

(No Model.)

W. H. SPENCE.
BLACKBOARD ERASER.

No. 511,812.

Patented Jan. 2, 1894.

Fig. 1

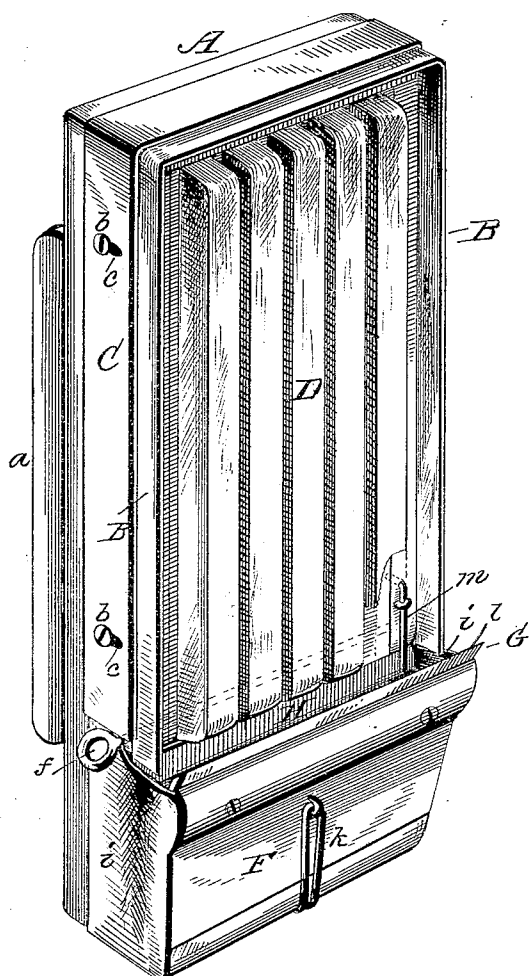


Fig. 2

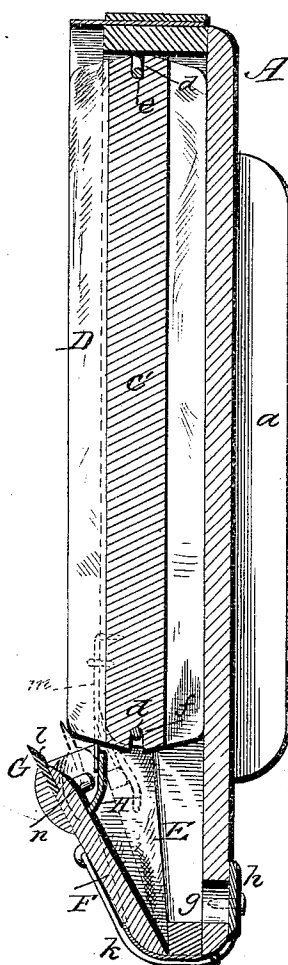


Fig. 3

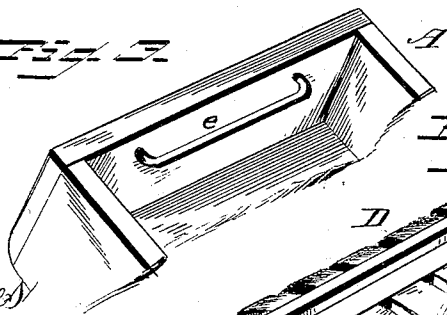
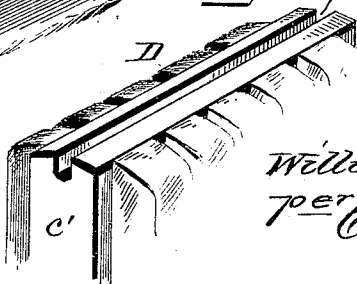


Fig. 4



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. SPENCE, OF FAIRMOUNT, INDIANA.

BLACKBOARD-ERASER.

SPECIFICATION forming part of Letters Patent No. 511,812, dated January 2, 1894.

Application filed June 26, 1893. Serial No. 478,826. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SPENCE, a citizen of the United States, residing at Fairmount, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Blackboard-Erasers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to that class of blackboard erasers in which the erasing-pad is capable of being reversed to bring the new or unworn side of the erasing-pad in position for use when the opposite side has become useless from wear, and consists in providing means for retaining the dust and dirt coming from the blackboard within a receptacle at the end of the eraser-frame and means for removing it therefrom, also in improving the device in the several details of construction whereby a more perfect and practical device of this character is provided. These objects I attain by the construction substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a perspective view of my improved blackboard eraser; Fig. 2 a longitudinal vertical section thereof; Fig. 3 a detail view in perspective of one end of the inclosing frame within which the erasing-pad is held; Fig. 4 a detail view in perspective of one end of the erasing pad.

In the accompanying drawings A represents a rectangular shaped inclosing-frame provided upon its closed side or back with finger grips *a*.

A dust-guard B of felt or other suitable flexible material is connected around the three sides of the inclosing-frame A by means of the metal clamping-band C, which band is secured in place by the set-screws *b* extending through elongated slots *c* in said band and through the dust-guard B and into the sides of the inclosing frame. The clamping-band through the medium of the slots and set screws may be set so as to bring the edge thereof flush with the edge of the inclosing-frame, and the dust-guard may also be adjusted or extended as it wears to bring the edge thereof on the same plane with the wearing sur-

face of the eraser-pad D. This dust-guard B serves to hold the chalk-dust inside the inclosing frame A by preventing it from escaping over the sides thereof.

The erasing-pad D has two wearing surfaces as shown, consisting preferably of felt strips, or any other suitable material may be used, which are suitably connected to the opposite faces of a block *c'* having at its ends grooves *d*. The eraser-pad D is removably held within the inclosing-case A by means of a suitable keeper *e* secured to the inner side of the end of the frame, which keeper engages one of the grooves *c*; a removable pin *f* engages the opposite groove and passes through holes in the sides of the frame. When it is desired to remove the eraser-pad and bring into use the opposite wearing surface, the pin is withdrawn and the pad disengaged with the keeper which will allow the pad to be taken out and replaced with an unworn rubbing surface, thus enabling the single eraser-pad with its double wearing surface to serve the wearing capacity of two separate pads with a single wearing surface.

I do not wish to be understood as limiting myself to any special form of wearing surface or the means shown for holding the pad within the inclosing-frame, as any well known means may be provided for this purpose that will enable the pad to be reversed to bring the opposite wearing surface into use when found desirable.

The inclosing-frame A may be constructed of wood or any other suitable material and has its back extended to form a dust receptacle E and an opening *g* through which the accumulated chalk-dust and dirt are discharged, said opening being closed by a pivoted slide *h*, or any other well known means may be provided for the discharge of the chalk-dust and dirt as found most preferable. A cover F is connected to the extended end of the back of the inclosing-frame by means of flexible hinges *i* of cloth or leather, which hinges form the sides of the receptacle E by being attached to the side edges of the extension and to the side edges of the cover. A suitable spring *k* connects the cover F with the back of the inclosing-frame so as to keep the cover extended as shown in full lines of Fig. 2 and thus bring the rubber or other

elastic flap G in close contact with the surface of the blackboard when the eraser is being used. This elastic flap G is suitably connected to the free end of the cover F and is of sufficient width to project beyond it and has a beveled edge *l*.

A gate H extends across the open end of the inclosing-frame A and projects into the dust-receptacle E and is connected to spring arms *m* secured in any suitable manner to the frame so that the gate will have a yielding motion and be opened when the pin *n* comes in contact therewith. The purpose of the gate H is to keep the space between the cover F and end of the eraser-pad D closed so as to prevent the chalk-dust and dirt from falling out should the device be turned upside down or carelessly thrown upon a desk.

Any suitable means may be provided that will act as a yielding gate so that it will close and open to prevent the chalk-dust or dirt from falling out of the receptacle and to open the receptacle to receive the chalk-dust or dirt coming from the blackboard when the eraser is in use.

In using the eraser when brought against the surface of the blackboard to clean it, the cover F will be forced into the position shown in dotted lines, Fig. 2, the pin *n* striking the gate H and pressing it down as seen in dotted lines, which opens the space between the cover and end of the eraser-pad and allows the chalk-dust to pass into the receptacle E from whence it may be removed through the opening *g*.

The flap or tongue G is beveled upon its edge as hereinbefore described so as to prevent the dust and dirt from collecting and lodging thereon.

When the eraser is not in use or when pressure is removed from the cover F, the spring *k* will force the cover back to its normal position, and pressure on the gate H being removed by the withdrawal of the pin *n* from contact therewith, the gate will close through the medium of the spring arms *m*, thus preventing the chalk-dust or dirt from falling out of the receptacle should the eraser be turned upside down or carelessly handled.

There are many changes or modifications in the details of construction which may be made without departing from the principle of my invention which privilege I reserve as coming within the scope of ordinary mechanical skill.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A blackboard eraser, consisting of a suitable frame, a dust receptacle at the end thereof, an automatically operating hinged cover therefor, and a reversible eraser-pad, substantially as and for the purpose set forth.

2. A blackboard-eraser provided with a dust receptacle, a hinged cover therefor whereby the same is rendered automatic in its action, and a spring connecting with the cover, substantially as and for the purpose specified.

3. A blackboard-eraser provided with a dust receptacle and a spring actuated hinged cover and a spring actuated gate operating in connection therewith to close and open the receptacle, substantially as and for the purpose described.

4. A blackboard-eraser consisting of a suitable inclosing-frame and a suitable flexible dust-guard adjustably connected to the sides thereof, and a reversible eraser-pad held within the inclosing frame substantially as and for the purpose set forth.

5. A blackboard-eraser consisting of a suitable inclosing-frame, an eraser-pad held within the same, a dust-guard connected to the sides of the frame, a dust receptacle upon the end of the frame, a spring actuated hinged cover provided with a flexible flap or tongue, a spring actuated gate operating in connection with the cover, and means for removing the dirt from the receptacle, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM H. SPENCE.

Witnesses:

L. R. WHITNEY,
LEVI SCOTT.