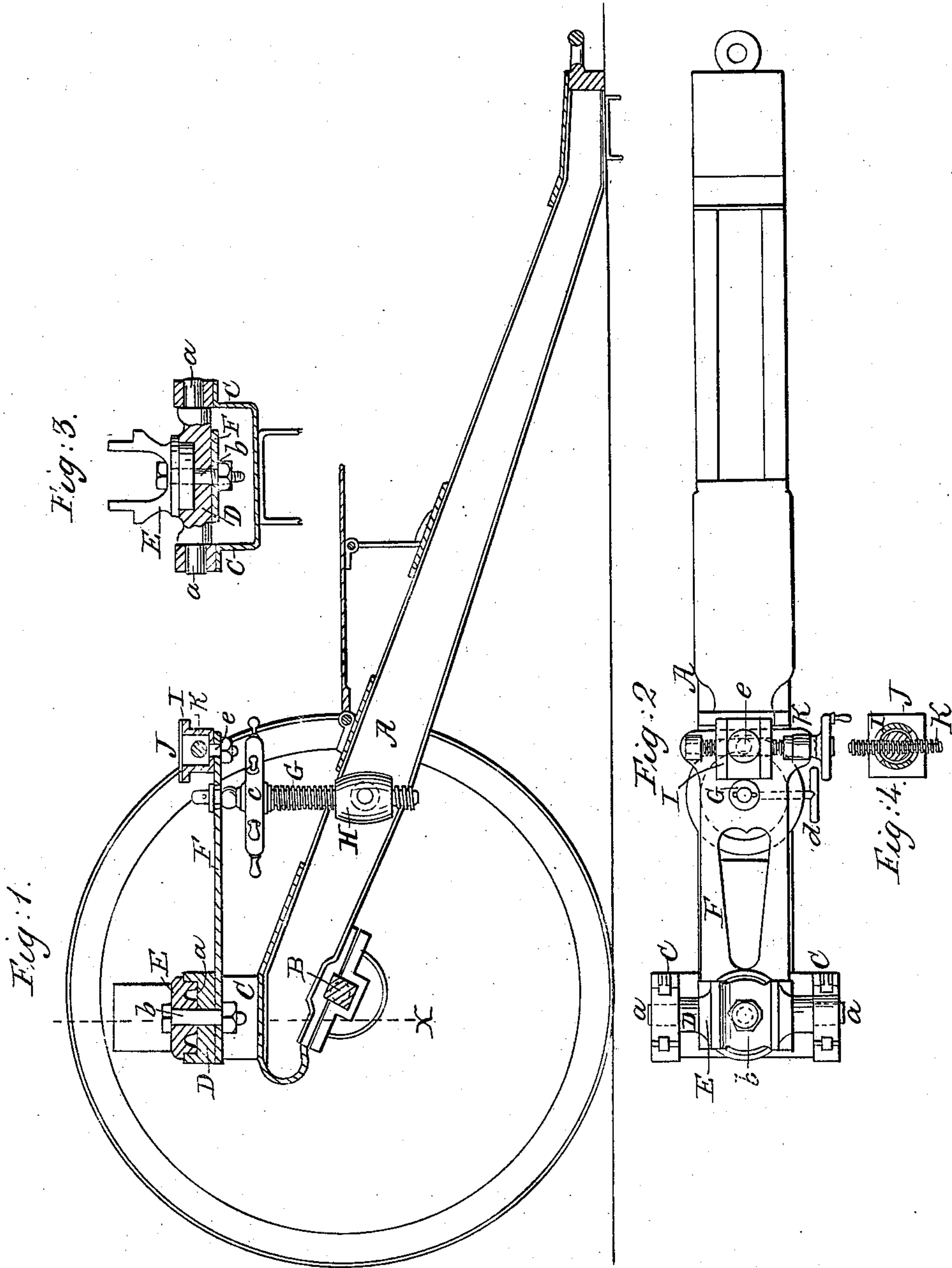


L. W. BROADWELL.

Gun Carriage.

No. 90,814.

Patented June 1, 1869.



Witnesses.

J. M. Coombs
Fred. Haynes

Inventor.

L. W. Broadwell
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United States Patent Office.

L. W. BROADWELL, OF NEW ORLEANS, LOUISIANA.

Letters Patent No. 90,814, dated June 1, 1869.

IMPROVEMENT IN GUN-CARRIAGES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, L. W. BROADWELL, of New Orleans, in the parish of Orleans, and State of Louisiana, have invented a new and useful Improvement in Gun-Carriages, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a longitudinal section of a gun-carriage constructed in accordance with my improvement;

Figure 2, a plan of the same; and

Figure 3, a transverse section through the line *x x* in fig. 1.

Figure 4 is a horizontal section in part, through the travelling-nut used for training the gun.

Similar letters of reference indicate corresponding parts.

My improvement relates to carriages for the Gatlin battery, and other guns; and consists in a certain combination of a trunnion-piece and revolving or swivelling forward-support for the gun, and a wing-piece or plate, and elevating-screw, for adjustment of the trunnion-piece with its revolving gun-support.

Likewise, the invention consists in a swivelling end piece or support to the rear portion of the gun, in combination with a travelling-nut and screw, operating the latter, to facilitate, in connection with the revolving forward-support, training of the gun to the right or left, as required.

Referring to the accompanying drawing—

A represents the frame and trail, provided at its forward end with boxes, for the axle B of the wheels to the carriage; also with cheeks C C mounted on it, constructed to form bearings to a trunnion-piece, D, having horizontal trunnions *a a*.

On this trunnion-piece D is mounted a revolving or swivelling supporting-piece E to the forward or body portion of the gun, *b* being the centre-bolt or pivot on

or with which said supporting-piece turns, and which occupies a transverse position to the axial line of the trunnions *a a*. This, it will be seen, provides for a double adjustment of the gun, namely, on or through the trunnions *a a*, as one centre of motion, and on or through the cross-bolt *b* as another.

To elevate the gun as required, by rocking the trunnion-piece, said piece is provided in its rear with a wing-piece or plate, F, and this latter connected, at or near its back end, with an elevating-screw, G, which works through a box, H, connected with the frame or trail.

After the gun has been elevated or set to its required angle, by means of the screw G, through a wheel, *c*, or lever, attached thereto, said screw may be locked by a set-screw, *d*.

I is the piece that supports or is attached to the rear end of the gun. This piece is arranged over the back end of the plate F, and is connected in a swivelling or loose manner, as from a centre at *e*, with a travelling-nut or box, J, that is worked to the right or left of the carriage by suitably turning a screw, K, carried in bearings attached to the plate F.

By these means the gun, being fastened to the revolving supporting-piece E, on the trunnion-piece D, may be trained to the right or left, as required.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination of the wing-piece or plate F, and elevating-screw G, with the trunnion-piece D and revolving supporting-piece E, essentially as shown and described.

2. The combination of the end piece I, the travelling-nut or box J, with its operating-screw K, and the revolving supporting-piece E, substantially as specified.

L. W. BROADWELL.

Witnesses:

GEORGE F. KETTELL,

B. HENN.