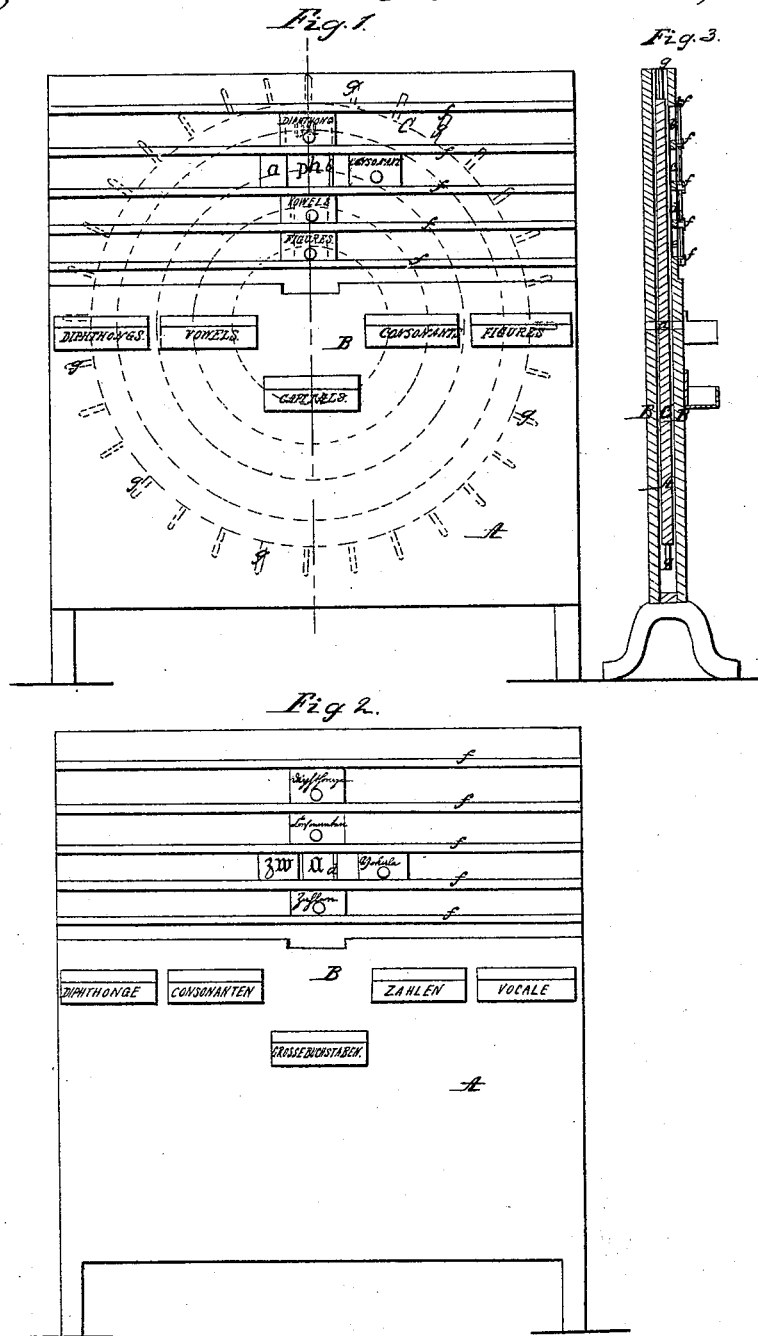


J. H. R. Reffelt,

Alphabeticon,

Nº 51,864,

Patented Jan. 2, 1866.



Witnesses:
J. M. Corington
W. L. C. Pliff

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UNITED STATES PATENT OFFICE.

J. H. R. REFFELT, OF HOBOKEN, NEW JERSEY.

ALPHABETICON.

Specification forming part of Letters Patent No. 51,864, dated January 2, 1866.

To all whom it may concern:

Be it known that I, J. H. R. REFFELT, of Hoboken, in the county of Hudson and State of New Jersey, have invented a new and Improved Alphabeticon; 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—

Figure 1 represents an elevation of my invention, showing that side which serves for teaching the English language. Fig. 2 is a similar view of the same, showing that side which serves to teach the German language. Fig. 3 is a transverse vertical section of the same.

Similar letters of reference indicate like parts.

This invention relates to an apparatus which is intended to facilitate the otherwise tedious process of teaching the first rudiments of any language for which the apparatus may be prepared.

It consists, principally, of an upright wooden frame the sides of which are composed of solid boards and provided with apertures and suitable slides, in combination with a disk which revolves on a central axis that has its bearings in the sides of the frame, and which is marked with diphthongs, consonants, and vowels of a certain language, and also, if desired, with the figures from 0 to 9, said letters being arranged in annular spaces opposite the apertures in the sides of the frame in such a manner that by turning the disk any diphthong, vowel, consonant, or figure can be brought opposite the appropriate aperture and exhibited to the view of the pupils, and after such letters are fully known by the whole class additional letters can be introduced into the slides extending from either side of the apertures, and by these means parts of words or whole words, and also numbers of more than one figure can be taught simultaneously to a number of pupils with the greatest ease and facility.

A represents a frame composed of two side boards, B, which are secured together, having an intervening space in which the disk C ro-

tates. This disk can be made of wood, paste-board, or any other suitable material, and it revolves on its axis *a*, which has its bearings in the side boards of the frame A. Said side boards are perforated with a series of apertures, *b c d e*, which are situated at different distances from the center of the disk, and from said apertures extend guideways *f* in either direction throughout the full width of the frame.

The disk C is divided off in a series of annular spaces, corresponding in number and position to the apertures in the sides of the frame. In the first of these annular spaces are written the diphthongs, in the second the consonants, in the third the vowels, and in the fourth the figures from 0 to 9, in any desirable order, or, more properly speaking, disorder, and at such distances apart that by turning the disk by means of handles *g* radiating from its edge either of the letters or figures can be brought before the appropriate aperture. Said apertures are covered by slides *h*, which move in the guideways *f*, so that they can be readily removed from their openings, and the letters which it is desired to reach can be exhibited to the pupil.

A series of cases, D, secured to the sides of the frame A, are intended to receive such additional letters or figures which will be required after those on the disk are fully known to the whole class.

If, for instance, the slide over the vowels is opened, the pupils see only that letter which is brought opposite the appropriate aperture, and by turning the disk the various vowels are brought opposite said aperture indiscriminately until all the pupils are able to tell, without hesitation, which is which, and the same with the other letters and figures. If the pupils have got thus far, additional letters or figures are introduced between the guideways *f* and placed next to the aperture of that series which at the time is under consideration. For instance, the letter *a* may be placed to the left of the aperture over the space containing the consonants. By turning the disk, one of the consonants after the other is brought in view, and the pupils read the same in combination with the letter *a*. Any other letter or set of letters can thus be combined with either series of letters on the disk, or one or

more figures can be placed to the left or right of the aperture over the figures, and numbers can thus be formed of any desired magnitude.

It must be remarked that in place of the disk a series of slides might be used moving behind the side boards and marked with the appropriate letters or figures; and I do not wish to confine myself to the disk, though I use the same, by preference.

This apparatus serves for teaching any language for which it may be prepared, and by its aid the pupils are enabled to get the proper hold of the letters and figures in a short time

and with comparatively little trouble to the teacher.

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

The combination of the single disk C, having characters on both sides and made for two languages, the lettered slides *h*, and perforated boards B, all constructed and arranged to operate as and for the purposes specified.

J. HERMANN R. REFFELT.

Witnesses:

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