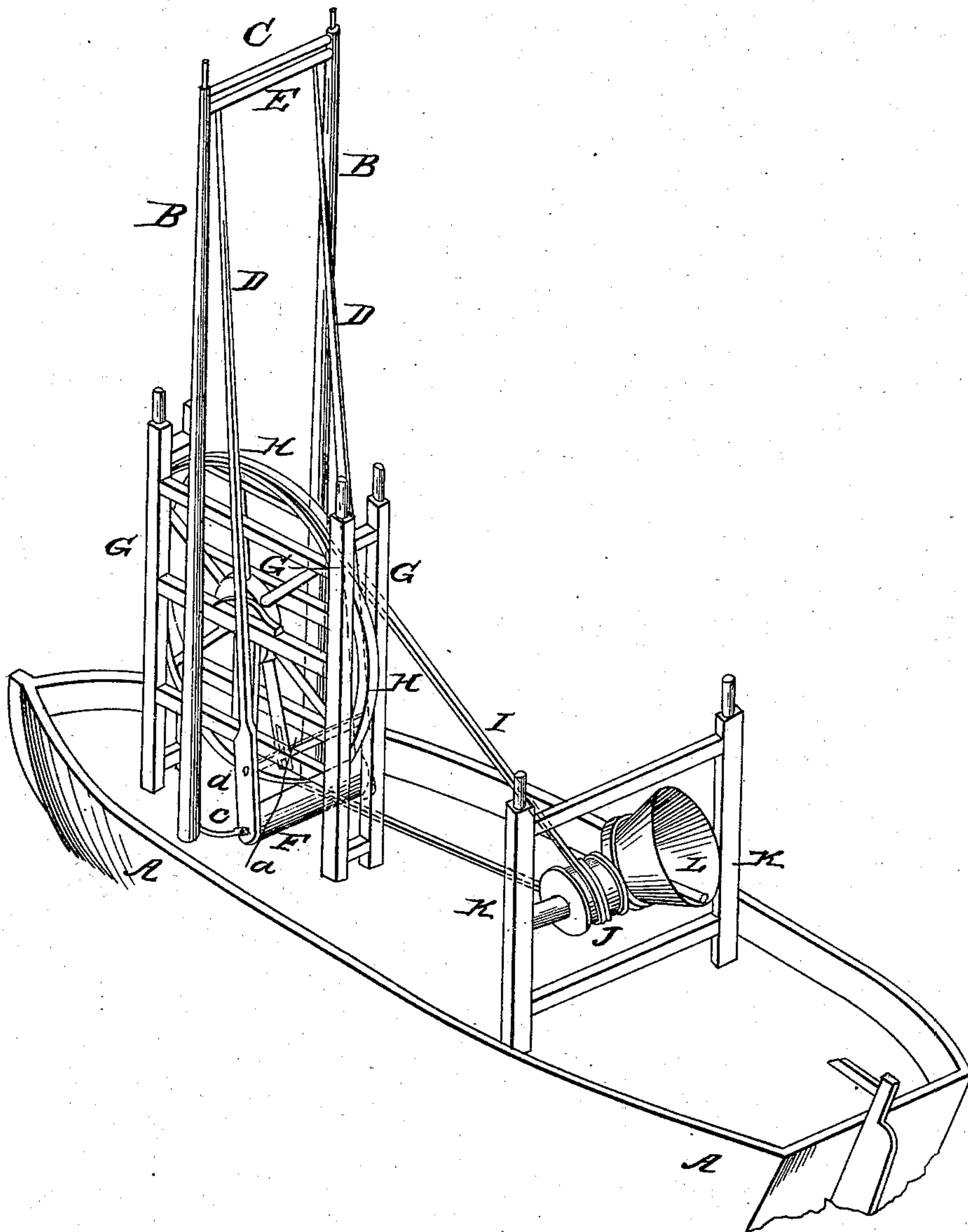


J. HAYNES.

Mode of Ringing Fog Bells.

No. 31,886.

Patented April 2, 1861.



Witnesses:  
W. Yerkes & Co  
aerodrome.

Inventor:  
John Haynes  
By his Attorney  
Thos. H. Dodge

# UNITED STATES PATENT OFFICE.

JOHN HAYNES, OF PEMBROKE, MAINE.

## MACHINERY FOR OPERATING FOG-BELLS.

Specification of Letters Patent No. 31,886, dated April 2, 1861.

*To all whom it may concern:*

Be it known that I, JOHN HAYNES, of  
Pembroke, in the county of Washington and  
State of Maine, have invented a certain new  
5 and Improved Mode of Operating Fog or  
Signal Bells by the Action of the Waves;  
and I do hereby declare that the following  
is a full, clear, and exact description of the  
same, reference being had to the accompany-  
10 ing drawings, forming a part of this speci-  
fication.

In the drawings, A represents a hull, suit-  
able for the purpose, in which is erected a  
frame consisting of uprights B, B, and cross  
15 piece C, and within which swings the pen-  
dulum device, consisting of pendent arms  
D, D, cross pivoted piece E, and bottom  
weight F.

Between the pendent arms D, D, is a  
20 wheel H, supported in a frame G, G, at-  
tached to the hull A, one of the arms or  
spokes of the wheel is slotted out so as to  
permit of the cross piece *a*, to pass through  
the same as fully shown, in the drawings.

25 The wheel H, is grooved out for the re-  
ception of a band, chain or belt I, which  
passes around pulley J, on a shaft turning  
freely in bearings in a frame K. A bell  
L, is also hung to the shaft upon which  
30 pulley J, is fastened.

The operation is as follows: The hull A,  
or its equivalent, being anchored in any  
proper position and manner, the action of  
the waves causes it to rock back and forth,  
35 whereby the arms D, D, are caused to swing  
back and forth on their hinged support E,  
in the top of the uprights B, B, thus caus-  
ing the wheel H, to rotate partially on its  
axis in consequence of the piece *a*, passing  
40 through the slot in one of the spokes of

wheel H, as shown in the drawings. As the  
wheel H, turns back and forth on its axis,  
the belt, chain, or band I, is caused to act  
upon the pulley J, and bell L, whereby the  
bell is kept constantly ringing. 45

F, is a weight attached to the bottom of  
the arms D, D, to give the proper momen-  
tum to said arms to operate wheel H, and  
bell L. The extent of the motion of the  
arms D, D, as they swing back and forth, 50  
can be limited if desired, by a chain, or rope  
*a*, fastened to the same and to some part of  
the hull A, on the uprights B. The slot in  
the spoke allows the cross-piece *a*, to move  
up and down freely as the arms D, D, which 55  
it unites, swing back and forth.

It will be seen that my invention is not  
only simple, but very effective, since the bell  
will be rung whenever there is the least mo-  
tion in the water, while the parts are not 60  
liable to get out of order. It will also be  
seen that the motion of the bell in a storm  
must be very rapid and violent, since a very  
slight motion of the wheel H, causes the bell  
to revolve back and forth very rapidly. 65

Ropes or chains may be used to strengthen  
the uprights if necessary.

Having described my invention what I  
claim and desire to secure by Letters Pat-  
ent, is: 70

The combination of the pendulum device  
D, E, F, wheel H, and bell L, with the hull  
A, substantially as and for the purposes set  
forth.

In witness whereof I have hereunto sub- 75  
scribed my name.

JOHN HAYNES.

In presence of—

F. D. LEAVITT,  
THOM. BRADBURY.