

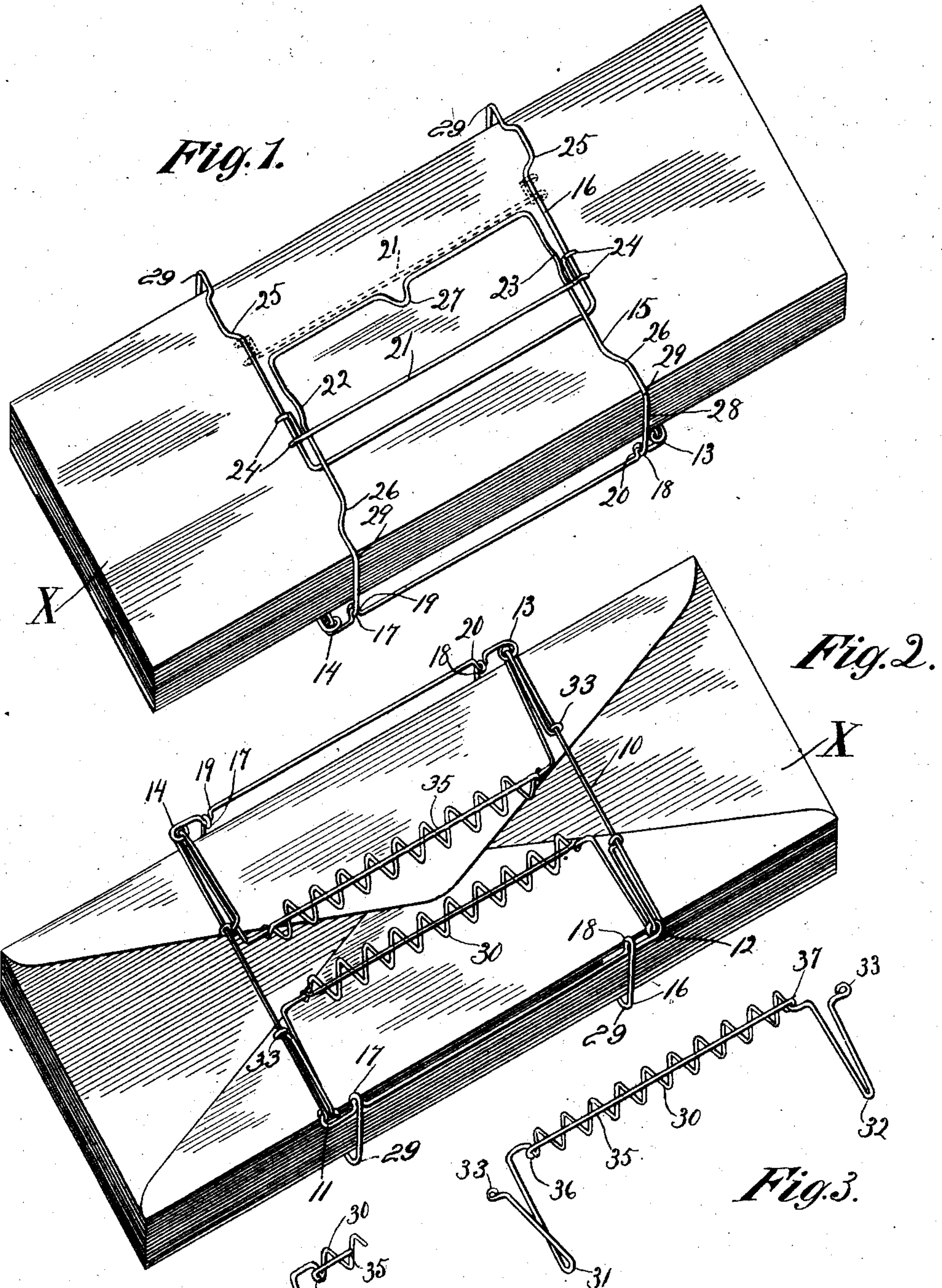
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S. F. ESTELL.

CLASP.

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Witnesses:
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Fig. 4.
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UNITED STATES PATENT OFFICE.

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CLASP.

No. 883,184.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL F. ESTELL, a citizen of the United States, and resident of Los Angeles, county of Los Angeles, and State of California, have invented certain new and useful Improvements in Clasps, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to clasps, and has for its object to provide simple and improved means for binding articles together in the form of a packet or parcel.

When articles are to be secured together in a parcel it is usually necessary, in order to prevent the articles from becoming twisted with relation to each other, if not entirely displaced from the parcel and lost, to encircle the package with the binding means at more than one point along its length, or in more than one direction. If soft string be employed as the binding means the encircling of the package at more than one point along its length necessitates the tying of a plurality of knots for securing the package, while if the articles to be secured are of irregular length the tying of the package by encircling it with the string in both a longitudinal and transverse direction results either in an insecure holding of the shorter articles or in injury to the protruding ends of the longer ones. This is particularly true if the articles to be united in a package are of oblong rectangular shape, such as letters intended for transmission through the mail, a package of mail intended for a given destination or delivery route being commonly made up principally of letters confined in envelops of the usual commercial length, and a very much smaller number of letters confined in envelops of greater length. When such a package is tied with string the ends of the longer envelops become very much wrinkled and torn by the band of string which is passed longitudinally about the package, while the opening and retying of the package for removal from or addition to its contents is difficult and tedious.

By means of the invention a clasp is provided whereby articles may be firmly secured in a package without injury, while the clasp is of such form that it may be easily opened and reclosed without loss of time for releasing and resealing the contents of the package. The clasp may in fact be repeatedly used, and it is so constructed that it may be

made of sufficient width to secure articles of oblong rectangular shape in a package without danger of their being twisted with relation to each other or displaced from the package. For these reasons the clasp provided by the invention may be advantageously employed in the mail service for binding letters together in a package, a further application of the device being the securing of paper currency together in bundles convenient for handling.

In the accompanying drawings Figure 1 shows in perspective a parcel made up of letters intended for transmission through the mail and secured together by a clasp constructed according to the invention, the clasp being illustrated as viewed from the top; Fig. 2 is similar to Fig. 1 but shows the parcel and clasp inverted; Fig. 3 shows a detail of the clasp separated from other parts; and Fig. 4 is similar to a detail of Fig. 3, but illustrates a slight modification in the construction.

As shown in the drawings, the clasp comprises a base member which provides a yielding seat for the articles to be united, and leaves hinged to the base and intended to be folded over the articles placed thereon, the free ends of the leaves being removably united, when thus folded, to form with the base a band extending entirely about the package.

The base member is designated 10 in the accompanying drawings. In order that it may be of considerable width and have but little weight, this member takes the form of an open wire frame, the wire from which it is formed being looped to provide an eye as 11, 12, 13 and 14 at each corner of the frame. The leaves, as 15, 16, are hinged to the frame at each of two of its opposite marginal edges. Like the base, they are preferably formed of wire and each is of substantially U-shape, the hinged connection between the leaves and the base being at the open end of the U and being formed by providing the ends of wire from which each of the leaves is made, with eyes as 17, 18, for receiving one of the frame members of the base. To prevent longitudinal movement between the base and each of the leaves the frame member of the base forming the pintle of the hinge is bent sharply to provide notches 19, 20, at the points of engagement with the eyes 17, 18.

For removably uniting the free ends of the leaves 15, 16, these are preferably of differ-

ing width, the wider leaf, as 16, being provided with a slide 21, adapted to be moved over the free end of the opposite leaf, as 15, when the clasp is closed, as shown in Fig. 1. Preferably a lock is formed for preventing accidental withdrawal of the slide, by providing that part of the wire forming each of the side members of the leaf 15 adjacent its free end with a rounded shoulder, designated 22, 23, respectively, over which the slide must ride. The slide 21 preferably takes the form of a single strand of wire extending from side to side of the leaf 16, and in order that it may be moved freely upon the two side members of this leaf without binding, an elongated bearing is provided at each end of the slide by the formation of two eyes, designated 24, suitably spaced apart by an intermediate section of wire, both of the eyes being turned about the wire forming the side member of the leaf. The movement of the slide is limited in one direction by shoulders 25 formed in each of the side members of the leaf 16, and to give the device a symmetrical appearance as well as to provide for the difference in the width between the two leaves 15, 16, similar but more abrupt shoulders 26 are formed in the side members of the leaf 15. As a guide to the user, that leaf, as 15, which is to be placed on top in folding the clasp is provided with some feature, as the notch 27, formed in its outer end, which characterizes it from the other leaf, as 16.

To give the clasp sufficient depth to retain a considerable number of articles, a right angle turn 29 is provided in the wires forming the side members of each of the leaves 15, 16, thus giving to each of the leaves an angular form, that leg of the angle comprising the short sections of wire 28 adjacent the hinged connection between the leaf and the base, being directed perpendicularly to the plane of the base when the clasp is closed.

In order that the clasp may be employed for securing parcels widely different in thickness, the base member 10 is provided with yielding contact members 30 adapted to be depressed by the contents of the clasp. Each of these contact members is most conveniently formed of spring wire and comprises a section preferably bent to zigzag form and extending from end to end of the base member 10 adjacent its median line, the ends of the zigzag section being turned inwardly to extend to the corners of the base and being there bent sharply, as indicated at 31, 32, to permit of an elastic yielding of the member, the wire adjacent the bend being threaded through the eyes, as 11, 12, formed at the corners of the base, and the ends of the wire being turned about the end members of the base, as indicated at 33, 33, to provide a suitable support for the spring. If desired greater elasticity may be given to the contact members 30 by looping the wire from which

they are formed into eyes, as 34, Fig. 4, of one or more complete turns, at the point of engagement with the corners of the base.

In use the articles to be secured by the clasp, such as a bundle of letters X intended for a particular postal station or mail delivery route, will be laid upon the contact members 30 of the base, while the leaves 15, 16, of the clasp are opened out flat upon a table in front of the user. When in this position the corners 29 of the leaves 15, 16, rest upon the table to support the device, and downward pressure on the articles to be secured when applied to the base therefore causes a partial closing of the leaves. The free ends of the leaves 15, 16, are then folded over the articles to be secured and the slide 21 moved to the position shown by full lines in Fig. 1, whereby the free ends of the leaves are firmly united. The clasp may be instantly opened and reclosed as often as desired by the use of the slide 21, this feature being of particular advantage when the device is used for securing a bundle of letters to be deposited at different stations along a mail delivery route, the resecuring of the package after one station is passed preventing its contents from becoming disassorted before the next is reached.

It may be advisable in some instances to stiffen the contact portion of the member 30, and for that purpose I may employ a wire 35, firmly secured to the member 30 at each end of its zigzag portion, as indicated at 36, 37, and extending beneath the convolutions of that portion. Such a wire serves not only to prevent the flexing of the contact member 30, but also serves to prevent longitudinal extension or shortening of the zigzag portion of that member. I have found in practice that the entire device may be conveniently and advantageously formed of hard or spring steel wire.

I claim as my invention:

1. In a clasp, in combination, a base having a yielding contact surface, leaves hinged to the base at opposite marginal edges thereof and adapted to fold over its contact surface, and means for detachably uniting the free ends of the leaves when so folded.

2. In a clasp, in combination, a base having a yielding contact surface, a leaf hinged to a marginal edge of the base and adapted to fold over its contact surface, and means for detachably connecting the free end of the leaf with the opposite marginal edge of the base when so folded.

3. In a clasp, in combination, a base, an elastically flexible contact member carried by the base and extending over its surface, a leaf hinged to a marginal edge of the base and adapted to fold over the contact member, and means for detachably connecting the free end of the leaf with the opposite marginal edge of the base when so folded.

4. In a clasp, in combination, an open rectangular frame formed of spring wire and having an eye at each of its corners, a yielding contact leaf extending over the frame
5 from each of two opposite marginal edges thereof, each of such leaves being formed of spring wire and such wire adjacent each of its ends being threaded through the eye at a corner of the frame and being bent to form
10 an angle, the adjacent end of the wire being secured to a side member of the frame, hinged leaves adapted to fold over the contact leaves, and means for detachably uniting the free ends of the hinged leaves.

15 5. In a clasp, in combination, a base having a yielding contact surface, an angular leaf hinged to the base at each of two opposite marginal edges thereof, one leg of each leaf extending upwardly from the base
20 when the clasp is closed, and the other leg

extending over the base, and means for detachably uniting the free ends of the leaves.

6. In a clasp, in combination, a base having a yielding contact surface, leaves hinged to the base at each of two opposite marginal
25 edges thereof to fold over its contact surface, each of the leaves being in the form of an open frame made of wire and of such length that their free ends overlap when folded, the free end of one leaf being of greater width than
30 that of the other, a slide carried by the overlapping portion of one leaf, the corresponding portion of the other leaf being formed with a rounded shoulder adapted to be passed by the slide.

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Witnesses:

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