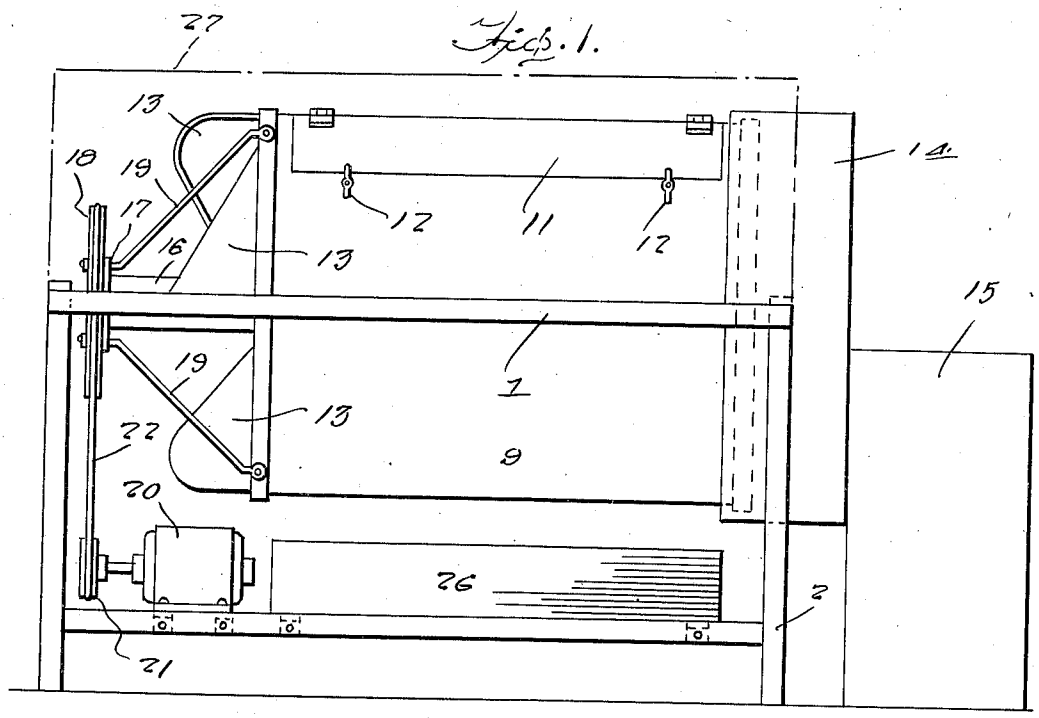
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ERASER CLEANER

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Fig. 1.



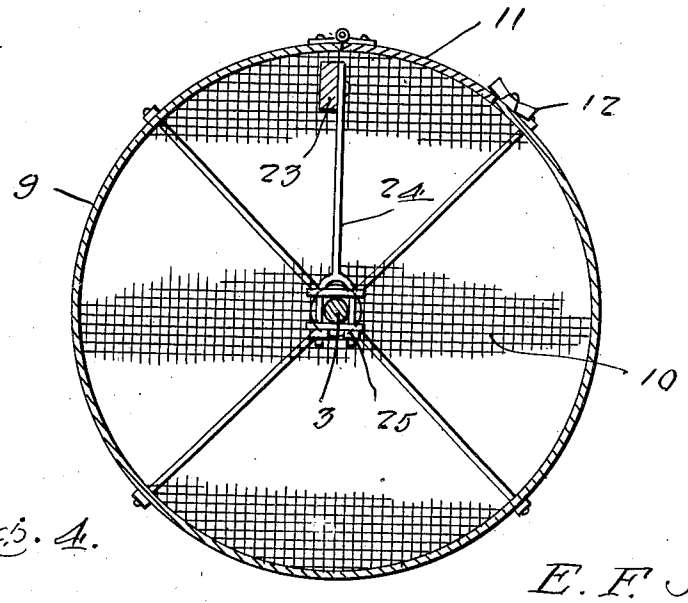




Fig. 4.

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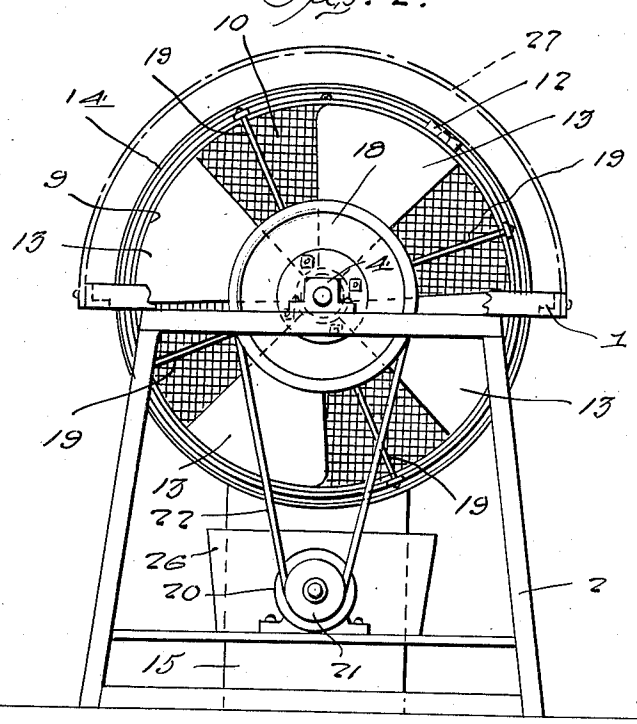
Attorneys

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ERASER CLEANER

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Fig. 2.



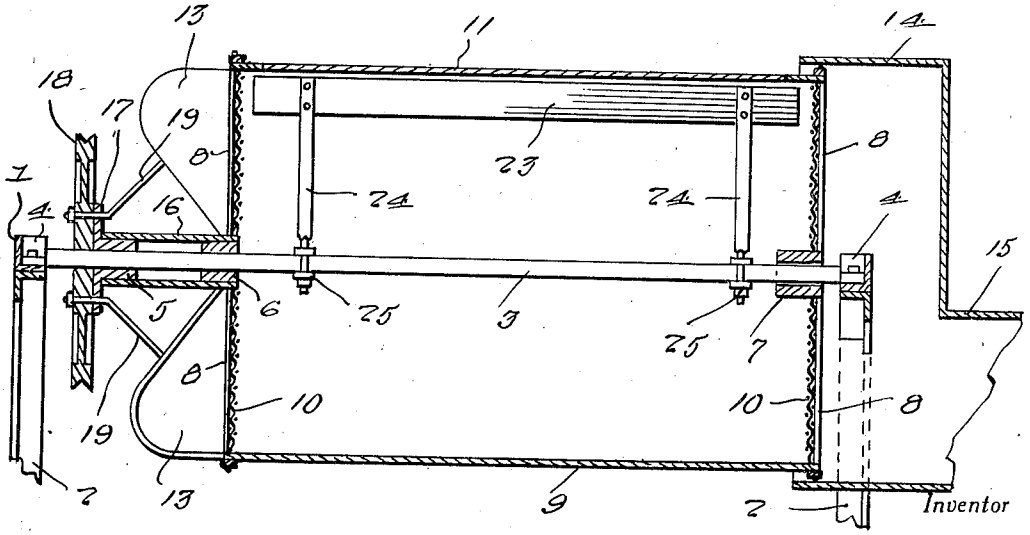




Fig. 3.

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2,172,914

# UNITED STATES PATENT OFFICE

2,172,914

## ERASER CLEANER

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Application April 5, 1938, Serial No. 200,174

2 Claims. (Cl. 15—90)

The present invention relates to new and useful improvements in cleaners for blackboard erasers and has for its primary object to provide, in a manner as hereinafter set forth, a machine of this character embodying a novel construction and arrangement of rotary cylinder and stationary beater or baffle whereby a large number of erasers may be rapidly and thoroughly cleaned at one time.

Another very important object of the invention is to provide a cleaner of the aforementioned character embodying novel means for carrying off the chalk dust which is removed from the erasers.

Other objects of the invention are to provide a blackboard eraser cleaner of the character described which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a view in side elevation of an embodiment of the invention.

Figure 2 is a view in front elevation thereof.

Figure 3 is a view in vertical longitudinal section through the upper portion of the machine.

Figure 4 is a cross sectional view through the cylinder.

Referring now to the drawings in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a substantially rectangular metallic frame 1 which is mounted horiozntally on a supporting structure 2 of suitable metal. Mounted longitudinally in the frame 1 is a stationary shaft or rod 3 which is fixedly secured by suitable clamps 4. Journalled on the shaft 3 at spaced points are bearings 5, 6 and 7.

Radiating from the bearings 6 and 7 are spokes or braces 8 which carry a horizontal cylinder 9. Mounted in the open ends of the cylinder 9 are screens or the like 10. The cylinder 9 is provided with a hinged door 11 for the insertion and removal of the erasers to be cleaned, suitable means 12 being provided for securing said door in closed position.

Mounted on the forward end of the cylinder 9 is a plurality of fan blades 13 for forcing air through said cylinder as it rotates. The other end portion of the cylinder 9 extends into the enlarged end portion 14 of a conduit 15 which extends to any suitable point of discharge for carrying off the dust laden air from said cylinder 9.

A tube 16 spaces the bearings 5 and 6. On one end of the bearing 5 is a flange 17 and mounted thereon is a V pulley 18. The reference numeral 19 designates braces for the front end of the cylinder 9, one end portion of said braces extending through the hub portion of the pulley 18, as illustrated to advantage in Fig. 3 of the drawings. Mounted on the lower portion of the supporting structure 2, adjacent the forward end thereof, is an electric motor 20 which is provided with a V pulley 21. A V belt 22 is trained over the pulleys 18 and 21 for driving the cylinder 9.

Mounted longitudinally in an upper portion of the cylinder 9 and closely adjacent the inner periphery thereof is a stationary beater or baffle 23 of suitable material, preferably wood. The stationary beater 23 is mounted on the shaft 3 through the medium of supporting arms 24. Suitable clamps 25 are provided for rigidly securing the arms 24 on the shaft 3.

Mounted on the lower portion of the supporting structure 2 is a pan or receptacle 26 for receiving the cleaned erasers from the cylinder 9. As indicated in broken lines in Fig. 2 of the drawings, a safety guard 27 of substantially semi-cylindrical form is mounted on the frame 1 over the cylinder 9, the blades 13, the pulley 18, etc. The safety guard 27 is to be provided with a suitable door to permit access to be had to the door 11 in the cylinder 9.

It is thought that the operation of the machine will be readily apparent from a consideration of the foregoing. The erasers to be cleaned are placed in the cylinder 9 through the door 11, after which said door is closed and secured. The electric motor 20 is then energized to rapidly rotate the cylinder 9. As the cylinder 9 is thus rotated the erasers therein are carried upwardly on the inner periphery thereof by friction and centrifugal force, said erasers striking the stationary beater in a manner a knock the dust from said erasers, as will be readily understood. After striking the beater 23 the erasers fall by gravity to the lower portion of the cylinder 9 and the operation is repeated. It will thus be seen that a large number of erasers may be expeditiously and thoroughly cleaned. As the cylinder 9 rotates the blades 13 force air therethrough for carrying off the chalk dust from the erasers through the conduit 15. The cleaned erasers may then be conveniently removed by opening the door 11 and

rotating the cylinder **9** to such a position that said erasers will fall into the receptacle **26**.

It is believed that the many advantages of a black board eraser cleaner constructed in accordance with the present invention will be readily understood and although a preferred embodiment of the device is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed. For example, a suitable crank and gear arrangement may be provided for manually rotating the cylinder **9** in lieu of the elctric motor **20**, the pulleys **18** and **21**, the belt **22**, etc. Further, perforated metallic plates may be substituted for the screens **10** in the ends of the cylinder **9**.

What is claimed is:

1. An eraser cleaner comprising a supporting structure, a stationary shaft mounted on said supporting structure, a horizontal cylinder rotatably mounted on the shaft for the reception of the erasers to be cleaned, and a stationary beater supported on the shaft in an upper portion of the cylinder and adapted to be struck by the erasers as they are carried around with said cylinder.

2. A blackboard eraser cleaner comprising a stationary shaft, spaced bearings journalled on said shaft, a rotary cylinder on the shaft for the reception of erasers and having one end supported on one end of the bearings, a spacing sleeve extending between the bearings, a flange on the other bearing, a pulley on said flange, braces having one end portion anchored in the pulley and flange and their other end portions secured to said one end of the cylinder, and means for driving the pulley for rotating the cylinder.

EARL F. SEAMS.