Dec. 16, 1930. G. BODEN 1,785,511

PAPER CLIP

Filed Dec. 12, 1927

Fig. 1.

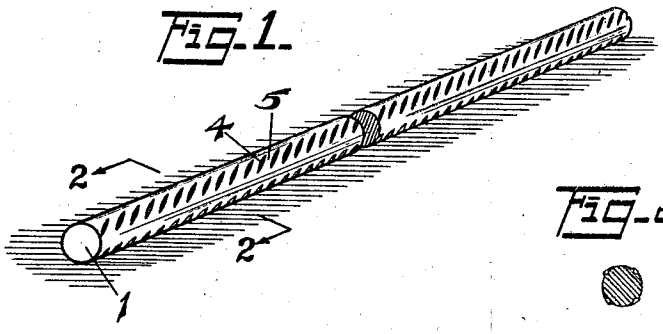


Fig. 2.

Fig. 3.

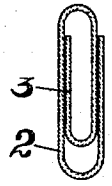


Fig. 4.

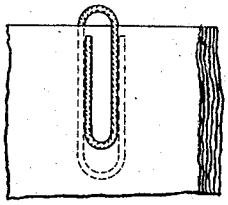


Fig. 5.



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UNITED STATES PATENT OFFICE

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PAPER CLIP

Application filed December 12, 1927. Serial No. 239,363.

This invention relates to certain improvements in paper clips of that class in which a wire length is bent on itself to form paper engaging surfaces.

It is the object of the invention to improve this class of clips by providing the clips in the wire of which the clip is made with shallow grooves between which are gripping surfaces which are formed on the wire on the sides, or on what are the sides or edges of the clips when bent into shape, as distinguished from the front or back of the formed clips. When several sheets of paper are fastened together by one of these clips, the paper tends to assume an undulating form or position. By producing the grooves and ridges on the sides or edges these grip the sides of the undulations of the paper and effectively hold the clip against displacement. Like grooves and gripping surfaces may also be formed on the front and back of the clip, and all the grooves and ridges may be arranged on a diagonal to the wire so that the clip will easily slip on the papers, but the diagonal arrangement of the gripping surfaces assist in preventing displacement of the clip, and such arrangement forms a further feature or object of the present invention.

With these and other objects not specifically referred to in view, the invention consists in certain novel parts, arrangements, and combinations which will be described in connection with the accompanying drawings, and the novel features pointed out in the claim hereunto annexed.

In the drawings:

Figure 1 is a perspective view on a much enlarged scale of the wire from which the improved clip is formed.

Figure 2 is a sectional view on the line 2—2 of Figure 1.

Figure 3 is a face view of the formed clip.

Figure 4 is a face view of the formed clip, shown as securing several sheets or plies of paper together; and

Figure 5 is a top view of Figure 4 on an enlarged scale.

Referring now to these drawings, the invention has been shown as embodied in a clip of U shape, but such is only illustrative, and the wire may be coiled, or triangular or other common form.

The clip shown, however, is formed from a suitable length of wire 1, and this wire is bent to form the clip shown in Figure 3, comprising two U shaped portions 2, 3, which form the legs of the clip, the portions 3 lying inside the portions 2. In accordance with the invention, the side edges of the legs are provided with shallow grooves or notches 4, between which are gripping surfaces 5, and preferably, as shown, these grooves and surfaces are formed so as to extend diagonal to the wire.

When the clip so formed is attached to a number of sheets or plies of paper, the paper tends to bend or undulate as shown at 6 in Figure 5. With the gripping surface formed as shown they engage the sides of the convolutions of the paper as shown at 7 in Figure 5, and act to firmly hold the clip in place. This holding engagement of the clip is enhanced by arranging the gripping surfaces on a diagonal, the clip readily slipping over the paper, but tending to hold if the clip be moved in an opposite direction.

It is understood that in Figure 1, the parts are shown on a much enlarged scale to illustrate the construction. As made, and as shown in Figures 3 and 4, the grooves and surfaces may also be formed on the front and back surfaces of the clip if desired, but the important feature of the invention is the positioning of these holding surfaces on the side edges of the legs of the formed clip.

While the invention has been shown in its preferred form, it will be understood that the grooves and surfaces may assume various forms and be embodied in differently shaped clips. The invention is not to be restricted therefore to the exact construction shown and described.

What I claim is:

A paper clip comprising a wire length bent on itself to form closely adjacent portions or legs nested one within the other on each side of the clip, the wire being formed with four spaced sets of gripping surfaces, so that when the wire is bent to form the clip adja-

cent sides of two portions or legs will be provided with such surfaces which will act to firmly grip convolutions of paper held between them as well as the face and back of such paper.

In testimony whereof, I have hereunto set my hand.

GEORGE BODEN.