H. H. URIS.

GRATING.

APPLICATION FILED AUG. 23, 1919.

1,335,623. Patented Mar. 30, 1920.

Fig. 1.

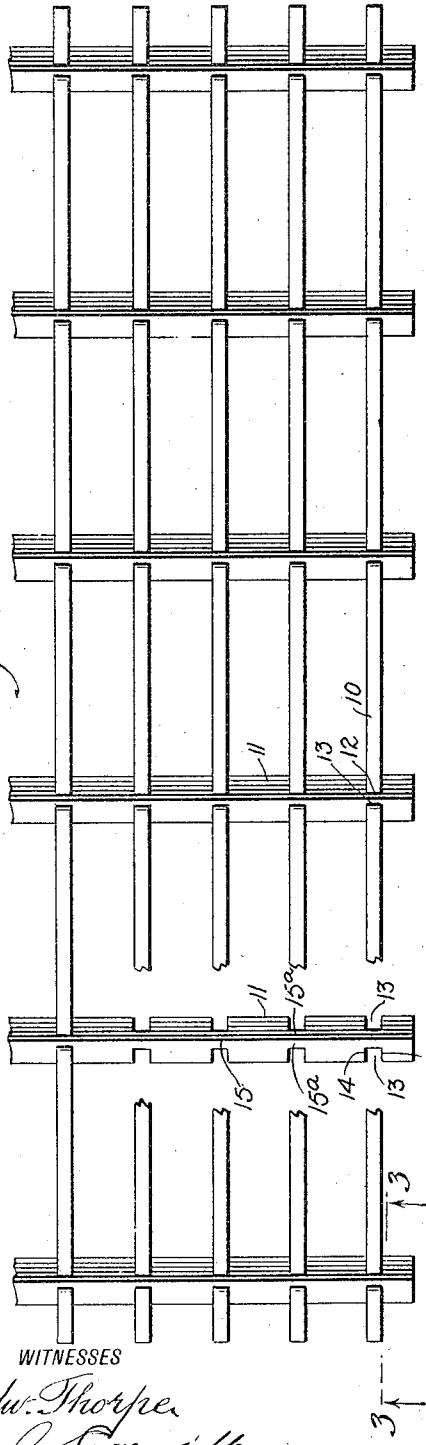


Fig. 2.

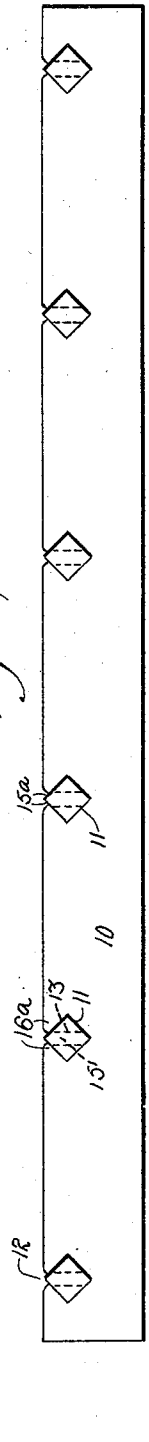


Fig. 4.

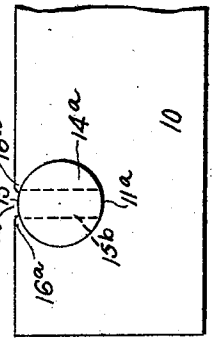


Fig. 3b.

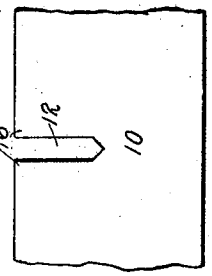


Fig. 3a.

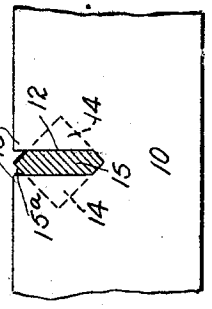
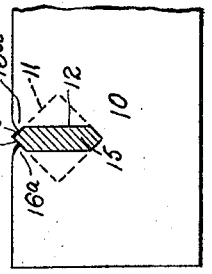


Fig. 3.



WITNESSES

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GRATING.

1,335,623. Specification of Letters Patent. Patented Mar. 30, 1920.

Application filed August 23, 1919. Serial No. 319,394.

To all whom it may concern:

Be it known that I, HARRIS H. URIS, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Grating, of which the following is a full, clear, and exact description.

My invention is more particularly intended for embodiment in street and area gratings and especially gratings of the type employing cross bars or other elements the equivalent of checker work or the like to prevent baby carriage wheels and other articles from dropping between the longitudinal bars of the grating.

The general object of my invention is to provide a novel manner of interlocking the cross bars with the longitudinal bars to the end that simplicity of construction with strength is attained and facility in the assemblage and locking of the bars is promoted.

The above and other objects are attained by the construction and arrangement of parts hereinafter particularly described.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of one example of the invention.

Figure 1 is a plan view of a grating embodying my invention, parts of the longitudinal bars being broken away;

Fig. 2 is a side elevation of the grating;

Fig. 3 is a detail in vertical section showing a cross bar locked in position;

Fig. 3^a is a view similar to Fig. 3 but showing the cross bar in position but unlocked;

Fig. 3^b is a detail of a portion of a longitudinal bar showing a slot therein to receive the cross bar;

Fig. 4 is a view similar to Fig. 3 showing a modification in which the cross bar is of round cross section instead of angular as in the other figures.

In carrying out my invention in accordance with the illustrated example, any desired number of longitudinal bars 10 are provided, depending upon the width of the grating and cross bars 11 are provided. The longitudinal bars have vertical slots 12 extending downwardly from the upper edges thereof and the cross bars 11 have pairs of vertical slots, the slots of a pair being directly opposite. Thus, the slots 13 result in walls or shoulders 14 at opposite sides of each slot and a central web 15 between the slots. The web 15 has a width to be accommodated in a slot 12 of the longitudinal bars. The cross bars are angular in cross section advantageously being diamond shape so that at the top of each web 15 reverse bevels or sloping surfaces 15^a are presented. The web 15 is so accommodated in a slot 12 that the beveled surfaces 15^a will lie between and for the main part below the corners 16 presented by the bars 10 at the top of a slot 12. When the cross bars 11 have been positioned with the webs 15 thereof in the slots 12, the shoulders 14 will be disposed at opposite side faces of the bars 10, thereby preventing longitudinal displacement of the cross bars and serving to space the longitudinal bars. The corners 16 are then hammered down onto the beveled surfaces 15^a as indicated at 16^a so that vertical displacement of the cross bars 11 is prevented and a complete interlock is effected between the cross bars and the longitudinal bars.

The engagement of the shoulders 14 prevents the bars 10 from being spread by the wedging action of any object entering therebetween.

In the form shown in Fig. 4 the bar 11^a instead of being diamond-shaped in cross section is round. The bar 10 with the slot 12 is the same and the bar 11^a is slotted at opposite sides to present shouldered members 14^a and a web 15^b. The angles of the bar 10 as in the first described construction are hammered down onto the intermediate top surface 15^c at the top of the web 15^b, said top surface sloping on rounding lines in accordance with the round cross section of the bar.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the mechanical details herein illustrated, since manifestly the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim:

1. A structure including longitudinal bars having slots extending from the top edges downwardly, and cross bars having pairs of alined slots at the sides and extending from top to bottom thereof to present intermedi-

ate webs between the slots and oppositely facing shoulders at the sides of the slots, said webs being accommodated in the first-mentioned slots to present edge surfaces extending below the upper ends of said slots and thus extending below the plane of the top surfaces of the longitudinal bars, the corners of the longitudinal bars adjacent to the slots therein being deflected laterally onto the said edge surfaces, the mentioned shoulders presented by the slots of the cross bars being disposed against the opposite sides of the longitudinal bars adjacent to the slots of the latter.

2. A structure including longitudinal bars having slots extending from the top edges downwardly, and cross bars having pairs of alined slots at the sides and extending from top to bottom thereof to present intermediate webs between the slots and oppositely facing shoulders at the sides of the slots, said webs being accommodated in the first-mentioned slots, and the mentioned shoulders presented by the slots of the cross bars being disposed against the opposite sides of the longitudinal bars adjacent to the slots of the latter.

HARRIS H. URIS.