Jan. 12, 1954 J. J. AURYNGER 2,665,463

GANG PAPER CLIP

Filed Jan. 11, 1952

FIG. 1.

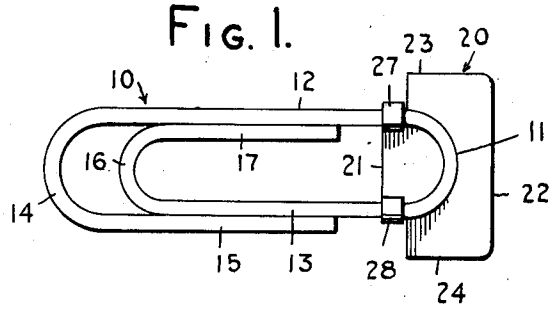


FIG. 2.

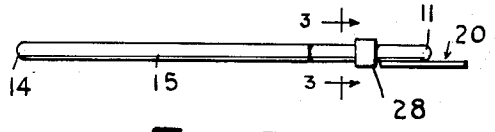


FIG. 3.

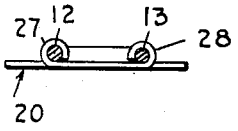


FIG. 4.

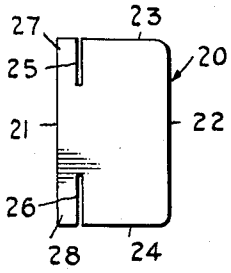


FIG. 5.

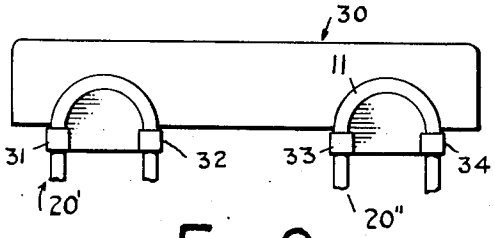


FIG. 6.

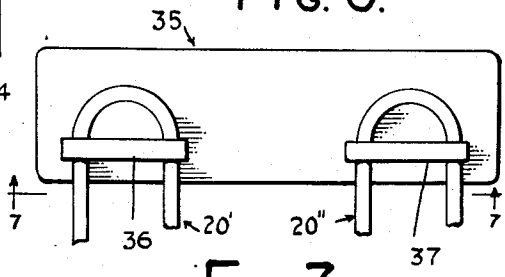


FIG. 9.

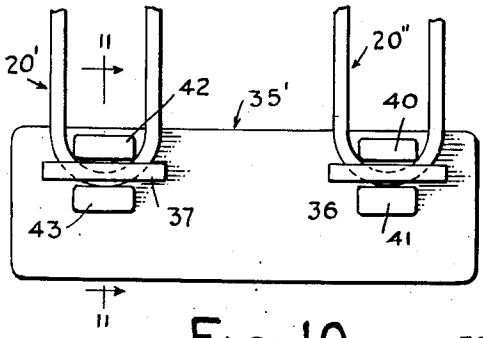


FIG. 7.

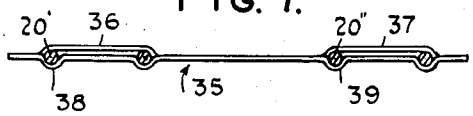


FIG. 8.

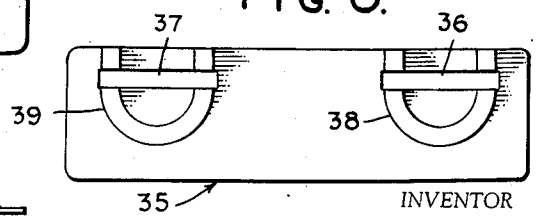


FIG. 10.

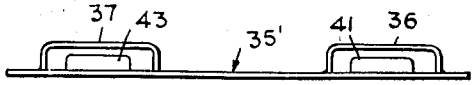
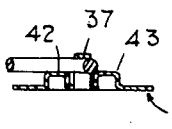


FIG. 11.



INVENTOR

JOHN J. AURYNGER

BY

McMorrow, Berman & Davidson

ATTORNEY

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GANG PAPER CLIP

John J. Aurynger, Baker, Calif.

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3 Claims. (Cl. 24—66)

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This invention relates to a paper clip assembly including a backing or reinforcing member and one or more paper clips secured to the backing member and projecting therefrom.

It is among the objects of the invention to provide a paper clip assembly or gang including a flat backing member of substantially rigid sheet material having at least one straight edge and one or more wire paper clips secured to and disposed against the backing member and extending outwardly of the straight edge thereof to receive paper sheets; in which the backing member reinforces the paper clips enabling them to more firmly grip the paper and may also extend along and stiffen the edges of the paper sheets at which the clips are applied; in which the clips may be detachably secured to the backing member and may extend directly from the straight edge thereof or across the width of the backing member and then from a straight edge thereof; in which the backing member may be of any desired length and may carry any desired number of paper clips within practical limits; and which is simple and durable in construction, economical to manufacture, and convenient to use.

Other objects and advantages will become apparent from a consideration of the following description and the appended claims in conjunction with the accompanying drawing, wherein:

Figure 1 is a top plan view of a paper clip assembly illustrative of the invention;

Figure 2 is a side elevational view of the paper clip assembly illustrated in Figure 1;

Figure 3 is a cross-sectional view on the line 3—3 of Figure 2;

Figure 4 is a plan view of a blank from which the backing member of the paper clip assembly illustrated in Figures 1 and 2 is formed;

Figure 5 is a plan view of a paper clip assembly similar to that shown in Figures 1 and 2, but in which the backing member is elongated and carries at least one additional paper clip;

Figure 6 is a view similar to Figure 5, but showing a somewhat modified arrangement for attaching the paper clips to the backing member of the assembly;

Figure 7 is a cross-sectional view on the line 7—7 of Figure 6;

Figure 8 is a plan view of the backing member shown in Figures 6 and 7 with the paper clips omitted;

Figure 9 is a plan view similar to Figures 5 and 6, but showing a still further modified arrangement for attaching the paper clips to the backing member;

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Figure 10 is a side elevational view of the backing member illustrated in Figure 9, with the paper clips omitted; and

Figure 11 is a cross-sectional view on the line 11—11 of Figure 9.

With continued reference to the drawing, the paper clip, generally indicated at 10, is of well known construction and comprises a piece of wire of suitable diameter, length and material bent intermediate its length to provide a bight 11 of substantially semicircular shape, constituting the butt end of the clip and legs 12 and 13 extending from respectively opposite ends of the bight 11 in spaced apart and substantially parallel relationship to each other. The leg 12 is bent intermediate its length to provide a semicircular-shaped end portion 14 of the clip remote from the bight 11, and a straight portion 15 extending along the outer side of the portion of the leg 13 adjacent the bight 11. The leg 13 is also bent intermediate its length to provide an end portion 16 of semicircular shape and a straight terminal portion 17 extending along the inner side of the portion of the leg 12 adjacent the bight 11. The leg 12 including the end portion 14 of semicircular shape and the straight terminal portion 15 constitutes one jaw formation of the paper clip and the leg 13 including the end portion 16 of semicircular shape and the straight terminal portion 17 constitutes a second jaw formation opposed to the jaw formation constituted by the leg 12. The end portion 16 of the bight 13 is disposed within and spaced from the end portion 14 of the leg 12, and both of the straight portions of the leg 13 are disposed within the straight portions of the leg 12.

As the same form of paper clip is used in all of the forms of the invention illustrated, and as the paper clip is of well known construction, a further illustration and description of the paper clip is considered unnecessary for the purposes of the present disclosure.

A backing member 20 is secured to the paper clip 10 and comprises a rectangular piece of thin sheet material, such as sheet metal, formed from a sheet metal blank, as illustrated in Figure 4.

The blank is of rectangular shape having straight and substantially parallel side edges 21 and 22 and straight and substantially parallel end edges 23 and 24 disposed substantially perpendicularly to the side edges. A cut 25 extends inwardly from the end edge 23 adjacent and substantially parallel to the side edge 21 and a similar cut 26 extends inwardly from the end edge 24 adjacent and substantially parallel to

the side edge 21, the cuts 25 and 26 being in longitudinal alignment with each other and terminating at substantially equal distances from the longitudinal center of the blank. The distance between the inner ends of the cuts 25 and 26 is substantially equal to the distance between the ends of the curved bight 11 of the paper clip 10 and the portions of the blank between these cuts and the side edge 21 constitute tabs 27 and 28 which are rolled around the legs 12 and 13 of the paper clip adjacent the bight 11 at the butt end of the clip to firmly and rigidly secure the backing member to the paper clip with the bight 11 resting against one side of the backing member and the jaw formations of the clip extending outwardly from the side edge 21, the legs 12 and 13 being substantially perpendicular to this straight edge of the backing member.

The tabs 27 and 28 embracing the legs 12 and 13 adjacent the bight of the clip reinforce the butt end of the clip so that the jaw formations are not easily sprung out of operative position relative to each other and may be easily bent back to operative position if the clip should be distorted. The backing member 20 may constitute a tab, when the associated clip is engaged with sheets of loose paper, so that a stack of clipped papers can be easily separated and may also be used to carry filing indicia, if desired.

In the arrangement shown in Figure 5, the backing member, generally indicated at 30, is longer than the backing member 20, and is provided with two pairs of tabs, as indicated at 31 and 32 and 33 and 34, the two pairs of tabs being spaced apart and the adjacent edge of the backing member being cut back between the two pairs of tabs a distance substantially equal to the width of the tabs. A paper clip 20 is secured to the backing member 30 by the pairs of the tabs 31 and 32, and a similar paper clip 20' is secured to the backing member by the pair of tabs 33 and 34, the paper clips being disposed in spaced apart and substantially parallel relationship with their legs substantially perpendicular to the adjacent straight edge of the backing member.

In the arrangement illustrated in Figure 6, the backing member, as generally indicated at 35, instead of being provided with tabs which are bent around the legs of the associated paper clips, is provided with struck-out bands 36 and 37 which extend longitudinally of the backing member adjacent one of the straight edges thereof in longitudinal alignment with each other and are spaced longitudinally of the backing member.

Paper clips, as indicated at 20 and 20', have their butt end portions inserted under the bands 36 and 37, and project from the adjacent straight edge of the backing member.

In this arrangement, the backing member is provided under each of the bands 36 and 37 with a U-shaped depression, as indicated at 38 and 39 of substantially semicircular cross-sectional shape, which depressions receive the substantially semicircular butt end portions of the clips 20 and 20', respectively, and assist in providing a substantially rigid connection between the paper clips and the backing member.

In the form of the invention illustrated in Figures 9, 10 and 11, the backing member, generally indicated at 35', in addition to having the longitudinally and spaced apart bands 36 and 37 struck out of it, has in addition, detents or protrusions disposed at respectively opposite sides of each of these bands. The protrusions 40 and 41 are disposed one at each side of the band 36 and the protrusions 42 and 43 are disposed one at each side of the band 37. The protrusions have a length materially less than the length of the corresponding bands and are receivable between the legs of the paper clips 20 and 20' while the bands have a length sufficient to extend over both legs of the corresponding paper clips at the butt ends of the latter.

With this arrangement, the paper clips are detachably secured to the backing member and can be connected to the backing member by merely forcing their butt ends under the bands struck out of the backing member. They may be removed from the backing member, if desired, and reversed in position to extend outwardly of either longitudinal edge of the backing member, and, with the bands exposed adjacent one of the longitudinal edges of the backing member, the clips may extend substantially directly from this one longitudinal edge or may be reversed to extend substantially across the width of the backing member and outwardly of the other longitudinal edge thereof.

As explained above, the backing members may be made of any desired length and may carry any desired number of spaced apart clips within practical limits. When several clips are carried by an elongated backing member and these clips are secured to a sheaf of papers along one edge of the sheaf, the elongated backing member not only reinforces the clips and holds them in position in engagement with the papers, but also stiffens the adjacent edge of the sheaf of papers so that the clip assembly constitutes a temporary binding for the sheaf of papers and the sheaf can be handled like a book or pamphlet.

The invention may be embodied in other specific forms without departing from the spirit of essential characteristics thereof. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed is:

1. A paper clip assembly comprising a backing member of substantially rigid sheet material having at least one straight edge, and a wire paper clip having a butt end and paper-engaging jaw formations extending from said butt end secured at its butt end to said backing member at one side of the latter with its jaw formations extending outwardly of the straight edge of said backing member, said backing member having at least one band struck out therefrom and extending longitudinally thereof substantially parallel to said straight edge, said band having a length substantially equal to the width of an associated paper clip and said paper clip having its butt end inserted under said band and against the adjacent face of said backing member and said backing member having a U-shaped depression of substantially semicircular cross-sectional shape therein extending under said band and receiving the butt end portion of said paper clip.

2. A paper clip assembly comprising a backing member of substantially rigid sheet material having at least one straight edge, and having at least two elongated bands struck out therefrom and spaced apart longitudinally thereof substantially parallel to said straight edge and in longitudinal alignment with each other and

having U-shaped depressions of semicircular cross-sectional shape disposed one under each of said bands, a first paper clip having a butt end inserted under one of said bands and received in the corresponding U-shaped depression and a paper engaging portion projecting outwardly from the straight edge of said backing member, and a second paper clip having its butt end inserted under the other of said bands and received in the corresponding U-shaped depression and a paper engaging portion projecting outwardly from the straight edge of said backing member and spaced from said first clip.

3. A paper clip assembly comprising a backing member of substantially rigid sheet material having at least one straight edge, and having elongated bands struck out therefrom and spaced apart longitudinally thereof, said bands being adjacent to and substantially parallel to said straight edge and substantially in longitudinal alignment with each other and said backing member also having protrusions struck out in the same direction as said bands and disposed one at each side of each band, said protrusions being shorter than said bands and arranged substantially symmetrically of the length thereof, and at least two paper clips each having a butt end and a paper engaging portion and each having its butt end inserted under a corresponding band and extending around a corresponding one of said protrusions, the paper engaging portions of said paper clips extending outwardly from the straight edge of said backing member in spaced apart and substantially parallel relationship to each other.

JOHN J. AURYNGER.

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