

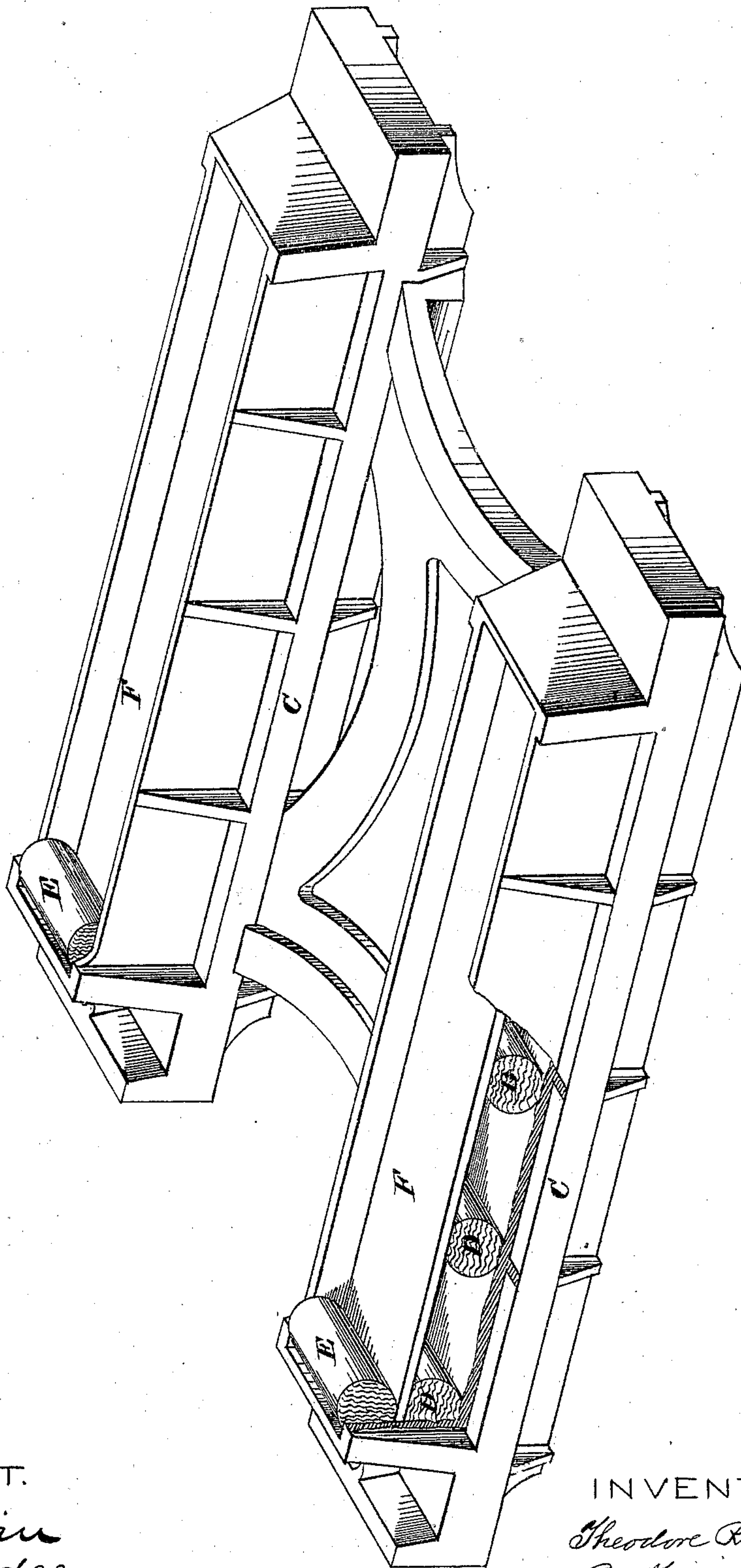
THEODORE R. TIMBY.

Improvement in Gun Carriages.

No. 120,553.

Patented Oct. 31, 1871.

FIG. 1.



ATTEST.

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FIG. 2.

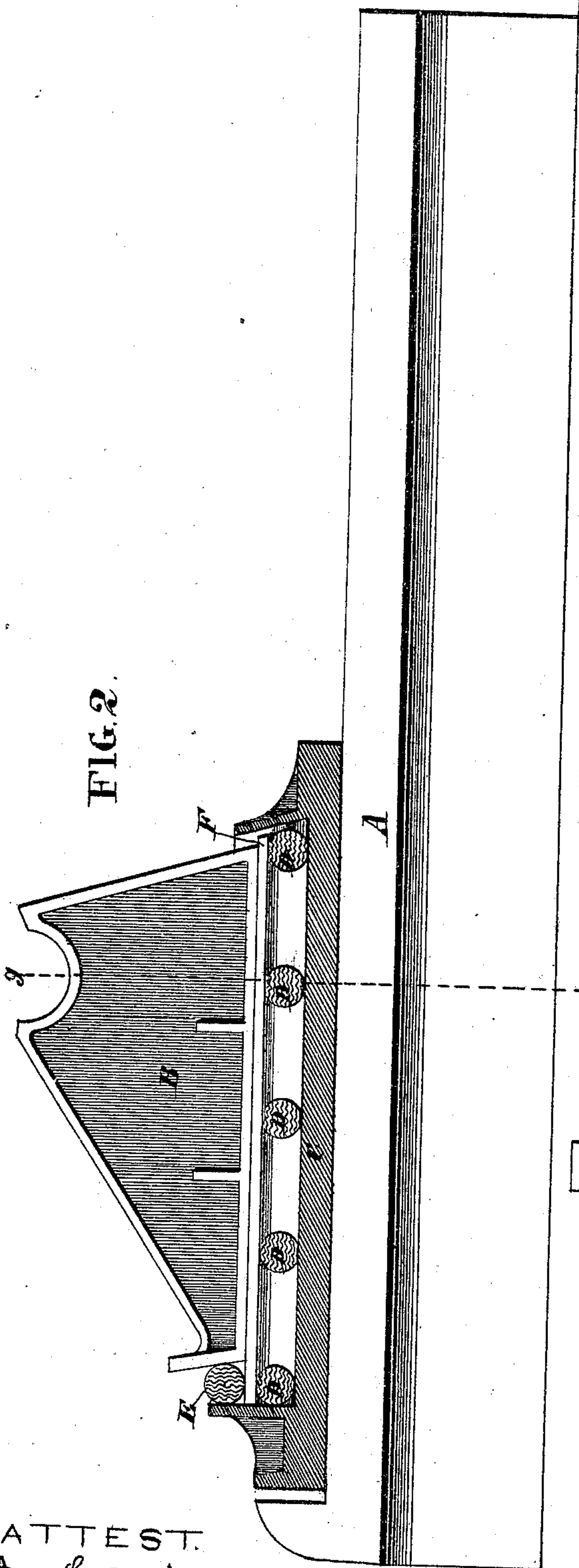
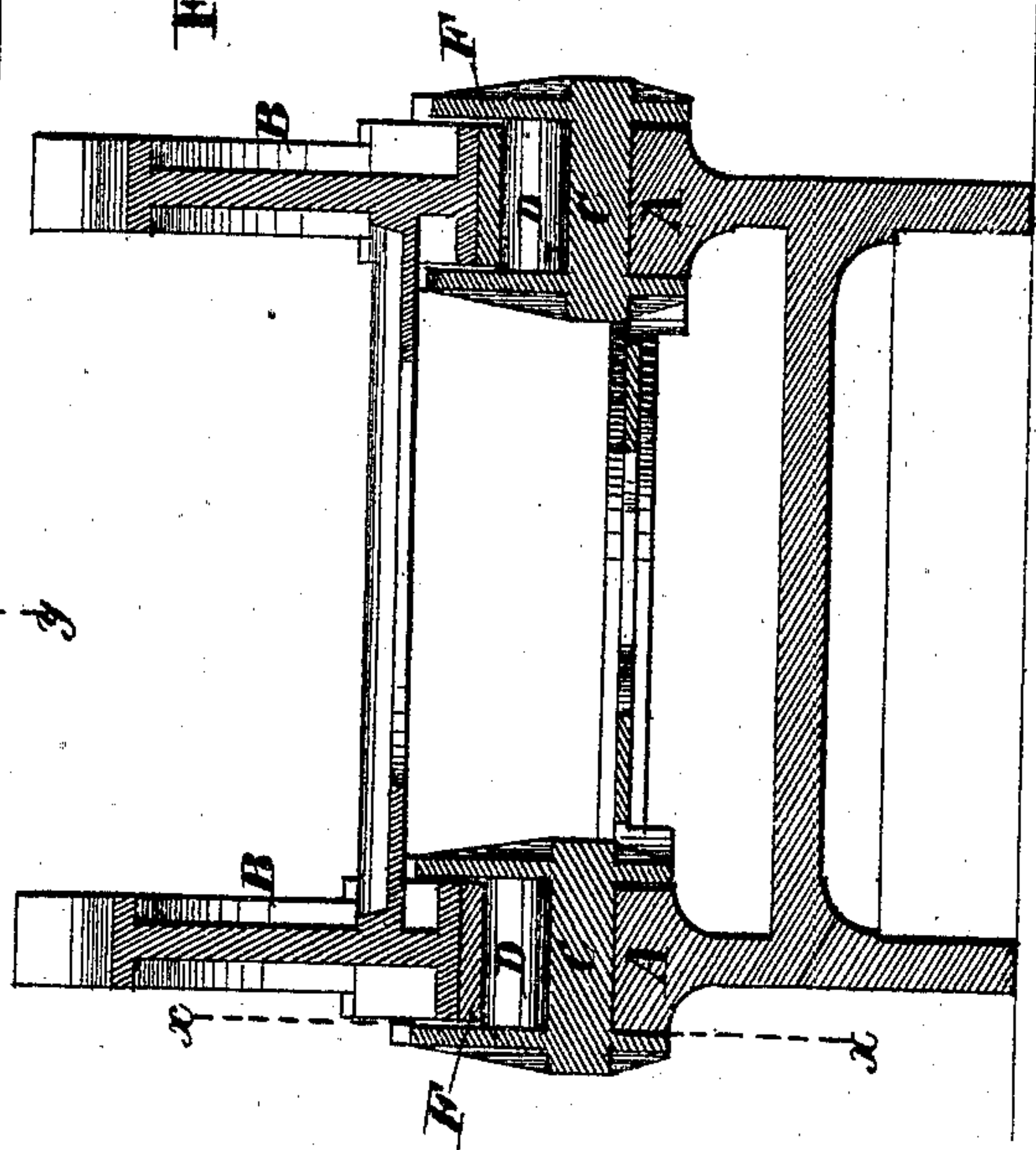


FIG. 5.



ATTEST.
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UNITED STATES PATENT OFFICE.

THEODORE R. TIMBY, OF TARRYTOWN, NEW YORK.

IMPROVEMENT IN GUN-CARRIAGES.

Specification forming part of Letters Patent No. 120,553, dated October 31, 1871.

To all whom it may concern:

Be it known that I, THEODORE R. TIMBY, of Tarrytown, in the county of Westchester and State of New York, have invented a new and useful Improvement in Mounting Ordnance, of which the following is a specification:

My invention relates to the mounting of heavy ordnance; and consists, first, in an appliance which I term a shoe, to be interposed between the cheeks of the gun-carriage proper and the supporting-rails, the said shoe being arranged to slide or run on the said rails while the carriage slides upon or in the shoe. My invention consists, second, in arranging and applying within the aforesaid shoe, or between it and the cheeks of the carriage, springs, in the manner hereinafter set forth, to adapt them to relieve all the supporting parts from concussion, both vertically and horizontally.

In the drawing, Figure 1 is a perspective view of the shoe. Fig. 2 is a vertical longitudinal section of the carriage, shoe, and supporting-rail on the line *x x*, Fig. 3. Fig. 3 is a transverse section of the same at *y y*, Fig. 2.

A A may represent rails, such as are commonly used to support the carriage of a heavy gun. B B are the cheeks of the gun-carriage proper, which may also be of common form, excepting that they are formed at their base to fit within my improved shoe instead of resting directly on the rails, as is usual. C is the shoe, which is fitted to rest upon the rails A, as does the carriage proper under the usual mode of construction. The said shoe is formed above with cavities to receive springs D D D, preferably of rubber, upon which springs I place followers F, which may be formed of simple plates or bars of metal, and constitute ways for the cheeks B to slide in, as hereinafter described. Upon these followers rest the cheeks B of the carriage proper. E are springs interposed between the rear part of the cheeks B and lugs or shoulders G projecting upward from the shoe for the purpose of taking the horizontal or endwise concussion in firing. The springs D and E may be spheres,

cylinders, cones, square blocks, or of other desirable form; or the springs D may be continuous strips or plates of rubber. For running the gun forward after firing any usual or suitable arrangement of wheels or rollers may be employed between the rails and shoe, and also between the shoe and the cheeks B, if desired. In practice a greater longitudinal play than is shown in the drawing may be allowed between the cheeks and the shoe.

When the gun is to be fired the cheeks are run forward in the shoe and the latter is placed at the forward end of the rails. The effect of the recoil is first to run the cheeks back upon the bars F in the shoe until said cheeks come in contact with the springs E, through which the recoil movement is then communicated to the shoe itself, which slides upon the rails until the recoil is taken up.

From the above description it will be seen that I provide a double-recoil movement, first, between the cheeks and the shoe; and second, between the shoe and the supporting-rails. It will also be seen that with my invention the discharge, while the gun is elevated, produces a pressure rather than a blow upon the supporting-rails. I thus provide not only for taking up the longitudinal concussion in firing, but by my mode of applying springs underneath the carriage, as well as at the rear thereof, the supporting parts are entirely relieved, not only of the force of the horizontal concussion or stroke, but also of the great and destructive vertical concussion which now commonly occurs, especially in firing guns at a considerable elevation.

I claim as my invention—

The shoe C, adapted to rest upon the supporting-rails, and provided with springs D E and followers F, upon which the cheeks of the carriage rest, the whole combined substantially as and for the purposes set forth.

THEODORE R. TIMBY.

Witnesses:

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(105)