Jan. 24, 1933. V. DI FIGLIA 1,895,410

CLAMP

Filed Sept. 22, 1932

FIG. 1.

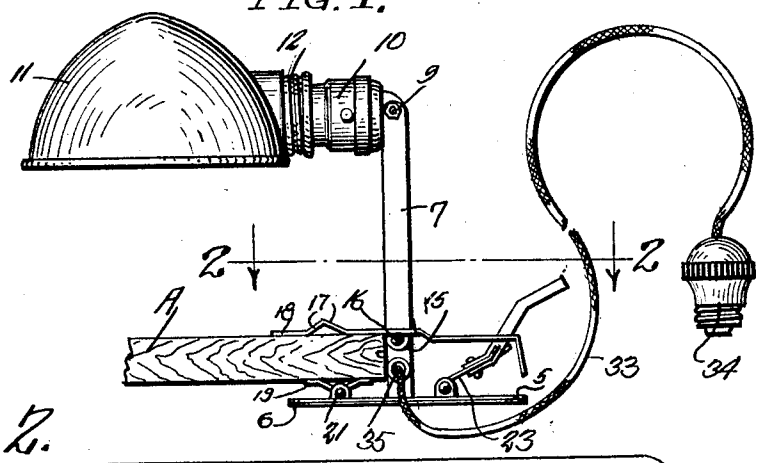


FIG. 2.

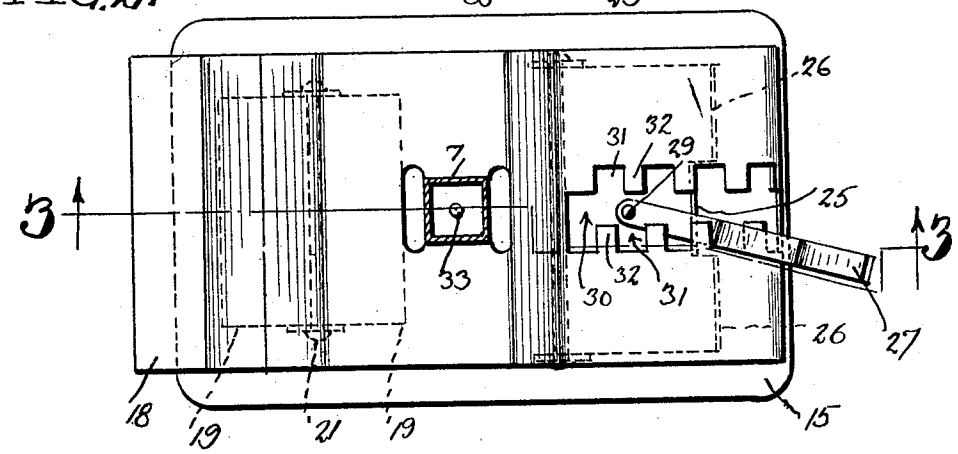
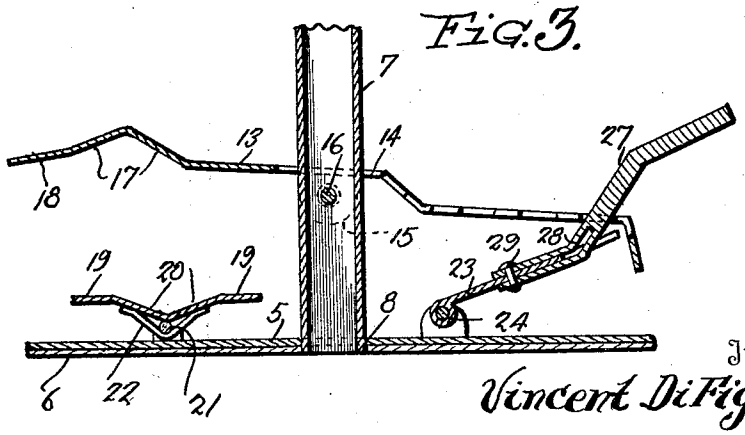


FIG. 3.



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CLAMP

Application filed September 22, 1932. Serial No. 634,438.

This invention relates to certain new and useful improvements in clamps.

The primary object of the invention is to provide a clamp especially designed for the support of an electric lamp, although it is to be understood that other devices may be associated with the clamp to be supported thereby, the clamp being of a character comprising a flat base permitting placement upon a desk, table or other support, and said clamp further being of a character permitting clamping attachment to the edge of a desk, table or other support.

A further object of the invention is to provide a clamp for the support of an electric lamp or the like wherein the clamp device is held in clamping position by means of a latch lever operable in the absence of usual spring devices for members of this general character for positive engagement of the clamp with the member to which it is attached.

It is a further object of this invention to provide a clamp of the foregoing character that is designed for association with flat supports of various thicknesses, such as the edges of desks or tables and also for attachment to objects of other form, either round or polygonal in cross-section.

A still further object of the invention is to provide a desk lamp carrying a clamping device permitting the attachment of the desk lamp to the edge of a desk, table or the like and embodying a hinged clamping plate with the longitudinally extending slot having opposite staggered lateral recesses for the reception of an operating handle for holding the clamping plate in adjusted position.

With the above and other objects in view that will become apparent as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing:—

Figure 1 is a side elevational view of the clamp device carrying a desk lamp with the clamp device illustrated as engaged with the edge of a desk or table top;

Figure 2 is a horizontal sectional view taken on line 2—2 of Figure 3, showing the staggered lateral recesses in the side walls of the clamping plate slot to receive the handle for operating the clamping plate and the tubular post carried by the clamping plate for the passage of the electric conductors to the electric lamp; and

Figure 3 is a vertical longitudinal sectional view taken on line 3—3 of Figure 2;

Referring more in detail to the accompanying drawing, there is illustrated a clamping device having a desk lamp and support carried thereby, the clamping device comprising a base plate 5 more preferably rectangular in plan view and having secured to its bottom face, a felt pad 6 whereby the clamp device with the lamp and support attached thereto may be mounted upon a desk top or other support without marring a highly finished surface. A tubular post 7 is secured at its lower end as at 8 in any convenient manner substantially centrally of the base plate 5 and rises perpendicularly from the base plate to pivotally support at its upper end as at 9, the base 10 of a lamp carrying the reflector 11 that has a swivel mounting 12 on the lamp base 10.

The clamping device further includes clamping plate 13, preferably rectangular in plan view, provided with a central opening 14 therein to be received on the post 7 and pivoted on opposite sides of said post, by means of ears 15 on opposite side walls of the opening 14 and the cross pin 16 as shown more clearly in Figures 1 and 3. The clamping end of the plate 13 is struck upwardly in a transverse direction to provide a substantially V-shaped pocket defined by angle walls 17 set inwardly of the outer end 18 of the plate 13. The clamping plate 13 at the clamping end thereof cooperates with a clamping device carried by the base plate 5 and includes a clamp plate having flat end portions 19 lying in the same plane and an intermediate depressed portion defined by angle walls 20 with the meeting edges of the angle walls 20 pivoted above the cross pin 21 by means of the strap 22 as clearly shown in Figure 3, the flat wall sections 19 of the lower clamping

device cooperating with the clamping plate 13 when the clamp is engaged with a flat surface such as the edge of a desk or table while the cooperating angle walls 17 and 20 adapt the clamping device for mounting on other objects such as pipes or the like that may be either tubular or of polygonal form in cross-section.

The operating means for the pivotally mounted clamping plate 13 includes a plate lever 23 pivotally mounted as at 24 on the base plate 5 at the side of the post 7 opposite the forwardly positioned clamping device, the free edge of the clamping plate 23 having a central cut-away portion 25 defining side abutments 26. A handle 27 is slotted at one end as at 28 to straddle the lever plate 23 at the central cut-away portion 25 and is pivoted to the lever plate as at 29, the handle 27 extending upwardly from the lever plate through a longitudinally extending slotted opening 30 in the adjacent end of the clamping plate 13. The side walls of the slot 30 are provided with staggered recesses 31 defining staggered abutment lugs 32 into which recesses the handle 27 is selectively laterally shifted.

As illustrated in Figure 1, an electric conductor 33 carrying an attachment plug 34 extends through a side opening 35 adjacent the lower end of the tubular post 7 and extends upwardly through said post for electrical engagement with the lamp base 10. The clamping device carrying the post and lamp is illustrated in Figure 1 as being clampingly engaged with the edge A of a desk, table top or other support. To accomplish this clamping engagement, the clamp is placed in enclosing relation to the edge of the support A with the walls 19 of the lower clamping device carried by the base plate 5 engaged with the underside of the support A while the walls of the clamping plate 13 laterally of the angle walls 17 are engaged with the upper side of the support A. The handle 27 is then elevated to raise the lever plate 23 with the abutments 26 carried thereby engaging the underside of the adjacent end of the clamping plate 13 to move the clamping plate on its pivotal mounting 16 and when the clamp has been securely engaged with the support, the handle 27 is shifted laterally in the desired direction to place the same into one of the lateral recesses 31 for contact or engagement with an adjacent abutment 32, the clamping device then being securely engaged with the edge of the support A. The device may be associated with supports of varying thicknesses and proper clamping engagement accomplished by the staggered arrangement of lateral recesses 31 in the side walls of the elongated slot 30, with the handle 27 positioned in the desired recess.

From the above detailed description of the device, it is believed that the construction and operation thereof will at once be apparent and while there is herein shown and described the preferred embodiment of the invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

I claim:—

1. In combination, a clamp device carrying a post for the support of an electric lamp, the clamp device including a base plate to which the post is rigidly connected, a clamping plate having an opening received on the post and pivoted on the post and operating means for the clamping post including a plate lever pivoted to the base plate and engaged with the clamping plate and an operating handle for the lever plate engageable with the clamping plate for holding the latter in clamped position.

2. A clamp of the character described comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate lever pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position.

3. A clamp of the character described comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate lever pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position, including a handle on the lever plate and slot wall notches in the clamping plate to receive the handle.

4. A clamp of the character described comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate lever pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position including a handle on the lever plate and slot wall notches in the clamping plate to receive the handle, said handle extending through the clamping plate slot.

5. A clamp of the character described comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate lever pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position including a handle on the lever plate and slot

wall notches in the clamping plate to receive the handle, said notches having staggered defining abutment lugs with the handle engageable with the lugs.

6. A clamp of the character described comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate lever pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position including a handle on the lever plate and slot wall notches in the clamping plate to receive the handle, said handle extending through the clamping plate slot, said notches having staggered defining abutment lugs with the handle engageable with the lugs.

7. A clamp of the character described comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position, including a handle on the lever plate and slot wall notches in the clamping plate to receive the handle, the clamping end of the clamping plate having a transverse upset portion providing a recess defined by angle walls and a clamping member on the base plate having an angle wall formation whereby the clamp device may be engaged with flat objects or objects of varying cross sectional contours.

8. A clamp of the character described comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate lever pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position including a handle on the lever plate and slot wall notches in the clamping plate to receive the handle, said handle extending through the clamping plate slot, the clamping end of the clamping plate having a transverse upset portion providing a recess defined by angle walls and a clamping member on the base plate having an angle wall formation whereby the clamp device may be engaged with flat objects or objects of varying cross sectional contours.

9. A clamp of the character described, comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate lever pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position including a handle on the lever plate and slot wall notches in the clamping plate to receive the handle, said notches having staggered defining abutment lugs with the handle engageable with the lugs, the clamping end of the clamping plate having a transverse upset portion providing a recess defined by angle walls and a clamping member on the base plate having an angle wall formation whereby the clamp device may be engaged with flat objects or objects of varying cross sectional contours.

10. A clamp of the character described comprising a base plate, a post rising therefrom, a clamping plate pivoted on the post and cooperating with the base plate, a plate lever pivoted on the base plate engageable with the clamping plate for moving the latter into clamping position and cooperating means carried by the lever plate and clamping plate for holding the latter in clamping position including a handle on the lever plate and slot wall notches in the clamping plate to receive the handle, said handle extending through the clamping plate slot, said notches having staggered defining abutment lugs with the handle engageable with the lugs, the clamping end of the clamping plate having a transverse upset portion providing a recess defined by angle walls and a clamping member on the base plate having an angle wall formation whereby the clamp device may be engaged with flat objects or objects of varying cross sectional contours.

In testimony whereof I affix my signature.

VINCENT DI FIGLIA.