M. V. WOLF.

VACUUM BLACKBOARD ERASER.

APPLICATION FILED JUNE 29, 1914.

1,147,064.

Patented July 20, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

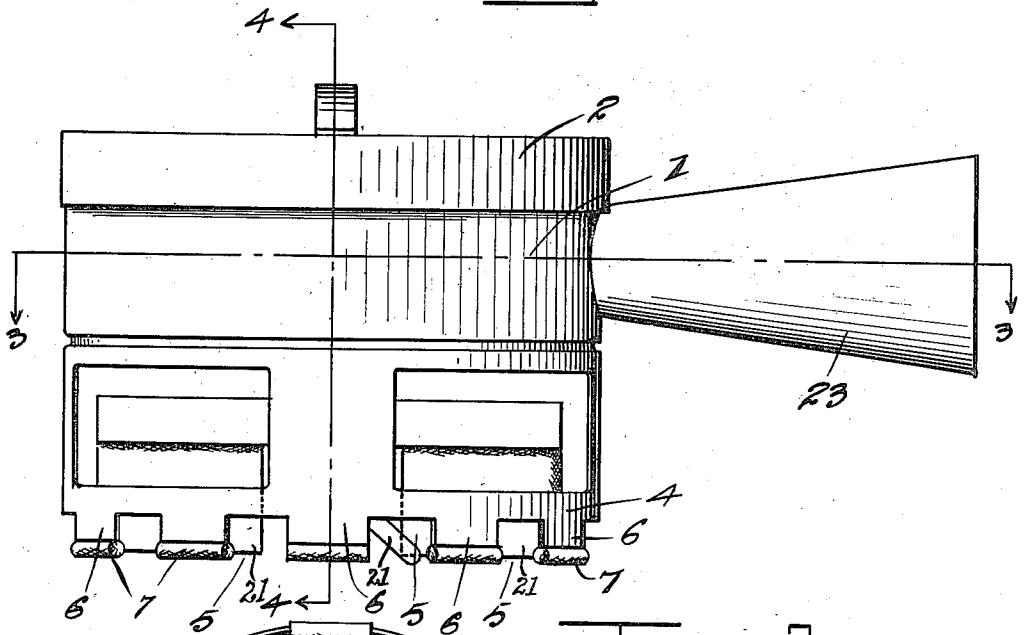
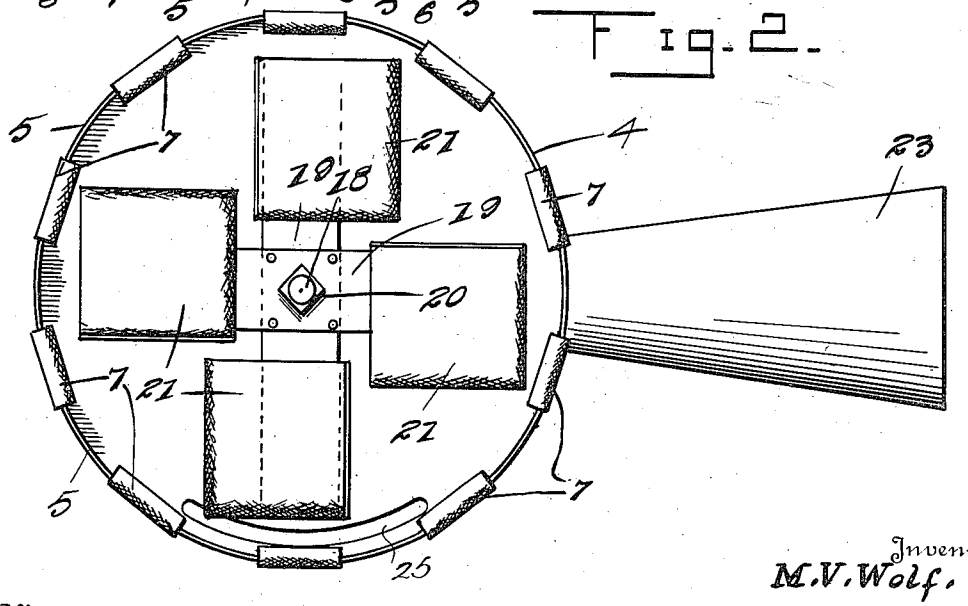


Fig. 2.



Witnesses

C. A. Beall.

E. F. Bruyea.

Inventor

M. V. Wolf.

By A. Randolph Jr.,

Attorney

M. V. WOLF.

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2 SHEETS—SHEET 2.

Fig. 3.

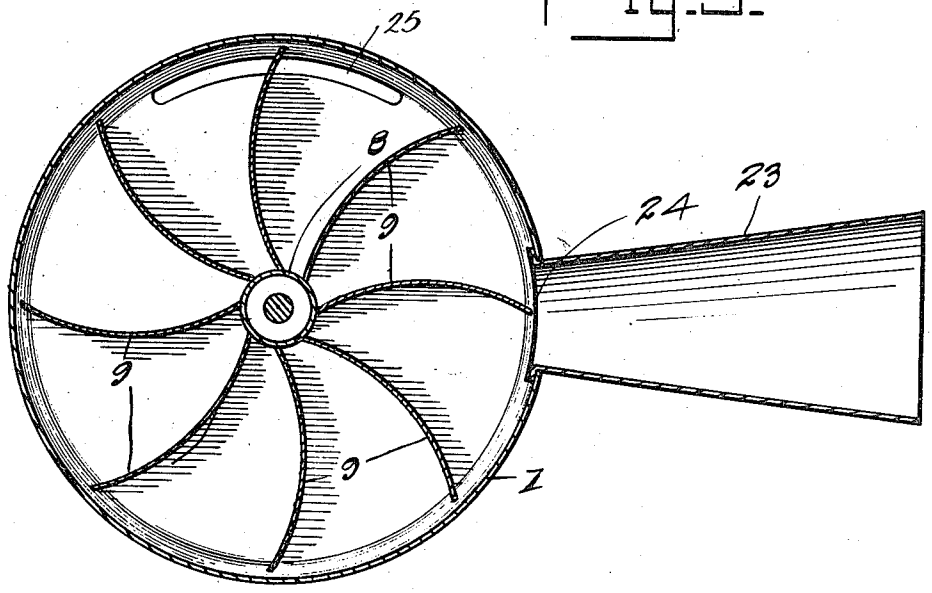


Fig. 4.

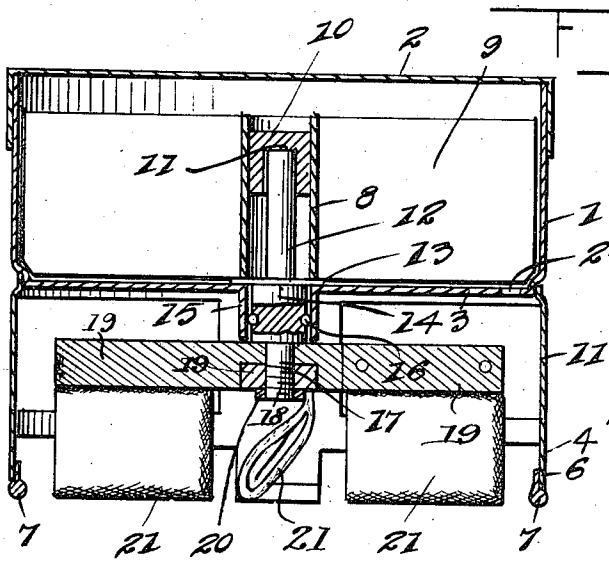
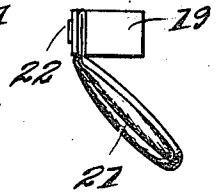


Fig. 5.



Inventor

M. V. Wolf.

Witnesses

C. P. Beall.

E. F. Burgess.

By A. Caldwell & Co.,

Attorney

UNITED STATES PATENT OFFICE.

MILES V. WOLF, OF ASHLAND, OHIO.

VACUUM BLACKBOARD-ERASER.

1,147,064. Specification of Letters Patent. Patented July 20, 1915.

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To all whom it may concern:

Be it known that I, MILES V. WOLF, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Ohio, have invented certain new and useful Improvements in Vacuum Blackboard-Erasers; and I do 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 appertains to make and use the same.

This invention relates to blackboard erasers, and one of the principal objects of the same is to provide a device of simple construction adapted to be passed over the surface of a blackboard for erasing the same, said eraser comprising a rotary device carrying brushes or cleaners for the blackboard, and means being provided for creating a vacuum in the upper chamber of the device for drawing away the crayon dust removed from the blackboard.

Another object of the invention is to provide a rotary vacuum blackboard eraser of simple construction which may be easily passed over the surface of the board to erase the figures on the blackboard and to draw the chalk dust through the machine without permitting it to escape into the outer air around the blackboard.

These and other objects may be attained by means of the construction illustrated in the accompanying drawings, in which,

Figure 1 is a side elevation of a vacuum blackboard eraser made in accordance with this invention, Fig. 2 is a bottom plan view of the same, Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 1, Fig. 4 is a vertical sectional view taken on the line 4—4 of Fig. 1 and Fig. 5 is a detail view of one of the rubbers or cleaners.

Referring to the drawings, the numeral 1 designates a cylindrical casing provided with a suitable flanged cover 2. In the casing is a partition 3, and extending from the partition is a cylindrical flange 4 provided with intake openings 5 for the air, said openings having intermediately disposed bearing portions 6, each provided with a fabric pad 7 to bear upon the surface of the blackboard.

Mounted above the partition 3 is a fan 8 provided with radial and curved blades 9. The hub of the fan is hollow or tubular and is provided with a bearing member 10 having a socket 11 therein to receive a shaft 12. The shaft 12 is provided with a bearing collar 13 seated on the partition 3, and below the partition the shaft is enlarged as at 14, and is mounted in a hollow boss 15 which extends down from the partition 3. The enlarged portion 14 of the shaft 12 may be provided with a groove 16 to receive a set screw extending through the hollow boss 15. The enlarged portion 14 of the shaft is reduced as at 17 and is preferably screw threaded on its outer end as at 18. Fitted to the reduced portion 17 are crossed arms 19 held in position by means of a nut 20.

Connected to the outer ends of the crossed arms 19 are pads or cleaners 21 which may be made of any suitable fabric and padding, and these cleaners are connected by means of suitable fasteners 22 to the outer ends of the crossed arms 19, and in use are adapted to assume the position shown in Fig. 5, that is to say to flex upon one side of the arm 19 to reach around within the casing to clean that portion of the blackboard.

A handle 23 of hollow form communicates through the opening 24 with the interior of the upper compartment containing the fan, and said handle is adapted to be connected to a hose leading to a suction pump or vacuum tank. An opening 25 in the partition 3 permits the air to be drawn through into the upper compartment and out through the handle 23, as will be understood.

The operation of the invention may be briefly described as follows: The hose being connected to the handle 23 of the blackboard eraser, the suction will rotate the fan blades 9 and this will rotate the rubber or cleaner elements 21, while the suction of air will draw the chalk dust through the opening 25 and through the handle 23 to be deposited in a suitable receptacle.

It will be obvious that a blackboard eraser made in accordance with this invention will efficiently clean a blackboard without permitting the particles of chalk removed from the board to fly about in the atmosphere of the room where the blackboard is located. It will also be obvious that the device may be manufactured at low cost, is simple in construction and is reliable in use and operation.

Various changes may be made in the de-

tails of construction without departing from the spirit and scope of the invention as defined in the claims.

What is claimed is:—

1. A blackboard eraser comprising a casing having a hollow handle to communicate with a suction device, a fan mounted in the casing for rotating a blackboard cleaner, said casing having a series of intake openings near the outer edge thereof, and intermediately disposed bearing pads.

2. A blackboard eraser comprising a circular casing, a cover for said casing, a hollow handle communicating with said casing, a partition in said casing provided with an opening, an eraser element, said eraser element comprising crossed arms and having pads connected thereto, the lower portion of said casing being provided with intake openings and bearing pads at opposite sides of said openings.

In testimony whereof I affix my signature in presence of two witnesses.

MILES V. WOLF.

Witnesses:
J. F. HENDERSON,
J. C. MACKEY.