

No Model.)

W. F. MACLACHLAN.  
SLATE WASHER.

No. 435,069.

Patented Aug. 26, 1890.

Fig. 1.

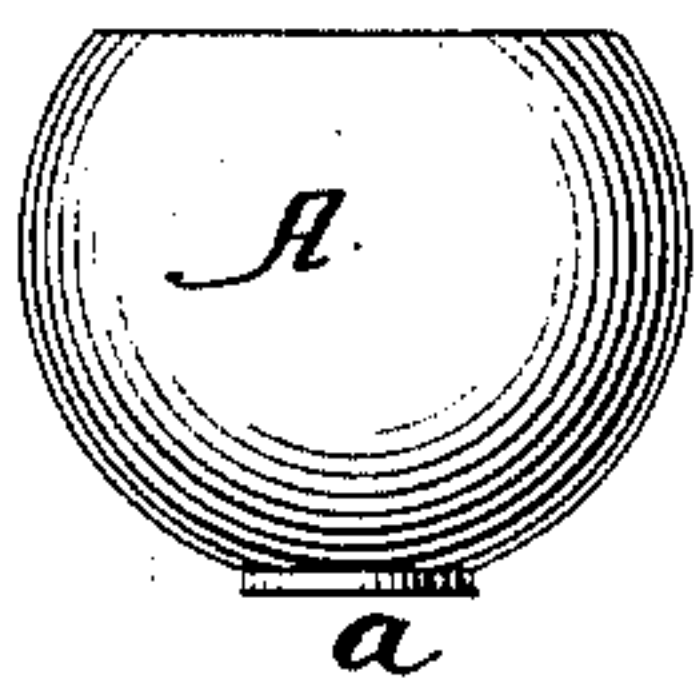


Fig. 2.

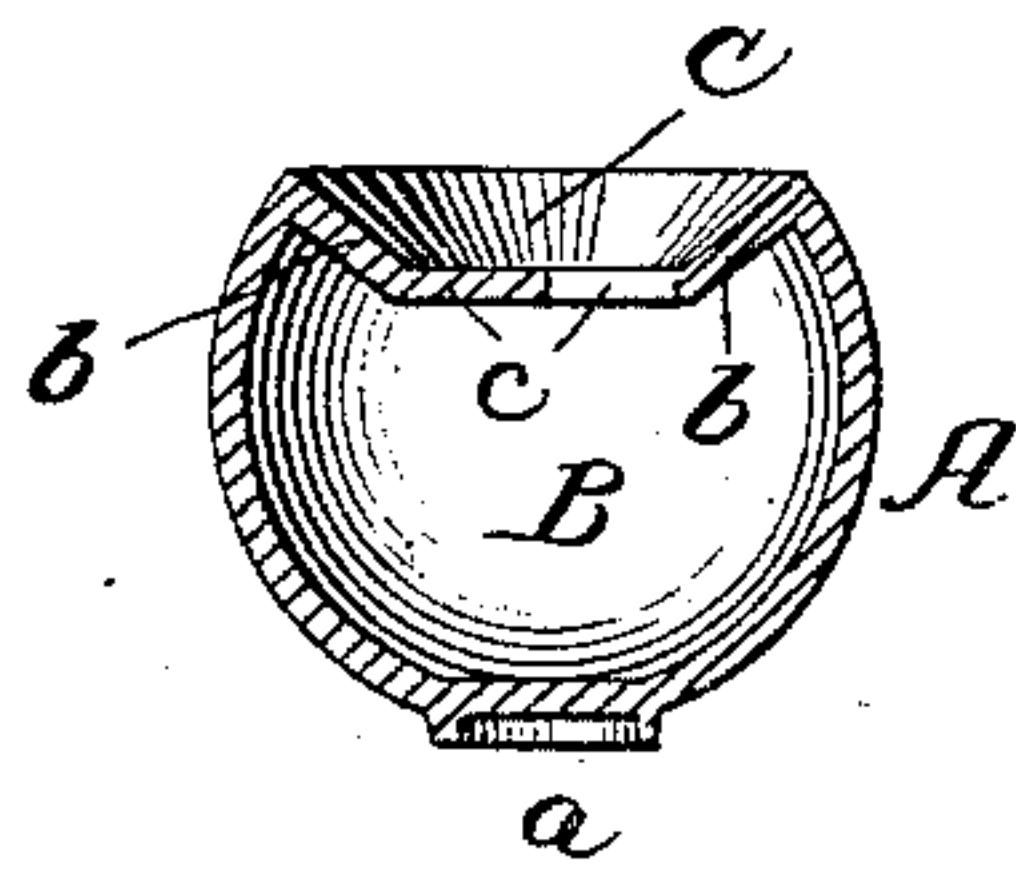


Fig. 3.

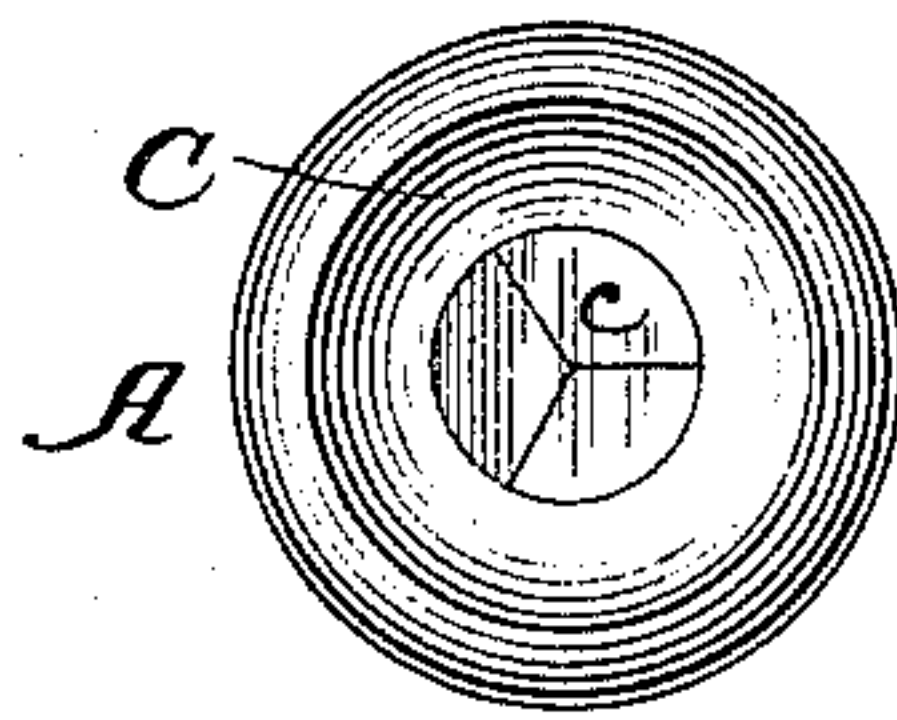


Fig. 4.

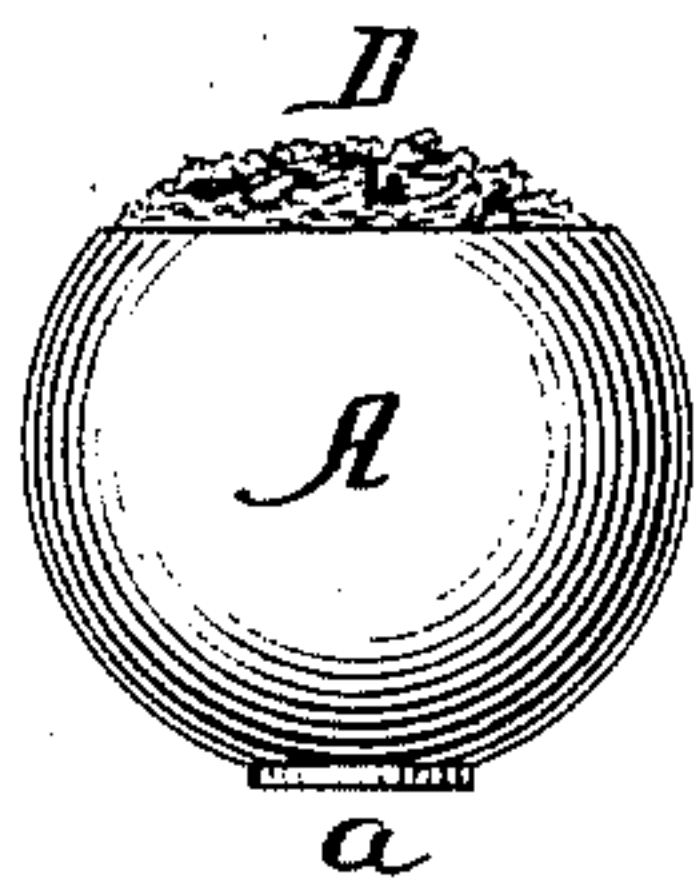


Fig. 5.

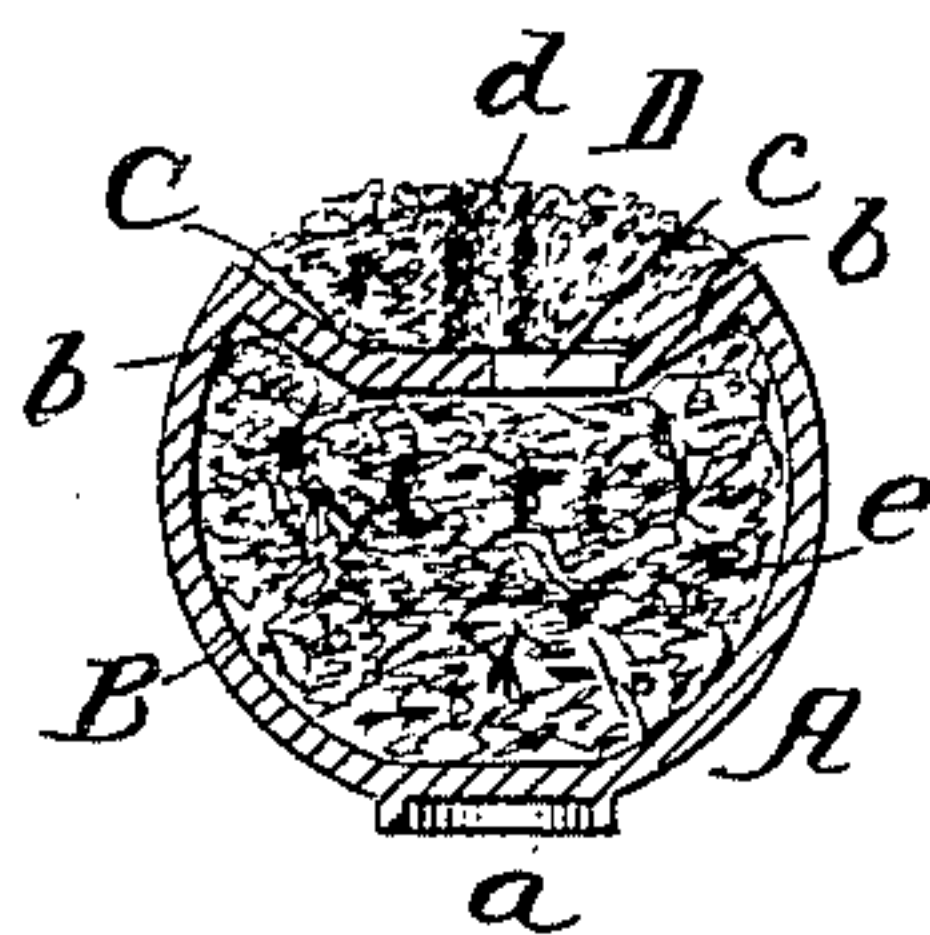


Fig. 6.

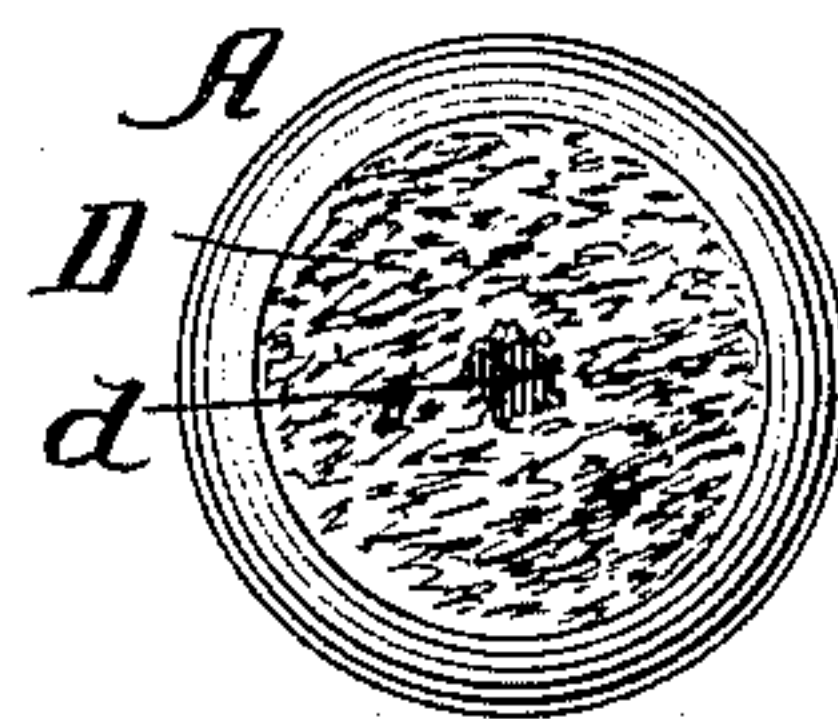
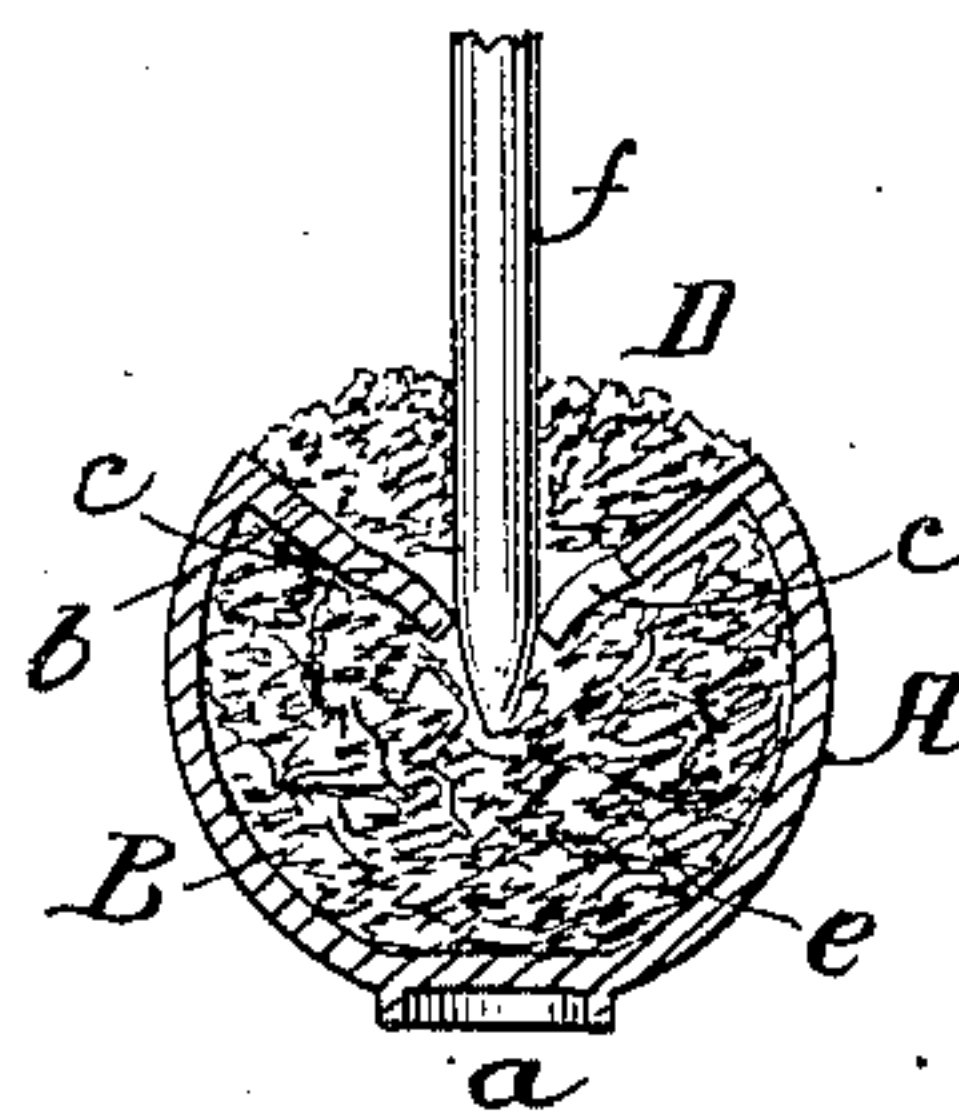


Fig. 7.



Witnesses:

O. W. Bond.  
M. L. Price

Inventor:

William F. MacLachlan



# UNITED STATES PATENT OFFICE.

WILLIAM F. MACLACHLAN, OF CHICAGO, ILLINOIS.

## SLATE-WASHER.

SPECIFICATION forming part of Letters Patent No. 435,069, dated August 26, 1890.

Application filed December 3, 1889. Serial No. 332,478. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM F. MACLACHLAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Slate-Washers; and I do hereby declare that the following is a full, clear, and exact description of the invention, that will enable others skilled in the art to

which it pertains to make and use the same, reference being had to the accompanying drawings, forming a part hereof, in which—  
Figure 1 is an elevation of the bulb or ball. Fig. 2 is a section of the bulb or ball. Fig. 3 is an end elevation of the bulb or ball. Fig. 4 is an elevation of the complete washer. Fig. 5 is a section of the complete washer. Fig. 6 is an end elevation of the complete washer. Fig. 7 is a section of the complete washer, showing the manner of filling the bulb.

The object of this invention is to make a slate-washer which will perform the required work without noise and without injury to the slate, and which can be readily charged or filled, and will permit of the ready discharge of the water when needed, but will retain the water and be non-leaking when not in use, which washer also has the features of being noiseless in case of dropping or falling, and of being small and compact and occupying but little space, and which can be carried in the pocket, if so desired, without any inconvenience or any ill effects; and the nature of the invention consists in providing a bulb or ball shaped receptacle of elastic material having a self-operating valve for wetting a sponge by discharging the water, in providing a bulb or ball shaped receptacle of india-rubber having a chamber for water, a depression for a sponge, and a self-operating valve for admitting and discharging water, and in the several parts and combination of parts, hereinafter described, and pointed out in the claims as new.

In the drawings, A represents a bulb or ball shaped receptacle made of elastic material and having on one side a flat face *a*, which forms a base on which the receptacle can stand, and the opposite side to this face *a* of the ball is flattened. The flat face *a* is not a

necessity but furnishes a means of keeping the ball upright.

B is the chamber for water inside of the bulb or ball receptacle A, formed by the wall of the receptacle and a wall or division *b*.

C is a depression formed by the wall *b*, and at the center of the depression in the wall *b* is a valve *c*, formed by slitting the wall, as shown in Fig. 3, so as to leave three flaps, or in any other form that will leave edges that are free.

D is a sponge fitting in the depression or cavity C on the wall *b*, and firmly secured to the wall by rubber cement or in any other firm manner. This sponge D has a hole *d* in line with the center of the valve *c* for the insertion of a slate-pencil *f* or other means to force open the valve for charging or filling the chamber B, and, as shown, the chamber B has therein small pieces of sponge *e*, which act to hold the water in the chamber in suspension.

The receptacle A is molded or otherwise formed from india-rubber or other suitable elastic material to have the chamber B and the wall *b* forming the depression C, and the valve *c* is formed by dividing the wall *b* at the center with slits to leave flaps, the edges of which will abut snugly one against the other, and, as shown, the receptacle A is of a ball or sphere shape, foreshortened on one side for the recess or depression C, and made complete when the sponge is in place, as shown in Fig. 4, and, as shown in Fig. 4, the washer is ready for use.

In use the chamber B is filled or charged with water by opening the valve *c* with a slate-pencil *f* or other means inserted through the hole *d*, and then inserting the receptacle A in water and compressing it, so that on the expanding thereof to its natural shape, the water will be drawn in at the valve *c* to fill or charge the receptacle. The slate-pencil or other device is withdrawn, closing the flaps of the valve *c*, and holding the water against escape, and any excess of water in the sponge can be wiped off, leaving the sponge practically clear from water. The sponge is moistened for use by pressing on the bulb or ball which opens the valve *c*, and permits the water to pass from the chamber B into the



sponge C, and the wet sponge can be passed over the surface of the slate to remove the marks.

The washer as a whole is soft and will not mar or injure the surface of the slate in being passed thereover, and if the washer should be accidentally dropped it will make no noise or disturbance that will attract attention, and when the valve *c* is closed the escape of water from the chamber B is effectually prevented until the valve is opened by squeezing the bulb or ball, so that the washer can be carried around filled and ready for use without leakage, and the sponge scraps *e* act to hold the water in suspension, and thereby assist in preventing any leakage. The washer, when of a sphere shape, can be used as a ball for bounding and catching, and will take the place of an ordinary rubber ball, in this respect making the washer a combined washer and ball.

The valve *c* is self-acting in so far as opening and closing to admit water from the chamber B to the sponge D is concerned, and is wholly operated by compressing and releasing the bulb or ball A, and as this valve *c* is in fact a part of the wall of the bulb or ball it will be seen that its action is positive and must be normally closed when the bulb or ball is at rest.

The washer as a whole is very simple, and at the same time perfectly reliable. It is self-charging, and can be easily charged, as all that is necessary to be done is to hold it in water with the valve opened and compress the bulb or ball and allow it to expand. It is self-closing, and when closed the escape of water is prevented. It is perfectly noiseless, and can be passed over the surface of a slate without doing any damage, and in case of dropping no noise or disturbance is created.

The bulb or ball A can be made of india-rubber or other elastic material possessing the feature of being compressible and of returning to its natural form after compression, and which will not allow water to percolate through its wall, and while the valve *c*, formed by slitting the center of the wall *b* into flaps, will be found to answer the purpose, it is evident that a check-valve, normally closed when the bulb or ball is expanded and capable of being opened by squeezing the bulb or ball, can be used, and instead of a depressed wall *b*, on which to secure the sponge, a flat or straight wall or a curved depressed wall can be used so long as such wall furnishes an attachment for the sponge.

The washer, although designed specially for use as a slate-washer, can be made in a larger size for use as a blackboard washer or cleaner, and the bulb or ball A need not nec-

essarily be of a round or sphere shape, as it can be made oval or other form, and in place of a sponge other material possessing the quality of retaining and distributing water can be used.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a slate-washer, an elastic bulb or ball wholly inclosing a chamber B and having a valve *c*, actuated by the bulb or ball to open a passage from the chamber B, substantially as and for the purposes specified.

2. In a slate-washer, an elastic bulb or ball inclosing a chamber B and having a valve *c*, and a depression C on one side for the attachment of a sponge, substantially as and for the purposes specified.

3. The elastic bulb or ball A, inclosing a chamber B and having a valve *c*, and a depression C on one side, in combination with a sponge D, united to the wall of the depression C, substantially as and for the purposes specified.

4. The bulb or ball A, inclosing a chamber B and having a valve *c*, and a depression C on one side, in combination with a sponge D, united to the wall of the depression C and having an opening *d*, substantially as and for the purposes specified.

5. The elastic bulb or ball A, inclosing a chamber B and having a valve *c*, and a depression C on one side, in combination with a sponge D, united to the wall of the depression C, opening *d* in the sponge D, and scraps *e* in the chamber B, substantially as and for the purposes specified.

6. An elastic bulb or ball, an interior chamber wholly inclosed by the bulb or ball, and a normally-closed valve formed with and opened and closed by the action of the bulb or ball for controlling the discharge from the chamber, substantially as and for the purposes specified.

7. A slate-washer consisting of a compressible elastic bulb or ball, an interior chamber wholly inclosed by the bulb or ball, a valve formed with and operated by the bulb or ball for controlling the discharge from the chamber, and a sponge permanently attached to the bulb or ball over the discharge, substantially as and for the purposes specified.

8. The combination, in a slate-washer, of a compressible elastic chamber, a sponge adhered to said chamber, and a valve in the wall of the chamber beneath the sponge, substantially as and for the purposes specified.

WILLIAM F. MACLACHLAN.

Witnesses:

O. W. BOND,  
M. L. PRICE.