

A. L. DRUM.
STATION CONSTRUCTION AND METHOD OF HANDLING TRAFFIC.
APPLICATION FILED OCT. 2, 1912.

1,056,978.

Patented Mar. 25, 1913.

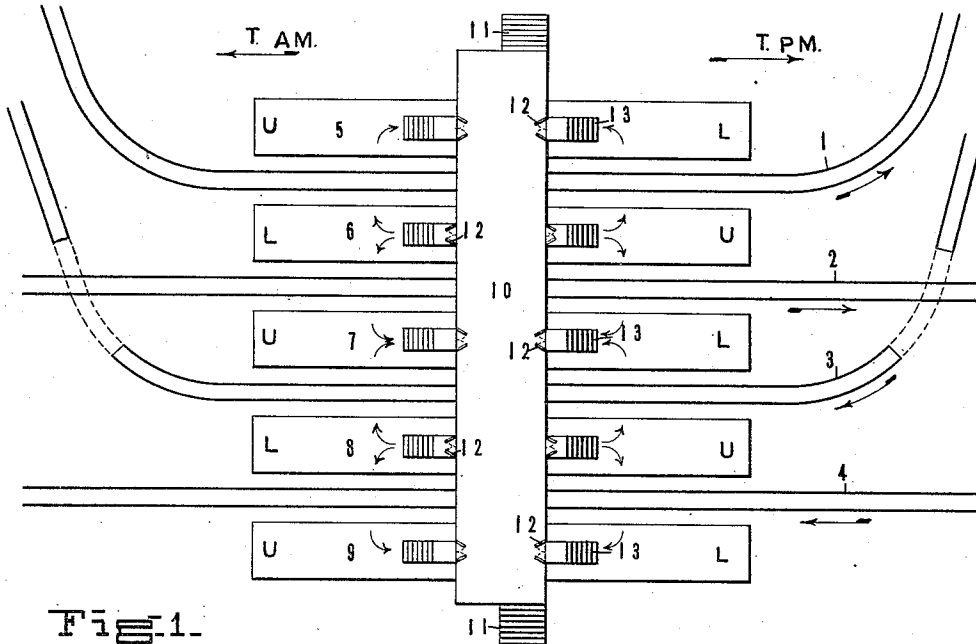


Fig. 1.

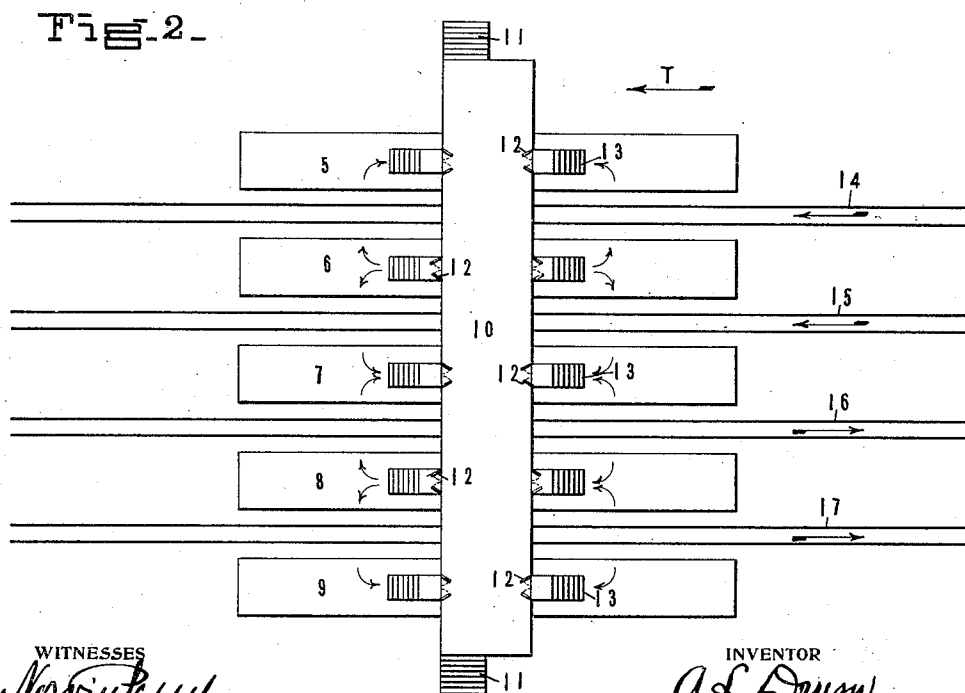


Fig. 2.

WITNESSES
Northrup
C. J. K. Berg

INVENTOR
A. L. Drum
BY
Duell, Warfield & Duell
ATTORNEYS

UNITED STATES PATENT OFFICE.

ALPHONSUS L. DRUM, OF CHICAGO, ILLINOIS.

STATION CONSTRUCTION AND METHOD OF HANDLING TRAFFIC.

1,056,978.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed October 2, 1912. Serial No. 723,460.

To all whom it may concern:

Be it known that I, ALPHONSUS L. DRUM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Station Construction and Methods of Handling Traffic, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the construction of railway stations and the method of handling passenger traffic to and from the trains.

One of the objects of the present invention is to provide a rapid and efficient method of handling the traffic.

Another object is to construct a practical station of the above-mentioned character which will permit the traffic to be handled more expeditiously and with less interference and confusion.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the several steps and the relation and order of one or more of such steps with respect to each of the others thereof, and in the features of construction, combinations of elements and arrangement of parts, which will be exemplified in the method hereinafter disclosed and the construction hereinafter set forth, and the scope of the application of each of which will be indicated in the following claims.

In the accompanying drawing, in which are shown one or more of various possible embodiments of the several features of this invention,—Figure 1 is a diagrammatic view showing the arrangement of tracks and platforms of two railroads running at substantially right angles to each other; and Fig. 2 is a similar view showing certain features of the invention applied to the usual four-track system.

Similar reference characters refer to similar parts throughout the several views of the drawing.

In order that the nature of the present invention may be more readily understood, it will be hereinafter described with reference to a subway system of either the intersecting two-track system, or the better known four-track system, although it is, of course, to be understood that with slight

modifications and without departing from the broader scope of the invention, the idea may be applied to elevated railroads or surface railways.

Referring now in detail to Fig. 1, 1 and 3 may be considered as representing the east and west bound tracks, while 2 and 4 denote the north and south bound tracks, each pair being adapted to accommodate trains running in opposite directions. As shown diagrammatically in this figure, tracks 1 and 3 constitute the terminal loop of the east and west line, although it is quite clear that the tracks at one side of the station may curve in the opposite direction and pass under the other tracks, if desired. It will also be understood that track 3 passes over or under track 2 to avoid grade crossing, as indicated by the dotted lines. Between these tracks and also adjacent the outside tracks are positioned a plurality of platforms denoted by the numerals 5, 6, 7, 8 and 9. Running transversely above these platforms is a second or mezzanine platform forming a common entrance to the island platforms from the street level by means of the stairways 11. Leading from each side of the platform 10 to the island platforms are individual entrances and stairways which are marked by changeable signs "Entrance" or "Exit," according to which they happen to be at any particular time. As an additional precaution to prevent passengers entering to an unloading platform, swinging gates 12 are provided at the entrance of each stairway 13. These gates may be of any suitable construction (and it is believed to be unnecessary to go into the details thereof) which will permit them to swing in one direction only, unless adjusted to swing in the opposite direction only. Assuming the station shown to be a downtown station, toward which the traffic is directed, as indicated by the arrow T, during the morning hours, there will be a greater number of people leaving the station at that time than entering it to go away from the downtown district. Under this condition it is preferable to use a greater number of platforms to which the trains discharge their passengers than loading platforms. Therefore platforms 5, 7 and 9 are used as unloading platforms, the gates 12 at each stairway to these platforms being arranged to permit the passage of passengers therethrough only in a direction away from the respective island

platforms. The platforms 6, 8 are simultaneously used as loading platforms. The arrows on each stairway indicate the direction of traffic. It will thus be seen that the trains may be simultaneously loaded and unloaded from their opposite sides, thus avoiding confusion as well as saving time in the running schedule of trains. If, however, a few persons coming in on track 2 desire to transfer and continue in a downtown direction on track 3, they can easily pass across the platform 7 instead of going up the stairs and across the transverse platform 10.

Referring to Fig. 2, in which is shown substantially the same arrangement, 14 and 15 denote the downtown local and express tracks, respectively, while tracks 16 and 17 accommodate the uptown trains. All these tracks pass between the adjacent pairs of platforms 5, 6, 7, 8 and 9, from which stairways 13 lead to the transverse platform 10, each individual entrance being provided with swinging gates 12, as above described.

The operation of handling the traffic through this station is substantially the same; that is, when the traffic is in a downtown direction, there are a greater number of unloading platforms, as indicated by the arrows. In the evening when the traffic is heavier in the uptown direction, the platforms are changed from unloading to loading in both arrangements, whereby the trains may be more quickly filled and run on a faster schedule. In this station, as in the one previously described, if a person desires to change from a local to an express, or vice versa, he is permitted to walk across the loading platforms 6 and 8.

It is thus seen that this invention comprises a simple and practical arrangement of tracks and platforms permitting the most efficient handling of crowds during the rush hours.

As many changes could be made in carrying out the above method, and in the above construction, and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following

claims is intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In station construction, in combination, a pair of through tracks extending in one direction and respectively having opposite train traffic, a pair of through tracks extending in another direction and respectively having opposite train traffic, and looped into substantial parallelism with said first tracks, one of said second tracks passing under one of said first tracks and upward into the plane of said first tracks, three island platforms respectively positioned between said four tracks, two outer platforms respectively positioned upon opposite sides of said four tracks, a transverse platform, and separate means connecting said transverse platform with each of said first platforms.

2. In station construction, in combination, a pair of through tracks extending in one direction and respectively having opposite train traffic, a pair of through tracks extending in another direction and respectively having opposite train traffic, and looped into substantial parallelism with said first tracks, one of said second tracks passing under one of said first tracks and upward into the plane of said first tracks, three island platforms respectively positioned between said four tracks, two outer platforms respectively positioned upon opposite sides of said four tracks, and traffic guiding means adapted at periods when the preponderance of traffic is toward the station to guide passengers from three of said platforms as unloading platforms and toward two of said platforms as loading platforms, and at periods when the preponderance of traffic is away from the station, to guide passengers toward three of said platforms as loading platforms and away from two platforms as unloading platforms.

In testimony whereof I affix my signature, in the presence of two witnesses.

ALPHONSUS L. DRUM.

Witnesses:

ROBERT S. BLAIR,
C. J. KULBERG.