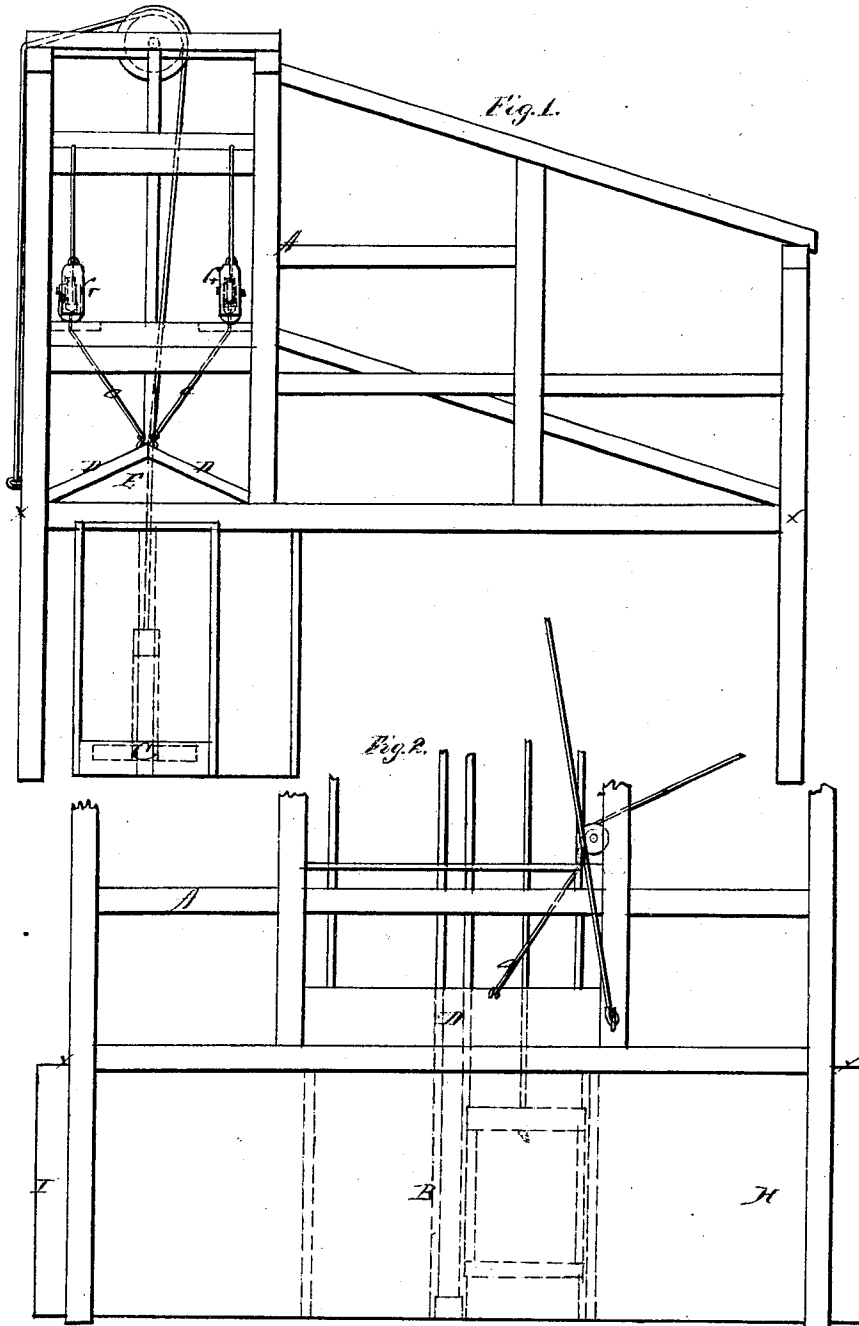


*J. B. Jones,*

*Mine Ventilator.*

*No. 102681.*

*Patented May 3, 1870*



*Witnesses*  
*Jno. A. Blair*  
*J. O. White*

*Inventor*  
*J. B. Jones*  
*J. H. Alexander*

# United States Patent Office.

JENKIN B. JONES, OF LAUREL RUN, PENNSYLVANIA.

Letters Patent No. 102,681, dated May 3, 1870.

## VENTILATOR FOR MINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JENKIN B. JONES, of Laurel Run, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Ventilating Mines and securing safety to the operatives; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in providing the main shaft of a mine with doors, to be operated as and for the purpose hereinafter stated.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation, and

Figure 2 a front view.

In all mines above and on all sides of the main shaft there is always a considerable amount of frame-work, which, in a great many places, extends for hundreds of feet in all directions, and is more or less liable to catch fire. When such is the case, the draught downward through the main shaft causes all the smoke, &c., to descend into the mine, and suffocate the workmen employed therein.

To obviate this danger is the object of my invention.

In the annexed drawings—

A represents the frame-work above the mine, and

B, the main shaft, through which latter the platform or basket C is moved up and down in the usual manner.

The bars *xx* represent the surface of the ground below which the shafts run any desired distance.

The mouth or opening of the main shaft B is pro-

vided with heavy iron doors D D, which I propose making about eight inches thick.

These doors are hinged at the outer edges of the mouth of the shaft, and meet at the center, they being placed on an incline from the center downward, the ends of the entrance being provided with suitable brick, stone, or iron supports E, as shown in fig. 1, for the ends of the door to rest upon. Also, an iron plate above the brick or stone around the entrance.

The doors D D are, by ropes or chains *a a*, which pass over suitable pulleys, connected with weights G G, which balance the doors. These weights may be placed at any distance from the entrance of the shaft, so that at the first alarm of fire any body can, by merely raising the weights, close the doors. The doors and weights balancing each other, it requires a very slight exertion to either raise or lower them.

The main shaft is connected with another shaft, I, at the mouth of which the usual fan is placed. By this means a plentiful supply of air is always admitted into the mine, even when the doors D D are closed.

In the auxiliary shaft H there may be, if so desired, another hoisting-apparatus for the egress of the miners in case of accident.

The doors D D may also be closed during the night in cold weather to prevent freezing in the main shaft.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

Providing the main shaft of a mine with doors, arranged to be operated substantially as and for the purposes described.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

JENKIN B. JONES.

Witnesses:

T. H. ALEXANDER,

EDM. F. BROWN.