

J. B. EADS.
Ordnance-Carriage

No. 57,692.

Patented Sept. 4, 1866.

Fig. 1.

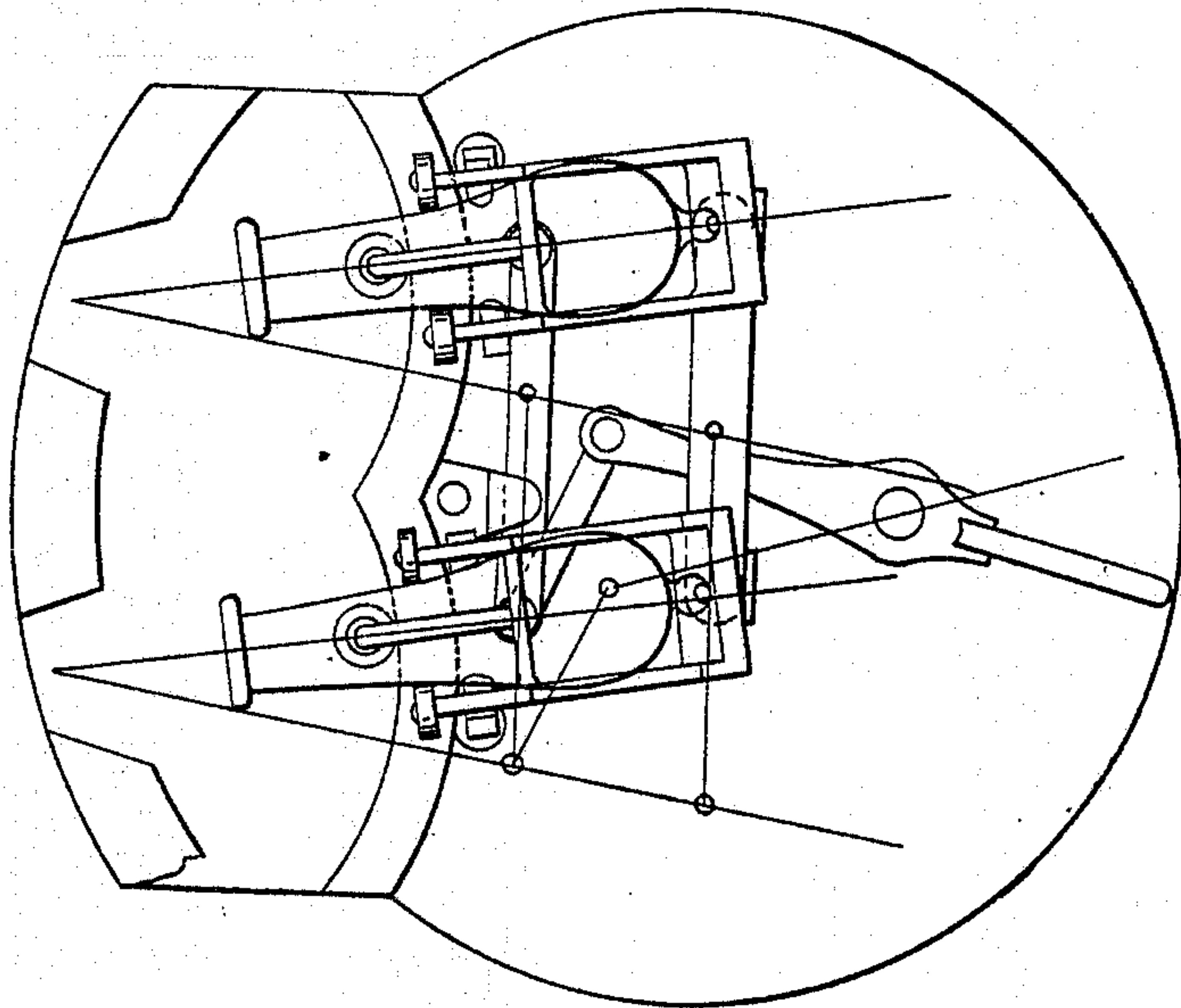
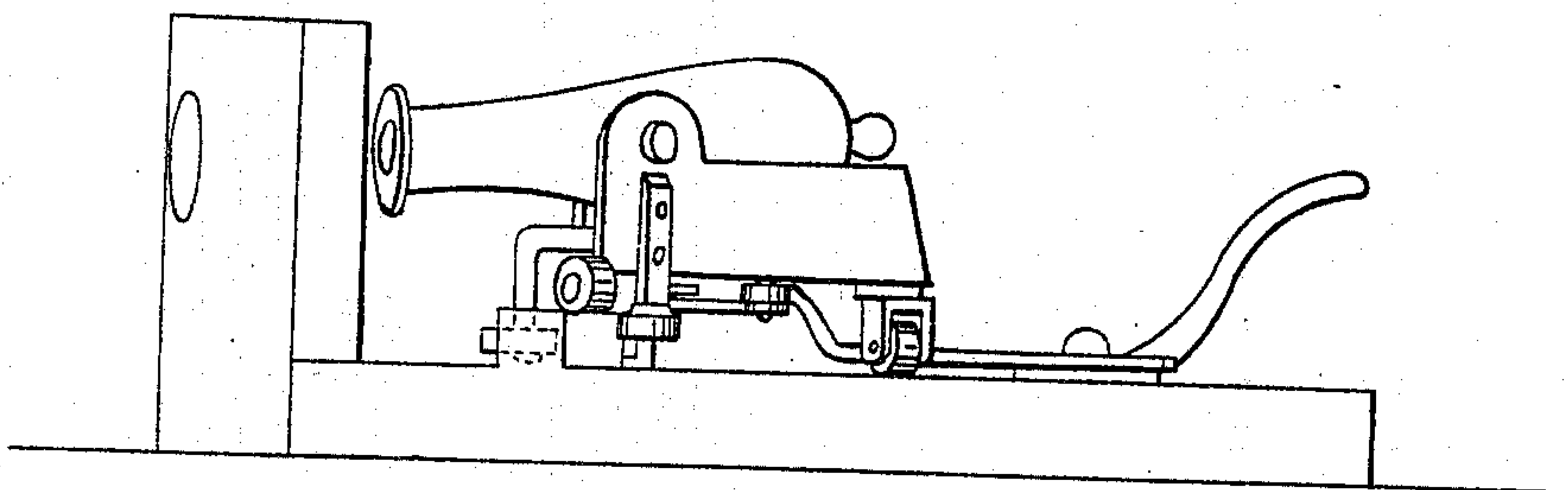


Fig. 2.



Witnesses.

James L. Ewin
Charles A. Pettit

Inventor.

James B. Eads
By Munnery
Attorneys

UNITED STATES PATENT OFFICE.

JAMES B. EADS, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN OPERATING ORDNANCE.

Specification forming part of Letters Patent No. **57,692**, dated September 4, 1866.

To all whom it may concern:

Be it known that I, JAMES B. EADS, of St. Louis, in the county of St. Louis and State of Missouri, have made a new and useful Improvement in Operating Ordnance; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, sufficient to enable one skilled in the art to which it appertains to construct and use the same, reference being had to the accompanying drawings, which are made part of this specification, and in which—

Figure 1 is a plan. Fig. 2 is an elevation.

The improvement consists in a mode of operating ordnance to give a pair of guns, mounted on parallel carriages, a horizontal adjustment about an imaginary point in the center of the port-hole. The object is to cause the axes of the guns while remaining parallel to be at all points of their horizontal adjustment constantly radial to a point in the center of the outer aperture of the embrasure, or of the inner, if desired, but the object being to have a port-hole of minimum size. The outer opening is, by preference, as little larger than the size of the projectile as circumstances will permit.

In the drawings, A is the platform or floor of the turret, and B the wall or side of the same, containing the port-holes or embrasures C C. D D are the guns mounted on carriages E E, whose parallelism is maintained by the link-bars F F.

The movement of the guns on the platform may be obtained by a lever, G, which connects by link H with one of the carriages, or in any other suitable manner.

The carriages are supported on rollers I J J,

the former supporting the back of the carriage and resting upon the floor, while the rollers or wheels J J rest upon the curved tracks K K, which are attached to the platform A, and direct the horizontal adjustment of the guns when they are moved by the lever G.

The tracks K K consist of two arcs, whose radii are the distances from the center of the port-hole at the point of its smallest diameter, so that, as the guns move in a horizontal plane, the breech describes a larger arc than the muzzle, but vibrates upon the same center as the latter.

Each carriage is confined to its track K by means of a roller, M, which traverses the inside face of the curve, and by the rollers N, which traverse the outside of the curved track.

Thus it will be seen that whatever may be the horizontal adjustment of the guns within the given limits their axes are always parallel and point exactly toward the center of the port-hole at the point of its smallest diameter.

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

The combination of a pair or more of gun-carriages, so connected as to preserve the parallelism of the axes of the guns, with a corresponding number of curved tracks, so arranged as to cause the said axes to vibrate upon a given point in the embrasure, substantially as described.

To the above specification of an improved mode of operating guns I have signed my hand this 26th day of May, 1866.

JAS. B. EADS.

Witnesses:

ALEX. A. C. KLAUCKE,
EDWARD H. KNIGHT.