

(No Model.)

M. A. DEES.
Steam Steering Apparatus.

No. 239,464.

Patented March 29, 1881.

Fig. 1.

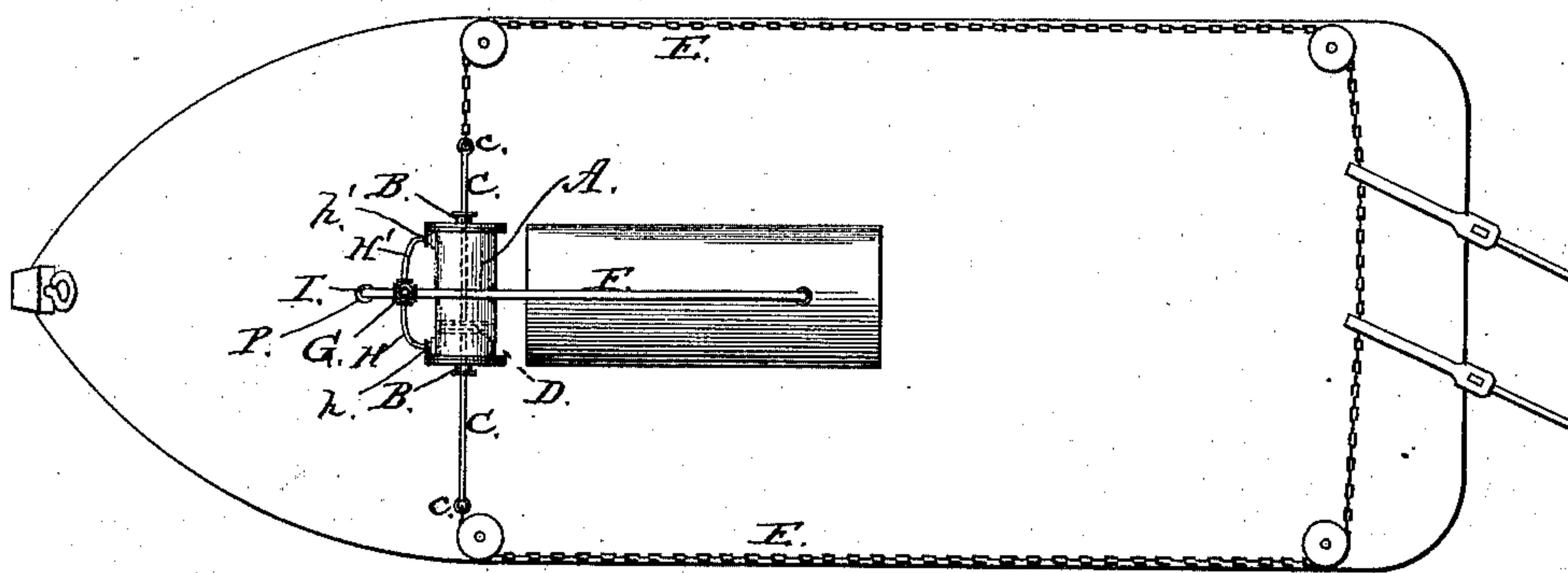
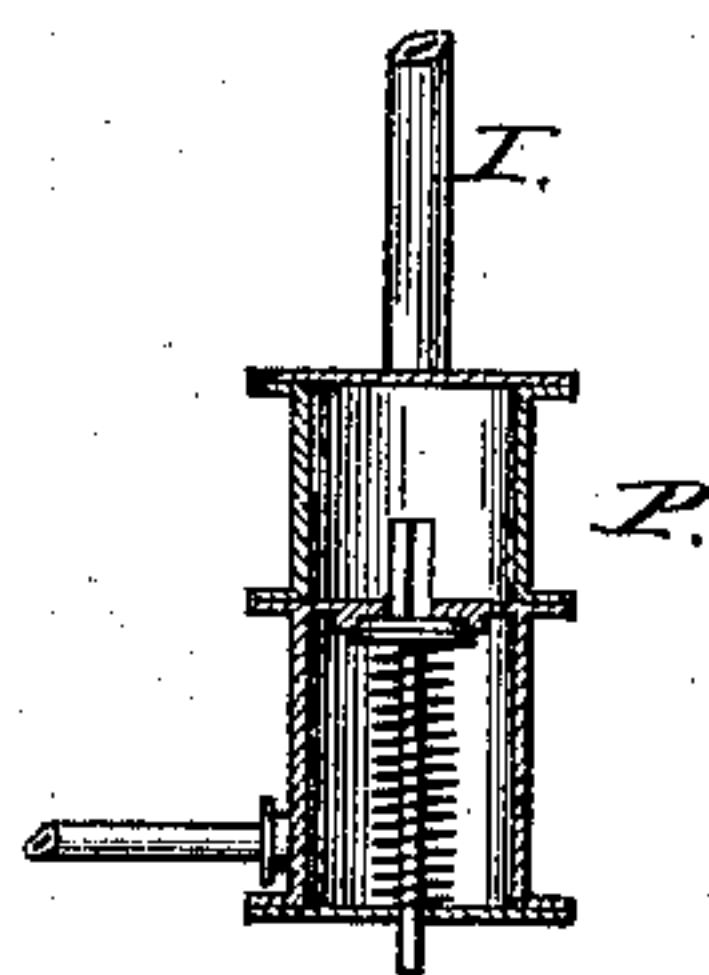


Fig. 2.



WITNESSES

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STEAM STEERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 239,464, dated March 29, 1881.

Application filed January 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, MARK A. DEES, a citizen of the United States, resident at Scranton, in the county of Jackson and State of Mississippi, have invented certain new and useful Improvements in Steam Steering Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a plan view; Fig. 2, a detail.

This invention relates to apparatus for steering vessels.

The invention consists in the construction hereinafter described, and particularly pointed out in the claim.

In the drawings hereto annexed, A is a cylinder, located at any desired place on ship-board. Through the stuffing-boxes B B the piston-rod C passes, having a length more than twice that of said cylinder, and having the eyes c c at its ends and the piston D at its middle. The ends of the rod C are connected to the rudder-chains E, which run around sheaves and are connected to the tiller of the rudder.

F is a steam-supply pipe from the boiler, connected, by the valve G, with the pipes H H' leading through the ports h h' into the ends of cylinder A.

I is a discharge-pipe.

The valve G is preferably a four-way cock, but may be any kind suitable for the purpose, said valve being operated by a rod running to the pilot-house. By operating this rod steam is admitted from pipe F, through valve G and one of the pipes H or H', into one end of cyl-

inder A, and, operating against the piston D, draws on one of the chains E and turns the rudder. By turning the cock in the other direction the steam is cut off from the side of the piston first operated upon and admitted on the other, the exhaust-steam passing back and out through pipe I. In this manner the rudder can be readily and easily operated from the pilot-house with slight labor.

To keep the piston, and consequently the rudder, stationary a spring-valve, P, is seated at the outlet of pipe I, so as to close the same except when there is a direct action of the exhaust during the motion of the piston, and by such closing to produce a back-pressure of the steam, counteracting the tendency of the expansion of steam in front of the piston to force the latter forward and turn the rudder.

Pistons having their rods connected, by chains and the like, to the tiller of the rudder of a vessel have been employed in steering apparatus, and protection only is asked herein for the construction shown and described and hereinafter specifically claimed.

What I claim is—

In a steering apparatus for vessels, the combination of the cylinder A, having the pipes H H', piston D, and rod C, connected with the chains E E, attached to the tiller of the rudder, the boiler having steam-supply pipe F, connected with the cylinder A, and the pipe I, having the spring-valve P located therein, substantially as and for the purposes set forth.

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

MARK ASHLEY DEES.

Witnesses:

S. J. BOUCHARD,
H. BLOOMFIELD.