

No. 614,042.

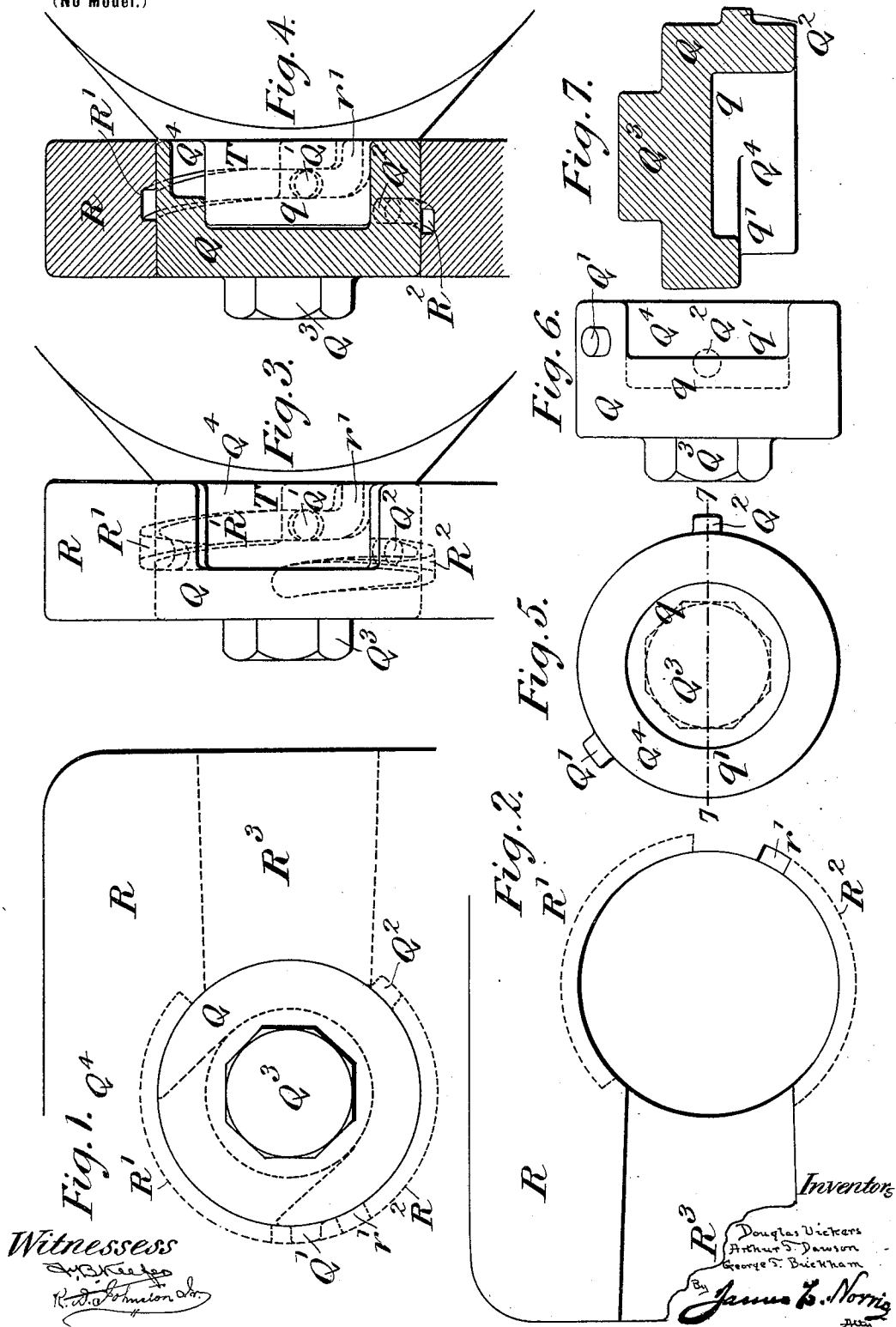
Patented Nov. 8, 1898.

D. VICKERS, A. T. DAWSON & G. T. BUCKHAM.

GEARING FOR TRUNNIONS OF HEAVY GUNS.

(Application filed Apr. 14, 1898.)

(No Model.)



UNITED STATES PATENT OFFICE.

DOUGLAS VICKERS, ARTHUR TREVOR DAWSON, AND GEORGE THOMAS BUCKHAM, OF SHEFFIELD, ENGLAND, ASSIGNORS TO VICKERS SONS & CO., LIMITED, OF SAME PLACE.

BEARING FOR TRUNNIONS OF HEAVY GUNS.

SPECIFICATION forming part of Letters Patent No. 614,042, dated November 8, 1898.

Application filed April 14, 1898. Serial No. 677,623. (No model.)

To all whom it may concern:

Be it known that we, DOUGLAS VICKERS, a managing director of Vickers Sons & Maxim, limited, ARTHUR TREVOR DAWSON, late lieutenant Royal Navy, superintendent of Ordnance Department, and GEORGE THOMAS BUCKHAM, engineer, citizens of England, all residing at River Don Works, Sheffield, in the county of York, England, have invented certain new and useful Improvements in Bearings for the Trunnions of Heavy Guns, of which the following is a specification.

This invention relates to a construction of the bearings for the trunnions of a heavy gun in such a manner that the gun can be withdrawn from its mounting without having to be lifted.

Figure 1 of the accompanying drawings is an outside elevation, Fig. 2 is an inside elevation, and Fig. 3 is an end elevation, of part of the mounting, in which is formed the bearing for the trunnion. Fig. 4 is a vertical section on the line 4 4 on Figs. 1 and 2. Fig. 5 is an elevation of the inside face, and Fig. 6 is a side elevation of the cap which forms the bearing for the trunnion. Fig. 7 is a sectional plan on the lines 7 7 of Fig. 5.

The mounting R has through it a round hole, in the interior periphery of which are formed two helical slots R' and R², from one of which there is an opening r' to the inner side of the mounting. There is also a slot R³ from the hole to the rear edge of the mounting. Into the hole of the mounting is fitted a cap Q, which has two studs Q' Q² projecting from its circumference, and a polygonal head Q³, to which a suitable wrench can be applied so as to turn the cap around. The cap has a circular recess q, which fits the trunnion T, and from this recess there extends to the periphery a slot q' of less depth than the recess q.

The operations of placing the gun in position on the mounting and removing it therefrom are performed as follows: The gun being away, the cap Q is inserted into the hole

of the mounting R from its inside, the two studs Q' Q² entering by the openings R³ r'. The cap Q being then turned around so as to bring its slot q' in line with the slot R³ of the mounting, the gun is advanced so that the trunnion T enters the slot R³ and passes along it and the slot q'. The cap being then turned around until its slot q' reaches the position shown in Fig. 1, the movement of the studs Q' Q² along the helical slots R' R² having at the same time caused the cap to move inward, the trunnion T is now secured in the recess q. For removing the gun the cap is turned until its slot q' coincides with R³, and then the trunnion T is free to move backward.

Having thus described the nature of this invention and the best means we know for carrying the same into practical effect, we claim—

A bearing for the trunnion of a heavy gun consisting of a cap Q, recessed to receive the trunnion T, and having a slot q' which by partly turning the cap is brought into coincidence with a slot R³ in the mounting, thus allowing passage of the trunnion, the cap being also provided with studs Q', Q², engaged in helical slots R', R², in the mounting R, so that when the cap is turned back the trunnion T is engaged in its circular recess q.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

DOUGLAS VICKERS.
ARTHUR TREVOR DAWSON.
GEORGE THOMAS BUCKHAM.

Witnesses to the signature of the said Douglas Vickers:

HENRY GLOVER COOLEY,
HAROLD P. BURDEKIN.

Witnesses to the signatures of Arthur Trevor Dawson and George Thomas Buckham:

EDMUND S. SNEWIN,
WM. O. BROWN.