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A.D. 1884, 1st NOVEMBER. N<sup>o</sup> 14,488.

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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 SAFETY MECHANISM  
FOR BREECH LOADING SMALL  
ARMS.

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**Improvements in Safety Mechanism for Breech Loading  
Small Arms.**

**PROVISIONAL SPECIFICATION.**

I **FREDERICK BEESLEY** of 85 Edgware Road in the County of Middlesex, Gun-maker do hereby declare the nature of the said invention for "IMPROVEMENTS IN SAFETY MECHANISM FOR BREECH LOADING SMALL ARMS" to be as follows:—

This invention relates to improvements in safety mechanism for breech-loading  
5 small arms.

In carrying out the invention I employ for each main spring or tumbler a safety lever working in a horizontal plane on a suitably placed pivot or fulcrum; the outer end of the long arm of each lever has a projection adapted to bolt or intercept the main spring or tumbler in any suitable manner such as by passing underneath  
10 the same; the short arm of each lever is adapted to allow of its being operated by a rod connecting it with the trigger. A spring is provided for holding the lever in position for blocking the action of the main springs or tumblers.

For the triggers or sears I employ a horizontal sliding bolt passing over the triggers or sears the front of the bolt being opposite the rear end of the usual  
15 locking bolt or the key of the lever. The sliding bolt is provided with a suitable projection adapted to pass over and lock the sears or triggers; the said sliding bolt is also provided with a vertical projection for operating and for being operated by the usual safety slide cover and is provided with a spring to retain it in position.

By my improvements, on the locking bolt being withdrawn to open the gun, the  
20 rear end of the bolt, or the lever will operate the sliding bolt and the projection of the sliding bolt will pass over or onto the sears or triggers and thereby lock the same. On the gun being closed the locking bolt or lever moving forward in the usual manner will allow the sliding bolt to be removed from the sears or triggers by moving the usual safety slide. The gun is now ready for firing but its  
25 accidental discharge is prevented by the safety lever bolting or intercepting the main springs or tumblers from striking the blow for firing.

When the trigger is pulled for firing the gun the trigger will pull the connecting rod so as to operate the safety or blocking lever whereby its projection will be removed clear of the main spring or tumbler thereby allowing the latter to strike  
30 the blow for firing while on recocking the gun the spring will cause the safety lever to recover its normal position.

Dated the 1st day of November 1884.

**G. F. REDFERN,**  
4, South Street, Finsbury, London,  
Agent for the Applicant.

*Beesley's Improvements in Safety Mechanism for Breech Loading Small Arms.***Improvements in Safety Mechanism for Breech Loading  
Small Arms.****COMPLETE SPECIFICATION.**

I, FREDERICK BEESLEY, of 85, Edgware Road, in the county of Middlesex, Gun-maker do hereby declare the nature of the said invention for "IMPROVEMENTS IN SAFETY MECHANISM FOR BREECH-LOADING SMALL ARMS" and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

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This invention relates to improvements in safety mechanism for breech loading small arms.

In carrying out the invention I employ for each main spring or tumbler a safety lever working in a horizontal plane on a suitably placed pivot or fulcrum; the outer end of the long arm of each lever has a projection adapted to bolt or intercept the main spring or tumbler in any suitable manner such as by passing underneath the same; the short arm of each lever is adapted to allow of its being operated by a rod connecting it with the trigger. A spring is provided for holding the lever in position for blocking the action of the main springs or tumblers.

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For the triggers or sears I employ a horizontal sliding bolt passing over the triggers or sears the front of the bolt being opposite the rear end of the usual locking bolt or the key of the lever. The sliding bolt is provided with a suitable projection adapted to pass over and lock the sears or triggers; the said sliding bolt is also provided with a vertical projection for operating and for being operated by the usual safety slide cover and is provided with a spring to retain it in position.

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In order to enable my invention to be fully understood I will proceed to describe the same by reference to the accompanying drawing in which figure 1, represents a sectional elevation shewing my improved safety mechanism applied to the lock action of a double barrel breech loading self cocking gun of a construction similar to that described in the specification of former Letters Patent granted to me N° 425, dated the 2<sup>nd</sup> January 1864 the parts being shewn in the position they occupy when the gun has just been fired the trigger being shewn raised; figure 2 is a similar view to figure 1 but shewing the position of the parts when the gun is opened to load the same the tumblers being cocked; figure 3 is a horizontal section of figure 2 some of the parts being removed. Similar letters in all the figures represent similar parts.

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In the drawing A A represent the barrels and *a* the ordinary locking bolt of a double barrelled gun; *b* is the usual lever for operating the bolt *a*; *c* are the main springs and *d*, one of the tumblers operated by one of the said springs and *e*, is the sear of the tumbler *d*; all of the ordinary construction; *e*, *e*<sup>1</sup>, *e*, *e*<sup>1</sup>, are the safety levers one of which I employ for each main spring *c*; the said levers work in a horizontal plane on the pivots or fulcrums *f*, *f*; *g*, *g* are the projections on the outer ends of the long arms *e*, *e* of the safety levers which projections pass underneath the main springs *c* of the gun so as to bolt or intercept the action of the same until the triggers *j*, *j* are pulled to fire the gun; *h*, *h* are the rods connecting the safety levers *e*, *e*<sup>1</sup> with the triggers *j*, *j*. For this purpose the front ends of the

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rods *h* are slotted or adapted to receive the ends of the short arms *e*<sup>1</sup> of the safety levers *e e*<sup>1</sup>; the rear ends of the said rods *h h* being also slotted as shewn at *i* in figures 1 and 2 to receive a downward projection *l* with which each trigger is provided, *k* shews the pin on which the triggers pivot; *m m* shew the springs for holding the arms *e e* of the safety levers in position for blocking the action of the main springs *c c*.

I will now describe the safety mechanism for the triggers or sears which consists of the horizontal sliding bolt *n* the projection *o* of which passes over the parts *p* of the triggers *j*; *q*, is the front part of the said bolt which part is opposite to the locking bolt *a* of the gun; *s* is the vertical projection of the sliding bolt *n* the upper end of such projection taking into a slot or notch in the under side of the usual safety slide cover *r*, so that the sliding bolt operates and is operated by the said cover; the front part *q* of the bolt slides in a guide *t* on the trigger plate, and the rear part is guided by means of a guide pin *u* in the bracket *v* (also on the trigger plate) which pin passes through a slot *w* in the said rear part; the underside of the sliding bolt *n* is recessed as shewn to admit the projections *p* of the triggers *j*, when the latter are raised to fire the gun.

This improved construction of safety mechanism for the triggers or sears being attached to the trigger plate allows of its being used for body guns with advantage as it can be inserted in the stock without diminishing the strength thereof.

The operation of the improved safety mechanism is as follows:—the gun having just been fired but before the triggers are released the parts thereof will be in the position shewn in figure 1; upon releasing pressure from the triggers they will be pressed down by their springs in the usual manner so as to be clear of the sliding bolt *n*. On the locking bolt *a* being withdrawn as usual by means of the lever *b* for the purpose of opening the gun the rear end of the bolt *a* will press upon the front end *q* of the sliding bolt *n* and force the same backwards, the projection *o* of the sliding bolt *n* will pass over or on to the projections *p* of the sears or triggers *j*, and thereby lock the same as shewn in figure 2. On the gun being closed the locking bolt *a*, moving forward in the usual manner will allow the sliding bolt *n*, to be removed from the sears or triggers *j*, by moving the usual safety slide *r*.—The gun is now ready for firing but its accidental discharge is prevented by the safety levers *e, e*<sup>1</sup> *e, e*<sup>1</sup> bolting or intercepting the main springs *c, c*, or tumblers *d, d*, from striking the blow for firing by the projections *g, g*, passing under the main springs *c* as shewn in figures 2 and 3.

When the triggers *j*, are pulled for firing the gun as shewn in figure 1, the triggers by means of the projections *l*, will draw back their connecting rods *h*, so as to operate the safety or blocking levers *e, e*<sup>1</sup>, whereby their projections *g*, will be removed clear of the main springs *c*, as shewn in detached view at figure 4 thereby allowing the tumblers to strike the blows for firing; the main springs *c* will then move down against the side of the projections *g*, as shewn in figure 1; on re-cocking the gun the main springs *c* will be again raised as usual and the springs *m* will cause the safety levers to recover their normal position.

I have described and shewn my improvements as applied to the main springs and triggers respectively of a double barrellled gun, but it will be obvious that the safety mechanism can be applied to the tumblers and sears, it will also be obvious that the improvements are applicable to single barrel guns.

I will also remark that the safety mechanism for the springs or tumblers and for the triggers or sears may be used separately and independently one from the other and for other descriptions of guns than that shown in the drawing.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is

(1.) In safety mechanism for breech loading small arms, the combination and arrangement of blocking levers such as *e, e*<sup>1</sup> and connecting rods *h*, operated by the triggers in the manner and for the purposes substantially as shewn and described.

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(2.) In safety mechanism for breech loading small arms the combination with a safety slide cover of a sliding bolt arranged as described and attached to the trigger plate so as to be moved to its safety or blocking position by the withdrawal of the locking bolt as and for the purpose substantially as hereinbefore described and represented in the accompanying drawing. 5

(3.) The improved safety mechanism for breech loading small arms hereinbefore described and represented in the accompanying drawing.

Dated the 9th day of February 1885.

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4, South Street, Finsbury, London, 10  
Agent for the Applicant.

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