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F. D. WOODS
CLIP FOR MECHANICAL PENCILS,
FOUNTAIN PENS AND THE LIKE
Filed July 13, 1944

2,468,699

Fig. 1.

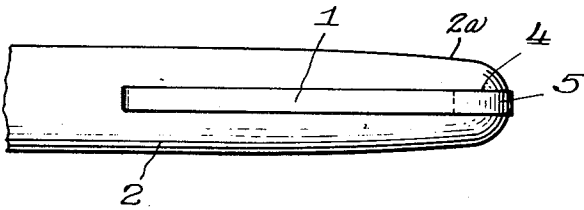


Fig. 2.

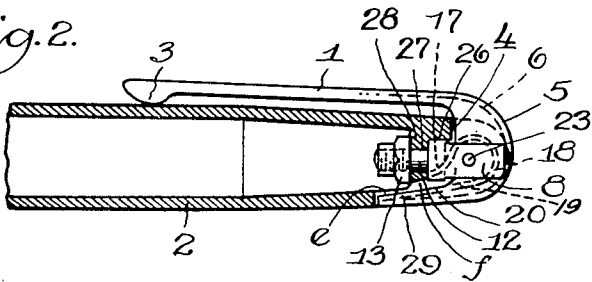


Fig. 3.

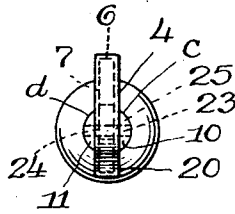


Fig. 4.

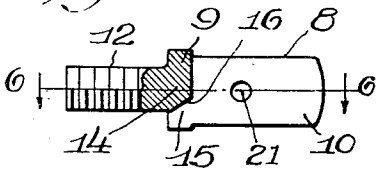


Fig. 5.

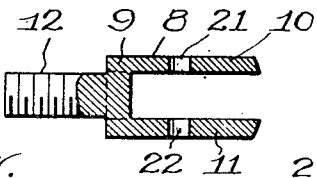
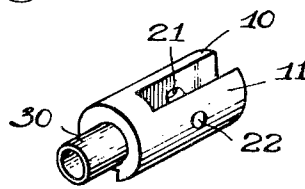
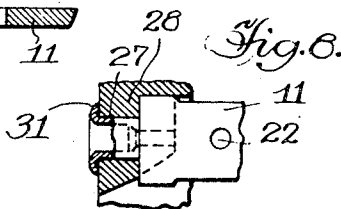


Fig. 7.

Fig. 6.



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CLIP FOR MECHANICAL PENCILS, FOUNTAIN PENS, AND THE LIKE

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4 Claims. (Cl. 24—11)

1

This invention relates to a clip for mechanical pencils, fountain pens and the like, and more particularly to means for mounting the clip on the article to which it is to be applied.

Among the objects of the present invention is to provide novel means for mounting a clip onto an article such as a mechanical pencil, fountain pen or other more or less similar article, in such manner that the clip may be quickly and easily applied to the article in a secure manner and to conceal from view the ends of the fulcrum pin on which the clip is pivotally mounted.

A further object is to so mount a clip onto an article of the class described, that the article will have a neat, stream-lined exterior appearance, and the clip will be efficient and positive in operation.

A still further object is to provide a mounting, of the kind referred to, specially arranged to readily and effectively accommodate a spring for normally urging the clip to closed position.

Another object is to provide a novel arrangement of spring and spring support for yieldably urging the free end or bulbous tip of the clip against the exterior surface of the article.

Other objects, advantages and capabilities, inherently possessed by the present invention, will later more fully appear.

My invention further resides in the combination, construction and arrangement of parts illustrated in the accompanying drawing, and while I have shown therein preferred embodiments, I wish it understood that the same is susceptible of modification and change without departing from the spirit of my invention.

In the drawings:

Fig. 1 is an enlarged fragmentary side elevation of a portion of a mechanical pencil, fountain pen or the like, having a clip applied thereto by a mounting embodying my invention.

Fig. 2 is an enlarged fragmentary longitudinal section taken through an axial plane, some parts being shown in elevation, of the end portion of the article and showing the clip applied thereto by the mounting of the present invention.

Fig. 3 is an end view of Fig. 1 but rotated through a ninety degree angle.

Fig. 4 is an enlarged longitudinal sectional detail of one form of my improved fulcrum yoke member.

Fig. 5 is an end view of Fig. 4.

Fig. 6 is a longitudinal section on the line 6—6 of Fig. 4 locking in the direction of the arrows.

Fig. 7 is an enlarged perspective view of a modified form of fulcrum yoke member.

2

Fig. 8 is an enlarged fragmentary longitudinal section of a portion of the fulcrum yoke member of Fig. 7, showing how the same is applied to the article.

Referring more in detail to the drawing the clip 1 is rotatably mounted by a novel mounting in the rear end of the body of a mechanical pencil, fountain pen or the like 2, hereinafter referred to as the article, and the free end of the clip constantly urged toward the article, so that when the article is attached to a pocket or other support, the material of the pocket or the like will be gripped between the clip and the article, but the article may be removed therefrom by a longitudinal pull or it may be applied thereto by a longitudinal push, at which time the curved surface of the bulbous tip 3 will ride smoothly over the material.

As seen in Figs. 1-3 the rear end 2^a of the article is provided with a longitudinal slot 4 of a size to have freely and movably seated therein the arcuate part or rear end 5 of the clip, which arcuate part or rear end is preferably hollow with walls of the thickness of the metal or other flat material from which the clip is folded or bent into shape, as shown by the dotted lines 6 and 7 in Figs. 2 and 3. The shape of the clip and its arcuate part or rear end mounted in the slot is shown in side elevation in Fig. 2.

One form of the mounting or fulcrum yoke member 8 for mounting the clip in the article is shown in Figs. 4-6, and comprises a part 9 having a pair of laterally spaced apart parallel yoke arms 10 and 11 and a threaded stem 12 adapted to threadably receive a nut 13 to secure this mounting or fulcrum yoke member 8 in the article as will be understood in Fig. 2. The mounting or fulcrum yoke member is preferably formed of a cylindrical shape, although other cross-sectional shapes may be used as desired. The rear end 2^a of the article is provided with oppositely positioned grooves *c* and *d* formed as a segment and opening into the slot 4 to conformably receive the outer faces of the yoke arms 10 and 11 (see Fig. 3), the slot 4 being extended at *e* for a purpose to be later more fully explained.

The yoke head 14 is formed at its lower end with an angular slot 15, the top side 16 (as viewed in Fig. 4) of which is formed at such angle as to effectively receive and seat the short end 17 of the spring 18 which when assembled is curved as shown in Fig. 2 and its longer end 19 secured between the spaced flanges 20 at the extended end or tail piece 29 of the arcuate rear end 5 of the clip member by crimping these flanges inwardly

3

to grip said longer end of the spring therebetween, or not as desired.

The side arms 10—11 of the fulcrum yoke member 8 are provided with alined openings 21 and 22, respectively, to receive the fulcrum pin 23 which also passes through alined openings 24 and 25 in the side walls of the rear end of the clip. The fulcrum pin 23 is of a length the same or slightly less than the diameter or lateral total thickness of the fulcrum yoke member 8 10 through the yoke arms 10 and 11, so that when the rear end or arcuate part 5 of the clip, the fulcrum yoke member and the fulcrum pin are assembled together in the slot 4, the fulcrum pin will not fall out of place and its ends will be concealed from sight. Also the outer ends of the yoke arms are of such shape as to conform to the outer adjacent end surface of the article to give a pleasing appearance and be free of undesirable projections.

The rear end 2^a of the article at the end of the slot is formed with a counter bore or recess 26 to receive the yoke head 14, and coaxial with counter bore 26 is a hole 27 to receive the stem 12. This provides a partition or annular flange 28 (other shapes than round for the yoke and stem may be used if desired) against the inner face of which the nut 13 or other fastening means may be tightened to securely hold the mounting means and clip in position.

When assembling the clip 1, fulcrum yoke member 8 and the spring 18 before insertion into the slot 4, the spring 18, which may be a round wire, or flat strip, or partially curved depending upon its strength, is positioned with its short end in the angular slot 15 and above the fulcrum pin openings 21 and 22. It is then bent under tension and pushed into the hollow of the rear end or arcuate part 5 of the clip with the arms 10 and 11 straddling said rear end until the fulcrum pin openings 21, 22, 24 and 25 come into alinement, whereupon the fulcrum pin 23 is then forced into the alined openings. The flanges 20 may then be crimped inwardly against the long end 19 of the spring, or they may be left uncrimped, if desired, because the arrangement of parts is such that the spring will remain in position without such crimping. As will be understood the tension of the spring when in its final position will be such as to urge the bulbous tip 3 of the clip against the outer face of the article.

As seen in Fig. 2, the slot 4 is extended forwardly at its lower end at *e* to movably receive the extended end or tail piece 29 of the tail of the clip, which may move inwardly into space *f* when rotated. The arcuate part or rear end 5 of the clip and extended end or tail piece 29 are freely movable in the slot to enable the necessary limited rotational movement of the clip with relation to the article. The nut 13 may be tightened in the position shown in Fig. 2 by an elongated socket wrench inserted into the hollow of the article, or otherwise as desired.

In the modification shown in Figs. 7 and 8 the structure and arrangement of parts is the same as that of the preceding views except that instead of the threaded stem 12 I have formed the inner end of the fulcrum yoke member with a tubular projection 30 which is inserted through the hole 27 and its extended inner end crimped over by a properly shaped crimping tool to form the annular (or other shape) flange 31 to securely hold the fulcrum yoke member in place.

Having thus described my invention, I claim:

1. A clip assembly for mechanical pencils,

4

fountain pens and the like, comprising in combination a hollow body having a slot at its rear end and a transverse partition adjacent the slot provided with an opening therethrough, a clip having a bulbous tip at its inner end normally seating against the exterior of the hollow body and an arcuate part at its rear end received within the slot, a detachable fulcrum yoke member mounted within the hollow body and provided at one end with a threaded stem projecting through the opening and at its other end with arms spaced apart for the reception of the arcuate part at the rear end of the clip, means for pivotally supporting said arcuate part of the clip between the spaced arms and within the slot, a spring carried within the fulcrum yoke member and engaging the arcuate part of the clip for resiliently urging the clip against the exterior of the hollow body but permitting it to be withdrawn sufficiently for attaching the body and clip to a pocket or other support, and a nut for securing the threaded stem in the partition.

2. A clip assembly for a pencil, pen and the like, comprising in combination a hollow body having a slot in the end thereof and a partition adjacent the slot provided with an opening therethrough, a fulcrum yoke member mounted in the end of the hollow body and provided with a stem at one end projecting through the opening in the partition and at the other end provided with a pair of spaced arms having a slot therebetween alined with the slot in the hollow body, a clip having a tip at one end and an arcuate part at the other end received within the slot in said fulcrum yoke member and body, a pin extending through the arcuate part at the rear end of the clip and journaled in the arms for pivotally mounting the clip in said fulcrum yoke member and body, a spring in said fulcrum yoke member and engaging the arcuate part on the clip for urging the tip of the clip into resilient gripping action with a support upon which the clip is mounted, and means for anchoring the stem of the fulcrum yoke member in the partition.

3. A clip assembly for mechanical pencils, fountain pens and the like provided with a hollow body having a slot at its rear end, comprising a clip provided with a bulbous tip at one end and an arcuate part at the other end with this arcuate part received within and conforming to the slot, a fulcrum yoke member mounted within the rear end of the body having a reduced inner end secured to the body and a slot in its outer end to thereby provide laterally spaced, parallel arms receiving the arcuate part of the clip therebetween and projecting into the rear end of the hollow body, with the slots in the hollow body and in the fulcrum yoke member in alinement, a fulcrum pin mounted in alined openings in the arms and in the arcuate part of the clip for pivotally supporting the clip in the slots, and a spring carried within the fulcrum yoke member and having one end engaging said member and the other end pressing against the arcuate part of the clip for yieldably urging the tip into resilient gripping action with a support upon which the clip is mounted.

4. A clip assembly for mechanical pencils, fountain pens and the like provided with a hollow body having a slot in and projecting completely across the rear end thereof, comprising a clip having a tip at one end and at its other end provided with an arcuate part and a tail piece adapted to seat within and conform to the slot, and means

5

for pivotally mounting the arcuate part of the clip in the slotted end of the hollow body, said means including a fulcrum yoke member provided with rearwardly projecting arms spaced apart and receiving said arcuate part of the clip, a fulcrum pin projecting through aligned openings in the arcuate part of the clip and spaced arms for pivotally mounting the clip between the arms, a spring having one end engaging the fulcrum yoke member intermediate the arms and the other end bearing against the tail piece on the clip for yieldably forcing the tip of the clip against the body and thereby attaching the clip and body to a pocket or other support, and means for

anchoring the fulcrum yoke member and clip within the slotted end of the hollow body.

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6

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,085,174	Sheaffer	Jan. 27, 1914
1,702,954	Title	Feb. 19, 1929
1,717,001	Benson	June 11, 1929
2,292,683	Bauer	Aug. 11, 1942

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10