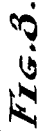
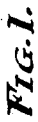


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INVENTOR
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UNITED STATES PATENT OFFICE.

JOHN S. CLARKE, OF EAST CLEVELAND, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-THIRD TO ALEXANDER H. LANGELL AND ONE-THIRD TO C. R. WEDLER, BOTH OF CLEVELAND, OHIO.

DEVICE FOR BLOWING WHISTLES ON VESSELS.

998,159.

Specification of Letters Patent.

Patented July 18, 1911.

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To all whom it may concern:

Be it known that I, JOHN S. CLARKE, citizen of the United States, residing at East Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Devices for Blowing Whistles on Vessels, of which the following is a specification.

The object of this invention is to provide an apparatus adapted to blow a steam whistle as often and as long as required with as little effort as possible for the captain or person in command, as it is required by the United States rules for steamboat navigation that several long whistles shall be blown for some purposes, and in case of a fog or other cause to blow the whistle so as to give three blasts at brief intervals apart. For long boats especially this is a very laborious work if done individually as heretofore, and so far as all known devices are concerned there has been but very little satisfactory progress made over the old and original individual methods in use. As to this, it has often been the case that owing to the long distance the captain finds himself from the whistle he cannot gage his strength according to the strength of the whistle lever and hence he breaks the lever and thus endangers the ship to accident and loss of life.

The invention therefore consists in a power actuated mechanism for blowing whistles having the construction and combination of parts substantially as shown and described and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a boat equipped with my improved devices. Fig. 2 is a side elevation of said devices at the stern of the boat and Fig. 3 is a side sectional elevation of the devices at the bow of the boat, the said two sets of devices being operatively connected as shown and constituting the entire means for controlling the whistle.

In this connection it is to be observed that for operative purposes I may employ steam or water or other fluid controlled motor, and to this end I show a motor with a power cylinder C and a supply pipe or pipes leading to one end thereof and discharging in front of the reciprocating piston P. The motive fluid through the said pipes E and F is adapted to be controlled by a valve V in

the angle of said pipes, which is operated by a hand wheel H and a pipe 2 therefrom arranged to rotate said valve and control the position thereof. Presumably this mechanism is so located and arranged as to be in the most convenient and available place for the captain or other officer or person in command, and the whistle controlling mechanism is initially related to said wheel. The said mechanism is located in the rear of the vessel and reached through piston rod R and a wire, rod, or cable connection G and which in long boats or vessels may be four to five hundred feet or more in length. Now, assuming that pipe E is a steam pipe supplied from the boilers of the vessel or other available source, the same pipe that supplies motive power to the motor also supplies steam to the stand pipe J upon which the whistle is mounted. The said valve V is arranged to be operated by a lever or wheel H, presumably on top or inside of the pilot house, and fixed to the heavy brass pipe 2 to prevent any interference with the compass. Said pipe extends down and connects with a socket wrench or key at the top of the said valve, which may be a balanced, three or four way valve, as preferred or their equivalent.

The whistle W at the rear of the boat may be of any well known kind and provided with a suitable valve, not shown, controlled by a lever 5 mounted on the upright steam or fluid pipe J on which the whistle is mounted. This lever is directly controlled from piston P by mechanism at the stern of the boat comprising a slidable member, bar or rod J' supported on a suitable base B and connected at one end with wire, rod or cable G and at the other end with retracting spring S. Said spring is counter to the fluid pressure upon piston P and slack therein may be taken up by the adjusting screw or eye bolt 6 supporting the outer end of the spring in or upon said base. The said base has uprights 7 and 8 at one end in which rod J' is slidably mounted, and a stop 10 is adjustably sleeved on said rod between these uprights and provided with a stem 12 having the whistle controlling cord, chain or cable 13 attached thereto at one end while the other end connects with whistle lever 5. The said cable passes over a sheave 14 on base B and is drawn taut at all times so as

to be positively responsive to the movements of the motor. In this stretching of said parts the cushioning spring 15 behind piston P is helpful and the space between the uprights 7 and 8, less the length of sleeve 10 therein, determines the distance of operation of piston P in blowing the whistle.

Obviously the several parts herein shown and described can easily be substituted by others which are differently constructed but adapted to perform identically the same function or functions and I do not therefore limit myself to the exact devices shown nor elect steam as against water or other fluid under pressure for operating the motor. If water instead of steam were used an equivalent construction of motor could be used. The same observations are true as to the whistle mechanism at the rear of the vessel and of the connections between the front and rear mechanisms wherein the long cable or wire G occurs. If pneumatic connections were employed with the same operative effect they would be regarded as substantially the same invention, and this is entirely practicable with the wire connections shown and described.

Now referring to Figs 2 and 3, it will be noted that the travel of bar J' and stop 10 is limited to correspond to the stroke of lever 5 of whistle W, but that the travel of piston P in cylinder C is not thus limited except as connected by wire G to bar J'. The extreme length of wire G manifestly permits considerable stretching therein by repeated service, and variable atmospheric conditions also affect the length of the wire, and therefore, the travel forwardly of piston P must not be definitely fixed as in the case of bar J', but should have adaptability to meet changes in length in wire G and for that reason cylinder C is made long enough to accommodate a variable travel of

piston P. It is true that as slack or stretch is produced or found in wire G that the same can be taken up by turn-buckle devices or the like, but the object of my improved differential arrangement is to automatically take up this stretch and meet constantly changing conditions and thereby avoid frequent hand adjustments.

What I claim is:

1. A vessel having a power actuated motor and a whistle, a lever to control the whistle and operating connections between said lever and said motor comprising flexible parts and a rigid part between said flexible parts provided with an adjustable stop to limit its movements and a retracting spring counter to said motor.

2. The combination of the motor and the whistle and means operatively connecting said parts comprising a slidable rod, and means to limit its sliding movements, a cable connecting said rod with said motor and a cable between said rod and said whistle, and a retracting spring attached to the end of said rod opposite said motor.

3. A power cylinder and a piston therein, a piston shaft projecting through said cylinder, in combination with a whistle and means to open the whistle operatively connected with the free end of said shaft, said means comprising a slidable rod and an adjustable stop thereon adapted to limit its sliding movements, and a spring axially connected with said rod and adapted to draw said rod to normal position after an operation through said piston.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. CLARKE.

Witnesses:

E. M. FISHER,
F. C. MUSSUN.