Nov. 14, 1950 M. INGWER 2,530,123

ADJUSTABLE SEWING MACHINE LIGHT

Filed Feb. 16, 1949

Fig. 1.

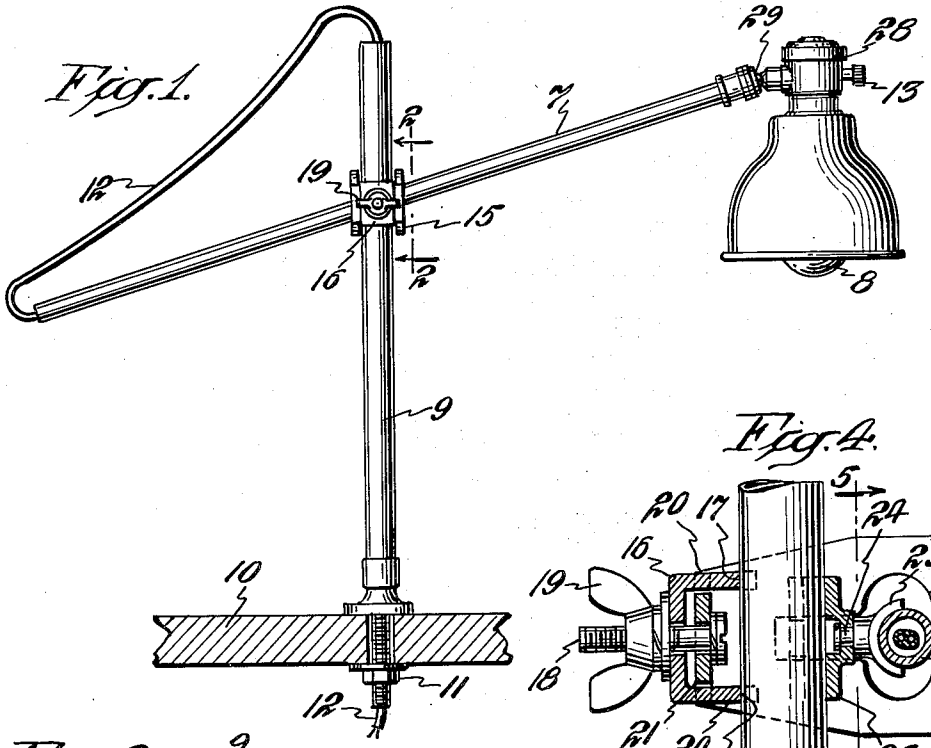


Fig. 4.

Fig. 2.

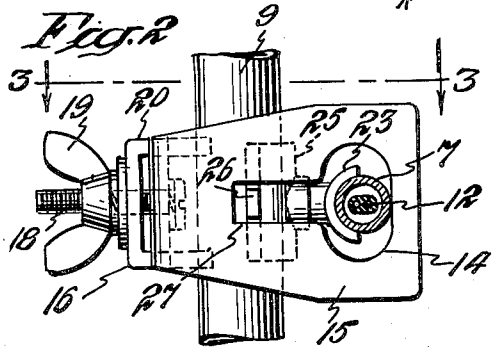


Fig. 5.

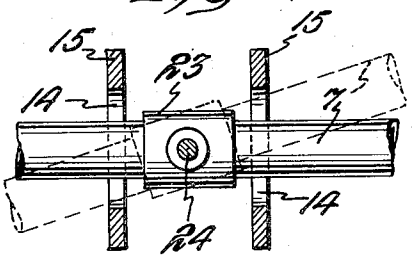
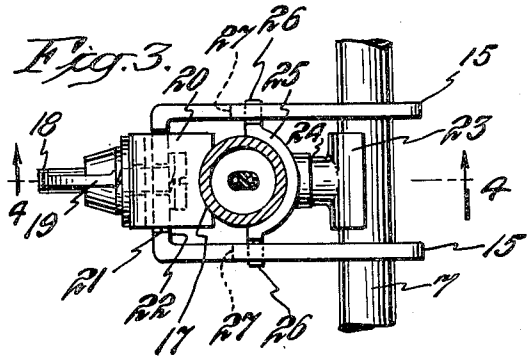


Fig. 3.



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ADJUSTABLE SEWING MACHINE LIGHT

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6 Claims. (Cl. 248—124)

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The invention herein disclosed relates to the lighting of industrial machines and parts, particularly sewing machines.

Objects of the invention are to provide simple and practical means for efficiently illuminating sewing machine tables and machines generally, work benches and the like, and which will be of a character that can be quickly and easily adjusted in any way necessary to effect the desired illumination for the work in hand.

A particularly important object of the invention is to provide a strong, rugged form of adjustable lighting mechanism which can be produced and sold at low cost.

Further important objects of the invention are to provide mechanism which can be adjusted in all ways necessary and which can be securely held in final adjusted position by a single, easily regulated securing means.

Other desirable objects and the novel features of the invention through which all purposes are attained are set forth or will appear in the course of the following specification.

The drawing accompanying and forming part of the specification illustrates a present practical embodiment of the invention. Structure and arrangement, however, may be modified and changed in various ways, all within the true intent and broad scope of the invention, as will appear from the following specification broadly defining and claiming the invention.

Fig. 1 in the drawing is a broken part sectional view illustrating an embodiment of the invention;

Fig. 2 is an enlarged, broken part sectional view of the adjustable clamp structure as viewed looking in the direction of the arrow 2 in Fig. 1;

Fig. 3 is a horizontal sectional view on substantially the plane of line 3—3 of Fig. 2;

Fig. 4 is a vertical sectional view on substantially the plane of line 4—4 of Fig. 3;

Fig. 5 is a vertical sectional view on substantially the plane of line 5—5 of Fig. 4.

As shown in Fig. 1, the invention comprises a tubular arm 7 carrying a lamp 8 and secured in universally adjusted relation on a supporting post or column 9.

The latter is shown as secured in rigid, upstanding relation on a support, such as a sewing machine table 10 by clamping nut 11.

The wiring 12 for the lamp is shown as extending up through the tubular post 9 and out through the tubular arm 7 to the lamp 8, with circuit usually controlled by lamp switch 13.

The lamp carrying arm 7 is rotatably, longitudinally, slidably and inclinably adjustable on the

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post by extending through slots 14 in the parallel side arms of a yoke 15 looped about the post and drawn toward the back of the post by a smaller yoke 16 disposed at a right angle to yoke 15 and bearing on the front of the post at 17 and adjustably coupled to the first yoke by a tension bolt 18 and wing nut 19.

The smaller, pressure yoke 16 is guided in non-rotatable relation over the head of the larger, tension yoke by having its side arms 20 slidably disposed in slots or notches 21 in the edges of the head 22 of the tension yoke.

While the tubular lamp carrying arm 7 may directly engage the back of the post, it is considered preferable to provide a swivel thrust bearing between these two members, shown in the form of a socket piece 23 for the lamp arm swiveled at 24 on a half-round bearing 25 engaged over the back of the post. This bearing member is shown as having extended lugs 26 operating in slots 27 in the sides of the yoke 15 so as to be guided in free sliding engagement up and down the post when the screw 19 is loosened.

With the construction described, the single screw 19 secures the several parts in all their adjusted relations. Upon loosening this screw the lamp carrying arm, together with the entire swivel and sliding clamp structure, may be freely shifted up and down the post or supporting column and the arm can be longitudinally shifted one way or the other, rotated or shifted into differently inclined positions.

Upon tightening the wing nut 19 the screw 18 will pull the yoke 15 forwardly to apply pressure through slots 14 to the arm 17, and pressure of that arm against the back of the supporting column through the swivel thrust bearing 23, 24, and in this same action the forward yoke 16 will be thrust at 17 against the front of the column, thus to solidly clamp the lamp supporting arm in any position to which it may have been turned or shifted. The parts will be held in this relation against vibration or other forces, but at any time any desired further adjustment may be immediately effected on simply loosening the one fastening element, wing nut 19.

The parts are few in number, of rugged construction and can be produced and assembled at low cost. Upon releasing the one fastening, all cooperative pieces are released and consequently the lamp may be shifted to any position required. If desired, the lamp fixture 28 may be mounted on the end of the lamp arm 7 by means of universal joint 29.

While of particular importance for industrial

sewing machines, work tables and the like, it will be appreciated that the invention has many other uses. The foregoing specification and claims following are to be construed accordingly.

What is claimed is:

1. A universally adjustable lamp for sewing machines comprising a supporting column, a lamp carrying arm in crossed relation therewith, a rotary swivel thrust bearing interposed between said arm and the back of said post and in sliding engagement with both said arm and said post, a thrust yoke having spaced ends slidingly and rotatably engaged over the front of said post, a tension yoke in crossed relation to said thrust yoke and extending from across the front of said post in back of said arm and having slots rotatably and slidingly receiving said arm and a tension screw for adjustably drawing the forward ends of said yokes together to thereby clamp said arm to the back of said column through said interposed rotary swivel thrust bearing.

2. A universally adjustable sewing machine lamp comprising an upright supporting post, a lamp carrying arm at the back of said post, a rotary swivel thrust bearing interposed between the back of said post and said arm, a yoke extending about the front of said post and having slots at the back of the post receiving said arm, a yoke slidingly guided over the front of said first yoke at right angles thereto and bearing at its ends against the front of the post and screw means adjustably drawing the forward portions of said yokes together to pull the first, slotted yoke forwardly and thrust the second yoke backwardly toward the post.

3. A universally adjustable sewing machine lamp comprising an upright supporting post, a lamp carrying arm at the back of said post, a rotary swivel thrust bearing interposed between the back of said post and said arm, a yoke extending about the front of said post and having slots at the back of the post receiving said arm, a yoke slidingly guided over the front of said first yoke at right angles thereto and bearing at its ends against the front of the post and screw means adjustably drawing the forward portions of said yokes together to pull the first, slotted yoke forwardly and thrust the second yoke backwardly toward the post, said swivel thrust bearing including bearing elements rotatably and slidingly fitting the lamp carrying arm and post, respectively, said elements being swiveled together and the one engaging the post having lugs slidingly guided in the arms of the yoke embracing the post.

4. A universally adjustable sewing machine lamp comprising an upright supporting post, a lamp carrying arm at the back of said post, a rotary swivel thrust bearing interposed between the back of said post and said arm, a yoke extending about the front of the post and having slots at the back of the post receiving said arm, a yoke slidingly guided over the front of said first yoke at right angles thereto and bearing at its ends against the front of the post and screw means adjustably drawing the forward portions of said yokes together to pull the first, slotted yoke forwardly and thrust the second yoke backwardly toward the post, said swivel thrust bearing having a loose connection with said first yoke so as to be shiftable therewith in the adjustment of said first yoke on the upright supporting post.

5. A universally adjustable lamp comprising a supporting post, a lamp carrying arm angularly adjustable across the back of said supporting post, a yoke extending about the front of said post and about said arm, a second yoke slidingly guided over the front of said first yoke at right angles thereto and bearing at its ends against the front of the post and screw means adjustably drawing the forward portions of said yokes together to thereby pull the first yoke forwardly and thrust the second yoke rearwardly toward said supporting post.

6. A universally adjustable lamp for sewing machines or the like comprising a supporting post, a lamp carrying arm swiveled against the back of said post, a U-shaped yoke positioned over the front of said post and having side arms extending back at the sides of said post to said lamp carrying arm at the back of the post, said side arms having slots disposed at the back of said post and extending substantially parallel to the post and receiving said lamp carrying arm, a second U-shaped yoke disposed at right angles to and engaged over the front of said first yoke, said second yoke having spaced side arms extending over the front of the first yoke back into engagement with the front of the post and a tension screw adjustably connecting the overlying portion of said second yoke with the front portion of the first yoke for drawing the side arms of the first yoke forwardly to adjustably clamp the lamp carrying arm in swiveling engagement against the back of the post.

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