

(No Model.)

J. E. WENGER.
ANNUNCIATING BLACKBOARD.

No. 541,403.

Patented June 18, 1895.

Fig 1.

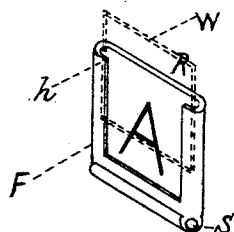
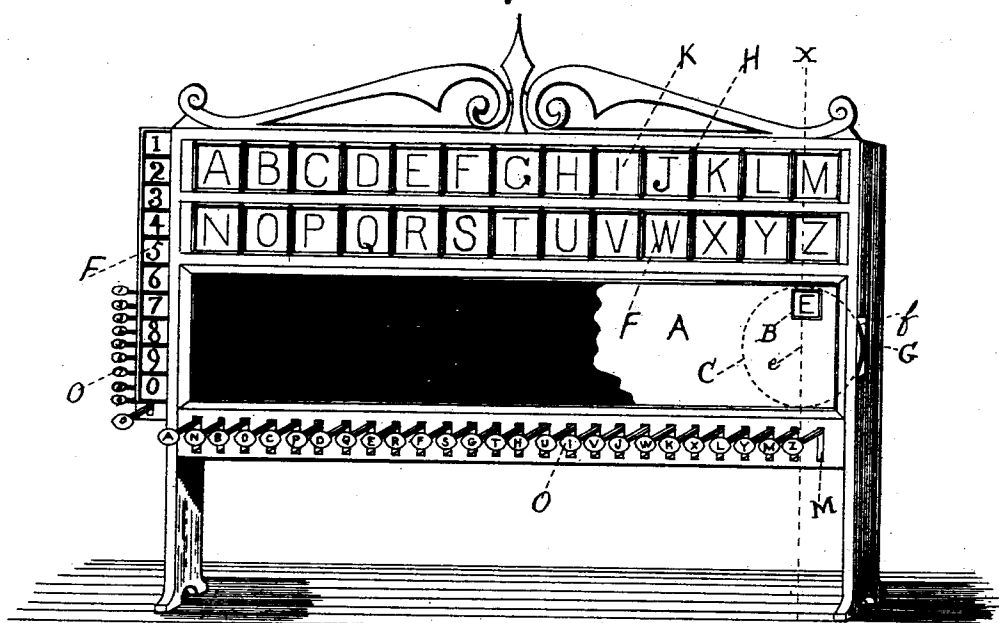


Fig 3.

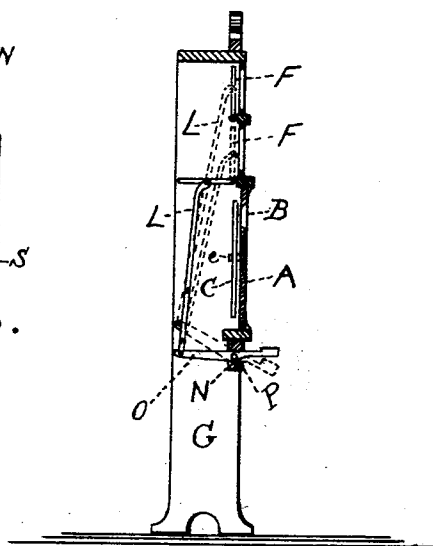


Fig 2.

WITNESSES:

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JOHN E. WENGER, OF PARADISE, PENNSYLVANIA.

ANNUNCIATING-BLACKBOARD.

SPECIFICATION forming part of Letters Patent No. 541,408, dated June 18, 1895.

Application filed April 23, 1894. Serial No. 508,634. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. WENGER, a citizen of the United States, residing at Paradise, in the county of Lancaster and State of Pennsylvania, have invented a new Annunciating-Blackboard, of which the following is a specification.

My invention relates to the improvements on the old style of blackboards, or slates as are at present in common use in the various educational institutions, and in all others where blackboards or slates are or can be used, and the objects of my invention are:

First, to provide a blackboard or any of its various substitutes, with a full alphabet, and notation of numerals, the alphabet and numbers being so arranged that they can be brought to view by depressing a key or other suitable means, and thereby operating the mechanism connected to the alphabet, numbers, or any other characters used.

Second, to make a blackboard that will double the facilities of instructors, having in charge the primary or other departments of schools, as any letter, character or number desired can be brought into view and in exercising a young or kindergarten class, the pupils can be instructed and interested at the same time by the practical means employed. A greater impression is made on the memory of the pupil by having to select any particular characters by the keys or other means employed to bring into view the letters or numbers.

Third, the providing of a blackboard which can be used in illustrating stock quotations, or for a bulletin board for recording the scores in all events interesting to a sporting or athletic-loving public, and providing a ready means of a greater number of changes in all blackboards and bulletin boards for instruction, news, amusement or otherwise.

Fourth, to furnish an annunciating blackboard that will be invaluable in aiding pupils in the study of music.

To accomplish the purposes of my invention I construct a blackboard of slate or any other desirable material, and connected to the blackboard and forming part of its construction, either at the top or bottom, or any other desired location, and contained in the same frame or not with the blackboard or slate a

number of openings, each opening divided by a small munting or division strip, or the muntings or division strips may be left out, leaving the panel of the size of the whole number of the drops or shutters. These shutters are secured to the rear side of the framework of the device and held in position on the pivots S, as shown in Figs. 2 and 3, and are, if open, or as I may describe as being down, or supposed to be invisible, on depressing a key or lever, which in turn operates a connecting rod attached to the shutter, forced up into its vertical position, and fills up its corresponding space or division, exposing to view the letter, number or other character on the face of the shutter, and will remain or drop back to its original position at the option of the operator. In case of a duplication of any character on the various shutters being desired, or for repetition, I arrange a circular and revolving board, pivoted at the back of the blackboard or its substitute, and provide an opening at any desired location in the blackboard, directly in front of the circular, revolving board at its back, through which opening any character on the circular or other board in the rear can be seen; and to simplify the construction and facilitate the moving of the board at the back, I provide an opening or slot in the side of the end support or frame of the blackboard, through which the edge of the board at the back, slightly extends, rendering it easy for the instructor or operator to manipulate it in either direction, and bringing any character required opposite the opening in the blackboard.

I attain the objects of my invention, as described, by the mechanism or attachments shown in the accompanying drawings, where for illustration and to more clearly describe and explain the practical operation of my invention, I have confined my drawings and description, as would be adaptable and applied for educational purposes.

Figure 1 shows a perspective side front elevation. Fig. 2 is a sectional side elevation on the line xx . Fig. 3 is an enlarged perspective of a shutter or drop.

Similar letters refer to the same parts throughout the various figures.

In Fig. 1, A is a blackboard panel or slate, having the opening B, through which open-

ing the letters or any other character on the rotating board C are shown.

e is the pivot on which the rotating board C revolves.

5 f is a slot or opening in the end support or frame G, through which the board C is manipulated.

The alphabet A to Z is shown with the annunciating shutters F all up in view and F' 10 shows the annunciating shutters, vertically arranged for the numerals.

H is a munting forming the division between the openings K, through which the annunciating shutters are seen.

15 M represents the lever slots in the key or lever board N, through which the levers or keys O work, and are supported on the pivot P, operating the lever rods L connected to the annunciating drops F.

20 The divisional muntings H dividing the openings K may be dispensed with, leaving one large opening if so desired, or more convenient for the purposes to be used.

In Fig. 3 is shown a perspective of an annunciating drop or shutter F with its sides or edges so constructed as to form a flanged edge h. On the face of the shutter is shown a permanent character. The dotted lines W show a slip or slide R, partly inserted in the 30 front of the annunciating drop or shutter F

and on which can be any character, numeral or sign desired. The slip R is intended to be marked with some character, numeral or word on each of its sides, doubling its capacity of usefulness.

35 It is obvious that the mechanism for the display of the numerals (shown in Fig. 1) will be the same as that shown in Fig. 2, for the display of the letters, the mechanism so shown serving to operate the numerals the same as 40 the letters.

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

The combination with a shutter for annunciating blackboards, having one of its edges 45 adapted to be secured to said blackboard, and having the edges of two of its sides turned upon the main portion of the shutter, a character upon the front face of said shutter, of a reversible slide, having a character upon its 50 front and rear faces, adapted to be placed in said shutter, its outer edges being embraced by said turned in edges of said shutter, substantially as described.

In testimony whereof I have affixed my signature in the presence of two witnesses. 55

JOHN E. WENGER.

Witnesses:

W. C. FREW,
AMOS D. MURR.