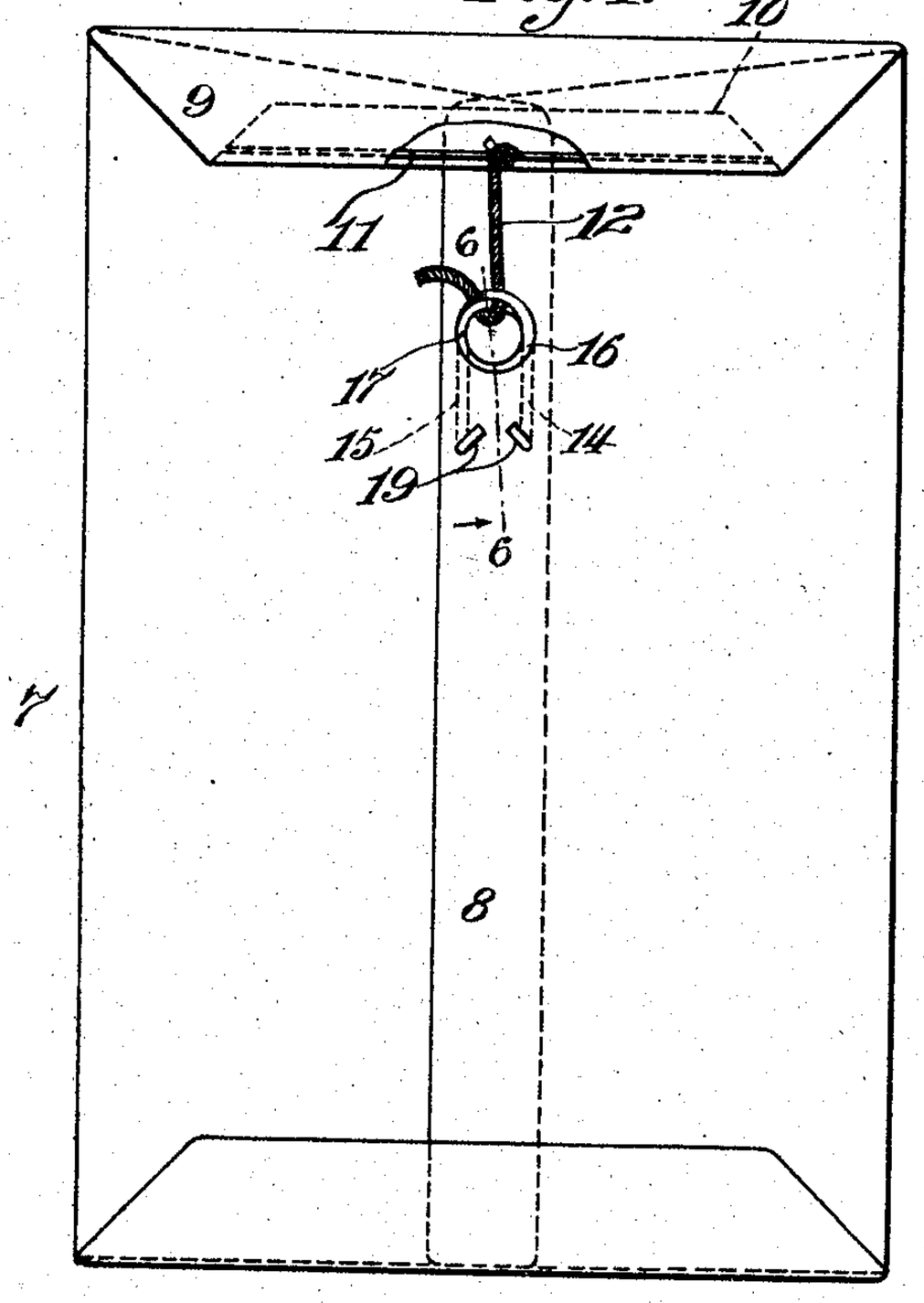
No. 780,994. PATENTED JAN. 31, 1905.

A. M. HANAN.

FASTENING DEVICE.

APPLICATION FILED APR. 22, 1904.

Fig. 1.



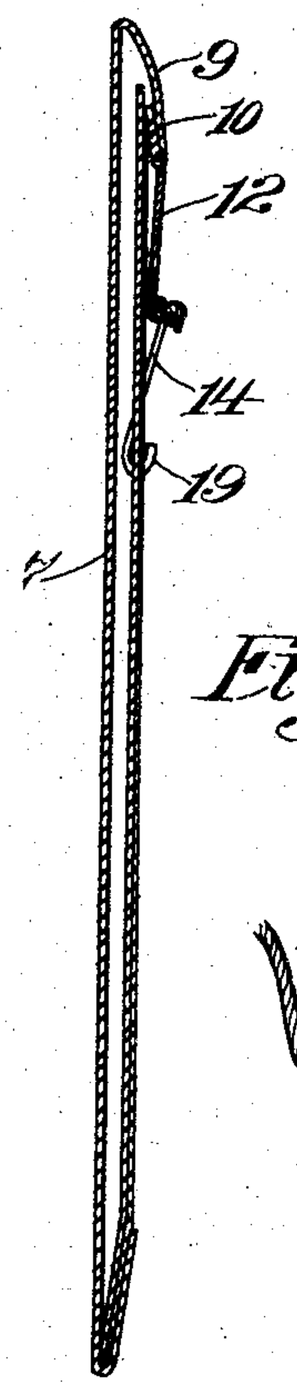
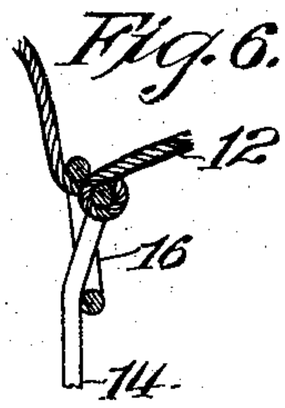


Fig. 2.

Fig. 6.



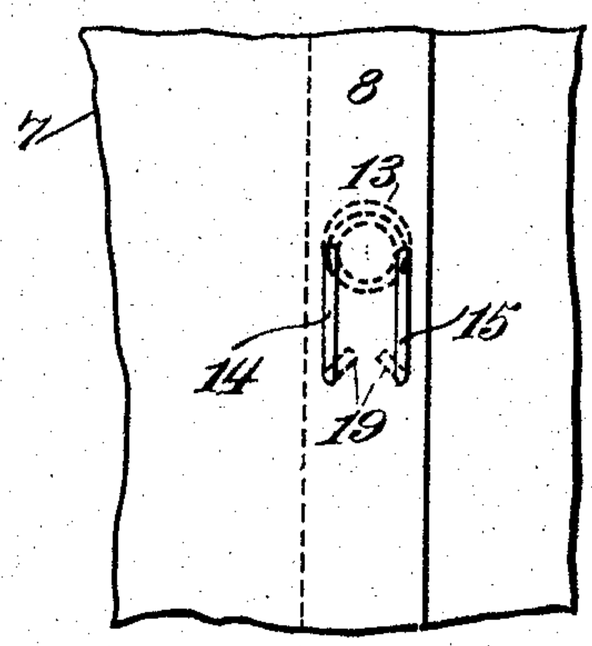


Fig. 3.

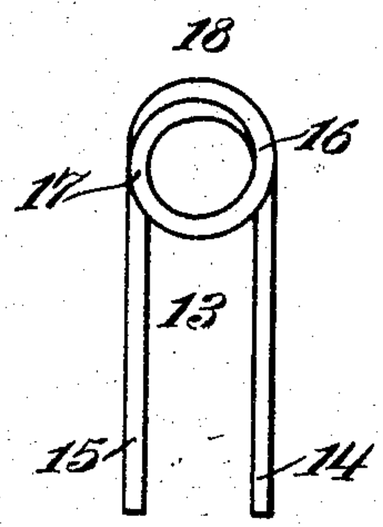
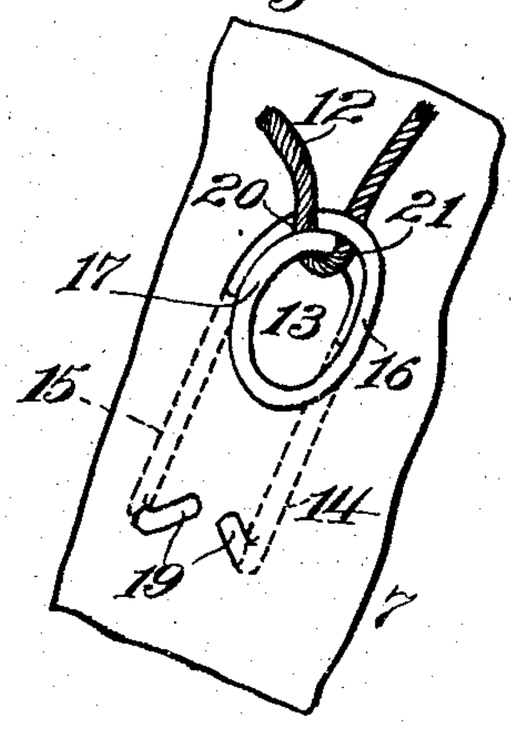


Fig. 5.

Fig. 4.



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No. 780,994. Patented January 31, 1905.

UNITED STATES PATENT OFFICE.

ALFRED M. HANAN, OF BROOKLYN, NEW YORK, ASSIGNOR TO BLOSSIE A. HANAN, OF BROOKLYN, NEW YORK.

FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 780,994, dated January 31, 1905.

Application filed April 22, 1904. Serial No. 204,339.

To all whom it may concern:

Be it known that I, ALFRED M. HANAN, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Fastening Devices, of which the following is a specification.

This invention relates to and has for its object to provide an improved fastening device.

In the drawings accompanying and forming a part of this specification, Figure 1 is a back view of an envelop provided with my improvement, a portion of the flap being broken away to show the method of securing the fastening-string to one portion of the envelop in the illustration to the flap. Fig. 2 is a longitudinal section of Fig. 1. Fig. 3 is a rear view of a portion of the envelop, showing the passage of the wires of a portion of the fastener through the material of the article of manufacture to which it is applied. Fig. 4 is a perspective view showing the fastener with a cord or string secured therein. Fig. 5 is a view of the fastening; and Fig. 6 is a section on the line 6 6 of Fig. 1 looking toward the right in said figure, and also of Figs. 4 and 5, and is in the nature of a diagrammatic representation of the manner in which the members of the fastener engage and lock the string.

Although this invention is applicable and capable of use in various devices—as, for instance, bags and packages—yet it is here shown in connection with an envelop, to which it is peculiarly applicable, and although the portion of the fastener carried by the body portion of the envelop to engage the string or cord is referred to as "wire" it will be apparent that sheet metal may be employed or some plastic properly molded.

The envelop which is here taken as an example is represented in a general way by 7 and is illustrated herein as one having a lapping-seam 8 upon its back, the envelop being closed by a flap 9. Such flap is shown as having within a bend or fold 10 a thin rod, which may be a wire 11, to which is tied a cord or string 12 for securement to a fastening cooperative therewith and carried by the body of the envelop. In the present instance such latter fastening is designated in a general way by 13 and comprises a wire having fastening ends or limbs 14 and 15, which carry two convolutions 16 17, respectively. The wire to be placed in such shape may be given one and a half turns, which will leave the portions 14 and 15 substantially parallel, one of the limbs, as 15, being bent back of one of the convolutions, as 17, so that at about the region 18 one convolution will come from behind, pass in front of and overlie the other, making an incipient or partial wind. There will be a certain spring action between the two convolutions, one pressing the other to bite the string or coöperative member.

The limbs 14 and 15 may be passed through the seam portion of the envelop. The reason the seam portion is mentioned is that the seam being of two thicknesses of material greater strength will be had. The location, however, of the fastening devices at the seam is not essential. After the limbs have been passed through the body of the envelop or bag from the outside inwardly they will then be pressed out and may be bent over to form anchors 19. The bends may for neatness to the device be bent out of parallel with the limbs, which will avoid piling up of the wire upon itself. By avoiding such piling up a much flatter structure may be produced and one wherein the paper or material between the wires will not be cut, as might happen by a slight excess of pressure in the bending down of the wire. The cord or string may be fastened or locked by the wire by engagement therewith from either side; but it is thought that the strongest locking will be had by bringing the cord so that it will be between the convolution 16 and the envelop, and in Figs. 4 and 5 such locking would be by bringing the string to the right-hand side, causing it to enter between the convolution 16 and the limb 14, pass it thence between the limb 15 and the convolution 17 by an upward movement, when it will form a half-hitch around the wire

in the convolution 17 at the top thereof or at about the region 18. Not only will a half-hitch be formed in the cord, but it will be held there by the interspring action of the wires or convolutions, the convolution 17 being pressed downwardly or deflected by the presence of the string, and any tendency to draw the string in the direction of opening the envelop will cause the convolution 17 to press upon the upper portion of region 18 of the convolution 16, and thereby bite the cord. When it is desired to unfasten the envelop, the cord may be moved in a reverse direction to that in fastening, and the flap may then be released. The formation of the wire is such that no sharp edges are presented to the cord, and it is not chafed or injured by the parts in the locking or unlocking. By reference to Fig. 6 it will be seen that the string is given what might be called a "half-hitch" or a complete turn about the wire, in the present instance about the portion of wire forming the convolution 17, and that by reference to Fig. 4 the convolutions 16 and 17, whereby they overlie one another, bite the cord in two places—as, for instance, at 20 and 21—the string thus being held by the wire by a half-hitch around the same and by being clamped at two points—namely, at each end of the half-hitch—thus giving a very strong and secure fastening, but one which does not form a knot or abrade the string.

Having thus described my invention, I claim—

1. In an envelop whose body portion is provided with four openings on one side, the combination with a wire bent upon itself to form convolutions, legs extending therefrom and which pass through two of said openings, and whose ends are upturned and adapted to be anchored into the other openings, such convolutions being adapted to receive a sealing-string and convert the same into a knot and bite the same at points between such convolutions.

2. In an envelop, the combination with a flap having a portion thereof bent upon itself, a wire within the bend, a string having one end of it about the wire, a fastening device comprising a wire bent upon itself to form convolutions, legs extending therefrom and whose ends are upturned and adapted to be anchored into the material of the bag, such convolutions being adapted to receive said string and convert the same into a knot and bite the same at points between such convolutions.

Signed at Nos. 9 to 15 Murray street, New York, N. Y., this 21st day of April, 1904.

ALFRED M. HANAN.

Witnesses:

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