

A. G. SINCLAIR.
RECOIL-CHECKS FOR GUNS.

No. 178,806.

Patented June 13, 1876.

Fig.1.

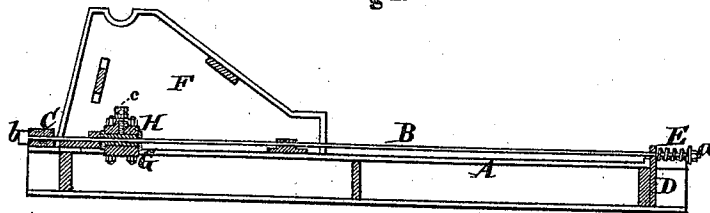
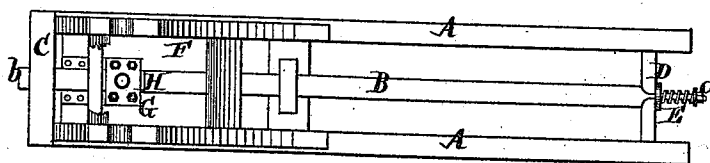


Fig.2.



Witnesses.

Chas. Kahler.
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per
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UNITED STATES PATENT OFFICE.

ALLEN G. SINCLAIR, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN RECOIL-CHECKS FOR GUNS.

Specification forming part of Letters Patent No. **178,806**, dated June 13, 1876; application filed February 9, 1876.

To all whom it may concern :

Be it known that I, ALLEN G. SINCLAIR, of the city of Brooklyn, county of Kings and State of New York, have invented a new and Improved Recoil-Check for Guns, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a longitudinal vertical section of a gun-carriage with my improved recoil-check. Fig. 2 is a plan or top view of the same.

Similar letters indicate corresponding parts.

This invention consists in the combination of a counter-recoil spring with the friction-rail secured midway between the chassis-rails of a gun-carriage, and with a box-clamp and friction-plate attached to the upper carriage, so that the friction-rail is permitted to yield to the counter recoil of the upper carriage, and the danger of buckling or breaking said friction-rail by the counter recoil is avoided.

In the drawing, the letters A A represent the chassis-rails of a gun-carriage. About midway between these chassis-rails is situated the friction-rail B, the front end of which passes loosely through a transom, C, taking the place of the hurters, while its rear end extends through a transom, D, and is subjected to the action of a spring, E, of steel, rubber, or any other suitable material, the tension of which can be regulated by a nut, *a*. The front end of the friction-rail is provided with a head, *b*, which is drawn up firmly against the front tension C by the action of the spring E.

It will be seen from this description that the friction-rail is prevented from moving in the direction of its length toward the rear of the carriage; but it has a longitudinal movement toward the front as far as the spring E will permit.

Said friction-rail is made of a single wrought-

iron bar, either rectangular in its cross-section, or of any other suitable form or shape, and it may be made parallel throughout its whole length, or it may be slightly tapering.

On the upper carriage F is secured a box-clamp, G, and a friction-plate, H, which is subjected to the action of a set-screw, *c*. By means of this set-screw the friction-plate H is so adjusted that the recoil of the upper carriage is taken up by the friction-rail B, allowing said carriage, however, to move to the rear end of the chassis-rails A A. When the recoil of the upper carriage ceases, the strain on the friction-rail is at an end; but the counter recoil of the carriage and the elasticity of the rail react, and if said rail is rigidly attached at both ends, a tendency to "buckle" or to break exists, and the effect of the friction-rail, as a recoil-check, is destroyed. This defect I have obviated by the counter-recoil spring, which permits said friction-rail to move sufficiently in the distance of its length toward the front to permit the counter recoil to take place without producing any damage.

I do not claim, broadly, as my invention, the combination of a friction-rail with a gun-carriage, such having been used heretofore.

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

The guided sliding friction-rail B, having the spring E, in combination with the box-clamp G, and friction-plate H, said box-clamp being secured upon the carriage which moves on the chassis-rails, all constructed and arranged to operate substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 8th day of February, 1876.

ALLEN G. SINCLAIR. [L. S.]

Witnesses:

FRED. B. CHURCHILL,
E. F. KASTENHUBER.