

No. 721,069.

PATENTED FEB. 17. 1903.

G. W. MCGILL.
SPRING WIRE PAPER CLIP.
APPLICATION FILED MAR. 15, 1902.

NO MODEL.

Fig. 1.

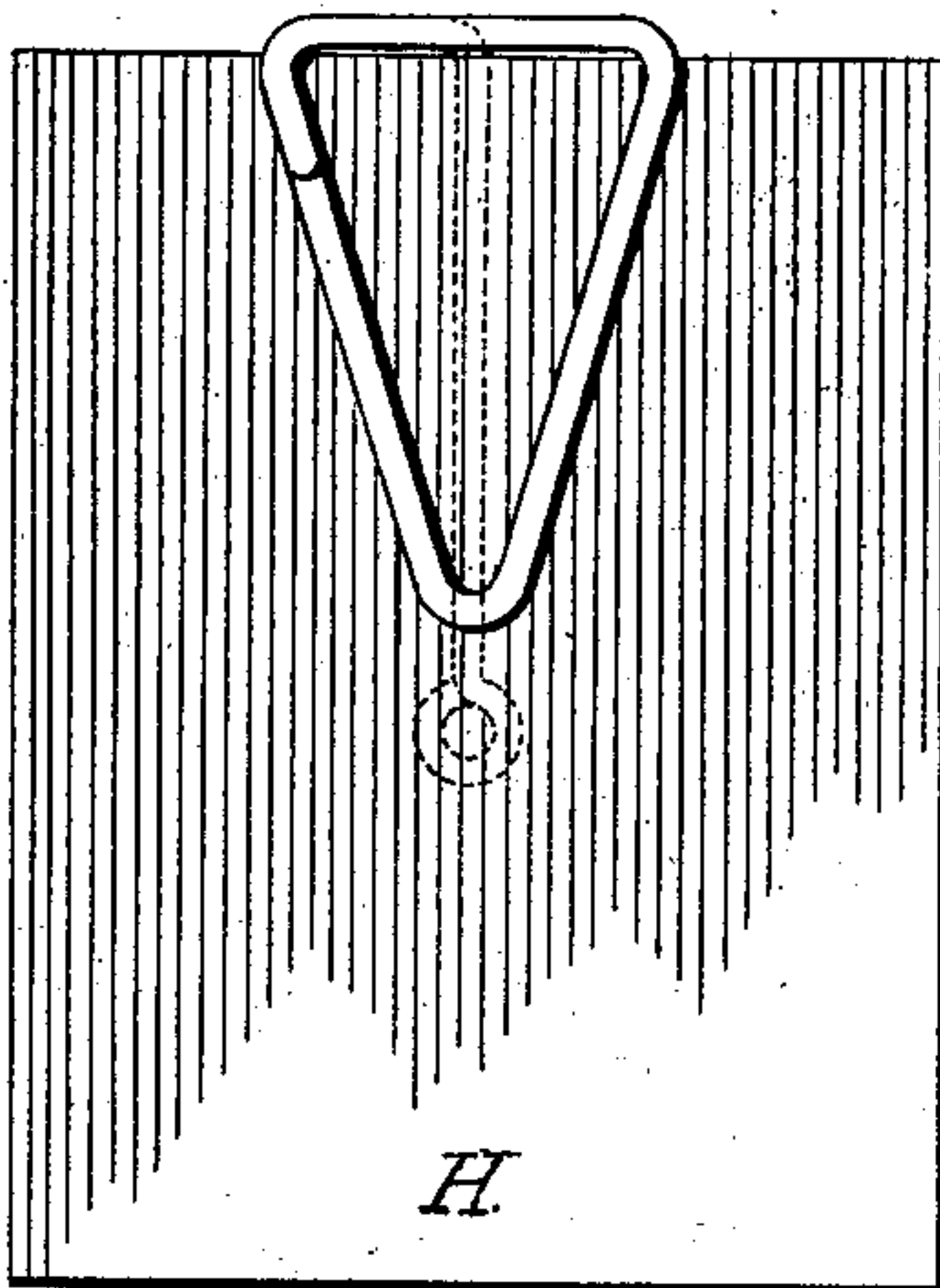


Fig. 4.

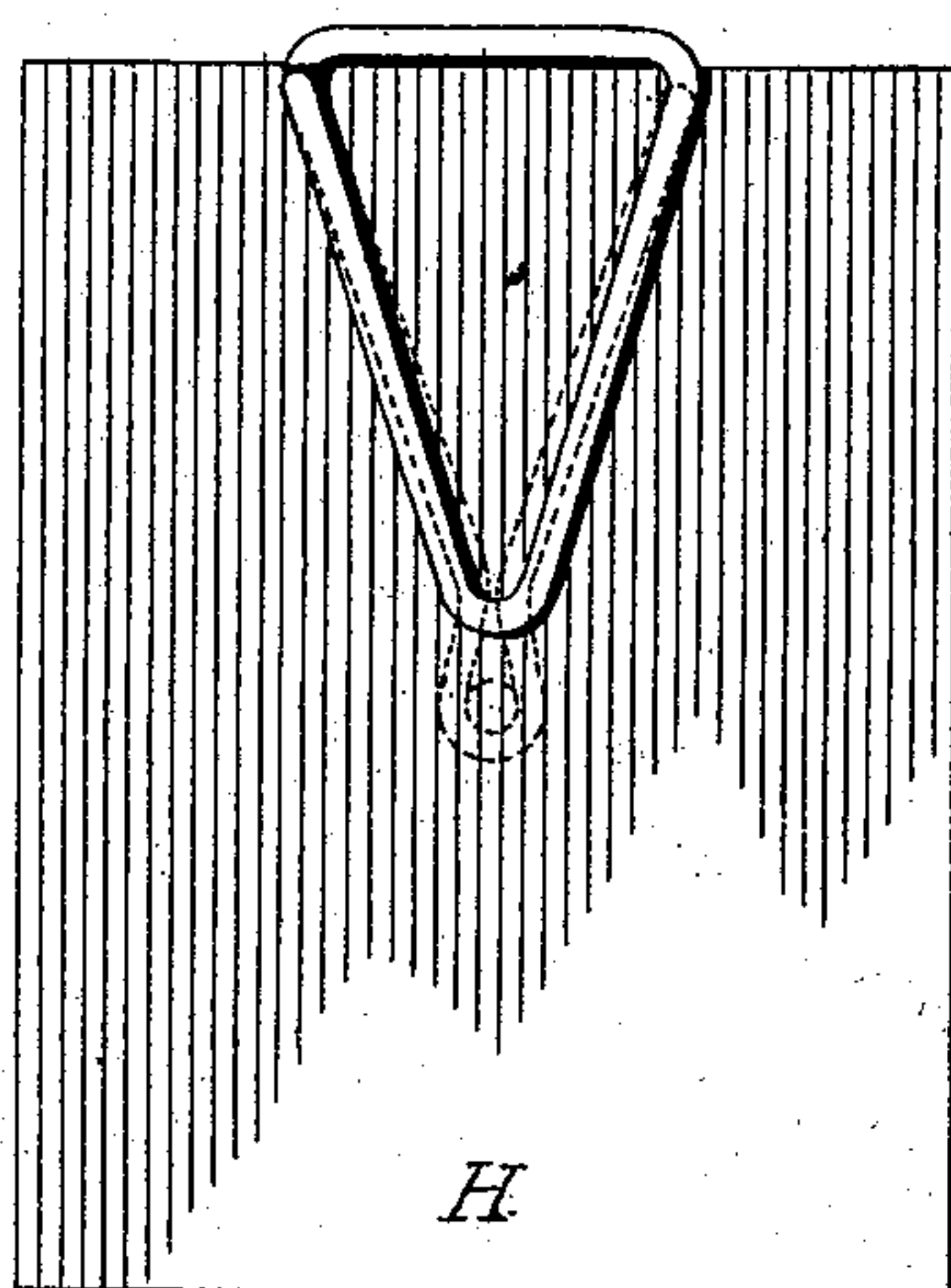


Fig. 7.

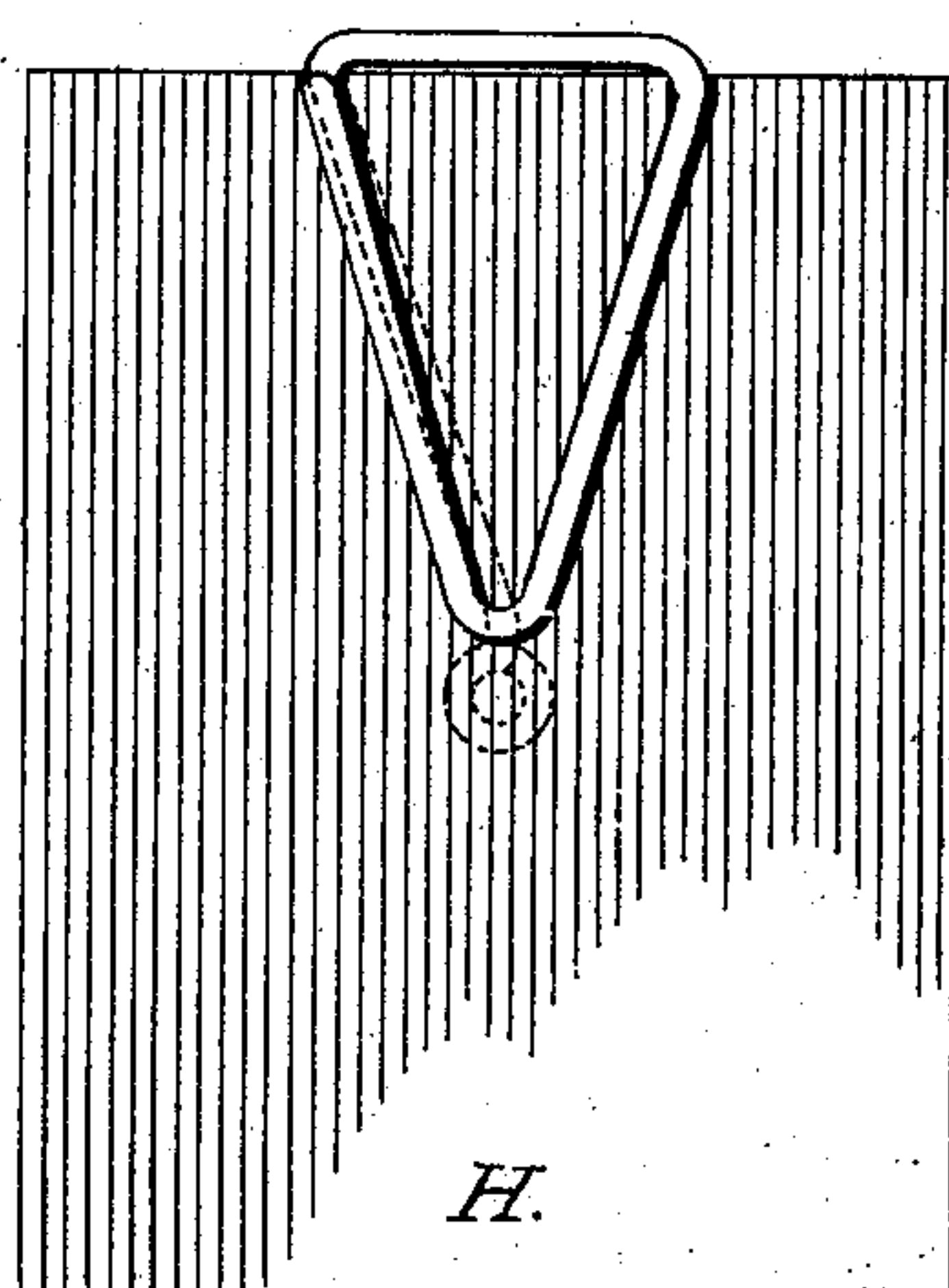


Fig. 2.

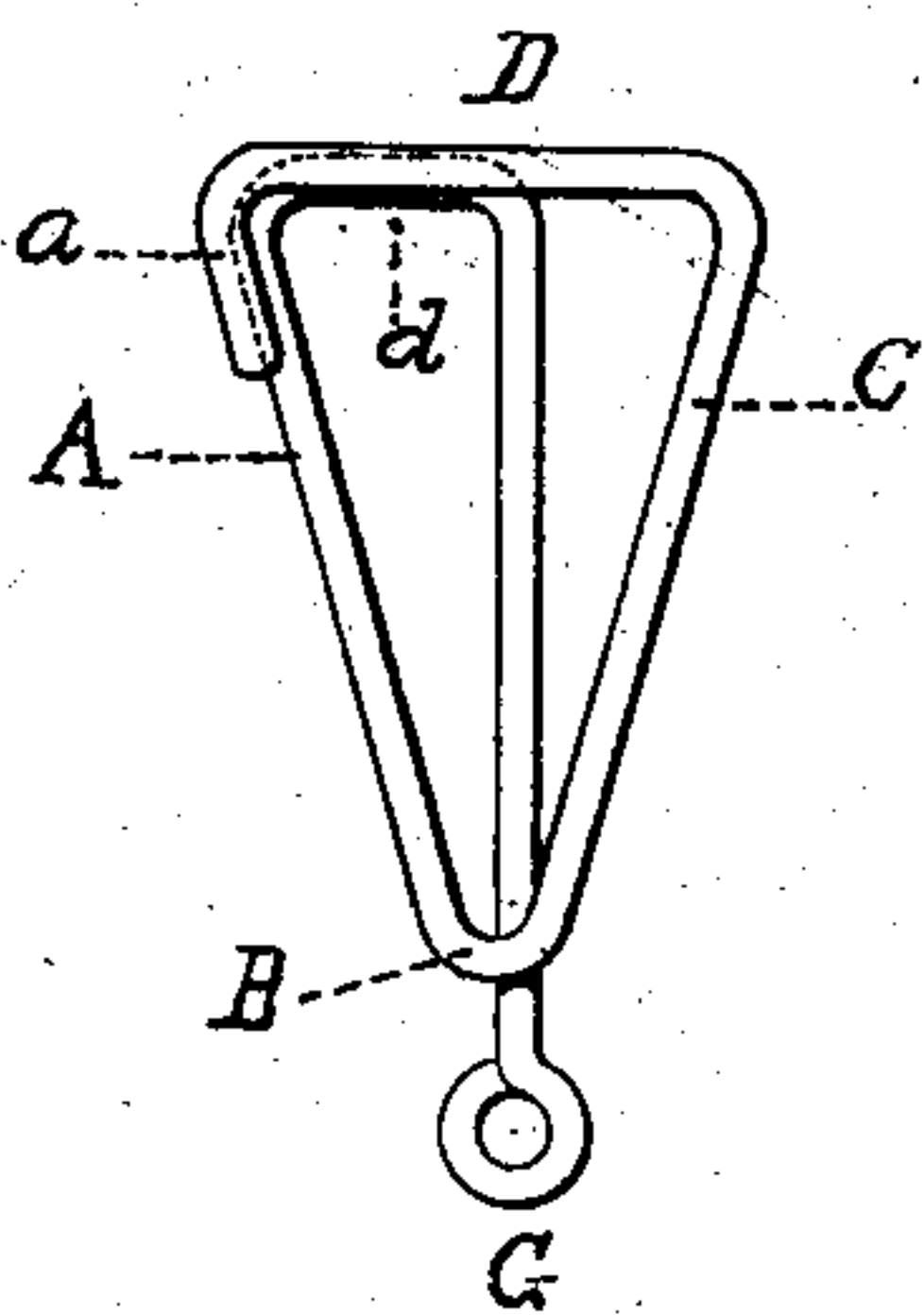


Fig. 5.

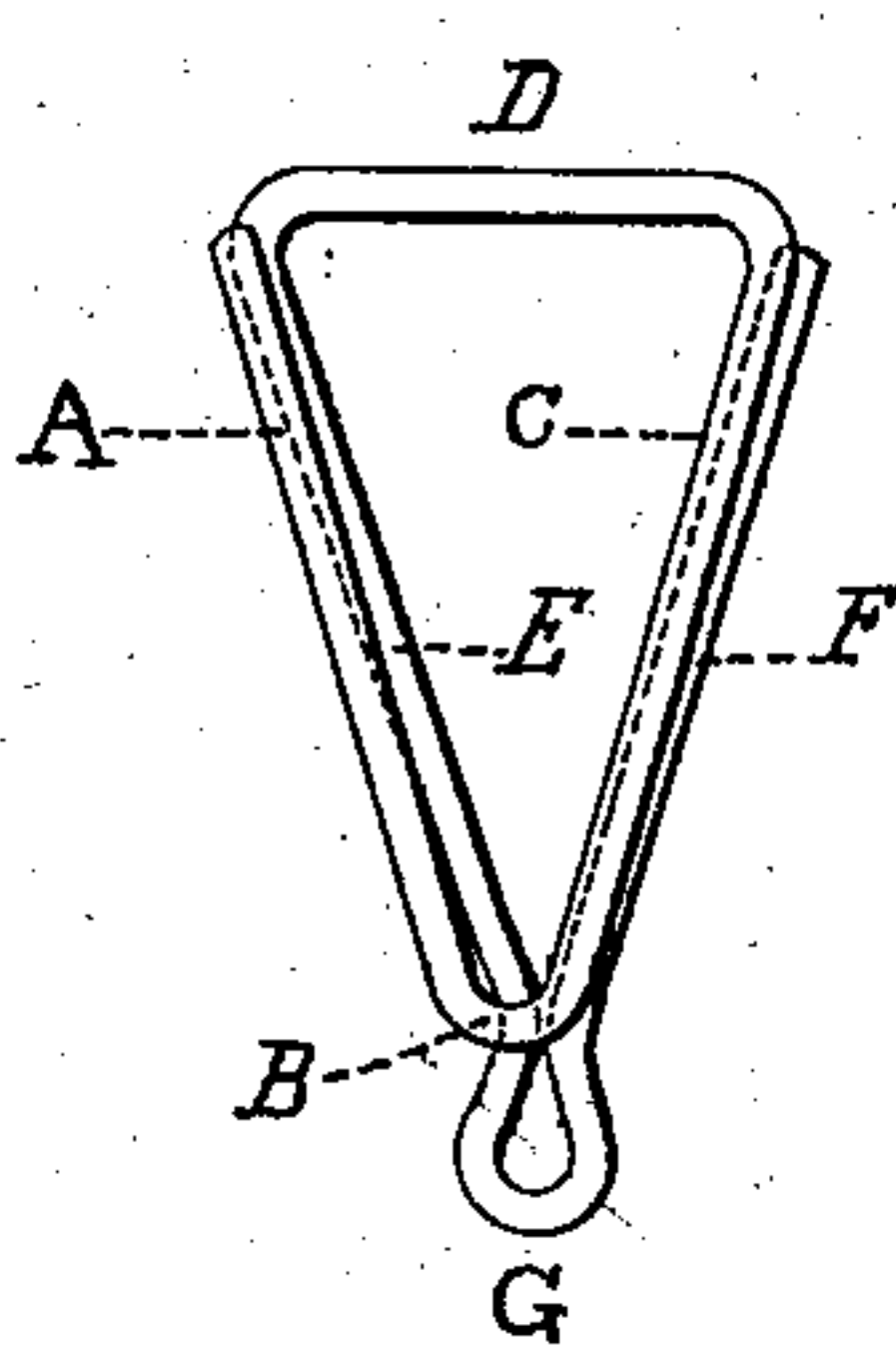


Fig. 8.

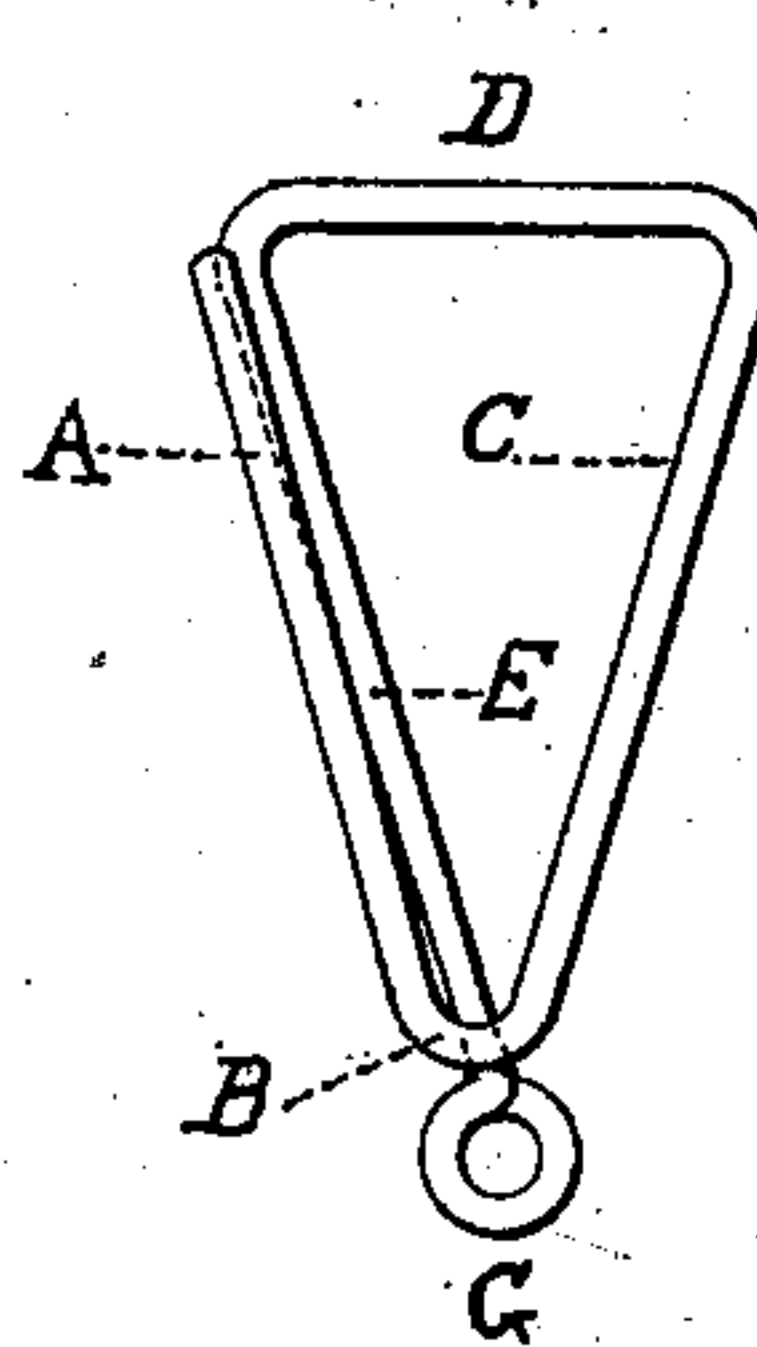


Fig. 3.

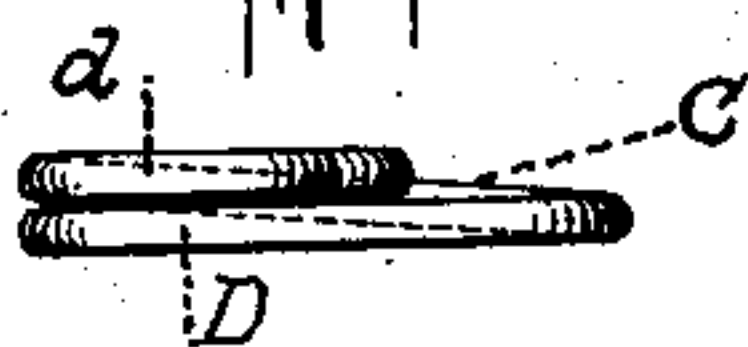


Fig. 6.

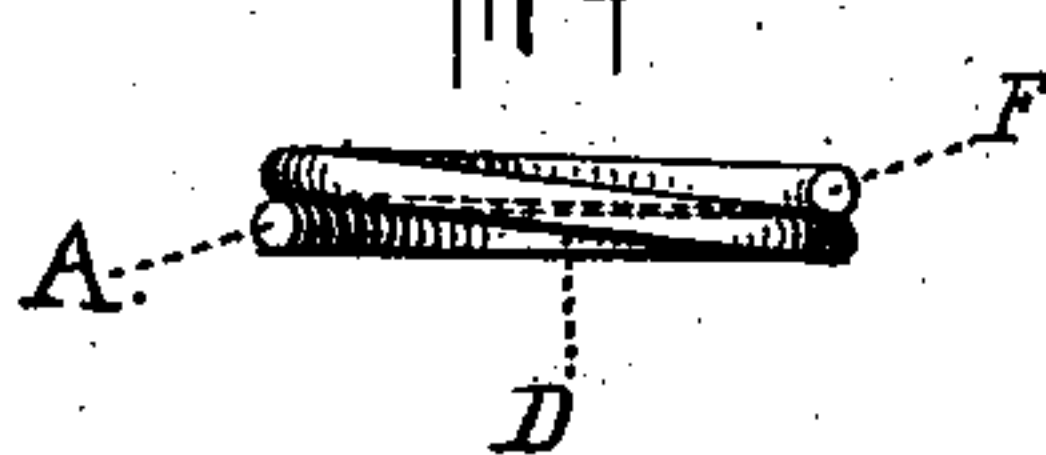


Fig. 9.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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SPRING-WIRE PAPER-CLIP.

SPECIFICATION forming part of Letters Patent No. 721,069, dated February 17, 1903.

Application filed March 15, 1902. Serial No. 98,290. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MCGILL, a citizen of the United States, and a resident of Riverdale, in the county of New York and State of New York, have invented certain new and useful Improvements in Spring-Wire Paper-Clips, of which the following is a specification.

My invention relates to that class of spring-wire paper-clips in which the papers are held together by the resilience of the wire of the clip-arms embracing them; and it consists in a spring clip or holder for papers fashioned from a single piece of spring-wire of suitable gage and length folded from one end to form a completed triangular frame and having its other end folded in manner to extend from the base of such triangle to its vertex and project beneath and beyond such vertex in the form of a loop, providing the clip, a pointed narrow mouth having a projecting under lip, to facilitate the ready admission of articles being clamped between the bearing-surfaces of the superimposed wires forming the respective sides or arms of such frame.

In the accompanying drawings, forming part of this specification, the device is shown in three several modified constructions, all embodying the same principle and features, Figures 1, 4, and 7 being front elevations of such respective constructions applied to use as intended in clipping or holding together several sheets of paper, and Figs. 2, 5, and 8, respectively, being similar views of the device proper unattached to papers, &c. Figs. 3, 6, and 9, respectively, are top views of the corresponding Figs. 2, 5, and 8.

In all the figures similar letters of reference indicate corresponding parts.

All three constructions of the device, as represented in Figs. 1, 2, 3, Figs. 4, 5, 6, and Figs. 7, 8, 9, respectively, show the clip provided with a completed triangular frame having a portion of the wire composing the device folded in a manner to form a looped member projecting from the base of such angle-frame beyond and beneath the vertex of the angle of such frame, with the neck of such loop or lip bearing on the one side or under surface of the bend of the wire forming the

intersecting arms producing such vertex and the other parts of the wire bearing on other parts of the frame proper.

In constructing the clip as shown in Figs. 4, 5, 6 the wire composing the same is first bent from one of its ends into a frame of the form of a completed isosceles triangle, A C representing the arms or sides of such angle, B its vertex, and D its base. The remaining part of the wire is then similarly bent and folded to form the two corresponding arms E F, superimposed upon the arms A C and having their intersecting point or part extended to provide a loop or lip G, projecting beneath and beyond the vertex B of the angle of the frame proper.

In constructing the clip as shown in Figs. 7, 8, 9 the wire composing it is folded in manner similar to the way it is folded in Figs. 4, 5, 6, excepting that its one end terminates in the looped extension G and is not carried forward to form the arm F shown in the latter figures.

In constructing the clip as shown in Figs. 1, 2, 3 the wire is folded from its one end successively to form the shoulder *a*, angle-frame base D, angle arm or side C, vertex B, angle-arm A, and semibase *d*, extending to the center of the base D, from which point the wire is folded down in manner to bisect the triangular frame and project beneath and beyond the vertex of same, where it terminates in the loop or projecting lip G.

Of the forms of construction described herein I give preference to that shown in Figs. 4, 5, 6 as securing in the best manner most of the salient features of my invention, to wit: admitting of varying thicknesses of papers being held between the superimposed arms or sides of the angular loops of the clip, clamping the varying thicknesses of papers so held uniformly and evenly over the full area covered by the wires forming the duplex and superimposed loops or angles of the clip-frame, and securing to such frame in addition to the resilience naturally contributed thereto by the wire proper a torsional resilience or resisting strain derived from the horizontal or longitudinal twisting of the wire forming the angle-frame base D and from the verti-

cal or longitudinal twisting of the arms or sides C E of such angle-frame, as well as a lateral or fore-and-aft resilience derived from the wires forming the free superimposed duplex sides or arms A F of such angle-frame.

In applying the device the clip is held by its top or angle-base D, and the edges of the papers H to be secured are entered in its pointed narrow mouth by being pressed down against and along the guiding-loop or projecting under lip G, in under the wire forming the vertex B of the angle-frame, and further pressed upward therein until the base D of the angle-frame rests upon and rides the edges of such papers, the loop or projecting under lip G serving as a guide to lead the papers to the point of entrance between it and the vertex or intersection of the arms of the angle-frame, forming the pointed narrow mouth of the clip and assisting in separating these parts and facilitating the entrance of the papers between them, the round configuration and smooth surfaces of the loop or projecting lip G and of the adjacent vertex B forming the pointed narrow mouth of the clip preventing any abrading of the surfaces of the papers in such entry and in exit therefrom.

What I claim, and desire to secure by Letters Patent, is—

1. A paper-clip composed of a single piece of spring-wire folded to form a triangular frame with the wire composing the arms and vertex thereof doubled in manner to form equal angles superimposed one upon the other, with the fold of the wire forming the vertex of one angle extended into a loop or eye projected beneath and beyond the vertex of the other angle providing the clip a pointed narrow entrance or mouth and a projecting under lip.

2. A paper-clip composed of a single piece of spring-wire bent and folded to provide a frame of angular formation having a looped strand of wire extending from the top of the frame to and beyond the vertex of the angle forming the pointed base of such frame and bearing upon one side of the fold of the wire forming such vertex.

3. A spring-wire paper-clip fashioned from a single piece of wire folded in manner to provide a frame or body part having the form of an isosceles triangle, with the strands of wire forming the arms of such angle doubled and superimposed to bear one upon the other, with the lower fold of the wire of one strand projecting beyond the lower fold of the wire of the other strand, providing the clip a

pointed narrow mouth with projecting under lip.

4. A spring-wire paper-clip composed of a single piece of wire bent to form two V-shaped parts having their open ends connected by an intermediate horizontal bar, such V-shaped parts superimposed and bearing one upon the other in parallel spring contact, the fold of the wire forming the vertex of the V of one part projected beyond the fold of the wire forming the vertex of the V of the other part, providing the clip a pointed narrow mouth having a projecting under lip.

5. A device of the character described provided with a wire frame in which the wire forming same consists of two strands except at the upper end of the frame wherein the wire is single, the strands of wire forming the respective front and back sides of the frame being superimposed one strand upon the other forming clamping-surfaces bearing against each other throughout the greater part of the length of such sides, the two strands of the wire forming the lower or pointed end of one of the V-shaped frames arranged in manner to project lengthwise with the frame beyond the other, providing the device a pointed narrow mouth with a projecting under lip to facilitate the ready admission of the articles being clamped between the bearing-surfaces of the superimposed wires forming the respective sides of such frame.

6. As a new article of manufacture a spring-clip composed of a single piece of wire folded to form a frame, with the wire forming the sides of such frame folded double and superimposed vertically one strand upon the other in spring parallel contact nearly their entire length, and the wire forming the ends of the frame folded single at one of such ends and double at the opposite end, with one of the wires forming the latter end projecting outwardly beyond the other wire therein, providing the clip an outwardly-projecting end part adapted to serve as a ready means of opening it edgewise at such end and of guiding to such opening the articles being clipped, and admitting such articles being clasped between its superimposed wires nearly the entire length of such wires.

Signed at Riverdale, in the county of New York and State of New York, this 8th day of March, A. D. 1902.

GEORGE W. MCGILL.

Witnesses:

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M. L. H. MCGILL.