

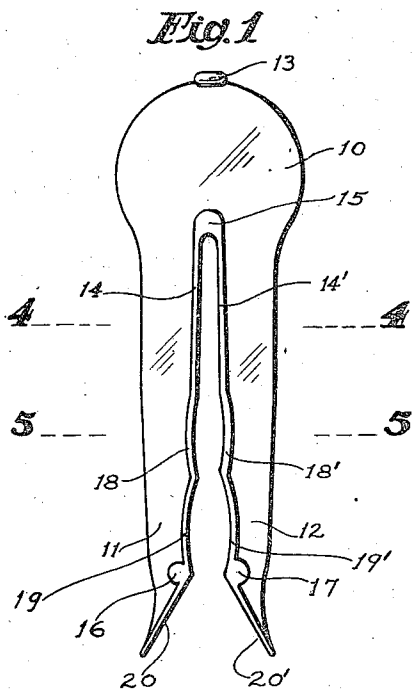
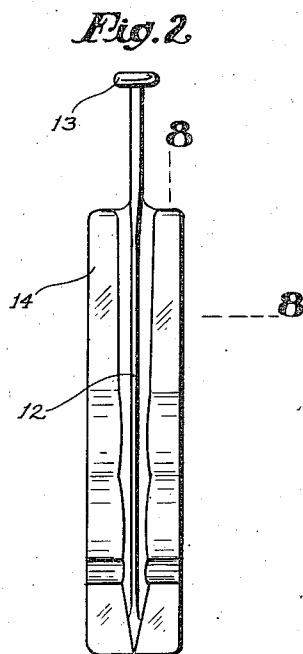
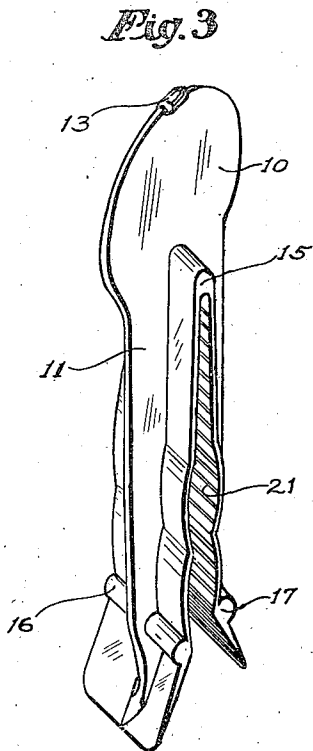
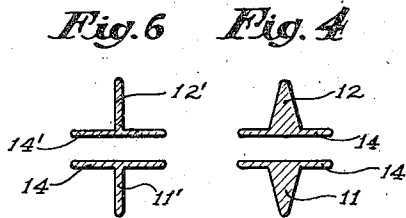
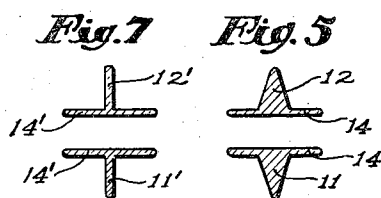
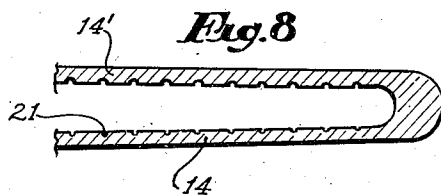
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CLOTHESPIN

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CLOTHESPIN

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4 Claims. (Cl. 24-255)

My invention relates to improvements in clothes pins.

It is the principal object of my invention to provide such a pin which is superior to the present pins now available, which is light in weight, which is mechanically strong and which will not damage the most delicate materials, such as silk, rayon and the like.

It is another object of my invention to produce such a pin which while capable of being made of various kinds of material, including wood and metal, is particularly adapted to manufacture from plastics and other compounds which may be molded.

Another object of my invention is to provide a pin which is comparatively strong and which is not subject to deterioration from the elements, thus insuring long life.

Another object of my invention is to provide a pin which is capable of receiving either the heaviest of lines or the lightest of lines and yet retain a good strong grip on the material being hung.

A still further object of my invention is to provide such a pin which can be produced by automatic machines at relatively low cost and a cost comparable with the cost of the conventional wooden clothes pin.

It is a further object of my invention to provide a pin which can be readily produced in a variety of colors and which can be made transparent, luminous or translucent.

Another object of my invention is to provide such a pin which is light in weight, small in size and which while it requires less space than the conventional pin is easily handled and can be easily carried.

A still further object of my invention is to provide such a pin which while it effectively retains material held on the line, is so constructed that it will not catch, tear or snag materials engaged thereby.

These and other objects will become clear by reference to the following specification.

The novel features which I believe to be characteristic of my invention are set forth with particularity in the appended claims, but the invention itself will best be understood by reference to the following description taken in connection with the accompanying drawing in which Figure 1 is a front elevation of one form of clothes pin made in accordance with my invention, Figure 2 is a side view of Figure 1, Figure 3 is a perspective showing details of construction, Figures 4 and 5 show the cross section of the legs

at the points indicated in Figure 1, Figures 6 and 7 are cross sections taken along the same sections as indicated in Figure 1 but of modifications (not shown) of the legs as shown in Figure 1, and Figure 8 is a section taken along the line 8-8 of Figure 2.

Referring to the drawing, the pin comprises a flat or flattened portion comprising head-piece 10, and elongated legs 11 and 12 forming a U-shaped member with a narrow gap between the opposed inside edges of the legs. The head-piece is of substantial area and may have different shapes and is of sufficient size to be grasped easily. A stop member or bead 13 is formed at one end of the head-piece to prevent loss of grip by slipping from the head-piece.

The inner surfaces of the leg members are provided with transversely extending ribbed portions or lips 14 and 14' reinforced at the point 15 and at the points 16 and 17 near the tips of the legs, the inside faces being flared outwardly as at 20 and 20' to permit ready engagement of the line. The narrow gap near the reinforcement 15 will receive the thinnest of lines, whereas the oppositely disposed curved portions 18 and 18' and 19 and 19' of the lips are formed to take larger diameter lines.

It will be noted that the reinforced portion 15 at the top of the gap is above the point where the head-piece is extended to provide a large grasping surface. The purpose of this construction is to provide maximum resiliency and strength since the stresses due to expansion between the legs is distributed over a larger cross section of the head-piece and legs by this construction. The portions 16 and 17 reinforce the legs at the portions where the legs taper off in width.

As shown in Figures 4, 5, 6 and 7 the legs may be flat or tapered to a greater width at the junction with the opposing transverse lips 14 and 14'. It will be observed that the construction is that of a beam rendering great strength, particularly a tensile strength along the legs while permitting use of a minimum of material but at the same time providing a large contacting area between the lips on the legs and the line which it grips. Thus the bending moment along the legs can be absorbed by the pin without breaking or cracking while at the same time permitting a maximum of resiliency, particularly since the point 15 which is the point of greatest stress is in that portion of the head-piece where the stresses can be distributed over a greater cross sectional area of the pin than at any other

point. This point, that is the junction of legs and head-piece, in conventional wooden pins is one of the weakest points in the entire pin.

In order to assist in maintaining engagement with material being hung, the inner surfaces of the lips 14 and 14' are scored as shown at 21 in Figures 3 and 8 but due to the fact that the material may be of plastic, extremely smooth surfaces are provided so that there is little chance of producing runs or tears due to snagging.

The particular construction shown permits close spacing of the upper portion of the legs and yet at the same time permits easy engagement of the pin with lines of various diameters from the largest to the smallest. The wide flat surfaces which engage the line and which, due to the construction, avoids the necessity of using large diameter legs prevents side motion and holds the material hung more firmly on the line. The particular construction shown makes it possible to obtain maximum strength with minimum material. The stop member 13 permits easy withdrawal as well as permits considerable force to be exerted to force the pin on the line.

While I have indicated the preferred embodiments of my invention of which I am now aware and have also indicated only one specific application for which my invention may be employed, it will be apparent that my invention is by no means limited to the exact forms illustrated or the use indicated, but that many variations may be made in the particular structure used and the purpose for which it is employed without departing from the scope of my invention as set forth in the appended claims.

What I claim as new is:

1. A plastic clothes pin type pin comprising a substantially flat member and including a head-piece of substantial area, and a pair of elongated closely adjacent legs extending from said head-piece and having a gap therebetween, a transverse U-shaped lip member disposed along the inner edges of said legs and extending beyond the surfaces of said flat member and providing op-

positely disposed engaging surfaces of substantial area, the U-portion of said lip extending within a portion of said headpiece.

2. A plastic clothes pin type pin comprising a substantially flat member and including a head-piece of substantial area, and a pair of elongated closely adjacent legs extending from said head-piece and having a gap therebetween, a transverse U-shaped lip member disposed along the inner edges of said legs and extending beyond the surfaces of said flat member and providing oppositely disposed engaging surfaces of substantial area, the U-portion of said lip extending within a portion of said headpiece, said lip at the lower ends of said legs and at the U-portion of said lip being thickened.

3. A plastic clothes pin type pin comprising a substantially flat member and including a headpiece of substantial area, and a pair of elongated closely adjacent legs extending from the headpiece and having a gap therebetween, a transverse U-shaped lip member disposed along the inner edges of said legs and extending beyond the surfaces of said flat member and providing oppositely disposed engaging surfaces of substantial area, the U-portion of said lip extending within a portion of said headpiece, the inside surfaces of said lip member being scored.

4. A plastic clothes pin type pin comprising a substantially flat member and including a headpiece of substantial area, and a pair of elongated closely adjacent legs extending from said headpiece and having a gap therebetween, a transverse U-shaped lip member disposed along the inner edges of said legs and extending beyond the surfaces of said flat member and providing oppositely disposed engaging surfaces of substantial area, the U-portion of said lip extending within a portion of said headpiece, said lip member having a plurality of curved oppositely disposed portions for receiving lines of different diameters.

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