

W. P. J. MURRAY.
PAPER CLIP.
APPLICATION FILED NOV. 5, 1914.

1,160,190.

Patented Nov. 16, 1915.

Fig. 1.

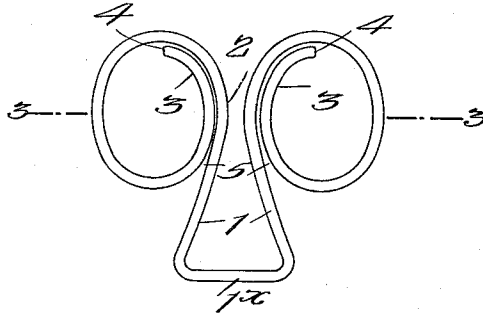


Fig. 2.

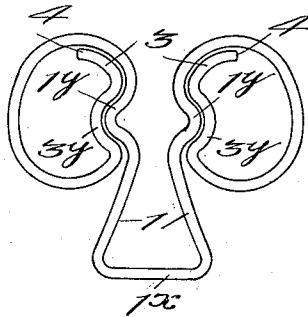


Fig. 4.

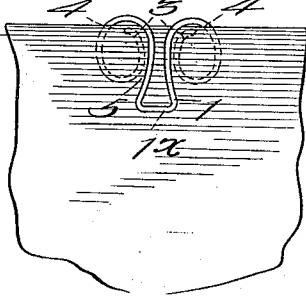


Fig. 5.

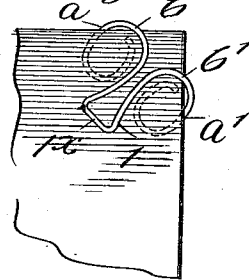


Fig. 3.



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PAPER-CLIP.

1,160,190.

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To all whom it may concern:

Be it known that I, WILLIAM P. J. MURRAY, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have made certain new and useful Improvements in Paper-Clips, of which the following is a specification.

My invention relates to improvements in paper clips, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide a paper clip which may be readily applied to or removed from articles which it is designed to hold, and which is not liable to become loosened.

A further object of my invention is to provide a paper clip having a central body portion arranged to lie on one side of the paper and having wings adapted to lie on the opposite side, each of said wings being so formed as to provide a socket for receiving the end of the thumb or finger, thereby preventing the latter from slipping off of the clip when the clip is being attached.

A further object of my invention is to provide a paper clip of the type described which is especially adapted to be placed at the rectangular corners of envelopes, cards or other similar devices.

A further object of my invention is to provide a paper clip having side wings secured to a central body portion which is normally in the same plane with the side wings, and which when bent out of the plane may be readily brought back into the plane so as to prolong the usefulness of the device.

Other objects and advantages will appear in the following specification and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming part of this application in which—

Figure 1 is an enlarged face view of the device, Fig. 2 is a face view showing a modified form, Fig. 3 is a section along the line 3—3 of Fig. 1, Fig. 4 is a view showing the

clip as applied to the edge of a sheet, and Fig. 5 is a view showing the clip as applied to the corner of the sheet.

In carrying out my invention I provide a single piece of spring wire. This wire may be of any suitable material, such as steel, brass, or other resilient material. The wire is bent back upon itself to form a central body portion 1 which, as will be seen from Fig. 1 provides a comparatively wide end 1^x, the two opposite sides of the body portion converging toward a point 2 at which point the distance between the wires is the least. From the point 2 the wires are bent away from each other into the general form of an ellipse, the wires being brought in toward the body portion, a part of the wires designated by 3 conforming to the curvature of and lying inside of the outer convolution. It will be noted that the ends 4 of the wires terminate approximately at a point which is farthest away from the end 1^x of the body portion. The reason for this will be explained later.

The device constructed as described provides a central body portion having laterally extending wings which are of substantially elliptical shape, and which therefore form convenient sockets for the reception of the end of the thumb or finger when the clip is being fastened to the sheets for holding together.

From the foregoing description the operation of the device may be readily understood. In applying the clip it is preferably held with the plane of the clip at right angles to the plane of the paper. The latter is passed between one of the spring portions 3 and the body portion 1. It will be observed that the inner convolution of the side wing forms with the body portion, a channel 5, into which the paper can be guided. Furthermore, since these two parts, *i. e.*, the wire which forms part of the body portion 1, and the curved portion of the wing, converge, the paper will be guided into the proper place even though it is inserted near the body portion or near the wing. Thus one who is inserting the clip

can do it very quickly. The clip is now turned until both wires of the body portion lie flat against the surface of the paper. It is now moved into such a position that the edge of the wing nearest the user just clears the edge of the paper. Slight pressure will cause the wing to pass to the opposite side of the paper when by pushing inwardly the two wings will be brought on one side of the paper and the body portion on the other. It will be observed that in this operation, the body portion 1 being on top and one of the wings being on the bottom, while the second wing is being forced to the opposite side of the paper from the body portion the clip is being held firmly in position while the second wing is being brought into place. When the clip is in place it has the appearance shown in Fig. 4. Here it is held firmly by the pressure of the wings on one side and the central body portion on the other.

This clip is especially designed for holding sheets of rectangular form at the corners thereof. In Fig. 5 I have shown the position of the clip when engaging the corners of the sheet. It will be observed that the side wings engage the edge of the sheet at a and a' on one side and at b and b' on the other side. This tends to clamp the clip to the sheet so that any tendency to loosen the clip by accidentally striking the body portion or the wings will be resisted. I regard this as an important feature of the invention, because sometimes it is desirable or necessary to secure papers at their corners, and with certain clips on the market it is impossible to do this with any certainty of the clip being retained, since one or another portion of the clip will catch on other papers whereupon the least lateral pressure will dislodge the clip. Another feature to which I desire to call attention is that when the body portion of the clip is bent, as for instance where it is used to hold a thick bunch of papers, it may be instantly brought back to its central position, *i. e.*, in the plane with the wings, by placing two fingers in the sockets formed by the wings, grasping the device with the thumb of the same hand on the opposite side of the wings and pressing the end of the body portion until it lies in the same plane with the wing. This can be instantly done and when done will restore the clip to its original condition, so that it may be used with either side up.

In Fig. 2 I have shown a modified form of the device in which the body portion has a laterally extending portion 1^x in each of the two wires which constitute the body portion, while the portion 3 is provided with a bent portion 3^y conforming to the portion 1^x im-

mediately adjacent. The purpose of this modified form of the device is to give additional gripping surfaces which would tend to prevent the clip from being detached from the sheets accidentally, for it will be observed that in the form shown in Fig. 4 the parts of the body portion and those parts of the wings which are nearest the body portion, and which tend to resist the movement of the clip away from the sheet extend in a general direction at right angles to the sheet. By bending the body portion and the wings in the manner shown in Fig. 2 the parts 1^y and 3^y have portions which extend transversely of the line at right angles to the edge of the sheet, and therefore tend to better resist the force which is necessary to detach the clip. In this form of the device as in the other, the wings form an end socket for the thumb or finger in bending the clip to bring the wings on one side and the body portion on the other.

I am aware that clips have been made in which wings are provided whose ends terminate short of the body portion, that is to say, which have inner portions similar to the portion 3 which extends substantially parallel with part of the body portion and with the loop itself.

I regard the portion 3 as essential to my invention, since it is obvious that the portion 3 together with the wire 1 of the body portion forms a jaw or clip for receiving and holding the paper in the act of putting on the clip. Furthermore, the portion 3 is necessary to form one side of the socket upon which the thumb or finger rests in bending the clip to bring the wing on the same side of the paper. If this portion 3 should be omitted then the thumb would press on the body portion itself and tend to bend it with the wing, whereas the body portion is designed to go on the opposite side of the paper from the wing.

Another feature to which I desire to call attention is the fact that the clip requires relatively a small proportion of wire. Furthermore the clip is so fashioned that the direction of the opposed wings tends to hold them close against the paper at all points around the elliptical wing, and also tends to hold the body portion close against the paper, whereas in some clips, especially when used with thick sheets, as the clips are pushed on to the sheets the inner ends tend to turn away from the sheets.

I claim:

1. A paper clip comprising a single piece of wire bent back upon itself substantially at its middle to provide a central body portion, and an elliptical-shaped laterally extending wing on each side of said body portion, a part of the wire forming said wings being

adjacent to and conforming in shape with part of the wire which forms said body portion.

5 2. A paper clip comprising a single piece of wire bent back upon itself substantially at its middle to provide a central body portion, and an elliptical-shaped laterally extending wing on each side of said body portion, a part of the wire forming said wings

being adjacent to and conforming in shape 10 with part of the wire which forms said body portion, the ends of the wire terminating near that end of the ellipse which is farthest from the bent end of the body portion.

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