

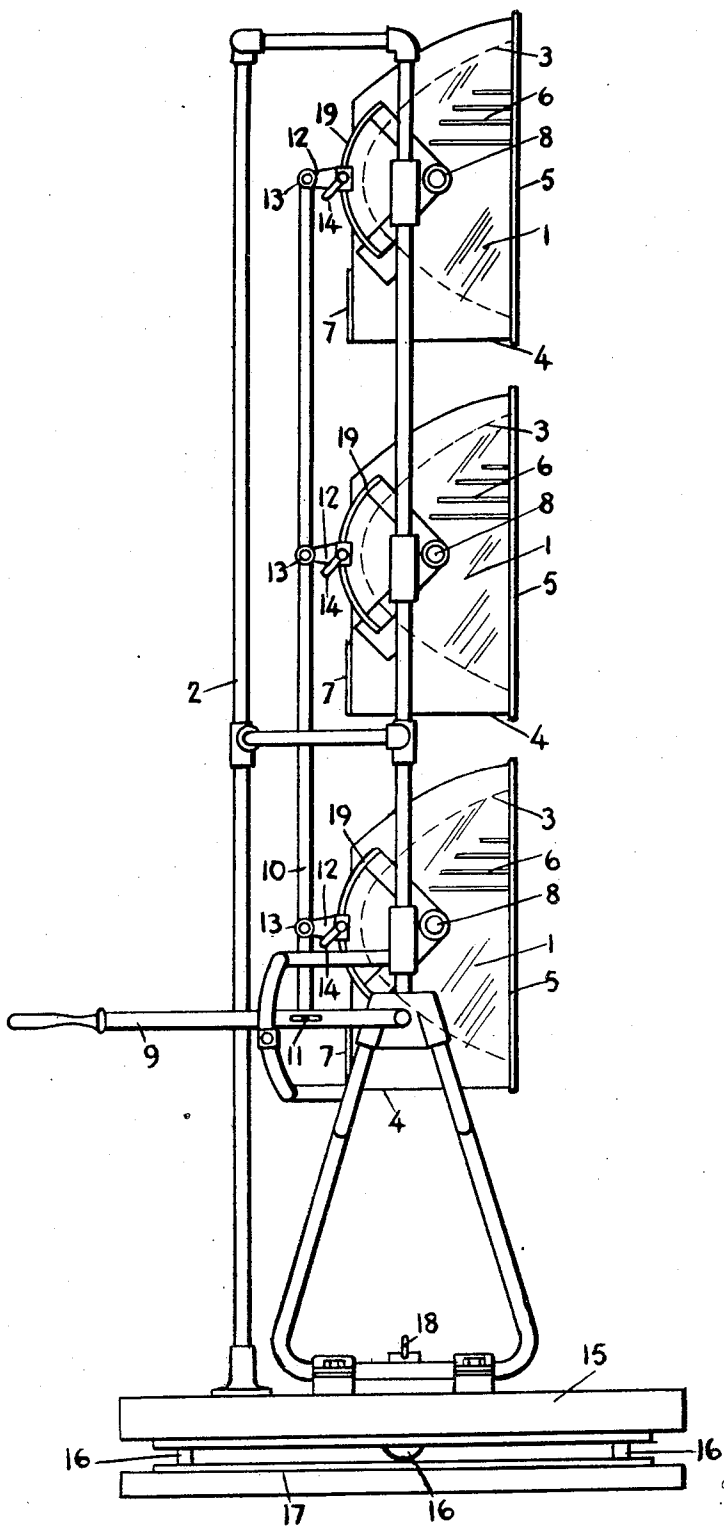
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LIGHTING DEVICE

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LIGHTING DEVICE

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3 Claims. (Cl. 240—1.2)

This invention relates to lighting devices of the kind in which a sheet of light is thrown to a distance laterally, and more particularly to airport landing lights.

5 A lighting device of the kind specified, according to the present invention, comprises a framework, a plurality of trough reflectors or rows of trough reflectors mounted horizontally on the framework one above another to direct the light
10 in the same lateral direction and a plurality of lamps arranged along longitudinal axes of the reflectors. The trough reflectors are preferably of parabolic cross section and the lamps are arranged substantially along their focal lines.
15 The reflectors or rows of reflectors may each be adapted to rotate about a longitudinal axis and means may be provided for rotating all the reflectors simultaneously, whilst further means may be provided for rotating one reflector or row
20 independently of the others. The lamps may be of the tubular incandescent type having their filaments arranged along the longitudinal axes or focal lines of the reflectors. Alternatively the lamps may consist of luminous electric discharge tubes arranged along the longitudinal
25 axes or focal lines of the reflectors.

One construction in accordance with the invention will now be described, by way of example, with reference to the accompanying drawing which shows a diagrammatic end elevation
30 of a lighting device for illuminating an airport landing ground.

With reference to the drawing, three horizontal rows 1 of parabolic trough reflectors are
35 mounted on a tubular framework 2. Each row consists of three trough shaped glass reflectors, such as 3, of parabolic cross section arranged end to end in a suitable box 4. The lamps, which cannot be seen in the drawing, are of the tubular type having a long axial incandescent filament. A removable glass cover 5 is arranged
40 in front of each reflector and suitable clamps (not shown) are provided for clamping the covers in position in a water-tight manner.
45 Suitable baffle plates 6 are provided in front of each lamp to cut off any light which may be thrown upwards. The lamp switches (not shown) are arranged inside the boxes 4 behind the reflectors 3 and are accessible through
50 doors 7.

Each box 4 is mounted on pivots 8 arranged at each end of the box, so that the box can rotate about a longitudinal axis. A slotted lever 9 is adapted to move a rod 10 in an axial direction, the end of the rod engaging the slot 11

in the lever 9, whilst the rod 10 is coupled to the respective boxes 4 by members 12, which are pivoted to the rod 10 at 13 and clamped to the respective boxes at 14. The clamped end of each member 12 engages a circular slot 19 on the associated box 4 so that by slackening off the clamp 14 the box may be rotated independently of the member 12. The lever 9 serves to rotate the boxes 4 simultaneously so as to tilt the resultant beam of light up or down, whilst for the purposes
60 of adjustment any one box may be rotated independently of the others.

The framework 2 is mounted on a turntable 15 provided with wheels 16 engaging a circular track 17, thus enabling the device to be rotated easily
70 to any desired position. When in position the turntable may be fixed by means of a clamp 18 comprising a butterfly nut coacting with a clamping plate on the turntable 15 and a fixed bolt extending through a hole in the turntable.

Furthermore in an illuminating device in accordance with the invention, since the source of light should be linear, it is obvious that luminous electric discharge tubes would be very suitable for this purpose. In such a case the auxiliary
80 apparatus such as the transformer, in the case of high voltage cold cathode luminous electric discharge tubes, as well as the ballast impedance and starting apparatus, where necessary, in the case of hot cathode luminous electric discharge
85 tubes, could be mounted in the housings behind the trough-shaped reflectors, in the same manner as is described for the switches for the electric incandescent lamps.

Although the example has been described with regard to mirrors parabolic in cross section, it is to be understood that the invention is not restricted to the use of such mirrors.

I claim:—

1. An airport landing light comprising a framework, a plurality of trough reflectors pivotally mounted horizontally one above the other in the framework so as to face in substantially the same direction, a plurality of horizontal pivots extending axially of the reflectors about which the reflectors are individually rotatable, means for connecting the reflectors together for rotation in the same direction about their individual pivots, and means for disconnecting the individual reflectors from said connecting means for individual rotative adjustment.

2. An airport landing light comprising a framework, a plurality of horizontal trough reflectors pivotally mounted one above the other so that each can rotate about a separate horizontal axis,

said reflectors being provided with a plurality of lamps mounted therein and extending along the longitudinal axes of the reflectors, a member coupled to each reflector for holding the reflectors together so that all face in the same lateral direction, means for moving the member to rotate all the reflectors together in the same direction about their separate horizontal axes and means for adjusting the coupling between an individual reflector and said member to enable the inclination of that reflector to be adjusted relatively to another reflector.

3. An airport landing light comprising a framework, a plurality of trough reflectors arranged horizontally one above the other and each pivoted at its ends to the framework, a rod pivotally connected to each of the reflectors so that they all face in the same lateral direction, means for moving the rod to rotate the reflectors together in the same direction about their pivots and means for varying the point at which a reflector is coupled to the rod whereby the individual reflectors may be rotated without moving the rod.

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