

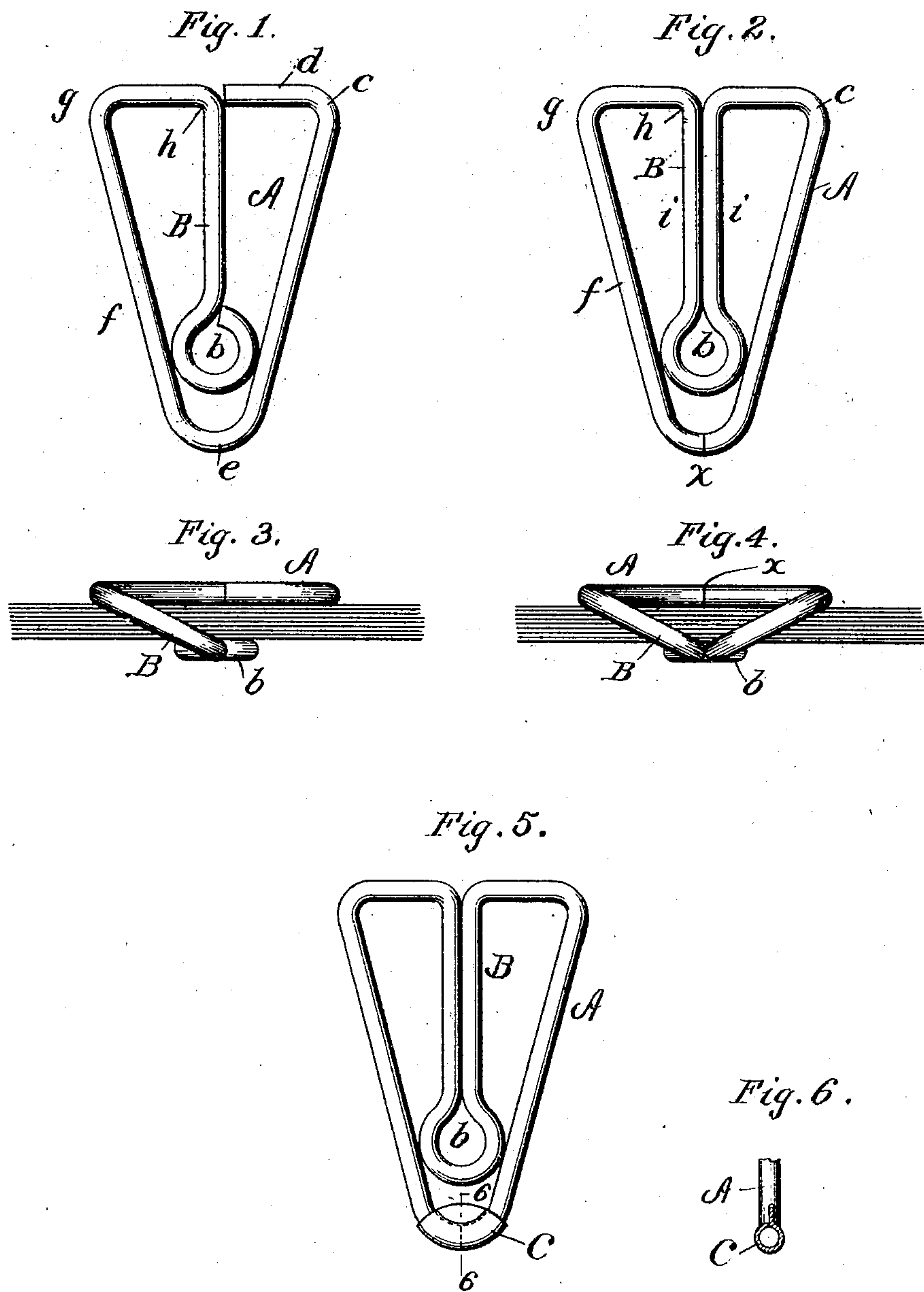
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R. GORTON.
PAPER CLIP.

APPLICATION FILED JULY 1, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

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PAPER-CLIP.

SPECIFICATION forming part of Letters Patent No. 764,719, dated July 12, 1904.

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To all whom it may concern:

Be it known that I, ROBERT GORTON, a citizen of the United States, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Paper-Clips, of which the following is a specification.

My invention relates to paper-clips of the kind commonly used to attach sheets of paper together or to attach small pieces of paper, cardboard, coupons, checks, and the like to larger pieces of paper, such as letter-sheets; and my object is to provide a clip of this class which while being simple in construction, easily made, and requiring a small amount of material may be readily applied, will securely hold, and will have no projecting points or ends that will interfere with its efficiency.

In carrying out my invention I construct a clip of a single piece of wire of the size usually employed and having the usual amount of resiliency, and I so end the wire as to form two members lying one within the other and so disposed as to provide a maximum amount of friction and gripping power and a large enough capacity to accommodate several thicknesses of paper, while the gripping action is largely concentrated at the inner end of the clip, where it is most needed.

The clip is triangular or V shape in outline, the inner member being centrally arranged within the triangle and preferably having an enlarged gripping end or head that lies close to the sides of the outer member at the apex of the triangle. In the preferred form the clip is made from a single piece of wire, a portion of which at one end forms one-half of the base of the clip, and from this portion the wire is continued in a diagonal direction to the apex of the clip. Thence it continues in a diagonal direction to the base, where it is bent and continued to form the remainder of the base. It is then bent again and extended inwardly and within the outer member to near the apex of the triangle, where it is formed into an eye that lies close to the wires of the outer member. A clip thus formed has large capacity, as its base is quite long and as the inner member when bent turns about an axis removed to a considerable dis-

tance from the eye. The gripping action is for the most part concentrated near the lower end of the clip. Thus accidental turning or loosening of the clip from the papers is avoided. The two members of the clip lie flat against the paper, so as to present at all times their entire frictional contact-surfaces. The sides of the outer member being diagonally arranged produce a friction on the paper which is not incident to a construction in which the sides are parallel, as the sides of this member slide on a larger surface of paper than a clip where the sides are straight or parallel.

In the accompanying drawings, Figure 1 is a front elevation of the preferred form of clip embodying my invention. Fig. 2 is a similar view of a modification. Fig. 3 shows an end elevation of the clip shown in Fig. 1 applied to several thicknesses of paper. Fig. 4 shows an end elevation of the clip shown in Fig. 2 applied to several sheets of paper. Fig. 5 is a front elevation of another modification. Fig. 6 is a detail view showing the manner in which the ends of the wire may be connected.

The clip shown in Fig. 1 is formed from a single piece of wire of the usual size and having the usual amount of resiliency. The outer member A is of general triangular or V shape, while the inner member B consists of a straight portion of the wire arranged centrally within the outer member and having in this instance at its lower or inner end an eye *b*. The outer member is formed by bending the wire at *c*, the portion *d* of the wire forming about one-half of the base of the triangle. From the bend *c* the wire extends in a diagonal direction to the apex *e* of the triangle, where it is bent in a comparatively long curve and then extended upwardly at *f* in a diagonal direction to the plane of the base of the triangle. It is then bent at *g* and extended in line with the portion *d* of the wire to complete the base. It is then bent at *h* and prolonged downwardly or inwardly to near the lower end of the outer member, where it is preferably formed with the eye *b*. The inner and outer members are arranged in the same plane, and the inner member lies approximately midway between

the opposite sides of the outer member. The inner end of the inner member is arranged close to the sides of the outer member, so that when the clip is applied to a paper it will pinch or grip the paper securely. The opposite ends of the wire are covered or concealed, so as not to engage the paper or to scratch the hands. It will be seen by reference to Fig. 3 that several thicknesses of paper may be engaged by the clip, and as the inner member is arranged centrally it may be readily engaged by the fingers in order to bend it when applying it to paper. It is essential that the base of the triangle should be closed by the portion of wire from *g* to *h*, and it is also preferably closed by the portion *d*.

In Fig. 2 the inner member consists of two parallel portions *i* of the wire and the eye *b*. In this instance the two ends of the wire are joined at the lower end of the clip *a*, while the eye *b* is formed at the middle portion of the wire.

In Fig. 5 the clip is constructed in the same manner as that indicated in Fig. 2; but in this instance I have added a sleeve *C*, surrounding the ends of the wire where they are joined. I do not consider it necessary to use such a sleeve, as when the wire is bent in the manner indicated in Fig. 2 and a "set" is given to the wire there is little danger of the ends separating.

I claim as my invention—

1. A paper-clip comprising an outer V-shaped member and an inner member consisting of a shank arranged centrally and wholly within the outer member and the inner end of which lies close to and between the converging sides thereof.

2. A paper-clip comprising an outer V-shaped member and an inner member consisting of a shank arranged centrally and wholly within the outer member and the inner end of which is enlarged and lies close to and be-

tween the converging sides of the outer member.

3. A paper-clip comprising an outer V-shaped member having at its upper end a top portion projecting from the upper extremity of one side of the V toward the upper end of the opposite side thereof, and an inner member arranged wholly within the outer member lying in the same plane therewith and the inner end of which lies close to the converging sides thereof.

4. A paper-clip made of wire and comprising an outer V-shaped member closed at the top and having one end of the wire at the top midway between the upper extremities of the two sides of the V and an inner member consisting of a shank arranged centrally and wholly within the outer member, and the inner end of which lies close to the converging sides thereof.

5. A paper-clip comprising an outer triangular or V-shaped member having its two sides inclined downward and inward from the base of the triangle to the apex thereof, while the inner member forms a continuation of the outer member and extends downward from the base and is formed at its lower end with an enlargement lying within the outer member close to the converging sides thereof.

6. A paper-clip comprising an outer V-shaped member with a relatively wide base, diagonally-arranged sides and a curved apex, and an inner member consisting of a prolongation of the wire from the base of the outer member which is centrally arranged within the outer member and is bent to form an eye which lies within and close to the converging sides of the outer member.

In testimony whereof I have hereunto subscribed my name.

ROBERT GORTON.

Witnesses:

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