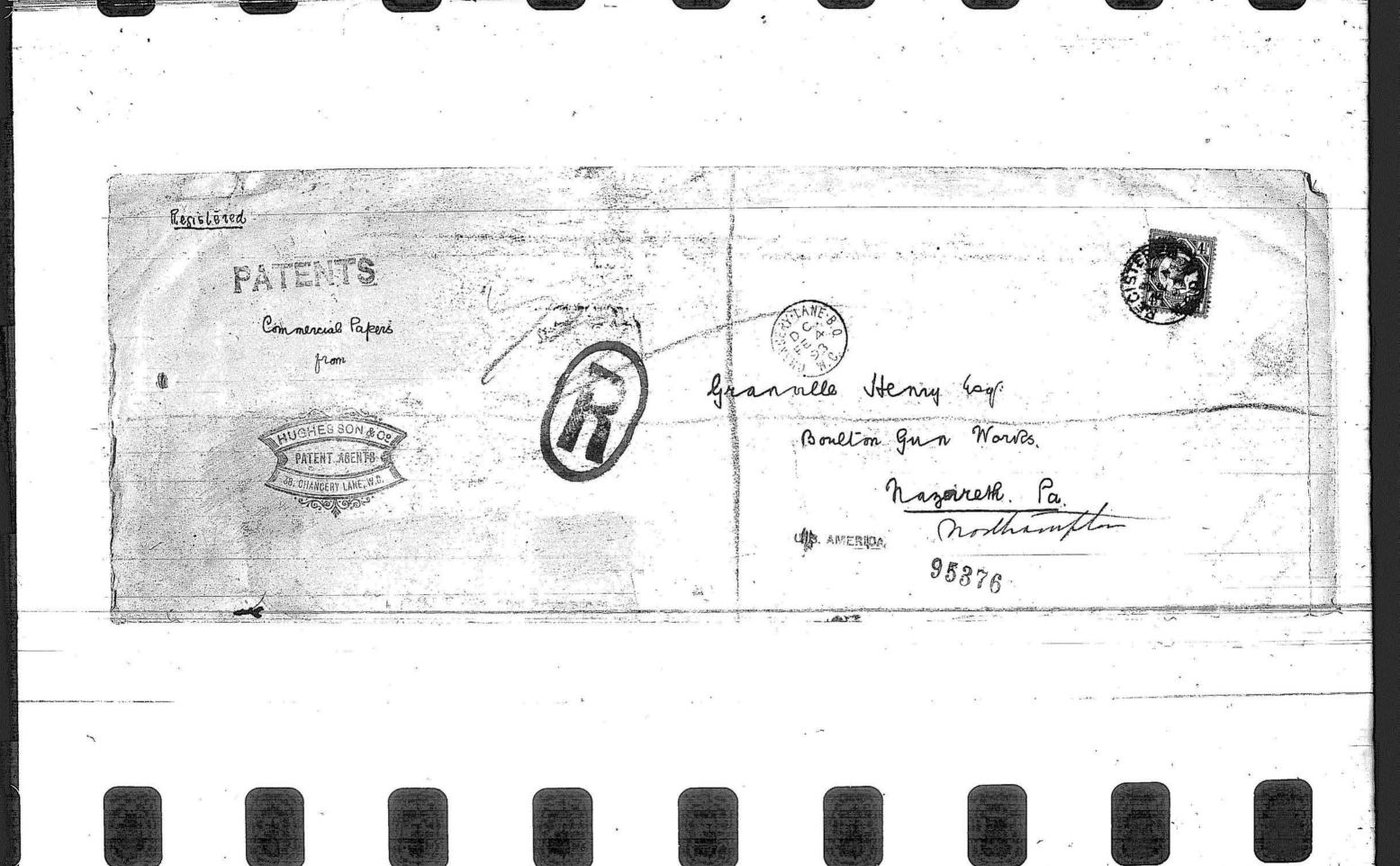
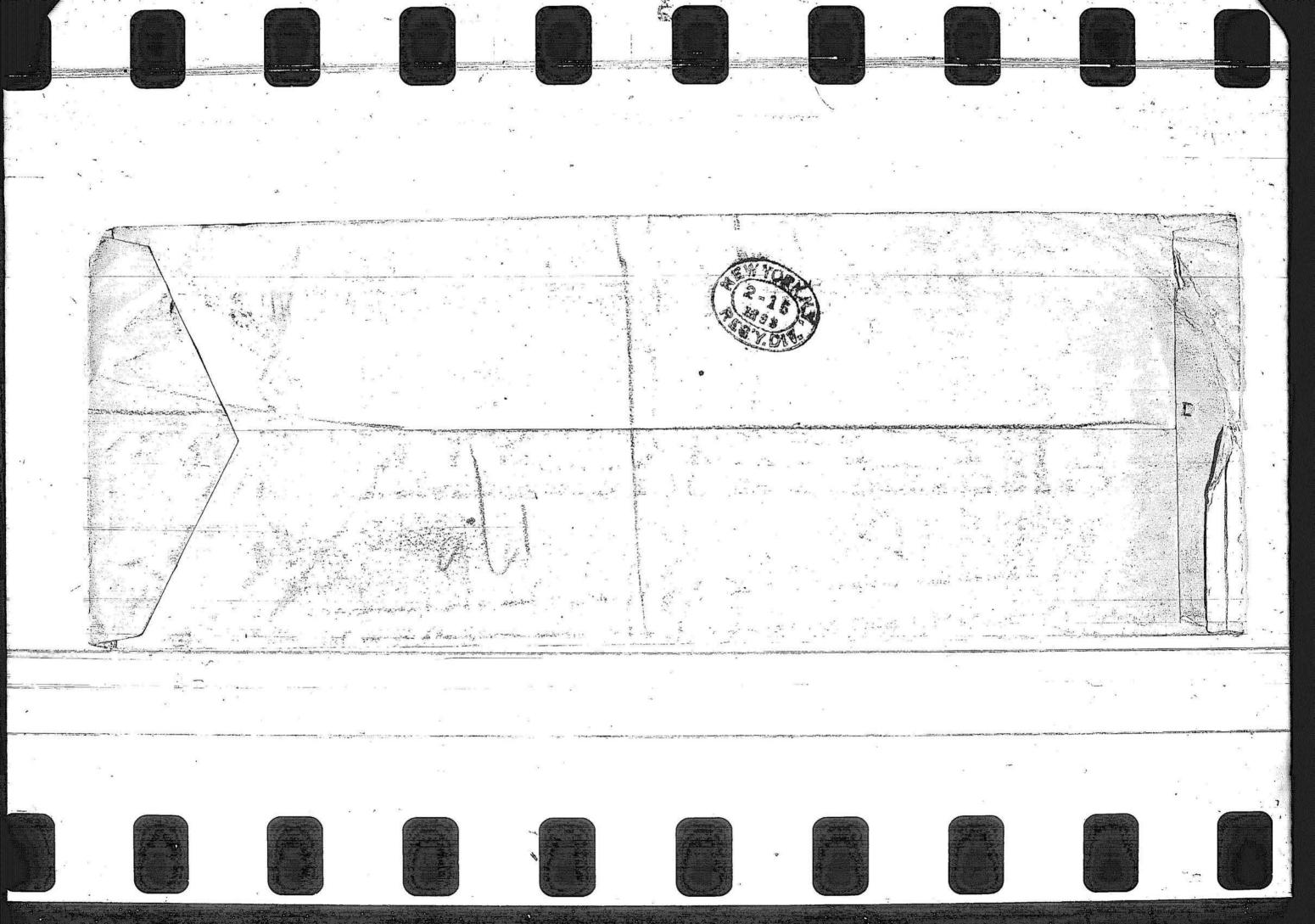
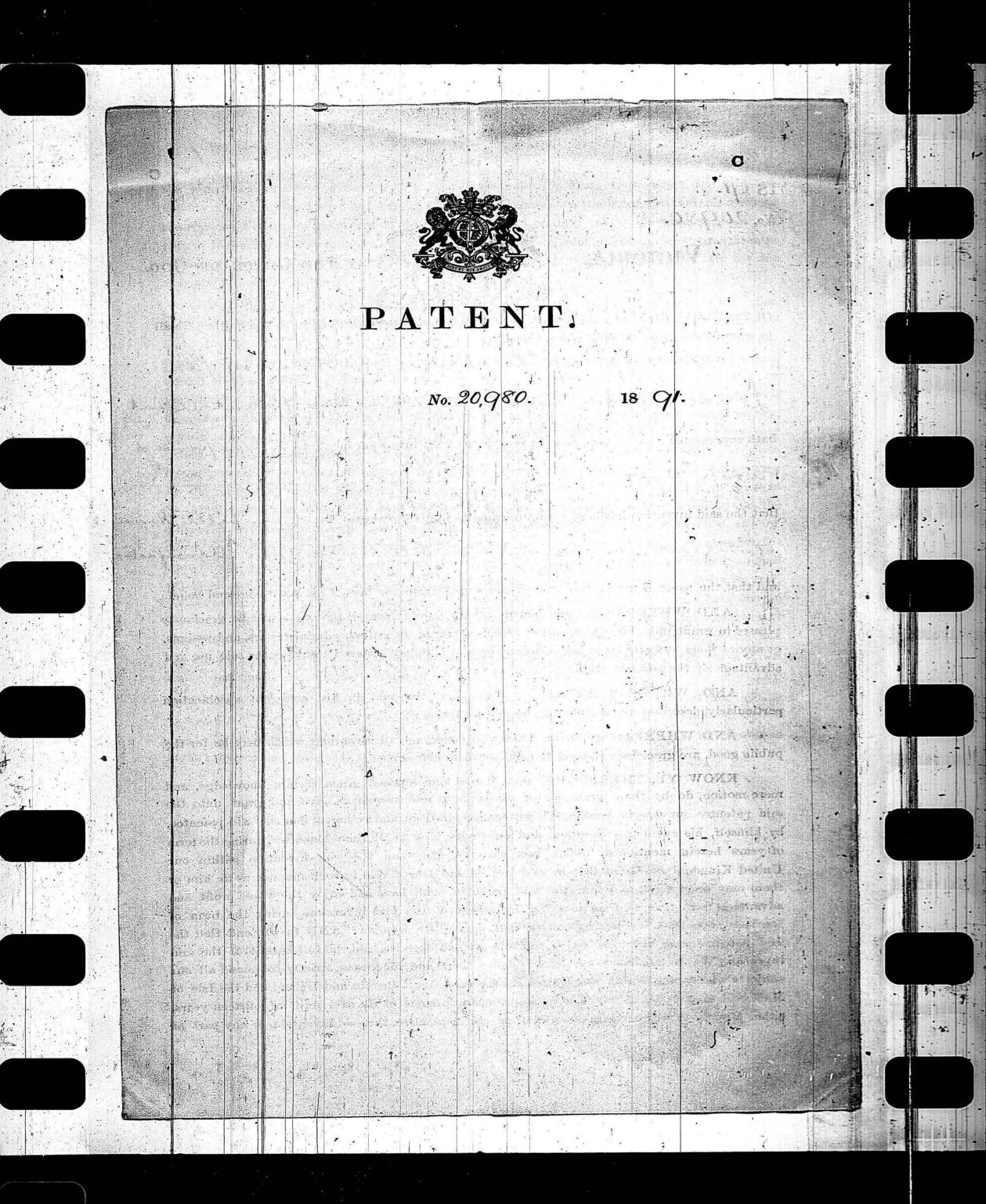


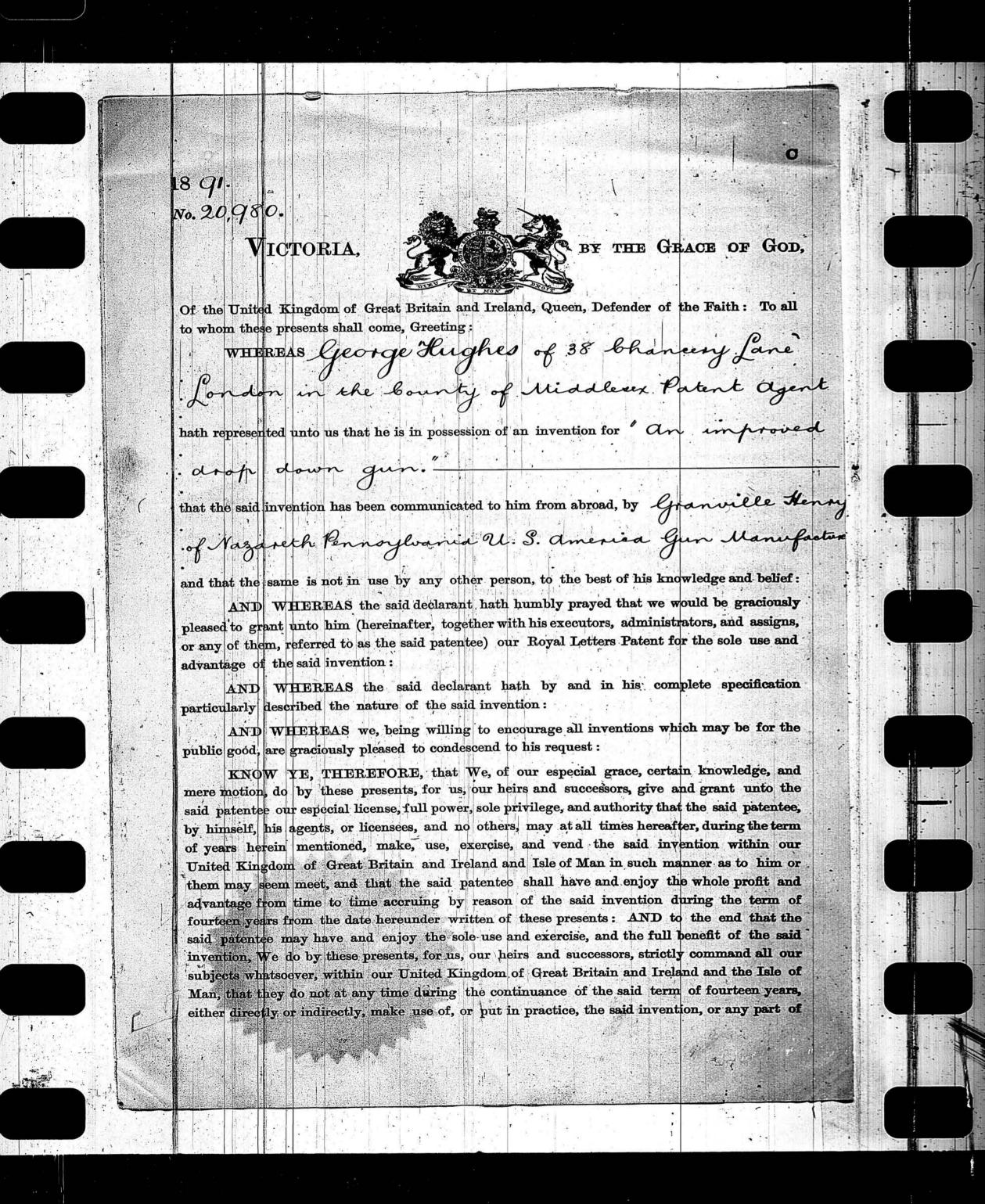
Mercas, William Barker, a citizen of the United States, hath invented a new and useful improved in the water Tew- dron, and whereas by Letters Patent, issued under the great deal of the United States, and bearing date the tenth day of exovernber 1818, the full and exclusive right of making, using, and vending to others to be used the said improvement, was granted to the said Will. Backer his heirs or assigns for and awing the term of forteen years from the date of the Said Setters Patent. And whereas the said William Barker of Fringston Lugure County & State of Gennsylvinia for himing his him & aleigns did on the fifteenth day of November 1821, assign and transfer unto William Huston of Waterford Chesquehannah County and Hate of oresaid his his or assigns the full and exclusivoright of the said infrarement within the limits of the state of Conneyloria, And tohuseas the said William Wester did on the stringth day of Duember 1821, assign and transfer unto Sohn Gillner of Allentownsthings County & State aforesaid the full and exclusive right of the said improvement, within the limits of the County of Northampton, (state aforesaid). And whereas the said John Giltner did on the fifth day of February 1822, afrign and transfer unto John WBinlay of Allentown his heirs of assigns, his intim right and interest in the said County of the said improvement. Now know all men by these presents that I the said John Whinlay for and in consideration of the sum of One hundred Pollard to me when paid by Mothew & Henry & William Henry of Bushpila in Said County; hath granted beigained ofigned and set over worts the said ellather fand William Henry their heirs or afigns, the fill and caclusied loundaries of the Townships of Chestnut Hill. East Hum, Hamilton, Lausatine, Beione, Ref. Stored and Smithfield, also the right of using the said improvement in Parid Himbachs Forge, to have and the the right of the Said improvement for and awing the term of fourteen years from the date of the said Letters Paterst And I do hereby constitute & appoints the Said Mathewf & William Henry my afrigues of the said improvement in said limits; And I do here by authorise the said Mathewf & William Henry their heirs or assigns to institute any suit or suits against any person or persons who shall make or use the said improvement within the said limits and to receive any penalty or penalties for so using the said improvement which I myself might or Could receive.

In test many whereof I have hereunts set my hand and seal this 15th March 1822. North ampton County Be it remembered that on this fifterath day of March 1822 before one the subscriber one of the Sustices of the peace in ofor said County, personally appeared the above named John Mislay and in due form of law acknowledged the above written instrument to be as and for his ach and deed and desired that the same inight be recorded as such auriging to law Germento & have det ony hand & Seal In day & gear first above written broag of linger









the same, nor in anywise imitate the same; nor make, or cause to be made, any addition thereto or subtraction therefrom, whereby to pretend themselves the inventors thereof, without the consent, license, or agreement of the said patentee in writing under his hand and seal, on pain of incurring such penalties as may be justly inflicted on such offenders for their contempt of this our Royal command, and of being answerable to the patentee according to law for his damages thereby occasioned:

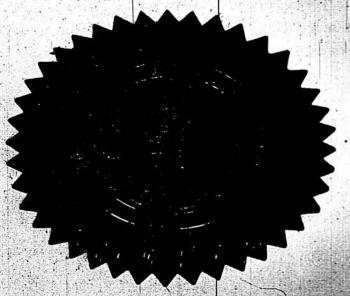
PROVIDED that these our letters patent are on this condition: that if at any time

during the said term it be made to appear to us, our heirs or successors, or any six or more of our Privy Council, that this our grant is contrary to law, or prejudicial or inconvenient to our subjects in general, or that the said invention is not a new invention as to the public use and exercise thereof within our United Kingdom of Great Britain and Ireland and Isle of Man, or that the said patentee is not the first and true inventor thereof within this realm as aforesaid, these our letters patent shall forthwith determine, and be void to all intents and purposes, notwithstanding anything hereinbefore contained: PROVIDED ALSO, that if the said patentee shall not pay all fees by law required to be paid in respect of the grant of these letters patent, or in respect of any matter relating thereto, at the time or times and in manner for the time being by law provided; and also if the said patentee shall not supply, or cause to be supplied, for our service all such articles of the said invention as may be required by the officers or commissioners administering any department of our service, in such manner, at such times, and at and upon such reasonable prices and terms as shall be settled in manner for the time being by law provided, then, and in any of the said cases, these our letters patent, and all privileges and advantages whatever hereby granted, shall determine and become void, notwithstanding anything hereinbefore contained: PROVIDED ALSO, that nothing herein contained shall prevent the granting of licenses in such manner and for such considerations as they may by law be granted: AND lastly, we do by these presents, for us, our heirs and successors, grant unto the said patentee that these our letters patent shall be construed in the most beneficial sense for the advantage of the said patentee.

IN WITNESS whereof we have caused these our letters to be made patent this first day of December one thousand eight hundred and ninety-one, and to be sealed as of the first day of December one thousand eight hundred and ninety-one.

H, READER LACK,

Comptroller-General of Patents.



## PATENT.

No. 20,980

George Hughes

Granville Steury

Note.—The continuance of this Patent is conditional on the payment (by way of the prescribed Patent Form J) of the following fees:—

Before the expiration of the 4th year from the date of the patent and in respect of the 5th year 5 0

5th			6th	23	6	0	0
6th	. ,,	,,	7th	,,	7	0	0
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As the payment of these renewal fees is regulated by Act of Parliament, a fee cannot be received a single day after it is due; but if by accident, mistake, or inadverstence the payment has been omitted, application may be made to the Comptroller, on Patent Form "K," for an extension of time to make such payment, specifying the reason for such omission, and for this extension the fees payable are £1 for one month, £3 for two months, or £5 for three months, but no further extension can be allowed beyond three months.

\*\*\* Patent Form J may be purchased in London at the Inland Revenue Office, Royal Courts of Justice (Room No. 6), or can be obtained at a few days' notice through any Money Order Office in the United Kingdom upon prepayment of the value of the Stamp.

W B & L (12)—28037—1000-8-92



OF

G. HENRY

FROM

HOWSON AND HOWSON

SOLICITORS OF PATENTS

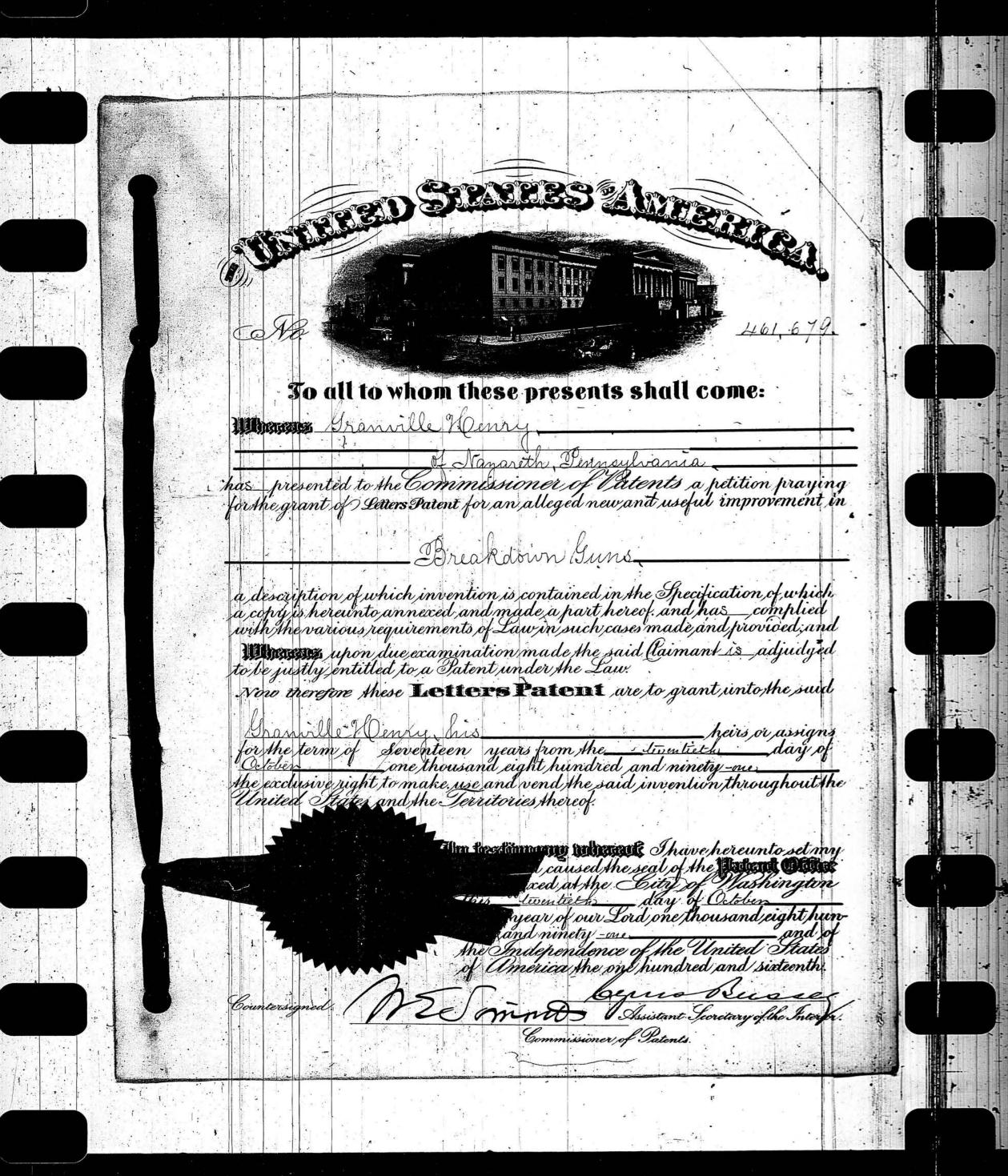
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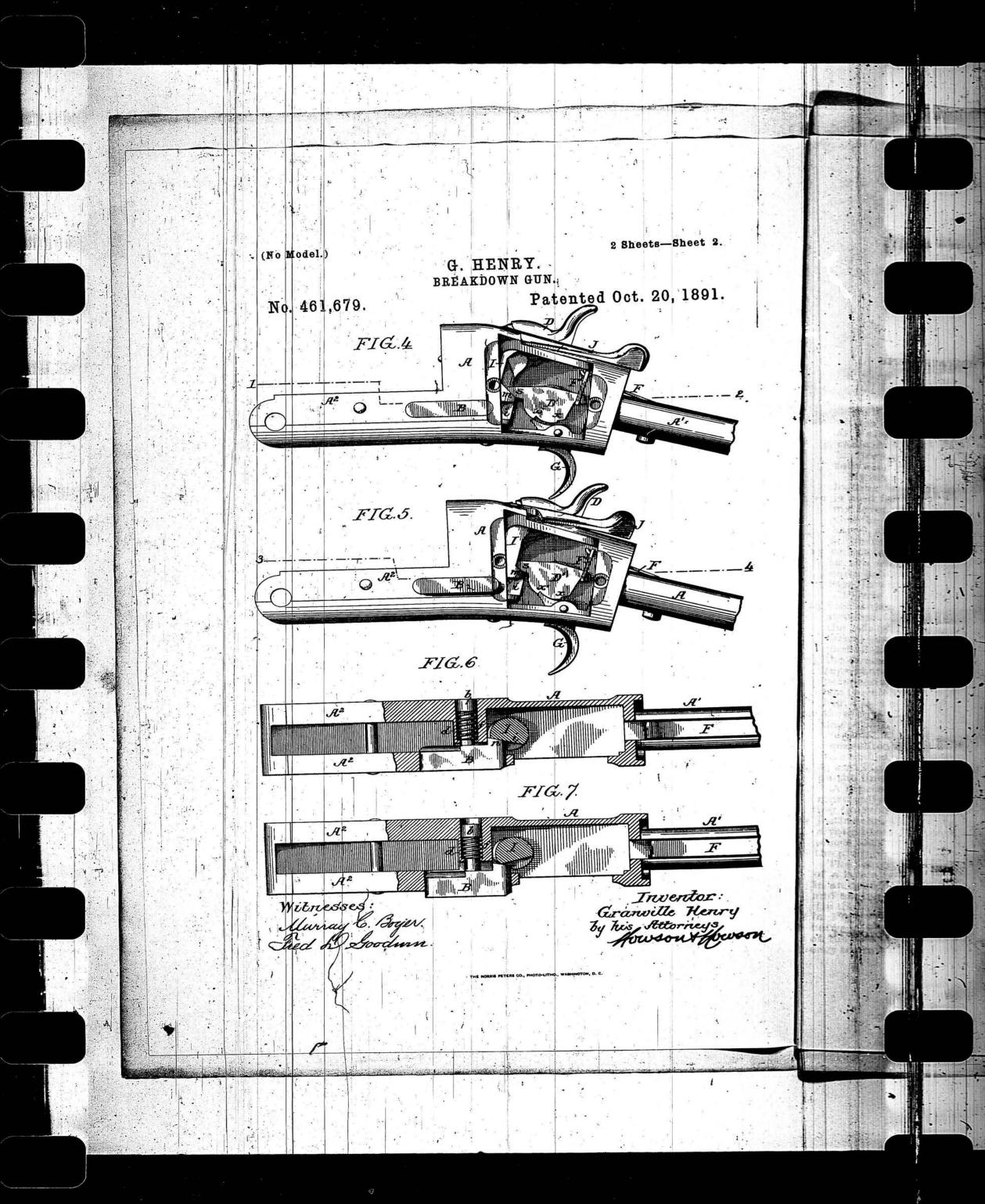
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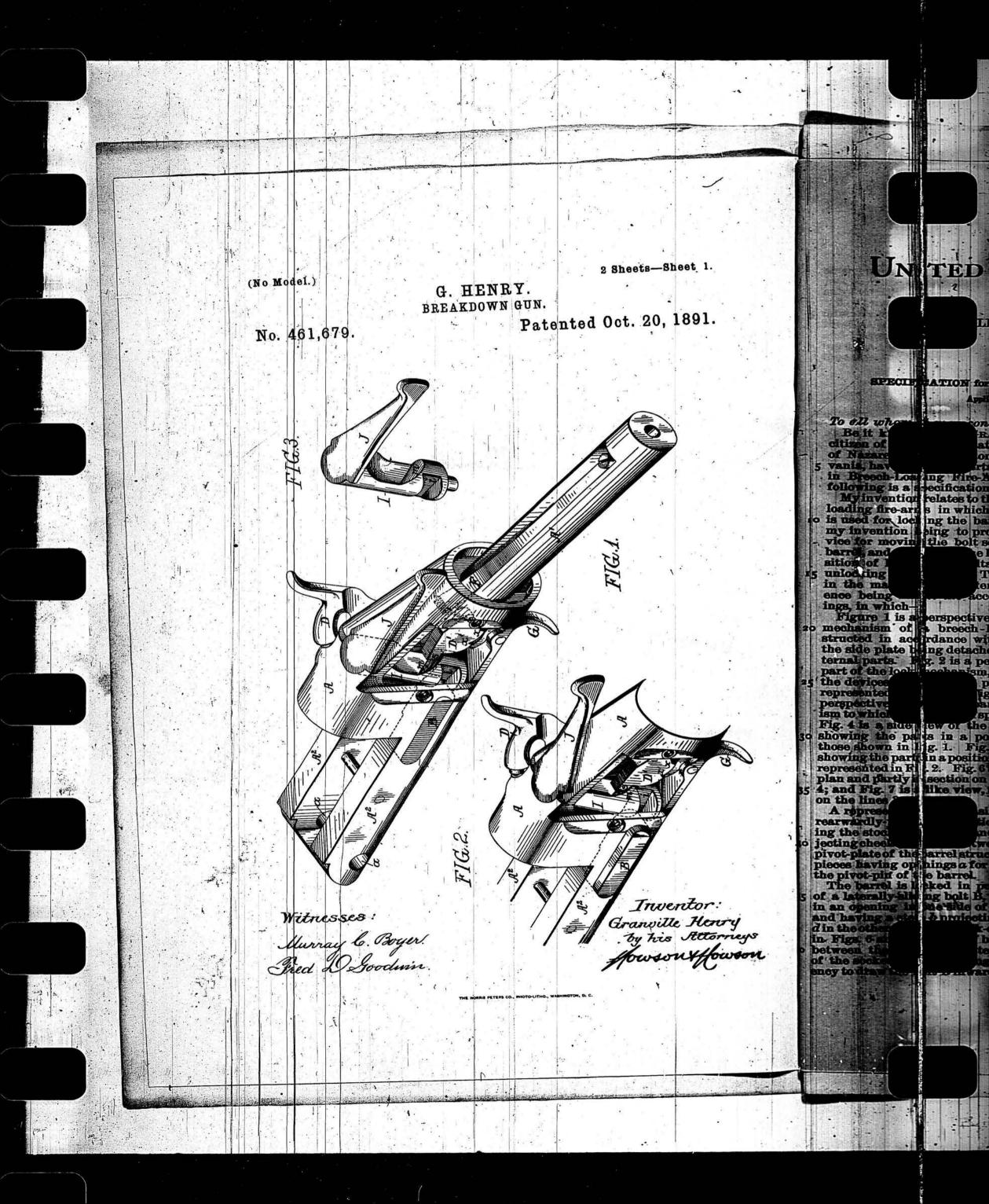
119 SOUTH FOURTH ST.
PHILADELPHIA

POTTER BUILDING, 38 PARK ROW NEW YORK

928 F. St., Washington, D.C.









GRANVILLE HENRY, OF NAZARETH, PENNSYLVANIA.

## BREAKDOWN GUN.

SPECIFICATION forming part of Letters Patent No. 461,679, dated October 20, 1891. Application filed January 12, 1891. Serial No. 377,457. (No model.)

heets-Sheet 1

t. 20, 1891.

Inventor.

nville Henry

his Attorneys

wsoutfowson

Be it known that I, GRANVILLE HENRY, a citizen of the United States, and a resident of Nazareth, Northampton county, Pennsylvania, have invented certain Improvements in Breech-Loading Fire-Arms, of which the following is a specification.

Myinvention relates to that class of breech-loading fire-arms in which a side-acting bolt to is used for locking the barrel, the object of my invention being to provide a simple de-vice for moving the bolt so as to unlock the barrel, and for moving the hammer to the position of half-cock simultaneously with the unlocking of the barrel. This object I attain in the manner hereinafter set forth, reference being had to the accompanying draw-

ence being had to the accompanying drawings, in which

Figure 1 is a perspective view of the lock

mechanism of a breech-loading gun constructed in accordance with my invention, the side plate being detached to show the internal parts. Fig. 2 is a perspective view of part of the lock mechanism, showing some of the devices in a different position from that represented in Fig. 1. Fig. 3 is a detached perspective view of that part of the mechanism to which my invention specifically relates. ism to which my invention specifically relates.
Fig. 4 is a side view of the lock mechanism, showing the parts in a position similar to those shown in Fig. 1. Fig. 5 is a like view showing the parts in a position similar to those represented in Fig. 2. Fig. 6 is a view partly in section on the lines 12. Fig. plan and partly in section on the lines 12, Fig.

plan and partly in section on the lines 12, Fig. 4; and Fig. 7 is a like view, the section being on the lines 3 4, Fig. 5.

A represents the lock-casing, which has a rearwardly-projecting portion A' for entering the stock of the gun and forwardly-projecting cheek-pieces A2, between which fits the pivot-plate of the barrel structure, said cheek-pieces having openings a for the reception of the pivot-pin of the barrel. the pivot-pin of the barrel.

The barrel is locked in position by means 45 of a laterally sliding bolt B, suitably guided in an opening in one side of the lock-casing and having a stem  $\phi$  projecting into a socket d in the other side of the lock-casing, as shown in Figs 6 and 7, a spring f being interposed 50 between the head of the stem and the ba of the socket, and this spring having a tend-ency to draw the bolt B inward, so as to cause lever, and the lever-stem having a side cam

it to engage with the usual slot in the pivotplate of the barrel, and thus locking said barrel. The hammer D of the gun has within 55 the lock-casing the usual hammer-lever or tumbler D', which is acted upon by the main spring F, connected to the tumbler by a link F', said tumbler having the usual full-cock notch x and half-cock notch x' for engage- 60 ment with the toe of the trigger G. The unlocking-lever Joccupies a position on the top of the lock-casing and is secured to or forms part of a stem I, which is free to turn in suitable bearings in the top and bottom.of the 65 lock-casing, and has two cam-surfaces i and m formed upon it. The cam-surface i is formed by cutting away one side of the stem I near the lower end of the same, and this cam acts upon a toe n on the rear end of 70 the locking-bolt B, as shown in Figs. 6 and 7, so that movement of the unlocking-lever J from the position shown in Fig. 1 to that shown in Fig. 2 effects movement of the stem I from the position shown in Fig. 6 to 75 that shown in Fig. 7, thereby moving the locking-bolt B laterally to such an extent as to unlock the barrel of the gun, the spring f tending to restore the bolt to locking position as soon as pressure is removed from 80 the lever J. The cam m consists of the beveled base of a recess formed in the rear of the stem I, and this cam acts upon a forwardly-projecting tongue s on the tumbler D', so that the same movement of the stem 85 which effects the projection of the locking-bolt B will effect a lift of the forward end of the tumbler, so as to permit the trigger to engage with the half-cock notch of the same. the hammer being thereby lifted to the posi- 90 tion of half-cock. (See Figs. 4 and 5.) An effective but extremely simple device for the purpose is thus provided, which does not require any material change in the other parts of the lock as now constructed. Having thus described my invention, I

claim and desire to secure by Letters Patent-1. The combination of the lock-casing and the laterally-sliding locking-bolt therein, having a laterally-projecting stem contained in roc a recess in said casing and having an en-larged head, a spring surrounding said stem

