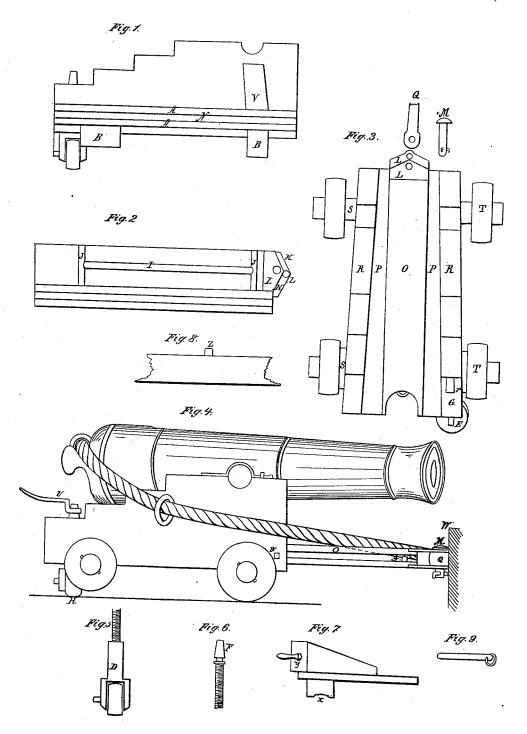
J. BUBIER.
Gun Carriage.

No. 432.

Patented Oct. 20, 1837.



## UNITED STATES PATENT OFFICE.

JOHN BUBIER, OF MARBLEHEAD, MASSACHUSETTS.

IMPROVEMENT IN GUN-CARRIAGES TO BE USED ON BOARD OF SHIPS OF WAR.

Specification of Letters Patent No. 432, dated October 20, 1837.

To all whom it may concern:

Be it known that I, John Bubier, of Marblehead, in the county of Essex and State of Massachusetts, a lieutenant in the Navy of the United States, have invented new and useful Improvements for the Better Management of Naval Artillery, of which the following is a specification.

The nature of my invention consists in providing the gun-carriage with a center slide and train-wheel, the former for keeping the gun always in a line with the port and giving more precision to the range of the shot by a steady and uniform recoil of the piece, and the latter to facilitate the movement or train-

ing of the gun upon the object.

But to enable others to understand my invention, I will proceed to describe its construction and advantages. I make my carriage in the usual manner, to which I apply grooved cleats to be fixed on the inside of the cheeks and resting on the forward and after axles, as in Figure 1 of accompanying drawings, to receive a slide which is tongued exactly to fit the groove in the cleats, as in Fig. 2, furnished with eye-plates on the upper and lower sides, to receive a fighting-bolt, which confines it by a start to the ship's side, the start to be placed in the quick-work exactly in the center of the port and on a level with the slide, Fig. 4, allowing it to play between the transom and axles, Fig. 1. The shoulder of the slide I cut on an angle, to take the ship's side at the greatest direction or training of the piece before or abaft the beam, Figs. 2 and 3. The gun therefore never interferes with the port-frame,

but must always come out in the center of the port. I have likewise a groove and plates on the under part of the slide, of sufficient length to allow the necessary recoil of the gun, Fig. 2, to receive the stopper, which I place in the center of the forward axle, Fig. 8. I likewise fix a securing-bolt to pass through the cheek into the slide, Figs. 4 and 9, which serves to keep the gun steady in its place when in or out, and supersedes the necessity of double breechings or cleats in heavy weather.

My train-wheel shaft and screw is constructed of iron, and of sufficient dimension and stability that the after part of the gun is worked at all times in training, &c., upon it. This is done by a mortise in the after cheek of the carriage, which allows the shaft D, Fig. 5, to ply up and down in it at pleasure, and by turning the screw, Fig. 6, confined in the neck by an iron plate, Fig. 3, I raise the after trucks from the deck, and my trainwheel, having the gun resting upon it, and standing at right angles with the trucks, is moved or trained at pleasure without the aid of crows or handspikes—articles so very destructive to the decks and other wood-work of ships of war. (See Fig. 4.)

What I claim as my invention, and desire to

secure by Letters Patent, is-

The addition of the center slide and trainwheel to the gun-carriages now in use on board of ships of war.

JOHN BUBIER.

Witnesses:

JOHN CHANDLER, Jr., Jos. P. Turner.