



A.D. 1838 N^o 7610,

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

OF

JOSEPH ROCK COOPER.

CONSTRUCTING FIRE-ARMS, AND PLATING
CERTAIN PORTIONS OF THEIR SURFACES
WITH GOLD, SILVER, &c.

L O N D O N :

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY :

PUBLISHED AT THE QUEEN'S PRINTING OFFICE, EAST HARDING STREET,
NEAR FLEET STREET.

Price 9½d.

1854.



A.D. 1838 - 7610



A.D. 1838 N° 7610.

Constructing Fire-arms, and Plating certain Portions of their Surfaces with Gold, Silver, &c.

COOPER'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOSEPH ROCK COOPER, of Birmingham, in the County of Warwick, Gun Maker, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Tenth day of April, in the first year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Joseph Rock Cooper, Her especial licence, full power, sole privilege and authority, that I, the said Joseph Rock Cooper, my exors, admors, and assigns, or such others as I, the said Joseph Rock Cooper, my exors, admors, or assigns, should at any time agree with, and no others, from time to time and at all times during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, my Invention of "IMPROVEMENTS IN FIRE-ARMS;" in which said Letters Patent is contained a proviso, that I, the said Joseph Rock Cooper, shall cause a particular description of the nature of my said Invention, and in what manner the same is to be performed,



317042/1

Cooper's Improvements in the Construction of Fire-arms, &c.

to be inrolled in Her said Majesty's High Court of Chancery within six calendar months next and immediately after the date of the said in part recited Letters Patent, as in and by the same, reference being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said Joseph Rock Cooper, do hereby declare the nature of my Invention, and the manner in which the same is to be performed, are fully described and ascertained in and by the following statement thereof, reference being had to the Drawings hereunto annexed, and to the figures and letters marked thereon, that is to say: 5 10

My Invention relates, first, to a mode of constructing the bodies and locks of fowling pieces, pistols, muskets, and such like fire-arms, with inside and enclosed action. Secondly, my Invention relates to lining the nipples with gold, silver, and other metal not so prejudicially acted on as iron or steel, by discharging percussion powder, or by the discharging of gunpowder; and also to coating the external surface of the nipples with like metals, and also so much of the surface of the barrels or breaches around the nipples as are liable to be prejudicially acted on by discharging fire-arms, and also the inner surface of the hammer or cock, excepting just that part which strikes the blow on the cap or patch, and also to lining the breech or inner surface of the barrel where the charge of gunpowder lies and is ignited; the object of applying silver, gold, or other metal not so prejudicially acted on as iron or steel by discharging fire-arms being to preserve those parts from the injurious effects now so prejudicial. Thirdly, my Invention relates to an improved safety catch or bolt applied to locks of fire-arms. Fourthly, my Invention relates to the making of the stocks of guns and pistols (where fore ends to the stocks are used) with wood butts or handles, German silver or other metal bodies, and fore ends, by which all the advantages now obtained by making the stocks wholly of metal may be obtained with the additional advantage of having the butts or handles of wood. Fifthly, my Invention relates to a mode of making guns with external action, with the break off and trigger plate of one piece, such trigger plate having the parts of the lock applied thereto. 15 20 25 30 35

Cooper's Improvements in the Construction of Fire-arms, &c.

DESCRIPTION OF THE DRAWING.

Figure 1, represents part of a fowling piece, having the first part of my Invention applied thereto. Figure 2, is a plan of Figure 1; Figure 3, is a plan of the body of the piece shown separately; and 5 Figure 4, a section of Figure 3; the other Figures being separate views of the parts composing the lock. In each of the Figures the same letters indicate similar parts; *a*, being part of the wood stock; *b*, is the body of the gun, which is secured to the wood stock by screws, and by the wood partly entering into the body *b*, as will readily be 10 traced on examining the various Figures of the Drawing. The body *b*, I prefer to be made of iron, or of German silver, or it may be made of any suitable metal. By the arrangement here shewn, the breech *c* forms part of the body of the gun, and the fore part *d* is to be affixed to the body *b*, by being connected with the barrel and screwing on with 15 it, but it should be understood that what are called patent breeches may be used; in such case the front plate of the body *b* will be made suitable to receive the hutt of the breach, and the fore end *d* made fast to the body of the gun by means of a screw passing through the front plate of the body into a plate or nut formed in the fore end. The 20 arrangement shews the body *b*, consisting of one side, the front plate and the trigger plate being in one piece, which offers much strength of construction and simplicity of structure. *e*, is a sliding door which moves in grooves on each side of the body *b*; or the door may, if preferred, open on a hinge; but whichever plan be used there should be a suitable 25 spring catch or holder to retain the door *e* closed when shut. *f*, is the nipple, which is screwed into the back of the breech, as is shewn in the Drawing. *g*, is the main spring, which is affixed by a screw to the trigger plate; this spring is what may be called a single straight spring, but the same may, if preferred, be a bent spring. *h*, is the 30 hammer by which the requisite blow is given to the percussion cap or patch on the nipple. The shape and construction of this hammer being clearly shewn in the Drawing, it will readily be formed by a workman. *h'*, is the axis which enters the bearing or hole formed in

Cooper's Improvements in the Construction of Fire-arms, &c.

the moveable side *i*, of the body *b*; and *h*², is the axis of the hammer, which, passing through the other side of the body *b* of the fire-arm, receives the cock or instrument *j*, by which the cocking action is obtained, as will readily be understood on examining the Drawing. *h*³, is a cover to the works of the lock, through which the hammer *h* passes, 5 there being an opening for that purpose, but allowing the least possible space between the hammer and the side of the opening, in order to prevent the passage of smoke amongst the parts of the lock. The moveable plate *i*, or side of the body, is attached to the other part of the body *b*, by the projection *i*¹ entering into a suitable recess in the front 10 plate of the body, and by means of screws at *i*², *i*³, or it may be fixed by screws only. *k*, is the trigger, having its axis in the trigger plate of the body of the fire-arm as is shewn in the Drawing, and it will be seen that the seer or catch is formed on the trigger. *l*, is a small spring affixed to the trigger plate, by which the catch of the trigger is con- 15 stantly borne up towards the under part of the tumbler and hammer, in order to be in a position to hold the hammer at half or full cock as required. The Drawing shews the mode of connecting the action of the main spring with the hammer. *m*, is what I call the safety catch or lever; it moves on an axis at *n*, and has a spring which constantly 20 presses it up towards the lower part of the cock, where there is a notch formed, which resting on the catch *m*, the catch *m* will at all times prevent the hammer going down till the trigger is pulled, for it will be seen that the catch *m* rests against the end of the trigger, and consequently when the trigger is pulled (but only at full cock) it forces 25 back the catch *m* out of the way of the notch formed on the cock, and allows of the hammer going down by the force of its spring to discharge the piece. And I would remark that if a further notch be formed on the cock to correspond with that formed on the lower part of the hammer, the bolt or catch *m* would act as a second seer or catch, and in the event 30 of any derangement of the seer on the trigger, or of the catches of the hammer, or by employing the catch *m*, with suitable notches formed on the cock, the seer and catches on the trigger and hammer may be dispensed with, and the catch *m* act as the only seer, which is a simplification of the lock, which will allow of considerable strength of 35

Cooper's Improvements in the Construction of Fire-arms, &c.

structure, but is not so safe as that above explained. The Drawing represents a single barrel gun, but the Invention is evidently equally applicable to double barrel guns. Figures 5 and 6, shew a piston with a secret trigger and suitable arrangement of internal or inclosed action
5 of lock applied thereto, as will readily be understood by examining those Figures; and it shows the door which opens (to allow of the discharged cap being removed, and a fresh one put on the nipple,) as moving on a hinge in place of sliding, as is the case with the gun above described; the object of these Figures being to show that a secret
10 trigger may be employed with the enclosed action. And further it may be stated, that if desired the secret trigger may be used to locks of guns such as is shown at Figures 1, 2, 3, and 4. In coating the inner and outer surfaces with gold, silver, or other suitable metal, where the discharging of detonating powder of the prime and the gunpowder of
15 the charge would prejudicially act on iron or steel, in lining a nipple with gold, silver, platina, or other suitable metal, I prefer to make a small tube of the metal to be used, and open the inner surface of the nipple to allow of receiving it, and then by means of hard soldering I securely affix the tube in the nipple; and in lining the
20 breech or inner surface of the barrel, or of the hammer, or the hollow in the barrel, into which the nipple is secured, I sink a portion of thin metal (silver, gold, platina, or other suitable metal,) into the figure of the surface, and by the process of hard soldering I affix the same; and in covering the external surface of a nipple, I bend round a
25 small skeet of the metal over the nipple, and affix the same thereto by hard solder. The process of such hard soldering being well understood, needs not be described. But I would remark that although I prefer such means of fixing by hard solder, I do not confine myself thereto, as the lining and coating with metals not prejudicially acted on may be per-
30 formed in other ways, but, I believe, not with such facility and advantage as with hard solder. In carrying out the fourth part of my Invention I construct the body and fore end of a gun or pistol of German silver or other other suitable metal, and insert a wood stock or handle, by which not only greater lightness than when all parts of the stock
35 are made of metal, but at the same time the great strength and

Cooper's Improvements in the Construction of Fire-arms, &c.

elegance of metal may be obtained to those parts (the body and fore end) which are the parts most requiring those properties. I will now describe the fifth part of my Invention. Figure 7, represents the side view of part of a fowling piece; the lock and body is similarly made to that shewn in Figures 1, 2, 3, and 4, excepting that the nipple is 5 affixed on the outside, and the cock and hammer is on the outside of the gun. The break off and trigger plate are in one piece, and constitute the body containing the lock movements; and the internal parts of the lock are the same as those shewn in Figures 1, and 2, excepting as above explained that the hammers, in place of being as 10 shown in Figures 1, and 2, are in this case on cocks on the outside of the lock.

Having thus described the nature of my Invention, and the manner of performing the same, I would remark that I do not claim any of the parts separately, nor do I claim any of the combined parts which may 15 have been similarly combined before; and I am aware that the touch-holes and vents of fire-arms have been before lined with gold, silver, and other metals not prejudicially acted on by discharging percussion and other powder; I do not therefore claim the same. But what I claim is, 20

First, the mode of combining the various parts of the lock and body of fowling pieces, guns, pistols, or such like fire-arms, with internal action of the lock, as herein described.

Secondly, the lining and coating nipples and the other surfaces herein-before mentioned with gold, silver, platina, or other metal not so 25 prejudicially acted on as iron or steel.

Thirdly, the mode of applying the catch *m*, as herein described.

Fourthly, the mode of constructing guns or pistols with fore ends of metal with wood handles or butts, as herein described.

And fifthly, I claim the mode of forming the break off, body, and 30 lock with outside action, as explained at Figure 7.

In witness whereof, I, the said Joseph Rock Cooper, have hereunto set my hand and seal, this Ninth day of October, One thousand eight hundred and thirty-eight.

JOSEPH ROCK (L.S.) COOPER. 35

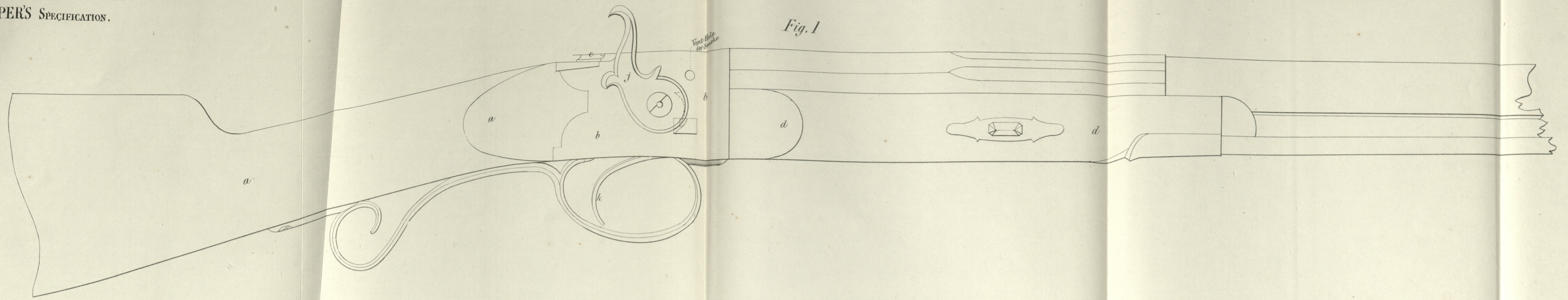


Fig. 1

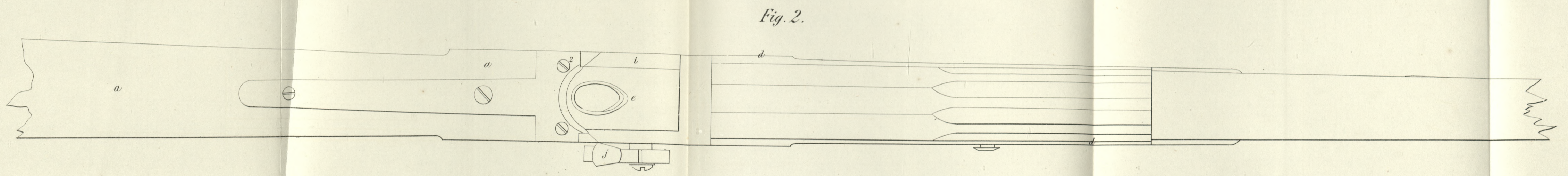


Fig. 2

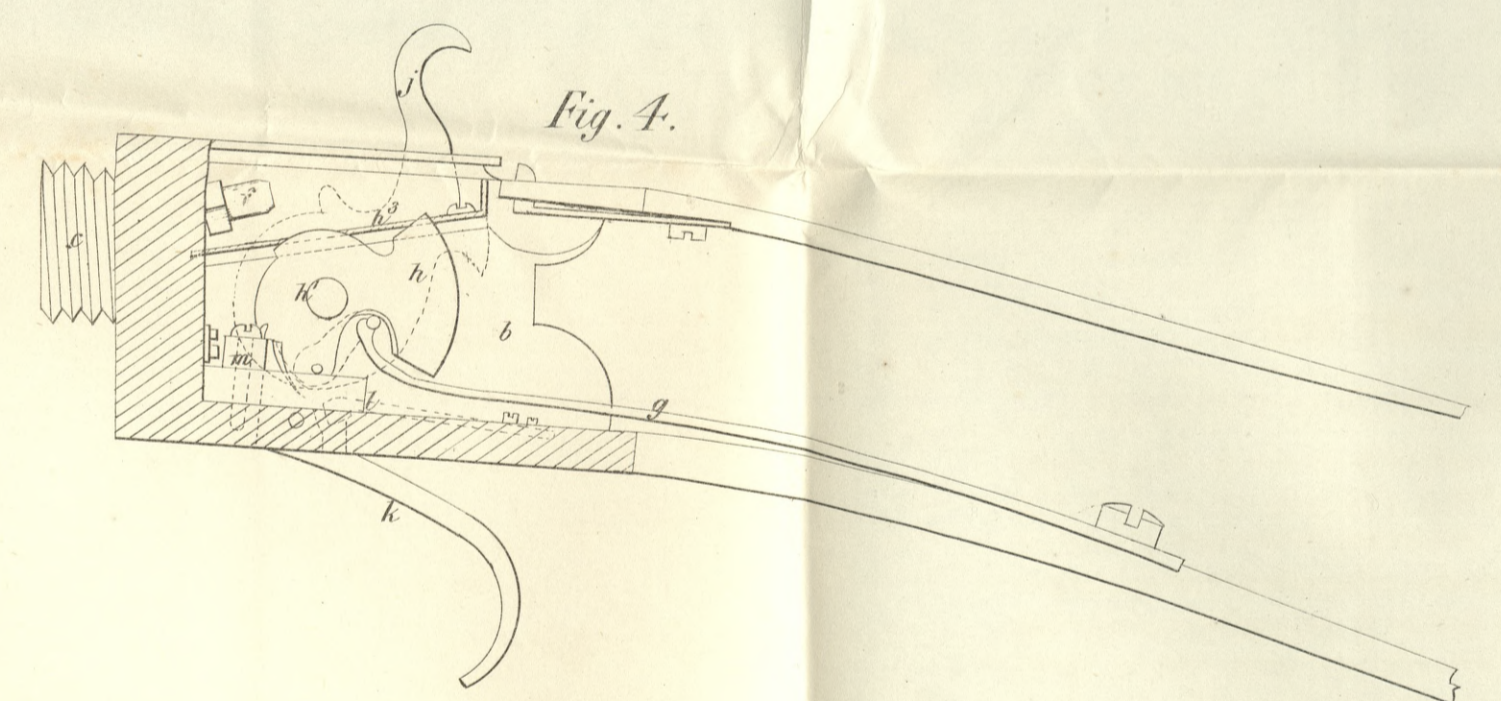


Fig. 4

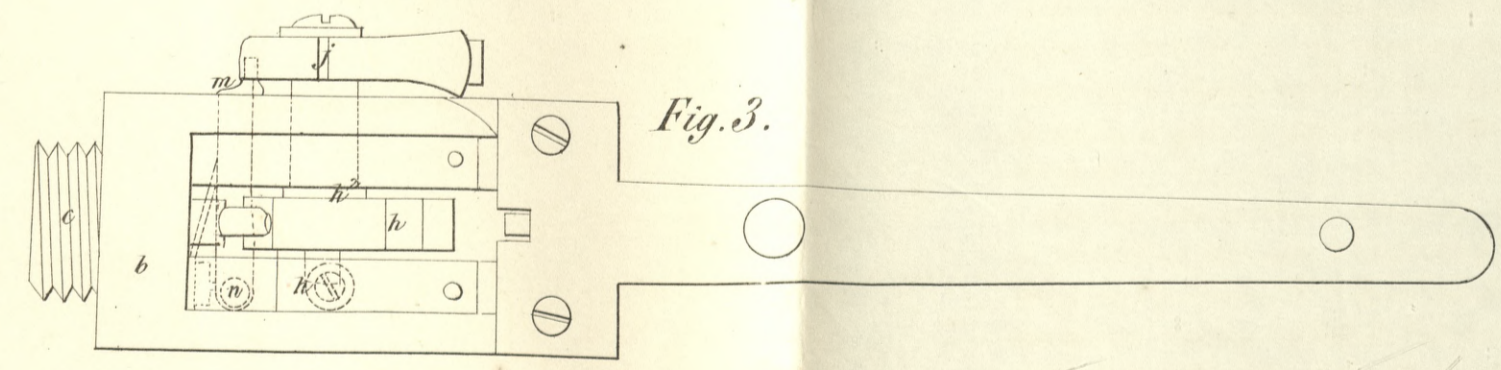
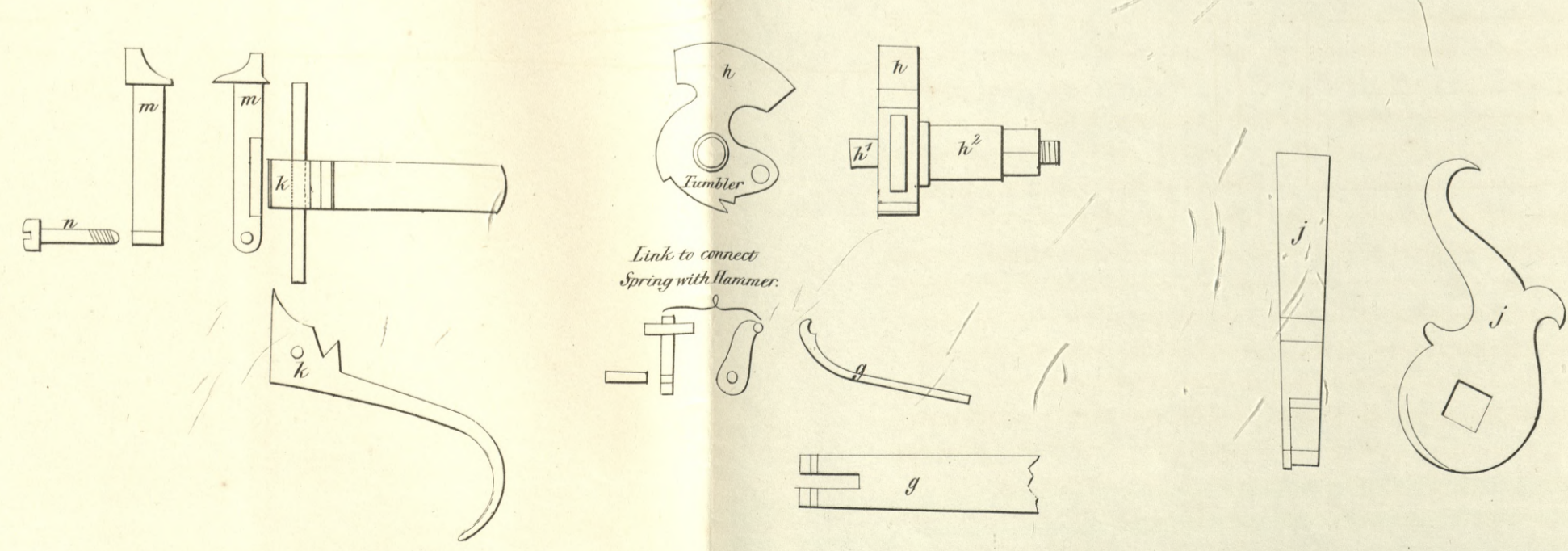
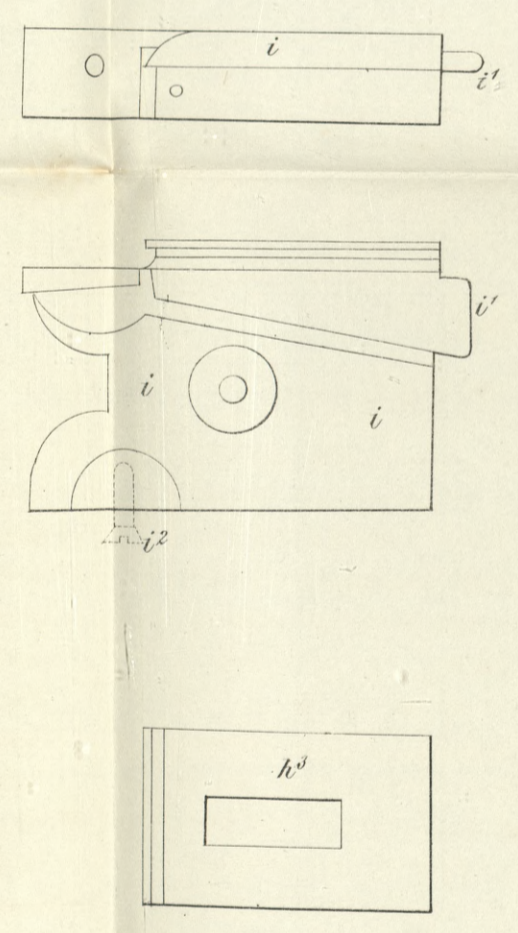


Fig. 3



Link to connect Spring with Hammer.

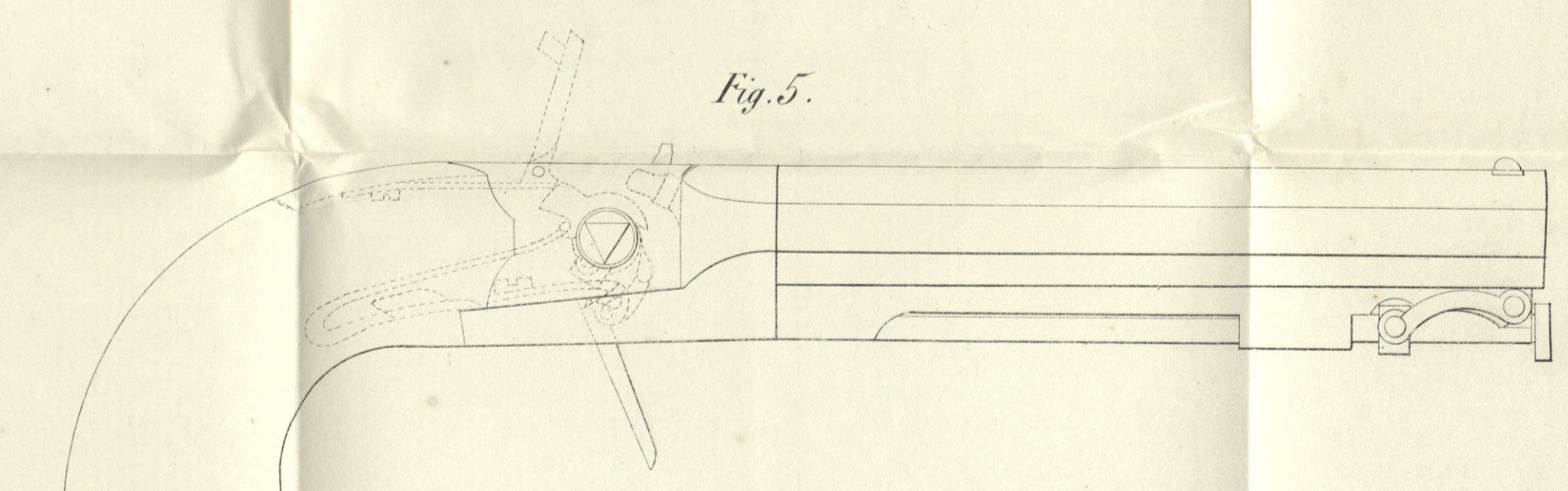
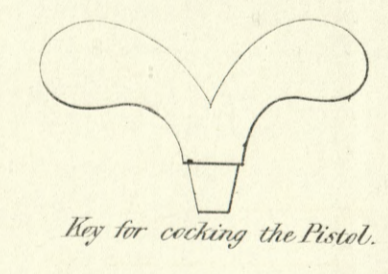


Fig. 5



Key for cocking the Pistol.

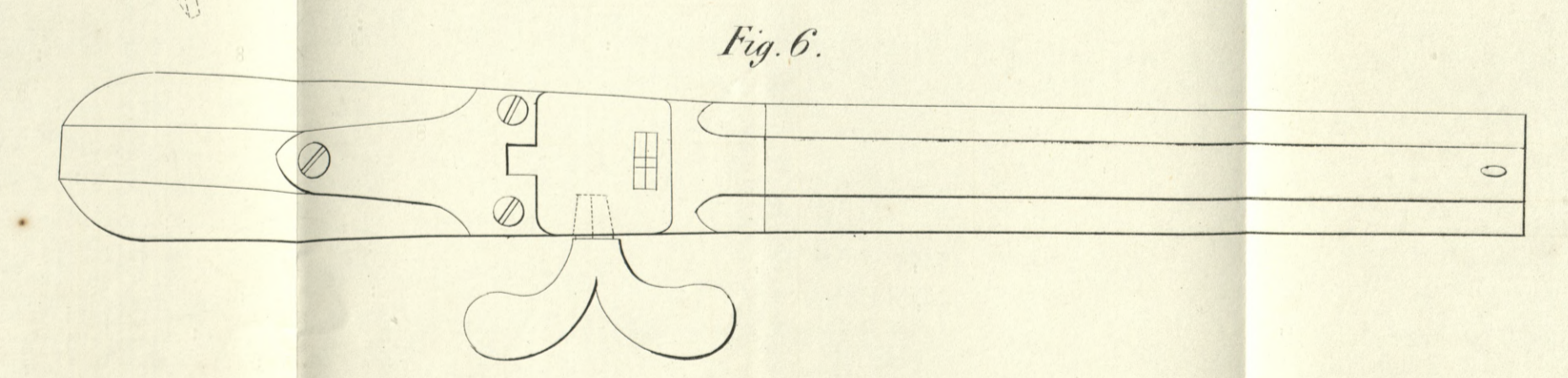
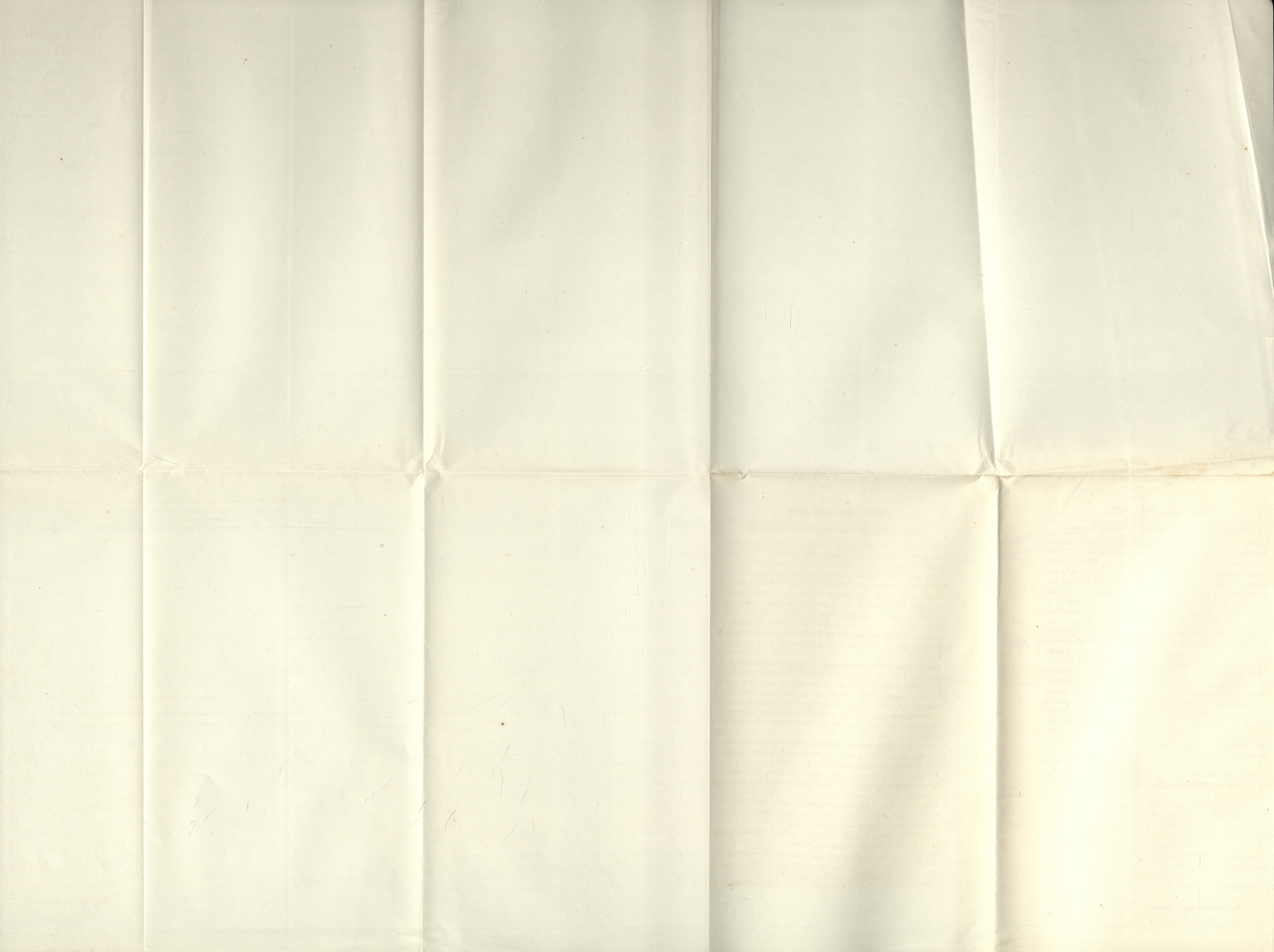


Fig. 6



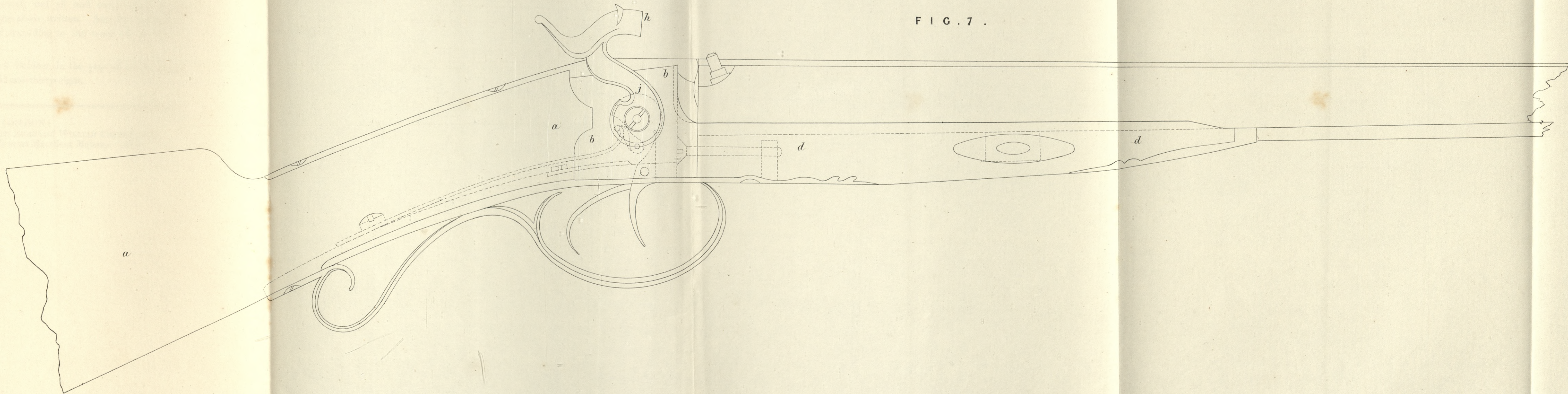
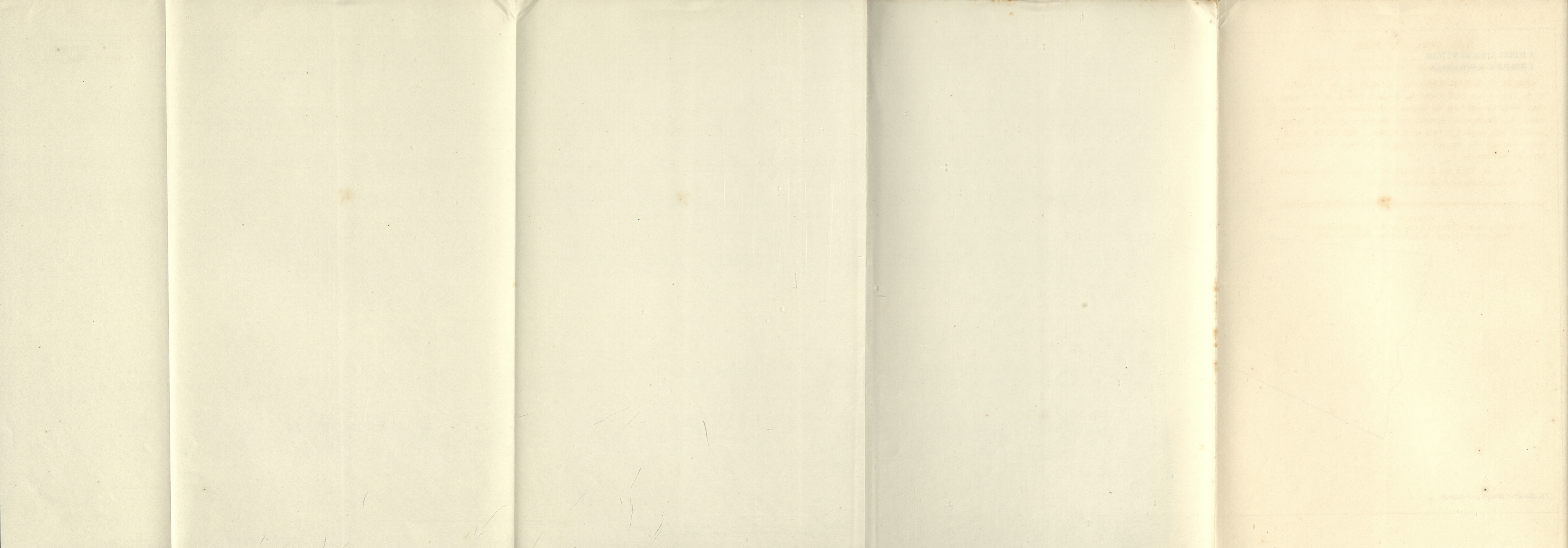


FIG. 7.

The Enrolled Drawing is Colored.



Cooper's Improvements in the Construction of Fire-arms, &c.

AND BE IT REMEMBERED, that on the Ninth day of October, in the year of our Lord 1838, the aforesaid Joseph Rock Cooper came before our said Lady the Queen, in Her Chancery, and acknowledged the Specification aforesaid, and all and every thing therein
5 contained and specified, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose.

LYNCH.

Inrolled the Ninth day of October, in the year of our Lord One thousand eight hundred and thirty-eight.

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1854.

Queen's Instructions in the Construction of the same &c.

1788.

AND BY THE PARLIAMENT that on the Ninth day of October in the year of our Lord 1838, the several things therein contained and specified, in form above written. And also the Statute in that behalf made, were repealed according to the tenor of the Statute made for that purpose.

Witness the Ninth day of October, in the year of our Lord One thousand eight hundred and thirty-eight.

LONDON:
Printed by GEORGE ROBERTS and WILLIAM BENTLEY,
Printers to the Queen's most Excellent Majesty, 1838.



