J. P. GEISLER.

Brakes for Steering-Wheels.

No. 155,022. Patented Sept. 15, 1874.

fig. 1

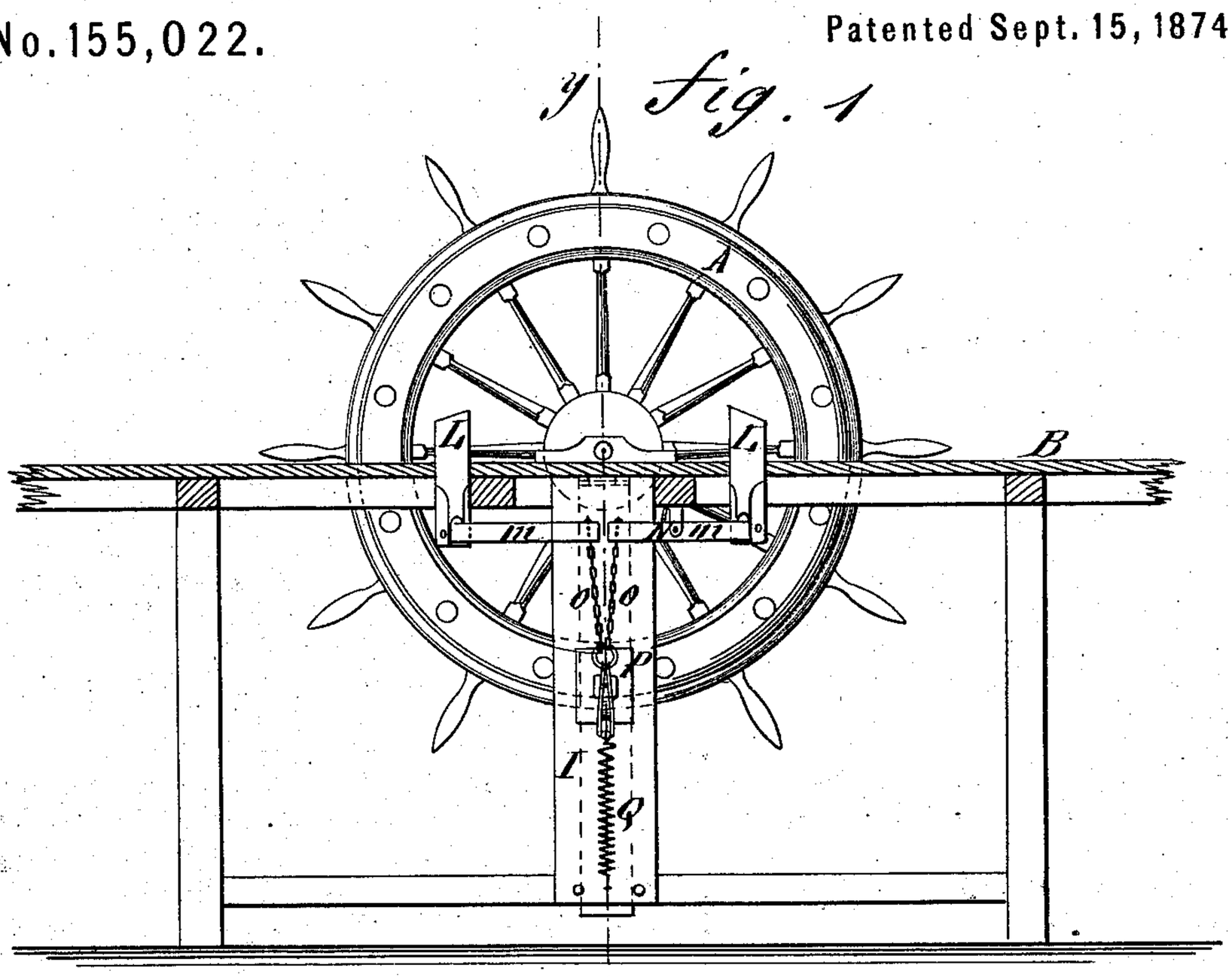
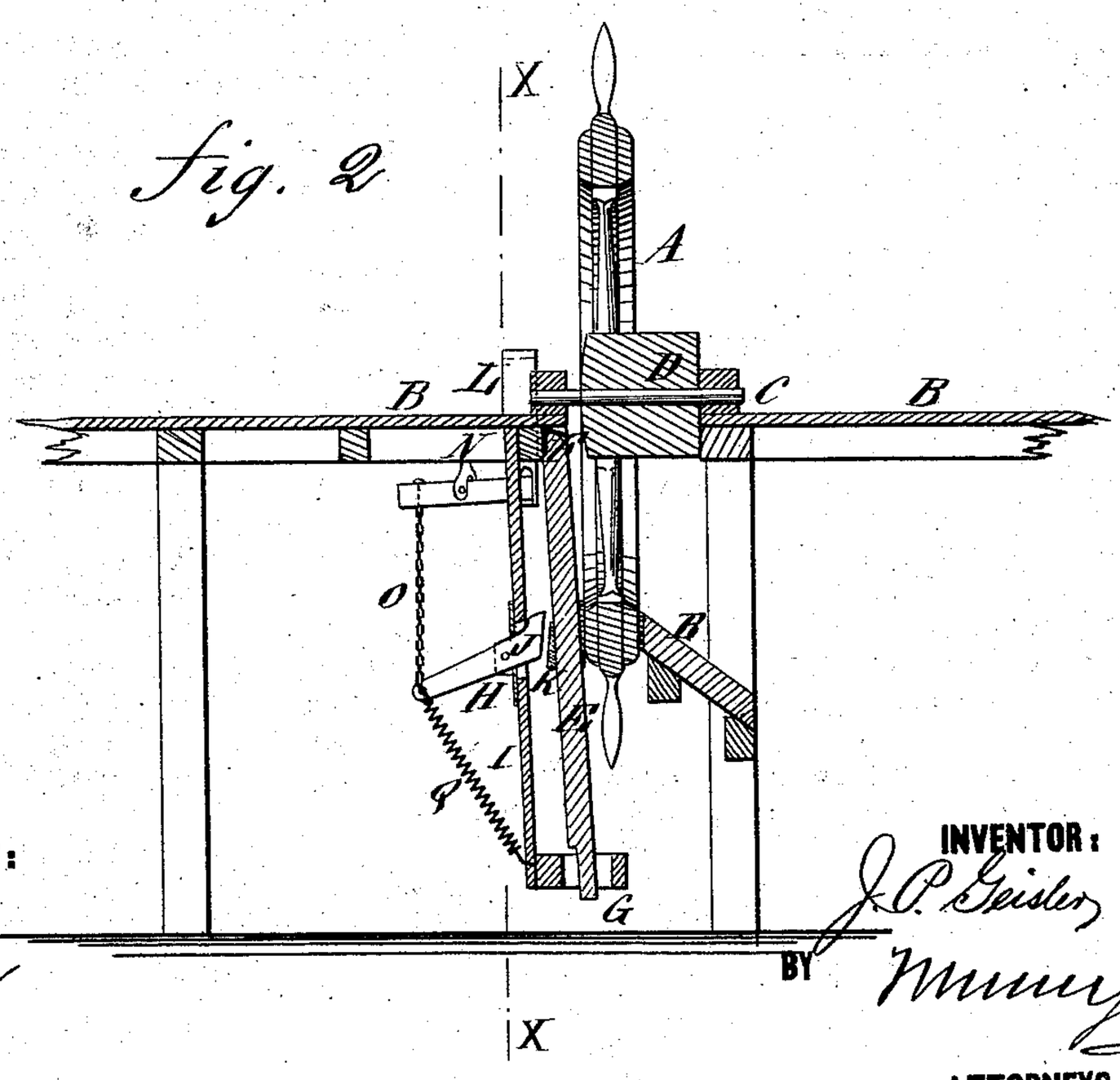



fig. 2




WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN P. GEISLER, OF DUBUQUE, IOWA.

## IMPROVEMENT IN BRAKES FOR STEERING-WHEELS.

Specification forming part of Letters Patent No. **155,022**, dated September 15, 1874; application filed July 18, 1874.

*To all whom it may concern:*

Be it known that I, JOHN P. GEISLER, of Dubuque, in the county of Dubuque and State of Iowa, have invented a new and useful Improvement in Brakes for Pilot-Wheels, &c., of which the following is a specification:

The invention will first be fully described, and then pointed out in the claim.

In the accompanying drawing, Figure 1 is a vertical section of Fig. 2, taken on the line *x x*. Fig. 2 is a vertical section of Fig. 1, taken on the line *y y*.

Similar letters of reference indicate corresponding parts.

A is the pilot-wheel. B represents the floor of the pilot-house, or the floor on which the pilot stands in operating the steering-wheel. C is the axle. D is the drum. E is an upright bar, which is hinged, at its upper end, to the timber of the floor, as seen at F. This bar hangs loosely on its hinge, but the extent of its movement to and from the wheel is limited by the box G. This box allows the bar to come in contact with the wheel. H is the pressing-lever. This lever is attached to the stanchion I by the fulcrum-pin J. The short end of the lever is beveled, and, when its long end is raised, it engages with a triangular block, K, on the side of the presser-bar, which forces the bar against the rim of the wheel, which breaks or stops the motion of the wheel. The long end of the lever is raised by the means of weight applied to one of the treadles L. These treadles protrude through the floor and are connected with the sway-bars *m m* by means of pivot-pins. The sway-bars are hung near their centers to hangers N. Their inner ends are connected with the long end of the pressing-lever by the chains O O and stirrup-hook P.

It will be seen that if the pilot or steersman presses with his foot on one of the treadles the long end of the lever will be raised and the brake will be applied. The amount of pressue which he thus applies determines whether the wheel is to be suddenly stopped or simply retarded. The back motion of the lever is produced by the spring Q. When the brake is applied the opposite side of the rim of the wheel bears against the end of the timber R, which prevents the straining of the wheel and adds to the friction and power of the brake.

The parts of this brake are duplicated to allow the pilot to stand either to the right or left in operating the wheel.

The advantages are that the pilot is enabled to keep the wheel under perfect control and hold the rudder in any desired position, thus adding security to the vessel, while greatly diminishing his own labor.

My brake is for steamboats plying on rivers where are used no compasses, but which are steered by landmarks. In shoal water compasses will not answer, because the boat must be handled very quickly, and this can only be done by landmarks.

My brake can be worked by hand and foot at the same time from either side of the wheel, which is changed in every bend, bar, and crossing of the rivers. The rivers and channel are very changeable, and, by the aid of the brake, the labor of controlling the boat is much diminished.

In handling boats that tow barges it is necessary for every boat to have something of the kind to prevent breaking rudders and tillers.

Two men are often required at the wheel, but with one of my brakes one man can handle any boat with more safety than two without a brake.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The hinged bar E, swinging loosely in box G, the spring-retracted lever H, blocks K, chains O, hangers N, sway-bars *m*, and treadles L, combined with a pilot-wheel, as and for the purpose specified.

JOHN PHILIP GEISLER.

Witnesses:

CHARLES CHRISTMAN,

JACOB CHRISTMAN.