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A.D. 1884, 2nd JANUARY. N<sup>o</sup> 425.

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S P E C I F I C A T I O N

OF

FREDERICK BEESLEY.

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IMPROVEMENTS IN OR APPLICABLE TO  
BREAK DOWN HAMMERLESS GUNS.

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LONDON:

PUBLISHED AND SOLD AT THE PATENT OFFICE SALE BRANCH,  
38, CURSITOR STREET, CHANCERY LANE, E.C.

Price 6d.

1884.

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A.D. 1884, 2nd JANUARY. N° 425.  
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**Improvements in or Applicable to Break Down Hammerless  
Guns.**

PROVISIONAL SPECIFICATION.

I FREDERICK BEESLEY of 22 Queen Street, Edgware Road, in the County of Middlesex, Gun Maker, do hereby declare the nature of my invention for IMPROVEMENTS IN OR APPLICABLE TO BREAK DOWN HAMMERLESS GUNS to be as follows:—

5 This Invention relates to improved means involving an improved principle of action applicable to break down hammerless guns for automatically effecting the cocking of the tumblers when opening the gun for inserting the cartridges, and for effecting the compression of the springs when closing the gun; and thus rendering them effective for discharging the cartridges when the tumblers are  
10 released from the sears in the usual manner.

The improved means consist of flat spring levers which are pivotted at the front end of the action near the knuckle joint, and have their forward ends projecting beyond the knuckle joint and lying under the barrels of the gun and their rear ends each extending into engagement with a slot in the lower forward part of  
15 one of the tumblers, and with which slots the rear ends of the springs always engage.

Over the spring part of each of such levers I pivot in the action a tumbling lever, and these levers are actuated by the underpart of the barrels or by a cross bar carried by one of the steel lumps of the barrels in such a manner as to cause  
20 a regular compression of the spring while the gun is being closed after inserting the cartridges. The spring levers and tumblers can be arranged in two slots cut along the bed of the action, one for each lock mechanism. The tumblers with their respective sears and sear springs may also be set or carried by the action, or by separate lock plates in the usual manner, as may be desired.

25 The action of the mechanism herein described is as follows:—

As the barrels are opened they depress the forward projecting ends of the pivotted spring levers, causing the spring ends engaged with the slots in the tumblers to lift the latter to full cock where they are retained by the sears—On

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*Beesley's Improvements in or Applicable to Break Down Hammerless Guns.*

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closing the gun the said cross bar causes the pivotted tumblers to compress the springs against the resistance offered by the tumblers held by their respective sears and to such an extent as suffices to discharge the gun when the tumblers are released from the sears by the action of the triggers.

It will thus be seen that I dispense with double or V, or spiral springs and also with such cams levers thrust rods and other like appliances as have been previously used in various combinations, and in lieu thereof substitute, in each lock mechanism a single flat spring lever which as herein described acts both as a lifting lever in itself and also as a spring for actuating the tumbler for discharging the gun. 5

Dated this 2nd day of January 1884.

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DAY, DAVIES, & HUNT,  
Agents for the Applicant.

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*Beesley's Improvements in or Applicable to Break Down Hammerless Guns.*

COMPLETE SPECIFICATION.

I, FREDERICK BEESLEY, of 22, Queen Street, Edgware Road, in the County of Middlesex, Gunmaker, do hereby declare the nature of my Invention for "IMPROVEMENTS IN OR APPLICABLE TO BREAK DOWN HAMMERLESS GUNS," and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

The improvements constituting this Invention are applicable to break down hammerless guns, and they consist of improved means or arrangements of parts for automatically effecting the cocking of the tumblers when opening the gun for inserting the cartridges, and for similarly effecting the compression of the springs when closing the gun, thus rendering them effective for discharging the cartridges when the tumblers are released from the sears in the usual manner.

Figs; 1, to, 4, of the accompanying drawings illustrate the application of the Invention to a body-action gun, Figs; 1 to, 3, are longitudinal sections through the line *a—b* Fig; 4 looking in the direction of the arrow, *c*. and Fig; 4, is a cross section through the line *d,—e*, Fig; 1 looking in the direction of the arrow, *f*.

The improved means hereinbefore referred to consist of flat spring levers, 1, which are pivotted as at, 2, at the front end of the action near the knuckle joint, 3; and have their forward ends, 4, projecting beyond the knuckle joint and through slots, 5, cut in the forepart, 6, and lying under the barrels, 7, of the gun, or projecting into similar slots cut only in the iron of the forepart and lying under the upper part of the slotted iron, and have their rear ends, 8, each extending into engagement with a slot, 10, in the lower forward part of one of the tumblers, 11, and with which slots the rear ends of the springs always engage.

Over the spring end, 8, of each of such levers, 1, there is pivotted as at 12, in the action, a tumbling lever, 13, and these tumbling levers, 13, are actuated by the underpart of the barrels, or by a cross bar, 14, carried by one and preferably the forward one, 15, of the steel lumps of the barrels, in such a manner as to cause a regular compression of the spring while the gun is being closed after the cartridges have been inserted. The spring levers, 1, and tumblers, 11, are arranged in two slots 16, cut along the bed of the action (vide Fig; 4.) one for each lock mechanism.

I would remark that the improved means herein described may partly or wholly be mounted on side or lock plates either of the bar action pattern, or of a back action pattern, or part of the mechanism, such, for example, as the tumblers, and sears, and sear springs may be mounted on the trigger plate, but in all modifications I prefer that the spring levers with their respective compressing tumblers should be supported by the action.

The action of the mechanism herein described is as follows:—

As the barrels are opened, the underpart thereof or the adjacent part of the forepart depresses the forward projecting ends, 4, of the pivotted spring levers, 1, in the direction of the arrow, *g*, causing the spring ends, 8, engaged with the slots, 10, in the tumblers, 11, to be uplifted in the direction of the arrow, *h*, thus causing the tumblers to be lifted to full cock where they are retained by the sears, 17, vide Fig; 1. On closing the gun, the cross bar, 14, bears in the direction of the arrow, *i*, and causes the pivotted tumblers, 13, to compress the spring ends, 8, in the direction of the arrow, *j*, against the resistance offered by the tumblers still held by their respective sears, vide Fig; 2, and to such an extent



*Beesley's Improvements in or Applicable to Break Down Hammerless Guns.*

as suffices to discharge the gun when the tumblers are released from the sears by the usual action of the triggers, when the parts are caused to assume the positions shown in Fig; 3, from which they are all again removed to the positions shown in Fig; 1. by the mere act of opening the gun.

It will thus be seen, that, in accordance with the present improvements, I 5 dispense with double, or V, or spiral springs, and with all modification of the Stanton main springs, and also with all such cams, levers, thrust rods and other like appliances as have been previously necessary when used in effecting the object of the present improvements in various combinations with the Stanton main spring, and in lieu thereof substitute in each lock mechanism a much simplified 10 arrangement of parts consisting of a single flat spring-lever, which, as hereinbefore described, acts in itself both as a lifting or tumbler cocking lever, and also as a spring for actuating the tumbler for discharging the gun.

Having now particularly described and ascertained the nature and objects of my said Invention and in what manner the same is to be performed, I declare that 15 what I claim is:—

The hereinbefore described improvements in or applicable to break down hammerless gun, such improvements consisting in the novel and peculiar arrangement and combination in each lock mechanism of the spring, 1, acting in itself as a lifting or tumbler cocking lever when opening the gun, when operated and 20 operating as aforesaid, and as a spring for actuating the tumbler for discharging the gun when the gun is closed and when the tumbler is released from the sear by the usual action of the trigger, with the tumbling lever, 13, when operated and operating as aforesaid for compressing the spring by the closing of the gun ready for effecting the discharge of the latter as and at the time referred to; when 25 such parts are arranged and combined and are operated and co-operate in the manner hereinbefore described.

Dated this 2nd day of October 1884.

DAY, DAVIES, & HUNT,  
321, High Holborn, London, W.C., 30  
Agents for the Applicant.

LONDON: Printed by EYRE AND SPOTTISWOODS,  
Printers to the Queen's most Excellent Majesty.  
For Her Majesty's Stationery Office.

1884.