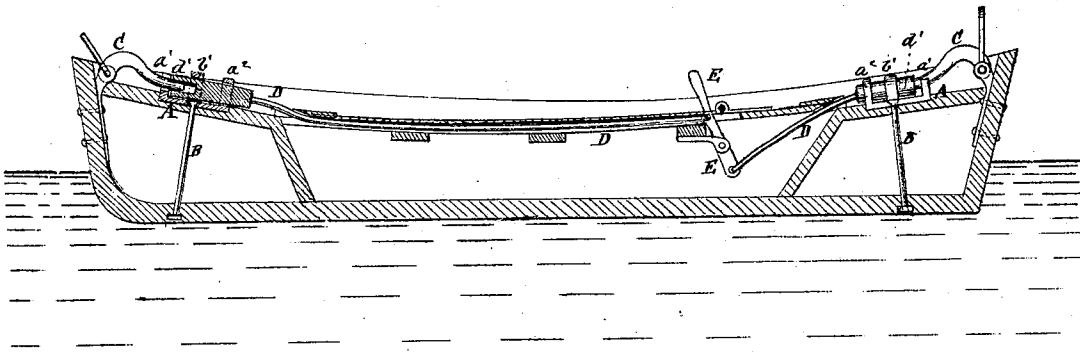


DAVID MCFARLAND.

Improvement in Boat-Detaching Apparatus.

No. 128,054.

Patented June 18, 1872.



Witnesses:

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UNITED STATES PATENT OFFICE.

DAVID MCFARLAND, OF NEW YORK, N. Y., ASSIGNOR TO ADALINE M.
INGERSOLL, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BOAT-DETACHING APPARATUS.

Specification forming part of Letters Patent No. 128,054, dated June 18, 1872.

Specification describing a new and Improved Boat-Detaching Apparatus, invented by DAVID MCFARLAND, of New York city, in the county and State of New York.

The figure is a detail longitudinal section of a boat to which my improved detaching apparatus has been attached.

My invention consists in the method of forming and arranging a guide with relation to the sliding sockets of the detaching arms and other connected parts of the apparatus, as hereinafter described.

A A are plates attached to the bow and stern portions of the boat, the same having notched lugs a^1 and perforated lugs a^2 , to serve as guides for the hinged arms C and enlarged ends of the rods D, respectively. Said ends or sockets d' of the rods D are bored to receive the ends of arms C, and the lever E is conveniently arranged for operating them, as will be readily understood. To form guides and holding devices for the sliding sockets, and also render the connection of such a detaching apparatus with the boat perfectly secure under all the strain which the frame can

withstand, I arrange the long bolts or rods B so as to pass through the keel, as shown, and form on their upper ends suitable rings or eyes b' to receive the sockets d' of the rods D. In these rings the sockets will work readily under all conditions, and the strain is brought directly and mainly on the keel and frame of the boat. They likewise constitute guides for the sockets, so that they will always be kept in line with the notch in the plates A, and thereby with the arms C C.

What I claim is—

The sliding cylindrical sockets d' , plates A provided with notched lugs a^1 and perforated lugs a^2 , the hinged arms C, and the guides b' formed on the stay-bolts B passing through the keel, all combined as shown and described, for the purpose specified.

The above specification of my invention signed by me this 8th day of November, 1871.

DAVID MCFARLAND.

Witnesses:

JAMES T. GRAHAM,
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