

J. F. JENNINGS.
VACUUM HOOD.
APPLICATION FILED MAR. 15, 1912.

1,054,208.

Patented Feb. 25, 1913.

2 SHEETS-SHEET 1.

Fig. 1.

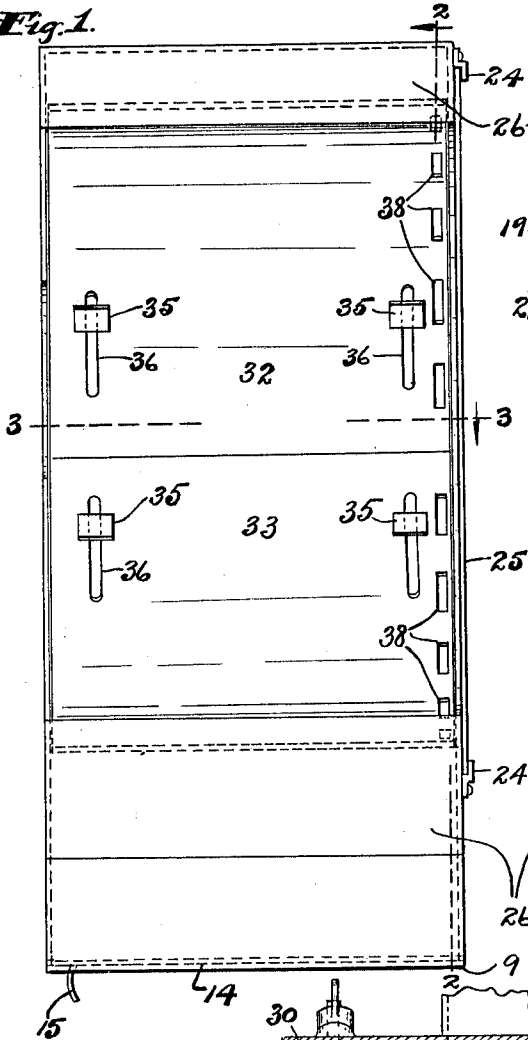


Fig. 2.

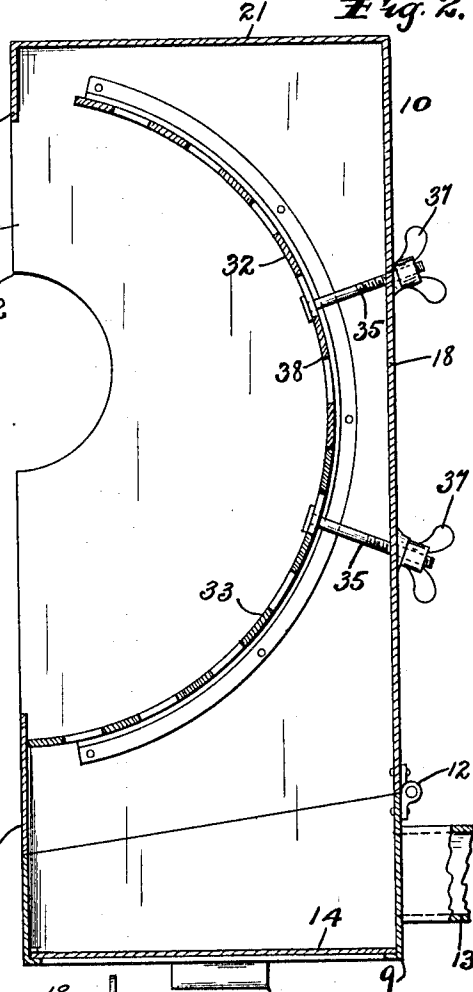
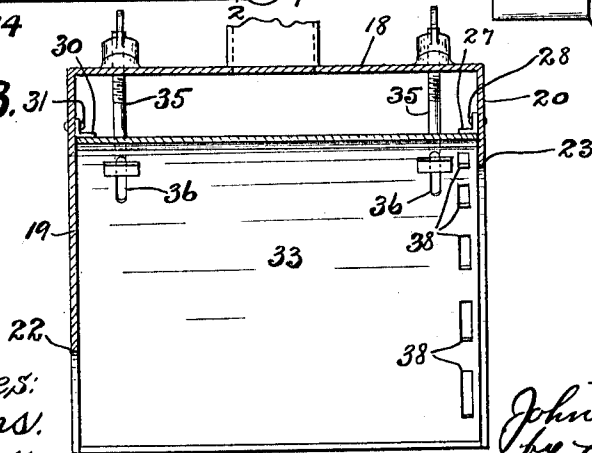


Fig. 3.



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Fig. 4.

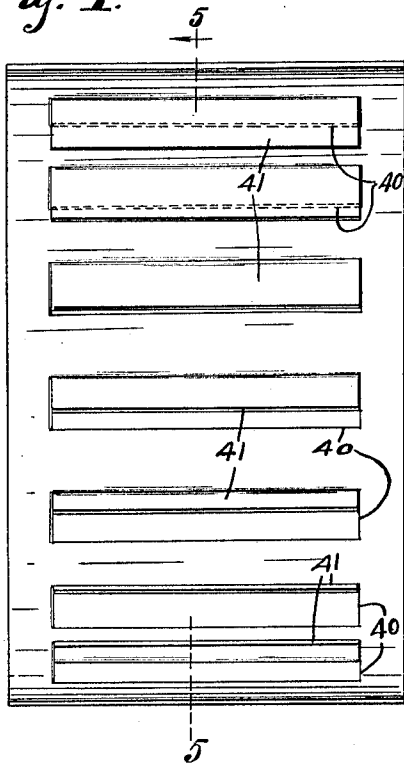
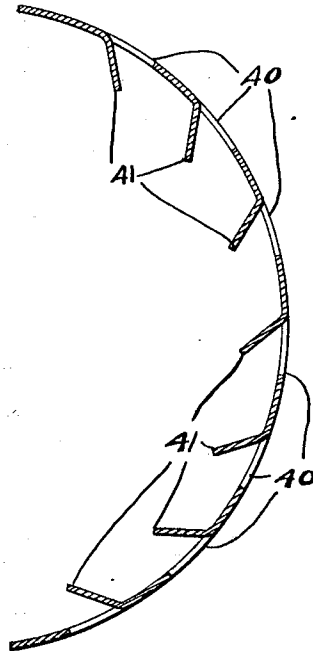


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN F. JENNINGS, OF CLEVELAND, OHIO.

VACUUM-HOOD.

1,054,208.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Application filed March 15, 1912. Serial No. 683,993.

To all whom it may concern:

Be it known that I, JOHN F. JENNINGS, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Vacuum-Hoods; 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 new and useful improvements in vacuum hoods for buffing, polishing and grinding wheels.

The object of this invention is to provide a hood of this description having such an arrangement of parts that the intake or opening to the suction chamber can be adjusted circumferentially of the operating wheel so as to create a draft or suction through the hood at any point desired.

With this object in view and with the intention of securing other advantages which will hereinafter appear, my invention consists in the features of construction and combination of parts, hereinafter described in the specification, pointed out in the claims and illustrated in the accompanying drawings.

In the accompanying drawings Figure 1 is a front elevation of a vacuum-hood embodying my invention. Fig. 2 is a section on line 2—2, Fig. 1. Fig. 3 is a section on line 3—3, Fig. 1. Figs. 4 and 5 are detail views in front and side elevation respectively showing a modified form of my invention.

Referring to the drawings it will be seen that the hood is formed in two sections, a lower section 9, which we may call the base, and an upper section 10 which forms the hood proper. The upper section 10 is hinged to the lower section 9 at 12. The lower section 10 is rectangular in cross section and is provided at one side with an outlet 13. The section 9 is also provided with a removable bottom 14 which has a small grip piece 15 by means of which the bottom may be drawn out when it is desired to clean the base of the hood.

The upper section or hood proper 10 consists of a back member 18, two side members 19 and 20 respectively and a top member 21. In the side member 19 is formed a semi-circular opening 22 which extends inwardly from the front edge to accommodate or to

receive the shaft of the operating wheel. In the side member 20 is formed a much larger semi-circular opening 23, the radius of which is approximately equal to the radius of the largest wheel that will be used in connection with the hood and the object of the said opening is to allow the operator to use the exposed side of the wheel when necessary. At the top and bottom of the said opening 23 on the outer surface of the side 20 are arranged guide-forming flanges 24 which form supports for a sliding door or plate 25 which can be drawn forward or moved back so that the operator may if he so desires partly or entirely inclose the opening 23. The front of the hood is entirely open to allow the operating wheel to enter the hood except at the top and bottom where it is closed by plates 26 and 26'. On the inner face of the side member 20 near the edge of the opening 23 is arranged a semi-circular track 27 which is secured to said side by means of rivets 28 and on the side 19 in line with said track 27 is arranged a similar track 30 which is secured to the side 19 by means of rivets 31. Extending from side to side of the hood and resting on said tracks is arranged a semi-circular partition. This partition may be formed of one or more sections as may be desired, and as shown in Figs. 1, 2 and 3, consists of two sections 32 and 33. The length of this partition is such that when the lower edge thereof is against the plate 26' at the lower front side of the hood, the upper edge of said partition will be spaced a predetermined distance away from the plate 26 at the front upper side of the hood, likewise when the partition is shoved up so that the upper edge comes in contact with the plate 26 there will be a space between the plate 26' and the lower edge of the partition. The partition can be caused to occupy a middle position thereby leaving a space between the ends of the partition and both plates at the front of the hood. Also the sections forming the partitions can be separated, thereby making an opening between them. This partition divides the hood into a wheel chamber and a suction chamber and the opening or openings formed as before described constitute the inlet openings from the wheel chamber to the suction chamber through which the dust created by the polishing or burnishing wheel is drawn into the suction chamber and carried away through

suitable pipes. It will therefore be seen that by my arrangement the inlet opening or openings can be adjusted circumferentially of the inner half of the polishing or burnishing wheel and a strong draft created wherever desired. In practice I have found it most effective to have the inlet at the front of the hood, at the top of the wheel, as shown in the drawings. With the inlet thus arranged a strong suction is brought to bear on the dust-laden air at a point where the rotation of the wheel tends to drive it out of the wheel chamber into the face of the operator.

The partition is adjustably held in position by means of bolts 35 which pass through slots 36 in the said partition and through openings in the rear wall of the hood and thumb nuts 37 are arranged on the ends of said bolts for securing them in position. Along the side edge of the said partition adjacent to the large opening 23 in the side 20 are formed a series of small openings or inlets 38. The object of these openings is to provide a constant suction or draft at the open side of the hood. The inlet 13 is connected with any suitable suction device, not shown.

In Figs. 4 and 5 I have shown a partition which is provided with a series of openings 40, each opening being provided at its upper end with an inwardly extending baffle plate 41, the purpose of which is to direct the dust outwardly through the said openings and prevent the dust from being carried around with the wheel.

What I claim is,—

1. A vacuum hood for grinding and polishing wheels and the like comprising a casing provided with an opening in the front for the reception of the operating wheel and a curved partition arranged in said casing and extending around the top, rear and bottom of said wheel and dividing said casing into a wheel chamber and a suction chamber which extends around the top, rear and bottom of said wheel, and means for adjusting said partition so as to place said wheel chamber and said vacuum chamber in communication at predetermined points around the perimeter of the wheel.

2. A vacuum hood for grinding and pol-

ishing wheels and the like comprising a casing containing a wheel chamber and a suction chamber, the wheel chamber having an opening at the front thereof to allow the insertion of the wheel and a curved partition arranged between the wheel chamber and the suction chamber and adjustable circumferentially of said wheel, for the purpose set forth.

3. A vacuum hood for grinding and polishing wheels and the like comprising a casing containing a wheel chamber and a suction chamber, the wheel chamber having an opening at the front thereof to allow the insertion of the wheel and an opening in the side thereof to give access to said wheel and a curved partition arranged between the wheel chamber and the suction chamber and adjustable circumferentially of said wheel, said partition being provided with a series of openings along its edge adjacent to the opening in the side of the wheel chamber, for the purpose set forth.

4. A vacuum hood for grinding and polishing wheels and the like comprising a casing containing a wheel chamber and a suction chamber, the wheel chamber having an opening at the front thereof for the reception of the operating wheel, a curved partition arranged at the back of the wheel chamber and arranged to extend around the rear portion of the wheel and serving to partially cut off communication between the wheel chamber and the suction chamber and means for adjustably holding said partition in position.

5. A vacuum hood for grinding and polishing wheels and the like comprising a casing containing a wheel chamber and a suction chamber and a partition arranged in said casing and cutting off communication between the wheel chamber and the suction chamber except at the top of the wheel chamber at the front side thereof.

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

JOHN F. JENNINGS.

Witnesses:

VICTOR C. LYNCH,
N. L. McDONNELL.