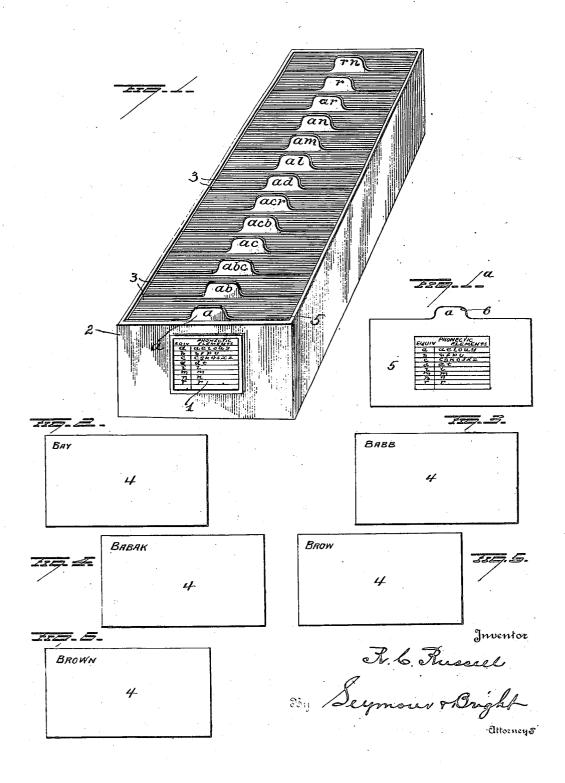
R. C. RUSSELL.
INDEX.
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## STATES UNITED PATENT

## ROBERT C. RUSSELL, OF PITTSBURGH, PENNSYLVANIA.

## INDEX.

Application filed November 28, 1921. Serial No. 518,413.

To all whom it may concern:

Be it known that I, ROBERT C. RUSSELL, a citizen of the United States, and a resident of Pittsburgh, in the county of Allegheny 5 and State of Pennsylvania, have invented certain new and useful Improvements in Indexes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable 10 others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in indexes,—one object of the invention being to improve indexes wherein the names are 15 arranged in accordance with phonetic subdivisions of a key rather than the alphabetical structure of the names.

A further object is to provide an index of the character above outlined, in which the 20 placing of key designations on the name cards of the index shall be avoided and in which necessity for translating the subdivisions of the key into numerical or other designating or arbitrarily selected equiva-25 lents shall be obviated.

With these and other objects in view, the invention consists in certain novel features as hereinafter set forth and pointed out in

the claims.

In the accompanying drawings Figure 1 is a view of a portion of a card index showing an embodiment of my invention; Figure 1ª is a view of a guide member of one of the index element groups, and Fig-35 ures 2 to 6 are views of name cards of cortain index element groups.

My improved index comprises a phonetic key element and a plurality of index element groups, each of said index element groups comprising a guide member and any desired number of name members.

In the embodiment of my invention shown in the drawings, I have illustrated the same in a card index, but my improve-45 ments might be embodied in an index of the

"book" type.

The key element 1 may be produced on a card held in a suitable frame on one end of the drawer in which the index elements 50 are placed, or it may be printed on the guide members of the index element groups or both, or the key may be adapted for use in operating the index without actual physical connection with the guide members or 55 the container for the index elements.

phonetically, I employ a key element 1, in which I provide a phonetic arrangement comprising eight divisions, as follows:

First: The oral resonants represented by 60 their alphabetical equivalents a, e, i, o, u

and y and their combinations:

Second: The labials and labio-dentals, the former being represented by b p and sometimes f, and the latter being represented by v and sometimes f;

Third: The gutterals and the sibilants,—

the former being represented by  $g \ k \ q$  and sometimes x, and the latter being represented by c s z and sometimes x.

Fourth: The dental-mutes represented by

t and d:

Fifth: The palatal-fricative represented

Sixth: The labio-nasal represented by m: 75Seventh: The dento or lingua-nasal represented by n

Eighth: The dental-fricative represented

The eight elements comprising the pho- 80 netic arrangement may be graphically represented as follows:

a-e-i-o-u-y

b¬f-p-v.

c-g (discard gh)-k-q-x-s (discard final 35 s)-z (discard final z).

d-t1

 $\mathbf{m}$ 

 $\mathbf{n}$ 

90

105

The several divisions of the phonetic key will preferably be represented, each by one of the letters of the phonetic divisions of the key, and where a phonetic division of 95 the key comprises more than a single letter, I prefer to employ the first letter of the division to represent the entire group of letters contained in such a phonetic division of the key. Thus the phonetic key may 100 be represented as follows:

a=a, e, i, o, u, yb=b, f, p, v.

c=c, g, k, q, s, x, z d=d, t

l=1

m=m

n=n

In the division "c" of the key element, 110 the diagraph "g h" is not considered repre-In order that the names may be grouped sentative of the element, as the same is

usually silent, as in the name "Wright". Final "s" and "z" are disregarded, as usually the manner of the state of the stat ally the omission or addition of the final sibilant is immaterial in the pronunciation

5 of a name as in the name "Myers".

letters Without exception, when two which represent the same phonetic division, or a repetition of the same letter, occur in a name, without being separated by a mem-"B-a-l."

The division "a" of the key element (the 15 vowels) is used only once in a name, regardless of how many times a vowel may appear in the name. Thus, the name "Carter" phonetically represented by "C-a-r-t-e-r."

In the practical application of my inven-20 tion, it is desirable to regard the initial letters of the names in their alphabetical significance. This allows the division of the index into twenty-six parts according to the initial letters of the names. Then the 25 phonetic arrangement is applied, making the subdivisions of each surname initial letter group conform to a phonetic rather than the alphabetical standard.

In Figure 1 of the drawing, I have shown 30 a drawer or container 2 to receive index elements 3 for names having the initial let-

ter "B."

Each index element group or section comprises any desired number of name cards 4 35 and a guide card 5,—the cards 4 being here-inafter referred to as "name members" and the guide cards 5 being designated "guide members." The name members of each index element group is intended to contain 40 the surnames of persons (preferably one on each name member) and these members may also have written thereon such reference data as the character and purpose of a par-ticular index may require. The guide mem-45 ber of each index element group will preferably be made of heavier card board than that employed for the name members, and each guide member is provided with a tab 6 to receive letters emblematic or representing 50 divisions of the key element. A guide member may contain a letter representing one division of the key element, or it might contain letters representing two or more divisions of the key element. Thus in an in-55 dex of considerable size, it will be found desirable to sub-divide the index so that names containing phonetic elements in accordance with two or more divisions of the phonetic key element, may be grouped together and 60 thus segregate such names from those which may contain a less number of phonetic dito construct the index or to search for a particular name may be minimized.

combined with one or more other phonetic divisions according to the phonetic structure of names to be indexed. In Figure 1 of the drawings, I have illustrated how the phonetic division "a" of the index may be com- 70 bined with each of the other phonetic divisions and instances in which a third phonetic division may be combined with two of the others. The first index element group ber of a different phonetic division, only the shown in Figure 1 has upon its guide memfirst is regarded. Thus the phonetic valuaber, the designation ("a") which represents the first phonetic division of the key. The name cards in this index element group will contain names which contain only (after the initial letter), a letter of the phonetic division "a" of the key. Thus the name "Bay" may be entered on a name card of this index element group, and also such names as may contain any one of the vowels without also containing any of the other phonetic divi- 85 sions of the key. The second index element group is shown as intended to receive names which contain phonetic divisions "a" and "b" of the key, such for example as, Babb, Bobb, and Bibb. The next index element 90 group shown in Figure 1 is designated to contain names which contain three phonetic divisions of the key, such as "a," "b" and "c." In this index element group, such names as "Babak" or names containing any 95 one of each of the letters of the phonetic divisions "a," "b" and "c" of the key. Such names as "Brow" would appear in the index element group designated on its guide member by the phonetic division "r" of the key, 100 and such names as "Brown" would be found in the index element group having the phonetic key divisions "r" and "a" and "n" designated on its guide member.

In any case, regardless of the minuteness 105 of subdivisions of the index, all names containing phonetic divisions of the key, between the key designations on the guide member of one index element group and the key designations on the guide member of 110 the next succeeding index element group would be entered. Thus in the example shown in Figure 1, should the index element group designated by the phonetic key divisions "a b" be omitted, all names which 115 would otherwise be entered in such index element group, would be found in the index element group having the phonetic division "a" of the key designated on its guide member.

By employing letters contained in the divisions of the key as emblematic or representative of the phonetic divisions of the key, I minimize the possibility of error which might arise from the accidental trans- 125 position of numerical equivalent key desigvisions of the key so that the time required nations and I also avoid the danger of error arising out of the translation of phonetic key division into the division equivalents. Each phonetic division of the key may be By confining the phonetic key designations 130

to the guide members of the key element members, the guide members of the index groups, I save the time, labor and expense of applying such designations to the name members of the index element groups and 5 at the same time reserve the space on the and in accordance with the names indexed name members for names and other matter which they must contain.

what I claim as new and desire to secure by

10 Letters-Patent, is:-

1. An index comprising a key element and index element groups, said key element having inscribed thereon a plurality of phonetic divisions of letters of the alphabet and designations for said divisions each consisting of a letter contained in the phonetic division which it designates, and the index element groups provided with designations corresponding to designations of the pho-20 netic divisions of the key.

2. An index comprising a key element and index element groups, said key element having inscribed thereon a plurality of phonetic divisions of letters of the alphabet and 25 designations for said divisions each consisting of a letter contained in the phonetic division which it designates, each index element group comprising guide and name

element groups having thereon key designa- 30 tions in accordance with the letter designations of the phonetic divisions of the key on the name members of the index elements.

3. An index comprising a key element and 35 Having fully described my invention index element groups, said key element having inscribed thereon a plurality of phonetic divisions of letters of the alphabet and designations for said divisions each consisting of a letter contained in the phonetic division 40 which it designates, and the index element groups provided with designations corresponding to designations of the phonetic divisions of the key, means subdividing said index element groups into sub-index element 45 groups, such means being provided with designations consisting of combinations of designations of phonetic divisions of the

In testimony whereof, I have signed this 50 specification in the presence of two subscrib-

ing witnesses.

ROBERT C. RUSSELL.

Witnesses:

J. CLIFFORD RUSSELL, Robert A. Dodds.