

May 24, 1932.

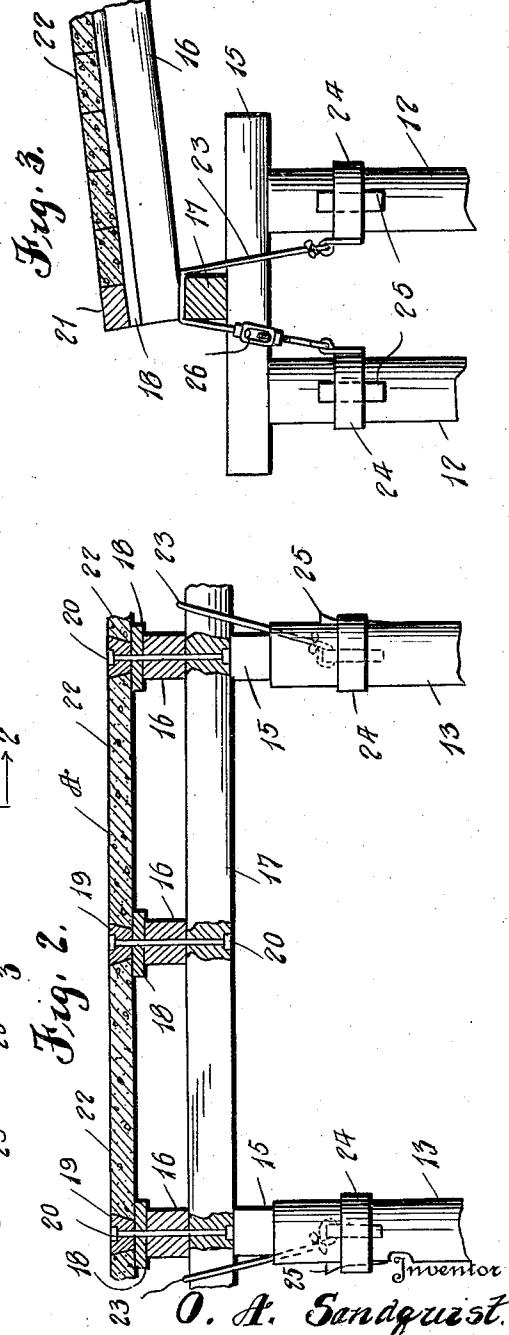
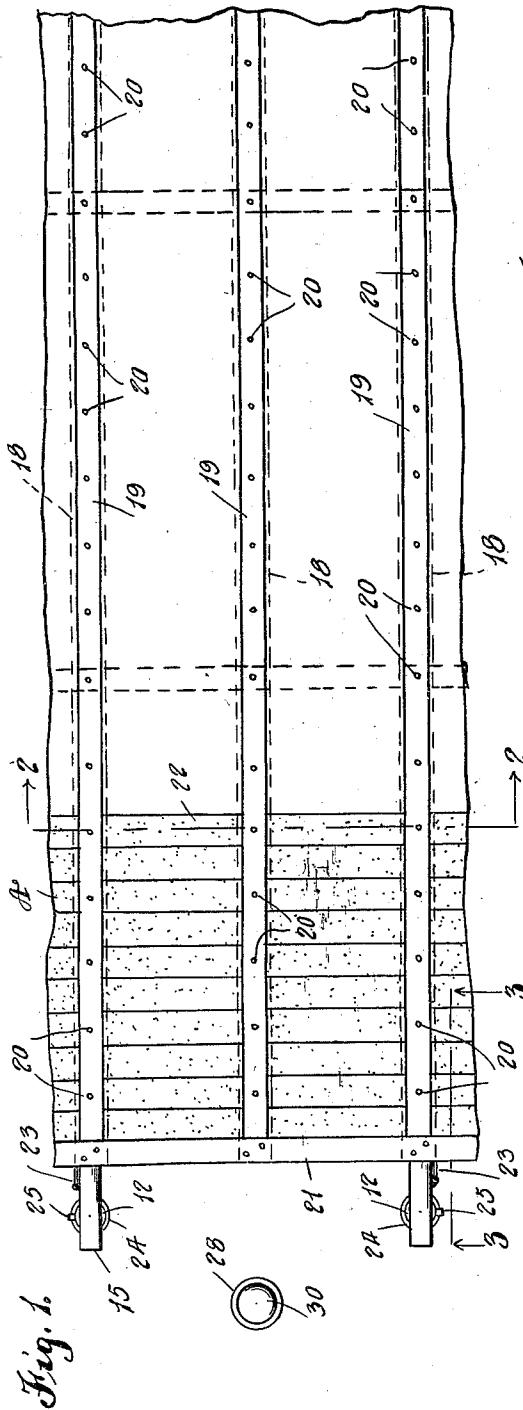
O. A. SANDQUIST

1,859,987

SEAPLANE RUNWAY

Filed Nov. 13, 1929

2 Sheets-Sheet 1



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May 24, 1932.

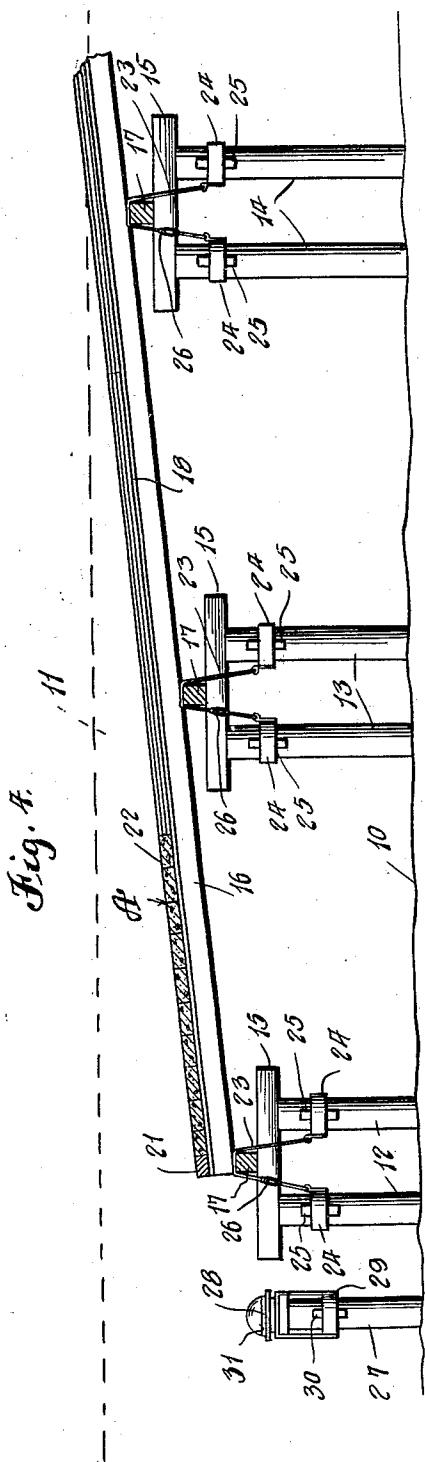
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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

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SEAPLANE RUNWAY

Application filed November 13, 1929. Serial No. 406,918.

This invention relates to a runway construction for seaplanes and airplanes of the amphibian type.

It is an object of the invention to provide a construction or means whereby such planes may be quickly launched or brought out of the water and in addition to provide a construction wherein the time required for installation is reduced to a minimum.

Another object is to provide a novel construction wherein maximum use is made of pre-cast and pre-built units to be used, the construction enabling most of the assembly of the apparatus to take place out of the water and the application of the flooring or slab be accomplished by sliding movement.

Another object is to provide a novel construction which is of knock-down type.

Various additional objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating an operative embodiment.

In said drawings:-

Figure 1 is a plan view of a runway constructed in accordance with my invention,

Figure 2 is a cross sectional view thereof,

Figure 3 is a detail longitudinal sectional view taken on the line 3—3 of Figure 1,

Figure 4 is a central longitudinal sectional view taken on the line 4—4 of Figure 1,

Figure 5 is a view similar to Figure 3 but taken through a modified form,

Figure 6 is a detail section taken on the line 6—6 of Figure 5,

Figure 7 is a view similar to Figure 3 but taken through a further modified form, and

Figure 8 is a cross sectional view taken on the line 8—8 of Figure 7.

Referring specifically to the drawings, the bed of a body of water is shown at 10 and the level of the water is suggested by dotted lines at 11. In order to accommodate the runway, piles are driven in pairs as at 12, 13 and 14, for instance, although any desired number may be used. Each pair of piles is surmounted by a cap member 15 suitably fastened thereto. The cap members 15 are at different elevations according to the bed of the stream and the angle that the runway is to assume

and it is to be understood that if desired, the stream may be filled in with soil around the piles.

The runway proper is designated A and has a skeleton frame made up of wooden or metallic beams or in any desired manner. The frame may have a plurality of longitudinal beams 16 and cross beams 17. Disposed on top of the beams 16 are plates 18 and on top of the latter are dove-tail strips 19, of less width than and centered with respect to the plates. Securing bolts or other fastening means 20 are adapted to pass through and secure the beams 16, 17, plates 18 and strips 19 together. The forward end of the skeleton frame has an abutment strip 21 fastened to the plates 18 and being flush with the strips 19.

The frame A may be built on shore and floated to the place of use or attachment to the piles. In the spaces between the strips 19, floor members 22 are adapted to be slid in place, their ends being inclined as shown in Figure 2 so that a dove-tail fit with the strips 19 results. The members 22 are independent of each other and for instance may be made of concrete although no limitation as to any particular material is to be implied.

After the platform is floated to the place of use, a suitable number of the flooring strips 22 may be applied as shown in Figure 1 and Figure 4 which will cause the forward end of the platform to dip into the water whereupon the platform may be properly positioned and anchored. When properly positioned, the bars 17 rest on the cap 15. In order to removably anchor the parts in this position, shackles 23 are placed in straddling relation to the bars 17. The ends of the shackles are pivotally connected to collars 24 which surround the piles 12, 13 and 14. Such collars may be anchored in place by the driving of wedges 25 between the same and the piles. The shackles may be sectional and have turn buckles 26 therein to permit tightening of the parts.

Adjacent the lower end of the runway, a suitable means of illumination is provided and it may consist of a pile 27 having a lamp 28 adapted to be electrically illuminated sup-

ported thereon which lamp has a collar 29 fastened in place by a wedge 30 interposed between the same and the pile 27. The globe of the lamp is shown at 31.

6 A modified form of the invention is shown in Figures 5 and 6. The only difference is in the cap which here is designed 15^a and is the equivalent of the cap 15. Such cap 15^a if desired may be made of concrete and in its lower surface it may have a recess 30 into which the upper ends of the piles extend. 10 In addition the caps 15^a have slots 31 into which the shackles pass.

15 A further modified form is shown in Figures 7 and 8 and the difference over the form of Figures 1 and 2 residing in omitting plates 18 so that the slabs 22 will rest on the upper surface of beams 16. The same reference characters are used as in the form of Figure 20 1 since the only difference is the omission of the plates 18.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

25 I claim as my invention:—

1. A runway of the class described comprising a skeleton frame capable of floating, flooring applicable to the frame of a weight which overcomes its buoyancy, and anchoring 30 means for said flooring into engagement with which it is moved when its buoyancy is overcome.

2. A runway of the class described comprising a skeleton frame capable of floating, flooring applicable to the frame of a weight which overcomes its buoyancy to move it to applied position, piles having caps, said frame resting on said caps, and means to secure the frame to the piles.

35 3. A runway of the class described comprising a skeleton frame capable of floating, flooring applicable to the frame of a weight which overcomes its buoyancy, piles having caps, said frame resting on said caps and 45 movable thereto as its buoyancy is overcome, and means to secure the frame to the piles comprising shackles passing over portions of the frame and extending through the caps and secured to the piles.

40 4. A runway of the class described comprising a skeleton frame capable of floating having longitudinally extending dove-tail members, flooring members applicable between said first members, cross members on 45 the frame, piles having caps on which the cross members rest, said flooring being of a weight which overcomes the buoyancy of the frame so as to move the said cross members into engagement with the caps, shackles 55 straddling the cross members extending through the caps, collars carried by the shackles and surrounding the piles and adapted to be secured thereto.

In testimony whereof I affix my signature.
OSCAR A. SANDQUIST.