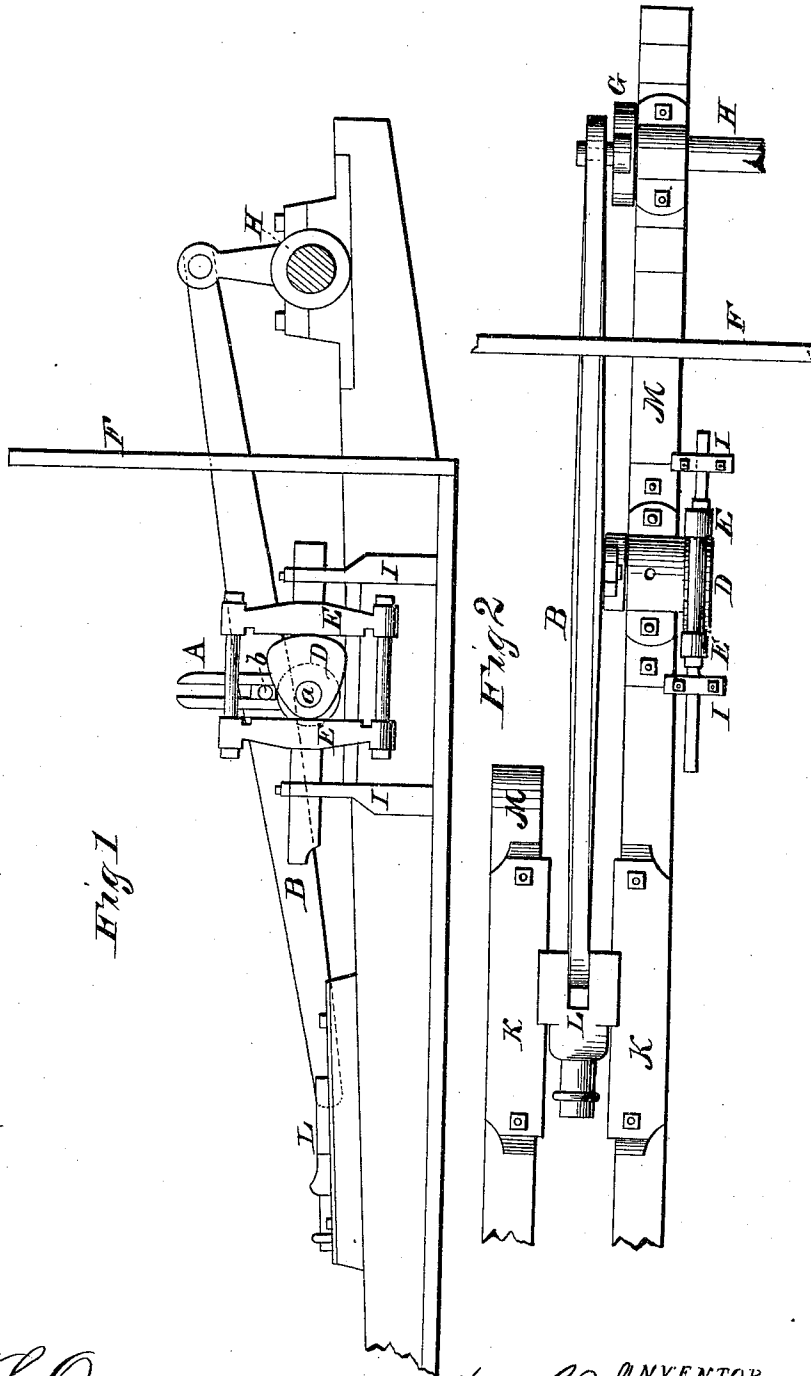


W. H. WILSON.

CAM-ATTACHMENT FOR STEAM-ENGINES.

No. 182,010.

Patented Sept. 5, 1876.



WITNESSES
Francis L. Curand
By- *C. L. Everb.*

INVENTOR
Wm H. Wilson
Alexander Mason
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM H. WILSON, OF PITTSBURG, ASSIGNOR OF ONE-HALF HIS RIGHT
TO JOSHUA MECHEM, OF BROWNSVILLE, PENNSYLVANIA.

IMPROVEMENT IN CAM ATTACHMENTS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **182,010**, dated September 5, 1876; application filed
February 17, 1876.

To all whom it may concern:

Be it known that I, WM. H. WILSON, of Pittsburg, in the county of Allegheny, and in the State of Pennsylvania, have invented certain new and useful Improvements in Cam Attachments for Steam-Engines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to stern-wheel steam-boats; and it consists in locating the cams and yokes that operate the valve forward of the stern bulk-head, and connecting the same with the pitman, so as to be operated thereby, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of my invention. Fig. 2 is a plan view of the same.

M M represent the cylinder-timbers, with guides K K for the cross-head L. B is the pitman, connecting said cross-head with the crank G upon the main shaft H, said shaft having its bearing in a box, O, on the cylinder-timber, extended through the stern bulk-head F. D is the cam or eccentric, operating the yoke E in the guides I I, for moving the valve of the engine.

Heretofore in stern-wheel boats the cam D has always been located on the main or wheel shaft H, with the yoke and its guides at the stern in rear of the bulk-head F entirely exposed; and it has often happened that some part or parts of this mechanism has become broken by ice, drift-wood, lines, and other causes.

To obviate this difficulty is the object of my invention; and to this end I remove said device from the stern of the boat, and secure the guides I to one of the cylinder-timbers in front of the rear bulk-head F at any point desired between said bulk-head and the guides of the cross-head. The cam D is then secured on a shaft, *a*, in a suitable box or bearing, on the top of the cylinder beam or timber, and on the other end of said shaft is secured a slotted arm or crank, A, which straddles a pin, *b*, projecting from the side of the pitman B. As the pitman is operated by the cross-head L, it, by means of the pin *b* and slotted arm A, imparts a continuous rotary motion to the cam D.

I do not claim in valve-gears a stud arranged midway of the length of the connecting-rod and operating in connection with a slotted end-lever, as I am aware that such is not new.

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

In a stern-wheel steamboat, the valve-operating cam D, located forward of the stern bulk-head F of the boat, and connected to the cross-shaft *a*, in combination with the valve-yoke E, pitman B having pin *b*, and the slotted arm A on the shaft *a*, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of February, 1876.

W. H. WILSON.

Witnesses:

M. L. STOWELL,
H. A. HALL.