(No Model.)

H. SCHUNK.

ROWING GEAR FOR BOATS.

No. 284,984. Patented Sept. 11, 1883.

Fig. 1.

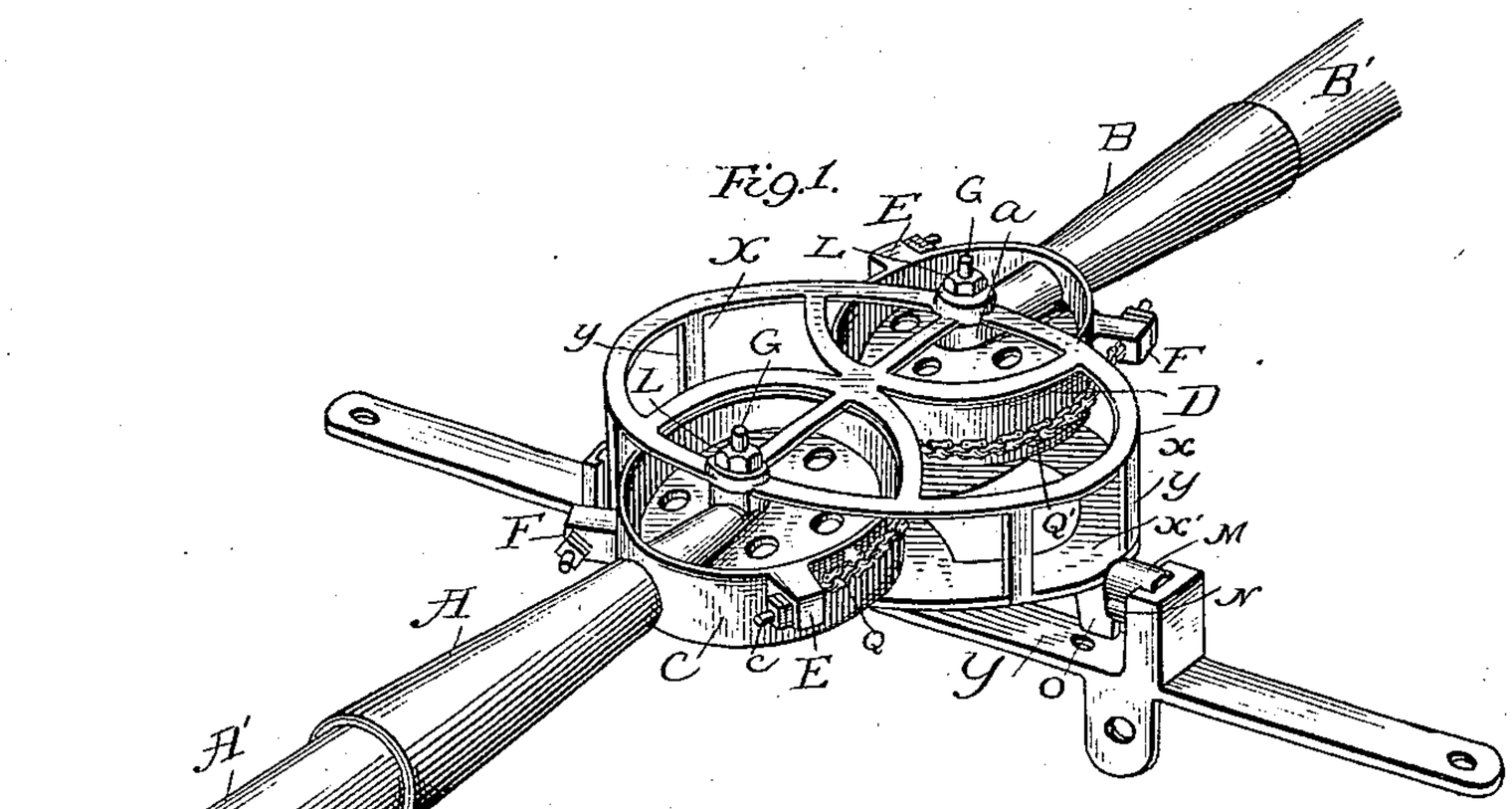


Fig. 2.

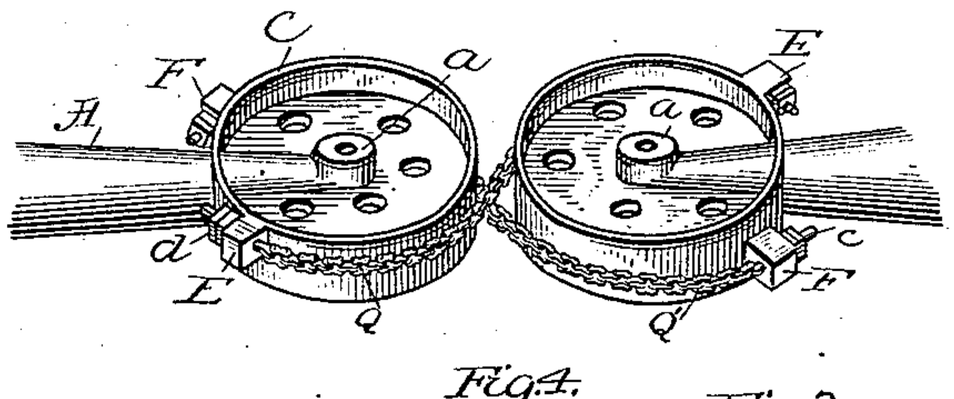


Fig. 4.

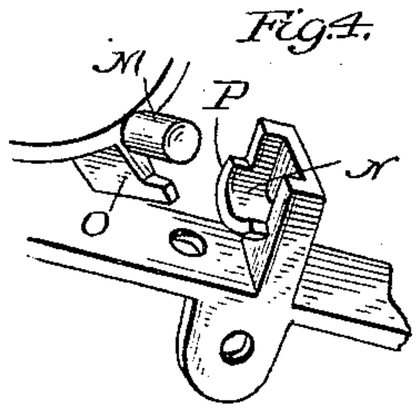


Fig. 3.

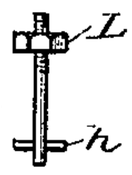
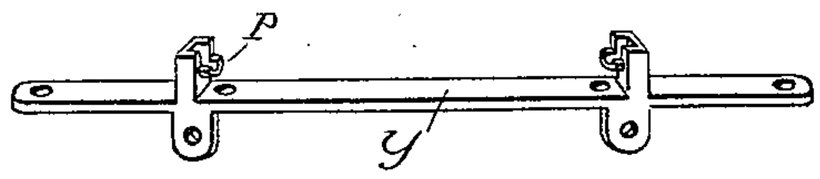


Fig. 5.



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UNITED STATES PATENT OFFICE.

HENRY SCHUNK, OF DUBUQUE, IOWA, ASSIGNOR TO HIMSELF, EMILLE RUFF, AND CHARLES CHRISTMAN, ALL OF SAME PLACE.

ROWING-GEAR FOR BOATS.

SPECIFICATION forming part of Letters Patent No. 284,984, dated September 11, 1883.

Application filed May 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY SCHUNK, of Dubuque, in the county of Dubuque and State of Iowa, have invented a new and useful Improvement in Gearing for Row-Boats; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to an improvement in propelling row-boats, and more particularly to that class of rowing apparatus in which the oarsman is permitted to face the bow of the boat while the boat is moving in the same direction.

The invention consists in the peculiar construction of the apparatus, fully hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view. Fig. 2 is a view of the drums and chains. Fig. 3 is a detail of one of the bolts upon which the drum moves. Fig. 4 shows the locking device for the oscillating frame, which permits the oars to rise and fall. Fig. 5 is a view of the plate by which the device is connected to the gunwale, and of the bearings for the oscillating frame.

An attachment like that represented in Fig. 1 is to be placed upon each side of the gunwale of a boat rowing two oars, and a similar attachment for each additional oar.

Referring to Fig. 1, A represents a socket to recive the handle A′ of the oar. The socket A is cast in one piece with the drum C, the latter being formed with a central perforated boss, *a*, and perforated peripheral lugs E F. The drum is cast with a bottom plate to give it proper stiffness; but the plate may be perforated, if desired, for lightness. D is a similar drum, which has cast with it a corresponding socket, B, for the oar-blade B′. These drums are pivoted opposite each other, and nearly in contact, upon an elliptical frame, X, which is secured to the gunwale of the boat, its major axes extending in the same general direction as the gunwale. This frame consists of upper and lower rims, *x x′*, and a sufficient number of braces, *y*, connecting them. The rims upon opposite sides are provided with registering-perforations, and between these rims are pivoted the drums C D by bolts G passing through such perforations and the central boss, *a*, of the drums, and held in place by a nut, L, at the top, and a pin, *h*, Fig. 3, at the bottom. The drums are thus free to turn within the frame.

The movement imparted to the drum C by the oarsman is communicated to the drum D and the oar-blade by the chains Q Q′. These chains are adjustably connected to the drums C D by screw-bolts *c*, which pass through the lugs E F on the drums, and are secured by a threaded nut, and, in addition, by the jam-nuts *d*. Should the chain ever become slack, therefore, it can be taken up by simply moving the bolt farther into the lug. The chains pass partly around the periphery of the respective drums, crossing between them in such a manner that the movement of drum C in one direction will draw on chain Q′ and move drum D in the reverse direction, the result being that if the oar is pulled toward the oarsman the blade moves through the water in the same direction, driving the boat ahead.

In order to permit the oar to be lifted from the water, it is necessary to give an oscillating or rocking motion to the frame X, and the devices for accomplishing this and locking the frame to the gunwale are shown in Figs. 1 and 4.

Y is an iron plate rigidly secured to the gunwale. Upon this plate are standards having formed with them bearings N N and offsets P P.

Round journals M M and depending studs O O are attached to or formed with the frame X, the journals fitting in the bearings N N, while the studs O O project under the offsets P P and lock the frame in place. The bottom of the offset P is of circular form, like the bearing, and the stud O moves freely upon the curved surface as the frame rocks.

The devices may of course be applied to any form of row-boat.

Having described my invention, I claim—

The combination, with the plate Y, having bearings N and curved offset P, of the frame X, having journals M and studs O, substantially for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY SCHUNK.

Witnesses:

ALEX SIMPLOT,

FRANK H. WEIHL.