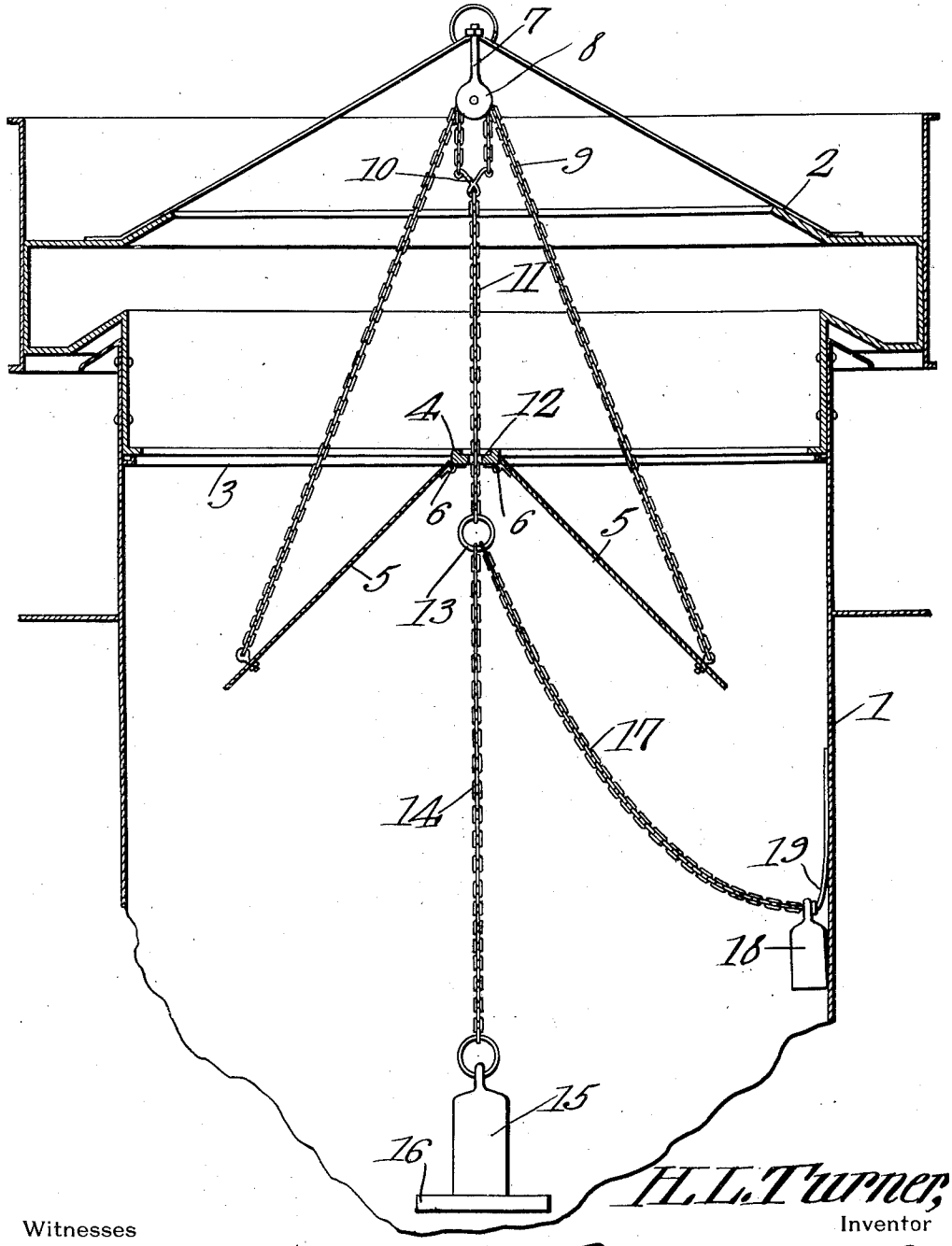
H. L. TURNER.

VENTILATOR.

APPLICATION FILED AUG. 11, 1913.

**1,100,634.** Patented June 16, 1914.




Witnesses

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# UNITED STATES PATENT OFFICE.

HUGH L. TURNER, OF OKLAHOMA, OKLAHOMA.

## VENTILATOR.

1,100,634. Specification of Letters Patent. Patented June 16, 1914.

Application filed August 11, 1913. Serial No. 784,230.

*To all whom it may concern:*

Be it known that I, HUGH L. TURNER, a citizen of the United States, residing at Oklahoma city, in the county of Oklahoma and State of Oklahoma, have invented a new and useful Ventilator, of which the following is a specification.

This invention relates to ventilators and more particularly to means whereby an ordinary ventilator can be automatically closed in the event of fire and whereby it can be closed manually at any other time desired.

A further object is to provide a device of this character which is simple and durable and can be applied readily.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing, which is a vertical section through a ventilator having the present improvements combined therewith, the preferred form of the invention has been shown, the same being shown open.

Referring to the drawing by characters of reference 1 designates the ventilator shaft and 2 designates the ventilator which may be of any desired construction.

The device constituting the present invention includes a frame 3 adapted to be secured in the shaft and having a central cross member 4 to which shutters 5 are hingedly connected as at 6, these shutters being adapted, when closed, to bear against the frame 3 and thus completely close the shaft.

A hanger 7 is suspended from the center of the top of the ventilator and carries a sheave block 8 through which extend chains 9. Two of these chains are employed, the chains extending in opposite directions through the block and being attached to a coupling 10. The said chains are extended to the respective shutters 5, being attached thereto near those edges thereof remote from the hinges 6. The other ends of the chains are attached to the coupling 10 and this coupling, in turn, is attached to a single actuating chain 11 which extends downwardly through an opening 12 in the cross member 4 and has a ring 13 secured to its lower end. Connected to this ring 13 is a chain 14 of sufficient length to extend to a point where it can be conveniently reached and a weight 15 is attached to the free end of the chain 14. When this weight is placed on a bracket 16 or other structure, the shutters 5 are permitted to gravitate downwardly to open position, as shown in the drawing. When, however, the weight is removed from its support 16, it will pull on chain 14 and, through chains 9, upon the shutters, thus moving the shutters to closed positions. Another chain 17 is attached to ring 13 and has a weight 18 secured thereto, this chain being held normally slack by a fusible link 19 preferably attached to one wall of the ventilator shaft 1. This chain 17 will not, ordinarily, interfere with the opening and closing of the shutters 5.

Should it be desired to close the shutters, it is merely necessary to remove the weight 15 from the support 16, whereupon said weight will operate the shutters in the manner hereinbefore described. To open the shutters the weight is placed on its support as hereinbefore described. If, while the weight 15 is supported, a fire should occur in the ventilated structure, the link 19 would melt, thus releasing weight 18 and causing the said weight to drop and pull through chain 17 on chain 11, thus closing the shutters 5 independently of the shifting of weight 15.

What is claimed is:—

The combination with a ventilator shaft and a cross bar mounted therein and provided with an opening, of oppositely disposed shutters hingedly connected to the cross bar and adapted, when raised, to close the spaces at opposite sides of the cross bar, a guide device supported above the bar, a flexible element extending upwardly through the opening of the bar, connections between said elements and the respective shutters, said connections being extended in opposite directions over the guide device and downwardly to the respective shutters whereby, when the flexible element is drawn downwardly, the oppositely extending shutters will be raised simultaneously, a weight connected to said flexible element and adapted,

when released, to pull downwardly thereon, thereby to raise the shutters simultaneously to closed positions, and a fusible link connecting said weight to a wall of the ventilator and normally supporting the weight in one position while the shutters are either opened or closed.

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

HUGH L. TURNER.

Witnesses:

FLOYD R. BULL,

COLIN CAMPBELL.