This invention relates to a pin or needle which has features of novelty and advantage and is constructed so that it may be effectively used either as a pin or as a needle.

One of the purposes of the invention is to provide a combination pin and needle that may be easily inserted into and withdrawn from a garment, cloth or other material, and at the same time, by reason of its peculiar construction, will securely hold against accidental displacement.

Another purpose of the invention is to provide a combined pin and needle of the character described which is characterized by special offset shanks joined by obliquely extending portions forming shoulders whereby the special shanks and shoulders will provide for holding the pin in place, the said shanks and shoulders being so arranged however, that the point portion and neck portion of the pin are in axial alignment and the pin is given a straight line effect, which effect is necessary in dressmaking work, to secure accurate fittings.

A further purpose of the invention is to provide a pin of the character described wherein instead of employing the customary pin head, there is provided an eye of special construction whereby the pin may be employed as a needle.

Other objects and advantages are to provide a pin or needle that will be superior in point of simplicity, inexpensiveness of construction, positiveness of operation, and facility and convenience in use and general efficiency.

In this specification and the annexed drawing, the invention is illustrated in the form considered to be the best, but it is to be understood that the invention is not limited to such form, because it may be embodied in other forms; and it is also to be understood that in and by the claims following the description, it is desired to cover the invention in whatsoever form it may be embodied.

Referring to the drawing:

Fig. 1 represents a side elevation of the combined pin and needle of this invention.

Fig. 2 represents a side elevation of the device of the invention taken at right angles to Fig. 1.

Fig. 3 represents a modified form of the invention.

Fig. 4 represents a top plan view of the invention shown in Figs. 1 and 2.

The pin or needle of this invention comprises a straight neck portion 1 and a straight point portion 2, the point of which is in axial alignment with the axis of the pin as a whole, passing centrally through the neck portion. 1. Diametrically opposing offset straight shank portions 3 and 4 are interposed between the neck and point portions. The shank 3 is joined at one end with the point portion 2 by a slanting or oblique shoulder 5. At the other end this shank 3 is joined to the shank portion 4 by an oblique shoulder 6 which slants in the opposite direction to and is longer than the shoulder 5. At the other end of the shank 4 is a slanting shoulder 7 which is longer than the shoulder 6 and which joins the shank 4 with the neck portion 1. The shoulders 5, 6 and 7, in increasing in length from the point portion towards the neck portion, cause the straight shank portions 3 and 4 to be offset angularly, and to extend obliquely or slant in opposite directions from the longitudinal axis of the pin. The shanks 3 and 4 therefore slant convergently towards the shaft.

The arrangement of shanks and shoulders provides a pin of wedge-like form which is easily entered into or withdrawn from fabric and in this way an easy insertion or withdrawal of the pin is insured in spite of the irregular formation of the pin. After the pin has been inserted in the cloth or other material, the shanks and shoulders will securely hold the pin in place so that it will not accidentally fall or work out.
At the outer end of the neck portion 1 is an eye 8 similar to the eye of a needle, whereby the pin may be used as a needle. A threading slot 9 is formed at the inner end of the eye and slants towards the outer end of the eye opening on the side of the neck portion. I am aware of pins which have been constructed with irregular portions or crimps intermediate the ends thereof, to provide for holding the pins in place. In some instances it has been the practice to provide a wavy crinkle or bend and in other instances to provide a single straight shank offset from the remaining portions of the pin shank and joined thereto by oblique portions. In pins having bends or offset shanks intermediate of their ends, such as heretofore constructed, much difficulty is experienced in inserting the pins in place, and again, pins of this construction do not securely hold against accidental displacement or working out. This is particularly due to the fact that the shoulders or irregular portions are of equal size or extent. Furthermore, pins of the type above described, do not produce a straight line offset and much difficulty is experienced in using them in dressmaking work where accurate fittings are required.

The pin of my invention may be inserted into the material or cloth much easier and will resist a casual pull or a tendency to work out of place, to a greater extent than pins such as heretofore constructed. The diametrically offset shanks that slant convergently towards the point, together with the three shoulders increasing in length from the point portion to the neck portion, provide for ease of insertion of the pin without detracting from the holding quality. In inserting the pin, the shorter shoulder goes through the fabric first and opens the way for the succeeding shoulders of increasing lengths, but to work its way out, the reverse holds true, for the longest shoulder which is more difficult of dislodgment must come out first. Due to the shoulders extending or slanting in opposite directions, when one shoulder attempts to free itself, another shoulder is drawn into a tighter engagement with the fabric.

As shown in Fig. 3, the shank and shoulder arrangement is carried out in connection with the ordinary pin, the neck portion 1 being provided with a pin head 10. The fact that the pin is headless permits of feeding material in which the pins of this invention are placed, through a sewing machine without danger of breaking the sewing machine needle. Ordinary or headed pins must be withdrawn before the material can be stitched in a sewing machine. The absence of the head also makes it possible to withdraw the pin from the material, from either end, whereas the ordinary or headed pin must be withdrawn head end first. This is an advantage in dressmaking operations as it provides for a quick insertion and removal of the pins and saves considerable time. Furthermore, the side opening slot 9 at the inner end of the eye 8, permits of a quick and easy threading of the pin when the latter is in place in a piece of cloth or garment, without necessitating withdrawing the pin.

Inasmuch as the part of the needle which is slotted to form the eye is flat or reduced in thickness, the threading slot, if located near the outer end of the eye would weaken the structure surrounding the eye so that it would be subject to ready breakage. In the present instance by having the threading slot located at the inner end of the eye, this weakening of the needle structure around the eye is eliminated and it is possible to make a comparatively large opening without danger of cutting the thread or of catching of the edges of the slot when the pin is inserted and withdrawn. The location of the slot prevents the thread from working out of the eye as it would have a tendency to do if the slot were located near to or at the outer end of the eye. The inclination of the slot facilitates the quick and easy insertion of the thread and prevents the thread from working out of the eye.

Having thus described this invention, what I claim and desire to secure by Letters Patent is:

1. A pin bent at a plurality of points equidistant from the ends of the pin and from one another, an oblique portion formed at each bend, at an acute angle to the longitudinal center line of the pin, and straight shank portions of equal length formed between the adjacent ends of the oblique portions, and said straight shank portions being convergent and being disposed on the alternate sides of the center line of the pin.

2. A pin bent at a plurality of points equidistant from the ends of the pin and from one another, an oblique portion formed at each bend, at an acute angle to the longitudinal center line of the pin, and straight shank portions of equal length formed between the adjacent ends of the oblique portions, the said straight shank portions being convergent and being disposed on the alternate sides of the center line of the pin, said oblique portions increasing in length from the point portion of the pin toward the pin head, and the said straight shank portions being longer than the oblique portions.

3. A pin bent at a plurality of points equidistant from the end of the pin and from one another, to form straight shanks at the ends of the pin aligned on the longitudinal center line of the pin, and intermediate shanks of equal length disposed on alternate sides of the said center line and being convergent thereto, oblique portions of decreasing length from the head toward the point portion of
the pin formed at each bend, at an acute angle to said center line and alternately in opposite directions, said convergent shank portions being formed between the adjacent ends of the respective oblique portions, said oblique portions being shorter than the said straight shanks.

In testimony whereof, I have hereunto set my hand at San Francisco, California, this 25th day of September, 1931.

EDITH SPARKE.