Nov. 14, 1950 A. E. WIEGERT 2,530,277

CLOTHESPIN

Filed June 18, 1949

FIG 1

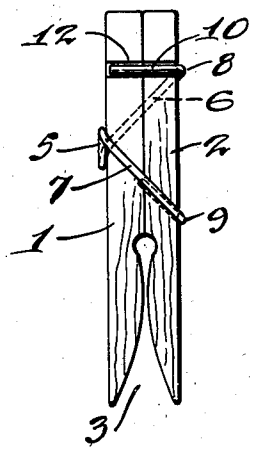


FIG-2-

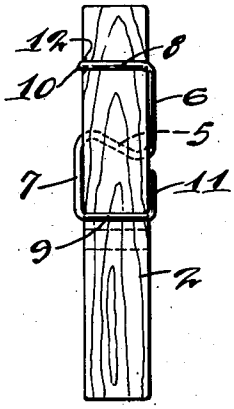


FIG-3-

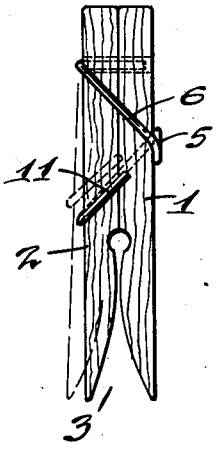


FIG-4-

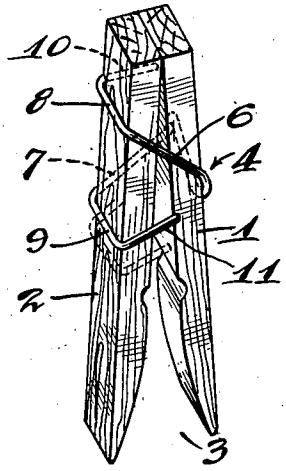


FIG-5-

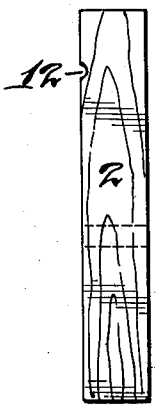


FIG-6-

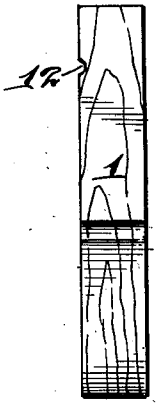


FIG-7-

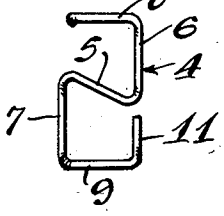
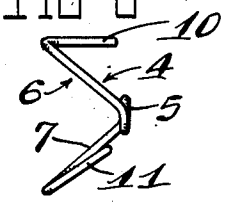


FIG-8-



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CLOTHESPIN

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3 Claims. (Cl. 24—137)

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This invention relates to clothes pins, and particularly to those of the type having separate line gripping members that are yieldingly held together by a spring yoke.

The object of the invention is the provision of an improved strong, durable and comparatively inexpensive form of spring yoke for holding the separate members of a clothes pin in yielding assembled relation.

A further object of the invention is the provision of a spring yoke for the clothes pin members which will eliminate the torsion coils generally used in springs of this character and substitutes therefor a yoke type of spring having tension portions embracing the clothes pin members and exerting a strong yielding tension in longitudinally spaced relation thereon and being relatively slidable to change position on the pin members as a spreading tension is applied and whereby an improved action is obtained.

Further objects and advantages of the invention will be apparent from the following detailed description and from the accompanying drawings, illustrating one embodiment of the invention, in which—

Figs. 1, 2 and 3 are different side views of a clothes pin embodying the invention, with the position of the parts during a spreading of the line engaging members shown in dotted lines in Fig. 3; Fig. 4 is a perspective view of the pin with the members in spread-apart positions and showing in dotted lines the normal position of one spring end; Figs. 5 and 6 are outer and inner side views, respectively, of the two pin members, and Figs. 7 and 8 are different side views of the spring yoke removed from the pin members.

Referring to the drawings, 1 and 2 designate the two side or body members of a clothes pin, preferably of wood, and each of the same is rectangular in cross-section and of the same length to combine to form a clothes pin when placed in yielding side abutting relation. The inner sides of the two members at the lower or line-engaging end of the pin are shaped to combine to form a clothes and line-receiving recess 3, as is customary. The members 1 and 2 are held in yielding side abutment by a spring yoke 4 in which the present invention resides.

The spring yoke 4 is formed of a single piece of spring wire bent to form a centrally disposed cross-piece 5 comprising a length of substantially straight or non-coiled wire and extending crosswise of the outer side of the body portion of one pin member in engagement therewith, such member, in the present instance, being 1.

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This cross-piece has at one end a leg 6 and at its other end a leg 7 extending in relatively divergent relation across the respective side edge portions of the pin members in sliding engagement therewith. Each leg 6, 7, has a respective cross portion 8, 9, extending across and in engagement with the outer side of the pin member 2, in the present instance, and these portions cooperate with the legs 6 and 7 and the cross-piece 5 to retain the two members in yielding assembled relation.

Each portion 8, 9, terminates in a respective reentrant portion 10, 11, which extends crosswise of and in engagement with the side edges of the pin members that oppose the side edges engaged by the respective leg portions 6, 7. Due to the divergence of the leg portions 6 and 7, the outer respective hooked ends 8, 10, and 9, 11, thereof engage the member 2 in spaced relation lengthwise thereof, as shown in Figs. 1 to 4. The part 10, which in the present instance is closest to the upper end of the pin, seats in a registering cross-recess 12 in the two pin members, thus anchoring the cross-part 8 against any sliding movement lengthwise of the pin members when the spring yoke is flexed by the spreading apart of the lower ends of the two members, as shown in Fig. 4. There is, however, no positive anchoring of the hooked end portion of the leg 7 to either pin member, thus leaving it free, except for frictional resistance, to slide lengthwise of the pin members toward the other leg, as indicated by dotted and full lines in Figs. 3 and 4. It is thus apparent that when the pin members are held in closed side coacting contact by the action of the spring yoke, the leg portions 8 and 9 are spaced the farthest apart, as shown by full lines in Fig. 3 and by dotted lines in Fig. 4. Also that upon a spreading apart of the lower ends of pin members, the length of the yoke will shorten progressively less from the cross-piece 9 to the cross-piece 8 and during such shortening the cross-piece 9 and center piece 5 will slide on the engaged members and the V formed by the leg portions 6 and 7 will be narrowed causing an endwise compression of the yoke. The spring tension of the legs 6 and 7 is outward from each other lengthwise of the pin, so that the spring is always resisting a spreading of the pin members. The cross portion 5 of the spring yoke, which may be inclined as shown, has sliding engagement with the coacting pin member. Upon a relative spreading of the pin members there is, however, very little movement of the cross-piece 5 relative to the members.

It is found in practice that a spring yoke formed in this manner, or substantially so, has greater stiffness and durability with smaller diameter wire than springs heretofore used in connection with the present type of clothes pin, and of which I am aware, and particularly those employing a spring coil for the cross-piece 5, and that it is less liable to break, as the flexing or sliding action of my spring yoke on the clothes pin members is very slight.

This spring also enables the pin members to be easily and quickly assembled or removed from engagement therewith by merely forcing the members, first one and then the other, into engagement with the spring lengthwise thereof. In accomplishing this, the member 2 is preferably first inserted through the spring yoke over the cross-loop 5 in properly positioned engagement therewith and at the inner side of the leg portions 8, 9, and the other member is then forced into position within the spring along the inner side of the first member and in sliding contact with the portions 8, 9, until the two members are in mating register and the leg end part 10 snaps into the recess 12 and holds the members in assembled relation.

I wish it understood that my invention is not limited to any specific construction, arrangement or form of the parts, as it is capable of numerous modifications and changes without departing from the spirit of the claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent, is:

1. In a clothes pin having two members lying side by side one upon the other and cooperating at their lower ends to form a line-receiving recess therebetween, a one-piece spring yieldingly retaining the inner sides of the members in abutting relation and comprising a substantially straight cross-piece at the outer side of one member, and legs projecting angularly from opposite ends of the cross-piece at opposite side edges of the members and in divergent relation lengthwise of the members and extending at their outer end portions in opposite directions across the

outer side of the other member in holding engagement therewith, one of said end portions being longitudinally slidable on the engaged member and the other being anchored against any such lengthwise movement.

2. An arrangement as called for in claim 1, wherein the cross-piece has sliding coaction with the outer side of the corresponding pin member lengthwise thereof.

3. In a clothes pin having two members lying side by side one upon the other and cooperating at their lower ends to form a line-receiving recess therebetween, a one-piece spring embracing the members near their upper ends and yieldingly retaining them in side abutting relation with the recess therebetween restricted, said spring having a cross-piece comprising a length of wire in crosswise engagement with the outer side of one member and a leg extending from each end thereof across the respective side edges of the member and each terminating at its outer end in a cross portion lying across the outer side of the other member in contact therewith and having a reentrant end at the side edge of the member opposite to the respective leg and in engagement with the said side edge, said legs being divergent lengthwise of the members, with the one leg adjacent to the upper ends of the members anchored at its outer end against movements lengthwise thereof and the other permitted to have such movements.

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