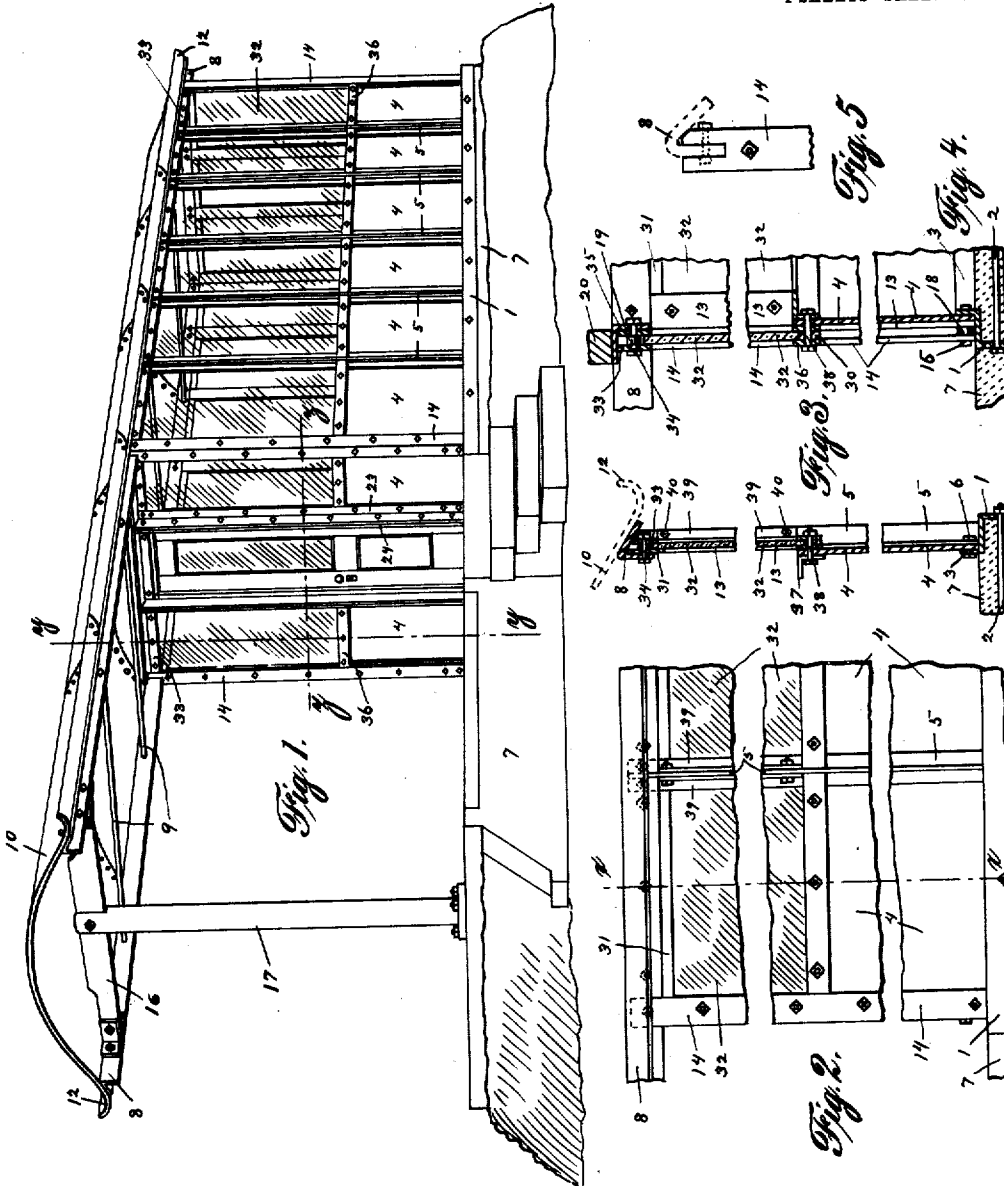


S. B. MINNICH.
BUILDING CONSTRUCTION.
APPLICATION FILED FEB. 4, 1909.

946,066.

Patented Jan. 11, 1910.

4 SHEETS—SHEET 1.



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4 SHEETS—SHEET 2.

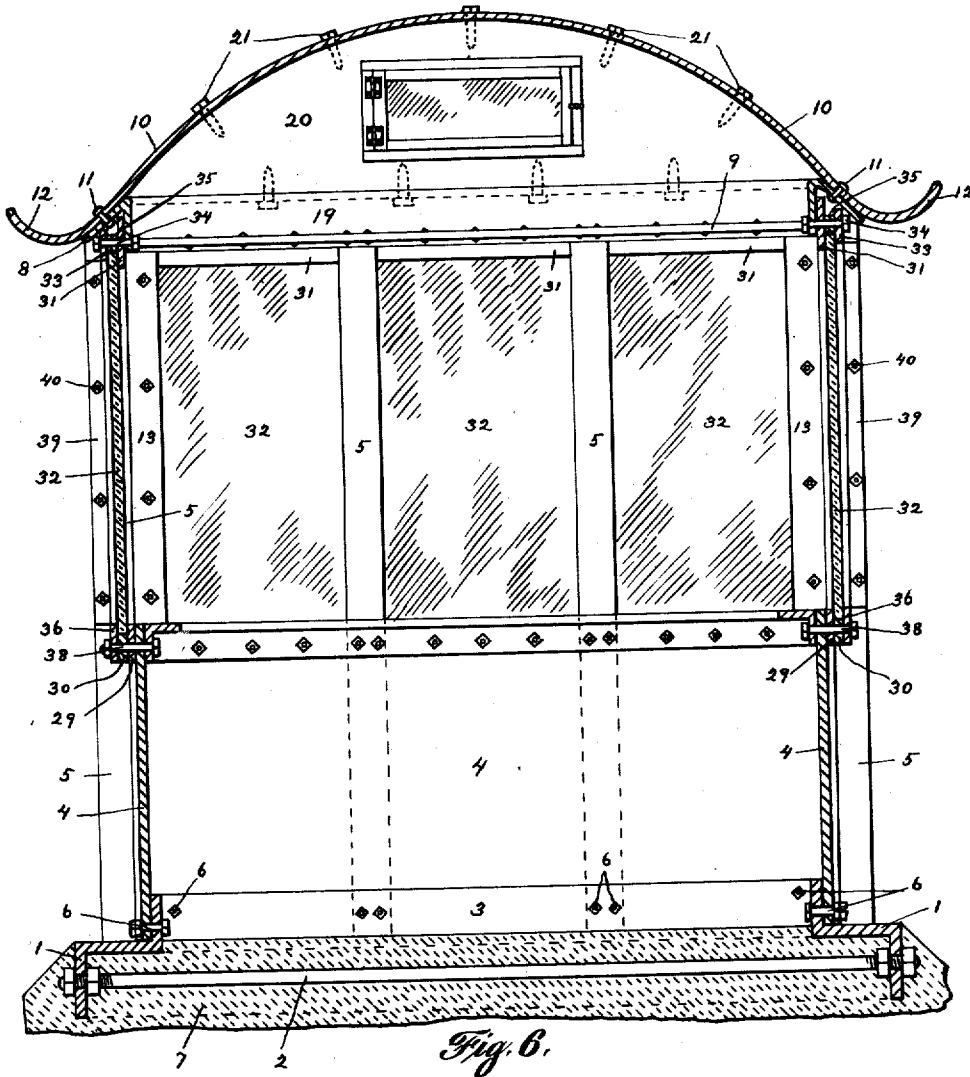


Fig. 6.

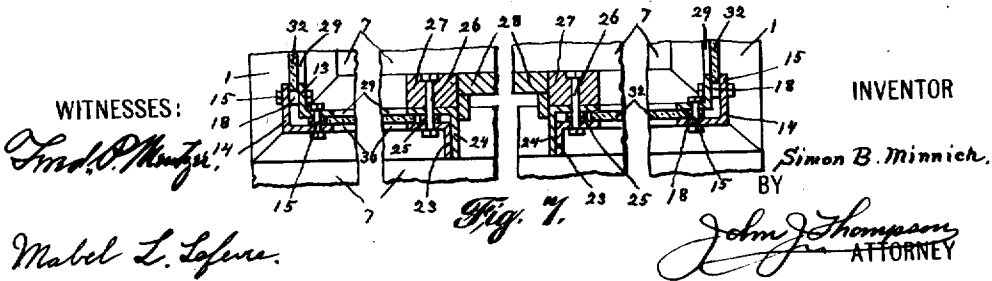


Fig. 7.

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4 SHEETS—SHEET 3.

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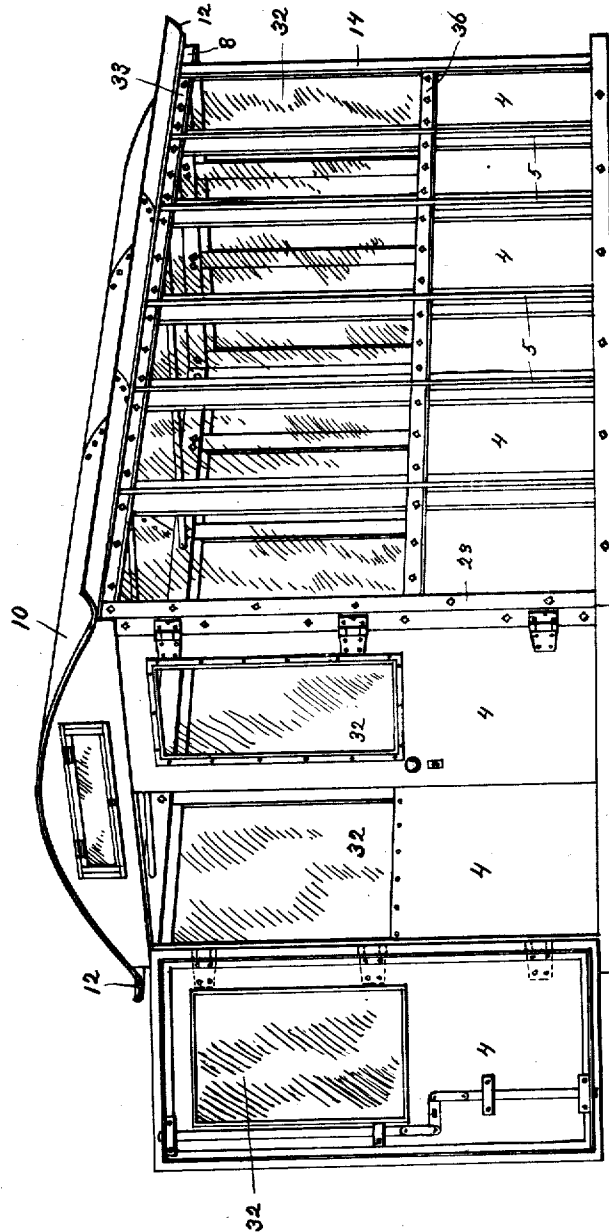


Fig 8

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4 SHEETS—SHEET 4.

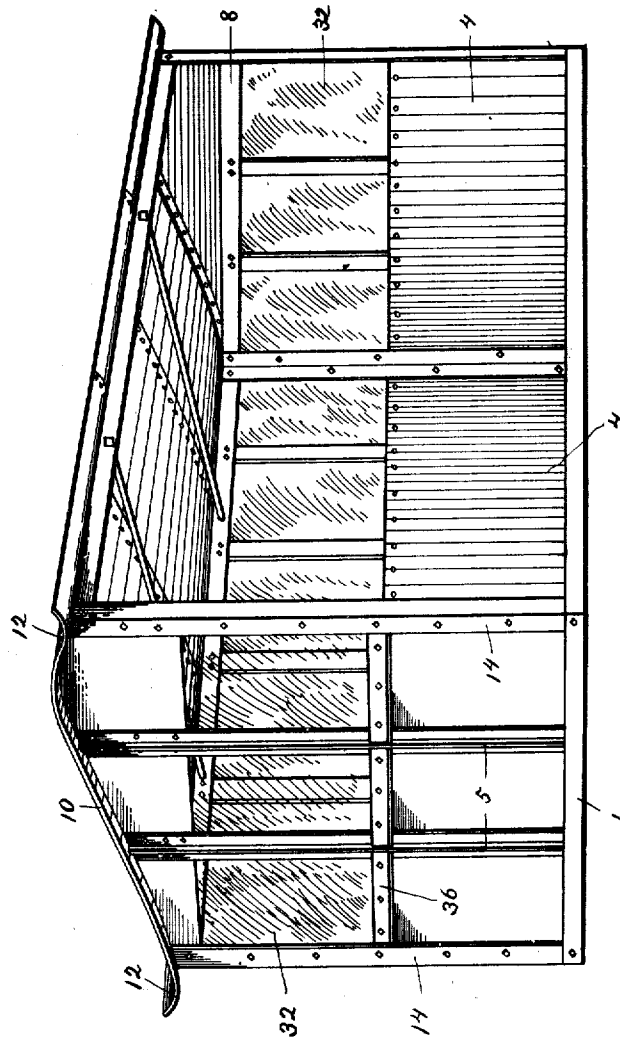


Fig 9

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UNITED STATES PATENT OFFICE.

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BUILDING CONSTRUCTION.

946,066.

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To all whom it may concern:

Be it known that I, SIMON B. MINNICH, a citizen of the United States, residing at Landisville, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Building Construction, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to a novel form of building construction and more directly to that class of buildings used by railroads for suburban stations or waiting-rooms, and as a portable and fire-proof garage or automobile house, and is designed to provide a sanitary, fire-proof, light and lasting structure, and one that may be entirely constructed in the shop, shipped in a knock-down state to the building site and thereon erected without further fitting or skilled labor.

Another object of my invention is to provide a perfectly tight structure, so designed and constructed that no water from without can enter at any point and this special feature is obtained by the use of Z-shaped sills and the method of securing the side plates thereto.

In carrying out my invention I provide a rectangular sill-frame constructed of Z-shaped bars, suitably joined together and braced and partly secured within a cement or concrete base; while to the upper flange of said Z-shaped sills are secured side plates and studding for supporting the roof plates of special construction which are secured to the studding without the use of any roof rafters, other than stay-rods.

With these and other objects in view my invention consists in certain novel features of construction and combination of parts that will be fully pointed out and claimed in the following specification, reference being had to the drawings forming a part thereof, and in which like reference characters designate corresponding parts in all the figures of the drawings, but it is fully understood that I do not confine myself to the exact design as shown, as slight changes may be made in the construction without departing from the spirit of the invention.

In the drawings:—Figure 1, is a perspective view of my improved construction as applied to a railroad waiting-room. Fig. 2, is a partial side elevation of a window

adjoining the front corner in enlarged detail, with the roof removed. Fig. 3, is a vertical section of Fig. 2, on the line X X, further illustrating the method of retaining the glass. Fig. 4, is a vertical section of a portion of the front end of the building, as shown in Fig. 1, taken on the line Y Y. Fig. 5, is a detail enlarged view of the upper end of a front corner post, showing the method of attaching the roof V-plate thereto. Fig. 6, is a vertical section, taken just back of the front end wall and looking toward the rear end wall, and shows the general construction. Fig. 7, is a horizontal sectional view of the front end, taken on the line Z Z of Fig. 1. Fig. 8, is a perspective of my construction as applied to an automobile house. Fig. 9, is a perspective view of my construction as applied to a station waiting shed.

In the drawings:—1, indicates sills in the form of Z-shaped bars laid with their body portion in a horizontal position and with their outer flanges pointed downward and their inner flanges pointed upward and having their ends mitered as shown in Fig. 7, to form a rectangular base or frame, which is braced and secured from spreading by the tie-rods 2, placed at suitable distances apart and secured to the downward flanges of said Z-shaped sills. Said Z-shaped sills, are designed to be buried in the cement or concrete 7, to a point about on a level with the upper surface of their body portion, as shown in Fig. 6, thus anchoring said tie-rods 2, in said cement and providing a floor within said building and a platform without said building and thus leaving the upper flange 3, of the Z-shaped sills exposed for the purpose of securing the sides and frame of the building thereto, and also serving to restrain all surface water from entering the building.

Against the outer surface of the flanges 3, are placed the vertical side plates 4, which are retained thereto near their lower edges by the vertical T-shaped irons or studs 5, which are placed along the sides and ends of the building at the desired distances apart with the head of the T in contact with the surface of said side plates 4, and with their lower ends resting upon the body of the Z bar 1, and secured to the flange 3, by the bolts 6, passed through said side plates 4, and thus securing said T studs and the side

plates 4, to the flange 3, near their lower ends.

The upper ends of the T-shaped uprights or studs are secured to the horizontal inverted V-shaped roof plates 8; said inverted V-shaped roof plates 8, being joined and braced together by the truss rods 9, thus preventing the sides of the building from spreading and also giving strength to the roof. Said roof is formed of the plates 10, bent to give the proper pitch to the roof and lapped and secured to each other along their longer sides and to the inverted V plates 8, by the bolts or rivets 11; while their extending ends are curved upward to form the gutter 12.

The corner posts of the building are formed by the upright angle irons 13, and 14; the upright 13, resting with its lower end upon the surface of the body of the Z sill and with its sides in contact with the outer surface of the side and end plates 4; while the upright 14, is placed over said upright 13, and spaced therefrom by the washers 18, and the two are secured together and to the side plates 4, by the bolts 15; while the upper ends of said uprights 13, and 14, are secured to the inverted V plates 8; the upper ends of the uprights on the front corner being notched to receive the inward V plate 8, as shown in Fig. 5.

In Fig. 1, the inverted V plates 8, are extended beyond the front end of said building and the roof extended to afford a shelter or cover for the platform, the end being supported by the cross bar 16, and the post 17. In the rear of the building, the upright T studs 5, have their upper ends secured to the horizontal angle iron 19, which is placed with one of its sides extending outward; while between the upper surface of said angle iron 19, and the inner surface of the roof plates 10, is secured the gable 20, by the bolts or lag-screws 21, screw-threaded into the edge thereof.

In Fig. 1, the door way is formed by using, instead of the T studs 5, two angle irons 23, and 24, placed one within the other with their adjacent outwardly extending sides in contact and at right angles to said end wall, and their other sides spaced apart from each other by the washers 25, and secured near their lower ends to the outer surface of the end plates 4, and also to the flange 3, of the Z bar 1; while to the inner surface of said end plates 4, and flush with the side of the outwardly extending side of the angle iron 24, is secured by the bolt 26, the wooden door frame stud 27, to which the door frame 28, is fastened as shown in Fig. 7.

The window lights are secured and mounted as follows:—Upon the outer surface of the plates 4, near the upper edge thereof, are placed the horizontal strips 29, extending from the head of one T stud 5, to the

next T stud 5, or corner angle iron 14, and of a thickness to correspond to the thickness of said T stud 5, and angle iron 14, and upon the face of said strips 29, are placed the strips 30, of a thickness to correspond to the thickness of the glass 32, and of sufficient length to reach from the body of the T stud 5, to the body of the next T stud 5, or upon the outer surface of the corner angle iron 14, and upon the outer surface of the vertical flange of the inverted V-shaped roof plate 8, between the heads of the T studs 5, or corner angle irons 14, is placed the strip 31, so that there is an even surface formed for the glass 32, to rest against, and the glass 32, is retained in place at the top by the strip 33, which projects slightly over said glass and is secured to the strip 31, and the inverted V-plate 8, by the bolts 34, and restrained from pinching the glass by the washers 35, placed between it and the V plate 8. The bottom of said glass 32, is secured by the overlapping strip 36, which is secured to the strip 30, the strip 29, the plate 4, and the angle iron 37, by the bolts 38. The sides of the glass are retained by the small angle irons 39, placed in the angle formed by the glass 32, and the body of the T studs 5, and secured to said T studs 5, by the bolts 40. The side of the glass next to the corner angle iron 14, being retained within the space formed between said angle irons 13 and 14 by the washers 18.

While I have here described the general construction of my invention, it is fully understood that any well known method of heating, ventilating and providing seats may be employed as the local conditions may require.

In Fig. 8, I have shown one end supplied with doors opening outward and formed of angle iron frames, to which are secured sheet metal plates. And in Fig. 9, I have shown one of the sides removed and an end added to form a station shed.

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

1. In a structure of the class described, a base frame formed of Z-shaped bars, sides and ends secured to the outer side of said Z-shaped bars, T-shaped uprights having their lower ends secured to said Z bars, inverted V-shaped roof bars secured upon the upper ends of said T-shaped uprights, roof plates curved to form the roof pitch and secured to said inverted V-shaped roof bars, gutters formed by curving the projecting ends of said roof plates upward, corner posts composed of nested angle iron bars secured at their lower ends to said Z bars and at their upper ends to said inverted V-shaped roof bars, and means for securing transparent side panels to said structure.

2. In a structure of the class described, 130

comprising a rectangular base frame, formed of Z-shaped bars laid with their body portion in a horizontal position, stay-rods securing the lower flange of said Z bars together, vertical side plates placed without the upper flange of said Z bars and secured thereto, T bars placed vertically with their lower ends resting upon the body of said Z bars and secured to the upper flange of said Z bars, angle irons forming the corners of said structure and placed vertically with their lower ends resting upon the body of said Z bars and secured to the upper flange of said Z bars, inverted V-shaped roof bars extending lengthwise of said structure and secured to the upper ends of said T bars and said angle iron corners, a roof curved to give the proper pitch and resting upon and secured to said inverted V bars with its sides projecting therefrom and curved upward to form a gutter, transparent panels secured between said T bars, and means for retaining said panels in a detachable manner.

3. In a structure of the class described, a base frame formed of Z-shaped bars, brace rods securing said bars to each other, corner posts composed of nested angle irons having two of their adjacent sides spaced by washers, T-shaped studding secured at its lower ends to said Z bar frame, inverted V-shaped roof bars secured upon the top of said cor-

ner irons and said T bars, a roof curved and formed with gutters and secured upon said inverted V-shaped bars, truss rods secured to said bars, end angle plates secured to said inverted V bars, gable ends secured to said roof and to said end angle plates, side plates secured to said T bars and to said corner irons, horizontal angle irons secured to said plates and said T bars, strips secured to the outer surface of said side plates near the upper edge thereof, transparent panels placed against said strips and the heads of said T bars, strips overlapping said panels and secured to said side plates, strips overlapping said panels and secured to said inverted V bars, angle irons placed in contact with said panels and secured to said T bars, a door frame composed of nested angle irons and embracing said panels and said side plates, and secured to said side plates and to each other, and having their lower ends secured to said Z bars and their upper ends secured to said horizontal angle irons, and washers inserted between the surfaces that embrace said transparent panels, of a thickness to prevent breaking said panel.

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

SIMON B. MINNICH.

Witnesses:

WM. J. COULTER,
MABEL LEFEVRE.