P. B. LAWSON.

Vent-Stopper for Ordnance.

No. 196,682. Patented Oct. 30, 1877.

Fig. 1.

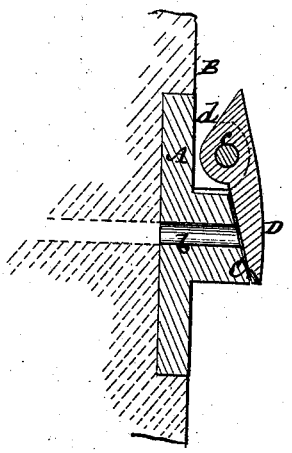


Fig. 2.

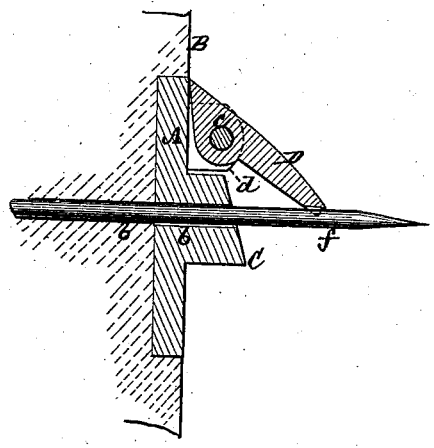
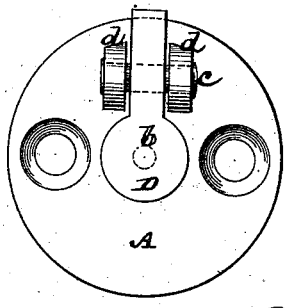


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

PETER B. LAWSON, OF COLD SPRING, NEW YORK, ASSIGNOR TO ROBERT P. PARROTT, OF SAME PLACE.

IMPROVEMENT IN VENT-STOPPERS FOR ORDNANCE.

Specification forming part of Letters Patent No. **196,682,** dated October 30, 1877; application filed March 29, 1877.

To all whom it may concern:

Be it known that I, PETER B. LAWSON, of Cold Spring, in the county of Putnam and State of New York, have invented a new and useful Improvement in Vent Attachments for Ordnance, of which the following is a description, reference being had to the accompanying drawing, forming part of this specification.

This invention, which will be found especially useful in casemate-ordnance and in between-deck guns of vessels, relates to valves applied to the vents of ordnance for the purpose of automatically closing the vent when the charge is exploded, and so preventing escape, through the vent, of the smoke and gases evolved by the combustion of the charge.

The invention consists in a special construction of such a valve and valve-seat applied to the vent, whereby, while every provision is made for the free opening of the valve when firing the priming, or when introducing the needle which pricks the cartridge to explode the charge, said valve is not wholly automatically closed by the force of the explosion, but is assisted in closing, and in being kept closed, by its own gravity.

Said invention is likewise applicable to breech-loading and muzzle-loading guns, and may be variously constructed and arranged, accordingly as it is required to adapt it either to the breech or breech-piece of a gun, or to apply it directly to the firing-chamber thereof.

In the accompanying drawing the invention is shown as applied to a breech-piece, which screws into the gun.

Figures 1 and 2 represent vertical longitudinal sections, respectively, showing the valve in its open and closed positions; and Fig. 3, a face view of the valve-piece with the valve closed.

A is a valve-piece, secured to the inner end of a breech-piece, B, designed to screw into the gun. Said valve-piece is constructed with a forwardly-projecting valve-seat, C, through which and the valve-piece the vent *b* passes. This valve-seat C is of an oblique construction on its face, so that when the longitudinal axis of the gun occupies a horizontal position the face of the valve-seat inclines backwardly in an upward direction.

D is the valve, hung by pivots *c* within ears *d* on the valve-piece at a point or points above the valve-seat C, and more or less in rear of the forward edge of the latter, whereby the valve is self-closing, and caused to retain a closed position by its own gravity, said valve being constructed on its face to conform to the inclined face of the valve-seat. Such valve has a lift or range of motion which will allow of its being sufficiently raised by the needle *f*, which pricks the cartridge, to admit of said needle, as it is introduced through the vent, passing by or under the valve; and the latter may be provided with a tail or other suitable stop, to prevent any excess of the valve's motion in this direction.

When the charge is exploded the force of the gases thereby generated act upon the back of the valve to suddenly close it, and to keep it closed, thus excluding the escape of smoke and gases through the vent of the gun.

I claim—

The valve-seat C, constructed with an inclined face, and having the vent *b* through it, in combination with a gravitating valve, D, operating to close said vent from the interior of the gun, essentially as described.

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