

(No Model.)

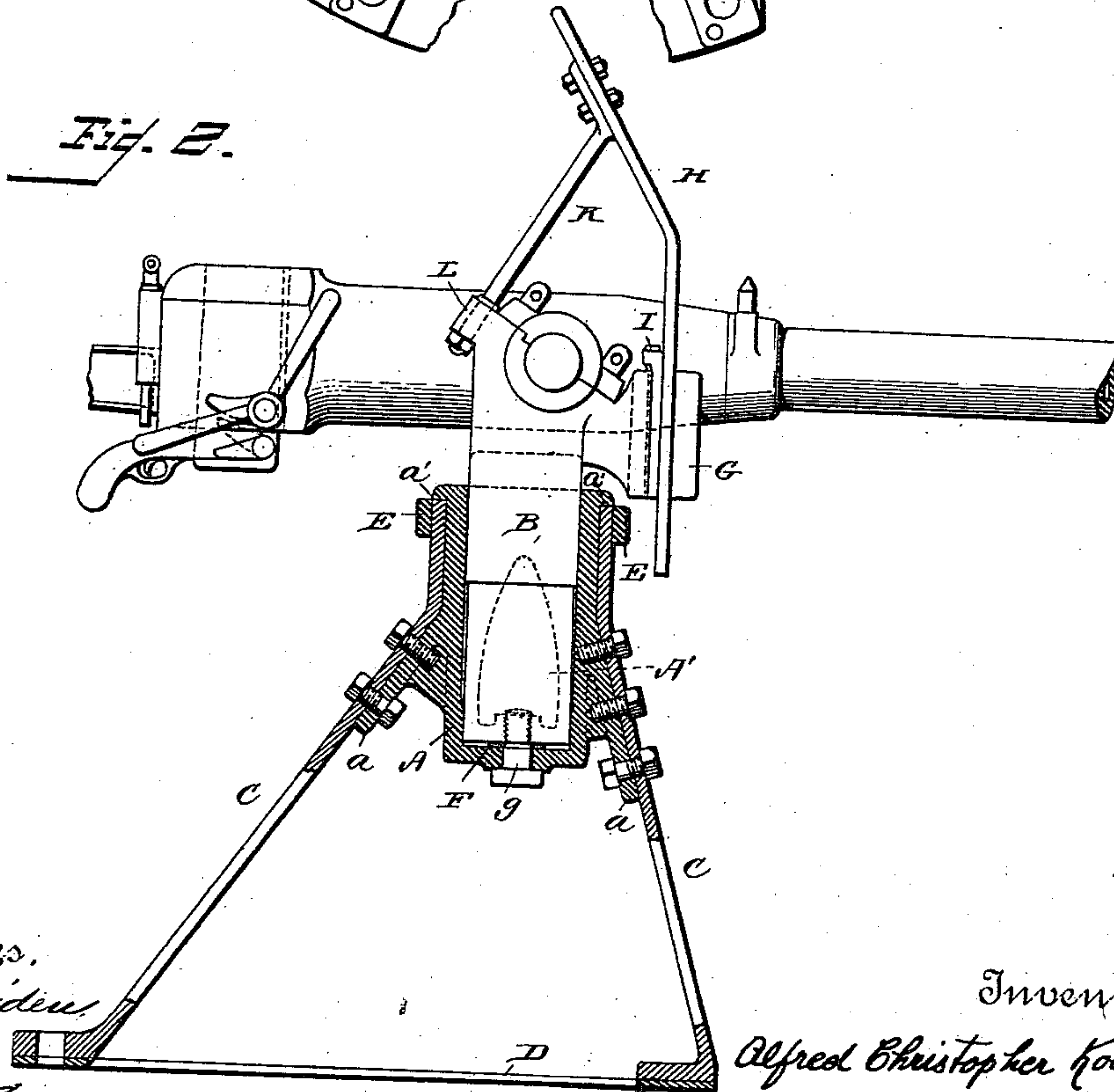
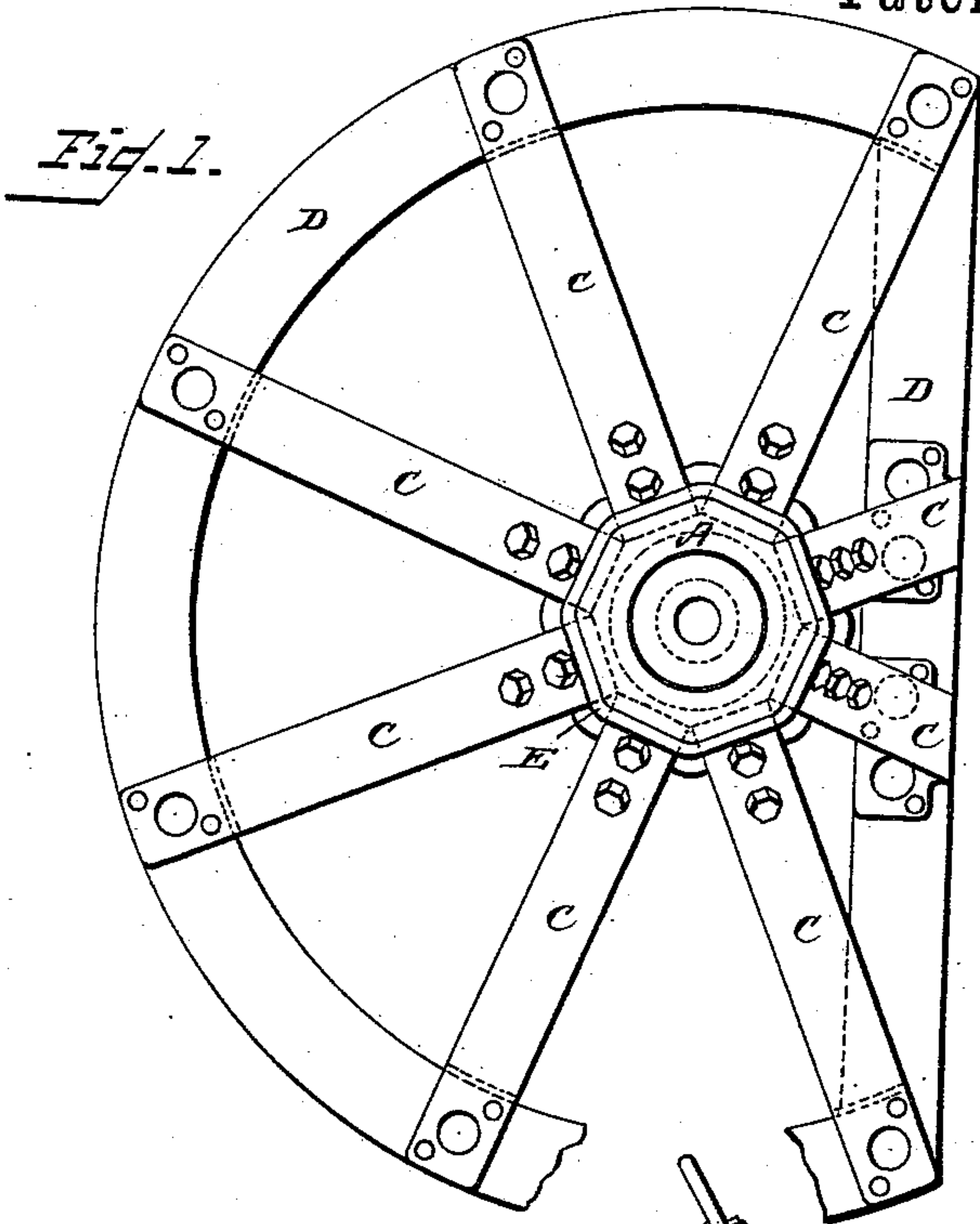
A. C. KOERNER.

2 Sheets—Sheet 1.

ELASTIC PEDESTAL FOR MOUNTING GUNS.

No. 381,475.

Patented Apr. 17, 1888.



Witnesses.
W. F. Spiden
Albert Spiden

Inventor.
Alfred Christopher Koerner
By *his* Attorney.
Woodbury Lowery

(No Model.)

2 Sheets—Sheet 2.

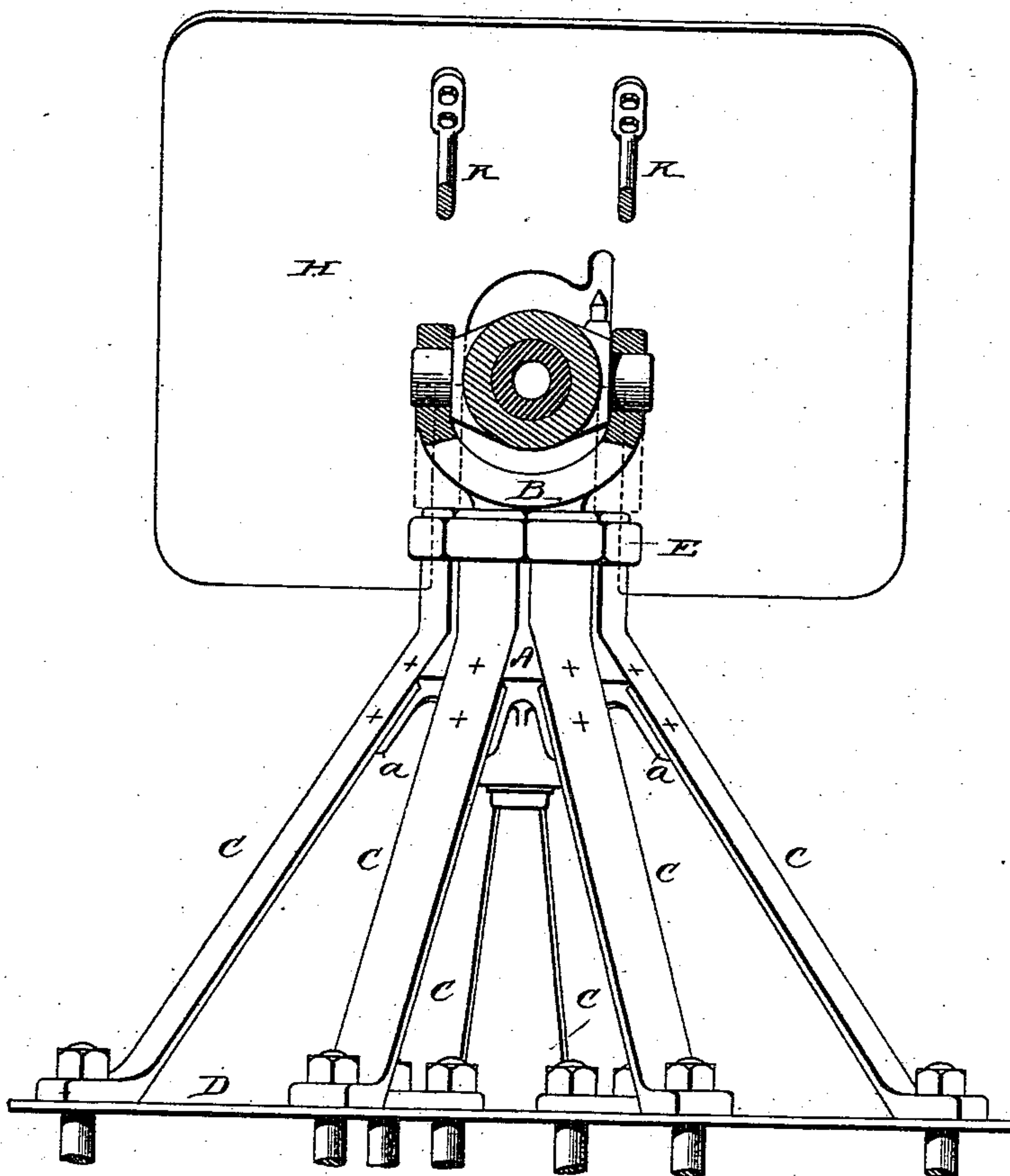
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Fig. 3.



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UNITED STATES PATENT OFFICE.

ALFRED CHRISTOPHER KOERNER, OF PARIS, FRANCE, ASSIGNOR TO THE
HOTCHKISS ORDNANCE COMPANY, (LIMITED,) OF ENGLAND.

ELASTIC PEDESTAL FOR MOUNTING GUNS.

SPECIFICATION forming part of Letters Patent No. 381,475, dated April 17, 1888.

Application filed December 17, 1887. Serial No. 258,218. (No model.) Patented in England March 6, 1885, No. 2,944.

To all whom it may concern:

Be it known that I, ALFRED CHRISTOPHER KOERNER, a subject of the Queen of Great Britain, residing at Paris, France, have invented certain new and useful Improvements in Elastic Pedestals for Mounting Guns, (patented in England as No. 2,944 of March 6, 1885;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of a mounting designed especially for such guns of light caliber and rapidity of fire which require to be mounted without recoil in order to gain the full advantage of the rapidity which their action or mechanism will permit. An absolutely rigid mounting, however, would be likely to overstrain the construction and fastenings, and when used on shipboard would tend to shake the deck of the vessel violently.

In order to relieve the deck and mounting from the shocks of the discharge, I construct a mount or pedestal which is elastic in itself, and which, by means of its elasticity, allows a slight amount of movement to the gun sufficient to prevent the destruction of the mount or pedestal itself by the repeated jars and shocks from firing, and when used on shipboard sufficient to relieve the deck of the violent percussions.

The mount or pedestal consists of a block to which the gun is secured adjustably or otherwise. The block is provided with downwardly-extending radiating legs attached at their lower extremity to a base-ring, the general outline of the pedestal being somewhat that of a cone. For use on vessels the base-ring is generally D-shaped in order to enable the gun to be brought as near up to the gunwale of the vessel as possible. This mount is principally intended for the Hotchkiss rapid-firing gun, patented in England December 30, 1881, No. 5,435, and January 13, 1883, No. 215, and is so shown in the accompanying drawings, in which case the block to which the legs are fastened has in it a socket into which fits the forked pivot which carries the gun by its trunnions, and thus forms a universal joint

and allows the gun to be trained in any direction; but the design with suitable modifications can be used for any other similar kind of gun.

In the accompanying drawings, which illustrate my invention, Figure 1 is a plan; Fig. 2, a lateral elevation, partly in section; and Fig. 3, a rear elevation of a mount of the aforesaid description, in which is adapted a rapid-firing cannon.

A is a block having a socket, A', in which is located the forked pivot B, which carries the gun by its trunnions, and thus forms a universal joint, allowing the gun to be trained in any direction. This socket-block A has as many radiating lugs or ears *a a* as there are legs to the mount or pedestal—generally eight. The legs C C are screwed or riveted to the lugs, while their bottom ends are bent round and attached to a base-ring, D. This base-ring D is shown in Fig. 1 in the shape of a letter, D, in order to enable the gun to be brought as near up to the gunwale of the ship as possible, and is simply a templet for maintaining the rivet-holes in the lower extremity of the legs C in alignment with those in the floor for the ready introduction of the bolts, as shown in Figs. 1 and 3; but I do not limit myself to this particular shape of the base-ring; neither is it essential to the operation of the elastic mount, which may be fastened directly to the floor.

The legs C C are bent at their upper extremity and fit into recesses *a'* formed in the socket-block A, so as to relieve the fasteningscrews or rivets from shearing effects; and, finally, a ring, E, is driven or shrunk warm around the legs C and the socketed block A to bring the parts into direct and absolute contact and thus form a strong connection between the block and the legs, which is able to resist the bending and twisting action caused by the shock while firing.

In order to reduce the friction of the pivot B in its socket A' and to prevent its gripping, a polished steel washer, F, is interposed between the base of the pivot and the bottom of the socket, which is held in place by the locking-screw *g*. This connection pre-

vents the gun and the pivot from jumping up when fired at depression.

In cases where the gun is provided with a shield, H, for the protection of the gunners, the pivot has two forward channeled supports, G G, and the shield H fits, horseshoe-like, into them, where it is kept in place by wedges I I, inserted in the grooves, Fig. 1. It is furthermore supported by strong back rods or stays, K K, bolted to shield H, and held at their bottom end in lugs L L, cast on the rear of the pivot.

I do not limit myself to the mode of mounting the gun on the pedestal, to the number of legs, nor to the manner of attaching the legs to the block, the essence of my invention consisting in providing a pedestal-mount for guns which has sufficient rigidity and strength to support the gun and at the same time sufficient elasticity to allow of as slight amount of movement to the gun without injury to itself.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an elastic pedestal for mounting guns, the combination of the gun-supporting block, radiating elastic legs secured thereto, and a base-ring, substantially as described.

2. In an elastic pedestal-mounting for guns, the combination of the gun-supporting block A, having recesses *a'* for receiving the upper extremity of the legs, and radiating lugs *a*, to which the legs are secured, elastic legs C, ring E, binding the upper extremities of the legs to the block, and base-ring D, uniting the

lower extremities of the legs, substantially as described.

3. The combination of the gun, its pivot B, block A, having socket *A'* for receiving the pivot of the gun, and radiating elastic legs secured to block A at one extremity and to the base-ring D at the other, substantially as described.

4. In an elastic pedestal-mounting for guns, the combination, with block A, having socket *A'*, of the steel washer F and locking-screw *g*, interposed between the base of the pivot and the bottom of the socket, substantially as and for the purpose set forth.

5. The combination, with a machine-gun turning upon a pivot, of pivot B, forward channel-supports G G, projecting from the pivot on each side of the gun, wedges I I, back-stays K K, lugs L L, extending from the pivot to the rear on each side of the gun and to which the back-stays are secured, and shield H, straddling the gun and supported by the back-stays and forward supports, substantially as and for the purpose hereinbefore set forth.

6. In an elastic pedestal for mounting guns, the combination of the gun-supporting block and the radiating elastic legs secured thereto, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED CHRISTOPHER KOERNER.

Witnesses:

J. L. RATHBONE,
J. B. BOURNE.