April 18, 1950 J. J. KAPLAN 2,504,843

NECKTIE AND METHOD OF MAKING IT

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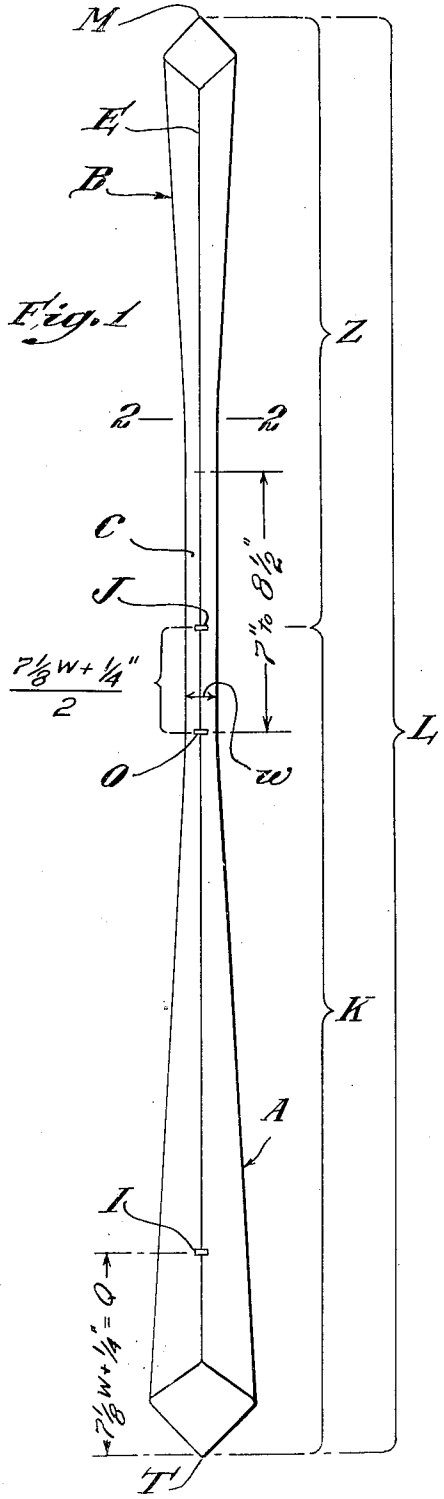


Fig. 1

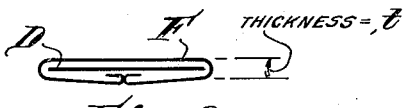


Fig. 2

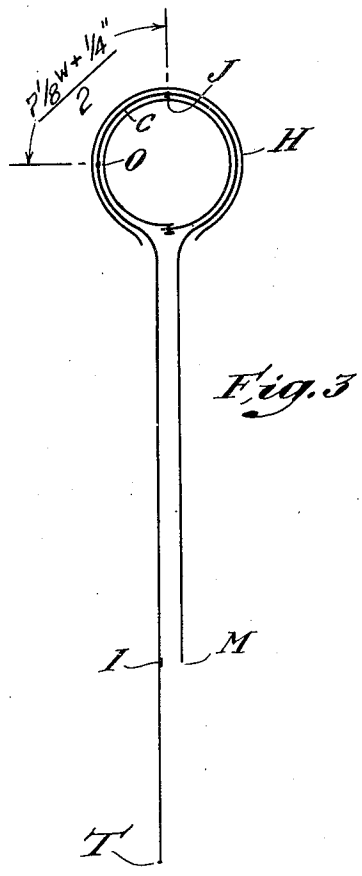


Fig. 3

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NECKTIE AND METHOD OF MAKING IT

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3 Claims. (Cl. 2—146)

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This invention pertains to neckties of the four-in-hand type and relates to improvements designed to facilitate the formation of the knot in such a way that the free ends of the tie will substantially register when the knot is complete. More especially the invention relates to improvements in the tie disclosed in the patent to Kaplan No. 2,343,979, dated March 14, 1944. The tie disclosed in the aforesaid patent is provided with an index element spaced from the wide end of the tie and with which the small or tying end is registered prior to the formation of the knot. The use of such an index as that disclosed in the patent facilitates the proper formation of the knot and assures the substantial registry of the free ends of the tie but it involves the pulling of the tie through the collar after the collar has been attached to the shirt in order to bring the small end of the tie into registry with the index mark. Some types of collar and some types of necktie fabric make it very difficult to pull the tie relatively to the collar so as to adjust it, this difficulty being such as in some instances to result in the permanent deformation of the tie.

One object of the present invention is to provide index means so located as to enable the user of the tie to assemble it with the collar and to adjust it relatively to the collar before the latter is attached to the shirt in such a way that the knot may be tied without further substantial adjustment of the tie relatively to the collar and with the assurance that when the knot is complete the ends of the tie will register. A further object is to provide a tie having index means for use in arranging the tie relatively to the collar and so designed that the index device or devices may be applied readily and accurately to the tie by the tie manufacturer and in accordance with production methods. Other and further objects and advantages of the invention will be pointed out in the following more detailed description and by reference to the accompanying drawings wherein:

Fig. 1 is a diagrammatic rear view of a tie embodying the present invention;

Fig. 2 is a transverse section to larger scale substantially on the line 2—2 of Fig. 1; and

Fig. 3 is a diagram illustrating the relation of the tie to the collar in accordance with the present invention so that the ends of the tie are properly located preparatory to tying the knot.

Referring to the drawings, a four-in-hand necktie of generally conventional construction is illustrated in Fig. 1. This tie comprises the wide end portion A and the narrow end portion B, the

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end portions being united by the neckband portion C. The wide end portion terminates at the point T and the narrow end portion terminates at the point M. As stated, the tie may be of generally conventional construction. As here illustrated (Fig. 2) the tie comprises an outer fabric F and a lining D. However, the present invention is applicable to unlined ties as well as to those which are lined. As illustrated, the outer fabric F is lapped over and its edges are united by a longitudinal seam E or other usual type of fastening means.

The total length of this tie measured between the points M and T is indicated by the character L (Fig. 1). In commercial ties this length may vary somewhat but it will usually be of the order of 40" or more. The midpoint of the tie is indicated at O. The tie has an index element I arranged at the rear side of its wider end, this index element I being similar in character, location and function to the index element described in the aforesaid patent to Kaplan. As pointed out in said patent, this index element at the rear of the wide end of the tie should be at a distance D from the point T (measured toward the center of the tie) as expressed by the formula

$$D=7\tfrac{1}{8}w+4\tfrac{1}{2}t$$

w being the width of that portion of the tie which is embraced in the knot, and t being the average thickness of the tie.

Since the thickness of commercial ties is usually approximately $\frac{1}{8}$", the character t in the above formula may be replaced by the value $\frac{1}{8}$" and with this substitution the formula is reduced to the approximate but practical form,

$$D=7\tfrac{1}{8}w+\tfrac{1}{4}"$$

In order that the index means described in the aforesaid patent as well as the secondary index means herein disclosed may readily be applied to the tie by the manufacturer in accordance with production methods, that is to say without requiring that each individual tie be tested before the index is applied, the present invention contemplates the making of the neckband portion of the tie of a uniform width W and of a length of from 7" to 8½" from the point O (at the center of the length of the tie) toward the end M of the tie. This fixes the value of the character w in the above formula, and this numerical value may be substituted in the formula so that for all ties made with this uniform neckband portion the manufacturer is certain of the distance from the tip T of the tie at which the index I must be placed.

In accordance with the present invention a second index J is placed at the rear side of the neck band portion of the tie at a distance (measured toward the tip M from the center point O) which is represented by the expression

$$\frac{7\frac{1}{8}w+\frac{1}{4}''}{2}$$

Since, as above mentioned, the width w is constant, the manufacturer, having once determined this width, may readily determine the numerical value of the distance of the index J from the center line O.

Having a tie provided with the index J, the user of the tie may arrange the tie relatively to a detachable collar, before the collar is attached to the shirt, by registering the index J with the rear buttonhole of the collar, this arrangement being indicated in Fig. 3. The result of such registration of the index J with the rear buttonhole is that the tip M of the tie is thereby automatically registered with the index I, thus placing the tie in the proper position for tying, as described in the aforesaid patent to Kaplan. In explanation of this result:

Let L=total length of tie.

Let K=length of tie between its wide end T and the index J.

Let Z=length of tie between its narrow end M and the index J.

Then

$$K=\frac{L}{2}+\frac{7\frac{1}{8}w+\frac{1}{4}''}{2}\text{ (approximate)}$$

And

$$Z=\frac{L}{2}-\frac{7\frac{1}{8}w+\frac{1}{4}''}{2}\text{ (approximate)}$$

Thus when the index J is placed at the rear buttonhole of the collar (Fig. 3), the point M will register with the index I, as indicated by the fact that

$$Q=K-Z=$$

$$\left(\frac{L}{2}+\frac{7\frac{1}{8}w+\frac{1}{4}''}{2}\right)-\left(\frac{L}{2}-\frac{7\frac{1}{8}w+\frac{1}{4}''}{2}\right)=7\frac{1}{8}w+\frac{1}{4}''$$

The registry of the small end M of the tie with the index I (thus resulting from the location of index J at the rear buttonhole) responds to the requirements for proper knot location as described in the aforesaid patent. However, by the provision of the index J it is unnecessary to pull the tie through the collar after the collar has been attached to the shirt. The use of this index J thus avoids a necessity for applying longitudinal stress to the tie preparatory to tying the knot and thus the life of the tie is prolonged.

While the second index J is thus very desirable, particularly when the tie is to be worn with a detachable collar, its presence does not interfere with the use of the index I, as described in the aforesaid patent to Kaplan. On the other hand, the provision of the uniformly wide length of neckband, as above described, enables the collar manufacturer very easily and accurately to determine the location of the index I so that for a given quantity of ties, all having the selected width of neckband the location of the index I

may be determined beforehand, and the distance Q may readily be measured off from the tip T. The index elements I and J may be ink markings or the like applied to the tie by a die of fixed dimensions, thus assuring accuracy and rapidity of application.

While one desirable embodiment of the invention has been described by way of example, it is to be understood that the invention is broadly inclusive of any and all modifications falling within the scope of the appended claims.

I claim:

1. A four-in-hand necktie having wide and narrow ends and a neckband portion, the neckband portion being of uniform width w for a length of from 7.5" to 8" measured from the midpoint of the tie toward its narrower end, and an index element at the rear side of the neckband portion located at a distance, measured from the midpoint of a tie toward its narrower end, which is approximately represented by the expression

$$\frac{7\frac{1}{8}w+\frac{1}{4}''}{2}$$

2. That method of making a four-in-hand necktie having index means to assist in the proper location of the knot which comprises making the neckband portion of the tie of a uniform width w and of a length of from 7½ to 8" measured from the midpoint of the tie toward its narrower end and placing an index element upon the rear side of the neckband portion at a distance

$$\frac{7\frac{1}{8}w+4\frac{1}{8}t}{2}$$

from the center of length of the tie, where t is the thickness of the tie material at the neckband portion.

3. That method of making a four-in-hand necktie having index means to assist in the proper location of the knot which comprises using material in making the tie such that the average thickness t of the tie is approximately $\frac{1}{8}''$, making the neckband portion of the tie of a substantially uniform width w for a length of from 7½ to 8" measured from the midpoint of the tie in the direction of its narrower end, placing an index element on the rear side of the neckband portion at a distance

$$\frac{7\frac{1}{8}w+\frac{1}{4}''}{2}$$

from the midportion of the tie measured toward its narrower end, and placing a second index element at the rear side of the wide end portion of the tie at a distance $7\frac{1}{8}w+\frac{1}{4}''$ measured from the tip of said wide end portion toward the midportion of the tie.

JACOB J. KAPLAN.

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The following references are of record in the file of this patent:

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