

No. 644,557.

Patented Feb. 27, 1900.

M. KOCH.
APPAREL BELT.

(Application filed Dec. 14, 1899.)

(No Model.)

Fig. 1.

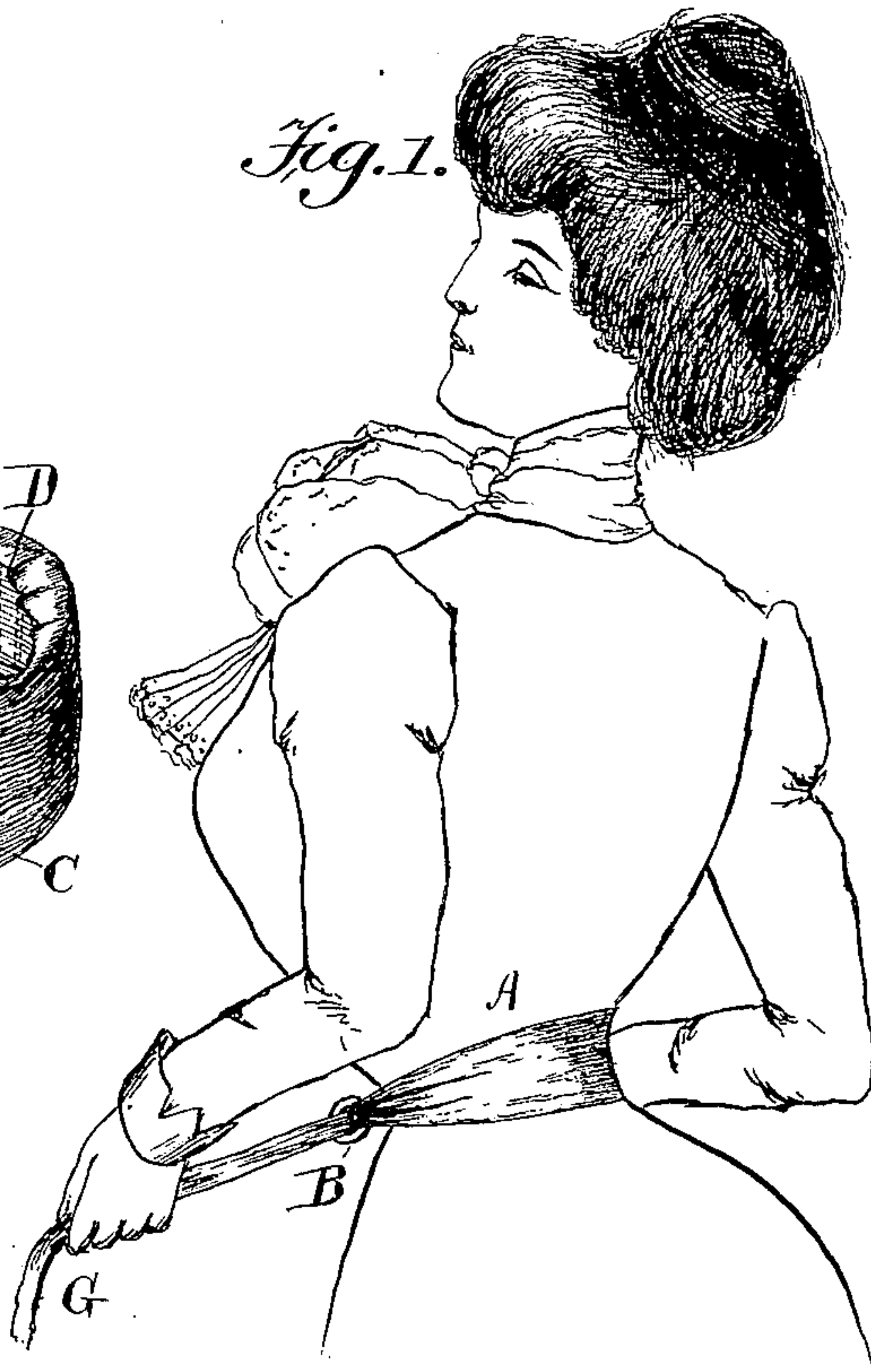


Fig. 2.

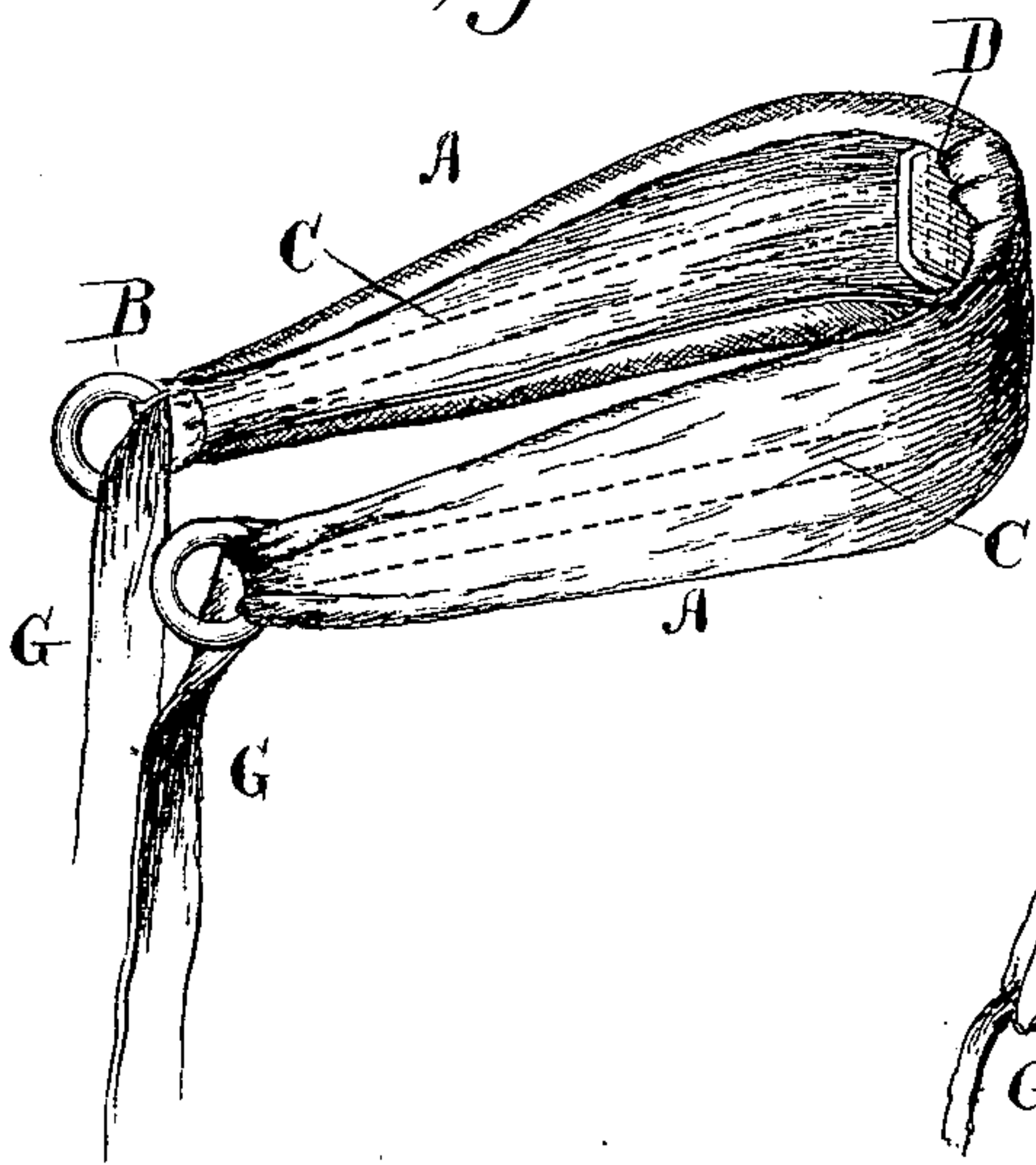


Fig. 3.

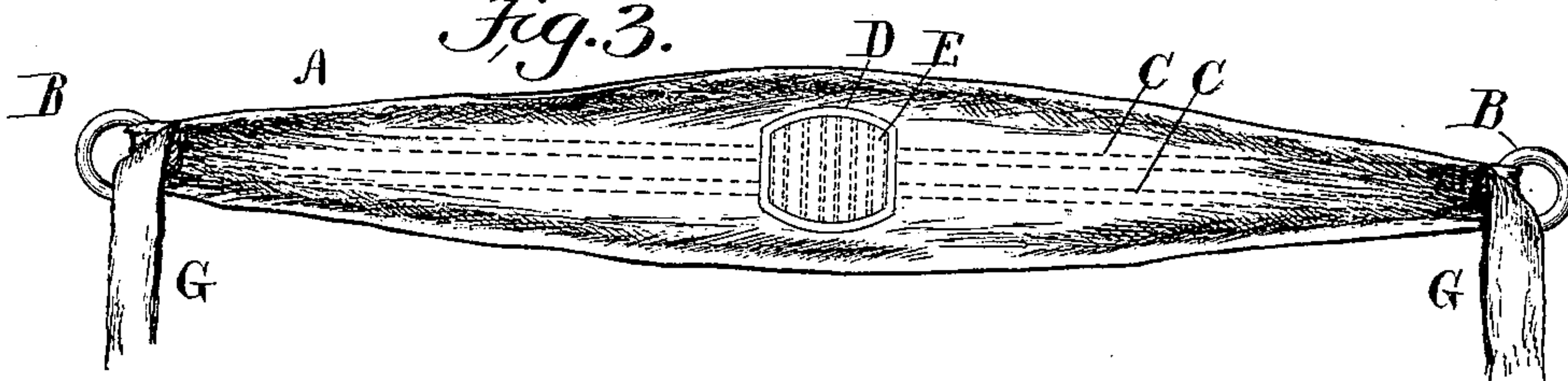


Fig. 4.

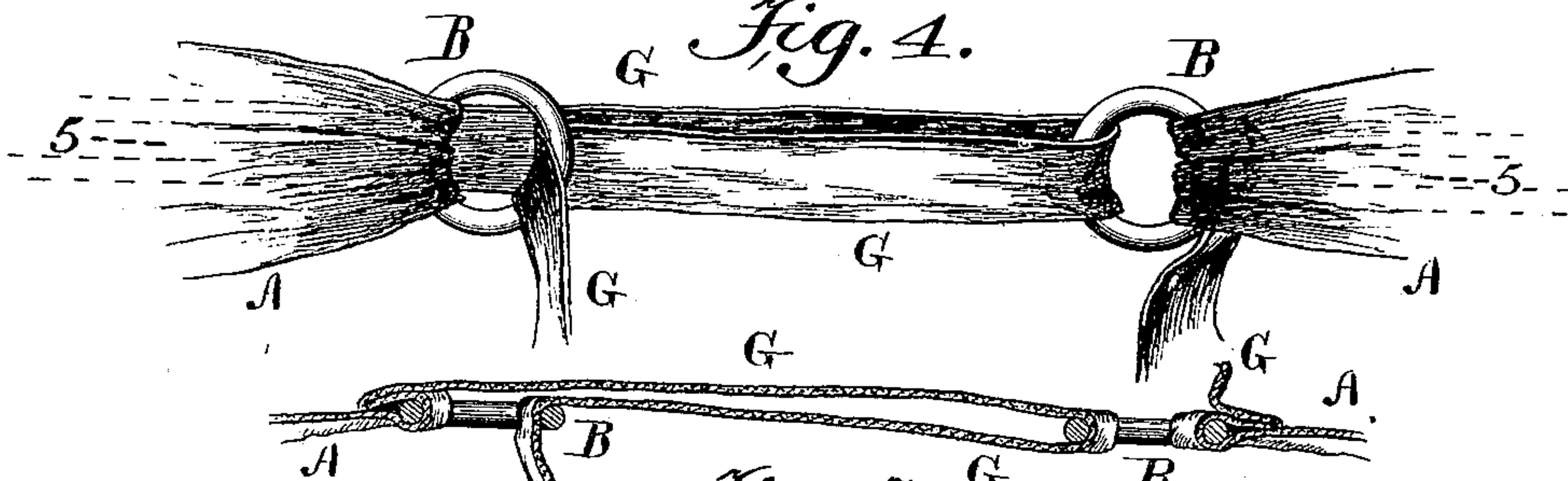


Fig. 5.



WITNESSES:

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APPAREL-BELT.

SPECIFICATION forming part of Letters Patent No. 644,557, dated February 27, 1900.

Application filed December 14, 1899. Serial No. 740,366. (No model.)

To all whom it may concern:

Be it known that I, MONROE KOCH, a citizen of the United States, residing in the city of New York, borough of Manhattan, and State of New York, have invented certain new and useful Improvements in Ladies' Belts, of which the following is a specification.

The improvement applies to all forms of belts, cravats, and the like which encircle the waist, neck, or limb and which require to be drawn together with considerable tightness and to present a tasty appearance. I will describe it as applied to serve as a bodice-belt, while in fact only a belt with stiffening additions and with my provisions for applying the principle of the pulley to effect the drawing of the ends together to properly tighten the belt with but a slight expenditure of strength. I have discovered that simple rings of hard rubber can be attached so as to present no objectionable features and will serve with ribbons to give the effect of pulleys, and that the frictional quality of the rubber contributes to the success of the device by holding the ribbon to prevent its slipping back during the various changes of movement in the acts of tightening and tying.

In what I esteem the most complete form of the invention a wide ribbon having its ends narrowed by gathering serves as the main body of the belt, and a series of short vertical springs are introduced at the back, being first inserted in a pad and the pad being afterward permanently attached to form a part of the belt.

The accompanying drawings form a part of this specification and represent what I consider the best means of carrying out the invention.

Figure 1 shows on a small scale the act of tightening the belt for use. The remaining figures are on a larger scale. Fig. 2 is a perspective view showing the belt with one longitudinal spring. Fig. 3 is a view of the inner face with the belt extended. This shows two longitudinal springs. Fig. 4 is on a still larger scale. It shows a front view of a portion in the act of being applied for use. Fig. 5 is a longitudinal section.

Similar letters of reference indicate corre-

sponding parts in all the figures where they appear.

A is a wide ribbon of fine rich material, as liberty satin or taffeta, of a length nearly sufficient to extend around the waist. Each end is narrowed by being sewed to a ring B of a less diameter than the breadth of the ribbon, forming a series of more or less regular longitudinal gathers extending from the ends inwardly toward the center.

C C are stays, ordinary flat springs of whalebone or analogous material, as feather-bone, covered as usual and secured on the inner face of the belt by stitching through the edges of the covering. In Fig. 1 one spring extends thus longitudinally inward from each end nearly to the center. In Fig. 3 there are two such longitudinal stays in each end. There might be three. In all cases these longitudinal springs are omitted near the mid-length of the belt.

D is a thin pad of fabric stitched in position on the inner face of the belt at the mid-length and containing a series of short springs or stays E. These short springs or strips E are gradually shortened in length upon opposite sides of the central stay. I have in my experiments worked very successfully with the ribbon A four inches wide, the pad D three inches wide in the center, narrowed toward each end, and four inches long, carrying seven upright springs E. Narrower ribbons G, of double-faced satin—say, one and a quarter inches in width and of a convenient length—serve as the "strings," each being strongly sewed on the inner face of the belt near or at its junction with the ring B.

My bodice-belt may be stored in its fully-extended condition or in the folded condition indicated in Fig. 2. To apply it for use around the waist, the narrow ribbons are rove through the opposite ring, the ribbon G, attached to one end of the belt, being led through the ring carried on the opposite end of the belt, the same disposition being made of the narrow ribbon at the other end, each leading across the space between the ends of the main body or belt proper A and being extended idly through the ring at the opposite end. I have shown only one of the narrow ribbons as thus engaged. It will be understood that when

the other is also thus extended across there will be a twisting effect in the passage of one narrow ribbon partially along one face and partially along the other face of the first; but any unsightliness from such rumpling will be concealed by the knot, an ordinary bow, which will finally be formed by tying the narrow ribbons together in front of the whole. I have not deemed it necessary to show such bow, as it will not involve any difficulties; but I wish to refer again to the tension on the belt from a given amount of pull on the narrow ribbons G due to the serving of the ribbons pulleywise through the rings.

I have in Figs. 4 and 5 shown the single narrow ribbon, which is engaged as rove through both rings—that is to say, it extends from its point of attachment to the wide belt, first across the opening to the ring B, on the other end of the wide ribbon A, thence through that ring, and thence back to and through the ring B on the end from which it started, and after being rove through that ring it extends forward ready to be tied to the other narrow ribbon (not shown)—that is, right. The invention can be used in that manner, and its use in that way will give still greater pulley-like effect; but it is not usually necessary to thus lead or reeve it through both rings. It is sufficient if it is simply led through one ring and then tied. Reeving it through both rings, as shown, gives triple effect to the pull imparted to the narrow ribbon. Reeving it only through one, the first one mentioned, will give only double effect; but double effect is sufficient for most wearers.

It will of course be understood that the friction subtracts from the double effect when used in the preferable manner, using only one ring for each ribbon, and subtracts from the triple effect whenever the invention is used, as it may be, with the narrow ribbons extended through both rings. The friction is of advantage, not in obtaining the pulley-like effect for it is confessed to subtract therefrom, but in holding the narrow ribbons against slipping back until the wearer is ready and promotes such motion in taking off the belt. I find hard-rubber surfaces on the rings give a frictional quality highly desirable in the use of this invention, but other surfaces, and especially the precious metals nicely finished, may serve. With the widths of the wide and narrow ribbons above given I have used successfully circular rings B of five-eighths of an inch and others of half an inch internal diameter. Rings of other forms than circular may be used, if desired, in any case.

Modifications in other features may be made without departing from the principle or sac-

rificing the advantages of the invention. Cheaper fabrics may be employed.

Parts of the invention may be used without the whole. I can use the springs extending upright without associating them in a pad. I can dispense with the longitudinal springs C.

In my divisional application, Serial No. 3,831, filed February 3, 1900, I have shown and described the belt without as well as with said longitudinal springs and have made appropriate claims applicable to either of said forms. It is, however, a special improvement to provide the longitudinal springs in connection with the transverse springs on account of the longitudinal stiffness which they impart to the belt or similar article, making it set smoothly in use and keeping it extended when laid away. For this latter object the belt can be folded in the middle, the transverse springs (stays or stiffeners) not interfering with longitudinal flexibility at the place occupied by them. The longitudinal springs or stiffeners, while not allowing a short fold, have sufficient flexibility to bend easily about the waist (or in case of a cravat about the neck) of a wearer.

I claim as my invention—

1. The herein-described belt, composed of a body portion of suitable flexible material, such, for example, as ribbon, transverse stays permanently fixed in the said body portion at the middle thereof, longitudinal stays disposed on opposite sides of said transverse stays, and means for connecting the ends of said body portion to hold the belt in place, substantially as set forth.

2. The herein-described belt, composed of a body portion of suitable flexible material, such, for example, as ribbon, a group of transverse stays permanently fixed in said body portion at the middle thereof for holding the back of the belt distended laterally, the said transverse stays being gradually shortened in length upon opposite sides of the middle line of the group to determine the gradual taper of the belt from the back toward the front, longitudinal stays disposed on opposite sides of said transverse stays, rings at the opposite ends of the said body portion, the said rings being of a diameter less than the width of the said body portion at its middle, and means for connecting the rings to hold the belt in place, substantially as set forth.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

MONROE KOCH.

Witnesses:

JAS. F. HYDE,
J. B. CLAUTICE.