A. T. DAWSON & G. T. BUCKHAM.
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APPLICATION FILED MAY 11, 1907.

906,511.

Patented Dec. 15, 1908.

4 SHEETS—SHEET 3.

WITNESSES
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F. Kerckowtitz

INVENTORS
Arthur Trevor Dawson
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UNITED STATES PATENT OFFICE.

ARTHUR TREvor DAWSON AND GEORGE THOMAS BUCKHAM, OF WESTMINSTER, LONDON, ENGLAND, ASSIGNORS TO VICKERS SONS & MAXIM LIMITED, OF LONDON, ENGLAND.

ADJUSTABLE TRIPOD STAND OR MOUNTING FOR AUTOMATIC GUNS.


Application filed May 11, 1907. Serial No. 373,067.

To all whom it may concern:

Be it known that we, ARTHUR TREvor DAWSON, lieutenant Royal Navy, director and superintendent of Ordnance Works, and GEORGE THOMAS BUCKHAM, engineer, both subjects of the King of Great Britain, residing at 32 Victoria street, Westminster, in the county of London, England, have invented certain new and useful Improvements in Adjustable Tripod Stands or Mountings for Automatic Guns, of which the following is a specification.

This invention relates to adjustable tripod stands for automatic guns and has for its chief object to provide such stands with means for enabling the adjustment or setting of the trail and front legs thereof to be effectuated within wide limits and mechanically instead of by hand as heretofore.

In the accompanying drawings Figures 1, 2, 3, and 4 are side elevations illustrating our improved tripod stand (together with the gun it carries) in several different positions. Fig. 5 is a vertical section, on a larger scale, showing the frame to which the trail and front legs of the tripod are hinged; the bracket or top carriage in which the gun is trunnioned is also shown. Fig. 6 is a horizontal section taken approximately on the line 1-1 of Fig. 5, and Fig. 7 is a plan.

The gun is trunnioned in the bracket or top carriage A which is capable of lateral displacement about a pivot a carried by the frame B to which the trail C and front legs C' of the tripod are hinged; the former at the point c and the latter at the point c', a suitable clamping device A' being provided to lock the top carriage and gun in the desired laterally shifted position on the frame B.

The said bracket A also carries at its rear end the elevating gear which may comprise telescopic screws A° A', the former of which is pivotally connected with the gun and the other engaged with a clamping nut c° on said bracket, the said screws being actuated by a hand wheel c' or the like.

The ends of the trail and front legs adjacent to their hinged connection at c and c' with the aforesaid frame, are prolonged inwardly to form extensions c° c'. These extensions are connected by cross pins D D with a cross-head E situated within the said frame and adapted to slide in vertical guides b b. The aforesaid cross pins D engage with horizontal slots e e in the said cross head and also with curved slots b° b' in the said frame, the curvature of these slots being struck from the center of the hinge connections c° c' of the trail and front legs to the said frame.

By suitable means such as a vertical screw F carried by the frame and engaging with threads formed in the said cross head E, the latter can be moved up or down in the guides b in the frame thereby causing the trail and front legs of the tripod to assume the desired position, in accordance with the height from the ground the gun is to occupy. For actuating the said screw, we have shown bevel pinions f f° operated by a detachable crank handle f situated at one side of the mounting.

The front legs of the tripod have joints c° about which they can be folded when the tripod is to be collapsed for traveling, suitable butterfly nuts c° or the like being provided for retaining the front legs in their open position, or in their closed position shown by Fig. 4.

To secure the front legs in open position, the joints c° are pivoted joints, the legs C' being mounted on suitable pivots tapped into webs formed on the extensions c° of the front legs and screwed at the outer ends to carry the butterfly nuts c° which can be tightened or slackened to lock the front legs or permit of them turning about the aforesaid pivots as desired.

The trail C as well as the front legs C' of the tripod, being all pivotally connected with the aforesaid frame B, will enable the gun to lie quite close to the ground, owing to the fact that the trail and front legs will assume, if required, a position of alignment as shown by Fig. 3.

What we claim and desire to secure by Letters Patent of the United States is:

1. In an adjustable tripod stand or mounting for a gun, the combination with the legs and trail of means for operating said legs and trail mechanically in either direction for extending and contracting the same.

2. In an adjustable tripod stand or mounting for a gun, the combination with the legs and trail of said mounting of a frame to which the legs and trail are pivoted, gearing communicating motion to said legs and trail in either direction about their pivots for extending and contracting the same, and mechanical means for actuating said gearing.

3. In an adjustable tripod stand or mounting for a gun, the combination with the legs
and trail of said mounting, of a frame to which the legs and trail are pivoted, an adjustable cross-head to which the inner ends of said legs and trail are connected, gearing communicating motion to said cross-head, and means for actuating said gearing.

4. In an adjustable tripod stand or mounting for a gun, the combination with the legs and trail of said mounting, of a frame to which the legs and trail are pivoted, an adjustable cross-head, inward extensions on said legs and trail pivotally engaging with said cross-head, gearing communicating motion to said cross-head, and means for actuating said gearing.

5. In an adjustable tripod stand or mounting for a gun, the combination with the legs and trail of said mounting, of a frame to which the legs and trail are pivoted, a vertically adjustable cross-head, inward extensions on said legs and trail, transverse pins engaging with said inward extensions, with slots in said cross-head, and with curve slots in said frame, gearing communicating motion to said cross-head, and means for actuating said gearing.

6. In an adjustable tripod stand or mounting for a gun, the combination with the legs and trail for said mounting, of a frame to which the legs and trail are pivoted, a vertically adjustable cross-head, inward extensions on said legs and trail, transverse pins engaging with said inward extensions, with slots in said cross-head, and with curved slots in said frame, a vertical screw engaging with corresponding threads in said cross-head, bevel gearing for communicating rotary motion to said vertical screw, and a detachable handle for actuating said bevel gearing.

In testimony whereof we affix our signatures in presence of two witnesses.

ARTHUR TREYOR DAWSON.
GEORGE THOMAS BUCKHAM.
Witnesses:
HENRY KING,
C. A. SEARLE.