

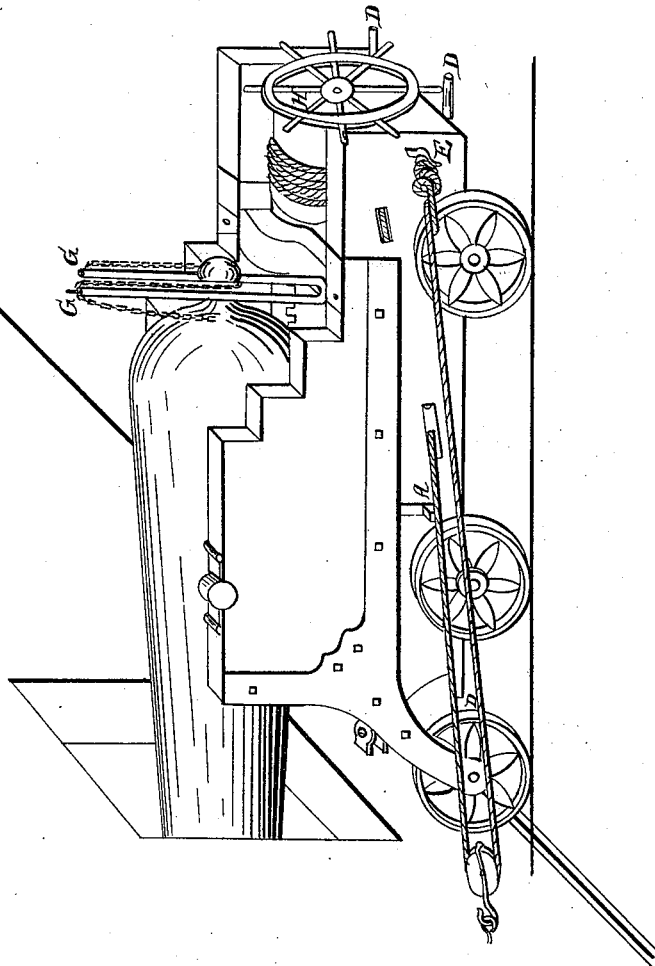
J. LAURENS.

Gun-Carriage.

No. 15,244.

Patented July 1, 1856.

Fig. 1.



J. LAURENS.
Gun-Carriage.

No. 15,244.

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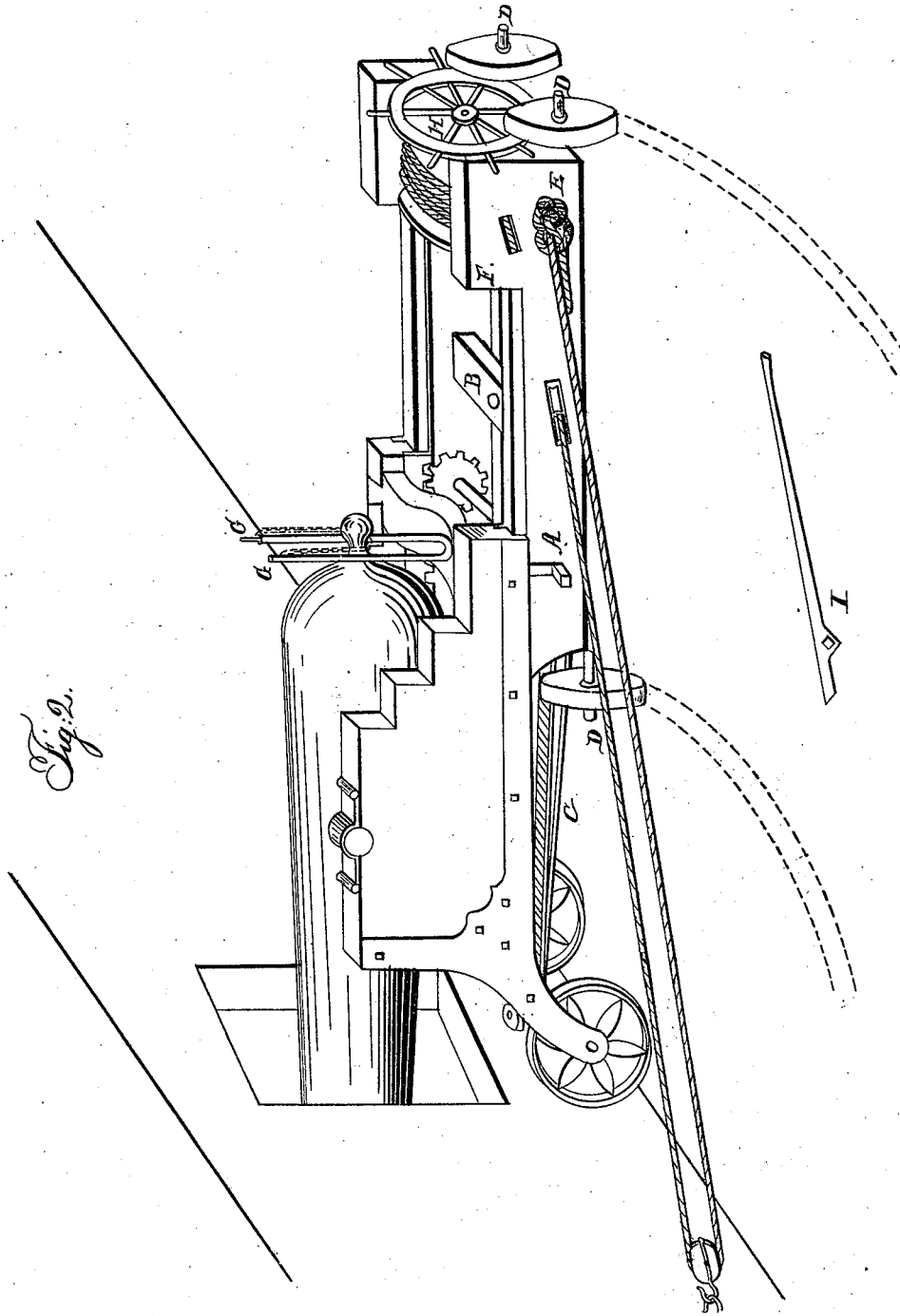


Fig. 2.

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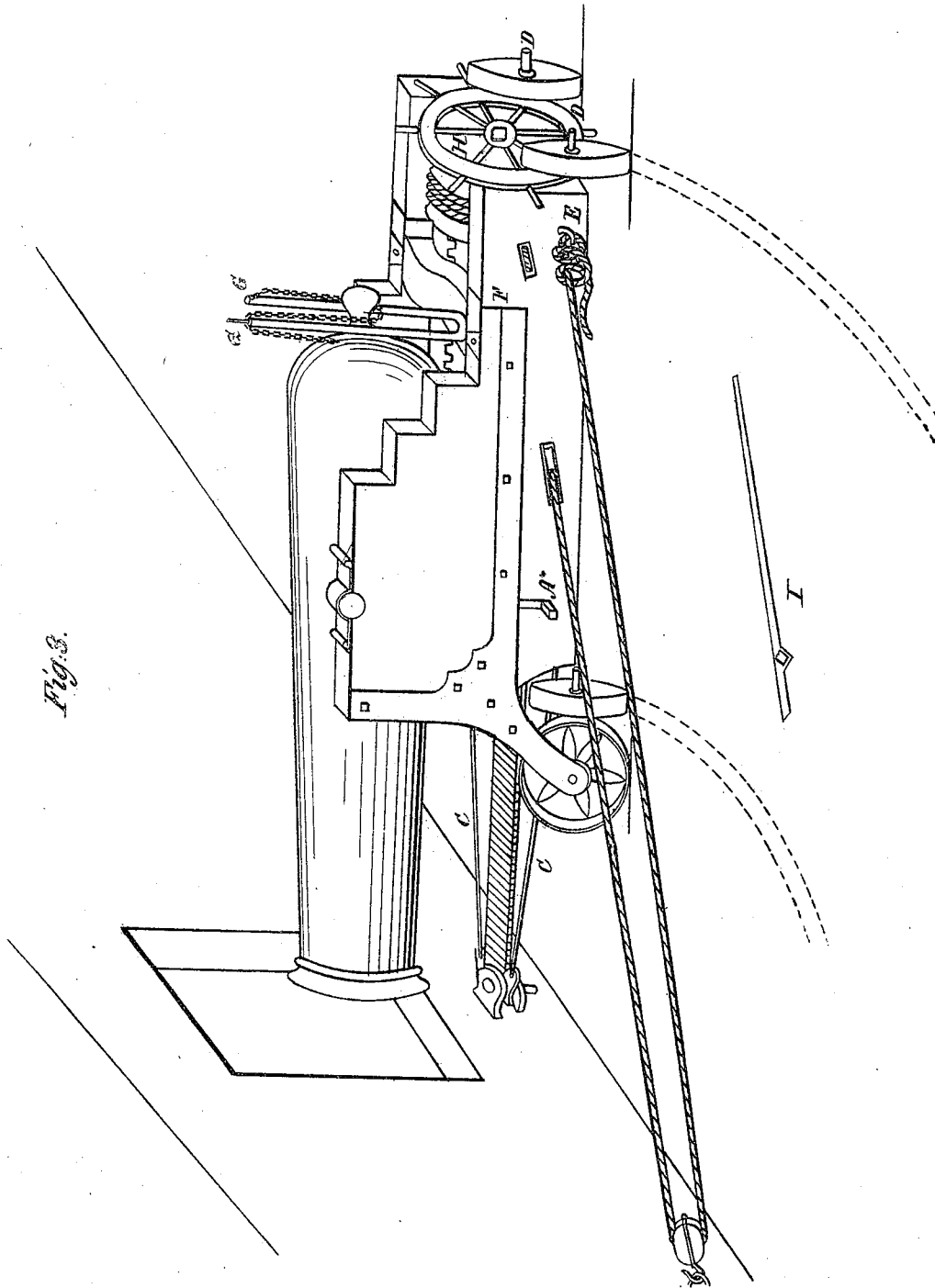
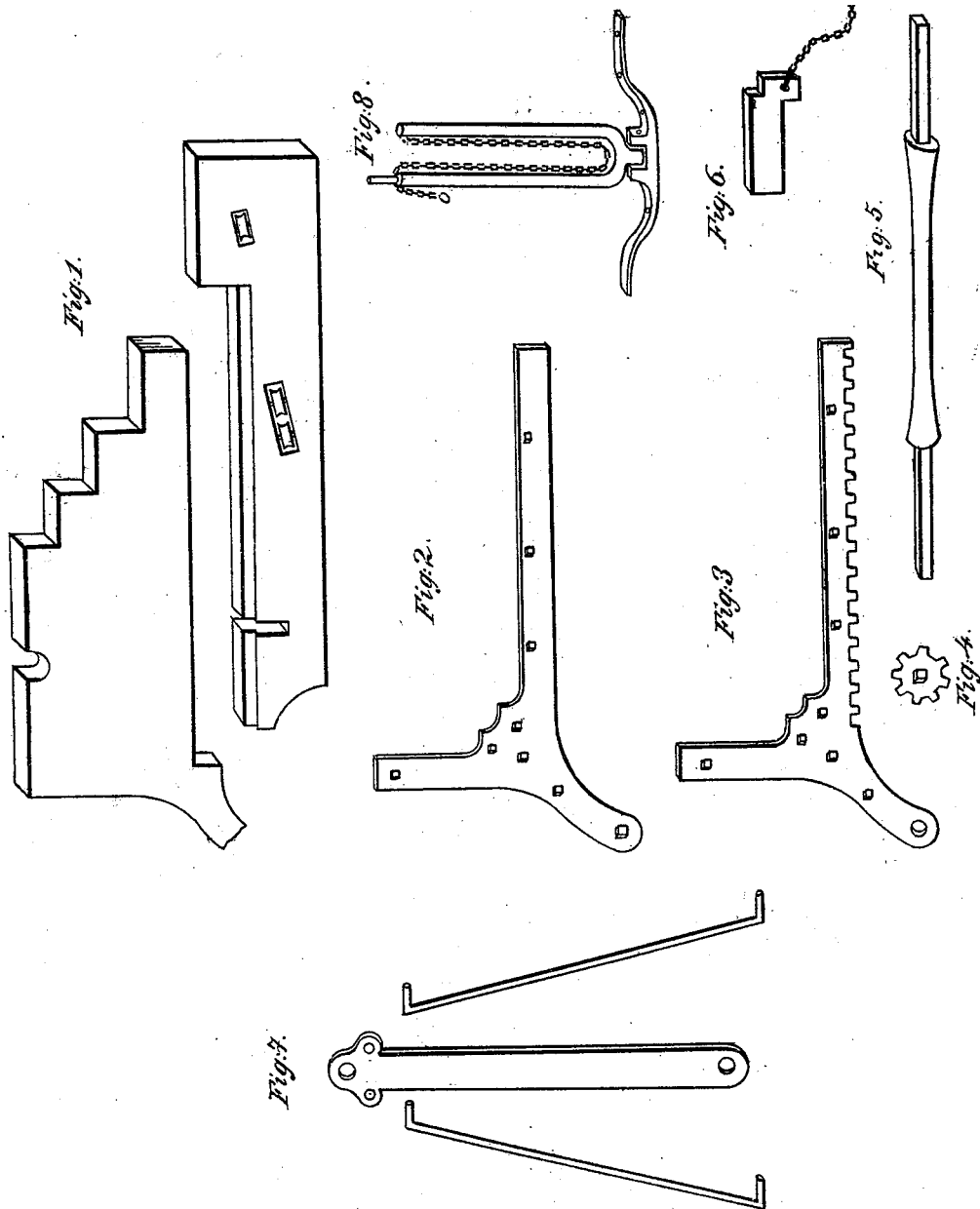


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN LAURENS, OF CHARLESTON, SOUTH CAROLINA.

IMPROVED GUN-CARRIAGE.

Specification forming part of Letters Patent No. 15,244, dated July 1, 1856.

To all whom it may concern:

Be it known that I, JOHN LAURENS, of the city and district of Charleston, in the State of South Carolina, have invented a new and Improved Plan for the Construction of Gun-Carriages for the Use of Fortifications and Vessels of War; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the great facility with which a gun can be worked in such a carriage, the present naval gun-carriages being worked in and out of their port-holes by two side and one stern tackle, all of which have to be manned, requiring for a large gun from six to eight men, while my invention, doing away with the side and stern tackles, enables two men to work a gun of the same size with ease. A great saving of manual labor is therefore claimed for my invention. Again, in the gun-carriages now in use the gun is secured in its recoil by means of what is termed a "breaching"—that is, a large rope passing around the breech of the gun and secured at its ends to the sides of the port-hole. My invention does away with this, and therefore dispenses with a clumsy and expensive piece of rigging. Again, the present carriages are trained by means of their side tackles, together with the use of crow-bars and handspikes, frequently injuring the deck of the vessel and always greatly straining the wheels and axles of the carriage. This maneuver, moreover, is never done to a nicety. My invention does away with the side tackles, as well as with the use of the crow-bar and handspike, the captain of the gun being enabled to train it alone with perfect ease. Again, the present heavy guns are elevated or depressed for a long or close shot by means of what is termed a "quoin"—that is, a large wedge sliding backward and forward under the breech of the gun. My invention, doing away with this quoin, substitutes in lieu thereof a two-pronged fork with a chain attached, which answers the purpose as well in every respect, and the sight being directed between the prongs, it will be found very useful in taking a line shot. In this respect, therefore, my invention possesses all the exactness and facility

of the quoin now in use, besides a neater appearance and a great assistance to the eye in taking an aim. On the whole, therefore, I claim for my invention a great saving of manual labor, together with a precision of aim and facility of motion unsurpassed by any gun-carriage that is now or has ever been in use.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1, Plate 1, is a perspective view of the gun and carriage run out and secured. To cast loose the gun and get her ready for action, take out the iron pin at the point B, Fig. 2, Plate 2; let one man on each side apply his crow-bar (which has a square hole in it, as represented in Fig. 2, Plate 2, by the letter I) to the end of the spindle at A, and cause it to revolve by heaving. (In light guns an ordinary wrench may be used instead of a crow-bar.) The cog-wheels on the inside turn with it, and cause the carriage-bed to move backward. When far enough, bolt the end of the iron bar and hook on the braces, as represented by C C in Fig. 2, Plate 2, and Fig. 3, Plate 3; then remove the wheels from the side axles and place them on the fore and aft axles, as represented by the letters D D in Fig. 2, Plate 2, and Fig. 3, Plate 2; then hook the training-rope blocks to the ship's side, and, pulling in all the slack, make fast the end to an eyebolt in the after-end carriage-bed. (represented at E in Fig. 1, Plate 1, Fig. 2, Plate 2, and Fig. 3, Plate 3.) When the gun is loaded, take out the wedges, which will cause the spindle, with its cog-wheels, to fall clear of contact with the cogs in which it works on the interior side of the slide. This prevents the possibility of breaking any of the teeth, as there is no jar, the spindle and cog-wheels being disconnected from the cogs on the inner part of the slide. The gun being in position as in Fig. 2, Plate 2, the aim is to be taken and the load discharged. In its recoil the gun slides along the bed perfectly freely, with the exception of its own gravitation, until checked at F by a rise in the after part of the bed, and also by a fall in the slide shown in Fig. 1, Plate 4, disconnected parts. This prevents the possibility of the gun's getting loose and does away with the breaching now in use. The gun, being discharged, and having recoiled,

takes the position represented by Fig. 3, Plate 3. The cogs must now be put in connection, which is done thus: A man on each side raises the spindle until the teeth fit into each other. The wedges are then replaced, which merely fit into the space made by raising the bar. The gun is ready now for loading, which is done in the usual manner. To elevate or depress the breech of the gun for a long or close shot, as may be desired, the captain of the gun directs a man on each side, by the use of the crow-bar, in the usual manner, and by shortening or lengthening the chain attached to the fork at G G, which supports the breech in the desired position, the cascabel-knob of the gun resting in the bight of the chain. When this is done, the gun is run out by means of the spindle-bar already described. Being run out and ready for firing, it may be trained or pointed to bear on an object to the right or left by turning the wheel H precisely as a ship's helm is moved to starboard or port. The side wheels for the support of the carriage, being transferred to the fore and aft axles, describe the arc represented by the dotted lines in Fig. 2, Plate 2, and Fig. 3, Plate

3. This I consider sufficient for a description of the working principle of the carriage.

The few bolts and bars used to strengthen and support the whole, not mentioned in this description, are fixtures, and may be clearly seen in the accompanying model.

The materials to be used are live-oak and iron. The proportions should of course be adapted to the size of the gun to be carried. The wheels should be made of iron, as they may be made quite light enough. They can receive no shock by being jerked sidewise by breeching or side tackle. I therefore think that light iron wheels would work and look better. Wood, however, can be used.

What I claim as my invention, and desire to secure by Letters Patent, is—

The entire gun-carriage, it being totally different from any gun-carriage that is now or ever has been in use, with the sole exception of its carrying a gun.

JOHN LAURENS.

In presence of—

HENRY D. LESESNE,
HENRY LAURENS.