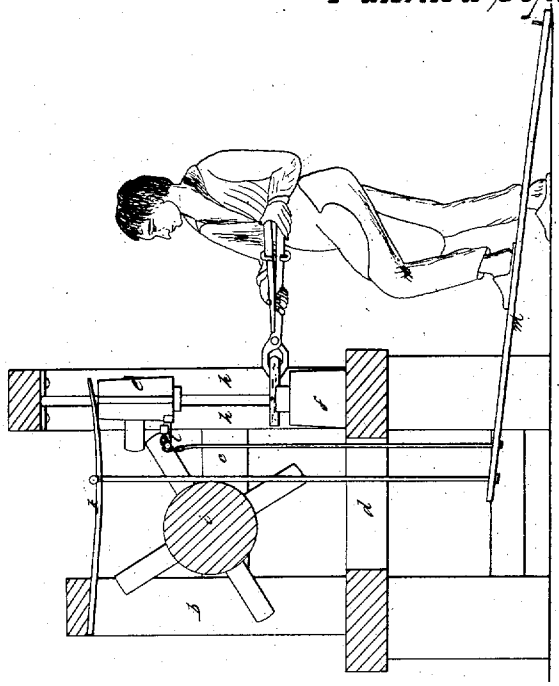
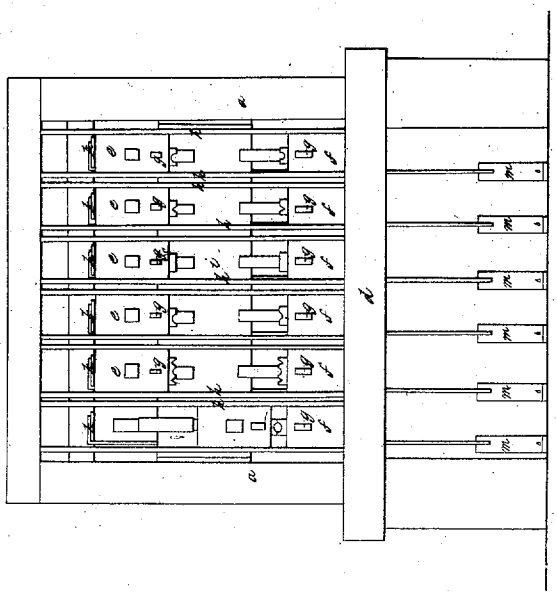
7756X

W. Field,

Oliver

Patented Sept. 14, 1833.





N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

9/14/1833 7756X

Sept. 14, 1833 39.

William Field of North Providence State of Rhode Island

Letters Patent.

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said William Field himself of his improvement called the upright Spring Sledge hammer.

To all persons to whom these presents shall come,

Be it known that I, William Field of North Providence in the County of Providence, in the State of Rhode Island and Providence Plantations machinist, have invented a new and useful machine called the upright Spring Sledge hammer, and that the following is a full and exact description of the construction and operation of the said machine as invented by me, it consists of a platform of sufficient weight and size for the required number of hammers. The frame is composed of two posts, framed into the platform, standing upright the distance from each other to depend on the number of hammers required, each hammer requiring about thirteen inches in length, also two back posts standing so far in the rear of the first named as to admit the machinery hereafter in this specification described. Said front and rear posts are connected together each by a cap, and between the front and rear posts is framed in at each end a girt.

The hammers are made of cast or wrought iron, in the lower end of each is a square, or round hole to receive the necessary face and dies for dressing and sledging iron or steel, in its various shapes, and dyes, directly under each hammer is placed an anvil block and anvil having on the upper side matching with the one in the hammer above to receive a corresponding face or die, through the hammers and anvils are holes for the purpose of driving out the face, or dies as occasion. The hammers in operation move up and down on an iron plate or bar running from one front post to the other, to which the plate or bars are made fast, by bolts. The hammers move on the plate or bars, and are confined thereto by iron straps, fastened with bolts

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The hammer in motion is raised by a shaft or cylinder running horizontally from one end of the frame to the other or lower or lower, on the front or the rear of the hammer having on its surface any suitable striking projections on the hammer raise them the required height. The down stroke is given by the hammer after the cog leaves it by its own weight, or a staff strongly secured near or about the upper end of the hammer, and is forced down upon the hammer by a lever, which is operated by the foot of the workman standing in front of the machine the upper end of the lever is connected with the staff by an iron rod, and the workman is able to give the hammer any force he chooses, by pressing down the lever. The hammer may be stopped when the shaft or cylinder is in full motion, at the pleasure of the workman, by a spring & catch placed on the main plate by the side of the hammer, which catch is forced into a notch on the hammer by said spring, and holds the hammer up while stopped. To set the hammer in motion the spring and catch are drawn back by an iron rod running from the catch to the lever, by means of which the hammer may be stopped or set in motion by the foot of the workman upon the lever at any time.

The above described machine may be operated by water, steam or horse power, and may be used for all the purposes of the trip hammer over which it presents many important advantages.

I claim a Patent as the inventor of said machine, and for applying it to the purpose of blacksmithing, for the construction and form of the hammer, for the plan of putting in the spring and rod, for the plan of holding the hammer up when stopped by spring and catch, for the manner of connecting the hammer & the main iron plate or board by stays, friction rolls and bolts, for the manner of giving the blow by the spring and lever, connected by an iron rod at the pleasure of the workman for the plan of drawing back the catch and letting the hammer in motion, for the manner of working and the spring, and also and for being able to set from four to six hammers into the space generally occupied by one trip hammer.

Witnesses { Joseph Arnold
Thomas Lafarren

William Hale.