

No. 776,549.

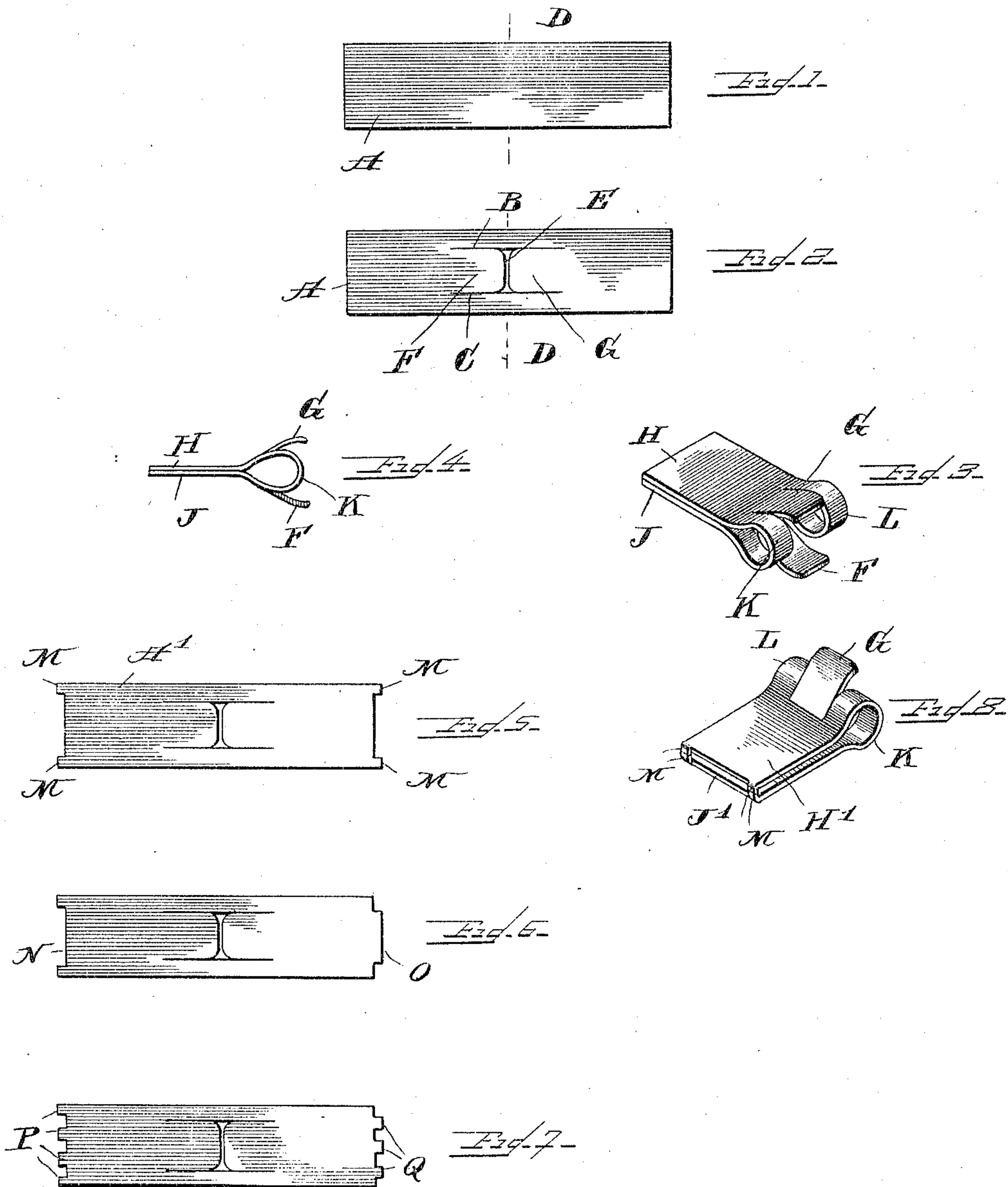
PATENTED DEC. 6, 1904.

W. H. REDINGTON.

PAPER CLIP.

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NO MODEL.



Witnesses—

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UNITED STATES PATENT OFFICE.

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PAPER-CLIP.

SPECIFICATION forming part of Letters Patent No. 776,549, dated December 6, 1904.

Application filed March 3, 1904. Serial No. 196,267. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. REDINGTON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Paper-Clips, of which the following is a specification.

This invention relates to paper-clips.

The object of the invention is to produce a paper-clip out of a single piece of spring metal and having clamping parts or surfaces and means for separating the same or spreading them apart.

A further object of the invention is to provide a spring paper-clip which is simple in construction, economical in manufacture, and efficient in operation.

The invention consists, substantially, in the construction, combination, location, and relative arrangement, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally pointed out in the appended claims.

Referring to the accompanying drawings, and to the various views and reference-signs appearing thereon, Figure 1 is a view showing a blank from which a clip embodying the principles of my invention is made. Fig. 2 is a view showing the blank after it is punched out to form the tongues. Fig. 3 is a view in perspective of the completed clip. Fig. 4 is an edge view of the same. Figs. 5, 6, and 7 are views similar to Fig. 2, showing slight modifications embraced within the spirit and scope of my invention. Fig. 8 is a view in perspective of a completed clip formed from the blank shown in Fig. 5.

In carrying out my invention a strip of thin resilient material, of which metal would be the preferable material, (indicated at A, Fig. 1,) of suitable length, width, and thickness, according to the requirements of the clip to be produced, with regard to size, strength, rigidity, and resiliency, is cut or slit in lines extending in the general direction of the length of the strip and arranged at a proper distance apart. These slits are preferably of equal length, as shown in the drawings, and preferably extend equal distances on opposite sides of a transverse medial line D of the strip.

They should be at such a distance apart as to leave a proper width of metal to serve as a handle, as will be hereinafter described. The strip or body portion A of the metal may be slit or cut transversely of the length of the strip on a line extending through the longitudinal slits B C, as indicated at E. In practice I prefer to form the transverse slit or cut in the form of elongated capital letter I, as shown, thereby effecting a removal of a portion of the body portion along a transverse line; but it will be obvious that the form of this transverse cut or slit may be varied. In the particular illustrations of my invention shown in the drawings the transverse slit or cut E intersects longitudinal slits or cuts B C at or about midway the lengths thereof, and thus there is metal enough left between the slits and the outer edge of the strip to form a resilient hinge when the metal is bent, and at the same time the metal intermediate of the longitudinally - extending slits projects rearwardly in the opposite direction from the grasping-arms of the clip and beyond the axial point of the resilient hinge or bend, thereby producing handles for opening the clip. The slits or cuts B, C, and E may all be formed simultaneously or each formed separately, as is obvious to any skilled metal worker—this depending upon the particular form of the die or dies used.

I have referred to the lines of slits or cuts B C as extending in the direction of the length of the strip of metal and on opposite sides of a transverse line upon which the strip is to be bent to form a hinge, and this I have found in practice to be a desirable form of construction for the clip; but it is obvious that it is not the absolutely necessary form, for the principle of the invention, as will be hereinafter set forth in the claims, resides in forming a clip of resilient material in which the projecting clamping-arms, the hinge, and the integral handles for operating the clamp are all formed integrally from the same blank, and this idea may be carried out in the preferred manner shown or in many other forms which will readily occur to any one skilled in this art.

The blank of the desired length may be sev-

ered from a strip of metal at the same time or after the slits or cuts are formed therein, and it is therefore evident that it is not necessary to first sever the portion A to form the blank of the desired length before the slits are made therein.

The blank of resilient material is, as above suggested, bent or folded upon itself intermediate its ends with such a proper curve as to form a suitable resilient hinge and cause the ends projecting forward of such hinge to spring together and act as clamps, while the oppositely-projecting ends extend beyond the axial line of this hinge and serve as handles, so that when these handles are grasped between the thumb and forefinger they afford means for opening the jaws or clamps to receive the paper or other article to be clamped therebetween. It is evident that the curved or bent portion of the resilient material which forms the resilient hinge puts a stress or tension upon its forwardly-projecting clamping ends and that this tension or stress is lightened or relieved according to the pressure applied upon the projecting ends forming the handles. In the form shown in the drawings the clamping ends are shown in Fig. 3 as H J and the oppositely-projecting ends serving as handles as G and F. If these oppositely-projecting ends of tongues G F are bent away from each other, so as to diverge, it will afford opportunity for wider range of movement of the jaws.

It will be seen that the clamping jaws or portions H J of the blank A may have their forward edges shaped in many different ways to increase the clamping action thereby exerted. In Figs. 5 and 8 the ends of the clamping-jaws H' J' may be provided with lips or projections M at the corners thereof, which may be in the plane of the strip, as shown in Fig. 5, or bent inwardly toward each other, as shown in Fig. 8, to grip the paper or other article to which the clip is to be applied. Similarly and as shown in Fig. 6 one end of the blank may be cut out, as indicated at N, and the other is provided with a corresponding extension or tongue O, arranged to fit into or over the cut-out portion N when the clip is in operative position. If desired, one end of the blank may be provided with a series of projections or serrations of regular or irregular form, and in Fig. 7 these projections are shown at P and Q on respective ends as breaking joint with each other—that is to say, with the projections of one end adapted to rest over the spaces between the projections at the other end.

From the foregoing description it is evident that the invention is susceptible of wide variation in its details without departing from the spirit of the same, and therefore

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

1. In a clip, a body portion comprising a

single piece of flat spring metal bent or doubled upon itself to form clamping-jaws, and having tongues formed in the flat body portion and deflected laterally from the plane thereof at the bend to afford means for opening said jaws.

2. A clip formed from a single strip of resilient sheet material bent upon itself intermediate its ends to form a hinge, the free ends of the strip being brought together forward of the axial line of this hinge to serve as clamping-jaws, said strip having integral tongues extending oppositely and rearwardly of the axial line of said hinge to serve as handles for operating such clip; substantially as and for the purpose set forth.

3. A clip formed from a single piece of flat spring metal bent or folded upon itself on a transverse line intermediate its ends, whereby said ends are brought together into clamping relation, and integral tongues formed in the body portion of the piece of flat spring metal and projecting laterally from the plane thereof at a point adjacent the bend to afford means for separating said clamping ends, as and for the purpose set forth.

4. In a clip, a body portion comprising a single thin flat piece of spring metal bent or doubled upon itself at the transverse medial line thereof to bring the end portions thereof into clamping relation, said flat piece of metal having integral diverging tongues formed therein and extending away from the end portions at the bend to afford means for separating said end portions, as and for the purpose set forth.

5. A paper-clip formed from a single strip of spring metal, said strip having longitudinal parallel slits formed therethrough, and a transverse intersecting slit, whereby when said strip is bent or doubled upon itself along the line of said transverse slit the ends thereof are brought into clamping relation and the slits form tongues to afford means for separating said clamping ends, as and for the purpose set forth.

6. A paper-clip comprising a strip of spring metal bent upon itself intermediate its ends, whereby said ends form clamping-jaws with an integral connecting portion formed to exert a spring-pressure upon said jaws to yieldingly hold the same in clamping relation, and diverging tongues formed in said strip adjacent said connecting portion and integral, respectively, with said clamping-jaws, to afford means for separating the same against the spring action of said connecting portion, as and for the purpose set forth.

7. A paper-clip comprising a strip of spring metal bent upon itself intermediate its ends, whereby said ends form clamping-jaws operating to exert a gripping action upon each other, said strip having an integral connecting portion at the bend thereof formed to exert a spring-pressure upon said jaws to yield-

ingly hold the same in clamping relation, and diverging tongues formed in said strip adjacent said connecting portion and integral, respectively, with said clamping-jaws, to afford means for opening said jaws, as and for the purpose set forth.

8. In a clip, a body portion comprising a single thin flat piece of spring metal bent or doubled upon itself to form clamping-jaws, said jaws provided at the extremities thereof with means for increasing the gripping action thereof, said thin flat body portion having integral divergent tongues formed therein adjacent the bend to afford means for opening said jaws, as and for the purpose set forth.

9. In a clip, a body portion formed of a sin-

gle thin flat piece of spring metal bent or doubled upon itself to form clamping-jaws, said jaws being provided with cooperating gripping devices at the ends thereof, said body portion having integral diverging tongues formed therein adjacent the bend and extending laterally from the plane thereof to afford means for opening said jaws, as and for the purpose set forth.

In witness whereof I have hereunto set my hand, this 1st day of March, 1904, in the presence of the subscribing witnesses.

WILLIAM H. REDINGTON.

Witnesses:

CHAS. H. SEEM,
FRANK T. BROWN.