

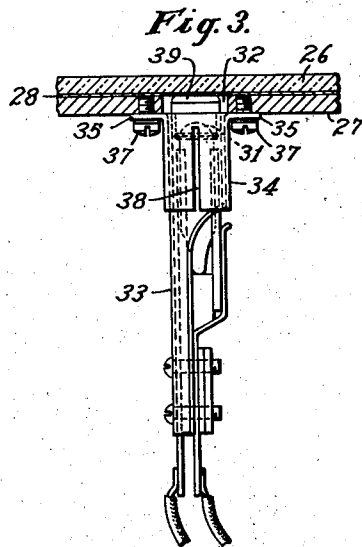
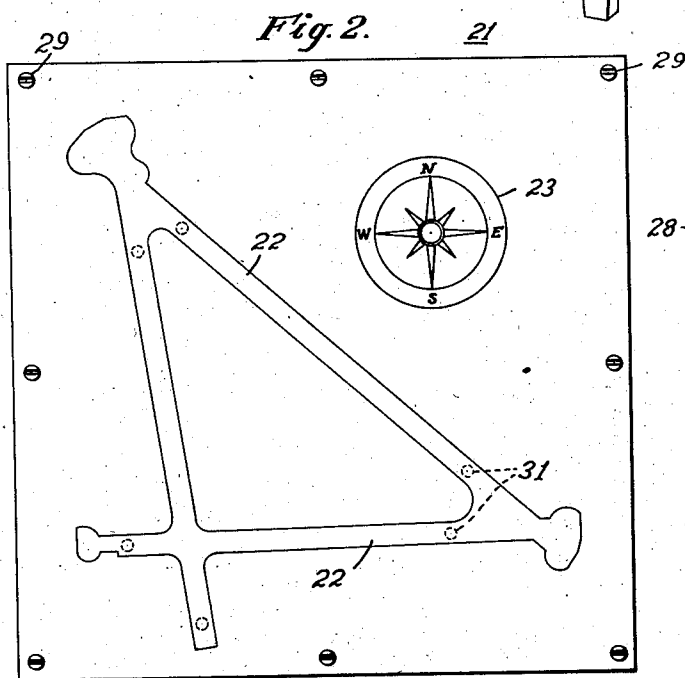
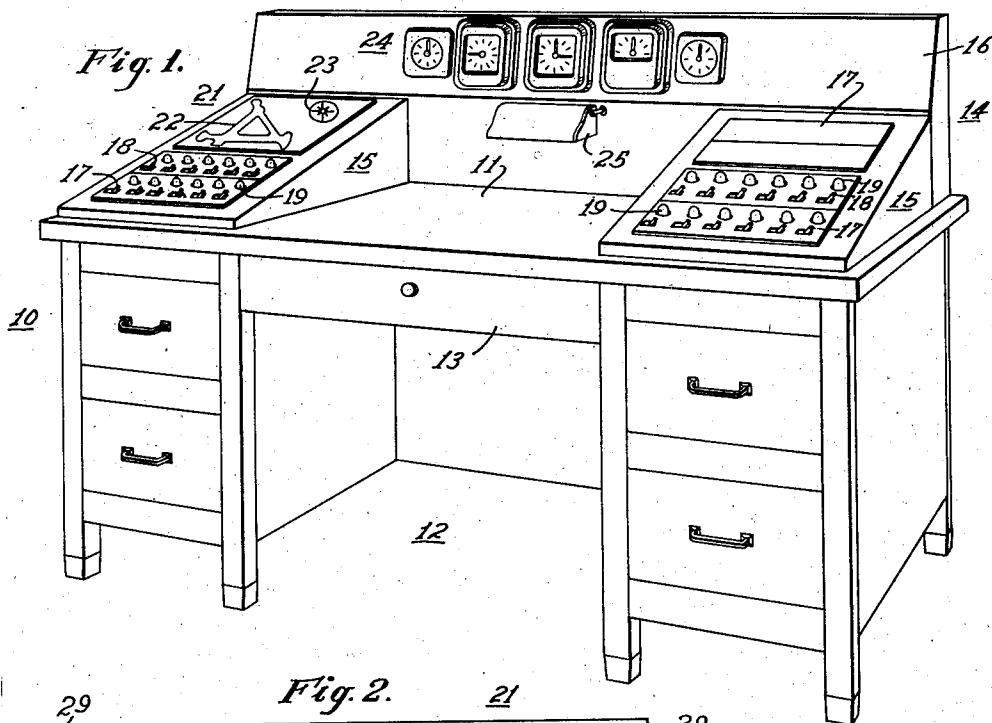
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J. P. HOUCK

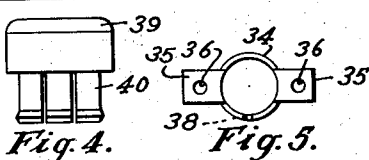
2,394,062

CONTROL DESK

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CONTROL DESK

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My invention relates, generally, to control desks and, more particularly, to desks of a type suitable for use in the control rooms of airports.

It is customary to provide airport control desks with a panel containing a facsimile map showing the location of the airport runways. These panels have either been made of a phenolic material having the runway layout inlaid therein or of an anodized aluminum plate. The runway layout is photographed on the plate and is permanently fixed during the anodizing process. In either case any subsequent revisions of layout require new panels which are difficult and expensive to manufacture. Thus, considerable expense is involved in supplying new maps because of the expansion and changes which usually take place in airfields.

An object of my invention, generally stated, is to provide a facsimile map which shall be pleasing in appearance and which may be economically manufactured and installed.

A more specific object of my invention is to provide a facsimile map which may be easily and inexpensively modified.

Another object of my invention is to provide an illuminated facsimile map.

Other objects of my invention will be explained fully hereinafter or will be apparent to those skilled in the art.

In accordance with one embodiment of my invention, the panel containing the facsimile map for an airport control desk includes a top section of transparent material, a middle section containing the runway layout and a bottom section or back-up plate on which illuminating equipment is mounted.

For a fuller understanding of the nature and objects of my invention, reference may be had to the following detailed description, taken in conjunction with the accompanying drawing, in which:

Figure 1 is a view, in perspective, of an airport control desk embodying my invention.

Fig. 2 is an enlarged view, in plan, of the facsimile map provided on the desk illustrated in Fig. 1;

Fig. 3 is an enlarged view, partially in section and partially in elevation, showing a cross section of the facsimile map and an elevation of a lamp receptacle and supporting means;

Fig. 4 is an enlarged view, in elevation, of a lens provided for the illuminating lamp, and

Fig. 5 is an enlarged view, in plan, of the lamp receptacle supporting means.

Referring now to the drawing, and particularly

to Fig. 1, the control desk shown therein is similar in some respects to the usual office desk and is preferably composed of steel or other suitable material. As shown, the desk comprises a base section 10 which is provided with a centrally disposed level surface 11 upon which an airport operator may keep his log book and perform other clerical duties. A space 12 is provided underneath the surface 11 for the knees of the operator and a drawer 13 of the usual desk type is disposed above the space 12 and underneath the surface 11.

A super structure 14 is provided on top of the base section 10 and comprises a sloping section 15, disposed at each side of the level surface 11, and an upright instrument panel 16 which is disposed on top of the base section at the rear of the work space 11.

The inclined surfaces of the sloping sections 15 are provided with openings which are covered by removable cover plates 17 on which are mounted a plurality of control devices, such as switches 18 for controlling the airport lighting circuits, and pilot indicating lights 19. It will be noted that space is available on certain of the plates 17 for the installations of additional control devices, thereby providing for additional equipment which may be installed at any time after the desk has been put in service by simply removing the plates 17 and drilling the necessary holes for the control device.

A field plan or facsimile map 21, which will be described more fully hereinafter, is also provided on the left-hand sloping section 15. The field plan 21 shows, in miniature, the airport runways 22. The location of the taxi strips, buildings, etc. may also be shown on the field plan 21. A symbol 23, which indicates the compass points, is also provided on the field plan 21.

The usual airport instruments 24, such as a wind direction indicator, a wind velocity indicator, an altimeter, a thermometer and a clock may be mounted on the upright panel 16 as shown in Fig. 1. A desk lamp 25 may also be provided on the panel 16.

As explained hereinbefore, it is frequently necessary to change the facsimile map or field plan 21 because of changes which are made in the airport after the control desk is installed. With a view to providing a facsimile map which may be readily changed with a minimum amount of time and expense, I have provided the facsimile map structure illustrated in Figs. 2 and 3.

As shown most clearly in Fig. 3, a multi-section map is provided which comprises a top plate

26 composed of a transparent material, such as plastic or glass, a bottom plate 27 composed of non-transparent material, preferably sheet steel, with a middle section 28 interposed between the top and the bottom sections and containing the runway layout in miniature. The middle section 28 may be composed of a relatively thin material such as photographic film, paper or cloth containing the runway layout, or the runway layout may be painted on the bottom surface of the top plate 26 or on the top surface of the bottom plate 27.

The two plates 26 and 27 may be securely fastened together by screws or bolts 29 which may also serve to hold the complete map panel in position on the sloping section 15. If it is desired to change the map, the two sections may be dismantled and a new miniature layout installed. If photographic film, paper, or cloth is utilized, a new sheet containing the revised layout may be provided. If the layout is painted on one of the surfaces, the paint may be removed, or a new plate having the revised layout painted thereon may be provided. Since both plastic and steel are relatively inexpensive, the provision of a new plate composed of either of these materials will not involve any great expense.

The bottom section or plate 27 functions as a back-up plate for supporting the top plate 26 and also as a mounting plate for supporting a plurality of lights 31 which indicate the operation and location of the various lights located on the runways on the airfield. As shown in Fig. 3, the plate 27 is provided with holes 32 in which the lights 31 are mounted. Each light 31 is disposed in a receptacle 33 which may be of the type utilized on telephone switchboards and is removably attached to the bottom plate 27.

The receptacle 33 is supported by means of a cylindrical sleeve 34 having a pair of oppositely disposed ears 35, as shown in Fig. 5. The ears 35 are provided with holes 36 for receiving mounting screws 37 for attaching the sleeve 34 to the plate 27. A slot 38 is provided in one side of the sleeve 34, thereby permitting the sleeve to spring open slightly to receive the receptacle 33. In this manner the receptacle 33 is retained in the sleeve 34 by friction. In case it is necessary to replace the light bulb, the receptacle 33 may be removed from the plate 27 without removing the screws 37 and the sleeve 34.

A colored lens 39 may be provided for covering the light 31. As shown in Fig. 4 the lens 39 is provided with a plurality of spring members 40 which may be inserted inside of the receptacle 33 to retain the lens 39 in position. In the event that it is necessary to change the location of any

of the indicating lights, the plate 27 may be readily redrilled to permit the lights to be mounted in their new location.

From the foregoing description it is apparent that I have provided a facsimile map which may be originally manufactured at a relatively low cost and which may be easily changed and modified at a relatively small expense. The map herein described is pleasing in appearance when a modern transparent plastic is utilized for the top section and is particularly suitable for use on airport control desks since the plastic does not crack or break.

Since numerous changes may be made in the above described construction and different embodiments of the invention may be made without departing from the spirit and scope thereof, it is intended that all matter contained in the foregoing description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

I claim as my invention:

1. A facsimile map for a control desk for an airport having runway lights comprising, a top plate of transparent material, a bottom plate of non-transparent material underlying the top plate, a runway layout painted on one of the adjacent surfaces of said plates and visible through the top plate, said bottom plate having holes therein at predetermined locations on the runway layout, and pilot lights disposed in said holes to indicate the location and operation of the airport runway lights.

2. A facsimile map for a control desk for an airport having runway lights comprising, a top plate of transparent material, a bottom plate of non-transparent material underlying the top plate, a runway layout painted on the bottom surface of the top plate and visible through the top plate, said bottom plate having holes therein at predetermined locations on the runway layout, and pilot lights disposed in said holes to indicate the location and operation of the airport runway lights.

3. A facsimile map for a control desk for an airport having runway lights comprising, a top plate of transparent material, a bottom plate of non-transparent material underlying the top plate, a runway layout painted on the top surface of the bottom plate and visible through the top plate, said bottom plate having holes therein at predetermined locations on the runway layout, and pilot lights disposed in said holes to indicate the location and operation of the airport runway lights.

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