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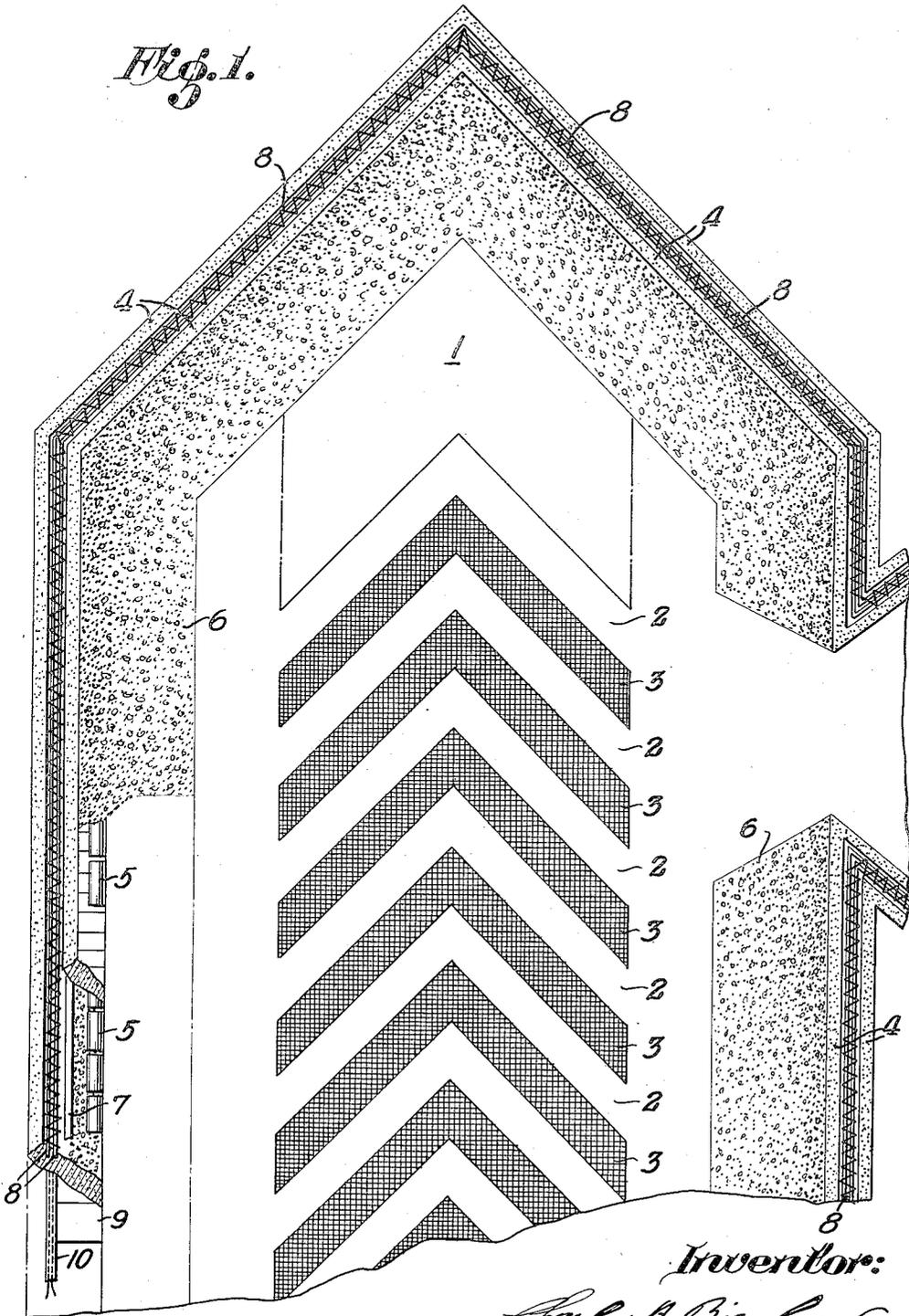
2,532,988

CONTINUOUS LIGHTING SYSTEM FOR AIRCRAFT LANDING STRIPS

Filed March 5, 1947

2 Sheets-Sheet 1

*Fig. 1.*



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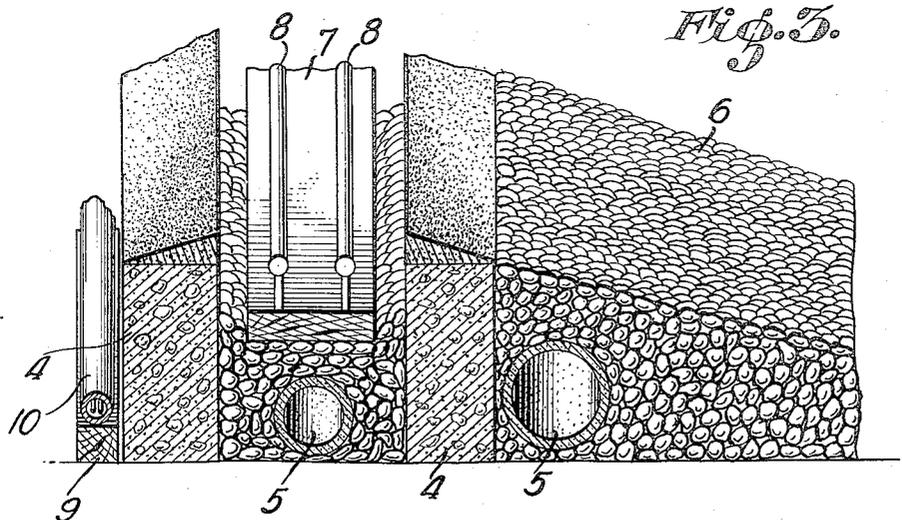
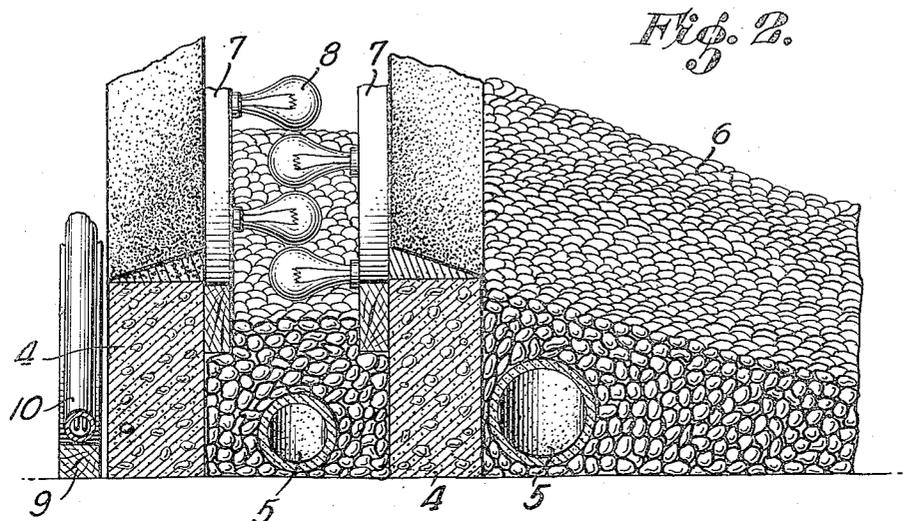
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# UNITED STATES PATENT OFFICE

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## CONTINUOUS LIGHTING SYSTEM FOR AIRCRAFT LANDING STRIPS

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5 Claims. (Cl. 240-1.2)

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This invention relates to an improved method of indicating to the pilot of an aircraft, the location and direction of a special landing strip, designed to aid pilots to make a safe landing, when visibility is low, due to fog or the like.

The accompanying drawings, forming a part of this specification, illustrate the invention and one method of construction; Fig. 1 is a plan view, in part; Fig. 2, a vertical cross section view, showing one method of using and installing red incandescent electric light bulbs; Fig. 3 is a vertical cross section view, wherein red electric neon tubing or red gaseous tubing is used.

Referring now to the different parts on the drawing by number, like numerals refer to the same parts in all views: Number 1 shows the designated landing strip; 2 denotes the color white or the like; 3 the color black; 4 denotes concrete side walls or curbing to house and protect the lighting system; 5 denotes concrete drain pipe or tile; said drain pipe 5 to convey rain water or the like off the landing strip and out of the constructed system.

6 denotes crushed rock or gravel to protect the constructed system from an abrupt attack by the wheels of aircraft and permit free drainage; 7 denotes a creosote treated wood panel board, of suitable size, to assemble electric fixtures on; said panel board or boards 7 may be used in a vertical or parallel position; 8 denotes the lighting means, very red light bulbs or globes, or red gaseous lighting tubes, substantially assembled on the panel board or boards 7; said lighting means, properly connected to electric wiring; said wiring conducting generated electric energy from a predetermined electric generating power plant. For gaseous light tubing, a so-called staff is first attached to parallel or vertical panel board and then the tubing is attached to the supporting staffs, as in Fig. 3. For incandescent light globes or bulbs a so-called receptacle is first attached to the vertical panel board to receive conventional light globes, as in Fig. 2. Said parallel used panel board is laid upon the gravel within the spaced apart concrete walls or curbing, as in Fig. 3; said vertical panel boards are set edge-wise upon the gravel and braced against the inner side of spaced apart concrete walls or curbing, as in Fig. 2. 9 denotes a concrete or substantial support for conduit pipe 10; said concrete supports properly spaced along the back side of the constructed lighting system, to sustain and support electric conduit pipe 10. 10 denotes conduit pipe, installed and supported parallel to the back side of concrete wall 4; said

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conduit pipe 10 having electric wires within to supply and convey the generated electric energy to the lighting means 8.

Having above described the different parts by number, and now analyzing the function of same; numbers 2 and 3 illustrate alternate white and black converging stripes; said stripes converging to and from the center of designated landing strip 1. Said colors black or white, applied by paint or painting, can be sprayed on economically. Number 4 illustrates concrete walls or curbing, constructed parallel to and on each side of the designated landing strip; said walls 4-4, spaced apart, a predetermined space between them, for installing the means of lighting, within the spaced apart walls. Said walls or curbing 4-4, having a predetermined length parallel to the landing strip 1; said concrete walls 4-4 constructed to terminate at one end of landing strip 1, at approximately a 45 degree angle, thus completing, in form, to a point at one end as indicating location and direction of the designated landing strip.

The principal objective, established and set forth in this invention is; the method of accomplishing a positive and continuous red illumination, on each side of a special designated landing strip; said continuous red illumination terminating to a point at one end; thereby producing a definite indication of the location and direction of a landing strip, to facilitate the landing and departing of aircraft under conditions of low visibility; due to fog or the like.

It will also be recognized that a landing or departure can be made from either direction; in the direction of the terminating point or the opposite direction. Said opposite direction being open, the end terminating to a point has an opening provided on one side, near and at a safe distance from the terminating point, as illustrated in Fig. 1, for aircraft to get off the landing strip.

Therefore, it will now be recognized that under conditions of low visibility, due to fog or the like, an aircraft approaching an airport (where this invention has been constructed and installed), the pilot of an aircraft will at quite some distance from the airport or air-field observe a definite pointed red form, indicating the exact location and direction of landing strip. As the aircraft approaches closer, the more definite red the described indication will appear and when the aircraft is in the act of landing in between the installed lighting system, on each side of the designated landing strip, then, the landing lights on the aircraft will show the alternate

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black and white converging stripes, that are on the surface of the landing strip; the pilot can definitely guide his aircraft to and in the center of the landing strip.

I make no claim for any of the named parts broadly, as pertaining to their general use or to an aircraft landing strip; but, in combination with an aircraft landing strip.

I claim:

1. In combination with a special designated aircraft landing strip, a concrete housing means for housing a continuous lighting system; said housing means constructed upon the ground surface, adjacent to the designated landing strip; said housing means constructed on each side and parallel to the designated landing strip; said housing means consisting of two concrete walls or curbing, spaced apart a predetermined distance to receive the assembled installation of said continuous lighting system; said spaced apart concrete walls or curbing, constituting the housing means, terminating in a 45 degree point at one and the same end of the designated landing strip.

2. In combination with a designated aircraft landing strip, a concrete housing means for a continuous lighting system, constructed parallel to and on each side of the designated landing strip, as in claim 1, said concrete housing means having established and fixed along and parallel to the back side thereof a supported electric conduit pipe for conveying electric wiring and electric energy to the lighting system; said housing means having within the spaced apart walls or curbing a drain pipe at the bottom; said drain pipe surrounded by crushed rock or gravel, allowing space above the gravel for the assembled continuous lighting system.

3. In combination with a designated aircraft landing strip, a concrete housing means for a continuous lighting system, constructed parallel to and on each side of the landing strip and terminating in a point at one end of said landing strip; said housing means protected on the side nearest to the landing strip and having a drain pipe of suitable size installed along the side of the wall or curbing nearest the landing strip for proper drainage; said drain pipe or tile covered over with crushed rock or gravel; said crushed rock or gravel graded from the top of the front wall or curbing surface to ground level

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a predetermined distance in the direction of the landing strip to protect the housing means and lighting system from direct attack by the wheels of aircraft provided said aircraft gets out of control.

4. In combination with a designated aircraft landing strip, a continuous lighting means, said lighting means producing a very red and continuous illumination pattern indicating the exact location and direction of said designated landing strip; and alternate, spaced apart, black and white converging stripes applied on the surface of said designated landing strip; said stripes converging to and from the center of said designated landing strip; said spaced apart black and white converging stripes applied on the surface of the landing strip, in the manner of painting, by brushing or spraying.

5. In combination with a designated aircraft landing strip, a concrete housing means consisting of two spaced apart walls or curbing constructed on each side and parallel to the landing strip and a continuous lighting means assembled within the spaced apart walls or curbing; said lighting means terminating in a point at one end of landing strip; wherein, an opening is provided through one parallel side of said landing strip, near and at a safe distance from the terminating point, to permit and allow aircraft to get off said landing strip, after landing on the landing strip in the pointed direction.

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