No. 689,220. Patented Dec. 17, 1901.

W. M. PARRISH.

WATER TELESCOPE.

(Application filed Oct. 30, 1900.)

(No Model.)

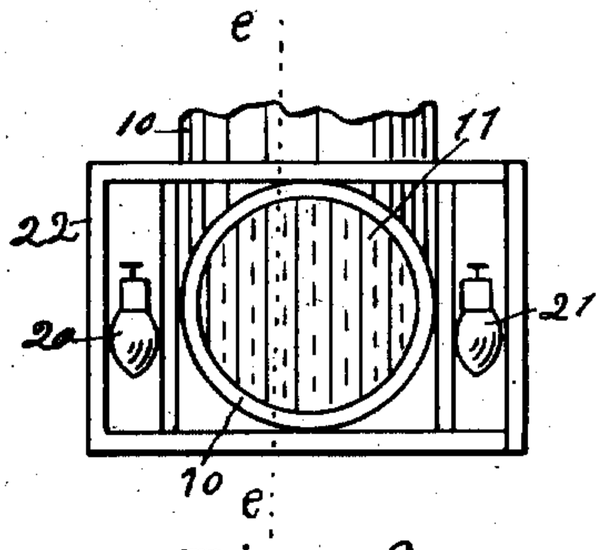

Fig. 2.

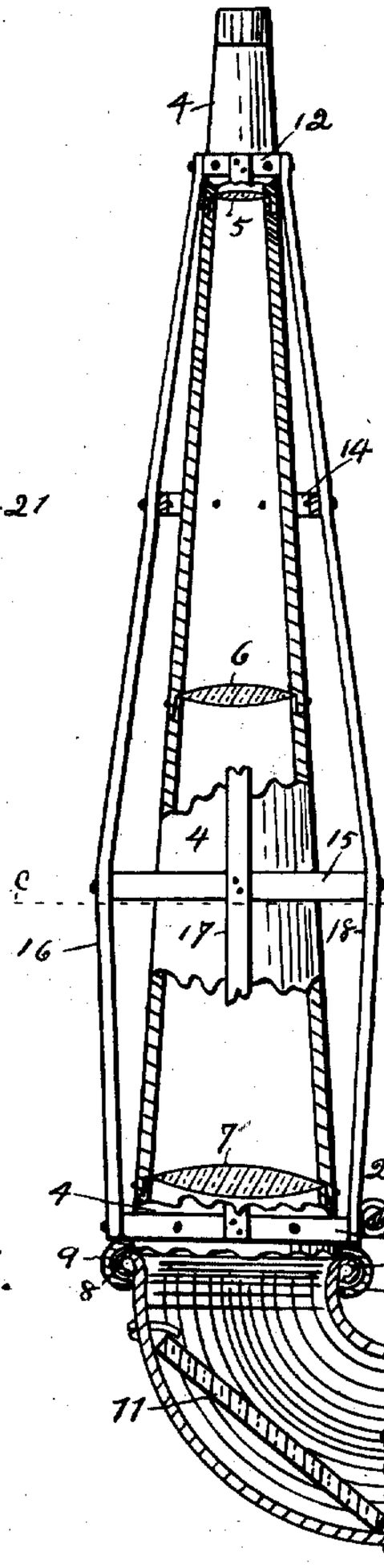

Fig. 1.

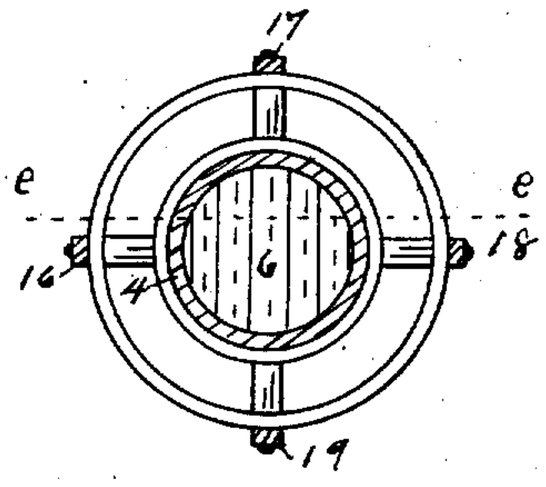

Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

WALTER M. PARRISH, OF VICKSBURG, MISSISSIPPI.

WATER-TELESCOPE.

SPECIFICATION forming part of Letters Patent No. 689,220, dated December 17, 1901.

Application filed October 30, 1900. Serial No. 34,887. (No model.)

To all whom it may concern:

Be it known that I, WALTER M. PARRISH, a citizen of the United States, residing at Vicksburg, in the county of Warren, State of Mississippi, have invented a new and useful Water-Telescope, of which the following is a specification.

The object of this invention is to construct an instrument for making examinations at the bottom of rivers, lakes, and waterways without having to go into the water—as, for instance, from the shores, harbors, decks of vessels, &c.—by nearly submerging the instrument, leaving the upper small end above the surface of the water and placing the eye to said end, and thus doing away with divers and diving-bells, which in many instances is deemed cheaper, safer, and more convenient.

In the drawings forming a part of this specification, Figure 1 is a partial side elevation, parts being in longitudinal section on dotted line *e e* in Figs. 2 and 3 and broken away. Fig. 2 is an elevation of the lower end of Fig. 1 looking from a point at the right, the upper portion of Fig. 1 in this view being broken away; and Fig. 3 is a cross-section on line *c c* in Fig. 1 looking from a point below.

Referring to the parts of the drawings pointed out by numerals, 4 is the tubular tapered body of the instrument, provided internally with as many lenses as desired or found beneficial. I have shown three, as 5, 6, and 7. The lower end of the body 4 is provided with a tubular right-angled elbow having a rib 8 formed at the upper end either by rolling it over, as here shown, or in any suitable manner, and loosely confining this rib is a grooved portion of the lower end of the body 4 at 9, by which means the elbow is swiveled on the body, so that said elbow can be turned in either direction desired to enable an observation of objects at such locations as they happen to be. It will be found desirable in some instances, if not all, to employ a lens in the lower end of the elbow 10. In the interior of the elbow 10, at the rear side of the bend, is a mirror 11, set at an oblique angle, by which means objects in front of the lower end of the elbow are reflected in the mirror and can be seen magnified at the upper end of the instrument. I am enabled to accomplish this by locating the mirror at the oblique angle shown. The instrument being thus made, the user can hold the body of the same always in an upright position, affording ease of operation and convenience.

The body 4 is provided with a truss-frame to strengthen it and protect it from injury, consisting of an upper circular band 12, attached to the body, a lower circular band 13, also attached to the body 4, and two or more intermediate circular bands 14 and 15, not necessarily attached to the body 4, but preferably varying in size, as shown. A suitable number of vertical bars of metal 16, 17, 18, and 19 are attached to the circular metal bands 12, 13, 14, and 15, as here indicated. At each side of the lower end of the elbow 10 are lamps 20 and 21, electrical or otherwise, capable of burning under water and light up that portion beneath the surface of the water where observations are to be made. The lamps here shown are located in a water-tight transparent case 22.

I employ a draw-line 23, attached to the lower end of the body 4 at 24, to extend to the operator when in use for drawing or hauling the instrument in any desired direction after it is submerged.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

An instrument for observing objects beneath the surface of the water, consisting of a tubular tapered body surrounded by a truss-frame of circular bands and vertical bars, a right-angled tubular elbow attached to the lower end of said body in a swiveled manner, said elbow being provided with side lamps at the lower end, a mirror within said elbow, at an oblique angle at the back of the bend, and suitable lenses in the instrument, substantially as set forth.

In testimony of the foregoing I have hereunto set my hand in the presence of two witnesses.

WALTER M. PARRISH.

Witnesses:

ALBERT MAYOR,

ROBT. PATTERSON.