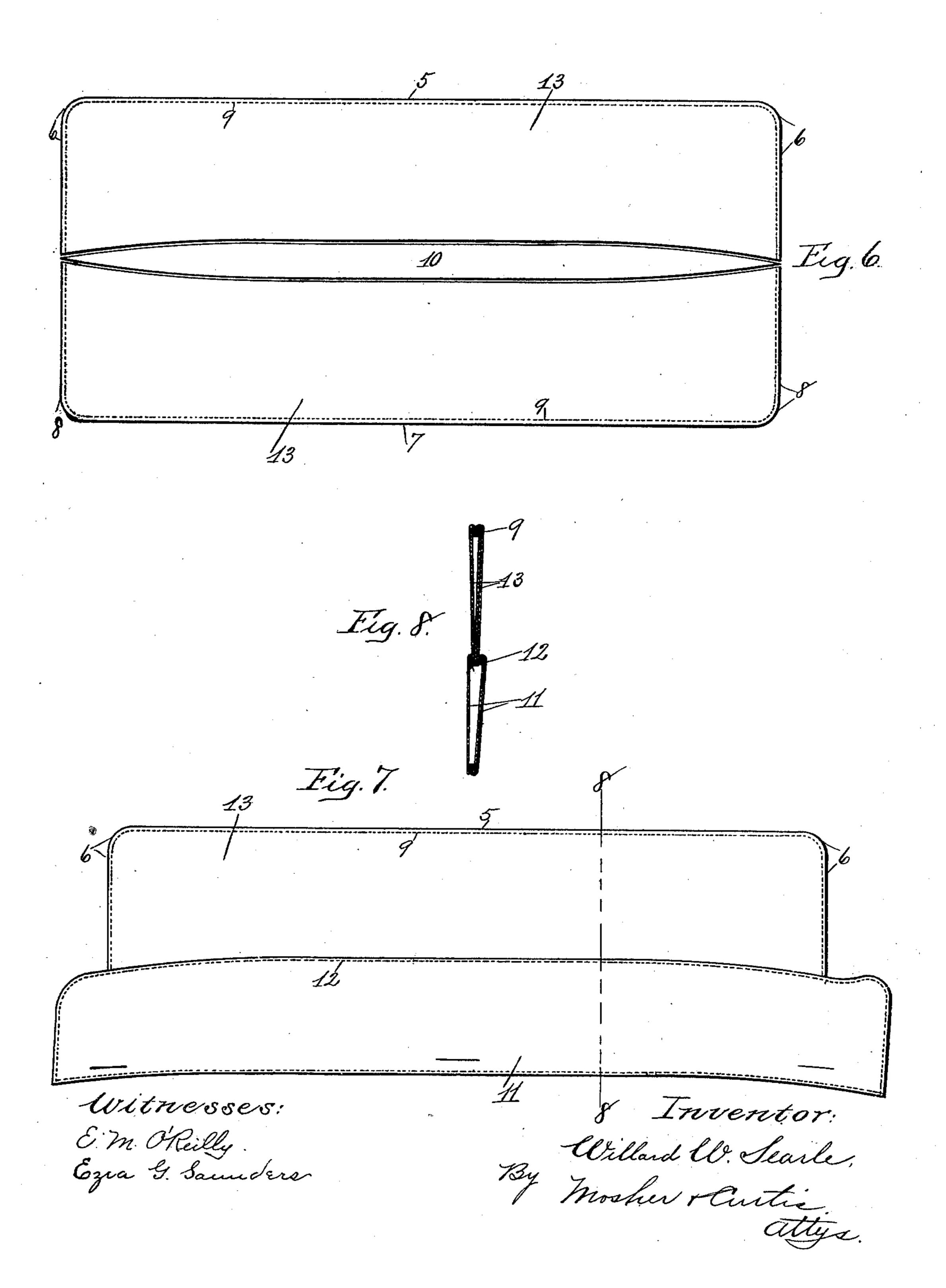
Witnesses: E. M. O'Rally. Ezra G. Saunders Willard W. Searle.
By Mosher o Critica.
Atty.

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2 Sheets-Sheet 2.



## United States Patent Office.

WILLARD W. SEARLE, OF TROY, NEW YORK.

## METHOD OF MAKING COLLARS.

SPECIFICATION forming part of Letters Patent No. 713,807, dated November 18, 1902.

Application filed March 6, 1902. Serial No. 96,882. (No specimens.)

To all whom it may concern:

Be it known that I, WILLARD W. SEARLE, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Methods of Making Collars, &c., of which the following is a specification.

The invention relates to such improvements; and it consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification.

Similar characters refer to similar parts in

the several figures.

Figure 1 of the drawings is a view in vertical cross-section illustrating the manner in | 20 which blank members are shaped and their edges inturned upon a former or die in making collars, &c., by my improved method. Fig. 2 is a plan view of one of the blank members shaped and having its edge inturned. 25 Fig. 3 is a cross-section of the same, taken on the broken line 33 in Fig. 2. Fig. 4 is a plan view of a blank formed by securing together two of such blank members with the inturned edges concealed therebetween. Fig. 5 is a 30 cross-section of the same, taken on the broken line 55 in Fig. 4. Fig. 6 shows the blank cut apart to form separate side portions. Fig. 7 shows one of the separate side portions incorporated in a fold-collar, forming the top 35 thereof. Fig. 8 is a cross-section taken on the broken line 8 8 in Fig. 7.

For convenience of illustration certain dimensions are exaggerated in the sectional views.

The object of my invention is to secure a more uniformly finished product in the manufacture of collars, &c., as well as to facilitate the manufacture and lessen the cost thereof.

In carrying out my improved method I preferably first form a plurality of similarly-shaped blank members 1 by inturning the edges thereof on all sides over a die or former 2 by means of folders 3 upon a bed 4 in the manner in which blanks are commonly folded by means of folding or inturning machines in the manufacture of collars and cuffs. Any known style of folding and forming mechan-

ism may be employed. The blank members are so folded along one side 5 and neighboring end portions 6 6 to the shape desired for 55 similar parts of one of the completed articles, as the top of a fold-collar, and along the opposite side 7 and neighboring end portions 88 to the shape desired for the similar parts of another such completed article. Two blanks 60 so folded and shaped are then applied one to the other with the inturned edges concealed therebetween and are secured together by an edge-line of stitching 9, extending entirely around the blank so formed. The two side 6 portions of the blank are then separated from each other by cutting in any known manner, as by a die or a pattern and knife, and such separate side portions may be then finished by any of the known methods.

The blank shown in the drawings is adapted to form when cut apart two tops 13 for fold-collars, the intervening middle portion 10 of the blank being waste. In finishing the separate collar-tops so formed the cut edge of each 75 is inserted between the inturned edges of the plies of a band 11 and secured thereto by stitching 12 in the usual manner of making

fold-collars.

In adapting my method to the manufacture 80 of various articles it is only necessary to vary the size and shape of the forming and folding mechanism to produce blank members of the necessary size having one side and neighboring end portions similar in shape to the corresponding parts of one of the articles to be produced and the opposite side and neighboring end portions similar in shape to the corresponding parts of another of such articles.

The blanks may be formed wholly by hand- 90 manipulation, if desired, and the plies thereof, of which there may be any desired number, may be secured together in any known manner.

My improved method lessens the cost of 95 manufacture by reducing by one-half the number of parts to be handled in several of the preliminary steps. It also permits of much greater uniformity of finish, because each separate side portion of the cut blank is of a 100 certain definite size after all the preliminary operations have been performed, whereas by other methods variations in size necessarily result, although the parts as originally cut

Instances of such variations are those due in hand-turned work to the location of the rim-seam at a greater or less distance from the edge of the plies and in work machine-inturned on three sides to the variations in width of the inturned edge, causing a result-ant variation in the width of the folded blank, whereas when a blank is inturned on all sides the size and shape of the product does not vary, although one edge may be inturned a greater distance than another.

What I claim as new, and desire to secure

by Letters Patent, is—

15 1. That improvement in the art of making collars and like articles, which consists in forming a blank by securing together a plurality of plies of fabric with the edges thereof inturned between said plies along one side and neighboring end portions to the shape desired for similar parts of one of the completed articles, and along the opposite side and neighboring end portions to the shape desired for similar parts of another of the completed articles; separating from each other

the side portions of the blank by cutting; and finishing the separate side portions in the usual manner, substantially as described.

2. That improvement in the art of making collars and like articles, which consists in 30 forming a blank by securing together a plurality of plies of fabric with the edges thereof inturned between said plies along one side and neighboring end portions to the shape desired for similar parts of one of the completed articles, and along the opposite side and neighboring end portions to the shape desired for similar parts of another of the completed articles; separating from each other the side portions of the blank by cutting; and 40 securing the cut edge of each side portion between the plies of a supporting-band in the usual manner, substantially as described.

In testimony whereof I have hereunto set my hand this 1st day of March, 1902.

WILLARD W. SEARLE.

Witnesses:

FRANK C. CURTIS, E. M. O'REILLY.