

No. 648,796.

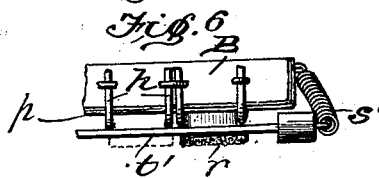
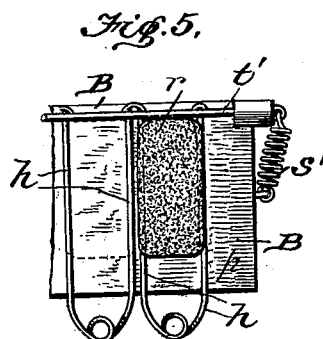
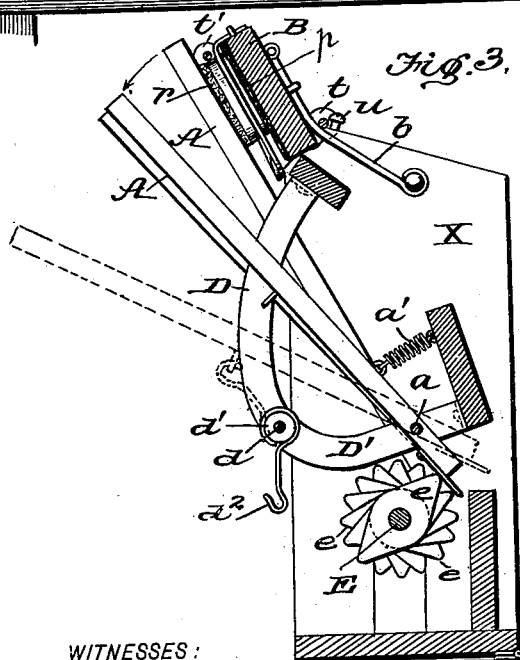
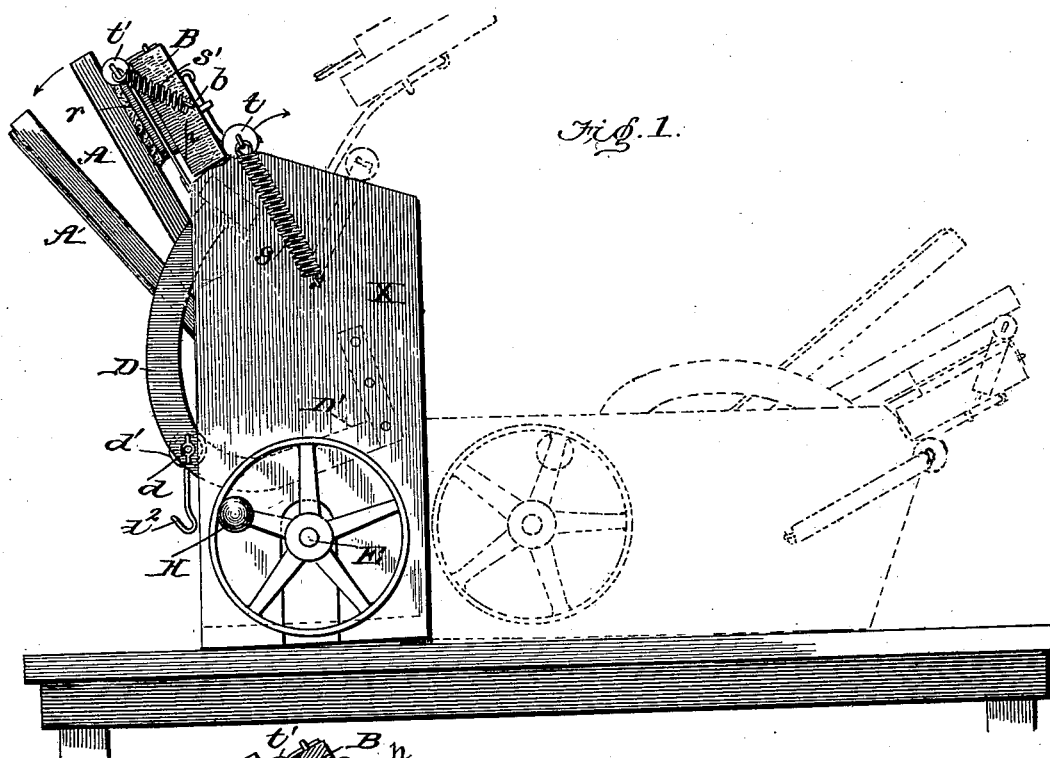
Patented May 1, 1900.

R. J. RILEY.
BLACKBOARD ERASER CLEANING MACHINE.

(Application filed July 8, 1899.)

2 Sheets—Sheet 1.

(No Model.)



WITNESSES:

for A. Ryan

Edw. W. Byrnes.

INVENTOR

Robert J. Riley

BY

Munn & Co.

ATTORNEYS.

No. 648,796.

Patented May 1, 1900.

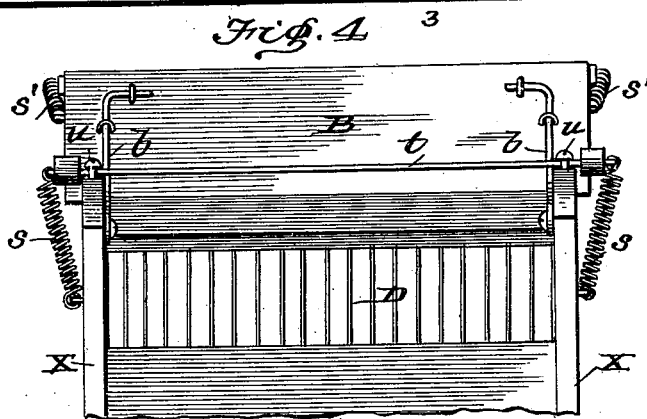
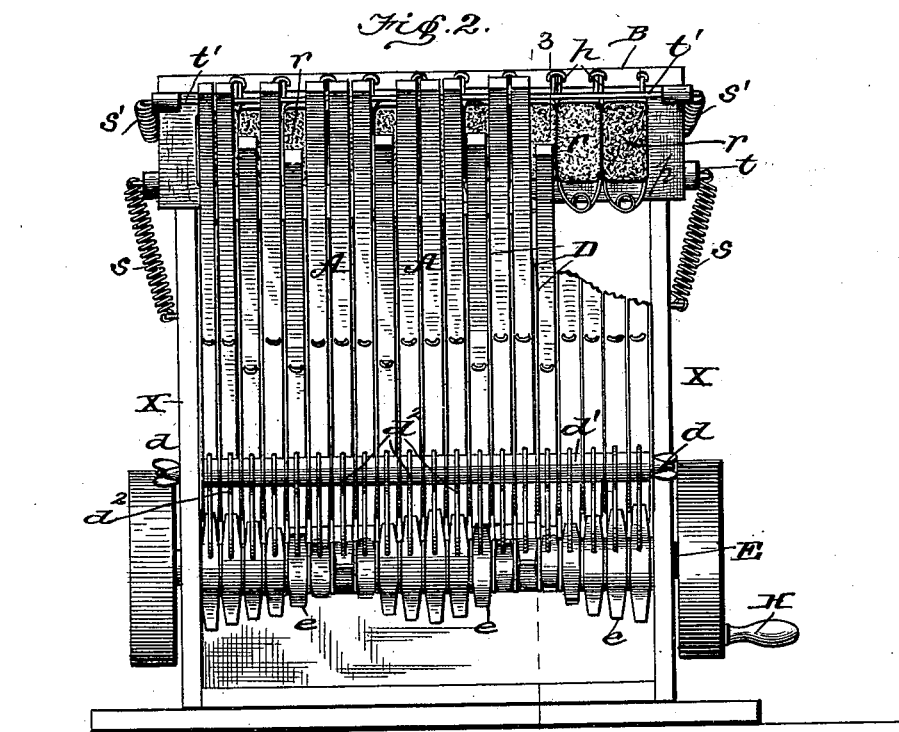
R. J. RILEY.

BLACKBOARD ERASER CLEANING MACHINE.

(Application filed July 8, 1899.)

(No Model.)

2 Sheets—Sheet 2.



WITNESSES:

Jos. A. Ryan

Edw. W. Pyru.

INVENTOR

Robert J. Riley.

BY *Munn & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ROBERT JOHN RILEY, OF LAFAYETTE, INDIANA, ASSIGNOR OF ONE-HALF
TO WILLIAM SWAIM PECKHAM, OF SAME PLACE.

BLACKBOARD-ERASER-CLEANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 648,796, dated May 1, 1900.

Application filed July 8, 1899. Serial No. 723,144. (No model.)

To all whom it may concern:

Be it known that I, ROBERT JOHN RILEY, of Lafayette, in the county of Tippecanoe and State of Indiana, have invented a new and useful Improvement in Blackboard-Eraser-Cleaning Machines, of which the following is a specification.

The object of my invention is to provide a machine for cleaning blackboard-erasers of their load of chalk-dust in an expeditious, cleanly, and thorough manner. Ordinarily this is done by simply knocking the eraser against the first convenient object. In public schools, where this has to be done frequently, it is a great nuisance, as it not only soils the clothing and hair, but in raising a cloud of chalk-dust it fills the air with particles of chalk unfit to breathe and productive of lung troubles.

My invention is designed to provide a machine, to be kept in the basement or out in the air, to which the erasers may be carried when filled with chalk and in a few minutes cleaned without the annoyance of dust in the school-room; and to this end it consists in the peculiar construction and arrangement of the machine, which I will now proceed to more fully describe with reference to the drawings, in which—

Figure 1 is a side elevation; Fig. 2, a front elevation with some of the beaters broken away. Fig. 3 is a vertical section on line 3 3 of Fig. 2. Fig. 4 is a rear view of the top of the machine. Fig. 5 is a face and Fig. 6 an upper edge view of a part of the eraser-holder.

In the drawings, X represents a suitable wooden frame within which is arranged a grating composed of a series of parallel ribs DD'. These are connected together by a rod *d* and are held a definite and uniform distance apart by spacing-blocks *d'*. On a rod *a*, extending through the ribs D', there are pivotally hung a series of beater-arms A, made of hard wood and about one inch square in transverse dimensions. These are normally held up by separate spiral springs *a'*, one for each beater, and the lower ends of the beaters project below the ribs D' and bear steel plates on their sides, where they are acted upon by

These wiper-arms are set at different angular positions on the shaft, so that they act in succession and not simultaneously. When the shaft E is turned by means of its handle H, these wiper-arms *e* acting upon the lower ends of their respective beaters cause them to be thrown back in the direction of the arrow, putting the springs *a'* under tension until the wiper-arm passes out of contact with the beaters, at which moment the springs *a'* cause each beater-arm successively to advance or move in the opposite direction to the arrow and deliver a sharp, sudden, and forceful blow. These blows are received upon the blackboard-erasers, which are placed in a special holder and adjusted in range of contact with the beaters as follows:

B is a bed consisting of a padded board mounted upon arms *b* at its ends, which arms are pivotally connected to the end frames by means of set-screws and arranged to be swung over into range of engagement with the beaters or back and away from the same. This bed has on its face a soft yielding pad *p*, in front of which are arranged spring-holders *h*, composed of a section of spring-wire bent at the middle into a coil and with the two ends extended parallel with each other across the bed and screwed or otherwise connected to the bed, so that at this end a blackboard-eraser *r* can be slipped endwise between the two branches of the spring and there clamped and held in a yielding manner while the blows of the beaters are being rained upon the eraser. The shock or impact of the blows of the beaters on the eraser quickly dislodges the chalk-dust, which in the overhanging position of the beater-bed drops away from the eraser.

The frame bearing the device is preferably hinged to a table, stand, or other support and may be turned into upright position, as shown, or turned down, as in dotted lines in Fig. 1. When turned over in this position, the springs *a'* might be dispensed with and the beater-arms made heavier or weighted, so that their fall from gravity will give the desired blow.

To hold the eraser-bed up to its work against the blows of the beaters, a rod *t* is connected to springs *s s* at the ends and is arranged to be locked over the screws or pins

u. By lifting this rod over the screws the bed B may be easily turned back on its arms b, as shown in dotted lines in Fig. 1. A similar rod t' with springs s' s', serves to lock the erasers in their seats on the bed.

On the rod d below each beater there is a small hook d². These hooks are designed to be caught into eyes on the beaters, to lock such of them out of action as may not be needed, as shown in dotted lines in Fig. 3.

With reference to the eraser-holder I would state that the springs h, which form them, are first bent into a coil in the middle, and the two legs are then extended parallel to each other just the distance apart equal to the width of the erasers, and the ends of the legs are then bent at right angles and rigidly secured to the padded base-board of the bed. This permits the erasers to be held in a yielding condition on the padded board, that causes them to vibrate when struck, and which greatly promotes the cleaning of the same.

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

1. An eraser-cleaner, comprising an overhanging and laterally-swinging bed for holding the erasers, a series of beater-arms, a rotary shaft with wiper-arms or cams for drawing the beater-arms away from the erasers, and independent springs for each beater-arm for throwing them with an independent forceful blow against the erasers, substantially as described.

2. An eraser-cleaner comprising a series of beater-arms, and a rotary shaft with wiper-arms or cams for actuating the beater-arms, springs for returning the beater-arms and a bed for the erasers said bed having a series

of spring-holders for maintaining the erasers in yielding relation to the beaters as described.

3. In an eraser-cleaner, the bed for holding the erasers formed of a base having attached thereto springs formed by wires or rods bent in the middle and extended to form parallel clamping-arms having ends bent at right angles and rigidly connected to the base, substantially as described.

4. An eraser-cleaner comprising a framework, beater-arms pivoted in the framework a rotary shaft with wiper-arms or cams acting on the beaters, springs connected to each beater for delivering the blow, means for locking each of the beaters out of action independently, and a holder for the erasers substantially as described.

5. An eraser-cleaner consisting of a frame X with spaced ribs D D', the eraser-holder B movably supported in pivoted arms, the beater-arms A pivoted between the ribs and provided with springs a, and a rotary shaft E with wiper-arms or cams e substantially as and for the purpose described.

6. The combination with the beater-arms of an eraser-holding bed pivoted upon swinging arms and a locking-rod t, stop u and springs s s for locking it in place substantially as described.

7. The combination with the main frame, a set of vibrating beaters, and the eraser-bed having U-shaped spring-seats h; of the locking-rod t' and springs s' s' substantially as and for the purpose described.

ROBERT JOHN RILEY.

Witnesses:

S. ROUSE,
MORTIMER LEVERING.