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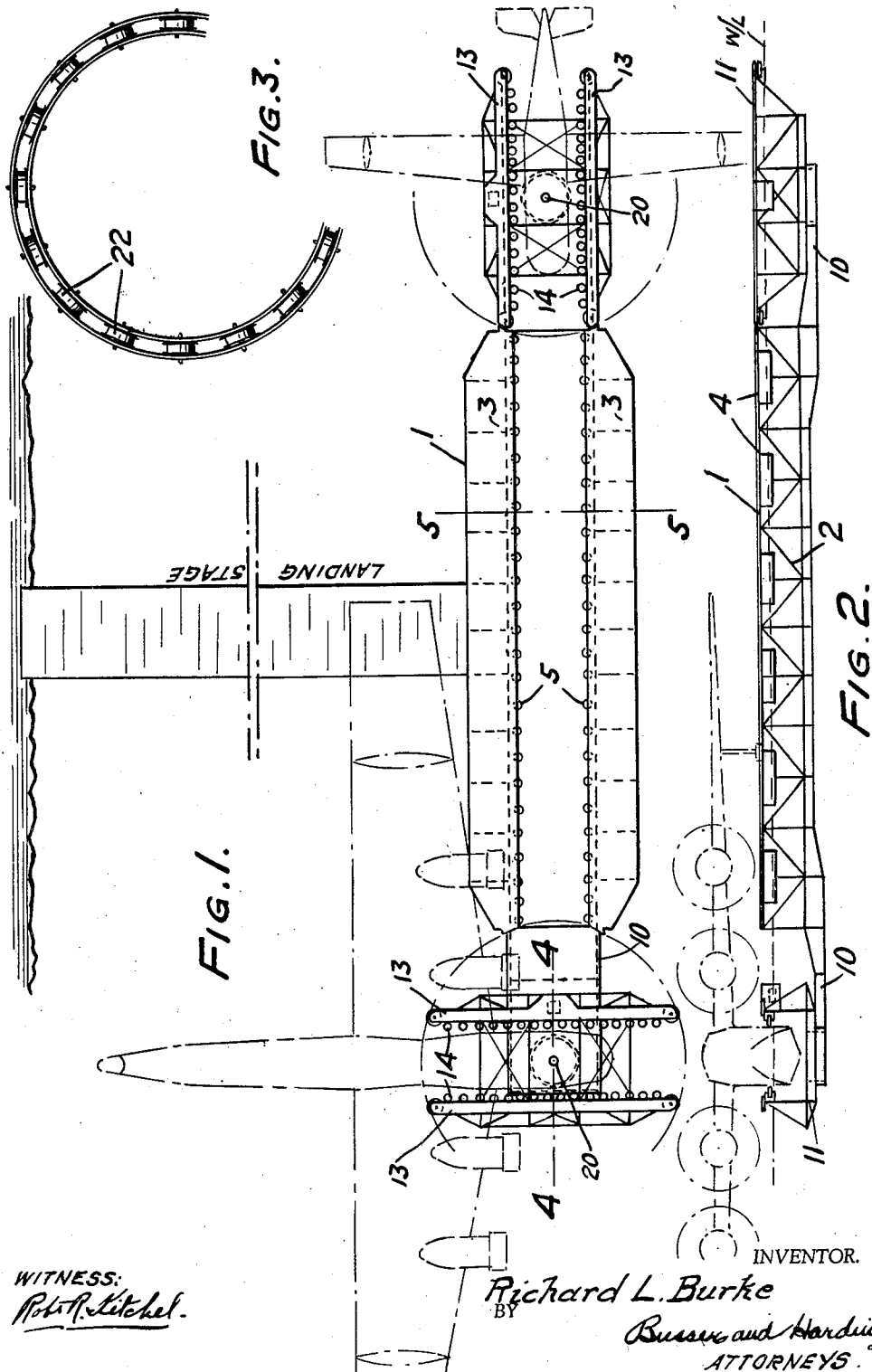
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2,501,310

SEAPLANE TERMINAL DOCK

Filed Aug. 31, 1945

2 Sheets-Sheet 1



WITNESS:
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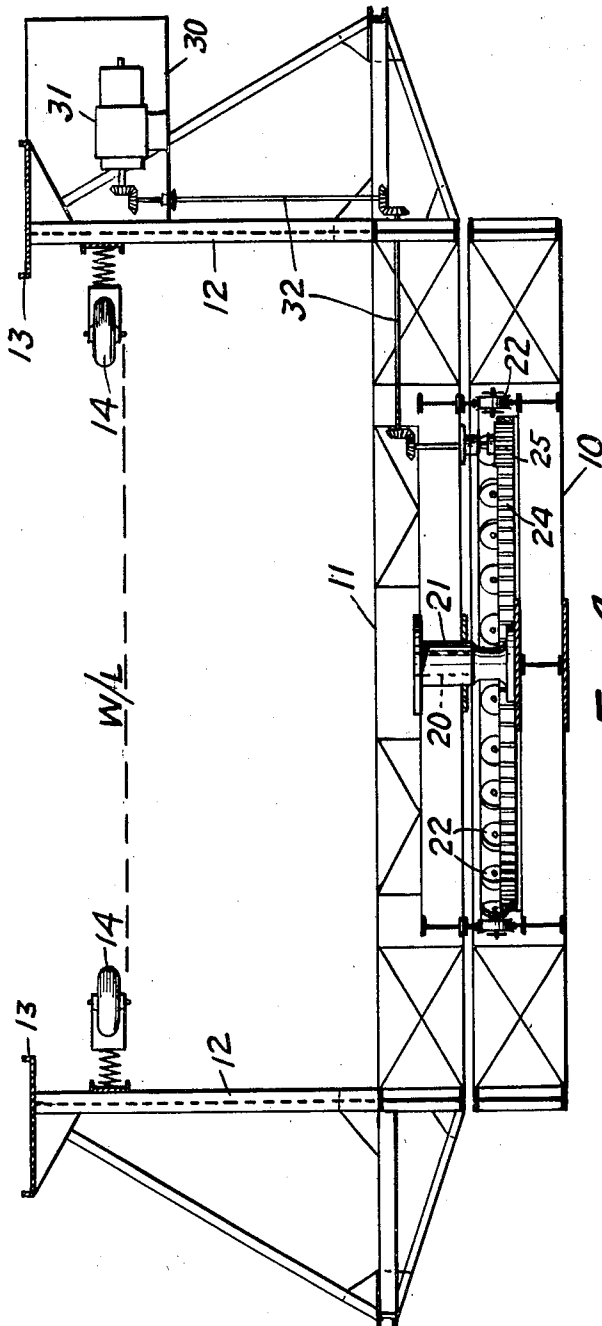


FIG. 4.

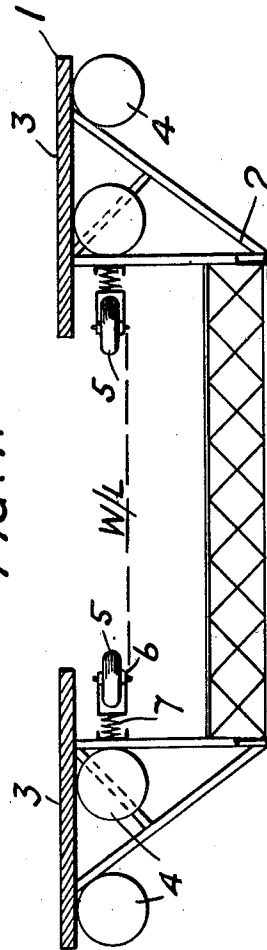


FIG. 5.

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SEAPLANE TERMINAL DOCK

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3 Claims. (Cl. 114—43.5)

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The object of my invention is to provide an improved seaplane terminal dock, which, while finding its possibly most useful application to floating docks, is also applicable to a dry dock or to any permanent dock or to any basin which might be used for harboring seaplanes or other floating vessels. The object of the invention is to provide a sorely needed solution of the problem of facilitating the guidance of seaplanes into the dock regardless of wind or tidal direction.

It is well understood that a seaplane or airplane, preparatory to landing, should as nearly as possible face the wind. It is only when the wind direction is approximately parallel to the direction of extension of a floating dock that no docking problem is presented. In the case of a permanent dock, there is no difficulty in docking only when the wind is blowing in one direction. Since, however, wind blows from all points of the compass, it is rarely that conditions exist favorable to docking the plane.

The object of my invention is to provide means for guiding floating equipment, and particularly seaplanes, into the dock, regardless of the direction of the wind.

My invention involves the employment, as one element of my improvement, of a main dock of conventional construction or at any rate of a main dock having per se no features which I claim as my invention, and in the combination therewith of a revoluble entrance guide or turntable, constructed to receive and hold the plane, and located at one end, or preferably at each end, of the dock, which, preparatory to receiving the seaplane, may be turned into a position parallel with the wind and therefore into position adapted for safe landing and which then may be swung into parallelism and alignment with the main dock to allow the seaplane to be moved from the turntable to the main dock.

A preferred embodiment of the invention is disclosed in the accompanying drawings, in which—

Figure 1 is a plan view of a dock embodying my invention.

Figure 2 is a side view of the same.

Figure 3 is a detail view of one of the elements of the revoluble entrance guide.

Figure 4 is a transverse section through the revoluble entrance guide on the line 4—4 of Figure 5 greatly enlarged.

Figure 5 is a cross-section on the line 5—5 of Figure 1.

The main dock, shown in Figures 1, 2 and 4, will be first described. It comprises a recticu-

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lated base frame 1, the upper surface of which is designed to be at about eighteen inches above the water line, and which is supported, along its opposite sides, by means of struts forming framing 2, extending from longitudinally extending side platforms or walkways 3, which are supported, above the water level, indicated by broken line W/L in Figures 2, 4 and 5, by means of buoyancy tanks 4. Arranged along each side of the framing 2, below the overhanging inner side of each platform 3, is a row of buffers 5, which may be ordinary rubber tires, supported in bearings 6 carried by coil leaf or air springs 7 secured to the framing 2. These tires are just above the water level. The space between the two rows of tires should not be less than a width adapted to easily accommodate the fuselage of the largest seaplane that it is designed to hold.

At one, or each, end of the main dock is the hereinbefore specified revoluble entrance guide or turntable, shown in detail in Figure 4 and in plan in Figure 1. On the base frame 10, forming an extension of the base frame 1 of the main dock, is supported a revoluble frame 11, from which extend posts 12 carrying narrow walkways 13 and tires 14. The frame 11, the tires 14 and the walkways 13 are on the same levels, respectively, as the floor frame 1, tires 4 and walkways 3 of the main dock.

Secured to the base frame 10 is king pin 20, turntable on which is a sleeve 21 secured to the revoluble frame 11. Between the base frame 10 and the revoluble frame 11 is a circumferential series of rollers 22. Secured to the base frame 10 is a circular rack or bull gear 24, which is in engagement with a driving pinion 25 carried by the revoluble frame 11. Secured to the revoluble frame is a casing 30 containing an electric motor 31, between which and the driving pinion 25 is a series of driving connections 32. The motor may be controlled from any convenient point.

If, for example, the direction of the wind should be at right angles to the direction of extension of the main dock, the current to the motor is closed, thereby, through the driving connections 32, rotating the pinion 25, which, by reason of its engagement with the bull gear 24, travels bodily in the arc of a circle around the base frame 10 and at the same time turns the revoluble frame 11 until such frame reaches the position shown at the left hand end of Fig. 1, in which position it is adapted to receive a seaplane heading against the wind, as shown in Fig. 1. After the reception of the seaplane, the motor is operated to turn the revoluble frame

11 so as to align its guideway with the guideway of the main dock, as shown at the right hand end of Fig. 1, after which the plane may be moved into the main dock.

While the rotatable entrance guide has been described as supportable from an extension of the base frame of the main dock, it may be supported from an independent base where the invention is applied, not to a floating dock, but to an independently fixed positioned seating or dock.

While in the claims I have specified as an element of the combination a main dock for receiving and retaining a seaplane, it will be understood from the foregoing description that any basin for harboring floating vessels other than seaplanes is an equivalent of a dock for harboring seaplanes.

What I claim and desire to protect by Letters Patent is:

1. A seaplane terminal dock comprising a main dock adapted to be mainly submerged, said main dock comprising a submergible base frame and side frames forming between them a guideway for a plane, said base frame being extended longitudinally at at least one end and substantially beyond said guideway, in combination with a table comprising a submergible frame positioned at the end of the main dock and having a guideway substantially corresponding in width to the guideway of the main dock, means, carried by said main frame extension below the level of the table guideway, on which the table frame is centrally and pivotally supported at such level as to position its guideway at substantially the level of the guideway of the main dock, said table frame being turnable on its pivotal support to bring its guideway into approximate parallelism with wind blowing from any point of the compass, both ends of the guideway of the table frame being open to freely receive a seaplane and to be then turned to bring its guideway into parallelism and alignment with the guideway of the main dock.

2. A seaplane terminal dock comprising a main dock adapted to be mainly submerged and which comprises a submergible base frame and side frames forming between them a guideway for a plane and adapted to extend above the water level, in combination with a table comprising a submergible frame positioned at the end of the main dock and comprising also side frames adapted to extend above the water level and forming between them a guideway for a plane, the guideways of the turntable comprising buffers

arranged along the sides thereof at a level substantially above the bottom of the guideway, means below the level of the table guideway on which the table is pivotally supported centrally between its ends, said table being turnable on its central pivotal support to bring its guideway into approximate parallelism with wind blowing from any point of the compass, the guideway of the centrally pivoted table extending horizontally throughout its length and at such level relatively to the guideway of the main dock as to enable either end thereof, by rotation of the table, to be brought into parallelism and alignment with the guideway of the main dock.

3. A seaplane terminal dock comprising a main dock adapted to be mainly submerged and containing a longitudinally extending guideway for receiving and retaining a seaplane, in combination with a table adapted also to be mainly submerged and positioned at the end of the main dock, said table having a guideway corresponding substantially in width to the guideway of the main dock, means below the level of said guideways on which the table is centrally and pivotally supportable at such level as to position its guideway at substantially the level of the guideway of the main dock and so as to be turnable on its pivotal support to bring its guideway into approximate parallelism with any wind direction, both ends of the table guideway being open to freely receive a seaplane and to be then turned to bring its guideway into parallelism and alignment with the guideway of the main dock, the guideways of both the dock and turntable comprising buffers arranged along the sides thereof at a level substantially above the bottom of the guideway.

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