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**COMBINED LAMP-SOCKET AND LENS  
FOR LIGHTING FIXTURE FOR SEW-  
ING MACHINES**

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This invention relates to a lighting fixture and more especially to a construction of an illuminating device in which a lamp-receiving socket and a lens are combined in a very simple and compact assembly particularly well suited for use within the frame of a sewing machine where space is at a premium.

It is an object of this invention to provide a lighting device for a sewing machine which shall comprise a simple assembly of parts made of a light transmitting molded plastic material to form a two-part lamp socket with integrally molded lens.

It is a further object of this invention to provide a simple mounting for a lighting device for sewing machines for selectively effecting a normal latched-in operating position or a swing-down position for lamp removal.

With the above and other objects in view as will hereinafter appear, the invention comprises the devices, combinations and arrangements of parts hereinafter set forth and illustrated in the accompanying drawings of a preferred embodiment of the invention, from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

In the drawing, FIG. 1 is a horizontal sectional view taken through the overhanging arm of a sewing machine showing, in plan, a lighting fixture embodying the invention.

FIG. 2 is a transverse view taken substantially on line 2—2 of FIG. 1 and showing the lighting fixture in end elevation.

FIG. 3 is an exploded perspective view of the lighting fixture of FIG. 1.

FIG. 4 is a fragmentary top plan view of the lighting fixture showing two possible positions of use.

Referring now to FIG. 1, a cavity 10 formed by vertical wall portions 11, 12, 13 of the frame of a sewing machine serves to house a lighting fixture indicated generally as 14. The bottom of the cavity 10 is open and the lighting fixture may be selectively pivoted about a single shoulder screw 15 to swing downwardly through the opening to facilitate renewal of a lamp bulb 16 as will be described.

As seen best in FIG. 3, the lighting fixture 14 is shown in dis-assembled condition and comprises a lower split socket portion 17 having an integrally cast lens portion 18, an upper split socket portion 19, a clamping bracket 20, a contact supporting wafer 21, leads 22 and 23, and compression spring 24.

The portions 17, 18 and 19 are molded from an optically transparent material, known commercially as Lexan 101-112. The lower split socket portion is formed with an inner wall 25 having a bayonet slot 26 and shaped to receive the base 27 of the lamp bulb 16. The wall 25 extends above the parting surface 28 and is formed with slots 29—29 which receive diametrical wings 30—30 formed on the wafer 21 to limit the longitudinal movement of the wafer and to prevent its rotation. It will be seen that, in assembled condition, the spring 24 is seated in compressed condition against the wall 31 and urges the wafer 21 to the extreme forward end of the slots 29—29.

The wafer 21 carries contact rivets 32—32 to which the

leads 22—23 are secured and an insulation sleeve 33 covers the leads 22—23.

The upper split socket portion 19 is formed internally with surfaces and depressions (not shown) which match and interengage with those of the lower portion 17 when the parts are placed in position for assembly. In this position the bracket 20 may be pushed on from the end so that the ends 34—34 of the bracket abut the shoulders 35—35 and the pressed dimple 36 engages the receiving depression 37 in the element 19, whereupon the parts are locked in a clamped secure condition and the lighting fixture may be handled as an integral unit.

It will be understood, that, in the assembled condition, the sleeve 33 containing leads 22—23 is free to slide in the opening 38 to permit unimpeded longitudinal movement of the wafer 21 occasioned by insertion and/or removal of the bulb 16. The upper socket element 19 is of course provided with a bayonet slot 39.

The lens portion 18 is formed with a stiffening peripheral wall 40 and has cast into its lower forward surface a Fresnel lens configuration 41 for providing proper distribution of light over the sewing area. A finger-nail grip portion 42 extends from the wall 40 and a protruding lip portion 43 rises above the wall 40 as shown.

The wall 12 is formed with a ledge portion 44 which cooperates with the lip 43 to provide a latch to hold the lighting fixture in operating position within the cavity 10 as shown best in FIG. 2. In this position the finger grip 42 abuts the under side of the frame wall 12 to serve as a limiting stop and assures that the lens portion 18 is held in a true horizontal position for proper focusing of the light rays on the working surface of the sewing machine. This latched position is a biased position and how this biasing force is obtained will now be described with reference to FIG. 4.

It will be noted that the full lines of FIG. 4 show the top plan position of the lighting fixture in which it is swung down about the screw 15 and projects through the bottom opening of the cavity 10 for bulb replacement. In this position the bracket mounting lug 45 is slightly bent. When, however, the lighting fixture is in its normal position within the cavity as shown in the dotted lines in FIG. 4, the lug 45 straightens out but in so doing supplies a spring biasing force which urges the lip 43 in latched position behind the ledge 44 as seen in FIG. 2. Thus to unlatch the device it is necessary to push in on the finger grip 42 to force the lip portion to clear the ledge 44 whereupon the fixture may be pulled down for bulb replacement.

From the above description it will be apparent that there is provided according to this invention a lighting fixture having simple molded parts of light-transmitting plastic material held in assembled condition by a single pushed-on mounting bracket having a mounting lug which is bent to provide a spring biasing force tending to hold the fixture in a latched position within a cavity in a sewing machine frame.

Having thus set forth the nature of this invention, what is claimed herein is:

1. A lighting device swingable into and out of a cavity in the frame of a sewing machine, comprising a two-part split lamp-receiving socket of transparent molding material, one of said parts having a lens portion molded integrally with said socket portion, a mounting bracket embracing said socket and formed with a bent portion containing an aperture, a shoulder screw received in said aperture and threaded into said sewing machine frame to form a hinge for said device and a lip portion molded onto said lens portion and cooperating with said frame and said bent portion of the bracket to form a latch for selectively securing said device within said cavity.

2. In a sewing machine having a cavity formed in the frame and provided with an opening having a ledge, a

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lighting fixture selectively swingable into and out of said cavity through said opening comprising a two-part split socket, a lens portion molded integrally with one of said parts, a mounting bracket securing said parts in assembled condition, a mounting lug formed on said bracket and having a bent portion pivotally secured to said frame, and a lip secured to said lens portion and overhanging said ledge to provide a latch for holding said fixture within said cavity, said bent portion providing, when straightened to permit entry of the fixture into the cavity, a spring biasing force tending to hold the lip in latched position.

3. A lighting device comprising a two-part split lamp-receiving socket of light-transparent molding material,

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one of said parts having a lens portion molded integrally with said socket portion, a single clamp member embracing said parts as the sole means of securing said parts in assembled condition, and a mounting lug formed integrally with said clamp member.

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