

The Project Gutenberg eBook of Improvement in Fire-Arms and in the Apparatus Used Therewith, by Samuel Colt

This ebook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this ebook or online at www.gutenberg.org. If you are not located in the United States, you'll have to check the laws of the country where you are located before using this eBook.

Title: Improvement in Fire-Arms and in the Apparatus Used Therewith

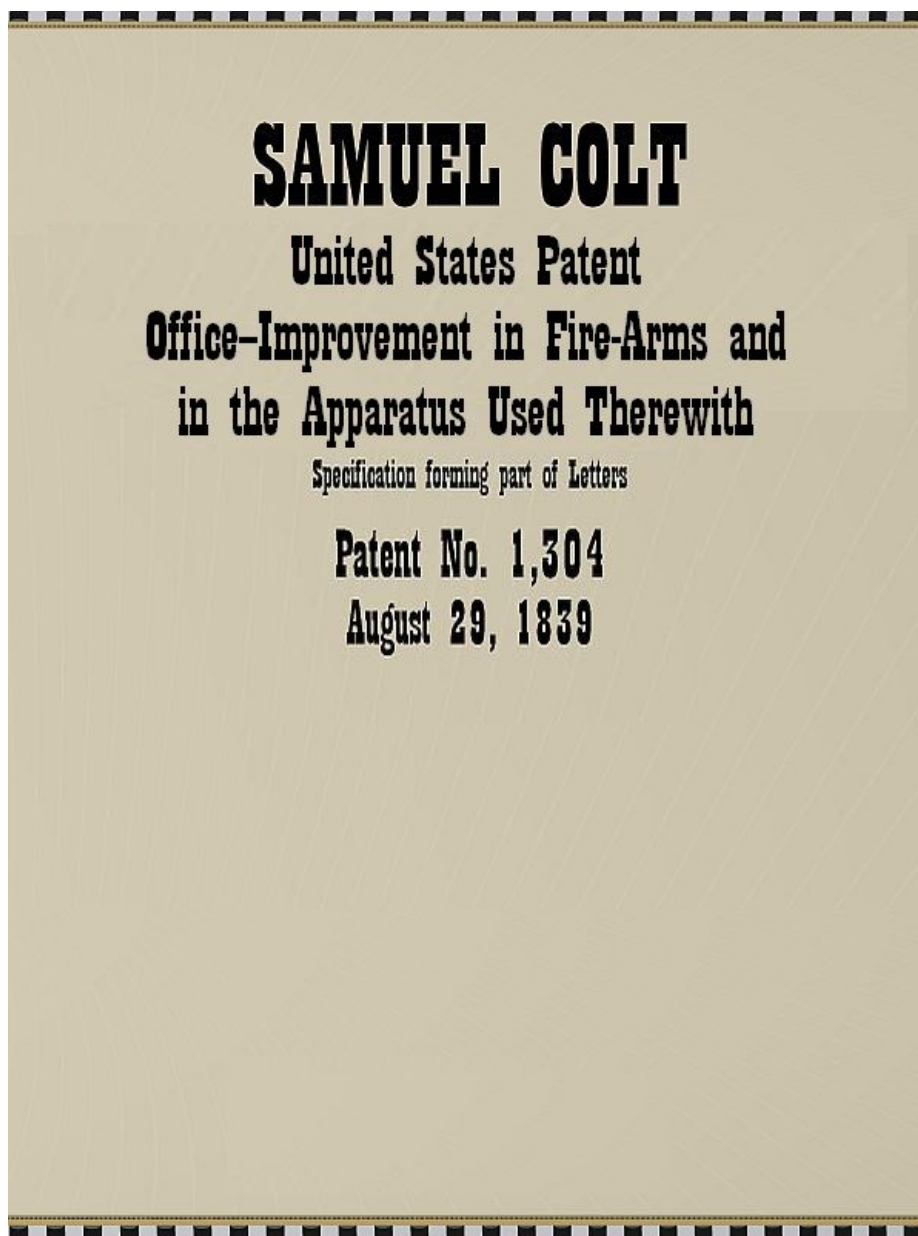
Author: Samuel Colt

Release date: July 27, 2015 [EBook #49532]

Language: English

Credits: Produced by Emmy and the Online Distributed Proofreading Team at <http://www.pgdp.net> (This file was produced from images generously made available by The Internet Archive)

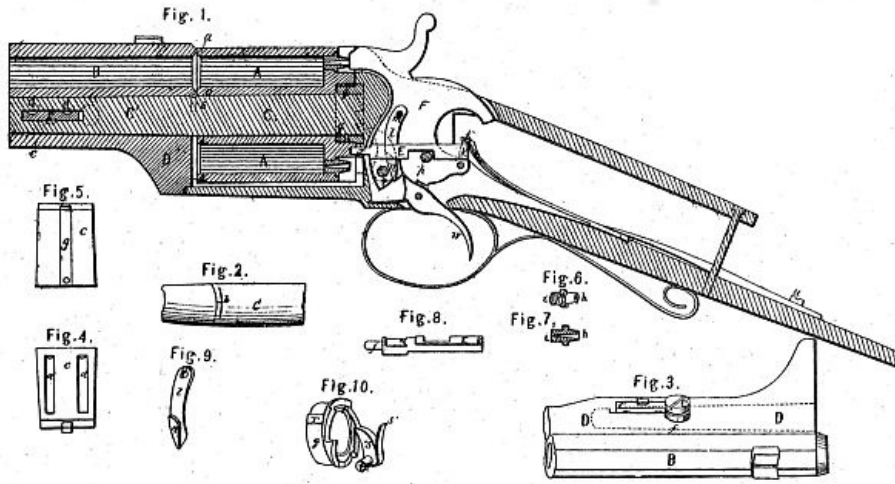
*** START OF THE PROJECT GUTENBERG EBOOK IMPROVEMENT IN FIRE-ARMS AND IN THE APPARATUS USED THEREWITH ***



Transcriber's Note: This cover was created by the transcriber and is placed in the public domain. Further, the original images had the titles horizontal while the diagrams were vertical. The diagrams were rotated to aid the reader. If supported by your device, clicking on the images will allow the reader to see a larger version of the image.

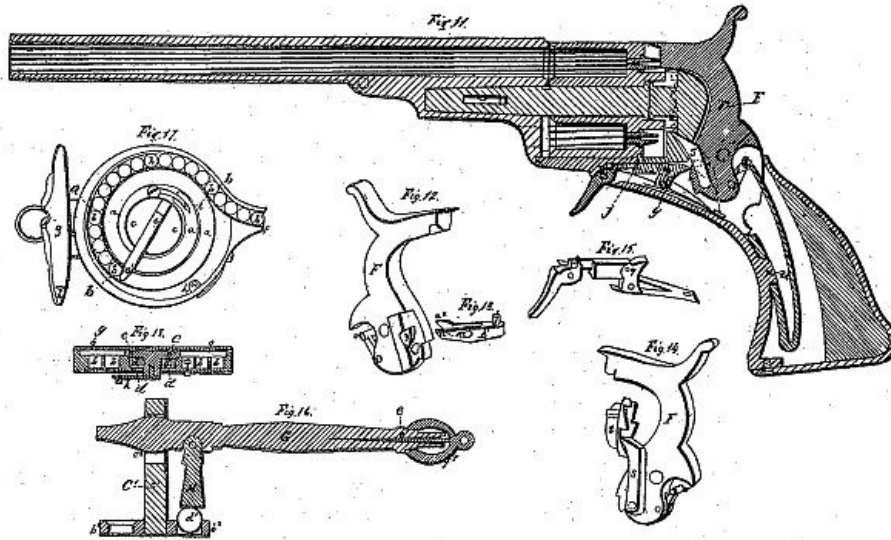
S. Colt.
Impt in Fire Arms.
 No 1304. *Patented Aug 29. 1839.*

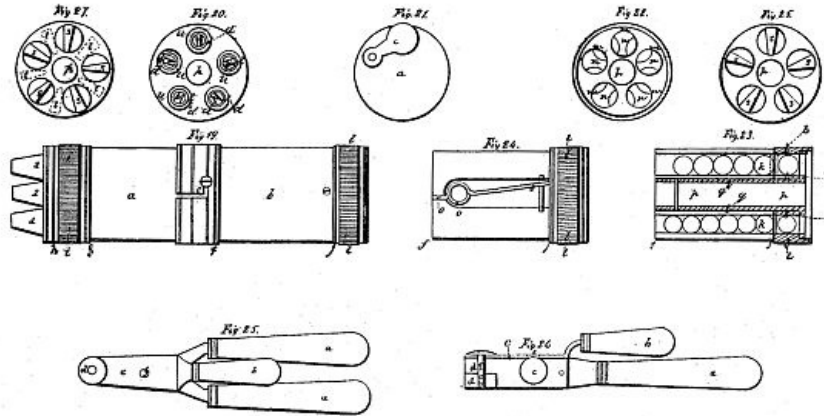
*3 Sheets.
Sheet 1.*



S. Colt.
Impt in Fire Arms.
 No 1304. *Patented Aug 29. 1839.*

*3 Sheets.
Sheet 2.*





UNITED STATES PATENT OFFICE.

[1]

SAMUEL COLT, OF PATERSON, NEW JERSEY.

IMPROVEMENT IN FIRE-ARMS AND IN THE APPARATUS USED THEREWITH.

Specification forming part of Letters Patent No. **1,304**, dated August 29, 1839.

To all whom it may concern:

Be it known that I, *Samuel Colt*, of Paterson, in the county of Passaic and State of New Jersey, did obtain Letters Patent of the United States for an Improvement in Fire-Arms, which Letters Patent bear date on the 25th day of February, in the year 1836, and that I have made certain improvements in the construction of the said fire-arms, and also in the apparatus for loading and priming the same; and I do hereby declare that the following is a full and exact description of my said improvements.

My first improvements appertain to rifles, guns, and pistols; my second to the construction of a cap-primer for containing the percussion-caps and placing the same upon the nipples, and my third to a flask and other apparatus for loading the rifle or gun.

For the general construction of my fire-arms, as originally patented I refer to the Letters Patent first above named, the same being necessary to a perfect understanding of the improvements thereon, which I am now about to describe.

Figure 1 in the accompanying drawings represents a section through the lock and breech of my rifle or gun and two of the chambers of the revolving receiver, B being a part of the barrel of the gun. The mouths of the chambers and the end of the barrel have their edges chamfered or beveled, as shown at *a a* in the drawings. In all guns of this description there is necessarily a lateral discharge between the receiver and the barrel, and this lateral discharge may endanger the ignition of the powder in the loaded chambers not in contact with the barrel; but the ignited matter, by coming into contact with the beveled edge as it crosses said chamber, is effectually reflected off, and does not enter them. The beveling of the end of the barrel is not a thing of importance, it being intended merely to prevent its scraping or cutting the ball in its passage from the chamber.

Fig. 2 shows a part of the arbor upon which the receiver turns. *b* is the portion thereof which is immediately below the chamber in contact with the barrel, and in this part a channel or groove is made descending from the point *b* in both directions, so as to form two inclined planes meeting at the point *b*. These planes or sections of the grooves may form an angle at forty-five degrees with each other. This groove or channel serves as a chimney to conduct off the smoke of the lateral discharge, so that it shall pass directly between the receiver and the barrel and prevent its spreading, so as to pass in between the receiver and the arbor and the barrel and the arbor, and consequently from condensing there and rendering them foul. The barrel is connected with the receiver and with the stock of the gun by the aid of the arbor which at the rear end, is a solid piece with the shield or solid piece of metal which receives the recoil and constitutes a component part of the metallic frame-work or foundation of the lock and its appendages. The part C of the arbor is that upon which the receiver revolves, and the part C' enters a cylindrical cavity

in a mass of iron, D D, to which the barrel is brazed or otherwise attached.

Fig. 3 shows the piece of iron D D and a part of the barrel B which is attached to it. The dotted lines in this represent the cylindrical cavity which receives the outer end of the arbor C'. The two are keyed together by the passing of a suitable key through a mortise in the piece D D and a corresponding one in the arbor.

c, Figs. 1, 3, 4, and 5, represents the key. Fig. 4 shows its upper and Fig. 5 its under side, *d d* are two fluted channels along its upper side to receive the heads of two screws which are screwed into the piece D D close to the mortise and on the side opposite to that shown in Fig. 3. The heads of these screws lap a little over the mortise and are received into the fluted channels *d d*. These heads prevent the key from falling out and check it in either direction, and must be withdrawn in order to remove the key. As the key *c* is to act laterally as a wedge to draw the receiver and the barrel into proper contact, it is of importance that it should be checked when forced sufficiently far in, or the receiver might be wedged up and prevented from turning. For this purpose I insert a screw, *e*, Fig. 3, into the steel button *f*, which is attached to D D, to strengthen the end of the mortise and prevent the bruising of it by the recoil. The head of this screw, overlapping the end of the mortise, receives the wedge and checks it. By turning this screw the force of the wedge may be tempered. In Fig. 5, *g* is a spring-latch on the under side of the key, which catches upon D when the key is forced in and prevents its accidental removal. [2]

Fig. 6 represents a percussion tube or nipple, through which the fire from the percussion-cap is to be conducted to the chamber. Fig. 7 represents the same in section. The outer end, *h*, of the tube has the opening made as large as convenience will allow, and it goes tapering or conical until at the inner end, *i*, it is as small as a proper entrance of the flame from the percussion-powder will warrant. By giving the conical or funnel-formed opening to the tube the effect of the percussion-powder is greatly increased.

E, Figs. 1 and 8, is a bolt for locking the receiver when a loaded chamber is brought to coincide with the barrel, the rounded end *j* being forced into a hole in the receiver by the action of a spring on its outer end *k*. This bolt is drawn back by the hammer F in the act of cocking.

l, Figs. 1 and 9, is a spring-cam, which is screwed to the hammer at *m*. It is made of spring-steel, so that its cam end *n* may recede from or approach the hammer F. The cam *n* bears against the projection *o* on the bolt E on the side which lies against the hammer, and as the hammer is drawn back causes the bolt to recede. The bolt is notched to enable it to be withdrawn without interfering with the joint-pin *q* of the hammer. The lateral springing of the cam-piece *l* is necessary to admit of its passing by the projection *o* of the bolt when the hammer is made to strike upon a percussion-cap. To enable the spring-cam to pass the bolt E, the lower end of it, *n*, is made wedge-shaped, diminishing to a point or edge at its extremity, and as it is made to spring laterally it is received into a recess in the hammer as the latter passes the bolt in making the discharge.

Fig. 10 shows the ratchet-wheel and hand or pawl by which the receiver is made to revolve to the distance from one chamber to another in the act of cocking. The cylindrical periphery *q* of the ratchet-wheel fits into a corresponding cavity on the back end of the receiver, as shown at *q q*, Fig. 1. *r* is a projection to prevent its turning round, this being adapted to a notch made to receive it. S is a hand or pawl, which falls into the teeth of the ratchet-wheel, said pawl being forced forward by the spring S'. The arbor *t* on which the hand turns is received into the opening *t*. In the hammer, Fig. 1, the hand itself being on the opposite side of said hammer from that shown, its position is shown by the dotted lines surrounding its arbor *t*. The cocking of the gun causes it to act upon the ratchet-wheel, and when turned to the proper distance the bolt E is forced by its spring into the proper opening in the receiver. The mainspring is connected to the lock-plate at *u*, and to the hammer by a stirrup at V. The trigger is shown at *w*. These parts, not differing in their construction and operation from analogous parts in other gun-locks, need no particular description, and from the description above given of the structure and operation of those parts of the rifle or gun which are new, the action of the whole will, it is believed, be clearly understood.

Fig. 11 is a sectional view of a pistol, the general construction of which is the same with that of the rifle or gun already described, such modifications only being made as are rendered necessary by its size and other considerations. F is the hammer carrying the hand or pawl S, which operates on the ratchet-wheel, which wheel and hand are arranged in the same way with the same parts in the rifle; but the hand is as here represented on the reverse side. The bolt which holds the receiver is, however, differently constructed to enable it to act in the space which it must occupy.

Fig. 12 is a view of the hammer on the side the reverse of that shown in Fig. 11; and E, Fig. 13, is the bolt adapted thereto. *j* is the pin on the bolt, which holds the receiver by falling into openings on its periphery instead of in its end. The pin *j* is shown in place in Fig. 11. The bolt E vibrates on a joint-pin at *x*, which is nearly in the same line with the joint-pin *y* on the trigger, Figs. 11 and 15, by which it is hidden in those figures. *z* is a cam formed in a recess in the hammer, Fig. 12, which cam is to act upon the bolt E and to disengage it from the receiver. The ends *a a*² of this bolt are capable of receding from or approaching toward each other, as they constitute two spring-cheeks formed by splitting or forking the bolts, as shown in the drawings. The end *a*² lies above the cam *z* on the hammer when the pistol is not cocked, and the lower end of *a*², as well as the upper end of *z*, being flat, the bolt E is lifted in the act of cocking until the pin *j* is disengaged, and the ends of *a*² and *z* then pass each other. The cam *z* is made wedge

shape by sloping from its upper to its lower end, and the end a^2 of the bolt is similarly formed, but in the reverse direction, so that when the piece is discharged the end a^2 will be made to spring in, allowing the hammer to pass readily, when the end a^2 again rests upon z as before.

Fig. 14 shows the hammer with the hand S and ratchet q , which need no further description.

Fig. 15 shows the trigger and its appendages, which are formed in a way not presenting any claim to novelty. u is the attachment of the mainspring to the lock-plate, and v its attachment to the stirrup and hammer.

Fig. 16 shows the apparatus which I employ for forcing the balls into the chambers. $b^2 b^2$ are two of the chambers, shown in section; and C , the arbor by which the barrel is attached to the stock and upon which the receiver turns, as already explained. G is a lever carrying a rammer, H , by which the balls are to be forced into the chambers. The forward end of the lever H passes into the mortise c^2 , which receives the key by which the barrel is attached. The operation of the rammer H upon the ball d' will be apparent. In using this lever the receiver is to be turned upon the arbor, and the chambers brought in succession under the rammer. This lever, at its end e' , constitutes a wrench for screwing and unscrewing the percussion-tubes, and also contains a picker attached to a screw-cap, f . A fulcrum for the lever H may be formed on the barrel or otherwise, instead of using the mortise c^2 , if preferred.

[3]

Figs. 17 and 18 are a top and sectional view of my improved cap-primer, which differs in some important particulars from the English and other cap-primers now in use. I make a spiral groove, $a a a$, in a plate of brass or other metal, which groove is of such depth and width as to receive the percussion-caps, and to allow them to move freely therein. $b b b$ are caps within said groove. In the center of the primer, under the plate $c c$, is a spiral spring, $d d$, operating like the mainspring of a watch upon its barrels and turning the plate $c c$. This plate has a groove across it which carries a sliding arm, $e e'$, having under its end e' a projecting piece which enters the groove, draws the arm out, and presses upon the row of caps. At the mouth of the spiral groove, where the cap b' is seen, a steel spring, f , checks the cap and counteracts the pressure of the spiral spring $d d$; but when the cap b' is placed upon the tube or nipple the spring f will recede by the withdrawal of the cap, and a new one will be made to occupy its place, and so on until the whole are exhausted. The cover g , which in Fig. 17 is shown as raised, is held down by a spring-catch at h . There is a spring-catch at i , which holds the sliding arm e at its end e' , when it is brought round to the inner end of the spiral groove, its use being to detain the arm while the groove is being filled with caps, when it is to be raised, and the arm left at liberty to operate. The spring $d d$ may be wound up by a small key, k , or by inserting a screw driver in a notch made for that purpose, or simply by forcing the arm $e e$ round until it is caught by the catch i .

Fig. 19 is a representation of my ammunition-flask, by means of which all the chambers in my receiver may be simultaneously charged with powder and with balls. It consists of two separate chambers, one of which is a powder and the other a bullet magazine, a being the former and b the latter, the two being connected together by a bayonet-joint at c . $d d d$ are charging-tubes adapted in number and position to the mouths of the chambers of the receiver which they are to enter.

Fig. 21 shows the closed top of the powder-magazine, with a valve or turn cover, e , which closes a hole through which the magazine is to be filled. This magazine occupies the space from f to g , Fig. 19, where the powder is contained in bulk. The space from g to h is a receptacle which is divided by partitions into separate chambers, the same in number with the tubes $d d$, each of which chambers contains the quantity of powder required for the charge of a single chamber, $i i$ is the rim of this chambered receptacle, which is capable of being turned round to a short distance by the thumb and finger for the purpose of charging the chambers with powder. This turning round brings openings $u u$, Fig. 20, in the lower end of the chambered box to coincide with the openings in the tubes $d d$, so that the powder contained in the chambers in $i i$ may pass out therefrom into the chambers of the receiver. There are openings also in the upper plate or top of the receptacle $i i$ corresponding with openings in the bottom of the magazine a , which are closed by turning the rim $i i$, so as to prevent powder from falling through from the magazine while the receiver is being filled.

Fig. 27 is a section through the middle of the chambered receptacle $i i$, the circles $r r$ representing the chambers for containing the powder. $s s$ are the openings in the top plate of these chambers, through which the powder is admitted into them from the magazine a . The dotted lines $t t$ show the plan of the openings in the bottom plate of the chamber a , the chambered receiver being shown in the position in which those openings are covered.

In Fig. 28 the same parts are represented; but the chambered receiver is supposed to be turned round or standing in its ordinary position, so that the openings $S S$ and $t t$ coincide. The chambered receptacle is restored to its place by means of a spring of any suitable form. The whole operation of this part will be more clearly made known by the sectional representation of the magazine for balls, which I am now about to describe.

The end of the flask, Fig. 19, is, I have said, the magazine for balls. Fig. 22 is an end view of this magazine, and Fig. 23 a section along its axis. The portion from f to j , Figs. 19, 23, and 24, is divided into as many tubular chambers as there are chambers in the receiver—say five. These are open at top and are to be filled with balls, as shown at $k k$ in the section Fig. 23. These tubes are also open at their lower ends, so that the balls may pass from them into a chambered receptacle,

l l, similar to that for the powder. From this chambered receptacle they are to fall into the chambers of the receiver when the lower end of the flask, Fig. 22, is applied thereto for that purpose, the openings *m m* in the lower end of the flask being adapted thereto. The rim of the chambered receiver *l l* is to be turned round to allow the balls to escape through *m m*, as already described in the charging with powder. In Fig. 22, *n n* are the divisions between the chambers of the chambered receiver, and which retain one set or tier of balls until the rim is turned around so as to cause the chambers to coincide with the openings *m m*. The balls will then pass through. The same motion of the chambered receiver causes the divisions between the tubes and the chambered receiver to pass under and sustain the balls in the magazine. In the case of the powder-magazine the action is the same; but the powder being in fine particles, the apertures at one end of the receptacles must be perfectly closed before those at the other begin to be opened, which is not necessary with the balls. In Fig. 24 a portion of the exterior of the magazine is removed to show how a spring, *o o*, may be placed within it so as to act upon *l l*; but spiral or other springs may be placed in many ways to answer the same purpose. The central part of both the magazines is tubular, as shown at *p p*, said tube fitting onto the arbor *C'*, Fig. 16, when the barrel is removed therefrom, and the receiver left on for the purpose of being charged, which operation does not require to be further explained. Upon the barrel of this tubular part the chambered receptacles are received and revolve. [4]

Figs. 25 and 26 represent a top view and a side view of a part of an improved bullet-mold, which I describe without intending to make any claim thereto, but merely for the purpose of showing the whole of the apparatus employed in a complete and connected series. *a a* are the two handles of the mold, and *b* the handle of the knife by which the sprue is cut off. *c* is one-half of the mold, of which *d d* is the hinge-joint. *e* is a plate of steel, through which there is a hole, *f*, for pouring in the lead, the lower edges of which constitute a knife by which the sprue is cut off and the ball left perfect. This knife turns on the joint-pin *g*.

Having thus fully described the manner in which I construct and use my improved fire-arms, and the respective articles of apparatus appertaining thereto, it has been necessary in so doing to mention many parts which I do not claim as new, the same being similar to what has been before used and patented by me, or which are common property. I do hereby declare, therefore, that I limit my claim to the following particulars.

I claim—

1. The making of a groove or channel on the arbor, as represented at *b*, Fig. 2, for the purpose of conducting off the smoke from the lateral discharge, and thus preserving the arbor clean within the receiver, and the tube by which the barrel is connected.

2. The particular manner of forming and governing the key by which the barrel is attached to the stock by making the same with grooves in which the heads of overlapping screw-heads are received, and with a tempering-screw to check and regulate its action as a wedge, as set forth.

3. The making the aperture through the tubes or nipples (which receive the percussion-caps) conical or funnel-shaped, for the purpose of freely admitting the fire from the percussion-cap and concentrating it as it enters the chamber.

4. The manner of arranging the bolt *E* of the rifle and its spring cam *l n* for locking and unlocking the receiver, the same being constructed and operating as herein described.

5. The manner of constructing and arranging the bolt *E* and its spring-cam, operated upon by the cam or projecting piece *z* under that modification thereof adopted in the pistol, and herein fully made known.

6. The improved manner of arranging the ratchet-wheel and band, as set forth, by which the hinge-joint to allow of the lateral motion of this band, as described by me in my former patent, is dispensed with in consequence of the placing of the ratchet-teeth on the face instead of on the side of the wheel, and operating the same in the manner described, as applied to the rifle and to the pistol.

7. The combination of the lever with its rammer for forcing the balls into the chambers of the receiver, as described.

8. In the improved cap-primer, the making thereof with a spiral groove to receive the caps, and with the sliding arm acted upon by the spiral spring elongating itself and forcing the percussion-caps forward in the manner set forth.

9. The manner of constructing and arranging the respective parts of the magazines for powder and balls, in the flask, by means of which the powder and the balls are in turn supplied to all the chambers in the receiver at the same time, the whole being made with the chambered receptacles and other parts, as set forth.

SAML. COLT.

Witnesses:
THOS. B. JONES,
GEORGE WEST.

To the Honorable Commissioner of Patents:

The petition of SAMUEL COLT, of Hartford, in the State of Connecticut, respectfully represents that he is the sole patentee and owner of Letters Patent granted to him on the 29th day of August, 1839, for an improvement in fire-arms and in the apparatus used therewith; that he has reason to believe that through inadvertence and mistake the claim made in the specification of said Letters Patent is too broad, including that of which the said patentee was not the first inventor, although he avers that he was an original inventor thereof, and had no knowledge when he applied for Letters Patent therefor that any other person had ever used the said improvement before that time.

Your petitioner therefore hereby enters his disclaimer to that part of the claim in the before-mentioned specification which is in the following words, viz:

"I claim making the aperture through the tubes or nipples (which receive the percussion-caps) conical or funnel shaped, for the purpose of freely admitting the fire from the percussion-cap and concentrating it as it enters the chamber," which disclaimer is to operate to the extent of the interest in said Letters Patent vested in your petitioner, the same being the whole right, title, and interest thereby granted to him, as aforesaid, he having paid ten dollars into the Treasury of the United States agreeably to the provisions of the act of Congress in that case made and provided.

Dated at Hartford this 5th day of August, A. D. 1853.

SAM. COLT.

In presence of—
L. P. SARGEANT.

Transcriber's Notes:

Page 1, "delare" changed to "declare" (I do hereby declare)

Page 1, "guus" changed to "guns" (guns, and pistols)

Page 3, "reprerenting" changed to "representing" (the circles *r r* representing)

*** END OF THE PROJECT GUTENBERG EBOOK IMPROVEMENT IN FIRE-ARMS AND IN THE APPARATUS USED THEREWITH ***

Updated editions will replace the previous one—the old editions will be renamed.

Creating the works from print editions not protected by U.S. copyright law means that no one owns a United States copyright in these works, so the Foundation (and you!) can copy and distribute it in the United States without permission and without paying copyright royalties. Special rules, set forth in the General Terms of Use part of this license, apply to copying and distributing Project Gutenberg™ electronic works to protect the PROJECT GUTENBERG™ concept and trademark. Project Gutenberg is a registered trademark, and may not be used if you charge for an eBook, except by following the terms of the trademark license, including paying royalties for use of the Project Gutenberg trademark. If you do not charge anything for copies of this eBook, complying with the trademark license is very easy. You may use this eBook for nearly any purpose such as creation of derivative works, reports, performances and research. Project Gutenberg eBooks may be modified and printed and given away—you may do practically ANYTHING in the United States with eBooks not protected by U.S. copyright law. Redistribution is subject to the trademark license, especially commercial redistribution.

START: FULL LICENSE
THE FULL PROJECT GUTENBERG LICENSE
PLEASE READ THIS BEFORE YOU DISTRIBUTE OR USE THIS WORK

To protect the Project Gutenberg™ mission of promoting the free distribution of electronic works, by using or distributing this work (or any other work associated in any way with the phrase "Project Gutenberg"), you agree to comply with all the terms of the Full Project Gutenberg™ License available with this file or online at www.gutenberg.org/license.

Section 1. General Terms of Use and Redistributing Project Gutenberg™ electronic works

1.A. By reading or using any part of this Project Gutenberg™ electronic work, you indicate that you have read, understand, agree to and accept all the terms of this license and intellectual property (trademark/copyright) agreement. If you do not agree to abide by all the terms of this agreement, you must cease using and return or destroy all copies of Project

Gutenberg™ electronic works in your possession. If you paid a fee for obtaining a copy of or access to a Project Gutenberg™ electronic work and you do not agree to be bound by the terms of this agreement, you may obtain a refund from the person or entity to whom you paid the fee as set forth in paragraph 1.E.8.

1.B. “Project Gutenberg” is a registered trademark. It may only be used on or associated in any way with an electronic work by people who agree to be bound by the terms of this agreement. There are a few things that you can do with most Project Gutenberg™ electronic works even without complying with the full terms of this agreement. See paragraph 1.C below. There are a lot of things you can do with Project Gutenberg™ electronic works if you follow the terms of this agreement and help preserve free future access to Project Gutenberg™ electronic works. See paragraph 1.E below.

1.C. The Project Gutenberg Literary Archive Foundation (“the Foundation” or PGLAF), owns a compilation copyright in the collection of Project Gutenberg™ electronic works. Nearly all the individual works in the collection are in the public domain in the United States. If an individual work is unprotected by copyright law in the United States and you are located in the United States, we do not claim a right to prevent you from copying, distributing, performing, displaying or creating derivative works based on the work as long as all references to Project Gutenberg are removed. Of course, we hope that you will support the Project Gutenberg™ mission of promoting free access to electronic works by freely sharing Project Gutenberg™ works in compliance with the terms of this agreement for keeping the Project Gutenberg™ name associated with the work. You can easily comply with the terms of this agreement by keeping this work in the same format with its attached full Project Gutenberg™ License when you share it without charge with others.

1.D. The copyright laws of the place where you are located also govern what you can do with this work. Copyright laws in most countries are in a constant state of change. If you are outside the United States, check the laws of your country in addition to the terms of this agreement before downloading, copying, displaying, performing, distributing or creating derivative works based on this work or any other Project Gutenberg™ work. The Foundation makes no representations concerning the copyright status of any work in any country other than the United States.

1.E. Unless you have removed all references to Project Gutenberg:

1.E.1. The following sentence, with active links to, or other immediate access to, the full Project Gutenberg™ License must appear prominently whenever any copy of a Project Gutenberg™ work (any work on which the phrase “Project Gutenberg” appears, or with which the phrase “Project Gutenberg” is associated) is accessed, displayed, performed, viewed, copied or distributed:

This eBook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at www.gutenberg.org. If you are not located in the United States, you will have to check the laws of the country where you are located before using this eBook.

1.E.2. If an individual Project Gutenberg™ electronic work is derived from texts not protected by U.S. copyright law (does not contain a notice indicating that it is posted with permission of the copyright holder), the work can be copied and distributed to anyone in the United States without paying any fees or charges. If you are redistributing or providing access to a work with the phrase “Project Gutenberg” associated with or appearing on the work, you must comply either with the requirements of paragraphs 1.E.1 through 1.E.7 or obtain permission for the use of the work and the Project Gutenberg™ trademark as set forth in paragraphs 1.E.8 or 1.E.9.

1.E.3. If an individual Project Gutenberg™ electronic work is posted with the permission of the copyright holder, your use and distribution must comply with both paragraphs 1.E.1 through 1.E.7 and any additional terms imposed by the copyright holder. Additional terms will be linked to the Project Gutenberg™ License for all works posted with the permission of the copyright holder found at the beginning of this work.

1.E.4. Do not unlink or detach or remove the full Project Gutenberg™ License terms from this work, or any files containing a part of this work or any other work associated with Project Gutenberg™.

1.E.5. Do not copy, display, perform, distribute or redistribute this electronic work, or any part of this electronic work, without prominently displaying the sentence set forth in paragraph 1.E.1 with active links or immediate access to the full terms of the Project Gutenberg™ License.

1.E.6. You may convert to and distribute this work in any binary, compressed, marked up, nonproprietary or proprietary form, including any word processing or hypertext form. However, if you provide access to or distribute copies of a Project Gutenberg™ work in a

format other than "Plain Vanilla ASCII" or other format used in the official version posted on the official Project Gutenberg™ website (www.gutenberg.org), you must, at no additional cost, fee or expense to the user, provide a copy, a means of exporting a copy, or a means of obtaining a copy upon request, of the work in its original "Plain Vanilla ASCII" or other form. Any alternate format must include the full Project Gutenberg™ License as specified in paragraph 1.E.1.

1.E.7. Do not charge a fee for access to, viewing, displaying, performing, copying or distributing any Project Gutenberg™ works unless you comply with paragraph 1.E.8 or 1.E.9.

1.E.8. You may charge a reasonable fee for copies of or providing access to or distributing Project Gutenberg™ electronic works provided that:

- You pay a royalty fee of 20% of the gross profits you derive from the use of Project Gutenberg™ works calculated using the method you already use to calculate your applicable taxes. The fee is owed to the owner of the Project Gutenberg™ trademark, but he has agreed to donate royalties under this paragraph to the Project Gutenberg Literary Archive Foundation. Royalty payments must be paid within 60 days following each date on which you prepare (or are legally required to prepare) your periodic tax returns. Royalty payments should be clearly marked as such and sent to the Project Gutenberg Literary Archive Foundation at the address specified in Section 4, "Information about donations to the Project Gutenberg Literary Archive Foundation."
- You provide a full refund of any money paid by a user who notifies you in writing (or by e-mail) within 30 days of receipt that s/he does not agree to the terms of the full Project Gutenberg™ License. You must require such a user to return or destroy all copies of the works possessed in a physical medium and discontinue all use of and all access to other copies of Project Gutenberg™ works.
- You provide, in accordance with paragraph 1.F.3, a full refund of any money paid for a work or a replacement copy, if a defect in the electronic work is discovered and reported to you within 90 days of receipt of the work.
- You comply with all other terms of this agreement for free distribution of Project Gutenberg™ works.

1.E.9. If you wish to charge a fee or distribute a Project Gutenberg™ electronic work or group of works on different terms than are set forth in this agreement, you must obtain permission in writing from the Project Gutenberg Literary Archive Foundation, the manager of the Project Gutenberg™ trademark. Contact the Foundation as set forth in Section 3 below.

1.F.

1.F.1. Project Gutenberg volunteers and employees expend considerable effort to identify, do copyright research on, transcribe and proofread works not protected by U.S. copyright law in creating the Project Gutenberg™ collection. Despite these efforts, Project Gutenberg™ electronic works, and the medium on which they may be stored, may contain "Defects," such as, but not limited to, incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

1.F.2. LIMITED WARRANTY, DISCLAIMER OF DAMAGES - Except for the "Right of Replacement or Refund" described in paragraph 1.F.3, the Project Gutenberg Literary Archive Foundation, the owner of the Project Gutenberg™ trademark, and any other party distributing a Project Gutenberg™ electronic work under this agreement, disclaim all liability to you for damages, costs and expenses, including legal fees. YOU AGREE THAT YOU HAVE NO REMEDIES FOR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY OR BREACH OF CONTRACT EXCEPT THOSE PROVIDED IN PARAGRAPH 1.F.3. YOU AGREE THAT THE FOUNDATION, THE TRADEMARK OWNER, AND ANY DISTRIBUTOR UNDER THIS AGREEMENT WILL NOT BE LIABLE TO YOU FOR ACTUAL, DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.

1.F.3. LIMITED RIGHT OF REPLACEMENT OR REFUND - If you discover a defect in this electronic work within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending a written explanation to the person you received the work from. If you received the work on a physical medium, you must return the medium with your written explanation. The person or entity that provided you with the defective work may elect to provide a replacement copy in lieu of a refund. If you received the work electronically, the person or entity providing it to you may choose to give you a second opportunity to receive the work electronically in lieu of a refund. If the second copy is also defective, you may demand a refund in writing without further opportunities to fix the problem.

1.F.4. Except for the limited right of replacement or refund set forth in paragraph 1.F.3, this

work is provided to you 'AS-IS', WITH NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

1.F.5. Some states do not allow disclaimers of certain implied warranties or the exclusion or limitation of certain types of damages. If any disclaimer or limitation set forth in this agreement violates the law of the state applicable to this agreement, the agreement shall be interpreted to make the maximum disclaimer or limitation permitted by the applicable state law. The invalidity or unenforceability of any provision of this agreement shall not void the remaining provisions.

1.F.6. INDEMNITY - You agree to indemnify and hold the Foundation, the trademark owner, any agent or employee of the Foundation, anyone providing copies of Project Gutenberg™ electronic works in accordance with this agreement, and any volunteers associated with the production, promotion and distribution of Project Gutenberg™ electronic works, harmless from all liability, costs and expenses, including legal fees, that arise directly or indirectly from any of the following which you do or cause to occur: (a) distribution of this or any Project Gutenberg™ work, (b) alteration, modification, or additions or deletions to any Project Gutenberg™ work, and (c) any Defect you cause.

Section 2. Information about the Mission of Project Gutenberg™

Project Gutenberg™ is synonymous with the free distribution of electronic works in formats readable by the widest variety of computers including obsolete, old, middle-aged and new computers. It exists because of the efforts of hundreds of volunteers and donations from people in all walks of life.

Volunteers and financial support to provide volunteers with the assistance they need are critical to reaching Project Gutenberg™'s goals and ensuring that the Project Gutenberg™ collection will remain freely available for generations to come. In 2001, the Project Gutenberg Literary Archive Foundation was created to provide a secure and permanent future for Project Gutenberg™ and future generations. To learn more about the Project Gutenberg Literary Archive Foundation and how your efforts and donations can help, see Sections 3 and 4 and the Foundation information page at www.gutenberg.org.

Section 3. Information about the Project Gutenberg Literary Archive Foundation

The Project Gutenberg Literary Archive Foundation is a non-profit 501(c)(3) educational corporation organized under the laws of the state of Mississippi and granted tax exempt status by the Internal Revenue Service. The Foundation's EIN or federal tax identification number is 64-6221541. Contributions to the Project Gutenberg Literary Archive Foundation are tax deductible to the full extent permitted by U.S. federal laws and your state's laws.

The Foundation's business office is located at 809 North 1500 West, Salt Lake City, UT 84116, (801) 596-1887. Email contact links and up to date contact information can be found at the Foundation's website and official page at www.gutenberg.org/contact

Section 4. Information about Donations to the Project Gutenberg Literary Archive Foundation

Project Gutenberg™ depends upon and cannot survive without widespread public support and donations to carry out its mission of increasing the number of public domain and licensed works that can be freely distributed in machine-readable form accessible by the widest array of equipment including outdated equipment. Many small donations (\$1 to \$5,000) are particularly important to maintaining tax exempt status with the IRS.

The Foundation is committed to complying with the laws regulating charities and charitable donations in all 50 states of the United States. Compliance requirements are not uniform and it takes a considerable effort, much paperwork and many fees to meet and keep up with these requirements. We do not solicit donations in locations where we have not received written confirmation of compliance. To SEND DONATIONS or determine the status of compliance for any particular state visit www.gutenberg.org/donate.

While we cannot and do not solicit contributions from states where we have not met the solicitation requirements, we know of no prohibition against accepting unsolicited donations from donors in such states who approach us with offers to donate.

International donations are gratefully accepted, but we cannot make any statements concerning tax treatment of donations received from outside the United States. U.S. laws alone swamp our small staff.

Please check the Project Gutenberg web pages for current donation methods and addresses. Donations are accepted in a number of other ways including checks, online payments and credit card donations. To donate, please visit: www.gutenberg.org/donate

Section 5. General Information About Project Gutenberg™ electronic works

Professor Michael S. Hart was the originator of the Project Gutenberg™ concept of a library of electronic works that could be freely shared with anyone. For forty years, he produced and distributed Project Gutenberg™ eBooks with only a loose network of volunteer support.

Project Gutenberg™ eBooks are often created from several printed editions, all of which are confirmed as not protected by copyright in the U.S. unless a copyright notice is included. Thus, we do not necessarily keep eBooks in compliance with any particular paper edition.

Most people start at our website which has the main PG search facility: www.gutenberg.org.

This website includes information about Project Gutenberg™, including how to make donations to the Project Gutenberg Literary Archive Foundation, how to help produce our new eBooks, and how to subscribe to our email newsletter to hear about new eBooks.