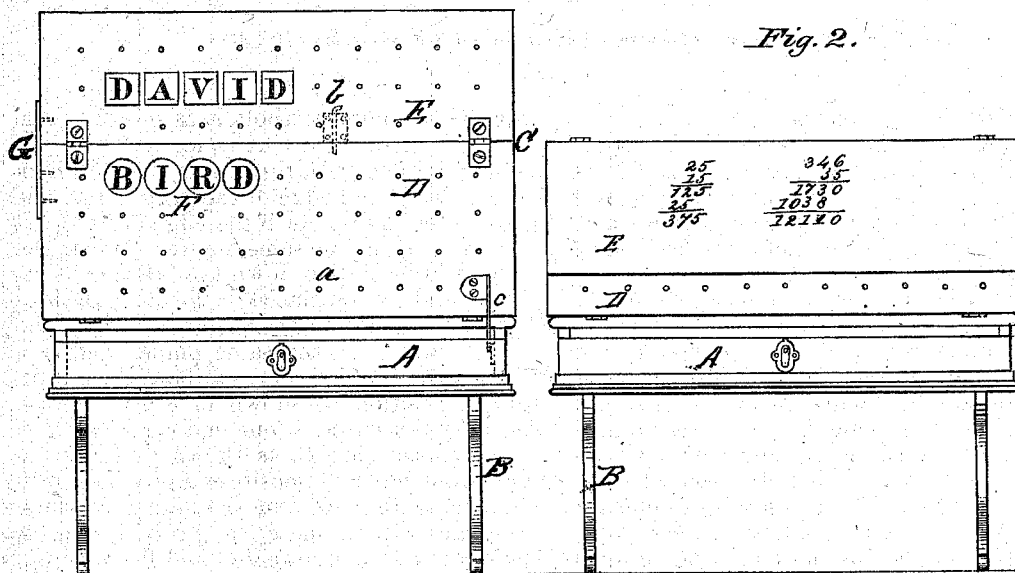


JOHN H. PALM.

Improvement in Letter Boards for Object Teaching.

No. 115,349. *Fig. 1.*

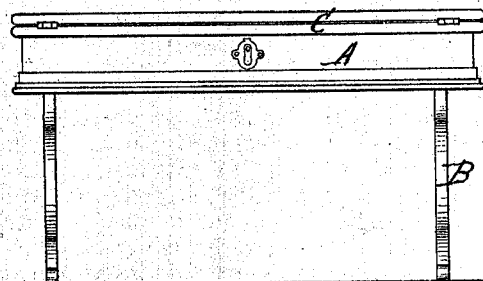
Patented May 30, 1871.



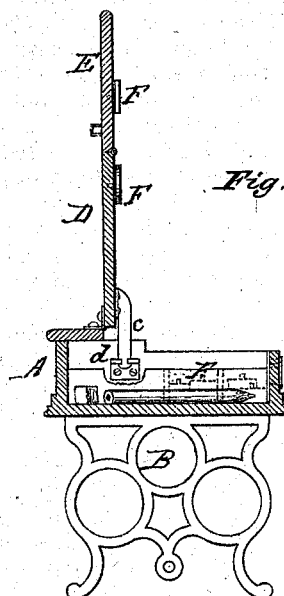
*Fig. 5.*



*Fig. 3.*



*Fig. 4.*



Witnesses:  
J. C. Brecht.  
Phil. F. Dodge

Inventor:  
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By Dodge & Munn  
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# UNITED STATES PATENT OFFICE.

JOHN H. PALM, OF MANSFIELD, OHIO.

## IMPROVEMENT IN LETTER-BOARDS FOR OBJECT-TEACHING.

Specification forming part of Letters Patent No. 115,349, dated May 30, 1871.

*To all whom it may concern:*

Be it known that I, JOHN H. PALM, of Mansfield, in the county of Richland and State of Ohio, have invented certain Improvements in Letter-Boards for Object-Teaching, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to devices for object-teaching; and consists of a box mounted on legs, so connected as to be detachable, and having its interior divided into compartments for holding chalk, pencil, letters, &c., and with its cover made in parts, and hinged so that it may be turned up and held in an upright position, and having its face, when so turned up, provided with a series of holes for holding the letters or objects, as hereinafter explained, and also having one of the hinged parts provided with a blackboard surface.

In the drawing, Figure 1 is a front elevation, showing the cover turned up and method of attaching objects to it; Fig. 2 is a front elevation, showing the cover partly turned up so as to present the blackboard surface; Fig. 3 is a front elevation of the box mounted and with its cover turned or folded in and locked; Fig. 4 is a cross-vertical section of Fig. 1; and Fig. 5 is a front and edge view of a disk with a letter or other object on its face and pin on its rear side.

The object of this invention is to produce a convenient device or letter-board for object-teaching, and that may also be used for blackboard purposes.

A box, A, of any desired size, is made and mounted on suitable legs, B. These legs may be made detachable, so as to be taken off and placed inside the box when the same is packed for transportation. The cover of the box is made in two parts, D and E. These parts are hinged together, and the part D hinged to the box, as clearly shown in Figs. 1, 2, and 3. The part E folds down on the part D, as shown in Fig. 2, and the whole then folds down on the box, so as to fit closely and be locked, as shown in Fig. 3. The outer surface of the part E, when turned down, as shown in Fig. 2, is provided with a blackboard surface, on which figures or other objects may be marked, as shown in the same figure. When it is turned up so as to be in the same plane with the part D the two are connected by a locking stay-

brace, G, as well as by a bolt, b, as shown in Fig. 1. The brace G is a short piece of wood or metal, provided with three pins, two of which enter holes in the edge of the part D, and one of which enters a hole in the edge of the part E, as shown in the same figure. When the cover is to be turned down the brace G is removed, and can be placed in the box. Besides these devices, which are designed to hold the parts E and D in the same plane, there is a spring-stay, c, which serves to hold them in an upright position, as shown in Figs. 1 and 4. This stay is secured at one end near the lower side of the part D, as shown in the same figures, and has its opposite end provided with a T-head, with neck and shoulders, by which it engages with a lug, d, as shown in Fig. 4. The cover A, when unfolded and fastened up, as shown in Figs. 1 and 4, forms the letter-board, and has its front side provided with rows of holes, a, as shown in Fig. 1. These holes are for the purpose of receiving a pin on the rear or back side of a piece of wood, metal, or pasteboard, F, the front side having a letter or other device upon it. There may be any number desired of these devices for attachment to the face of the board, as shown in said Figs. 1 and 4; and, as will be seen, they can be arranged on the board in any desired order. By removing the bolt b and stay-brace G the part E of the cover A can be turned down so as to present the blackboard surface for use as such, as shown in Fig. 2. The interior of the box is divided off into compartments for receiving the devices used on the letter-board, as the pencil and other articles required for the blackboard, as shown in Fig. 4.

If desired, the compartment may be similar to a printer's case, so that the devices, when consisting of the letters of the alphabet, may be assorted therein. In this way a convenient device or apparatus is produced for object-teaching. When not in use it can be closed up and locked with the object devices, letters, pencils, &c., secured in its inside, and then used as a table.

By taking off the legs and placing them inside of the box the whole can be conveniently packed for transportation.

Having thus described my invention, what I claim is—

1. The combination of a box, A, mounted on

detachable legs B, and having its interior divided into two compartments, with the hinged cover C, consisting of the two parts E and D, both provided with a series of holes on one side, and the former with a blackboard surface on its opposite side, when constructed substantially as and for the purpose set forth.

2. The hinged cover or letter-board C, provided with a series of holes, *a*, for the attachment of the letters or object devices F, in combination with the stay-braces G and *c*, when

constructed and arranged substantially as and for the purpose set forth.

3. The combination of the hinged letter-board C, provided with a series of holes, and the object devices F, provided with pins on their rear sides, substantially as herein described.

JOHN H. PALM.

Witnesses:

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WM. B. MERCER.