

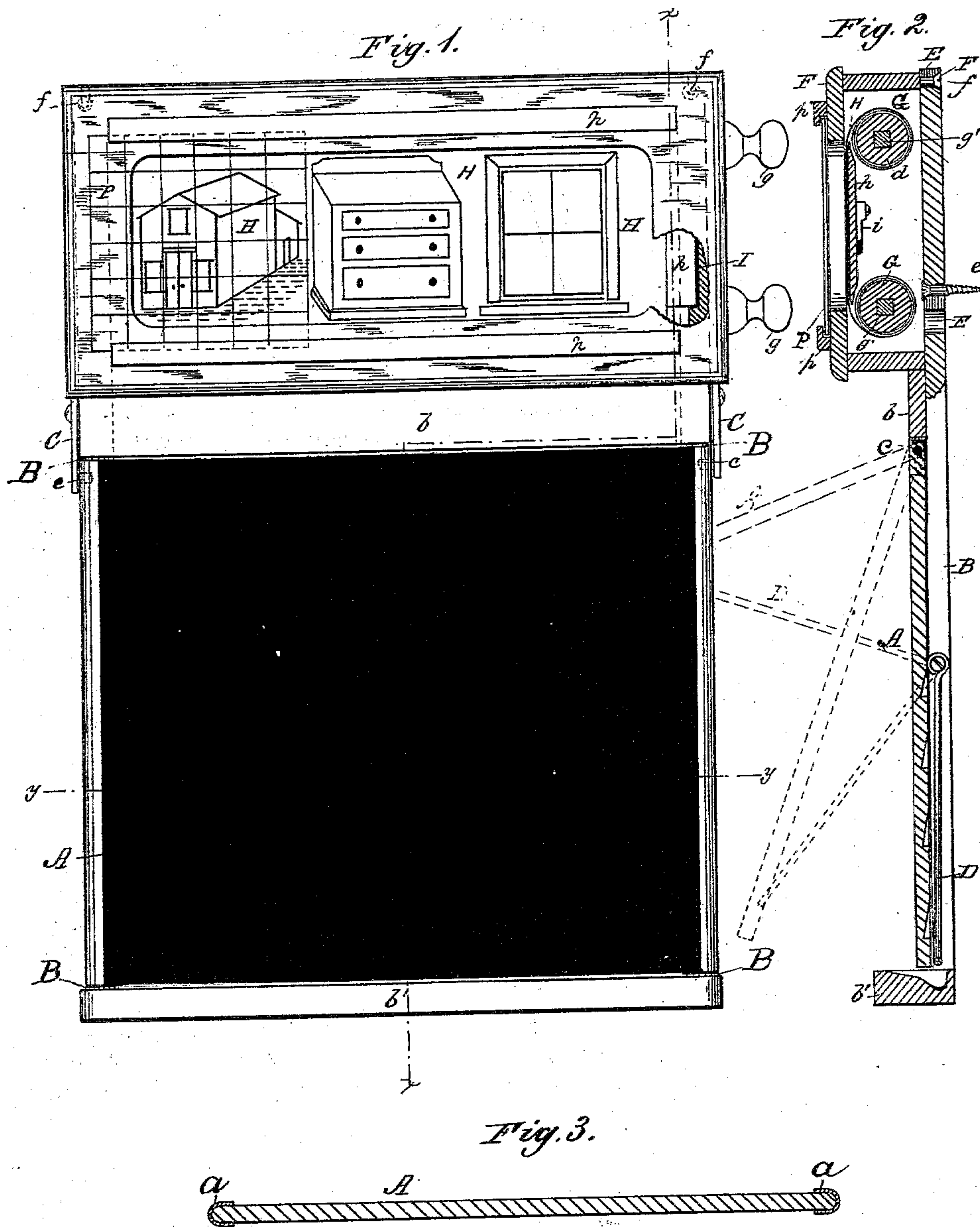
(No Model.)

O. M. MITCHELL.

BLACKBOARD.

No. 281,112.

Patented July 10, 1883.



WITNESSES:
W. W. Hollingsworth
W. X. Stevens

INVENTOR:
O. M. Mitchell
BY *Wm. L. L.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

OTIS M. MITCHELL, OF MARATHON, NEW YORK.

BLACKBOARD.

SPECIFICATION forming part of Letters Patent No. 281,112, dated July 10, 1883.

Application filed February 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, OTIS M. MITCHELL, a citizen of the United States, residing at Marathon, in the county of Cortland and State of New York, have invented a new and useful Improvement in Blackboards, of which the following is a specification.

My invention relates to that class of blackboards which are used in schools and elsewhere to mark upon with chalk; and it has for its object to provide means whereby a sample sheet or copy may be exhibited in connection with the board. The board may be swung away from the wall and supported to serve as a desk, the chalk may be safely held when not in use, and the device may be separated into parts convenient for use and for transportation.

To this end the invention consists in the construction and combination of parts forming a blackboard, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a front view. Fig. 2 is a transverse vertical section at $x x$, Fig. 1; and Fig. 3 is a longitudinal horizontal section at $y y$, Fig. 1, showing my blackboard.

A represents the blackboard proper—that portion which is to be marked on with chalk. This is a plane board of any suitable proportion, bound over its edges with sheet metal bent into troughs $a a$, nailed to the edge of the board across the grain, and pinched closely upon the flat sides of the board to preserve it from being split and from warping.

B B are uprights or side pieces, and $b b'$ are the cross-pieces of the frame. This frame is provided with key-hole slots E to hang upon screws e , made fast in the wall or any suitable support. The board A is hung by means of springs C, secured to the upper cross-piece, b , having studs or pins c projecting into holes in the edges of the board, and serving as hinges on which the board may swing forward at its lower edge. It may be supported at any desired angle by braces D, hinged at one end to the uprights B, and engaging notches d in the under side of the board. By this means the blackboard may serve the usual purpose when hung vertically against the wall, and when supported on the braces it may serve as a writing-desk to sit or to stand at, as it may be

hung high or low on the wall, and it may be more conveniently used as a blackboard when drawings are to be made or other careful work done. By springing the hinge-pins c out of their holes in the edges of the board, the board may be removed from the supporting-frame to be used elsewhere, or for more compactly packing the same in quantities for transportation. The piece b' , extending across the frame from side to side, is made hollow, like a trough, to receive the chalk to be used on the board. The bottom of this trough slants backward and extends to the rear of the board. To keep the chalk from being brushed out of the trough when not in use, the board is swung forward, and the chalk placed in the trough rolls back, and the board being let back protects it.

F is a box or case provided with screws or hooks f , by which it may be hung in slots to the uprights or to the board, so that it may be quickly removed therefrom. Within this box are two rollers, G, to which the two ends of a sample sheet or copy, H, are secured, to be rolled from one to the other for the purpose of bringing different designs or copies in view through the opening in the front of the box F.

To adapt the rollers G to be readily removed for the purpose of introducing other copy-sheets, I provide them with handles or rolling knobs g , having squared or flattened and tapered ends g' , to fit similarly squared or flattened holes in the ends of the rollers closely, yet removably, so that when said knobs are drawn out the rollers may be removed, and when the knobs are in place their squared ends engage the rollers firmly, so that the rollers may be turned by the knobs.

h is a backing-board removably secured in the box F, between the rollers G, behind the copy-sheet H, and near enough to the front board of the box F to keep the sheet smooth and close to the opening, and to prevent it from being broken through by pointers or other things coming against it. This backing-board is made removable by being held at one end in a mortise, I, in the box F, and by being provided with a button, i , at its other end to engage a notch in the box F. By turning this button out of its notch the board is free to be removed with the rollers G.

The lower edge of the box F is adapted to serve as a base on which the box may be set

on a table, when it is desired so to show its contents. The box is made removable from the black-board frame in order that it may be used independently of this particular board
5 and in connection with other boards.

P represents a pane of glass marked off in checks of one inch each, or any other convenient unit of measurement, held over the copy in grooves in battens *p*, which are secured on
10 the face of the box F. This glass is to assist the pupil in measuring the parts of the copy, and to utilize it he may draw corresponding checks on the board. Then, after completing the drawing, the checks may be rubbed out.
15 The glass P may be inserted at one end of the grooved battens and set at any point over the width of the opening in the box F.

Having thus fully described my invention, what I claim, and wish to secure by Letters
20 Patent, is—

1. A frame consisting of two vertical strips, a cross strip or strips secured upon their outer faces near the top, and a cross-shelf joining their lower ends, in combination with a black-
25 board having a hole in each side edge near its upper end, and a pair of springs secured to the upper cross-piece of said frame, and having studs or pivots projecting from them, adapted to enter the holes in the edges of the

board, whereby the same is removably sus- 30
pended to swing, as shown and described.

2. A frame consisting of two vertical strips secured upon their outer faces near the top, and a cross-shelf secured upon their lower ends, said shelf having a trough in its top 35
face, the bottom of said trough slanting backward, in combination with a blackboard pivoted to swing upon the upper cross-strip, and hanging over and forward of the deepest portion of said trough, to serve as a cover there- 40
for, substantially as shown and described.

3. The combination, with the open-fronted box F, hung upon the frame B *b b'*, the copy-sheet H, behind said opening, and the grooved battens *p* on the face of the box, of glass P, 45
having checks on it, and adapted to slide in said grooved battens and to rest at any desired point over the length of said opening, and the blackboard A, hung upon said frame, as described, whereby the copy, the measure, and 50
the blackboard on which the copy is to be represented may be first set in the desired relation to each other, and then so held convenient for use.

OTIS M. MITCHELL.

Witnesses:

CHARLES A. BROOKS,
WM. J. MANTANYE.