Jan. 19, 1926. 1,570,384

E. McCLURE

PLATFORM STRUCTURE

Filed March 20, 1925

Fig. 1.

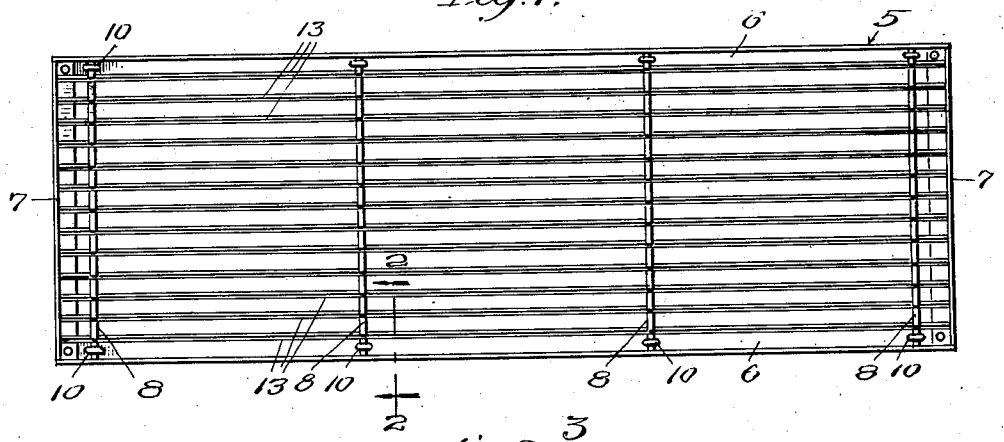


Fig. 2

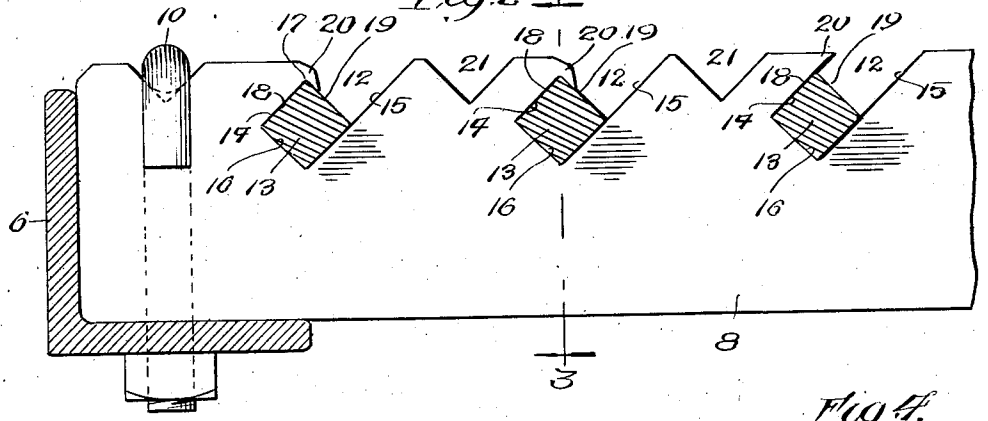


Fig. 3.

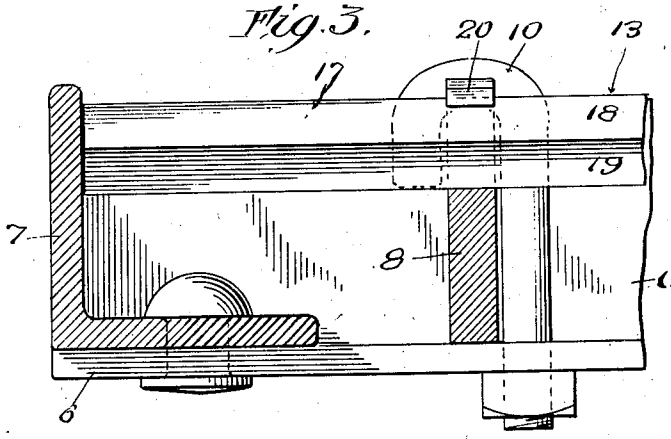
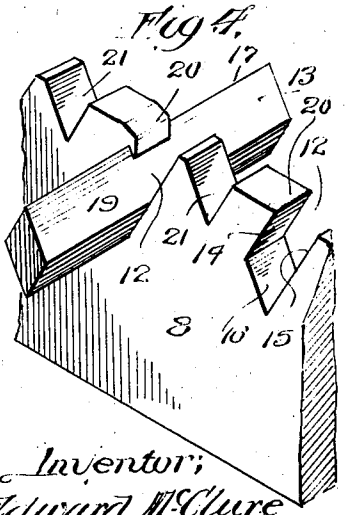


Fig. 4.



Inventor;
Edward McClure,
by Thos. O. Sherman
His Atty.

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UNITED STATES PATENT OFFICE.

EDWARD McCLURE, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO FRANKLIN P. SMITH, OF CHICAGO, ILLINOIS.

PLATFORM STRUCTURE.

Application filed March 20, 1925. Serial No. 16,973.

To all whom it may concern:

Be it known that I, EDWARD McCLURE, a citizen of the United States, and a resident of Chicago, Cook County, and State of Illinois, have invented certain new and useful Improvements in Platform Structures, of which the following is declared to be a full, clear, and exact description.

This invention relates to platform structures, such as fire escapes, area covers and the like, and its main objects are to simplify the construction and the work of assemblage thereof, and to otherwise improve thereon. The invention has particular reference to platforms and like structures formed of structural iron bars and rods, and one object is to provide novel means for securing together the several bars and rods which comprise the structure. It is important in structures of this kind (which are usually exposed to the elements) to guard against the collection of ice and snow. In order to secure the best results against the formation of thick ice on the bars, the bars are provided with relatively sharp edges along the upper sides thereof, whereby the ice may be cracked off when trod upon. This invention contemplates the use of bars and rods that will facilitate the cracking off of the ice when trod upon.

With these and other objects and advantages in view, this invention consists in the several novel features of construction and arrangement of parts hereinafter fully described and claimed.

The invention is clearly illustrated in the accompanying drawing in which:—

Fig. 1 is a plan of a fire escape platform illustrating a simple embodiment of the invention applied thereto; Fig 2 is a detail, fragmental cross section taken on line 2—2 of Fig. 1; Fig. 3 is a detail, fragmental, longitudinal section taken on line 3—3 of Fig. 2 and Fig. 4 is a perspective view showing fragments of two intersecting locked bars of the platform.

Referring to said drawing, the reference character 5 designates a rectangular supporting frame, of a fire escape platform, area cover or the like, and said frame is usually composed of lengthwise extending, angle iron side frame members 6, 6, and crosswise extending angle iron end frame members 7, 7, riveted to the frame members 6, 6, at the corners formed by the frame members. The size and shape of the frame thus formed is immaterial. It may be supported upon brackets or in any suitable manner as is well understood.

Resting upon and extending between the angle iron frame members 6, are cross bars 8 which may be secured to the frame members 6 by any suitable means as for instance by hook bolts 10 that hook over the cross bars and extend through holes in the angle iron frame members and have nuts threaded on their lower ends which, when turned up, clamp the cross bars 8 upon the frame members 6.

In the upper edge of each cross bar 8 are formed notches 12, which are suitably spaced apart as shown, and receive rods 13, that form the tread portion of the platform. The notches 12 of the several cross bars are in alignment with those of the other cross bars, and the rods 13 may extend from end to end of the platform if desired. In its preferred form the notches 12 are formed of straight sides 14, 15, and a straight side 16 extending at right angles to the sides 14, 15 and said notches incline at an angle of approximately 45 degrees and open out through the upper edge of the cross bars 8. The sides 15, 16, form the bottom or seat of the notches. The rods 13 are preferably square in cross section and fit fairly well in the notches 12 and when seated therein, each rod is held with its major axes in vertical and horizontal planes, whereby a sharp edge 17 is presented along the top edge of each rod, with two sloping sides 18, 19, extending down from each side of said edge. The upper edges 17 of the rods 13 are located slightly below the upper edges of the cross bars 8, and the triangular edge portions or tongues 20 thereof, are hammered or otherwise forced down over and against the sloping sides 19 of the rods to thereby fixedly secure them in place in the notches.

As a preference, the upper edges of the cross bars 8, between the notches 12, are notched as at 21, whereby the upper edges of the cross bars are left in a roughened condition, with relatively sharp ridges which act to prevent a person from slipping when treading upon the bars 8.

In assembling the cross bars and rods, the latter are dropped into the notches (as shown at the right hand end of Fig. 2), and the overhanging edge portions 20, ham-

mered or otherwise forced over the rods, thereby securing them to the cross bars. The cross bars are secured to the frame by the hook bolts and nuts and the device is ready for use.

In the usual and common practice, the rods are inserted through holes in the cross bars, and considerable time and labor is required to insert the rods through the cross bars in assembling the parts. With the high price of labor at the present time, this is a costly performance and greatly adds to the cost of production of platforms or other structures of this nature. With the use of the open notches into which the rods may be dropped, the parts may be readily assembled by unskilled workmen, and the parts may be rigidly secured together, because the tongues or edge portions 20 may be tightly forced down upon the rods, whereas when used in connection with cross bars having holes therein, the rods fit loosely in the holes.

More or less variation of the exact details of construction is possible without departing from the spirit of this invention; I desire, therefore, not to limit myself to the exact form of the construction shown and described, but intend, in the following claims, to point out all of the invention disclosed herein.

I claim as new, and desire to secure by Letters Patent:

1. A platform structure formed of metal bars and rods, and comprising a supporting frame, cross bars secured thereon and formed in their upper edges with spaced notches extending at an angle of approximately forty-five degrees to the upper edges of the cross bars and providing portions overhanging the notches, the sides and ends of said notches being straight and at right angles to each other, and square rods extending from bar to bar and non-rotatively seated in the lower angles of said notches with one of their sharp edges uppermost and located below the upper edges of the bars, with two sides of each rod sloping down from said edge, the edge portions of the bars which overhang the rods being bent down upon the rods to fixedly secure them in place.

2. A platform structure, formed of metal bars and rods, and comprising a supporting frame, cross bars secured thereon, and formed in their upper edges with spaced, inclined notches, the sides and ends of said notches being straight and at right angles with each other and straight sided rods extending from bar to bar and non-rotatively seated in said notches, the upper edge portions of said cross bars, which overhang said rods, being bent down upon said rods to secure them in the notches, there being other notches in the upper edges of said cross bars, between said first mentioned notches, forming with said first mentioned notches serrations in the upper edges of said cross bars.

EDWARD McCLURE.