Sept. 2, 1924. 1,506,822

C. B. FOSTER

UMBRELLA SHED FOR TRAINS, ETC.

Filed Nov. 10, 1919 4 Sheets-Sheet 1

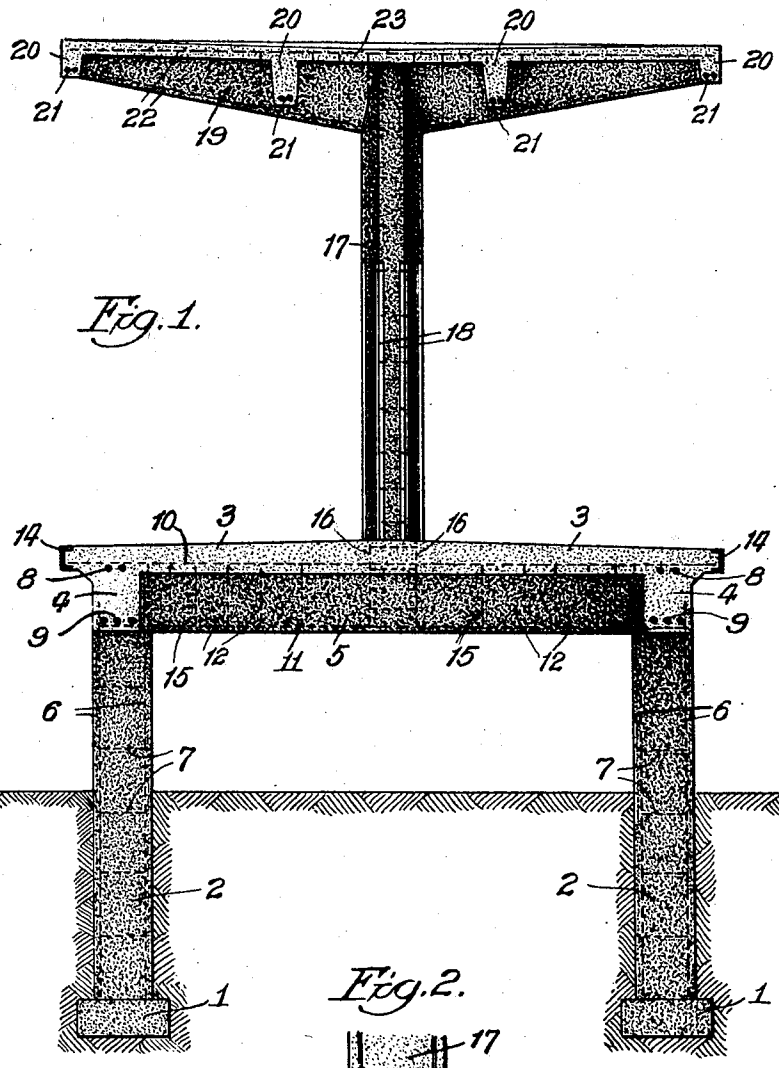
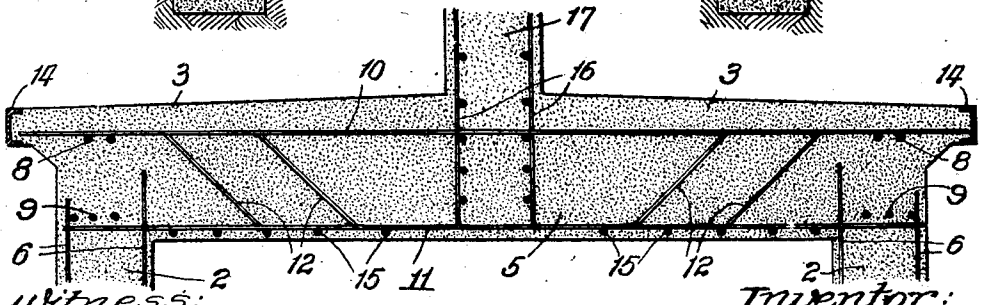


Fig. 1.

Fig. 2.



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UMBRELLA SHED FOR TRAINS, ETC

Filed Nov. 10, 1919 4 Sheets-Sheet 2

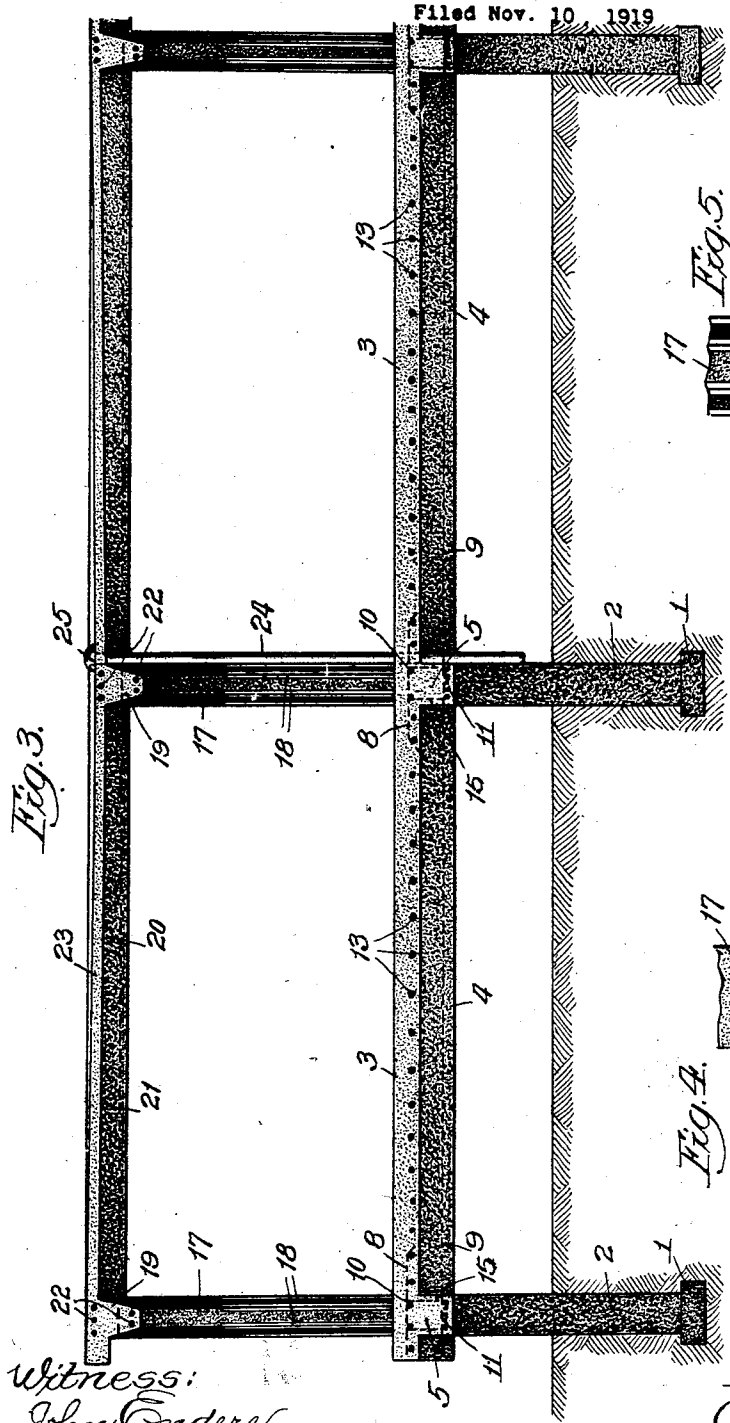


Fig. 3.

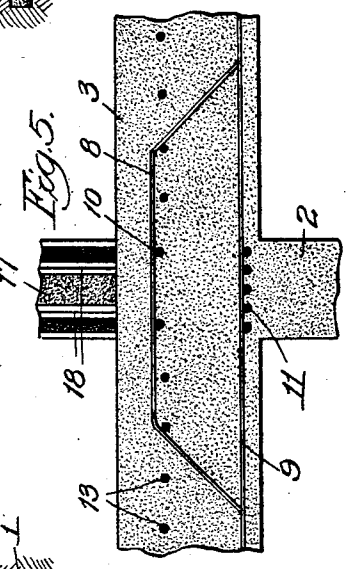


Fig. 5.

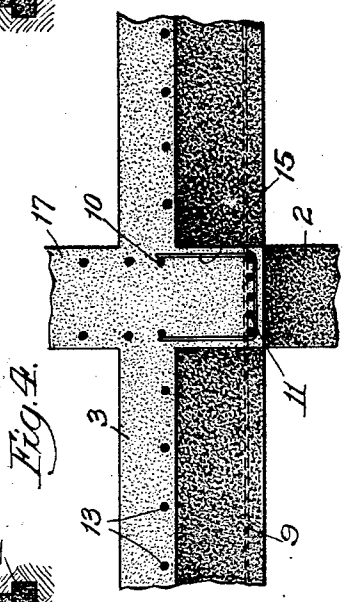


Fig. 4.

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UMBRELLA SHED FOR TRAINS, ETC

Filed Nov. 10, 1919 4 Sheets-Sheet 3

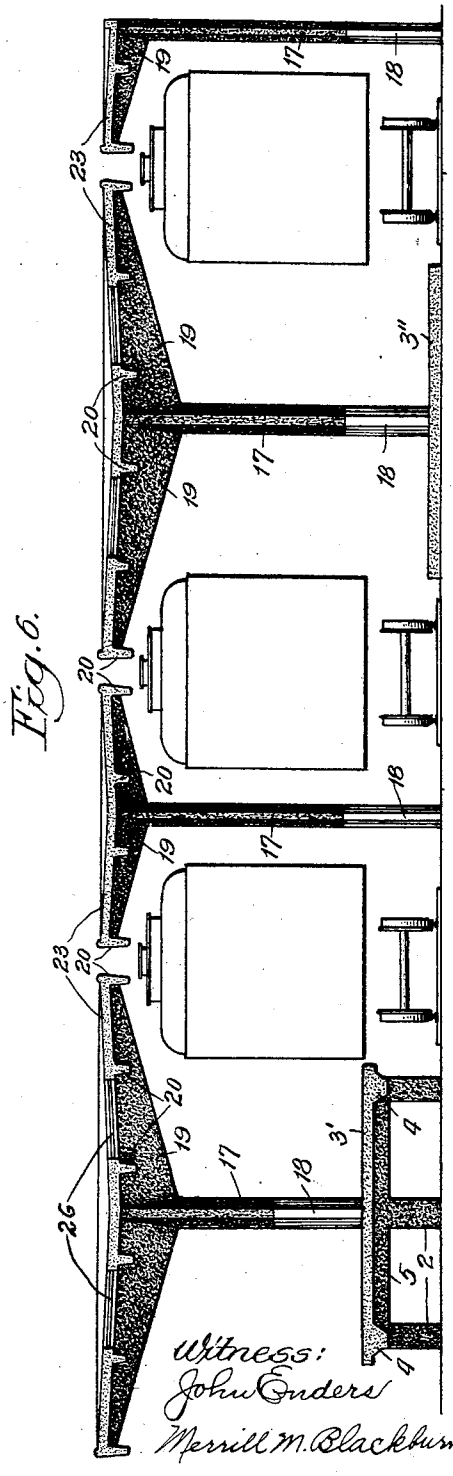


Fig. 6.

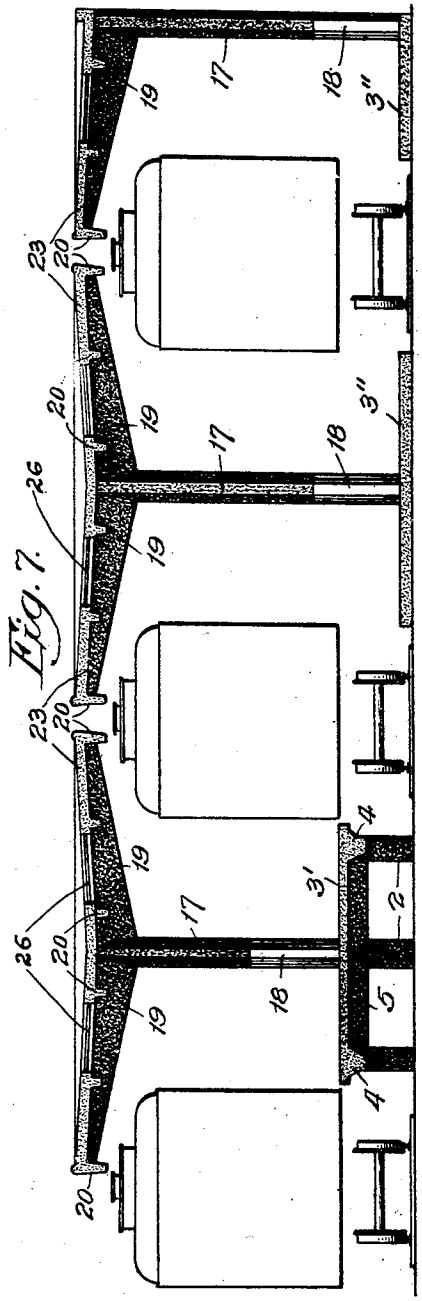


Fig. 7.

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Sept. 2, 1924. 1,506,822

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UMBRELLA SHED FOR TRAINS, ETC

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Fig. 8.

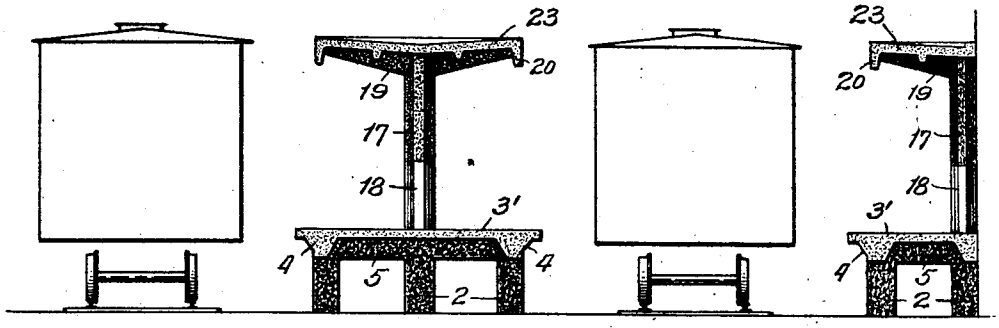


Fig. 11.

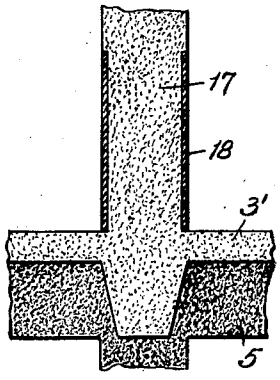


Fig. 9.

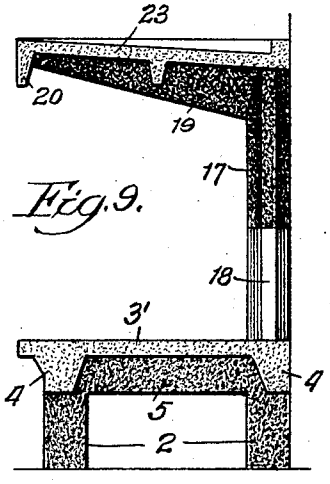


Fig. 12.

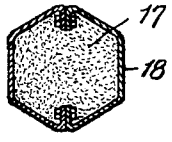
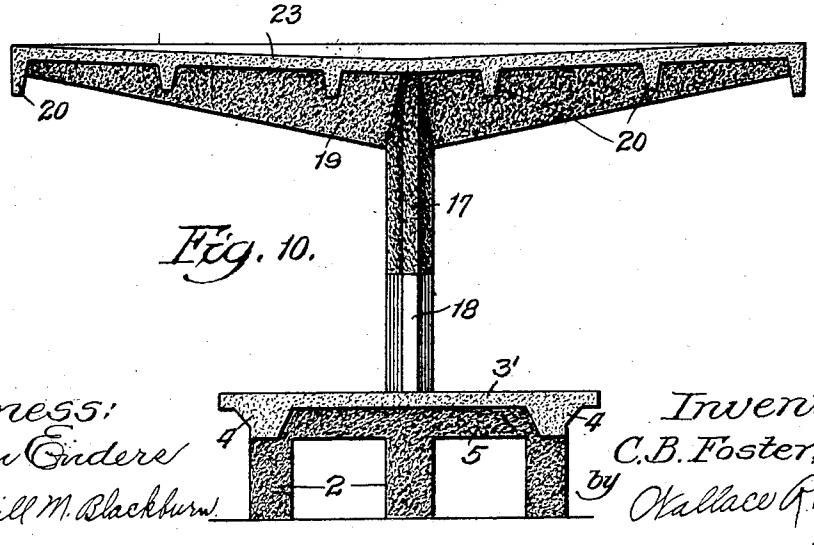


Fig. 10.



Witness:
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Inventor:
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Patented Sept. 2, 1924. 1,506,822

UNITED STATES PATENT OFFICE.

CHARLES B. FOSTER, OF INDIANAPOLIS, INDIANA.

UMBRELLA SHED FOR TRAINS, ETC.

Application filed November 10, 1919. Serial No. 336,941.

To all whom it may concern:

Be it known that I, CHARLES B. FOSTER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Umbrella Sheds for Trains, Etc., of which the following is a specification.

This invention relates to loading and unloading platforms and covers therefor, commonly called "umbrella sheds and platforms," and among its objects are to provide a substantial and durable structure for the purpose for which this structure is designed, and to improve generally upon existing structures of this character.

In the drawings annexed hereto and forming part of this specification, Fig. 1 is a transverse section through my improved structure, showing the platform and roof in section and the supporting structure in elevation.

Fig. 2 is a transverse detail section through one of the cross-beams.

Fig. 3 is a longitudinal section through a portion of my improved structure showing the posts and roof supporting columns in elevation.

Fig. 4 is a substantially central detail longitudinal section at the point where one of the roof supporting columns joins the platform.

Fig. 5 is a detail section through one of the posts and longitudinal beams.

Figs. 6 and 7 show various adaptations of my invention to passenger train service. Fig. 8 shows an adaptation to freight service. Fig. 9 is a cross-sectional view of a single sided platform and cover. Fig. 10 is a cross-sectional view of a structure similar to Fig. 1, but having an overhanging roof or cover and an additional row of supporting posts. Figs. 11 and 12 are respectively longitudinal and cross sections to show the use of encasing bands for the lower part of the posts to protect same from injury.

Referring in detail to the drawings, which show a preferred form of my invention and several modifications thereof, all preferably constructed of reinforced concrete, although the platform portion might be of stone, wood, or any other suitable material, numeral 1 indicates the footing of the platform supporting posts 2, imbedded in the ground to give a substantial support for the platform, which is constructed to withstand considerable weights. The platform 3, sloping from its longitudinal axis to its edges, is formed integrally with and supported by longitudinal beams 4 and cross-beams 5, which are integrally formed with posts 2. These posts are provided with vertical reinforcing rods 6 and transverse reinforcing hoops 7, while the longitudinal beams 4 have imbedded therein upper reinforcing rods 8 and lower rods 9, the transverse beams being reinforced by means of upper rods 10 and lower rods 11. Part of these lower rods are joined to the upper rods by means of having their ends bent upwardly as at 12, whereby the cross-beams are thoroughly reinforced so as to make the structure very strong. Extending transversely of the platform 3 and within the same are reinforcing rods 13 ending near the edges of the platform, said edges being reinforced and protected by the channel irons 14 extending entirely thereabout. The transverse beams 5 are provided with vertical stirrups 15, and in the central part with reinforcing rods 16, which pass upwardly through the columns 17 of the umbrella or canopy.

Columns 17 of the umbrella may be angular or cylindrical in form and may have their edges or the entire lower portion protected for a distance above the floor by strap irons, bands, or hoops 18, so that said portions shall not be worn away by the action of trucks or heavy articles striking thereagainst. Supported on these columns are cross-beams 19 having imbedded therein reinforcing bars 22, and these transverse beams are integrally formed with longitudinal beams 20, which have imbedded therein reinforcing bars 21. Roof 23 is integrally formed with the framework composed of the transverse and logitudinal beams and said roof slopes laterally and longitudinally toward its central portion so that water may drain toward the downspout 24 provided with the copper head 25. It is of

course understood that this structure may be built in any desired length and that where built of considerable length, there will be a number of sections such as shown in Fig. 3. The same will preferably be constructed integrally so that all parts thereof must serve to reinforce the adjacent parts.

In the structures shown in Figs. 6–10, platform 3′ is similar to platform 3, but is shown horizontal merely to show that said platform may be made either with or without slope. In some of these figures, the roof or canopy 23 is shown as being extra wide. This is designed primarily for use in passenger service to shield the passengers from storms. It will be noticed from Figs. 6 and 7 that my construction leaves an entirely unobstructed opening between the adjacent roofs for the escape of steam, smoke, etc. As shown in Figs. 6 and 7, the roof may be provided with suitable lights 26 as prism lights or wire-glass windows, reaching from girder to girder or composed of small windows

Besides the elevated platforms 3′ shown in Figs. 6, 7, 8, and 10 having centrally arranged supporting posts, Figs. 6 and 7 show platforms 3″ resting on the ground. This platform may or may not be provided with posts extending into the ground to steady the same according to whether this is desired or not.

Attention is directed to the fact that the canopy may be somewhat narrower than the platform if desired as shown in Fig. 8, and may be used entirely without platform (see Fig. 6).

Though this structure is primarily designed for use as a loading platform alongside of railroad tracks, it is of course understood from the specification and drawings that its use is not limited to such locations, nor are its size and dimensions incapable of variation, since the same must necessarily be made to adapt the structure to the particular location in which the same is to be used. Although the reinforcing system has been described somewhat in detail, this is nevertheless capable of variation to suit the demands of the particular structure being built.

It is believed that the construction and use of this device will be obvious from the above description taken in connection with the annexed drawings, and the same will therefore not be described in greater detail.

Having now described my invention, I claim:

1. A structure of the class described, comprising a platform having supporting pillars, reinforced cross members on the pillars and a floor on the members, an umbrella structure having a rod of columns supported on the cross members, reinforcing members extending into the columns and the cross members, and a roof on the columns.

2. A loading platform and umbrella stand comprising a reinforced concrete floor supported upon reinforced concrete posts integral therewith and in turn supporting a reinforced concrete umbrella, the top of the umbrella sloping inwardly, longitudinally, and transversely, to direct water collecting therein to a drain opening, said sloping top surfaces being planes, said umbrella being free of lateral support.

3. A reinforced concrete loading platform and canopy comprising a plurality of rows of monolithic posts partly imbedded in the ground longitudinally, and cross-beams supported by said posts at their upper ends and integral therewith, said beams having formed therewith a floor sloping laterally from the longitudinal axis, a row of columns integral with the floor along its longitudinal axis and supporting at their upper ends a roof constructed with a slope from its lateral edges and from spaced points along its length toward intermediately placed drain pipes.

4. An umbrella for loading platforms comprising a single row of concrete columns having at their tops and integral therewith, transverse concrete beams extending nearly the width of said umbrella, and being connected by longitudinal concrete beams, said longitudinal and transverse beams being connected by and supporting a roof, the top of said roof sloping inwardly, longitudinally and transversely, to direct water to a drain opening, and light transmitting sections located intermediate the edges of said roof, said umbrella being free of lateral support.

5. A structure of the class described, comprising a platform having supporting pillars, reinforced cross beams on the pillars and a floor on the beams, an umbrella structure having a row of columns supported on the cross beams, reinforcing members extending into the columns and the cross beams, cantilever arms extending laterally from the columns, a roof on said arms, said arms having the lower portions thereof sloping upwardly from the columns.

6. An umbrella shed, comprising a row of columns, cantilever arms extending from the columns, beams parallel to the row of columns and connected to the arms, and a roof on the arms and beams, said cantilever arms extending to the edge of the roof.

7. An umbrella shed, comprising a row of columns, cantilever arms extending laterally from the upper ends of the columns, spaced parallel beams connected to the arms and disposed parallel to the row of columns, and a roof supported on the beams and arms, said arms extending to the edge of the roof.

8. An umbrella shed, comprising a row of

columns, a cross-beam supported on the upper end of each column, spaced longitudinal beams connected to and between the cross-beams and being spaced from the row of columns, and a roof supported by the cross and longitudinal beams, said cross beams terminating at the edge of the roof.

In witness whereof, I hereunto subscribe my name to this specification in the presence of two witnesses.

CHARLES B. FOSTER.

Witnesses:

H. Z. DEITZ,

H. SINCLAIR.

Certificate of Correction.

It is hereby certified that in Letters Patent No. 1,506,822, granted September 2, 1924, upon the application of Charles B. Foster, of Indianapolis, Indiana, for an improvement in "Umbrella Sheds for Trains, Etc.," an error appears in the printed specification requiring correction as follows: Page 2, line 63, claim 1, for the word "rod" read *row;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 4th day of November, A. D. 1924.

[SEAL.]

KARL FENNING,
Acting Commissioner of Patents.