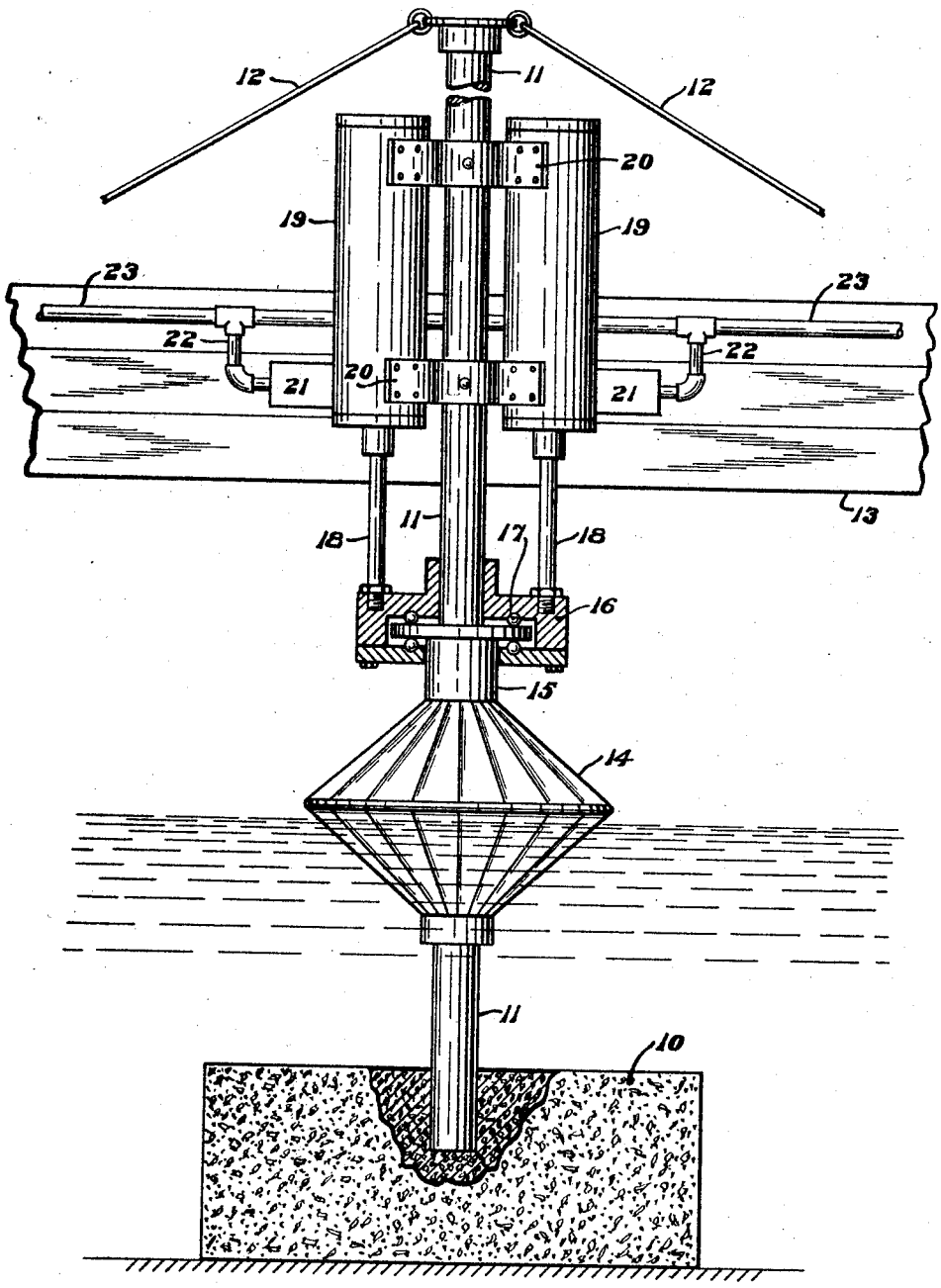
Nov. 3, 1925.

1,560,425

G. S. HUFF

WAVE AND TIDE MOTOR

Filed Oct. 7, 1922



George S. Huff.
INVENTOR

BY Victor J. Evans
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WITNESS:

Patented Nov. 3, 1925. 1,560,425

UNITED STATES PATENT OFFICE.

GEORGE S. HUFF, OF CAPE MAY COURT HOUSE, NEW JERSEY, ASSIGNOR OF ONE-HALF TO GOTTLIEB O. LANGE, OF CAPE MAY, NEW JERSEY.

WAVE AND TIDE MOTOR.

Application filed October 7, 1922. Serial No. 593,051.

To all whom it may concern:

Be it known that I, GEORGE S. HUFF, a citizen of the United States, residing at Cape May Court House, in the county of Cape May and State of New Jersey, have invented new and useful Improvements in Wave and Tide Motors, of which the following is a specification.

This invention relates to wave and tide motors and the principal object is to produce a device whereby the force of wave or of tidal motion of water may be utilized to compress air which may be either stored for future use or used in the generation of other forms of energy.

Another object of the invention is to produce a device of this nature which should be simple of construction, cheap to manufacture, and highly efficient for the purpose for which it is devised.

With these and other objects in view which will become more apparent as this specification proceeds, the invention resides in certain novel features of construction and combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claim and are illustrated in the accompanying drawing, in which:

The single figure illustrates a side elevation of my improved wave and tide motor, parts being broken away and in section for the sake of clearness.

Referring to the drawing in detail, 10 represents a base structure or main anchor which may be of any suitable construction as for instance, concrete work, granite or masonry. Mounted in this structure 10 and rising vertically therefrom is a main shaft 11, the upper end of which has attached to it a number of guy-wires 12, the lower ends of which are suitably attached to any suitable form of anchoring means. The shaft 11 extends through a wharf or other suitable super-structure 13.

Mounted for sliding and rotary motion on the shaft 11 is a float or buoy 14 which has secured to its upper end a head 15 which is freely embraced by a block 16 mounted on the shaft 11 for sliding movement thereon. Ball bearings 17 interposed between the head 15 and the block 16 permit free rotation of the buoy 14 in the water.

Secured to the block 16 and extending upwardly therefrom are piston rods 18 which enter cylinders 19 and are adapted to work therein. The cylinders 19 are stationarily mounted on the superstructure 13 and are secured to each other in properly spaced relation by members 20. Secured to each cylinder at the side thereof is a compressor chest 21 fitted with suitable check valves (not shown). Pipes 22 lead into the chests 21 and conduct the air compressed therein to a main lead pipe 23.

From the above description it will be readily seen that when the water lifts the float 14 it will also lift the head 16 and pistons 18, and that as it is lowered, the reverse will be true. This will effect compression of air in the chests 21 and the expulsion of the same into the pipes 22 and 23, from which the air may be conducted to any suitable means whether for storage or for use.

While I have described what I deem to be the most desirable embodiment of my invention, I do not limit myself to the specific details of construction of material, nor to anything less than the whole of my invention as defined in the appended claim.

What I claim is:—

In a wave motor, the combination of a vertical shaft, having its lower end anchored, a float slidably and rotatably mounted upon said shaft, a flanged head carried by the upper end of said float, a block having operative connection with said flanged head, a pair of cylinders supported from said shaft, pistons movable within said cylinders and connected to said block for movement upon the rise and fall of said float, and compression chests connected to said cylinders and to an outlet pipe.

In testimony whereof I affix my signature.

GEORGE S. HUFF.