July 27, 1926. 1,594,118

L. RITTER

FILING SYSTEM

Filed Nov. 12, 1925 2 Sheets-Sheet 1

0 B	1 BAK	2 BAR	3 BAS	4 BE	5 BEN	6 BER	7 BI	8 BL	9 BO	10 BOR	11 BRA	12 BRI
B001	B101	B201	B301	B401	B501	B601	B701	B801	B901	B1001	B1101	B1201
B002	B102	B202	B302	B402	B502	B602	B702	B802	B902	B1002	B1102	B1202
B003	B103	B203	B303	B403	B503	B603	B703	B803	B903	B1003	B1103	B1203
B004	B104	B204	B304	B404	B504	B604	B704	B804	B904	B1004	B1104	B1204
B005	B105	B205	B305	B405	B505	B605	B705	B805	B905	B1005	B1105	B1205
B006	B106	B206	B306	B406	B506	B606	B706	B806	B906	B1006	B1106	B1206
B007	B107	B207	B307	B407	B507	B607	B707	B807	B907	B1007	B1107	B1207
B008	B108	B208	B308	B408	B508	B608	B708	B808	B908	B1008	B1108	B1208
B009	B109	B209	B309	B409	B509	B609	B709	B809	B909	B1009	B1109	B1209
B010	B110	B210	B310	B410	B510	B610	B710	B810	B910	B1010	B1110	B1210
B011	B111	B211	B311	B411	B511	B611	B711	B811	B911	B1011	B1111	B1211
B012	B112	B212	B312	B412	B512	B612	B712	B812	B912	B1012	B1112	B1212
B013	B113	B213	B313	B413	B513	B613	B713	B813	B913	B1013	B1113	B1213
B014	B114	B214	B314	B414	B514	B614	B714	B814	B914	B1014	B1114	B1214
B015	B115	B215	B315	B415	B515	B615	B715	B815	B915	B1015	B1115	B1215
B016	B116	B216	B316	B416	B516	B616	B716	B816	B916	B1016	B1116	B1216
B017	B117	B217	B317	B417	B517	B617	B717	B817	B917	B1017	B1117	B1217
B018	B118	B218	B318	B418	B518	B618	B718	B818	B918	B1018	B1118	B1218
B019	B119	B219	B319	B419	B519	B619	B719	B819	B919	B1019	B1119	B1219
B020	B120	B220	B320	B420	B520	B620	B720	B820	B920	B1020	B1120	B1220
B021	B121	B221	B321	B421	B521	B621	B721	B821	B921	B1021	B1121	B1221
B022	B122	B222	B322	B422	B522	B622	B722	B822	B922	B1022	B1122	B1222
B023	B123	B223	B323	B423	B523	B623	B723	B823	B923	B1023	B1123	B1223
B024	B124	B224	B324	B424	B524	B624	B724	B824	B924	B1024	B1124	B1224
B025	B125	B225	B325	B425	B525	B625	B725	B825	B925	B1025	B1125	B1225
B026	B126	B226	B326	B426	B526	B626	B726	B826	B926	B1026	B1126	B1226
B027	B127	B227	B327	B427	B527	B627	B727	B827	B927	B1027	B1127	B1227
B028	B128	B228	B328	B428	B528	B628	B728	B828	B928	B1028	B1128	B1228
B029	B129	B229	B329	B429	B529	B629	B729	B829	B929	B1029	B1129	B1229
B030	B130	B230	B330	B430	B530	B630	B730	B830	B930	B1030	B1130	B1230
B031	B131	B231	B331	B431	B531	B631	B731	B831	B931	B1031	B1131	B1231
B032	B132	B232	B332	B432	B532	B632	B732	B832	B932	B1032	B1132	B1232
B033	B133	B233	B333	B433	B533	B633	B733	B833	B933	B1033	B1133	B1233
B034	B134	B234	B334	B434	B534	B634	B734	B834	B934	B1034	B1134	B1234
B035	B135	B235	B335	B435	B535	B635	B735	B835	B935	B1035	B1135	B1235
B036	B136	B236	B336	B436	B536	B636	B736	B836	B936	B1036	B1136	B1236
B037	B137	B237	B337	B437	B537	B637	B737	B837	B937	B1037	B1137	B1237
B038	B138	B238	B338	B438	B538	B638	B738	B838	B938	B1038	B1138	B1238
B039	B139	B239	B339	B439	B539	B639	B739	B839	B939	B1039	B1139	B1239
B040	B140	B240	B340	B440	B540	B640	B740	B840	B940	B1040	B1140	B1240
B041	B141	B241	B341	B441	B541	B641	B741	B841	B941	B1041	B1141	B1241
B042	B142	B242	B342	B442	B542	B642	B742	B842	B942	B1042	B1142	B1242
B043	B143	B243	B343	B443	B543	B643	B743	B843	B943	B1043	B1143	B1243
B044	B144	B244	B344	B444	B544	B644	B744	B844	B944	B1044	B1144	B1244
B045	B145	B245	B345	B445	B545	B645	B745	B845	B945	B1045	B1145	B1245
B046	B146	B246	B346	B446	B546	B646	B746	B846	B946	B1046	B1146	B1246
B047	B147	B247	B347	B447	B547	B647	B747	B847	B947	B1047	B1147	B1247
B048	B148	B248	B348	B448	B548	B648	B748	B848	B948	B1048	B1148	B1248
B049	B149	B249	B349	B449	B549	B649	B749	B849	B949	B1049	B1149	B1249

Fig. 1.

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FILING SYSTEM

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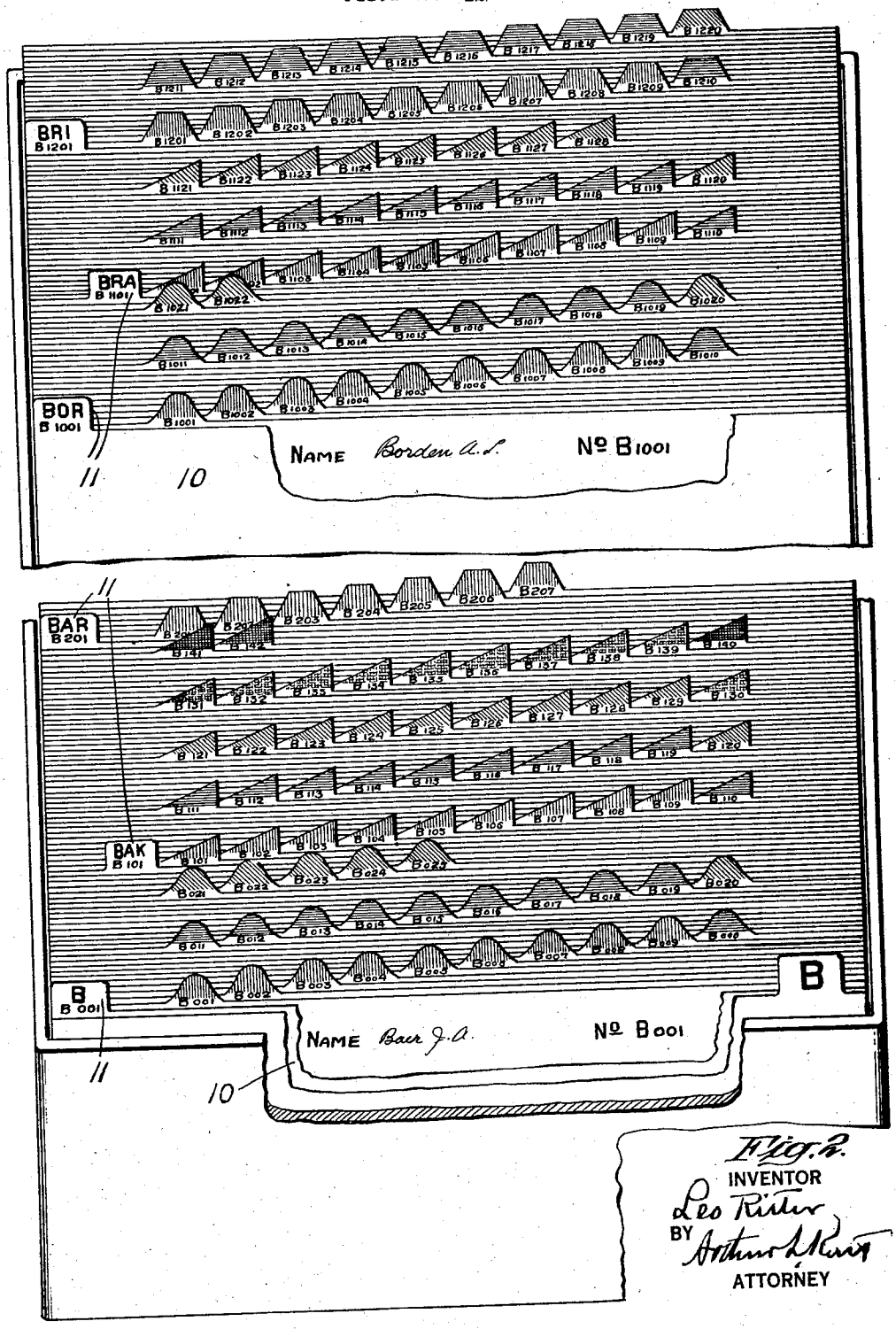

Fig. 2.

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UNITED STATES PATENT OFFICE.

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FILING SYSTEM.

Application filed November 12, 1925. Serial No. 68,517.

This invention relates to filing systems, and aims to provide a system for filing elements identified by names or other words both alphabetically and numerically.

When data cards, sheets, folders or other elements relating to a large number of different names are to be filed, it has been found more convenient to use a numerical filing system based on numbers arbitrarily allotted to the names than to use an alphabetical filing system. This is because any desired number may be located or inserted in a numerical file with ease even when the file contains a very large number of elements, while alphabetical filing is difficult, where a very large number of names are concerned, owing to the frequent occurrence of identical or similar names. Thus it has been customary to use numerical filing in connection with bank customers, subscription lists, etc. In order, however, to locate the data card or sheet relating to an individual name when the number is not known, it is necessary in all such cases to provide an alphabetical file index to supplement the numerical file. Such indexes are often as large as the file itself, and the expense involved in this duplication has limited the use of the numerical files in spite of their recognized advantages.

The present invention, by providing a filing system which is at the same time both numerical and alphabetical, obtains the recognized benefits of numerical filing without the duplication heretofore necessary in providing alphabetical indexes with numerical files.

In accordance with the present invention, the numbers allotted to different names for filing purposes are not altogether arbitrary, but are chosen in such manner as to indicate the position of the name in the alphabet. As the result data cards filed numerically in accordance with these numbers are at the same time automatically arranged in alphabetical or approximately alphabetical order so that any card may be located without difficulty in the file when the name but not the number which it bears is known as well as when the number but not the name is known.

The invention is carried out by allotting successive series of numbers to successive alphabetical subdivisions, and then applying to each of the elements whose names fall within any one such alphabetical subdivision one of the numbers of the series allotted to that subdivision. The elements are then arranged in numerical order which necessarily places in juxtaposition all the elements having names falling into the same alphabetical subdivision. The alphabet is subdivided to such extent as may be necessary, in connection with the number of elements to be filed, to throw a comparatively small number of elements, usually less than fifty, within each subdivision. In the file, the alphabetical subdivisions, as well as the series of numbers allotted thereto, may be indicated by guide cards, so that it becomes a simple matter to locate any element whose name is known by merely looking through the elements grouped under the subdivision of the alphabet into which the name falls. At the same time a strictly numerical arrangement is preserved with the consequent advantages in easy filing and selecting in cases where the identifying number is known.

A further feature of the invention consists in combining with the above arrangement a system of tabs on the individual elements indicating at once the identifying numbers of the elements.

In order that the invention may clearly be understood, I will describe in detail the specific embodiment of it illustrated in the accompanying drawings, in which:—

Fig. 1 shows one of the guide sheets used in allotting numbers to the elements to be filed; and

Fig. 2 is a perspective view, partly broken away, of a file showing the elements and guide cards arranged in the filing case.

In the embodiment of the invention illustrated there are provided one or more guide sheets containing successively arranged alphabetical subdivisions under which are placed successive, but not necessarily consecutive, series of numbers. If the number of elements to be filed is large, a correspondingly large number of guide sheets are necessary, and these sheets may conveniently be bound in the form of a book. The guide sheet shown in Fig. 1 is the one of a set of guide sheets which relates to subdivisions of the letter B. There happen to be thirteen subdivisions of this letter which are arranged in a row near the top of the sheet and identified by numbers from 0 to 12. Under each subdivision are a series of numbers each beginning with the initial B and

having in its hundreds place the figure or figures identifying the subdivision under which it is placed. In the form illustrated, 49 numbers are contained in the series under each subdivision. Thus the first subdivision B contains the numbers from B 001 to B 049, the second subdivision BAK contains the numbers from B 101 to B 149, and the last or thirteenth subdivision BRI, contains the numbers from 1201 to 1249. Similar sheets containing subdivisions of the other letters of the alphabet are provided, although it will be understood, of course, that the number of subdivisions under each letter varies greatly.

The individual elements to be filed, each of which bears a distinguishing name or word, are given numbers obtained from the guide sheets. To give a number to any element, reference is made to the guide sheet bearing the alphabetical subdivision in which the name on this element falls. The first number under this subdivision on the guide sheet is then applied to this element and the number is marked on the guide sheet to indicate that it has been used. All the other elements are given numbers in the same manner, the number chosen being in each case the first number under the appropriate subdivision on the guide sheet which has not been marked to indicate that it has already been applied to another element. In this way each element is given a distinct and different number, the initial letter being for this purpose regarded as a part of the number. At the same time, if the alphabet has been properly subdivided for the particular file in question, some numbers will remain unmarked under each subdivision on the guide sheets, indicating that these numbers are available for use on new elements and may be added to the file from time to time.

While the guide sheets mentioned form a part of the invention and afford a simple and easy means of allotting the proper numbers to the elements, the allotment may be made in accordance with the system described without the use of guide sheets since reference may be had to the elements themselves to ascertain what numbers have already been used.

After a number has been applied to each element, the elements are arranged in the file in numerical order as shown in Fig. 2. In such numerical arrangement the initial letter preceding each number is regarded as a part of the number. This numerical filing results in bringing together groups of elements whose names fall within the same alphabetical subdivision. Such groups are preferably separated and indicated by guide cards 10 as shown in Fig. 2. Each such guide card is provided with a tab 11 on which is marked both the alphabetical subdivision of the group of elements which it identifies, and an indication of the series of numbers applied to the elements in this group. If, as in the arrangement illustrated, each series of numbers includes numbers which have the same initial and the same hundreds figure, it is sufficient to mark the first number of each series on the appropriate guide card 10, as shown, so that the guide cards bear separated numbers arranged in numerical order.

To further facilitate the use of the system numerically, intermediate numerical guide cards may be introduced between the main guide cards shown. Such intermediate guide cards are, however, an inconvenience in using the system as an alphabetical index. This inconvenience is avoided, in accordance with my invention, by providing the individual elements with tabs indicating their numbers in accordance with the system described and claimed in my co-pending application filed November 13, 1925, Serial No. 68,748. In carrying out this part of the invention each element is provided with a single tab; and the tabs used on the various elements are placed in ten different positions along the upper edges of the elements, are of ten different shapes, and of five different colors. The position of the tab of each element indicates the unit digit of its number, the color of the tab indicates the tens digit of the number (only five tens digits, from 0 to 4, being used in the specific embodiment described), and the shape of the tab indicates the hundreds digit. Since all the numbers allotted to elements falling in the same alphabetical subdivision have the same hundreds digit, it results that the tabs of all the elements behind any one guide card are of the same shape. In consequence the shapes of the tabs assist in alphabetical as well as in numerical searching and refiling, and also indicate readily any mistake in filing.

While I find the arrangement of tabs which I have described most desirable, it will be understood that the system may be modified by using the shape or color or position of the tabs to represent any desired one of the digits of the number.

The number of each element is marked upon the face of the element as shown in connection with the elements B 001 and B 1001 in Fig. 2. In Fig. 2, the distinctive number of each card is shown upon the tab of that card for illustrative purposes only and is not intended to indicate that the numbers need be placed on the tabs.

It will be readily understood that many changes may be made in the specific embodiment shown without departing from my invention. Thus the number of alphabetical subdivisions used must vary with the size of the filing system, the use of an initial letter as part of the identifying number of each

element is not in all cases essential, and the system may be used either with identifying tabs on the elements or without them.

What I claim is:—

1. A method of filing elements bearing words, comprising allotting successive series of numbers to successive alphabetical subdivisions, applying to each element a distinctive number of the series allotted to the alphabetical subdivision in which the word on that element falls, and arranging said elements in numerical order in accordance with the numbers so applied.

2. A method of filing elements bearing words, comprising allotting successive series of numbers to successive alphabetical subdivisions of each letter of the alphabet, applying to each element the initial letter of the word which it bears and a distinctive number of the series allotted to the alphabetical subdivision of that letter in which said words fall, and arranging said elements serially in accordance with the letters and numbers so applied.

3. A filing system, comprising a series of guides bearing successive alphabetical subdivisions and separated numbers arranged in numerical order, and elements bearing words and distinctive numbers and arranged between said guides in such manner that the elements behind each guide bear words falling in the alphabetical subdivision marked on the guide and numbers between the number on said guide and the number on the succeeding guide.

4. A filing system, comprising elements each bearing a word and arranged in successive groups corresponding with alphabetical subdivisions within which their words fall, the elements in the successive groups being identified by consecutive numbers of successive series of numbers.

5. A method of filing elements bearing words, comprising allotting successive hundreds to successive alphabetical subdivisions and applying to each element a distinctive number within the hundred allotted to the subdivision in which the word on that element falls.

6. A filing system, comprising a plurality of elements each bearing a word, and a distinctive number one portion of which indicates the alphabetical subdivision under which the word on that element falls, said elements being arranged in order according to their numbers.

7. A method of filing elements bearing words, comprising allotting successive series of numbers to successive alphabetical subdivisions, applying to each element a distinctive number of the series allotted to the alphabetical subdivision in which the word on that element falls, arranging the elements in numerical order in accordance with the numbers so applied, and separating the elements relating to different alphabetical subdivisions by guides indicating such subdivisions and the series of numbers allotted to them.

8. A filing system, comprising elements bearing words and each having a distinctive number a portion of which indicates the alphabetical subdivision into which the word on that element falls, and each having a tab whose shape indicates said portion of its number.

9. A filing system, comprising elements bearing words and each having a distinctive number a portion of which indicates the alphabetical subdivision into which the word on that element falls, and a tab which by its shape, color and position, indicates the complete number applied to that element.

10. A filing system, comprising elements bearing words and each having a distinctive number a portion of which indicates the alphabetical subdivision under which the word on that element falls, and a tab which by its shape indicates said portion of the number of that element, and by its color and position indicates the remainder of said number.

11. A filing system, comprising elements bearing words and each having a distinctive number, the hundreds portion of which indicates an alphabetical subdivision into which the element falls.

12. A filing system, comprising elements bearing words and each having a distinctive number, the hundreds portion of which indicates an alphabetical subdivision into which the element falls, and each element having a tab which by its shape indicates the hundreds portion of the number of that element and by its color and position indicates the tens and unit digits of that number.

13. A filing system, comprising elements each bearing a word and arranged in successive groups corresponding with the alphabetical subdivisions within which their words fall, the elements in the successive groups being identified by consecutive numbers of successive hundreds.

14. A filing system, comprising elements each bearing a word and arranged in successive groups corresponding with the alphabetical subdivisions within which their words fall, the elements of the successive groups being identified by consecutive numbers between 1 and 50 of successive hundreds.

15. A filing system as claimed in the preceding claim in which each element is provided with a tab which by its shape indicates the hundreds digit of the identifying number of that element, by its color indicates the tens digit of said number, and by its position indicates the unit digit of said number.

16. A filing system, comprising a guide

sheet bearing successive alphabetical subdivisions and successive series of numbers associated with said subdivisions, and individual elements, each bearing a word falling within one of said alphabetical subdivisions and one of the numbers associated with that subdivision on the guide sheet, a different one of said numbers being applied to each element.

17. A filing system, comprising a guide sheet bearing successive alphabetical subdivisions and successive series of numbers associated with said subdivisions, and individual elements, each bearing a word falling within one of said alphabetical subdivisions and one of the numbers associated with that subdivision on the guide sheet, the number allotted to each element being deleted on the guide sheet.

18. A numerical filing system consisting of a series of elements identified by a series of numbers and each having a tab, in which the tabs of the elements are of ten different colors and in ten different positions on the elements, the position and color of the tab of each element indicating respectively the unit and tens digit of the number identifying that element, and thus indicating its position in the series.

In testimony whereof I have hereunto set my hand.

LEO RITTER.