

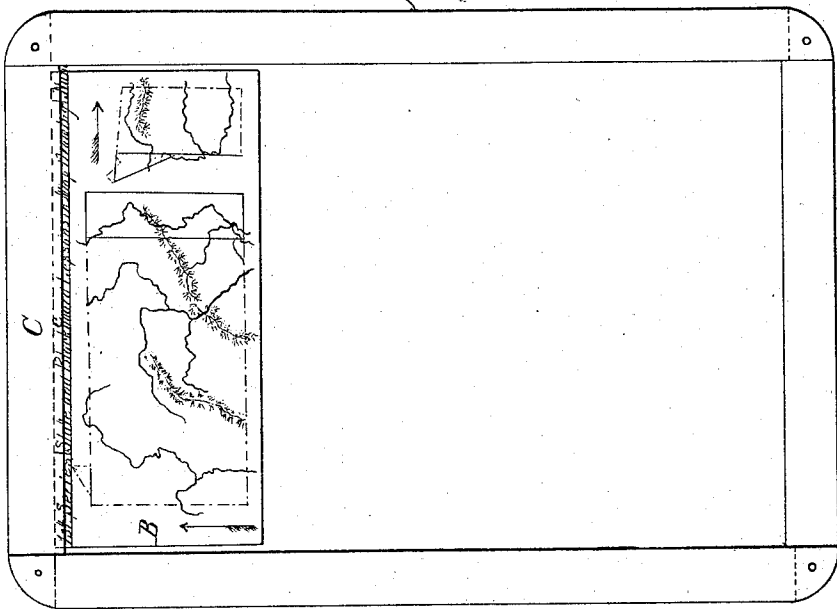
*J. H. French.*

*Slate.*

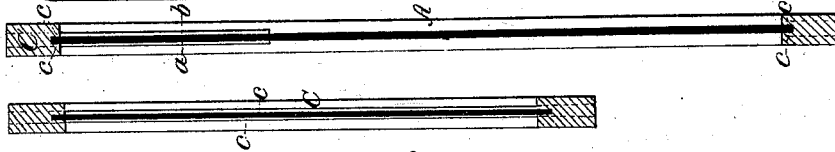
*N<sup>o</sup> 99,661.*

*Patented Feb. 8, 1870.*

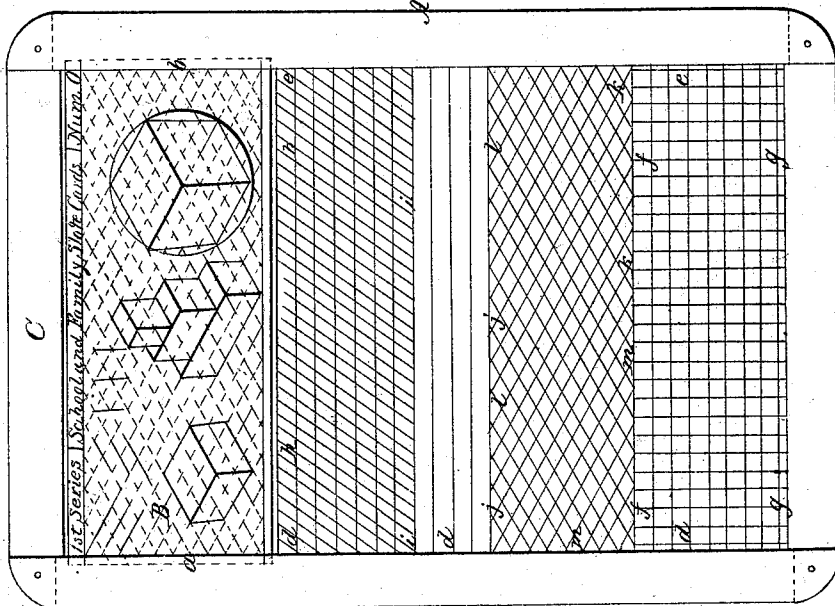
*Fig. 2*



*Fig. 3*



*Fig. 1*



*Witnesses*  
*Lucius H. Cheney.*  
*Samuel D. Barr.*

*Inventor*  
*John H. French.*

# United States Patent Office.

JOHN H. FRENCH, OF ALBANY, NEW YORK.

Letters Patent No. 99,661, dated February 8, 1870.

## IMPROVEMENT IN WRITING-SLATES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, JOHN H. FRENCH, of the city and county of Albany, and State of New York, have invented a new and improved School and Family-Slate, and accompanying cards of lessons for teaching writing, printing, arithmetic, picture-drawing, and map-drawing, in addition to the other purposes for which school-slates are commonly used; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 represent face views of the slate. Figure 3 is a transverse vertical section of the same.

Similar letters of reference indicate like parts.

This invention relates to a school-slate, and an accompanying set or sets of cards of lessons in writing, printing, arithmetic, picture-drawing, and map-drawing, the frame of the slate being so constructed as to admit of the insertion, upon one or both sides of the slate, of one or more cards at the same time, made of paper, card-board, or other suitable material, upon which are printed, drawn, painted, stamped, or photographed, lessons or copies in writing, printing, arithmetic, picture-drawing, and map-drawing, either any one separately, or two or more, or all combined, the cards being inserted into and held in the frame of the slate in such a manner that the pupil is enabled to copy upon the slate, below or at the side of the cards, the lessons given on the cards, thus giving him a great variety of exercises in the most convenient form, and at moderate expense.

The operation of copying the lessons in writing, printing, and picture-drawing, is materially facilitated by horizontal, perpendicular, and oblique lines, permanently pressed, drawn, marked, stamped, printed, ruled, or cut upon a part or the whole of one or both surfaces of the slate, the lines not being so heavy or so deep as to impede or interfere with the free use of the pencil, and corresponding lines, printed, drawn, painted, stamped, or photographed, upon the lesson-cards, as guide-lines, whereby the pupil is enabled to make his letters, figures, and pictures, of the proper proportionate heights, widths, and slope.

A represents a frame, made of wood, or any other suitable material, and of any convenient size.

The construction of this frame differs from that of the frame of the ordinary school-slate only in having slots, grooves, or channels, formed by making in the opposite pieces of the frame, a portion of the grooves *a b*, equal in extent, say, to the width of the accompanying lesson-cards to be used in connection with the slate, enough broader than the remainder of the grooves

to admit of the insertion, on either or both sides of the slate, of one or more lesson-cards, B, the ends of the card or cards being inserted in the slots, grooves, channels, or openings *a b*, in the opposite pieces of the frame A, which then holds them in place upon the surface of the slate; or one edge of the card or cards being inserted in the groove *c* of one of the pieces C of the frame A, the groove in this case being broad enough to admit the edge of the slate, and also the edge of one or more cards, on either or both sides of the slate.

Upon a part or the whole of one or both surfaces of this slate, I produce horizontal, perpendicular, and oblique lines, as follows:

The horizontal lines *d e* are parallel, and of the proper distances apart to give good proportions, in height, to the lessons in writing, printing, and picture-drawing.

The perpendicular lines *f g* are parallel and equidistant, and serve as guides to the pupil in properly spacing his printed letters and figures, in width, and to aid him in proportioning the width of his lessons in rectangular drawing.

One set of the slope or oblique lines *h i* cross some of the horizontal lines, at any angle preferred, to correspond to the slope of the writing to be taught, and are of the proper distances apart to give good proportions to the spacing or width of the letters.

Two other sets of slope or oblique lines, at a uniform distance apart, and drawn at angles of sixty degrees from a perpendicular, cross each other, and form guide-lines for lessons in isometric drawing.

The lesson-cards B are printed upon one or both sides, and contain copies of letters, words, and figures, for writing and printing, arithmetical exercises, and copies for lessons in picture-drawing and map-drawing.

Instead of increasing the width of any portion of the slots, grooves, or channels in the slate-frame in the manner already described, I may cut away the thickness of the slate on one or both edges any required amount, thus reducing the thickness of the slate at the edges, so as to make an opening or openings between the slate and the frame, into which opening or openings the side or ends of the lesson-cards may be inserted, substantially in the same manner as they are inserted into the grooves or slots in the frame, as hereinbefore described.

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

1. The frame A, containing slots in the inner edge of the opposite pieces, or a groove in the inner edge of one of the pieces, to admit of the insertion, on one or both sides of the slate, of one, two, or more cards of card-board or other material, containing lessons in

writing, printing, arithmetic, picture-drawing, and map-drawing, either any one separately, or two or more, or all combined, substantially as and for the purposes described.

2. The cutting away of any portion of the thickness of the slate on the edge or edges, so as to admit of the insertion, between the slate and the groove in the frame, of the edge or edges of one or more cards

containing lessons in writing, printing, arithmetic, picture drawing, and map-drawing, substantially as herein described.

JOHN H. FRENCH.

Witnesses:

DEWEY BRIMMER,  
STEPHEN R. GAY.