

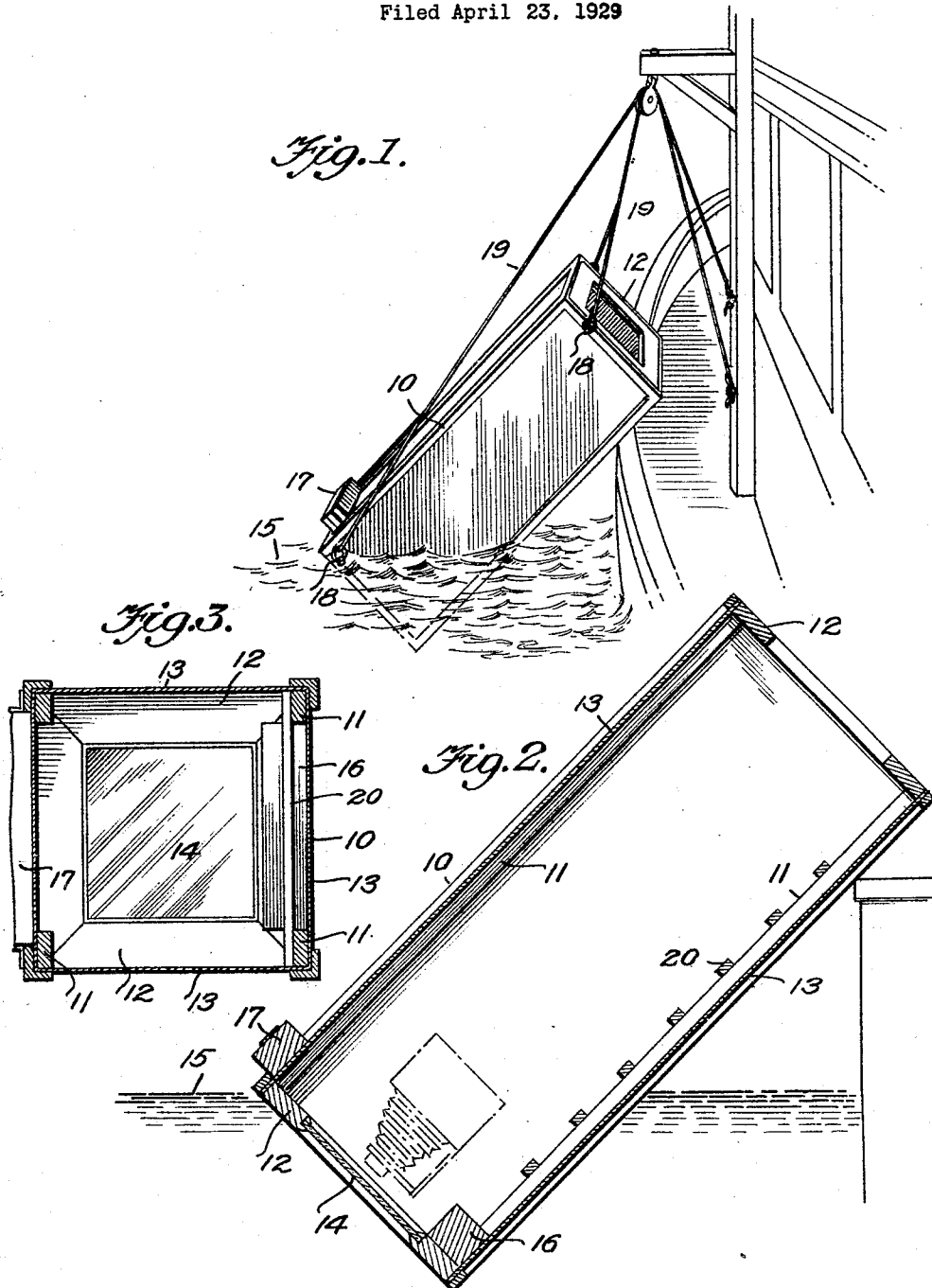
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APPARATUS FOR PHOTOGRAPHING THE SEA BOTTOM

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APPARATUS FOR PHOTOGRAPHING THE SEA BOTTOM

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The invention relates to accessories for use in connection with photographic work and has special reference to means permitting the taking of still or motion pictures of marine growth.

The principal object of the invention, generally stated, is to provide a device adapted to be partly immersed in the sea or other body of water wherein is the marine growth to be photographed, the device being intended to accommodate one or more operators and a camera and embodying a transparent pane through which pictures may be taken.

An important object of the invention is to provide a device of this character particularly adapted to be carried on ship board and to be let down at the side of the ship so that the active end will be immersed within the water, thus permitting photographing the bottom and any marine life.

An important object of the invention is to provide a device of this character equipped at its lower end with a transparent pane and adapted to be let into the water at an angle, the angularity of the pane with respect to the surface of the water preventing the formation of air bubbles on the glass which might seriously interfere with visibility.

Yet another object is to provide a device of this character provided interiorly with a ladder whereby the operator may easily enter or leave, weight means being also provided for holding one end submerged even in the absence of the operator.

A further object is to provide a device of this character equipped with means whereby it may be readily handled by means of a davit, boom or the like so that it may be readily hoisted about and lifted either in board or out board as the case may be depending upon whether or not the device is to be used.

An additional object is to provide a device of this type which will be simple and inexpensive to manufacture, easy to use, positive in action, efficient and durable in service, and a general improvement in the art.

With the above and other objects and advantages in view, the invention preferably consists in the details of construction and the arrangement and combination of parts to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of the device showing it in operative position with respect to the side of a ship and the surface of the water.

Figure 2 is a vertical longitudinal sectional view through the device.

Figure 3 is a cross section looking downwardly.

Referring more particularly to the drawings, I have shown the device as comprising an elongated rectangular box-like structure indicated as a whole by the numeral 10 and made of any desired dimensions and material. In actual practice, however, I have found it a very convenient plan to construct this device of a plurality of longitudinally extending bars 11 suitably connected at their ends with rectangular frames 12 including any desired or necessary number of parts fastened together in any preferred manner. The bars 11 may be recessed into the elements forming the frame 12, for instance as illustrated or they may be connected thereto in some other manner, these and various other details being more or less immaterial. The skeleton structure defined by the bars 11 and frame 12 is covered as for example by metal plates or sheet metal indicated at 13 to form an enclosure. Obviously, the sheathing or outer covering may be painted or otherwise finished to withstand the action of sea or fresh water so as to be durable and not likely to corrode or rust.

The frame member 12 at the upper end of the device remains open while the frame at the lower end is rabbeted or otherwise formed to receive and retain a pane 14 of plate glass, or its equivalent, which may be packed at its edges in any desired manner so as to be water-tight. It is of course intended that the entire device 10 be water-tight so that when submerged beneath the surface of the water, which surface is indi-

cated at 15, no water will at any time enter the device itself.

As one end of the member 10 is intended to be submerged within the water and to remain so regardless of whether or not an operator is within it, I provide weights distributed at the most efficient points, these weights being represented at 16 and 17, the former being located within the device and the latter being suitably secured upon the top thereof. However, it will be readily apparent that any other suitable weight arrangement might be resorted to within the spirit of the invention.

In order that the device may be readily handled, I have shown it provided near its ends with suitable suspension elements 18 with which may be connected, by any interposed means, cables or ropes 19 adapted to be trained about pulleys or the like forming part of a derrick or davit structure and likewise adapted to have tension applied thereto by any desired means whatsoever so that the device may be lifted about and either disposed in board or over board when its use is desired.

For the convenience of an operator in entering and leaving the device, I provide a ladder structure which may simply include a plurality of rungs 20 secured to the bars 11 at one side of the device, naturally the lowermost side.

In the use of the device, it is apparent that it is disposed over board so that the lower or weighted end equipped with the transparent pane will be submerged within the water, the device being preferably arranged at an angle of approximately 45°.

The operator then enters the device by means of the ladder, carrying with him the camera to be used, and can then open the camera properly in practically any direction so as to take pictures through the transparent pane 14, these pictures being of the bottom, coral, rocks, marine vegetation, fish or in fact any other objects or growth which may be present within the body of water. It is of course obvious that still or motion pictures may be made, this depending entirely upon what is desired under the circumstances. When the device is not in use it is simply hoisted in board and disposed upon the deck or other convenient portion of the ship or boat.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a very simple device for the purpose specified and one which will efficiently perform all the functions for which it is intended. It is believed that the construction, operation and advantages will be readily apparent to one skilled in the art without further explanation.

While I have shown and described the

preferred embodiment of the invention it should be understood that I reserve the right to make all such changes in the details of construction and in the arrangement and combination of parts as will not depart from the spirit of the invention or the scope of the subjoined claim.

Having thus described the invention I claim:—

In a device of the class described, a hollow rectangular body closed at one end and open at its other end, a pane of transparent material mounted in the closed end of the body whereby a photographer entering the body may make photographic exposures through said pane when the body is immersed endwise in inclined position in a body of water, a cable connected to the body adjacent the upper rear corners thereof, another cable connected to the body adjacent the upper front corners thereof, the cables constituting means whereby the body may be maintained in a definite tilted position for endwise immersion in the water, a weight upon the top of the body at the forward end thereof and a weight within the body upon the bottom thereof and at the forward end of said bottom.

In testimony whereof I affix my signature.
FRANK I. STILES.