May 21, 1935. R. F. LIST 2,001,966

ELECTRICALLY LIGHTED SEWING MACHINE HEAD

Filed March 22, 1934

Fig. 1.

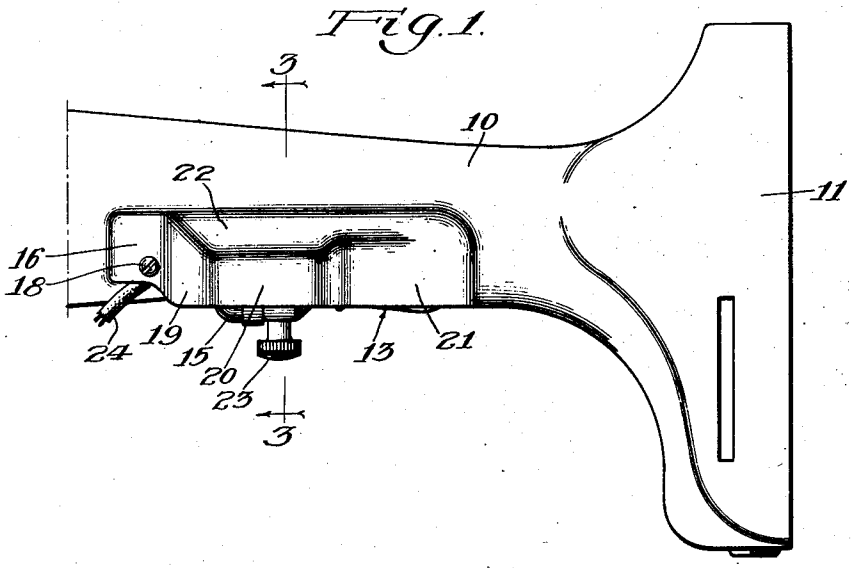


Fig. 2.

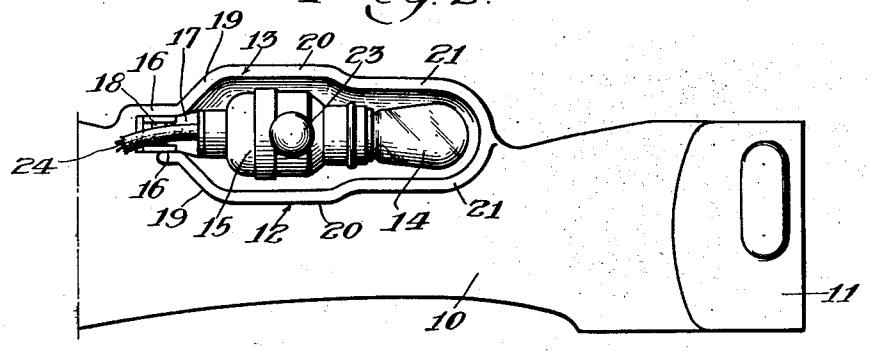
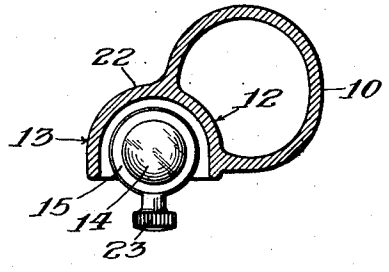


Fig. 3.



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ELECTRICALLY LIGHTED SEWING MACHINE HEAD

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Application March 22, 1934, Serial No. 716,797

1 Claim. (Cl. 240—2.14)

This invention relates to electrically lighted sewing machine heads and more particularly to a sewing machine head having an overhanging arm and electric light mounting and reflecting means made of integrally cast iron.

It has been customary, heretofore, to provide sewing machine heads with separate lighting attachments. These attachments comprise brackets, sockets, lamps and lamp reflectors of thin sheet metal, and usually the lighting attachment was mounted on the overhanging arm by means of screws which extend through the bracket and the wall of the arm.

The prior art constructions have proved objectionable for several reasons. The sheet metal reflector becomes very hot after the lamp has been lighted for a comparatively short period and renders the operator uncomfortable. Further, the lighting fixture as a whole, whether mounted on the front, rear or bottom wall of the conventional overhanging arm, is obtrusive and likely to be in the way of the operator.

One of the objects of my invention is to provide a sewing machine head with a lighting device which will resist the heat of the electric lamp and consequently remain relatively cool, and which will efficiently reflect the lamp rays to the work. Another object is to produce a unitary structure in which the lighting device will be unobtrusive, and will not mar the symmetrical contour of the head. Another object is to cast the overhanging arm and the light reflecting and mounting means integrally.

In the drawing:

Fig. 1 is a rear elevation of an overhanging arm of an electrically lighted sewing machine head embodying my invention.

Fig. 2 is a bottom view of the same.

Fig. 3 is a transverse section taken on the line 3—3 of Fig. 1, showing the lamp in elevation.

In that embodiment of my invention shown in the drawing, 10 indicates the hollow, horizontally disposed portion of the overhanging arm of a sewing machine head, and 11 the housing for the needle operating mechanism. The conventional bed plate and the upright standard for supporting the overhanging arm are not shown. In prior art constructions the horizontal part of the overhanging arm is substantially circular or oval in cross section throughout its length between the supporting standard and the housing for the needle operating mechanism. The arm 10 of my construction is also substantially circular or oval in cross section excepting in its median portion where the rear lower wall is depressed inwardly to form a wall 12. A hood 13 corresponding substantially to the form of the wall 12, is cast integrally with the arm 10 and is disposed opposite to and outwardly of the part 12 to form an open bottom housing and reflector for the lamp 14 and socket 15. The walls 12 and 13 are so disposed relatively to the arm 10 that the housing formed thereby neatly covers the lamp and socket and protrudes outwardly of the arm 10 only about one-half as much as would a lighting attachment secured to the wall of a conventional overhanging arm.

The lamp housing 12—13 at one end has parallel, vertical walls 16, extending longitudinally of the arm 10, between which is mounted a bracket 17 on a pin 18 extending from the outer wall 16 into the inner wall 16 and providing for limited pivotal movement of the lamp to permit replacement of the lamp bulb when required. From the walls 16 the housing walls 19, 19 extend in divergent directions to parallel walls 20, 20 providing space for the socket 15, and then merge into walls 21, 21 to accommodate the lamp bulb 14. The upper portions 22 of the outer walls 19, 20 and 21 are curved to merge symmetrically into the wall of the arm 10, and the walls 21, 21 curve toward each other at one end and merge with the arm 10.

A switch for the lamp 14 is indicated at 23 and a current wire at 24.

The lighting device of my invention is thus located with its longitudinal median axis substantially in or very close to the vertical plane of the outermost portion of the rear wall of the arm 10, with the bottom edges of the reflector aligned with the bottom wall of the arm 10, where it casts rays of light most effectively upon the work, and yet the lamp is invisible to the operator and not unduly close to the work. The rigidity and compactness of the structure are valuable features in that vibration of the lighting device is avoided and there is no interference with dropping the head into the cavity of the conventional drop head support.

While I prefer to cast the light mounting and reflecting means on the rear wall of the arm 10, it is obvious that it may be placed elsewhere on the arm.

Changes may be made in details of construction without departing from the scope of my invention and I do not intend to be limited to the exact form shown and described, except as set forth in the appended claim.

I claim:—

An electrically lighted sewing machine head comprising an overhanging arm disposed hori-

zontally between the conventional sewing head standard and the housing for needle operating mechanism, an elongated relatively shallow open bottom hood cast integrally with the arm wall, the longitudinal medium axis of the hood being substantially parallel with and closely adjacent the vertical plane of the outermost side surface of the arm, the bottom edges of the hood being in substantially the same horizontal plane as the lower surface of the arm, and an electric light socket and lamp bulb mounted between the side walls of the hood.

RAYMOND F. LIST.

CERTIFICATE OF CORRECTION.

Patent No. 2,001,966. May 21, 1935.

RAYMOND F. LIST.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, first column, line 5, the claim, for "medium" read median; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 25th day of June, A. D. 1935.

Bryan M. Battey

(Seal) Acting Commissioner of Patents.