F. BARKER.

CLIP OR BINDER.

APPLICATION FILED DEC. 7, 1912.

1,066,363. Patented July 1, 1913.

Fig. 1.

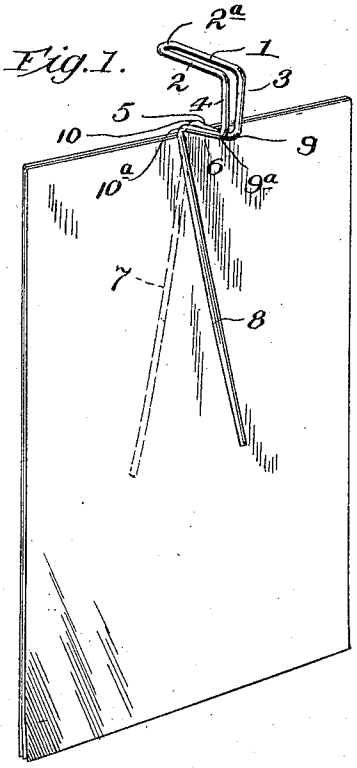


Fig. 2.

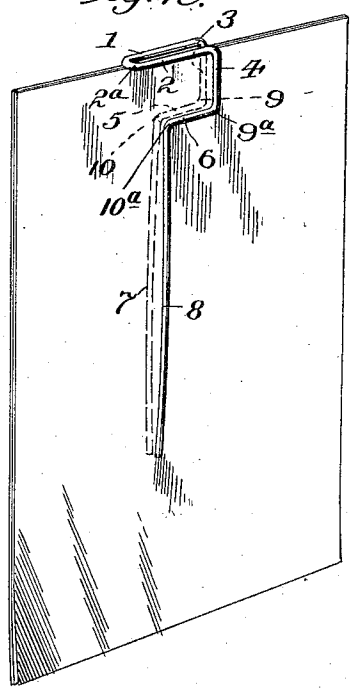


Fig. 3.

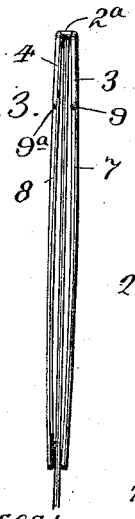


Fig. 4.

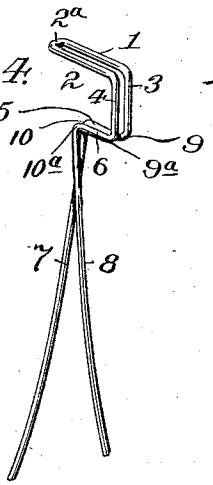


Fig. 5.

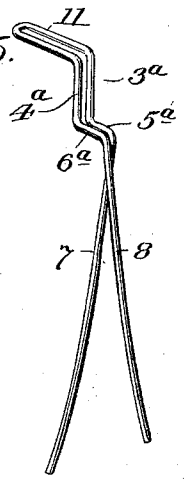
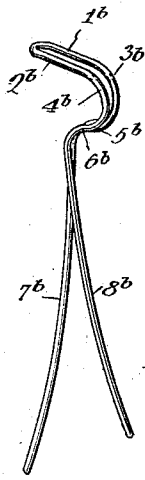


Fig. 6.



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UNITED STATES PATENT OFFICE.

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CLIP OR BINDER.

1,066,363. Specification of Letters Patent. Patented July 1, 1913.

Application filed December 7, 1912. Serial No. 735,468.

To all whom it may concern:

Be it known that I, FRANK BARKER, a citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented certain new and useful Improvements in Clips or Binders, of which the following is a specification.

My present invention pertains to an improved clip or binder, designed for use in temporarily securing articles together, and more especially adapted for binding a number of relatively heavy and thick articles, such as a bundle of envelops, cards and the like. While the device is particularly adapted to the purpose last mentioned, it is nevertheless susceptible of being used in the manner of the ordinary paper-clip, the device when so employed being made smaller and of lighter wire.

The invention, in three of its forms, is illustrated in the annexed drawings, wherein:

Figure 1 is a perspective view of the binder shown positioned with reference to a plurality of sheets, and as being partially brought into clamping relation therewith; Fig. 2 a like view, showing the device fully positioned; Fig. 3 an edge view of the cards and the positioned clip; Fig. 4 a perspective view of the preferred form of the clip; Fig. 5 a like view of a modified form, and Fig. 6 is a perspective view of a further modification.

Referring first to the construction shown in Figs. 1 to 4, the device may be said to comprise a spring head or loop section, produced by the substantially parallel members 1 and 2, connected at one end by the section 2^a. From what may be termed the free ends of said arms or members, there project downwardly extending members 3 and 4, said members standing at an angle, preferably at a right angle, to the head, and also to two members 5 and 6, which extend inwardly beneath the head in spaced relation thereto. Relatively long arms 7 and 8 project, respectively, from the members 5 and 6, the arms being curved or bowed and crossing each other at or near their upper portions and lying in substantially parallel planes, each of which planes intersects the longitudinal axis of the head at substantially right angles. The curvature in the arms is in a plane transverse of the head or loop section, and the curvature in one is the reverse of that in the other, so that, when the clip is positioned, see Figs. 2 and 3, the lower ends bind tightly against the articles between the same.

The construction as above set forth produces what may be termed two pairs of shoulders, as at 9 and 9^a and 10 and 10^a, the shoulders of each pair being oppositely disposed.

In use the arms of the clip are passed down upon opposite sides of the articles to be clamped, and then the clip is given a half turn and pushed fully down to the position shown in Fig. 2. This turning and downward movement will separate the arms and cause them to exert considerable pressure upon the articles between them, the members 3 and 4 and 5 and 6 likewise bearing against the articles. The shoulders, particularly the forward pair, 10 and 10^a, will bear in upon the articles and thus the articles will be firmly held together. The clip may be readily removed, it being necessary only to grasp the head or loop section and pull the clip endwise off of the articles.

In Fig. 5 a slight modification of the invention is illustrated, wherein the head or loop section, designated as a whole by 11, lies upon the opposite side of the upright members 3^a and 4^a, corresponding to members 3 and 4, from that which the loop or head occupies in the construction above set forth. In other words, while the head lies in a plane parallel to the plane in which the members 5^a and 6^a (corresponding to 5 and 6 of the first construction) lie, said head is not directly over the same, but projects away from the members 3^a and 4^a in an opposite direction. The method of placement and withdrawal of the clip or binder is the same as above set forth.

While it is preferred to form the junction between the various members so as to produce relatively sharp angles (right angles) such construction is not essential to the generic invention, as the parts may gradually merge into one another. In other words, the head might be connected to the arms by members which are curved in form, as shown in Fig. 6, the parts being the same as those in Figs. 1 to 4 inclusive, with the exponent " b " added thereto for the sake of clearness.

Having thus described my invention, what I claim is:

1. A clip or binder formed from spring wire, having a spring head with two arms

connected to and projecting therefrom, said arms normally crossing each other adjacent their upper portions and extending downwardly and away from each other toward the free ends thereof, the arms lying in substantially parallel planes, each of which planes intersects the longitudinal axis of the head at substantially right angles.

2. A clip or binder formed from spring wire, having a loop-shaped head with a pair of reversely bowed arms connected to and extending at right angles from the head, said arms crossing each other adjacent their upper portions and extending downwardly and away from each other toward the free ends thereof, and lying in substantially parallel planes, each of which planes intersects the longitudinal axis of the head at substantially right angles.

3. A clip or binder formed from spring wire and comprising an open loop-shaped head, a pair of members extending from the free end of the loop at substantially right angles thereto; a second pair of members extending from the lower end of said members just mentioned, and standing at substantially right angles to said members; and a pair of bowed and cross arms extending downwardly from said last-mentioned members.

4. A clip or binder formed from spring wire and comprising an open loop-shaped head; a pair of members extending downwardly therefrom; a second pair of members projecting inwardly beneath the head and formed as a continuation of the members aforesaid; and a pair of crossed and bow-shaped arms projecting away from said last-named members at substantially right angles to the head.

5. A clip or binder, comprising a loop-shaped spring head open at one end; a pair of spring arms crossing each other adjacent their upper portions and extending downwardly and away from each other toward the free ends thereof, said arms lying in substantially parallel planes, each of which planes intersects the longitudinal axis of the head at substantially right angles; and members connecting the upper portions of said arms and the free ends of the loop-shaped head.

6. A clip or binder, comprising a loop-shaped spring head open at one end; a pair of spring arms, said arms being bowed away from each other and crossing adjacent their upper portions and lying in substantially parallel planes, each of which planes intersects the longitudinal axis of the head at substantially right angles; and members connecting the arms, respectively, with the adjacent ends of the loop-shaped head.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK BARKER.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."