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BLOWER, EXHAUSTER, AND THE LIKE.
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Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses:
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By
Attorneys
To all whom it may concern:

Be it known that I, Theodor Kundtz, a

10 citizen of the United States of America, residing at Lakewood, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Blowers, Exhausters, and the Like; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

This invention relates to improvements in blowers, exhausters and the like for mills and factories.

The primary object of this invention is to

25 operatively mount the suitably housed fan-wheel of a blower, exhauster or the like upon an end-portion of a line-shaft employed in a room of a mill or factory building and thereby produce a very powerful and economically operated blower, exhauster or the like.

Another object of this invention is to have the said end-portion of the line-shaft project through and outwardly beyond the outer side of an outer wall of the said room and to operatively provide the said projecting portion of the line-shaft with the fan-wheel of a blower, exhauster or the like, and to inclose the said fan-wheel by a casing or housing which is supported externally of the said wall and independently of the line-shaft so that the said blower, exhauster or the like is arranged wholly externally of the said wall and therefore out of the way.

Another object is to provide a seat adjacent the said wall for the said housing so that the latter is adequately supported.

Another object is to form the inner end wall of the chamber formed by and within the housing by a vertically arranged plate arranged adjacent the said wall, and to have the remainder of the housing formed by a bonnet which is removably secured to the said plate so that the said bonnet can be removed outwardly and endwise from the projecting portion of the line-shaft to afford access to the fan-wheel on the shaft and to the interior of the housing.

Another object is to avoid the necessity of using a separate engine or motor or belting or gearing or other separate power-transmitting means in the operation of the fan-wheel thus arranged adjacent the said wall, to avoid costly frame-work for supporting the housing, to prevent any bearing of any portion of the housing upon the line-shaft, to avoid the necessity of using bearings on or in the housing, to avoid lubrication of any portion of the housing and fan-wheel.

Another object is to provide a blower, exhauster, or the like, which requires substantially no care or attention, and which is simple and durable in construction, readily installed at the aforesaid end-portion of the line-shaft, inexpensively maintained, economically operated, reliable and efficient in its operation and not liable to get out of order.

With these objects in view, and to the end of realizing any other advantages hereinbefore appearing, this invention consists in certain features of construction, and combinations and arrangements of parts, hereinafter described, pointed out in the claims, and illustrated in the accompanying drawings.

In the said drawings, Figure 1 is a top plan of a blower, exhauster, or the like, embodying my invention, and shows in section, an outer wall externally of and from which the housing of the said blower, exhauster or the like is supported. Fig. 2 is a central vertical section on line 2—2, Fig. 1, looking in the direction indicated by the arrow. Fig. 3 is a vertical section on line 3—3, Fig. 2, looking inwardly. Fig. 4 is a vertical section on line 4—4, Fig. 2, looking outwardly.

Referring to the said drawings, A indicates an outer side wall of a room R in a mill or factory building, and B indicates a line-shaft employed within the said room. The line-shaft B has one of its end-portions extending loosely through a correspondingly arranged hole a formed in and extending laterally through the wall A, and the said end-portion of the line-shaft projects, as at b, a suitable distance beyond the outer side of the said wall. Preferably the wall A is provided at its inner side with a box C which affords bearing to the line-shaft.

D indicates the fan-wheel of my improved blower, exhauster, or the like. The said fan-wheel is operatively mounted on the projecting end-portion b of the line-shaft at the outer side of the wall A. A casing or
housing incloses the fan-wheel D and comprises a metal plate G and a metal hood or bonnet g.

The plate or housing-section G is arranged substantially vertically at the outer side of the wall A and rests upon a seat formed by a shelf S which is formed externally of the said wall by a lateral and outward enlargement of the wall under the housing.

The plate or housing-section G is preferably suitably secured in any approved manner to the wall A, and forms the inner end wall of the chamber 15 formed by and within the housing and containing the fan-wheel D. The plate or housing-section G is of course provided centrally with a hole to accommodate the location and operation of the line-shaft.

The metal bonnet g forms opposite side walls, the top wall and the outer end wall of the chamber 15 and is placed in position over the fan-wheel from the outer end of the projecting end-portion b of the line-shaft. The bonnet b is provided at its inner end and externally with an outwardly projecting flange 13 which extends over the top and sides of the bonnet and overlaps the outer side of the plate or housing-section G which is therefore large enough in dimensions to overlap the inner side of the flange 13 and project, as at 14, somewhat beyond the said flange.

The plate or housing-section G is provided at its lower end with a laterally and outwardly projecting flange 16 which rests upon the seat formed by the shelf S, and the bonnet g rests upon the said flange and consequently is supported from the said shelf or seat.

The bonnet g is secured at its flange 13 preferably removably by bolts 17 and nuts 18 to the plate or housing-section G. The bolts 17 have their heads countersunk in the inner side of the plate or housing-section G and have their shanks projecting through the flange 13, and the nuts 18 are mounted on the said shanks at the outer side of the said flange. The bonnet g is provided at its lower end and externally with laterally and outwardly projecting flanges 20 and 29 which are arranged at opposite sides respectively of the said housing-section and project laterally and outwardly over and rest upon the flange 16 of the plate or housing-section G.

By the construction hereinbefore described it will be observed that the housing is supported from the wall A independently of the line-shaft B, that is, independently of any box which affords bearing to the line-shaft, and the bonnet g, upon removing the nuts 18 to detach the bonnet from the plate or housing-section G is rendered free to be removed from over the flange 16 of the last-mentioned housing-section and consequently from the supporting shelf S to afford access to the fan-wheel and interior of the housing.

The chamber 15 is provided centrally of its outer end-wall and consequently centrally of the bonnet g, with an inlet formed by a flue h which is suitably attached to the bonnet and is arranged centrally and externally of the bonnet g and opposite or adjacent the outer or free extremity of the end-portion of the line-shaft, which flue discharges at its inner end through an opening 21 formed in the bonnet g into the aforesaid chamber and is employed in conducting the dust or material to be conveyed to the said chamber from any desired place, which material during the operation of the fan-wheel is sucked or drawn into the said chamber through the said flue.

The bonnet g has its upper portion provided at one side with an upwardly projecting tubular member 24 which communicates with and forms the outlet of the fan-containing chamber, through which outlet any dust or other matter sucked into the said chamber during the rotation of the fan-wheel is discharged from the chamber, and L represents a flue or pipe for conducting the discharge from the said outlet to any desired place.

By the construction hereinbefore described it will be observed that the objects of my invention as hereinbefore stated are economically and conveniently attained.

What I claim is:

1. The combination, with a wall of a room in a building, and a suitably supported shaft arranged substantially horizontally and having an end-portion which extends through the said wall and projects externally of the said room, of a fan-wheel operatively mounted on the said projecting portion of the shaft, and a casing or housing inclosing the fan-wheel and comprising a suitably supported upright metal plate arranged adjacent the said wall and forming the inner end wall of the fan-wheel-containing chamber formed in and by the housing, said housing also comprising a suitably supported bonnet forming the top wall, side walls and outer end wall of the said chamber, said chamber having an inlet and an outlet.

2. The combination, with a wall of a room in a building, and a suitably supported shaft arranged substantially horizontally and having an end-portion which extends through the said wall and projects externally of the said room, of a fan-wheel operatively mounted on the said projecting portion of the shaft, and a casing or housing inclosing the fan-wheel and comprising a suitably supported upright plate arranged adjacent the said wall and forming the inner end wall of the fan-containing chamber.
3. The combination, with a wall of a room in a building, a seat arranged at one side of the wall, and a suitably supported shaft arranged substantially horizontally and extending over the seat, of a fan-wheel arranged over the seat and operatively mounted on the shaft, and a casing or housing inclosing the fan-wheel and comprising an upright plate arranged adjacent the said wall and forming one of the end walls of the fan-wheel-containing chamber formed in and by the housing, which plate is provided at its lower end and externally with a laterally and outwardly projecting flange resting upon the aforesaid seat, said housing also comprising a bonnet which forms the top wall, side walls and opposite end wall of the said chamber and rests upon the said flange, said chamber having an inlet and an outlet.

In testimony whereof, I sign the foregoing specification, in the presence of two witnesses.

THEODOR KUNDTZ.

Witnesses:
C. H. DOREH,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."