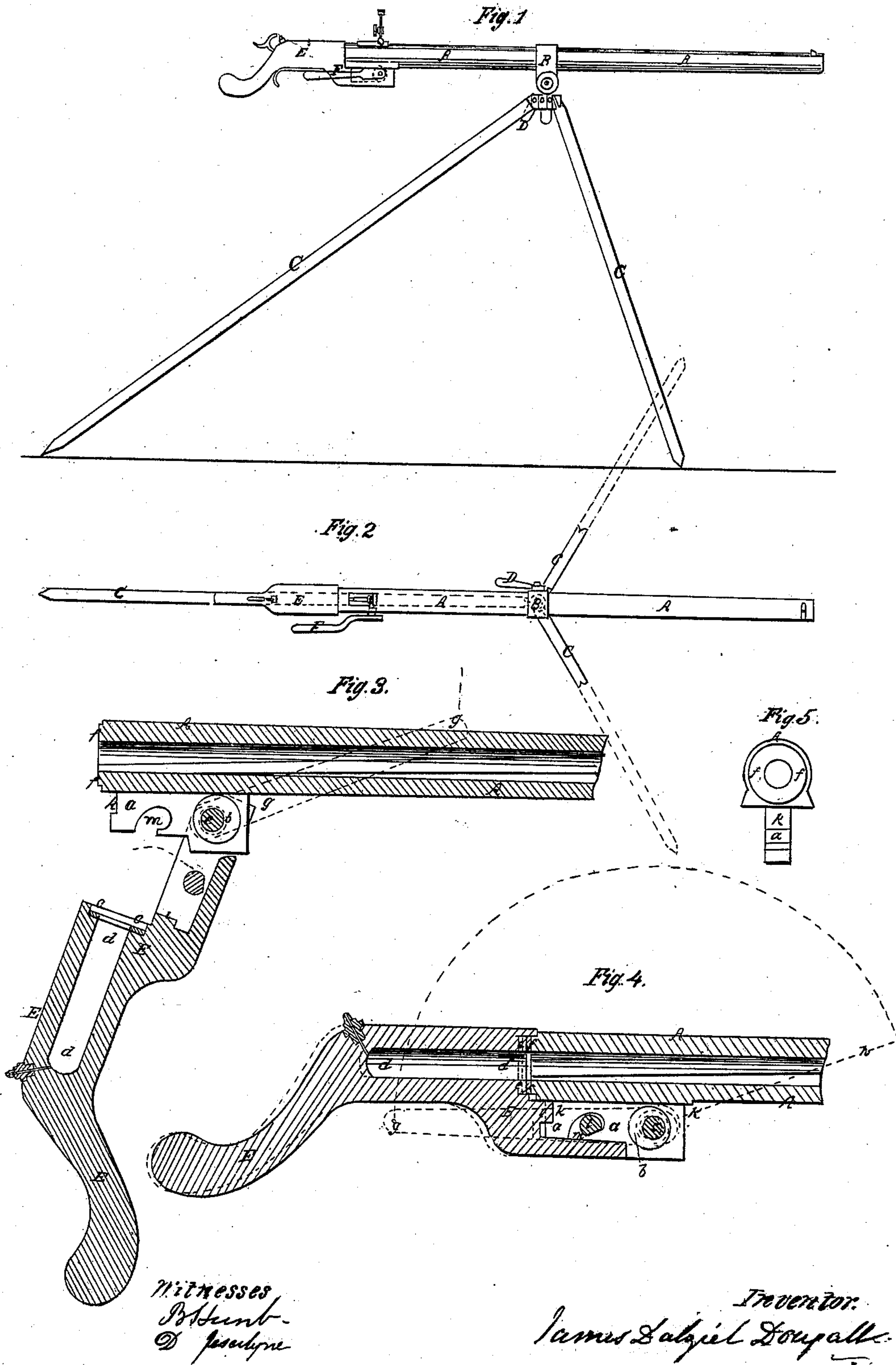


J. D. DOUGALL
Breech-loading Fire-arm.

No. 49,844.

Patented Sept. 5, 1865.



UNITED STATES PATENT OFFICE.

JAMES DALZIEL DOUGALL, OF WESTMINSTER, GREAT BRITAIN.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 49,844, dated September 5, 1865.

To all whom it may concern:

Be it known that I, JAMES DALZIEL DOUGALL, of No. 59 Saint James Street, Westminster, in the county of Middlesex, Kingdom of Great Britain and Ireland, have invented certain new and useful Improvements in Breech-Loading Guns and Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the figures and letters of reference marked thereon.

This invention applies to guns known in warfare as "camel-guns" or "wall-pieces," and such other light artillery as can be readily carried from place to place, as required, and fired from a tripod or other stand, or from the top of a wall or bank, and are principally directed against the enemy's artillerymen, the object of the invention being to render such pieces capable of being loaded at the breech, and to prevent the inconvenience and danger arising from the recoiling of the same, the invention being also applicable to "punt-guns" used in wild-fowl shooting, and to such other heavy fowling-pieces or rifles as are fired from a rest.

The invention consists, first, in a peculiar manner of hinging the breech-piece to the barrel by means of a pin and eccentric, on operating which the breech-piece may be moved away from or toward the rear end of the barrel, as described hereinafter; secondly, in a device for locking the breech-piece to the barrel and maintaining them in line with each other; and, thirdly, in a device for guiding the breech-piece to its proper position in relation to the barrel.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 represents a side elevation of one of my improved camel-guns fitted on a tripod-stand, and Fig. 2 is a plan view of the same as seen from above. These figures are drawn to a scale of about two inches to a foot.

A A is the barrel, fitted with a swiveling socket, B B, supported on the tripod C C, so that any required elevation may be given to the piece at the same time that it can be pointed

laterally in any direction. D D is a handle fixed on the end of a tightening-screw, by means of which the piece is fixed when adjusted. E E is the breech-piece, and F F the locking-lever. The details of the arrangements of these parts will be best seen in the enlarged views, Figs. 3, 4, and 5, which are drawn about half the actual size.

Fig. 3 is a longitudinal section of the rear end of the barrel and breech-piece, the latter being shown as depressed; and Fig. 4 is a similar view with the breech-piece raised and locked in a line with the barrel. Fig. 5 is an end view of the barrel.

I would here remark that the breech-piece may either be bored out to receive the charge, as shown in the drawings, or the breech-piece may be entirely solid and the breech end of the barrel bored or chambered out for the same purpose, in which latter case the arrangements for igniting the charge will have to be attached to the barrel instead of the breech-piece.

Under the breech end of the barrel A A is a tongue, *a a*, in a recess in which the eccentric *b b*, keyed upon the pin *c c*, fits, by means of which latter the breech-piece E E is hinged to the tongue *a a*. The chamber in which the charge is placed is shown at *d d* and the annular recess in the breech-piece at *e e*. *f f* is the projection on the rear end of the barrel, which fits therein. *g g* is the lever by means of which the pin *c c*, with its eccentric *b b*, is turned round.

On referring to Fig. 4 it will be seen that upon turning the lever *g g* over into the position represented by the dotted line *h h* the eccentric *b b* will be turned partly round, which will force the breech-piece back into the position drawn in dotted lines in that figure. The recess *e e* will then be clear of the projection *f f*, at the same time that the projection *i i* on the breech-piece will be removed from the recess *k k* in the tongue *a a*, and the breech-piece will fall down to any desired position or angle, as represented in Fig. 3, when it can be conveniently loaded; and on bringing it up again into a line with the barrel and turning the lever *g g* over to the rear the breech-piece will be locked fast ready for firing.

l l is a pin fixed in the breech-piece, and *m m*

a notch cut in the tongue *a a*, their working-surfaces being slightly inclined so as to wedge up the breech-piece and bring it into a perfect line with the barrel before the projection *f f* enters the recess *e e*.

Without confining myself to the precise form and dimensions of the several parts above described, I claim as my invention and desire to secure by Letters Patent—

1. The combination of the breech-piece *E*, its recess *e*, the pin *c*, eccentric *b*, and barrel *A*, with its annular projection *f*, the whole being constructed, arranged, and operating substantially as and for the purpose herein set forth.

2. The projection *i* on the breech-piece, in

combination with the notch *k* in the tongue on the under side of the barrel.

3. The pin *l* on the breech-piece, in combination with the inclined or curved notch *m* in the breech-piece, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES DALZIEL DOUGALL.

Witnesses:

BRISTOW HUNT,
Solicitor and Patent Agent, 1 Serle Street, London.

DOUGLAS JOSCELYNE,
Clerk, 1 Serle Street, London.