

H. M. & E. V. CROUSE.
INDEX FOR TIME TABLES.
APPLICATION FILED DEC. 2, 1908.

934,658.

Patented Sept. 21, 1909.

-13-

Burlington Route

Chicago

A

Miles from Chi.	STATIONS	1 Daily	5 Daily	5 Daily	15 Daily
0	Chicago	PM. 1:00	PM. 11:00	PM. 6:00	PM. 9:15
4	Western Ave.	1:12	11:12	6:12	9:25
21	Downer's G.				
29	Naperville				
302	MAKON				
304	Albia	8:45	8:22	2:01	4:55

B

0	Albia		9:35		6:05
32	Oskaloosa		11:55		6:30
66	Des Moines		12:16		7:40
308	Tower				
315	Tyrone				
331	Woodburn		9:55		

C

D

0	Des Moines		8:00		
37	Oscelo		10:20		
350	Oscelo		10:20	3:55	6:25
376	Thayer		10:50		
384	Afton		11:15		
406	Omaha		3:55	8:50	11:45

E

F

473	Pacific Jct.		2:10		
480	Plattsmouth				
501	Omaha				
496	Omaha		4:10	8:45	11:39
527	Ashland		3:15	5:07	9:50 1:01
551	Lincoln		5:55	5:45	1:03 1:40
633	Fort Morgan		5:50	5:01	4:02
1034	Denver		6:00	7:20	6:20

G

Burlington Route

Omaha, Denver

H

85 Ex.Su.	81 Ex.Su.	19 Ex.S.	Miles	14 Ex.Su.	86 Ex.Su.
4:30	6:50	12:30	0	6:10	3:50
4:45	12:45	4		5:50	3:30
10:45	3:00	52		3:45	10:45
11:10	3:16	60		3:50	10:00

I

J

472 Ex.Mo.	51 Ex.Su.	19 Ex.S.	Miles	42 Ex.Su.	352 Ex.Su.
4:30	9:20			10:45	2:20 11:05
5:35	10:20			9:30	1:10 9:00
1:40	6:10	7:27	11:52	0	7:58 10:45 6:00 9:10
4:45	9:10	8:50	12:45	3	7:05 9:45 3:00 6:20

K

L

472 Ex.Mo.	51 Ex.Su.	19 Ex.S.	Miles	22 Ex.Su.	30 Ex.Su.
6:50	9:20			2:20	10:05
10:10	1:50	16		9:35	4:30

M

N

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

O

P

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

Q

R

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

S

T

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

U

V

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

W

X

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

Y

Z

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AA

AB

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AC

AD

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AE

AF

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AG

AH

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AI

AJ

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AK

AL

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AM

AN

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AO

AP

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AQ

AR

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AS

AT

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AU

AV

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AW

AX

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

AY

AZ

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BA

BB

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BC

BD

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BE

BF

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BG

BH

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BI

BJ

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BK

BL

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BM

BN

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BO

BP

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BQ

BR

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	
4:00	7:45	27	7:50	7:45
5:50	8:25	47	6:50	6:20
6:45	8:50	48	6:45	6:00

BS

BT

472 Ex.Mo.	41 Ex.Su.	Miles	42 Ex.Su.	Ex.Su.
10:50	4:50		10:45	

UNITED STATES PATENT OFFICE.

HENRY M. CROUSE AND EDWARD V. CROUSE, OF CHICAGO, ILLINOIS.

INDEX FOR TIME-TABLES.

934,658.

Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed December 2, 1905. Serial No. 465,735.

To all whom it may concern:

Be it known that we, HENRY M. CROUSE and EDWARD V. CROUSE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Index for Time-Tables, of which the following is a complete specification.

In railway time tables, and indices for same as heretofore arranged, so far as known to applicants, more or less difficulty is experienced in locating the particular station, even after the page on which it occurs has been found. In the *Official Railway Guide*, when looking for a station, it is necessary first to consult the index of stations and railroads and learn on what road or roads the one in question is located, then turn to the index of that road and determine on what page or in what table the station may be found, after which it is necessary to refer to said page or table and locate it among the hundred or more that appear on the same page or in the same table.

The present invention is directed to overcoming the above mentioned difficulty by providing an improved index which will greatly facilitate the location of any station, the railroads common to it, etc., and thus effect a great saving of time and render the work much simpler.

The improved index may be applied to time tables, agents' lists of freight tariffs used by other freight agents, or other similar lists.

The application of the improvement is illustrated in the accompanying drawings, in which—

Figure 1 represents in outline one page of the time table in a railway folder which has been adapted to our improved index and in which is shown the subdivisions of a main line table and also branch line tables or subdivisions, the subdivisions each having a designating character placed above or on the margin thereof. Fig. 2 shows a portion of the improved index of the form suitable for railway folders covering a single railway or line or of the character set forth in the preceding figure; and Fig. 3 illustrates a fragment of the index of the form applied to time tables when compiled in book form, as in the *Official Railway Guide*.

The only requirement necessary to adapt an ordinary time table to the improved index herein set forth is that the subdivisions

of the table have characters to designate them suitably placed.

In Fig. 1 is shown, in outline, a time table of the ordinary folder type with such designating characters placed at the top or on the margins thereof. The time table relates to the "Burlington route." On the left-hand side of the figure is shown a main line table, and on the right-hand side branch line tables. The first subdivision in the main line table is designated at the top and on the left-hand margin by A, the initial station of this subdivision being 'Chicago' and the final station 'Albia.' The second subdivision is designated B, the third C, the fourth D, etc., the last one in this table being G, these characters all being placed on the left-hand margin. On the right-hand side of the page shown in this figure (Fig. 1) are the subdivisions H to K, inclusively of the branch lines, each character H, I, etc., being placed at the top and on the right-hand margin of its respective table. These several subdivisions A, B, C, etc., of the time table are comprised as usual of a number of columns, a column *a* of the stations, a column *b* showing the number of miles each station is from the initial station, and columns *c* containing the train number and time it is due at each station, the corresponding items in the several columns being, as usual, in transverse alignment. Since most of the subdivisions contain a considerable number of stations, to have set them all up in the lists would have encumbered the drawings without adding to their clearness, hence only a few stations at the beginning and at the end of each subdivision were shown in the subdivisions disclosed in Fig. 1.

In Fig. 2 is set forth, in outline, a fragment of the index which constitutes the chief novel element of the present invention. This index comprises a column *d* of the stations alphabetically arranged, a column *e* of numerals indicating the page or pages on which the several stations may be found, a column *f* consisting of characters which refer to the particular subdivision or subdivisions in which the corresponding station appears, and a column *g* of numerals which indicate the number of miles each station is from the initial station of the subdivision; or in the case of main line time tables, the distance from the initial station of the line. The method of using the index is obvious; for instance, if it is desired to locate "Afton,

Iowa," by reference to the stations in column *d*, Afton is found, and opposite this name in the columns *e*, *f* and *g*, is found, respectively, 13-E-384, indicating that this station appears on page 13, in subdivision E, and is 384 miles from the initial station. On turning to the page, Afton is readily located by glancing at once to the required subdivision, the miles column enabling the observer to quickly select the approximate location in the subdivision with scarcely more than a casual glance and without reading over a long list of stations. Again, suppose the station whose location is desired is "Amboy, Illinois." The index reading is 13-K-27, and by reference to page 13, subdivision K, and a quick glance down the miles column to 27, the station is located with the cost of very little effort and time. In time tables of the folder type, in which reference is had constantly to a single road, no reference to same in the index is necessary. In the *Official Railway Guide* it becomes necessary, however, to give the railroads common to a town as well. To do this an extra column, consisting of the names of the railroads passing through each station is given, the index otherwise remaining the same. In short, this is a special form of the index and is shown in Fig. 3. In the column *k* in this figure are the names of the railroads common to each station, so that in searching for a station in the *Official Railway Guide*, it is first located in the alphabetical list in column *d*. After it has been located and the names of the railroads passing therethrough learned, its location on the desired road is obtained by the same index and method as above described. When this index is employed in a railway guide of time tables for many roads, only one index is required, and the needed information is all given therein briefly and succinctly, so that long searches for stations are avoided and the least possible amount of time is required. An index of this improved type, while valuable to anyone wishing to consult a time table, is of special value to ticket agents and others who are required to give the traveling public such information continually, and often at very busy times for them.

Wherever the term station is used in the

foregoing specification, it is intended to include cities, towns, villages, etc.

What we claim as our invention, and desire to secure by Letters Patent, is:

1. An index for time tables comprising a column consisting of the names of the stations alphabetically arranged and divided into subdivisions, a column of numerals appropriately designated to show the page or pages on which the corresponding stations may be found, and a column of numerals suitably characterized to indicate a number of miles, the corresponding items in the several columns being in transverse alinement, substantially as described.

2. An index for time tables comprising a column consisting of the names of the stations alphabetically arranged and divided into subdivisions, a column of numerals appropriately designated to show the page or pages on which the corresponding stations may be found, a column of characters properly denominated to refer to the particular subdivision on said page or pages, and a column of numerals suitably characterized to indicate a number of miles, the corresponding items in the several columns being in transverse alinement, substantially as described.

3. An index for time tables comprising a column consisting of the names of the stations alphabetically arranged and divided into subdivisions, a column consisting of the names of railroads common to each of said stations, a column of numerals appropriately designated to show the page or pages on which the corresponding stations may be found, a column of characters properly denominated to refer to the particular subdivision on said page or pages in which the station corresponding may be found, and a column of numerals suitably characterized to indicate a number of miles, the corresponding items in the several columns being in transverse alinement, substantially as described.

HENRY M. CROUSE.
EDWARD V. CROUSE.

Witnesses:

MARY TRIEB,
F. W. HOFFMEISTER.