W. M. SCOTT.

Breech-Loading Fire-Arm.

No. 108,942. Patented Nov. 1, 1870.

FIG. 1

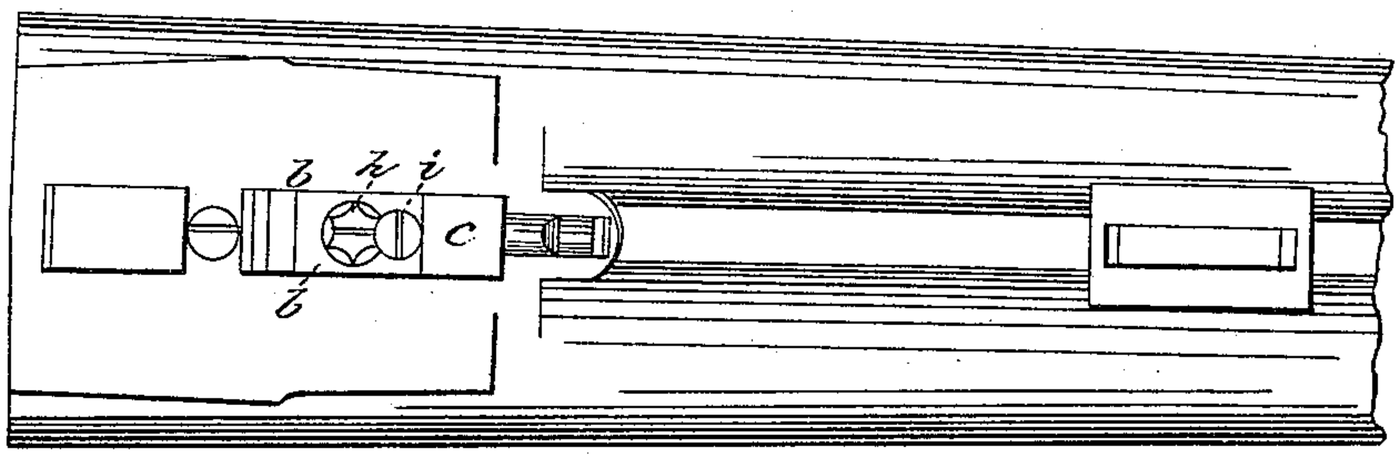

FIG. 2

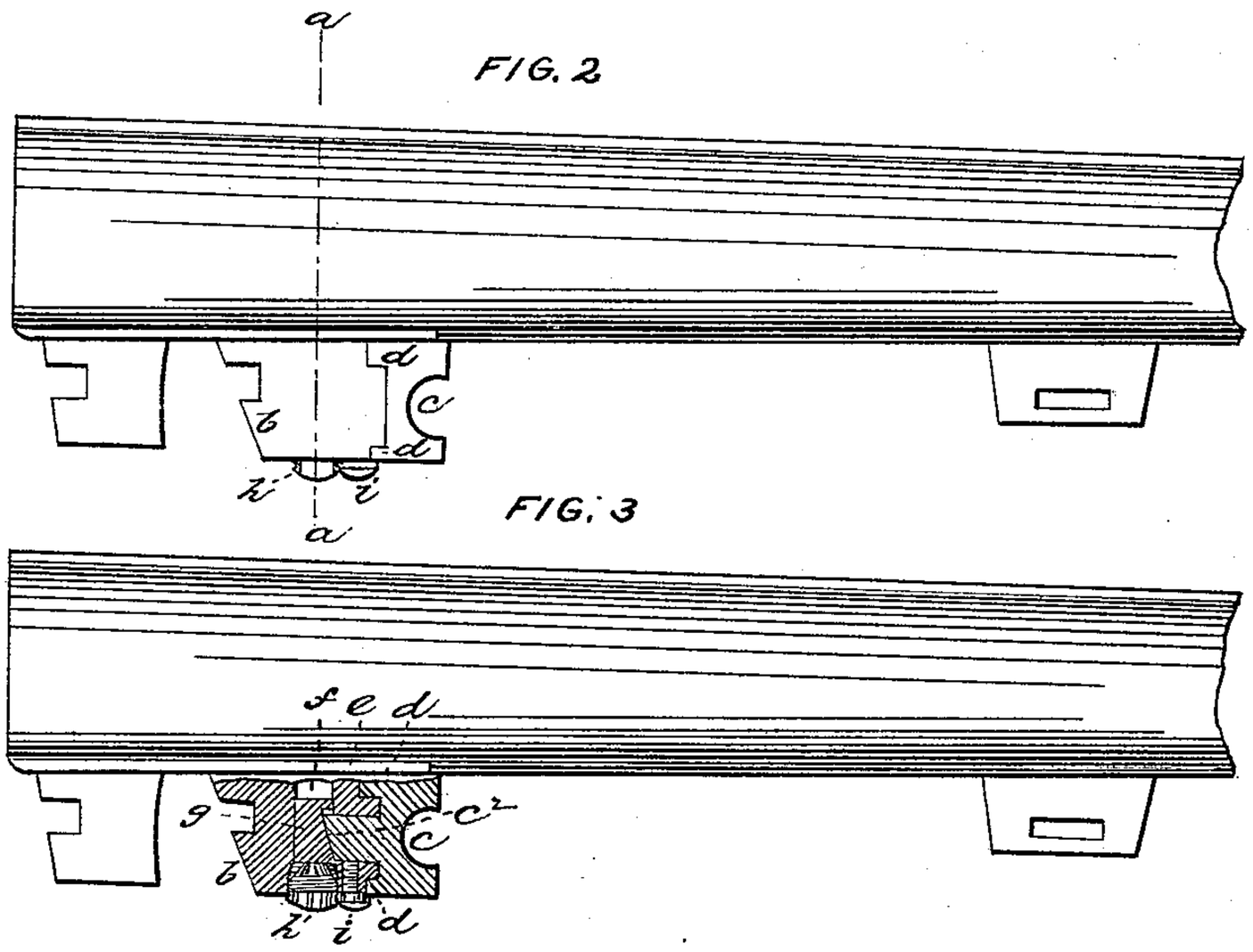

FIG. 3

FIG. 4

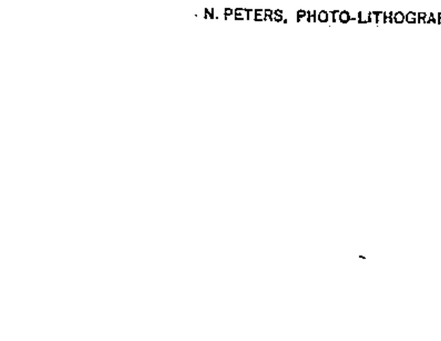

FIG. 5

FIG. 6

WITNESSES:

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WILLIAM MIDDLEDITCH SCOTT, OF BIRMINGHAM, ENGLAND.

Letters Patent No. 108,942, dated November 1, 1870.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

The Schedule referred to in these Letters Patent and making part of the same.

To all to whom it may concern:

Be it known that I, WILLIAM MIDDLEDITCH SCOTT, of the firm of W. and C. SCOTT & SON, of Birmingham, in the county of Warwick, England, gun manufacturers, a subject of the Queen of Great Britain, have invented or discovered new and useful "Improvements in Breech-loading Fire-Arms;" and I, the said WILLIAM MIDDLEDITCH SCOTT, do hereby declare the nature of the said invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof; that is to say:

My invention relates to breech-loading fire-arms of the kind commonly called drop-down guns, and consists of the improvements hereinafter described in the construction of the joint on which the barrel or barrels turn, the said improvements having for their object to preserve the close contact of the breech ends of the barrels against the face of the break-off when the barrels are shut down, notwithstanding the wear to which the said joint is exposed.

In constructing the joints of drop-down guns according to my invention, I make the parts in the ordinary manner, excepting that instead of making that part of the joint called the hook on the end of the lump on the under side of the barrels in one piece with the said lump, I make the said hook separate from the lump and connect it therewith and adjust it in the following manner:

I make the said hook of a separate block or piece of iron or steel, having at its back a stem.

In the end of the lump on the barrels is a hole or recess, of a size proper to receive the said stem at the back of the hook. Across the lump another hole is made, into which the former-described hole opens. The end of the stem at the back of the hook projects into the cross-opening in the lump, and takes its bearing against the conical body of a screw, which is screwed into the cross-opening. By the advance of the said conical screw in the said cross-opening, its inclined body is made to push outward the stem of the hook to a greater or lesser extent, and when, by wear of the said hook upon the joint-pin of the gun, the breech ends of the barrels no longer bear closely against the face of the break-off, it is only necessary to turn and advance the said screw in the cross-opening when the hook of the joint is again brought into proper adjustment, and the breech ends of the barrels are made to bear closely against the face of the break-off. After the conical screw has been adjusted it may be fixed by a set-screw or pin. Besides the stem described, the hook may be provided with a guide in order to give it greater steadiness and firmness on the end of the lump.

Instead of effecting the adjustment of the separate hook of the joint by a screw, it may be adjusted by a wedge or other inclined surface.

Having explained the nature of my invention, I will proceed to describe, with reference to the accompanying drawing, the manner in which the same is to be performed.

Figure 1 represents, in plan of under side, the barrels of a double drop-down gun, to which an adjustable joint-hook, constructed according to my invention, is applied;

Figure 2 is a side elevation of the same; and

Figure 3 is the same, with the adjustable joint-hook in longitudinal section.

Figure 4 is a cross-section of the same, taken on the line *a*, fig. 2; and

Figures 5 and 6 are parts of my invention separately.

The same letters indicate the same parts in each figure.

b is the lump on the under side of the barrels, with which lump the fastening-bolt engages in the usual way. The front of the said lump is usually called the hook, which hook and the fixed cross-pin on the body of the gun constitute the joint on which the barrel or barrels turn.

According to my invention the front or hook *c* of the lump is made separate from the fixed hind part *b*, and the said separate hook is capable of a limited sliding motion upon the said hind part *b* of the lump by means of the guides *d d*, with which the back parts of the separate hook engage in the manner best seen in figs. 2 and 3. The separate joint-hook is represented detached in fig. 5.

The separate joint-hook *c* has a stem, c^2, at back, which works in a longitudinal hole, at *e*, in the lump *b*. The end of the stem c^2 is inclined.

Across the lump *b* is a second hole, *f*, into which the longitudinal hole *e* opens, (see the section, fig. 3.)

The inclined end of the stem c^2 of the hook *c* projects into the cross-hole *f*.

In the cross-hole *f* is a wedge, *g*, (shown separately in fig. 6,) adjusted in the said hole by the screw *h*. The inclined face of the wedge *g* bears against the inclined end of the stem c^2 of the hook *c*, and supports the said hook in its adjusted position.

By means of a screw, *i*, engaging with one of a series of cut-away parts or notches on the head of the screw *h*, (see fig. 1,) the said screw *h* may be locked in its place, and the position of the wedge *g*, and, consequently, that of the hook *c*, preserved.

When, by wear of the hook *c* upon the joint-pin of the gun, the breech ends of the barrels no longer bear closely against the face of the break-off, the lock-screw *i* is first turned and removed from the head of the

screw *h*, so as to permit of the motion of the said screw *h*. The said screw *h* is next turned and advanced so as to raise the wedge *g* in the cross-hole *f*. By this means the said wedge *g*, bearing more or less against the inclined end of the stem c^2, pushes outward the hook *c* to the required extent, and thereby compensates for the wear of the said hook. The adjusted hook *c* is finally fixed by driving home the screw *i* and causing it to engage with the adjusting-screw *h*.

Although I have shown in the accompanying drawing a separate wedge or inclined surface pushed home by a separate screw for adjusting the separate hook, yet a conical screw, working in the hole *f* in the lump, may be used for that purpose; or a second wedge or inclined surface may be used for advancing the wedge against which the stem of the hook bears, but I wish it to be understood that I do not limit myself to any particular method of advancing the separate hook, as it may be effected in various ways.

I claim as my invention of improvements in breech-loading fire-arms of the kind called drop-down guns—

The combination, with the lump on the under side of the barrel or barrels, of a separate joint-hook, adjustable on said lump by means substantially as herein described, whereby the hook may be advanced or pushed outward to compensate for its wear upon the joint-pin, as set forth.

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Witnesses:

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