



A.D. 1873, 11th SEPTEMBER. N° 2989.

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

OF

CHARLES GREVILLE HARSTON.

BREECH-LOADING FIRE-ARMS.

LONDON:

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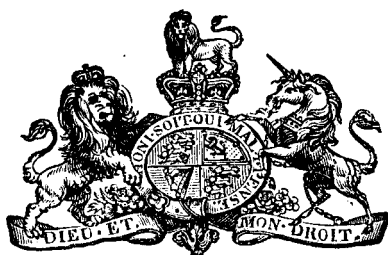
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A.D. 1873, 11th SEPTEMBER. N^o 2989.

Breech-loading Fire-arms.

LETTERS PATENT to Charles Greville Harston, of Birmingham, in the County of Warwick, Gun Manufacturer, for the Invention of "IMPROVEMENTS IN BREECH-LOADING FIRE-ARMS."

Sealed the 14th November 1873, and dated the 11th September 1873.

PROVISIONAL SPECIFICATION left by the said Charles Greville Harston at the Office of the Commissioners of Patents, with his Petition, on the 11th September 1873.

I, CHARLES GREVILLE HARSTON, of Birmingham, in the County of Warwick, Gun Manufacturer, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN BREECH-LOADING FIRE-ARMS," to be as follows, that is to say :—

My Invention refers to an improved cartridge extractor more especially adapted for breech-loaders constructed upon the falling block principle, and the improvements consist in the employment of a loose extractor without a pin or centre to work upon and fitted in position in the body of the breech, the extractor has two arms set at a suitable angle to each other as seen sideways, and the outline of the extractor nearest the

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barrels may be a continuous curve from end to end with a rounded nose in such curve at the junction of the two arms; the end of the one arm is shaped for throwing out the cartridge and fits up to the barrels in the ordinary manner when the parts are in position for firing, the end of the lower arm bearing against a portion of the under side of the block. 5

When the breech block is caused to fall it presses upon the top surface of the lower arm of the extractor, and such lower arm will be depressed when by reason of the curved outline of the block the lower arm will slide from under the block slightly in the direction of the barrels, the extracting arm and cartridge being at the same time freed from the 10 barrels, and the rounded nose will ride slightly up the inside edge of the breech body next the barrels, thus ensuring a more certain action of the extractor, and obtaining increased force in the throw out of the cartridge.

SPECIFICATION in pursuance of the conditions of the Letters Patent 15 filed by the said Charles Greville Harston in the Great Seal Patent Office on the 11th March 1874.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, CHARLES GREVILLE HARSTON, of Birmingham, in the County of Warwick, Gun 20 Manufacturer, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria by Her Letters Patent bearing date the Eleventh day of September, in the year of our Lord One thousand eight hundred and seventy-three, in the thirty-seventh year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Charles Greville Harston, Her special licence 25 that I, the said Charles Greville Harston, my executors, administrators, and assigns, or such others as I, the said Charles Greville Harston, my executors, administrators, and assigns, should at any time agree with, and no others from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, 30 and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**IMPROVEMENTS IN BREECH-LOADING FIRE-ARMS,**" upon the condition (amongst others) that I, the said Charles Greville Harston, my executors or adminis-

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trators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within
5 six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said Charles Greville Harston, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascer-
10 tained in and by the following statement, that is to say :—

My Invention refers to an improved cartridge extractor more especially adapted for breech-loaders constructed upon the falling block principle, and the improvements consist in the employment of a loose extractor without a pin or centre to work upon and fitted in position in
15 the body of the breech; the extractor has two arms set at a suitable angle to each other as seen sideways, and the outline of the extractor nearest the barrels may be in a continuous curve from end to end with a rounded nose in such curve at the junction of the two arms; the end of the one arm is shaped for throwing out the cartridge and fits up to the
20 barrels in the ordinary manner when the parts are in position for firing, the end of the lower arm bearing against a portion of the under side of the block.

When the breech block is caused to fall it presses upon the top surface of the lower arm of the extractor, and such lower arm will be depressed
25 when by reason of the curved outline of the block the lower arm will slide from under the block slightly in the direction of the barrels, the extracting arm and cartridge being at the same time freed from the barrels and the rounded nose will ride slightly up the inside edge of the breech body next the barrels, thus ensuring a more certain action of
30 the extractor and obtaining increased force in the throw out of the cartridge.

I will now proceed to describe my Invention more fully in detail by aid of the accompanying Drawings, reference being had to the letters and figures marked thereon.

35 Figures 1 and 2 are longitudinal sections of the working parts of a breech-loader constructed upon the falling block principle.

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In Figures 1 and 2 (A) is the improved cartridge extractor in section, Fig. 3, illustrating the extractor on side and front elevations respectively. The extractor (A) is loose as shewn without a pin or centre to work upon and is fitted in position in the body of the breech; (*b*, *b*¹) are the top or extractor arms and (*c*) is a bottom arm, which are set at a suitable angle to each other, and the outline of the extractor (A) nearest the barrels (*d*) may be a continuous curve from end to end with a rounded nose (*e*) in such curve at the junction of the top and bottom arms, the ends of the arms (*b*, *b*¹) are shaped for throwing out the cartridge and fit up to the barrels (*d*) in the ordinary manner when the parts are in position for firing, as shewn in Fig. 2, the end of the lower arm (*c*) bearing against a portion of the under side of the block (*f*) suitably shaped for such purpose, when the breech block is caused to fall as shewn in Fig. 1, it presses upon the top surface (*g*) of the lower arm (*c*) of the extractor, and such lower arm (*c*) will be depressed when by reason of the curved outline of the block (*f*) the lower arm (*c*) will slide from under the block (*f*) slightly in the direction of the barrels (*d*), the extracting arms (*b*, *b*¹) and cartridge being at the same time freed from the barrels, and the rounded nose (*e*) riding slightly up the inside edge of the breech body next the barrels (*d*), thus ensuring a more certain action of the extractor and obtaining increased force in the throw out of the cartridge.

Having thus described the object and nature of my said Invention and the manner in which the same is to be carried into effect, I claim without confining myself to these precise details the improved form of cartridge extractor by which the peculiar motion for extracting and throwing out the cartridge is obtained, substantially in manner as herein more fully set forth and specified.

In witness whereof, I, the said Charles Greville Harston, have hereunto set my hand and seal, this Ninth day of March, in the year of our Lord One thousand eight hundred and seventy-four.

CHARLES GREVILLE HARSTON. (L.S.)

LONDON:

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