Sept. 27, 1938. D. J. LESPERANCE 2,131,708

ILLUMINATED BOARD FOR DRAFTSMEN OR THE LIKE

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Fig. 1

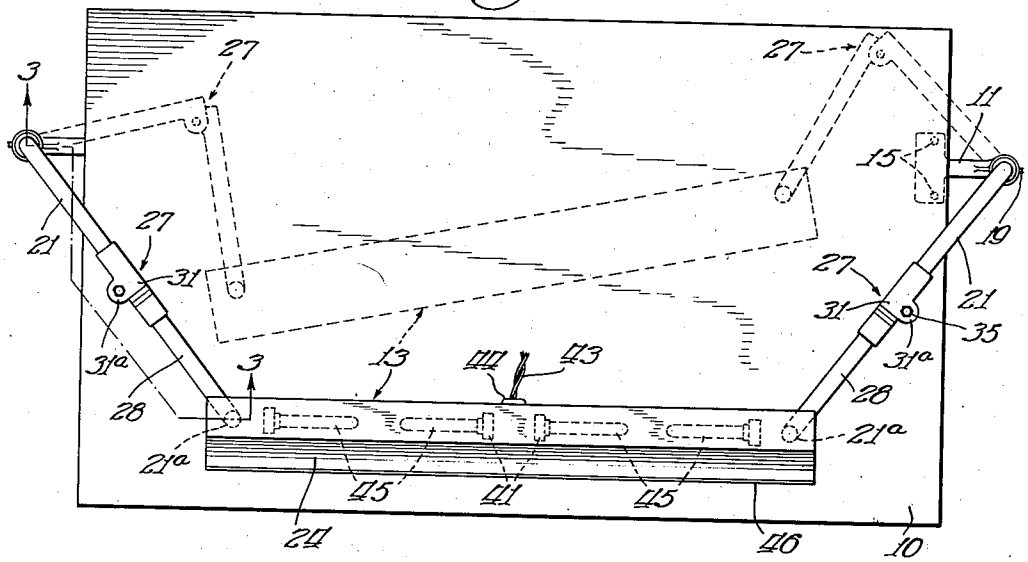
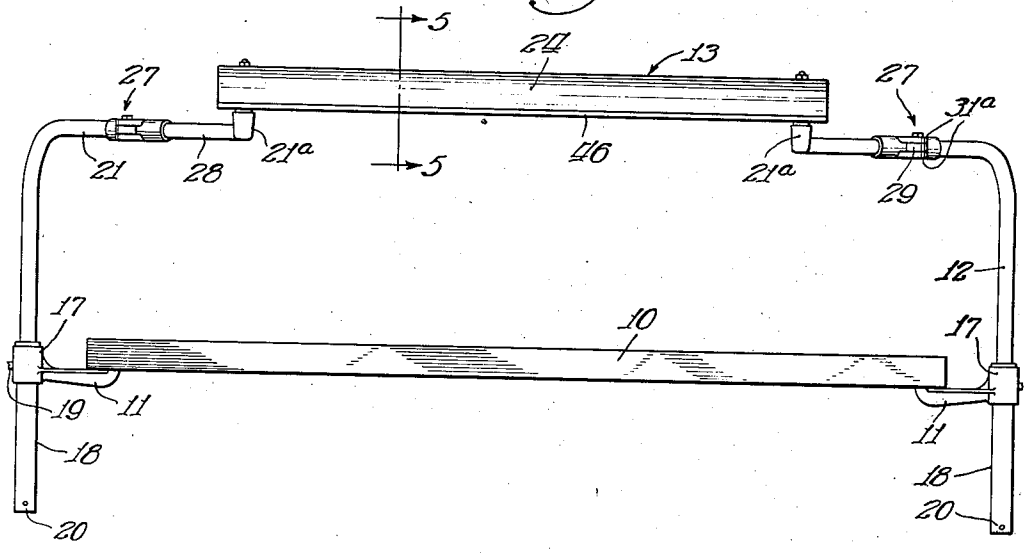


Fig. 2



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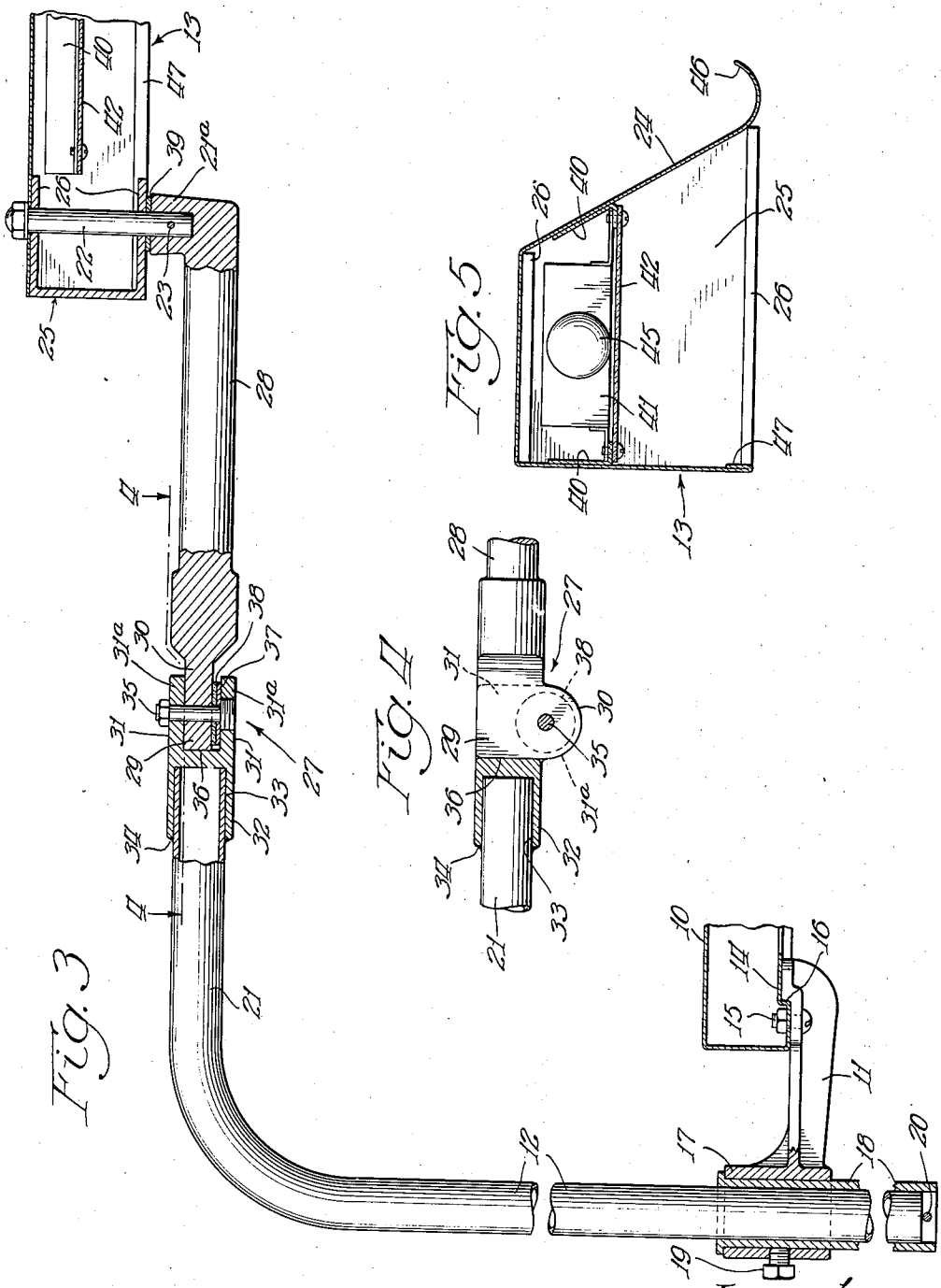


Fig. 3

Fig. 5

Fig. 4

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Patented Sept. 27, 1938

2,131,708

UNITED STATES PATENT OFFICE

2,131,708

ILLUMINATED BOARD FOR DRAFTSMEN OR THE LIKE

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Application December 11, 1936, Serial No. 115,332

2 Claims. (Cl. 240—2)

This invention relates to illuminated boards for draftsmen or the like, and aims to provide an improved board provided with lighting means having enhanced adjustability and flexibility while illuminating a maximum area of a large size board substantially uniformly. At the same time, the working surface of the board remains unobstructed.

According to a preferred form of the invention, the light-supporting means may be kept at all times within the perpendicular projection of the board without sacrificing a maximum of adjustability.

Other objects and advantages will be apparent from the following more detailed description, taken together with the accompanying drawings, in which:—

Figure 1 is a plan view of a drafting board with my invention applied thereto;

Figure 2 is an elevational view of the structure of Fig. 1;

Figure 3 is an enlarged fragmentary elevational view of parts of the invention, partially in section taken on the line 3—3 of Fig. 1;

Figure 4 is a partial plan section taken on line 4—4 of Fig. 3; and

Figure 5 is an enlarged cross-section taken on line 5—5 of Fig. 2, with parts removed.

In the illustrative construction shown in the drawings, the drafting board 10 is of the usual type commonly tiltably supported on a table or the like, not here shown.

In accordance with the present invention, at each side of the board 10 is attached as by a bracket 11 a swivel arm 12 of somewhat gooseneck pipe-like formation, and pivotally connected and carried by the inner ends of the arms 12 is a supporting means 13 for incandescent electric light bulbs, or the like, for illuminating the board.

A maximum of flexibility and adjustability for the bulb-supporting means 13 while at the same time maintaining the working surface of the board unobstructed, is provided by the next described mechanism.

In accordance with the preferred construction, the board 10 is of sheet metal and has underturned margins such as 14 (Fig. 3) to which a bracket 11 may be fixedly secured by bolts 15. Aligned off-set portions on the board margin and bracket, abutting at 16 further assure against rotation of the bracket with respect to the board. The bracket 11 has a laterally extending vertical bore bearing portion 17 in which is journaled, through the intermediation of a bushing 18, one of the arms 12. By means of a set-screw 19, for example, the bushing 18 may be vertically adjusted in the bearing 17 to raise or lower the arm 12 with respect to the drafting board. The upright portion of the arm 12 is inserted from above into the bushing 18 and moved downwardly therein to abut a stop 20. Thus the arm is readily removable while being supported for smooth rotation with respect to the drafting board.

Each of the arms 12 has a horizontal portion 21, these portions normally extending toward each other and spaced above the working surface of the board. At their inner ends the arms 12 are again turned upwardly as at 21*a* to carry a pin 22. The pin 22 may be received in a mating cavity in the portion 21*a* of the arm and fixedly secured therein as by rivet 23.

The bulb-supporting means 13, which is carried by the inner ends of the arms, is desirably elongated so as to be very nearly the length of the board 10, for the purpose of illuminating a maximum area of the board. This bulb-supporting means is here shown as an inverted trough also desirably of sheet metal construction. Advantageously the forward wall of this trough slants visor-like toward the draftsman as at 24. The ends of the trough may be reinforced as at 25 by a channel-like member conformed to the inner cross-section of the trough and having vertically spaced walls 26 through which rotatably pass the bolt 22. Thus the arms 12 are swiveled on the drafting board and the ends of the trough 13 are pivotally connected to the arms for adjustment to various positions above the board 10 as shown in Fig. 1.

To afford further flexibility or adjustability while insuring that the arms and bulb-supporting means need not be moved outside of the vertical projection of the board 10, I have here shown the arms articulated intermedially as at 27, to flex only in a plane parallel with the board. For this purpose the horizontal portion 21 of the arm may have a pivoted section 28 hingedly connected at 27 by the structure next described. The arm section 28 as here shown has a flattened end 29 enlarged at one side as at 30 and received between vertically spaced apart jaw members 31 of the arm section 21 proper, similarly enlarged as at 31*a* to form bearing portions vertically aligned with the bearing portion 30, these jaw members being formed in a casting 32, for example, having a bore 33 in which the pipe-like arm 12 is received, the parts being welded as at 34. A bolt 35 passes through apertures in bearing extensions 30 of the part 29 and 31*a* of the jaws 31 to permit the flexing of the arms as

shown in dotted lines in Fig. 1. The abutment as at 36 of the parts 29 and 32 of the arm prevents the arms from being flexed in one direction; that is, when the bulb-supporting means 13 is in the advanced position shown in full lines in Fig. 1 the arms can be flexed only rearwardly.

Play between the part 29 and jaws 31 may be taken up by a steel washer 37 and fibre washer 38. Also washer 39 may be inserted between the bulb-supporting means 13 and the ends 21a of the arms to reduce wear at this point.

Any suitable arrangement can be availed of to secure the bulbs in the trough 13. For example, brackets 40 suitably welded to the inner faces of the trough may have bolted thereto both a bulb socket 41 and a transparent screen 42 such as a glass plate which serves to diffuse the light from the bulbs. Conductors 43, which may be suitably connected with the bulbs by wiring (not here shown) may be led into the trough 13 as at 44, the conductors 43 being usual electric light cords which may be draped across the desk to follow the trough 13 in its movement. In this instance I have shown a plurality of bulbs 45, four in all, advantageously of the elongated type common in illuminating troughs for example, such as are used in window or showcase display.

The trough 13 may upon its exterior front edge be provided with a turned up portion 46 which serves as a pencil tray for the draftsman. The other edges of the trough are desirably turned inwardly as at 47 to avoid a sharp edge thereon.

Having described my invention, I claim:

1. In an adjustable drafting board light adapted to illuminate a maximum area of a large size drafting board simultaneously, the combination comprising an elongated supporting means of a length approximating the length of the board for carrying a plurality of incandescent bulbs or other sources of light arranged longitudinally of said supporting means and carried thereby directed toward the board, a pair of arms each of goose-neck formation swivelled at one end on the board and at their other ends respectively pivotally connected to said supporting means and carrying the latter in its plane of movement spaced above and parallel with said board, and means associated with the swivelled connection of the arms to the board for adjusting said arms vertically to vary the height of the supporting means above the board.

2. In an adjustable drafting board light adapted to illuminate a maximum area of a large size drafting board simultaneously, the combination comprising an elongated supporting means of a length approximating the length of the board for carrying a plurality of incandescent bulbs or other sources of light arranged longitudinally of said supporting means and carried thereby directed toward the board, a pair of arms each of goose-neck formation swivelled at one end on the board and at their other ends respectively pivotally connected to said supporting means and carrying the latter in its plane of movement spaced above and parallel with said board, said arms being intermedially articulated proximate their ends connected to the supporting means for articulation in a plane parallel with the plane of movement of said supporting means whereby enhanced flexibility of the device is provided.

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