

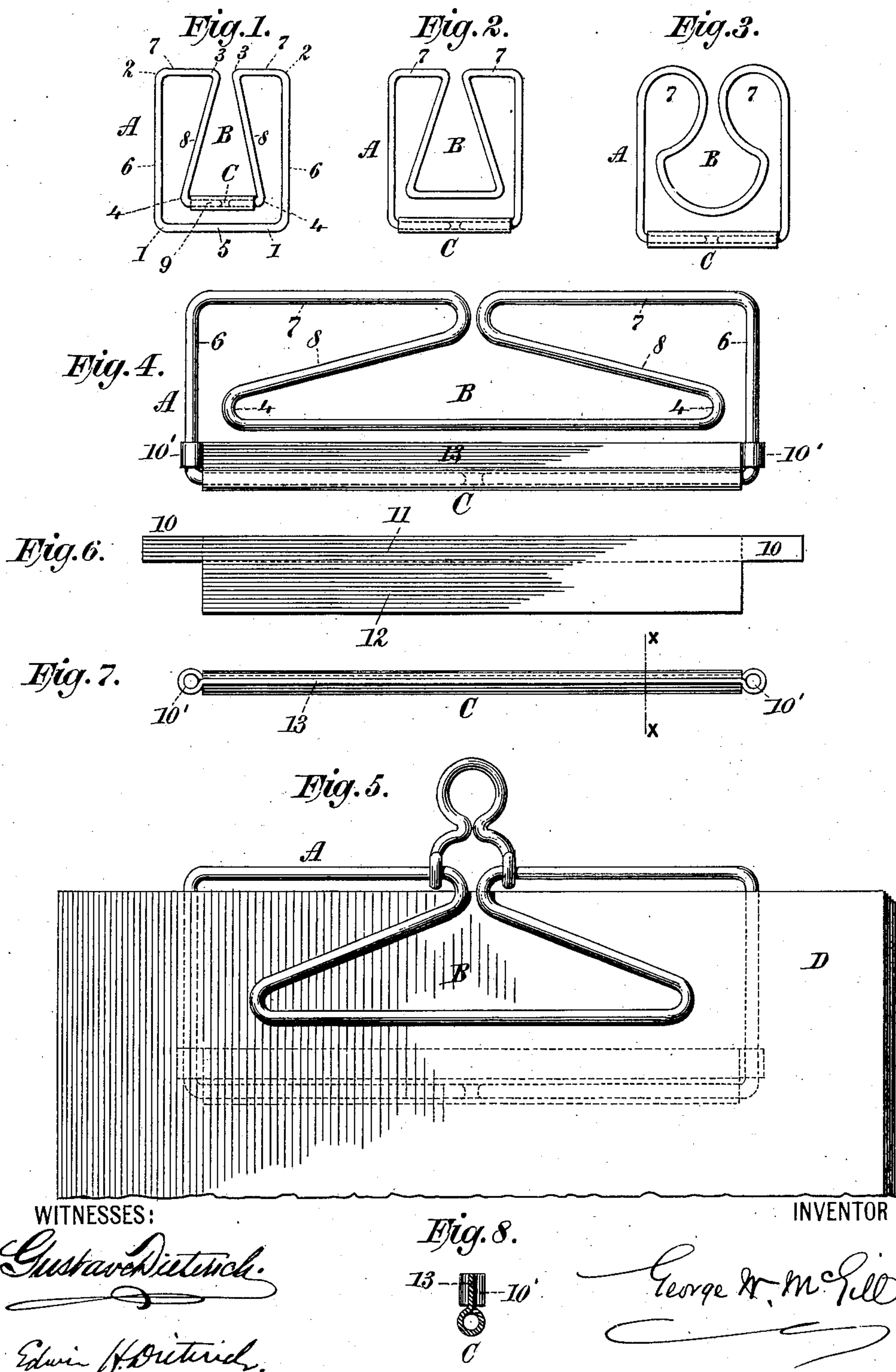
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PATENTED MAR. 1, 1904.

G. W. MCGILL.
SPRING CLIP.

APPLICATION FILED OCT. 26, 1903.

NO MODEL.



UNITED STATES PATENT OFFICE.

GEORGE W. MCGILL, OF RIVERDALE-ON-HUDSON, NEW YORK.

SPRING-CLIP.

SPECIFICATION forming part of Letters Patent No. 753,613, dated March 1, 1904.

Application filed October 26, 1903. Serial No. 178,481. (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-on-Hudson, in the county of New York and State of New York, have invented certain new and useful Improvements in Spring-Clips, of which the following is a specification.

This invention has for its object to provide a simple, novel, and effective spring-clip for holding together papers, prints, and such like articles, and which is adapted in some of its forms to be hung or suspended from a peg, &c.; and it consists in a piece of suitable spring-wire folded in manner to provide it an outer rectangular frame and an inner frame of triangular configuration, the base part of both frames being set horizontally adjacent to each other, with their top parts merging into each other near the vertical center or axis of both frames. The free end parts of the wire providing the clip are folded inward toward each other in manner to provide the base part of either one of its frames and are held together and in alinement with each other in that position by a metal case which incloses both of them.

In the accompanying drawings, forming part of this specification, and in which similar reference characters indicate corresponding parts, Figure 1 represents a front view of the device having its outer frame of rectangular form and its inner one of triangular configuration with the free ends of the wire from which both frames are fashioned folded and housed in a metal tube or case in manner to provide the inner or triangular frame with a horizontally-straight base. Fig. 2 is a similar view of the clip, in which the free ends of the wire and their incasing metal tube are shown providing the base part of the outer or rectangular frame of the device. Fig. 3 is a view similar to Fig. 2, modified in the configuration given to the inner frame of the clip and to the top parts of its outer frame. Fig. 4 is also a side view of the clip and shows it possessed of an outer frame of oblong rectangular form with the terminals of its construction wire housed in a metal case of modi-

fied construction and jointly with such case forming the base of the frame. Fig. 5 shows the device constructed as shown in Fig. 4 applied in clamping together, as intended, several sheets of paper and provided at the juncture of both its frames with a loop for suspending it. Fig. 6 is a plan view of a blank from which the metal ease, fashioned as shown in Figs. 4 and 5, is formed. Fig. 7 is a top view of the metal case shown in Figs. 4 and 5, and Fig. 8 is a transverse sectional view of the case so constructed, taken on the line *xx* of Fig. 7.

In constructing the device as shown in Fig. 1 the wire from which it is fashioned is bent at 1 1, 2 2, 3 3, and 4 4 in manner to provide it an outside frame A of rectangular configuration having a horizontally-set base 5, sides 6 6, set at right angles therewith, and top section 7 7, set in alinement with each other and parallel with the base, and an inner frame B of triangular configuration consisting of the inner sides 8 8, diverging downwardly from near the center of the top of the outer frame to a line adjacent to the base of the latter and thereat bent, as at 4, in toward each other and secured in such position by a tubular metal case C, closed lengthwise upon them, providing said inner frame a base 9, set parallel with the adjacent base 5 of the outer frame.

In Fig. 2 the folding of the wire in fashioning the device is approximately the same, excepting that its inwardly-folded free ends provide, with the housing-case, the base of the outer frame instead of the base of the inner one, as in Fig. 1.

In Fig. 3 the folding of the wire is substantially the same as in Fig. 2, excepting that those parts of it forming the top sections 7 7 of the outer frame instead of being set at right angles with the adjacent sides of the latter are bowed around inwardly toward their junction with the arms of the inner frame, and the base of the inner frame instead of being set parallel with the base of the outer one has its center bowed downward toward and adjacent to it.

In Fig. 4 the metal case used in housing the free ends of the wire providing the base of

the outer frame of the device is fashioned from a sheet-metal blank shaped as shown in the plan view Fig. 6—that is to say, from a strip of sheet metal of greater width than depth—and which for descriptive purposes is shown in Fig. 6 divided by dotted lines into two short end sections or lugs 10 10, a long narrow upper section 11, and a wider and equally-long lower section 12. The lower section 12 of the blank, as is shown more clearly in Figs. 7 and 8, is folded lengthwise upon itself around to the dotted line dividing it from the section 11, providing thereby the tubular part of the case, with the flat section 11 bent along the line where it connects with such tubular part in manner to have it project outwardly therefrom, as a fin or blade 13, set in the plane of the longitudinal axis of the tube, and the short or end sections 10 10 are folded around upon themselves into two lugs of tubular formation, the direction of their tubes being at right angles with the tubular part. The case so constructed is secured on the base of the outer frame of the device, as shown in Figs. 4 and 5, by closing its tube around the wires forming such base and closing its lugs 10' 10' around the side wires 6 6 of the frame, whereby the sides of the frame are held in parallel position with each other and the free ends of the wire housed in the case in horizontal alinement with each other and parallel with the base of the inner frame, the fin or blade 13 of the case giving increased rigidity to the outer frame and increased structural strength to the device as a whole.

The clip may be furnished with a clevis-shaped loop hinged to it at the junction of its frames, as shown in Fig. 5, to provide it with means for its suspension and as a thumb-piece to assist in drawing apart the lower portions of the frames on inserting between them material being clipped and without interfering with the vibratory movement of the frames.

The clip is applied as intended by inserting papers or other articles to be clipped between its frames, as shown in Fig. 5, wherein D represents such articles and wherein the frames, coacting with each other, clamp such articles transversely throughout the maximum longitudinal area of the device.

The novel features of this device and wherein it differs from the device patented to me May 8, 1900, No. 649,338, consist, mainly, in its form or configuration, providing it an outer frame of rectangular configuration and an inner one of triangular formation, the inner frame having a length or spread of base sufficient to extend it across nearly the entire width of the lower inner area of the outer frame, with upwardly-converging side wires and an apex-like top where such side wires merge into the wires 7 7, forming the top of the outer frame and at the center of that frame, and thus securing to those wires a

maximum length consistent with the rectangular shape of the frame, the length of these wires admitting of a corresponding bulk or thickness of material being entered in the clip, while the wide base of the inner frame, coacting with that of the outer one, gives the device a maximum width of clamping area consistent with its rectangular outer shape, whether this rectangular shape be square or oblong.

The device constructed as shown in Figs. 4 and 5, wherein both its frames are of greater length than breadth, is particularly well adapted for clipping the narrow margin of legal papers, its clamping area being narrow and long.

In this application I do not claim *per se* in a spring-wire clip the extremities or terminals of the wire composing the clip incased or housed in a sheet-metal tube or sheath to maintain and increase the elasticity of the clip, for that feature is set forth and claimed by me in my United States Letters Patent No. 649,338, of May 8, 1900, hereinbefore referred to; but

What I do claim herein as new, and desire to secure by Letters Patent, is—

1. A spring-clip composed of a piece of suitable wire having its opposite free ends held together and in alinement with each other and its body part folded and fashioned in manner to provide the device an outer rectangular frame and an inner triangular one, with the top parts of both frames merging into each other at the vertical center or axis of both, the sides and the base of both frames being rigidly continuous and indivisible, with the inner frame adapted to be vibrated through the outer one and possessing a width of base sufficient to cover or occupy in so doing nearly the full width of the inner area of the outer frame.

2. A spring-clip composed of a piece of spring-wire folded in manner to provide it an outer rectangular frame and an inner triangular one, with the wire forming the top parts of the rectangular frame merging into the wires forming the apex or narrow open top of the triangular one at the vertical center or axes of both frames and having the wires forming the base and sides of each of the frames continuous and indivisible, the relative size of the frames being such as to admit the inner frame vibrating transversely through the inner area of the outer frame, with the inner frame possessing a width of base sufficient to extend across nearly the full width of such area.

3. A spring-clip composed of a piece of spring-wire folded and fashioned in manner to provide it an outer rectangular frame, and an inner triangular one adapted to be vibrated transversely through the outer frame, with the top parts of both frames merging into each other near the vertical center or axis of both, each of the frames being of greater width or spread than depth or height, the inner frame

possessing a narrow open top, and a width of base sufficient to cross or occupy nearly the full width of the inner area of the outer frame.

4. A spring-clip composed of a piece of spring-wire folded and fashioned in manner to provide it an outer rectangular frame, and an inner triangular one adapted to be vibrated transversely through the outer frame, with the top parts of both frames merging into each other near the vertical center or axis of both, the inner frame possessing a narrow open top and a base of sufficient width to cross and occupy nearly the full width of the inner area of the outer frame, in combination with a straight metal case housing in straight alignment the opposite ends of the wire composing the clip.

5. A spring-clip composed of a piece of wire folded in manner to provide it an outer and inner frame integrally connected at their tops and occupying the same plane, the top and bottom of the outer frame being of the same width and set parallel to each other, and the two sides of such frame being of the same height and set parallel to each other, and the section of the wire forming the base of the inner frame being of a length sufficient to extend across the inner area of the outer frame nearly its entire width, and set within the outer frame adjacent to the bottom or base wire thereof and the two sections of the wire providing the sides of the inner frame being of

the same length and converging upward within the outer frame toward its top and at the center thereof merging into the wires providing such top.

6. A spring-clip composed of a piece of suitable wire folded in manner to provide it an outer and inner frame integrally connected at their tops and occupying the same plane, the top and bottom of the outer frame being of the same width and set parallel with each other, and the section of the wire forming the base of the inner frame being of a length sufficient to extend across the inner area of the outer frame nearly its entire width, and set within the outer frame adjacent to the bottom or base wire thereof, and the two sections of the wire providing the sides of the inner frame being of the same length and converging upward within the outer frame toward its top and at the center thereof merging into the wires providing such top, providing the device coacting clamping-surfaces extending across the inner area of its outer frame nearly its entire width and height.

Signed at Riverdale - on - Hudson, in the county of New York and State of New York, this 24th day of October, A. D. 1903.

GEORGE W. MCGILL.

Witnesses:

W. HARRY MCGILL,
MARY L. H. MCGILL.