May 17, 1927.

D. L. TURNER ET AL

1,628,935

SUPERHIGHWAY

Filed Aug. 3, 1925

2 Sheets-Sheet 1

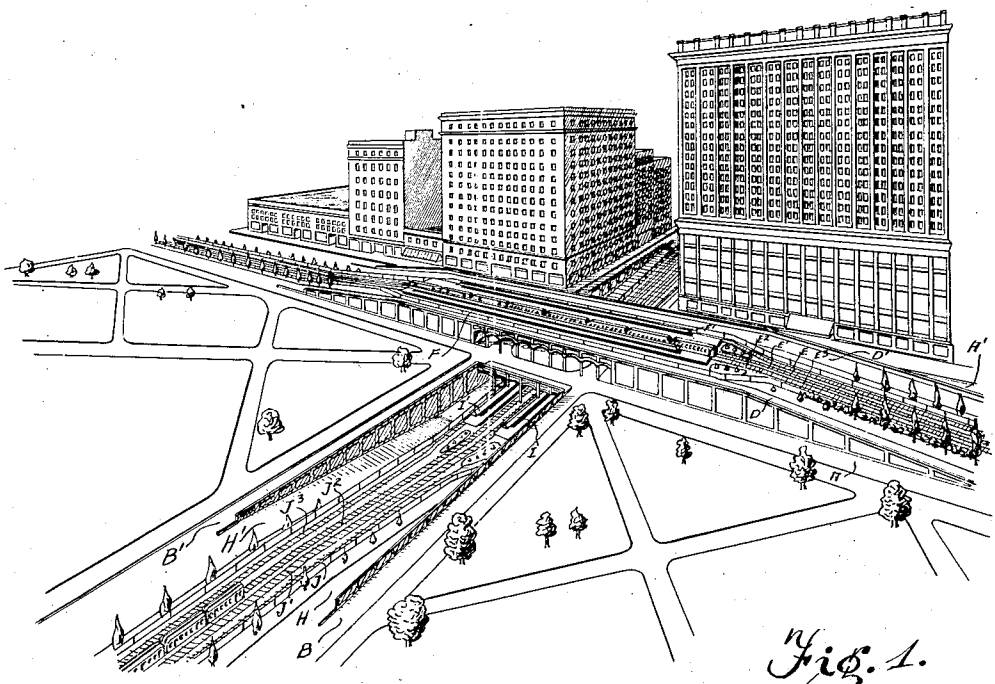


Fig. 1.

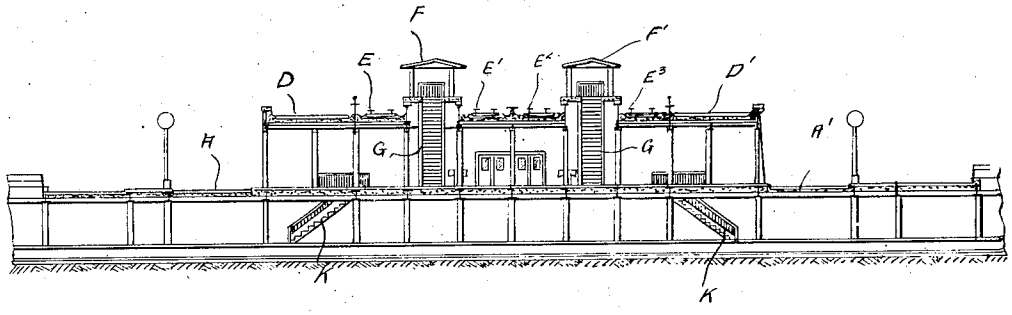


Fig. 3.

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2 Sheets-Sheet 2

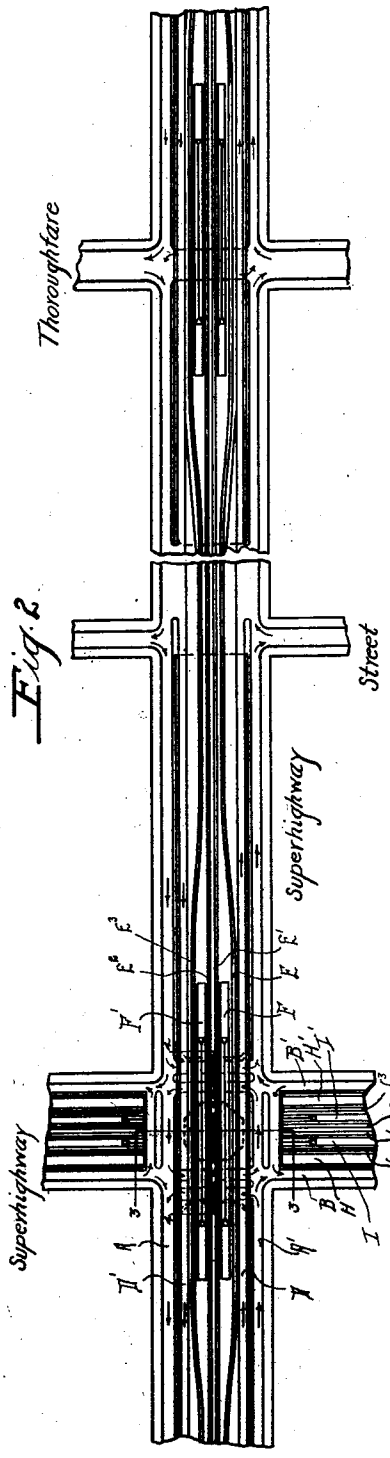


Fig. 2

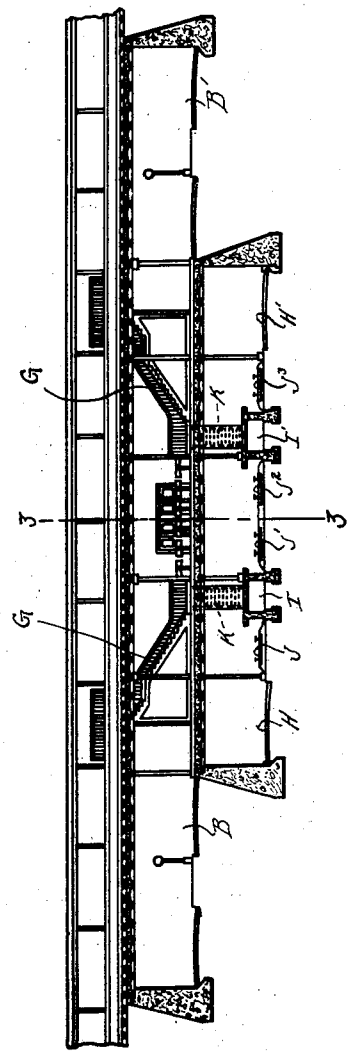


Fig. 1

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Patented May 17, 1927. 1,628,935

UNITED STATES PATENT OFFICE.

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SUPERHIGHWAY.

Application filed August 3, 1925. Serial No. 47,974.

The invention relates to the construction of so-called super-highways for accommodating both fast and slow traffic on rails and on paved roadways.

In the drawings:—

Figure 1 is a perspective view of the intersection of two super-highways;

Figure 2 is a plan view of the super-highway;

Figure 3 is a sectional elevation of the crossing of two super-highways on the line 3—3 of Figures 2 and 4;

Figure 4 is a transverse sectional elevation on the line 4—4 of Figures 2 and 3.

In general, the super-highway hereinafter referred to comprises a central zone of sufficient width to provide for four parallel railway tracks and on each side of this zone there is a paved roadway for carrying vehicular traffic in opposite directions. Each roadway is preferably divided into parallel lanes used respectively for the high and the low speed traffic, the high speed lane being adjacent to the central rail zone.

It is the primary object of the super-highway to provide unobstructed lanes for the through traffic both on rails and on roadways and to accomplish this purpose it is necessary to eliminate all intersections at grade with crossing streets. No attempt, however, is made to separate the grade of the super-highway with every street running at right angles thereto, since this would greatly increase the construction costs without securing any benefits commensurate therewith. Therefore, at certain definite intervals, say every half mile, a cross street is selected as a main thoroughfare and has its grade separated from the super-highways, while the intermediate streets parallel to the thoroughfare terminate at each side of the super-highway and cannot be used for directly crossing the same.

The construction of the crossing of a super-highway and a main thoroughfare is preferably carried out in accordance with the plans described in our co-pending application, Serial Number 47,973, filed Aug. 3, 1925. In general, this crossing construction comprises an elevation of the rail zone and the through traffic lanes above the grade of the crossing thoroughfare and the depression of the low speed lanes to intersect with the thoroughfare. Such a construction is illustrated in Figure 1 which shows the crossing in perspective view.

The high speed lanes are preferably separated from the low speed lanes by curbing, shrubbery, or other suitable means, but frequent points of inter-communication are provided. Wherever a cross street not designated as a thoroughfare communicates with the super-highway, the lanes are always separated so that a vehicle from the cross street must first turn into the low speed lane and can only gain access to the high speed lane at the next point of inter-communication.

Whenever a super-highway meets a crossing super-highway, of the same general character, provision is made for the uninterrupted travel of the vehicles on the high speed lanes of each highway. A crossing of such a character is illustrated in Figure 3, and it will be noted that in this case, the low speed lanes of each super-highway intersect at the normal grade while the high speed lanes and railway tracks of one super-highway are elevated to pass over the intersecting low speed lanes and the high speed lanes and rail traffic of the other super-highway are correspondingly depressed to pass under the normal grade.

Referring now more specifically to the crossing construction for two super-highways, A and A′ represent the local roadways of one highway and B and B′, of the other highway, these roads intersecting at the normal ground level. D and D′ are the express roadways of the elevated highway between which are arranged the tracks E, E′, E^2 and E^3. The stations F and F′ for the rail traffic may be entered by means of stairways G, leading to the normal ground level beneath the tracks and express roadways. H and H′ are the express roadways of the depressed crossing super-highway between which are located the tracks J, J′, J^2 and J^3. Stations I and I′ for the depressed tracks may be entered by the stairways K leading downward from the normal ground level.

From the above description, it will be apparent that the crossing construction for two super-highways provides express lanes for the vehicular traffic which are entirely uninterrupted. When it is desired to transfer from one super-highway to the other, the vehicle must leave the high speed lane before approaching the crossing and follow the low speed lane to the intersection of the crossing low speed lane. The vehicle may

then enter the high speed lane of the crossing super-highway at the next point of intercommunication between the high and low speed lanes.

What we claim as our invention is:

1. A highway crossing comprising separate lanes for high speed and low speed traffic upon each of the crossing highways, the low speed lanes of each highway intersecting at the same level, the high speed lane of one highway being elevated at the crossing point to pass over said low speed lanes and the high speed lane of the other highway being depressed to pass under said low speed lanes.

2. A highway crossing construction comprising parallel high speed and low speed lanes extending in one direction, parallel high speed and low speed lanes extending in a transverse direction, the low speed lanes of each highway intersecting at the same level, the high speed lanes of one highway being elevated above said low speed lanes at the point of crossing and the high speed lanes of the other highway being depressed below said low speed lanes at said crossing, upwardly inclined portions connecting the elevated lanes on opposite sides of said crossing, and downwardly inclined portions connecting said depressed lanes on the opposite sides of said crossing.

3. A highway crossing construction comprising two transversely extending highways, each comprising a central zone having railway tracks therein, and roadways on opposite sides of said zones and separated therefrom, each of said roadways being divided into parallel high speed and low speed lanes at the same grade, the low speed lanes of each highway continuing at the same level and intersecting with each other, the high speed lane of one highway being elevated above said low speed lanes at the point of crossing and the high speed lanes of the other highway being depressed below said low speed lanes at said crossing.

4. A super-highway comprising a central railway zone, roadways on each side of said zone and separated therefrom, each roadway comprising parallel high speed and low speed lanes at substantially the same grade, transverse streets terminating on opposite sides of said high speed lanes and intercommunicating with said low speed lanes, transverse thoroughfares crossing said high speed lanes and railway zone at the grade of said low speed lanes, said high speed lanes and railway zone being separated in grade from said low speed lanes at the crossing point to provide unobstructed right of way, and a crossing super-highway having a low speed and high speed lane, the low speed lanes of each of said super-highways intercommunicating at the same grade and the high speed lanes of each being separated in grade from each other and from said low speed lanes.

In testimony whereof we affix our signatures.

DANIEL L. TURNER.
JOHN P. HALLIHAN.