No Printed Specification Available

2064X

D. Pettibone,

Boring Gun Barrels,

Patented Feb. 12, 1814.

Fig. 1.

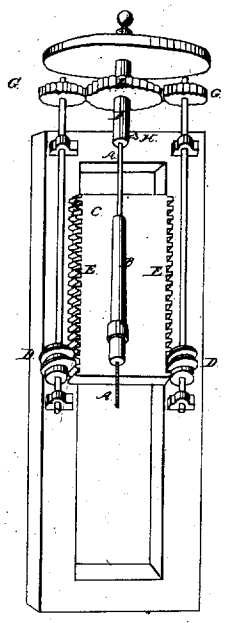
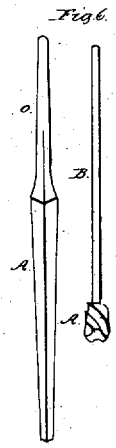
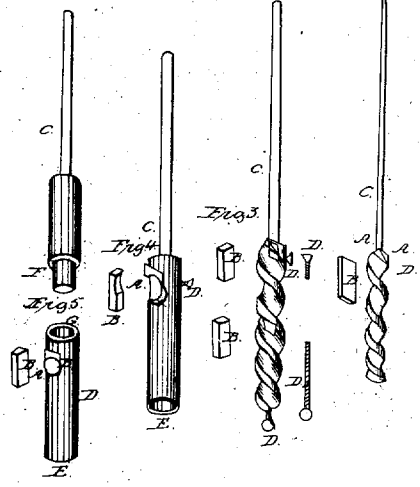


Fig. 6.





To all to whom These Presents shall come, Greeting

Be it Known, That the annexed are true Copies of the Letters Patent and Specifications on Petition of Invention, Knowledge and Information of an Improvement in Rifling Muskets, Pistols & Rifle Barrels, by an Auger, called the Spiral Groove or Threaded Barrel Auger for which Daniel Pettibone obtained a Patent the 12th day of February 1814.

In Testimony whereof, I James Monroe Secretary of the Department of State of the United States of America, have signed these presents, and caused the Seal of my Office to be affixed hereto, at the City of Washington, this nineteenth day of March A.D. 1814 and the thirty ninth year of the Independence of the said States.

James Monroe

To the honorable James Monroe Esqr Secretary of State of the United States of America. — The petition of Daniel Pettibone of Philadelphia edge-tool Maker humbly sheweth — That he did invent certain new and useful improvement in the manner of forming Musket, or rifle barrels by means of peculiar cone formed augers or bits, (called the Spiral groove or threaded barrel auger or bit) (vide Specification) A model of the Auger and a specification of his improvement were filed or deposited in the Office of State (where in this city) in the months of January and August in the year above mentioned.

Your petitioner therefore desirous of obtaining the exclusive property in his said invention and humbly prays that Letters Patent may be duly executed according to law may be granted to him for the said invention as in duty bound will ever pray. Your most obedt

Philada. Feby 31. March 1812

Daniel Pettibone

Specification. To all persons to whom these presents shall come- Daniel Rathbone of Bridgeton in the County of Cumberland and State of New Jersey, Sendeth Greeting:

Be it known that I Daniel Rathbone did on the second day of May in the year 1799 a certain useful improvement in the manner of boring musket, pistol or rifle barrels by an auger (called the Spiral groove or twisted barrel auger)

The invention of the spiral groove or twisted barrel auger for the purpose of boring Musket, pistol, or rifle barrels, consists in the manner of Making it; or the peculiar form or construction of the same; as also the mode of application.

First- These augers are made of the best cast or other good steel welded to a handle or shank of good iron or steel. They are forged hammered twisted in a similar manner to the common barrel auger, except by compression for boring wood- excepting the plate is left thicker before it is twisted. The difference in the form of this improved auger from the common barrel auger and for boring wood. Are that the points or cutters are next to the shank; and that the auger is left twisted for boring iron than for boring wood.

The shank of the auger is long enough to pass through the barrel and fasten to the socket of the Machine that moves or turns the auger. The auger revolves about once per second and the points or cutters are forced against the iron that is to be bored from the inside of the barrel. By the force of application of one or more endless screws that revolve in cogs or Ratchets attached to the carriage on which the barrel is fastened. These endless screws revolve very slowly so as to give time for the augers to cut all that is presented. — My further improvement is the placing of the barrels perpendicular. The improved auger can be well applied if the barrels are placed horizontally. The sides of the shanks of the augers are about one eighth of an inch less than the cutters or cutters

Remember it of much consequence to file or make the point of the cutters flat in the front so as to give the chips a proper direction into the grooves. Make use of several different sizes to have a choice:— the shank of the second auger for about four or five inches from the cutters is just as large as the cutters of the first— and the shank of the third the same size as the cutters of the second &c. &c. &c.

Secondly— For convenience of repairing I put a piece of cast or other good steel about one eighth of an inch square through the shank next to the twisted part to form points or cutters.

Thirdly I have also made augers by forging and turning very smoothly six a little a bit or pin of good steel— six or seven inches long— It was then welded to a shank at one end— and within one or two inches of the other I put through a piece of steel to form points or cutters. This piece of steel is secured in its place by a small screw entering the end or side of the bit or pin.— and from the points or cutters.— Spiral grooves are cut to the end.

Fourth— In some instances I raise the barrel to make instead of the auger for the purpose of having more height and time. The twisted part of the auger is best to be four or five inches long. I frequently repair the points or cutters of the twisted augers with a steel female made by heating the auger to a red heat— and temper it again.

Fifth— I sometimes make these bit or pin hollow from the cutters or points to the end.— So that the chips may pass off internally; instead of passing off in the spiral grooves on the outside. I also make bits / pins, or hollow cylinders that work together some what like the joints of a common flute or clarionet that when screwed together— the cutters or points are projected in its place— the chips or borings pass off internally or externally as circumstances may require.

The Advantages of the foregoing Auger.

Article Firstly. The Carpenters Auger is more easily made & kept in Repair than any other; which will have the straightest without any thing to the Barrel; and of the excellent size above.

Art. Secondly By putting moveable cutters to the Carpenters Auger as to the other Kind, they will last a long time, as only the cutters will need sharpening.

Art. Thirdly — The fastening the barrels perpendicular to the head is a great recommendation as it will save much time in the packing or factory. — And the Hoops can be put on the Auger at once — also the chips will keep out more readily

Art. Fourthly. The middle dent in each of Augers is a matter of small moment to give a regular purpose against the cutters.

Art. Fifthly The making of hollow Augers for the purpose of passing of the chips internally is very convenient. — But there is none of the simplicity of the twisted barrel and so easily made by a common workmans tools

Witness Signed Daniel Pettibone

I. D. D. Muhlenberg

Jas. J. Reese

Jacob Baker City and County of Philadelphia

Be Personally appeared the above named Daniel Pettibone and being duly cautioned and solemnly sworn on the holy Evangelists of Almighty God: — That he verily believes himself to be the first inventor of the improved method of making Augers or Bits for boring Muskets, Pistols, & Rifle Barrels &c. as above specified and described. — And that he is a Citizen of the United States of America

Signed Daniel Pettibone

Sworn the 31 day of March 1818 before me Jacob Baker Mayor

Entered on the Book. The Specification of the Above Invention was filed in the Office of State on the 31st day of March 1818 for Daniel Pettibone

(1452 words)