Jan. 28, 1947. C. C. HARRIS ET AL 2,414,810

ARTICLE CLAMPING CLIP

Filed Oct. 14, 1943

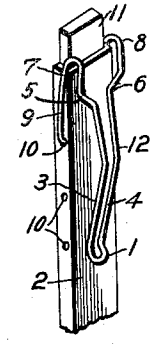


Fig. 1.

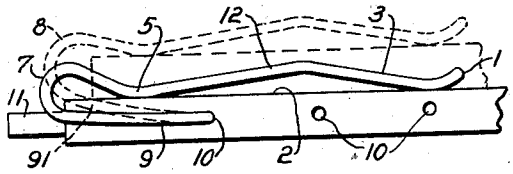


Fig. 2.

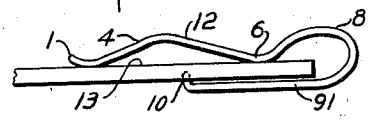


Fig. 4.

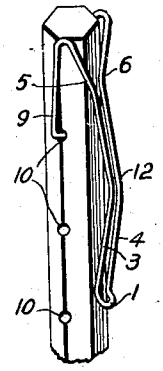


Fig. 3.

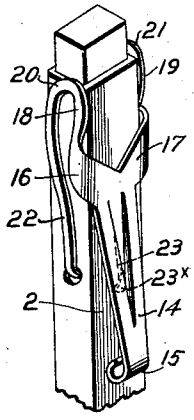


Fig. 7.

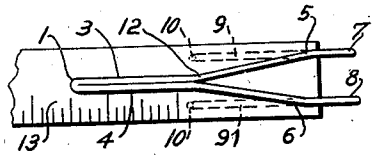


Fig. 5.

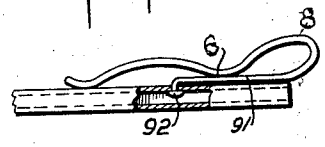


Fig. 6.

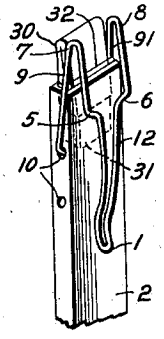


Fig. 8.

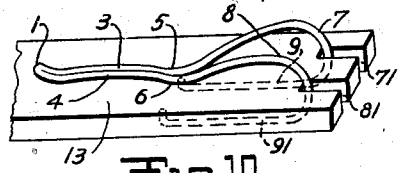


Fig. 10.

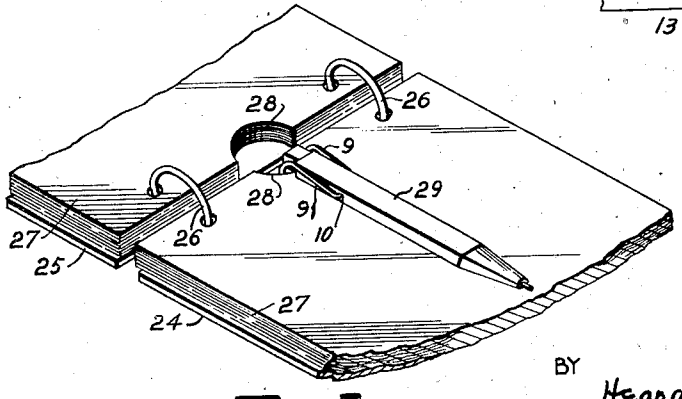


Fig. 9.

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ARTICLE CLAMPING CLIP

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Application October 14, 1943, Serial No. 506,146

11 Claims. (Cl. 24—11)

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This invention relates to improvements in article clamping-clips, and the object of the invention is to provide a novel clamping clip of simple and economical construction adapted to be applied to various uses.

Usual article clamping clips comprise a tongue of resilient material which is fixedly secured at one end to the article and extends lengthwise of the article with its free end provided with rounded or ball shaped tip which is normally held in yieldable engagement with the article so as to clamp the article upon a suitable support which is inserted between the article and the tongue of the clip.

One of the objects of the invention is to provide a clamping-clip having a tongue provided with a free end and a base portion to engage the article with resilient means rigid with the base thereof extending in the direction of the end of the tongue and so pivoted to the article as normally to maintain the free end of the tongue and also the base of the tongue in yieldable engagement with the article to clamp therebetween a suitable support for the article or to clamp something upon the article.

The term "article" is used herein in a broad sense as defining the member upon which the clip is mounted and with which the tongue of the clip cooperates to clamp something therebetween such as the wall of a pocket, a card, the leaves of a book, loose leaves, etc.

The term "tongue" is employed to define the member of the clip which cooperates with the "article" to clamp something therebetween and may be of any suitable material and of any suitable shape or construction.

Another object of the invention is to provide an article clamping-clip in which the tongue is so fulcrumed upon the article that a support for the article may be clamped between both the free end of the tongue and the fulcrum thereof as to hold the article more firmly in place than in previous constructions. The clip is so designed as to provide an article clamping tongue having a triangular "three point" engagement with the support for the article which will prevent lateral or pendulum swinging of the article on its support. The fulcrum points constitute what may be termed spaced base portions of the clip and these spaced base portions and the free end of the tongue lie in a single plane and are adapted to engage the face of the article as in the various forms illustrated and the resilient arms extend beyond these base portions.

Another object of the invention is to provide

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an article clamping-clip which can readily, pivotally and adjustably be secured to the article at any desired position along the length of the article and particularly in such proximity to an end of the article that the article will be wholly or substantially concealed by the support to which it is applied, as for example, to permit concealment of a pencil, pen, scale or other article in the pocket of a garment such as that of the uniform of one in the service of the United States.

Another object of the invention is to provide a clip formed of an integral resilient material adapted to be secured to a flat article such as a pencil in such manner as not materially to obscure ornamental or advertising matter appearing on flat face thereof.

Another object is to provide a clip having a tongue which will lie close to the face of the article with legs so anchored to the sides thereof as to enable it to be applied to pencils and other articles of less thickness than heretofore used.

Another object of the invention is to provide a clip for a thin flat pencil of the type disclosed in Reissue Patent No. 20,481, August 24, 1937, which will enable the pencil to be clamped firmly upon a card or upon the inner pages of a book with a minimum separation of leaves and which will prevent lateral swinging of the end portion of the pencil beyond the edge of the book.

Another important object of the invention is to provide a resilient clip having a long spring action which will maintain its strength for a longer period of time than a clip anchored at its end to the article or a clip having a fulcrum spring.

Another object of the invention is to provide a clip embodying the present invention which can be made of any suitable material such as resilient wire, sheet metal, or resilient plastic material.

A further object of the invention is to provide a clip embodying the invention which can be applied to a suitable base of wood, plastic, or other suitable material to provide a holder for bills, memoranda, letter openers, etc.

These and other objects and features of the invention will more fully appear from the following description and the accompanying drawing and will be particularly pointed out in the claims.

Preferred embodiments of the invention are illustrated in the accompanying drawing, in which

Fig. 1 is a perspective view of the eraser-containing end portion of a flat pencil having the clip applied thereto;

Fig. 2 is a side elevation on an enlarged scale of the construction illustrated in Fig. 1;

Fig. 3 is a perspective view of a clip embodying the invention applied to a hexagonal lead pencil, and may be similarly applied to a cylindrical or oval pencil;

Fig. 4 is a side elevation of a clip embodying the invention applied to a thin flat article such as a ruler, scale, comb or the base of a paper holder;

Fig. 5 is a plan view of the construction illustrated in Fig. 4;

Fig. 6 is a side elevation showing the clip secured to a flat article in a different manner;

Fig. 7 is a perspective view of a modified form of the invention in which the clip is formed of sheet metal and shown as applied to the flat pencil;

Fig. 8 is a perspective view showing the clip applied to a pencil having a reversible eraser holder in such manner that the whole may be concealed in a pocket, book, or the like;

Fig. 9 is a perspective view of a portion of an open memorandum book or the like illustrating the manner in which a thin flat pencil having a clip embodying the invention may be secured to certain intermediate leaves so that when the book is closed the pencil will be concealed within the book and retained therein against lateral swinging or pendulum movement.

Fig. 10 is a perspective view of another application of the invention to a flat support such as a flat ruler with a double slot at the end.

The article clamping-clip embodying the invention, which is illustrated in Figs. 1 and 2 of the drawing as applied to a flat pencil, comprises a stiff resilient wire bent centrally of its length to provide a narrow loop 1 which forms the free end of the tongue adapted to engage the flat face 2 of a pencil or other article. The members or arms 3 and 4 of the loop desirably extend in narrowly spaced substantial parallelism from the loop and preferably are symmetrically arched from the face of the article.

The arms 3 and 4 diverge sharply at a suitable distance from the looped end of the tongue to provide fulcrum portions or spaced base portions 5 and 6 to engage the face of the article and at a suitable distance beyond the fulcrum portions are reversely bent to form open loops 7 and 8 having end sections 9 and 91 which extend along opposite sides or edges of the article, with the ends of said sections bent inwardly to engage sockets 10 in said opposite sides or edges.

The inturned ends of the sections 9 and 91 of the tongue may be pointed to enable them to be easily forced into opposite sides of the body of the pencil or other article at any desired position.

The sockets 10 may be located at desired points along the edges of the pencil as indicated in the drawing. Preferably one pair of sockets are so located that the ends of the loops 7 and 8 are substantially flush with the end of the pencil so that the eraser 11 which projects therefrom may be used without interference with the loops of the clip. If, however, a clip is applied to a pencil having no eraser at its end or some other article which is to be carried in the pocket, the clip may be so secured to the article that the loops of the clip extend slightly beyond its ends thereby enabling the article to be wholly concealed. By reason of such construction the clip may be employed to secure a pencil to intermediate leaves of a notebook, a score card, program, or the like, without projecting beyond the

end thereof, or may be located intermediate of the length of a suitable base to form a desk clamp for papers, memos, etc.

Desirably the central portion 12 of the tongue is arched away from the article to which it is applied so that by reason of the extention of the loops 7 and 8 beyond the fulcrum portions 5 and 6 the clip will provide a three-point clamp upon a support or upon papers, memoranda, etc., inserted between the tongue and the article with which the resilient tongue cooperates.

A slightly modified form of the invention is illustrated in Fig. 3 of the drawing as applied to a hexagonal pencil. In this construction the arms 3 and 4 extend from the looped end 1 of the tongue in close parallelism and are centrally arched away from one of the sides of the pencil and diverge sharply at the end of the arch to provide fulcrum portions 5 and 6 which engage faces adjacent to that which is engaged by the looped end of the tongue. The legs of the loop diverge laterally from the fulcrum portions and are reversely bent to form loops which are offset so that the sections or legs, one of which 9 appears in the drawing, extend along opposite sides of the pencil and are provided with inturned ends which penetrate or engage suitable sockets 10, in said opposite sides. Obviously a clip of this construction may be similarly secured to a cylindrical or oval pencil in any desired position.

Another embodiment of the invention is illustrated in Figs. 4 and 5 and 10 as applied to a pocket ruler, scale, or other suitable base. In this construction the arms 3 and 4 of the looped tongue desirably extend from the looped end 1 in contact or in close parallelism beyond the arched portion 12, then diverge to form the fulcrum portions 5 and 6 to engage the face of the article 13 and extend therefrom in substantially parallel open loops 7 and 8 which may encircle the end of the article with the legs 9 engaging the opposite face of the article and anchored to it by ends which are embedded in the article at a suitable distance from the end thereof, or the loops 7 and 8 may extend through slots or recesses in the base as shown in Fig. 10.

Fig. 6 illustrates another manner in which a clip embodying the invention may be secured to the flat face of an article. In this construction the legs of the loops lie against the flat face of the article with the ends of the legs of the loop embedded therein as at 92.

Another embodiment of the invention is illustrated in Fig. 7 of the drawing in which the clip is formed of resilient sheet metal. In this construction the tongue 14 of the clip desirably is of triangular form and its free end is bent inwardly to form a knob 15 to engage the face 2 of the pencil or other article. Oppositely diverging arms 16 and 17 extend laterally from the base of the triangular tongue to engage the flat face of the pencil or other article and form fulcrums or spaced base portions for the tongue. Resilient arms 18 and 19 which desirably, but not necessarily, are integral with the fulcrum portions 16 and 17 extend beyond the fulcrum portions and are offset and reversely bent to form open loops 20 and 21, legs, of which one appears at 22, are adapted to extend lengthwise of opposite edges or sides of the article and are provided with inturned end portions adapted to engage sockets in said opposite sides.

By reason of this construction the knob at the end of the tongue and the fulcrum portions 16 and 17 provide three-point clamping contact

with the article when the support for the article is inserted into the open loop.

In this construction a further clamping member is provided by slitting the triangular portion of the tongue to provide a supplemental central tongue 23, the end of which may be curled to provide a knob 23x or which may have secured thereto a suitable knob to engage a support.

The operation of the construction illustrated in Fig. 7 is similar to that heretofore described.

Flat thin propelling pencils having hollow bodies which have heretofore been manufactured and sold have been provided with erasers partially enclosed in a casing and so constructed as removably and reversibly to fit in the end of the hollow body so that the eraser can be exposed for use or housed in the pencil barrel and thereby protected when not in use.

Such pencils have been provided with a clip which is adjustable lengthwise of the casing so to position the clip that the article can be wholly concealed in a pocket, notebook or the like, or so positioned as to permit removal and reversal of the eraser member as shown and described in Patent No. 2,039,410 granted May 5, 1936.

A clip embodying the present invention is shown in Fig. 8 of the drawing as applied to such a hollow pencil. The eraser casing 30 which is of the character shown and described in the said patent, contains the eraser 31 which projects beyond the end of the casing but differs therefrom in that the casing is provided with a horizontal rib 32 which extends entirely around the casing midway of its length to engage the end of the hollow rectangular body 2 of the pencil thereby to limit the insertion of either end of the casing into the body of the pencil.

As illustrated in Fig. 8, a clip of the form shown in Figs. 1, 2, and 3, is applied to a pencil of this character in such manner that the entire pencil and eraser member may be concealed in a pocket, book, or the like, the legs or sections 9 and 91 of the loops 7 and 8 extending along the side edges of the pencil with the inturned ends seated in sockets 10 located at such distance from the end of the pencil body that the ends of the loops 7 and 8 will be flush with or extend slightly beyond the end of the eraser casing. When therefore the wall of the pocket, the inner pages of a book, card, or other support, is inserted between the tongue of the loop and the face of the article into the loops 7 and 8 only the clip will be visible.

Inasmuch as the loop portions 7 and 8 are located laterally beyond the edges of the eraser casing the casing can be readily grasped between the loops by the thumb and finger and removed and the eraser then used separately, or the casing may be reversed and inserted into the pencil body with the eraser exposed for use.

As the legs 9 and 91 of the clip lie beyond the edges of the pencil body and eraser casing and extend at a substantial angle to the median longitudinal plane from the pencil body the loops will not interfere with the use of the eraser until it is well worn down. Furthermore the edges of the pencil body may be provided with one or more pairs of sockets located at such different distances from the end of the pencil that the clip may be so positioned as to permit unimpeded use of the eraser.

A pencil having a clip embodying the invention adapted to be concealed in a notebook is shown in Fig. 9. In the construction illustrated the notebook comprises cover sections 24 and 25 which

are hinged together by split rings 26 with a suitable number of leaves 27 also mounted upon the rings 26. The leaves are centrally cut away to provide preferably semi-circular recesses 28 which when the book is open lie symmetrically on opposite sides of the line of fold.

A pencil 29 is provided with a clip of the character above described in which the arms 9 and 91 are pivotally mounted in sockets 10 in opposite sides of the pencil and the offset fulcrum portions and free end of the tongue respectively engage one or more of the intermediate leaves of the book and clamp the pencil firmly upon the leaves. By reason of the three-point clamping engagement of the clip with the leaves a pencil is prevented from lateral swinging or pendulum movement which otherwise might permit the pencil to extend beyond the sides of the book.

Clips embodying the present invention may be made in various forms and adapted for various uses.

While the invention is illustrated herein as applied to pencils, particularly thin pencils, and other thin articles, it is obvious that the clip may be made of various sizes and applied to various types of bases of metal, wood, plastic material, or the like, adapted to rest upon a desk or to be hung upon a wall, and so attached to the base in a manner shown and described as to provide a holder for bills, memoranda, or other papers.

It will be particularly noted that by reason of the fact that the anchoring sections or arms 9 and 91 of the loops are pivotally attached to the article or base the insertion of thick material beneath the tongue may cause the arms 9 and 91 to swing upon their pivots so that the fulcrum points 5 and 6 will be forced away from the article and the material will be clamped between fulcrum points 5 and 6 and the arms 9 and 91, while the end of the tongue will clamp the material upon the base thereby providing a three-point clamping effect which will prevent lateral displacement of the articles thus clamped.

In all the constructions illustrated the clip has a long spring effect which because of the pivotal connection of the arms 9 and 91 of the loops to the article prevents any abrupt bending of the clip which would tend to break it or so to fatigue the material of the clip when in use as to result in a permanent set or breakage of the material.

If the arms 9 and 91 of the loops are provided with abruptly bent end portions which are sharpened the clip can be readily applied to the article or base by simply pressing the pointed ends into it, thus enabling the position of the loops to be adjusted at any distance with respect to the end of the article. This is particularly important where clips are used upon wooden pencils or bases as it avoids the necessity of providing sockets to receive such ends.

It will therefore be understood that the particular embodiments of the invention shown and described herein are of an illustrative character and are not restrictive of the meaning and scope of the following claims.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is:

1. An article clamping-clip comprising a tongue having a free end and spaced base portions with the said end and base portions in a single plane to engage the face of the article and resilient arms extending beyond said base portions reversely bent to form loops projecting beyond said

base portions and having legs extending in the direction of the free end of the tongue with anchoring means at their ends intermediate the length of the tongue to engage the article.

2. An article clamping clip comprising a tongue having free end and spaced base portions with the said end and base portions in a single plane respectively to engage a face of the article and resilient anchoring loop portions extending beyond said base portions having legs extending along the tongue in the direction of its free end and having means intermediate of the length of the tongue pivotally to engage the article at equal distances from said base portion acting to cause the tongue to fulcrum at its base upon the article.

3. An article clamping-clip comprising a tongue having free end and base portions with the said end and base portions in a single plane to cooperate with a face of an article, resilient legs integral with said base portions and extending therebeyond and offset and reversely bent to extend along opposite sides of said article in the direction of the free end of the tongue and provided with means pivotally to engage said sides intermediate of the length of the tongue and acting to clamp a support for the article between said face and the free end and base portions of the tongue.

4. An article clamping-clip comprising a tongue having free end and base portions with the said end and base portions in a single plane to engage the article and resilient anchoring arms extending beyond and offset from opposite sides of said base portion and reversely bent to provide open loops projecting beyond said base portions having legs extending in the direction of the free end of the tongue along opposite sides of the article and having inturned ends pivotally to engage the respective sides of the article intermediate of the length of the tongue acting when applied to the article to maintain the free end and base portion of the tongue in clamping relation to the article and to permit the device to be clamped to extend into the loops of said arms.

5. An article clamping-clip of resilient wire having a narrow loop forming a free article-engaging end of an arched tongue with the arms of the loop diverging sharply at a suitable distance from the looped end of the tongue to provide fulcrums in a single plane with the end of the tongue to engage the article, and having sections extending beyond said fulcrums reversely bent at a distance therefrom to form open loops having legs extending along the article in the direction of the end of the tongue and provided at their ends with anchoring means to engage the article thereby to provide a long spring having a three-point clamping action of the tongue upon the material inserted between it and the article.

6. An article clamping-clip of resilient wire having a narrow loop forming a free article-engaging end of a tongue with the arms of the loop arched and diverging sharply at a suitable distance from said loop to provide spaced base portions in a single plane with the end of the tongue to engage a face of the article, the end portions of said arms extending beyond and offset from said base portions and reversely bent to provide open loops having sections adapted to extend along opposite sides of the article and provided with means pivotally to engage the sides of the article acting when applied to the article to maintain the free end and base portions of the tongue in engagement with the article but to permit the support upon which the article is clamped by the tongue to extend into the open loops thereby providing a three-point clamping engagement with the support.

7. An article clamping-clip comprising a main tongue of resilient sheet metal having free end and relatively wide spaced base portions in a single plane to engage the article and a supplemental tongue between the free end of the main tongue and its base portions also to engage the article and resilient arms offset from the sides of the base portions of the main tongue bent to extend along the sides of the article and having oppositely disposed means pivotally to engage said sides at points intermediate of the length of the tongue.

8. An article clamping-clip comprising a main triangular tongue of resilient sheet metal having free end and relatively wide spaced base portions in a single plane to engage the article and a supplemental tongue integral with the main tongue and between the free end and base portions thereof also to engage the article and arms integral with and offset from the sides of the base portions of the main tongue extending beyond said base portions and reversely bent therebeyond to extend along the sides of the article to provide open loops to receive the supporting means when inserted therein between the tongue and the article and having inturned ends pivotally to engage the article at points intermediate of the length of the tongue.

9. A clip for holding a pencil, pen, or like article in a pocket, in substantially concealed position, comprising a tongue of resilient material having a free end and spaced base portions in a single plane to engage the face of the article with the wall of the pocket therebetween, and integral arms having open loops projecting beyond the base portions with the end sections of said loops extending in the direction of the end of the tongue and provided with opposite inturned ends to penetrate and pivotally engage opposite sides of the article at selected points so spaced from the end of the article that the loops will extend along said article or approximately to or beyond the end of the article.

10. An article clamping-clip comprising a resilient wire having a narrow loop forming a tongue with a free article engaging end, with the arms of the loop arched and diverging at a suitable distance from the free end of the tongue to form spaced base portions, with the said end and base portions in a single plane, engaging the article, and loops of equal length extending from the base portions of the tongue around and under the article and in the direction of the free end of the tongue and having at their ends anchoring means intermediate of the length of the tongue to engage the opposite face of the article.

11. An article clamping-clip of resilient material comprising an arched tongue having a free end and spaced base portions in a single plane to engage a face of the article and arms extending beyond said base portions reversely bent to form loops having sections of equal length extending in the direction of the free end of the tongue and having at their ends means adapted to be anchored to said article intermediate of the length of the tongue thereby providing a long spring action adapted to prolong the life of the clip.

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