J. F. STECKENREITER.

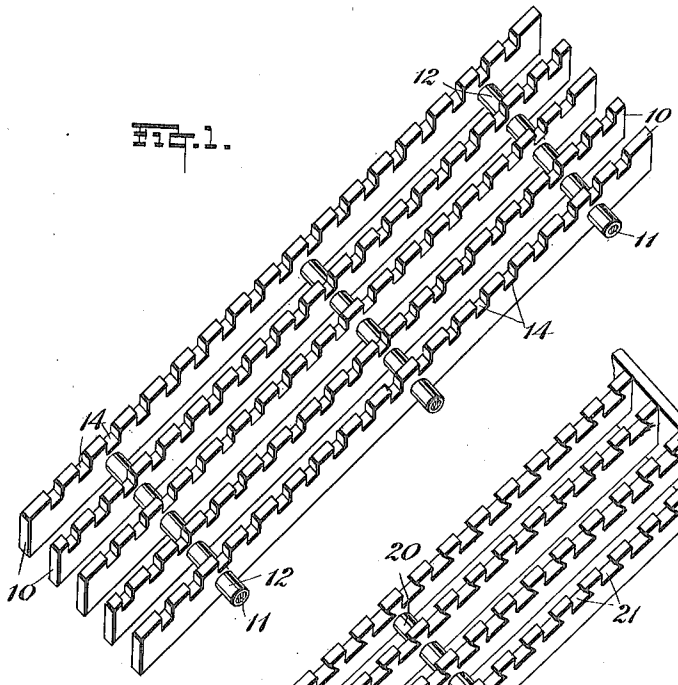
AREA GRATING.

APPLICATION FILED APR. 1, 1914.

1,180,953.

Patented Apr. 25, 1916.

Fig. 1.



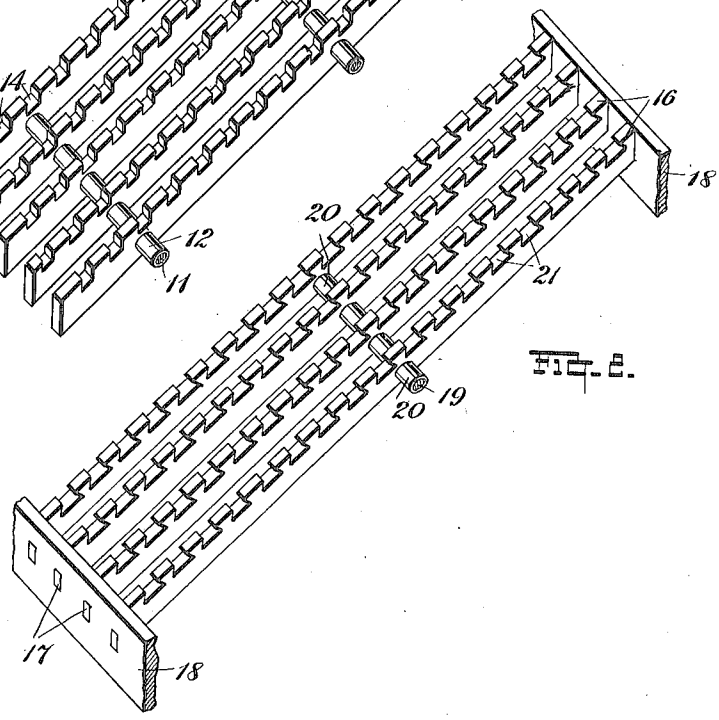


Fig. 2.

Fig. 3.

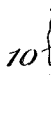


Fig. 4.

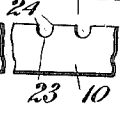


Fig. 5.

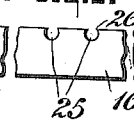
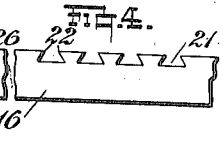


Fig. 4.



WITNESSES

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AREA-GRATING.

1,180,953. Specification of Letters Patent. Patented Apr. 25, 1916.

Application filed April 1, 1914. Serial No. 828,706.

To all whom it may concern:

Be it known that I, JOHN F. STECKENREITER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Area-Grating, of which the following is a full, clear, and exact description.

My invention relates to area or vault gratings and particularly those made of wrought iron, steel or other rolled metals, such as are now commonly used for flooring over vaults, areas, steps, platforms and the like, the top surfaces of which become polished and slippery with wear and thus become dangerous to the public and particularly in wet or frosty weather.

I am aware that there are numerous kinds of cast iron floorings or coverings made for this purpose, but heretofore the same have been provided with perforated, checkered or roughened surfaces in such a manner that when they become worn such roughened surfaces become polished and useless, whereas in my device the bars are so notched as to remain roughened to prevent slipping or insure better traction throughout the life of the grating as distinguished from the cast metal structures.

With the above and other objects in view, the invention resides in the peculiar combination and arrangement of parts to be hereinafter more fully described, illustrated and claimed, it being also an object to provide a device which is simple in construction, durable and efficient.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a perspective view of a fragmentary portion of a grating of one construction and notched in accordance with one form of my invention; Fig. 2 is a similar view illustrating a modified construction with a modified form of notching; Fig. 3 is a fragmentary side view of a portion of one of the grating bars notched as shown in Fig. 1; Fig. 4 is a fragmentary side elevation of a bar showing the method of notching the same illustrated in Fig. 2, and Fig. 5 is a similar view illustrating another method of notching the bars.

In carrying out my invention into practice, I desire to state that I do not claim the method of construction of the grating or the methods of support as applied to gratings of rolled metals as made at the present time, but what I do claim is the notching of the edges of the walking surfaces of the bars composing such gratings at intervals, thus breaking the surfaces which become polished with wear, while the notches at the same time form sheering edges so that the feet in whatever position they might bear upon the grating would meet with frictional resistance and thus prevent slipping.

In Fig. 1 of the drawings a grating is illustrated consisting of a plurality of spaced parallel bars 10 supported on edge and connected by rods 11 with interposed pipe separators or thimbles 12 to hold the bars in the position named and to generally rigidify the structure. In this form of grating the ends of the bars are left free to be supported on a suitable rabbet in the area frame or surface surrounding the area and the connecting and spacing means are preferably disposed near the ends and adjacent to the center portions of the bars and spaced apart in such relation as will allow the required strength for the particular span. In this view, and in Fig. 3, one method of notching the bars is illustrated in which right angular notches 14 are provided at spaced distances along the edges of the bars in transverse alinement or in staggered relation so that the edge portions 15 will form sheering edges adapted to prevent slipping either due to angular placing of the feet to cause the soles of the shoes to contact therewith or due to slight depression of the soles into the notches upon pressure being borne thereon.

In Fig. 2 of the drawings a different construction of grating is shown in which a plurality of bars 16 have reduced end portions 17 which are disposed through apertures in transverse end supports 18 in such a manner as to carry the grating bars, while centrally of the lengths of the bars a connecting rod 19 is provided on which are mounted pipe separators or thimbles 20, the same being disposed between the respective pairs of bars to hold the same uniformly spaced apart as well as to reinforce them against lateral pressure. In this figure, and Fig. 6, the bars are shown provided with dovetailed or undercut notches 21, the undercut walls providing sheering edges 22 which during

the wear of the bars are continually sharpened as in the aforesaid construction, the tendency of the wear on the bars being to cause their upper edges to be flattened and thus to assist in producing such sheering edges to more positively prevent slipping.

It will be noted from the figures of the drawings that the notches in all the different structures disclosed are such that under no circumstances will the wearing angle of the bar be less than 90°. For example, in Fig. 3, no matter how much the corner of the notch wears it will be always substantially 90° with the sides of the notch. In Fig. 6 the angle of wear can never be 90° but always less.

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

1. An area grating comprising bars each having notches in its upper wearing edge, and transversely disposed members uniting said bars and maintaining the same in spaced parallel relation, the angle formed by the sides of the notches with the wearing edge of a bar being substantially, or less than, 90°.

2. In an area grating, bars, each presenting a wearing, notched edge, the notches in the edge being so formed that the angle resulting by the intersection of the sides of the notches with the wearing edge of the bearing are substantially, or less than, 90°.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN F. STECKENREITER.

Witnesses:

JOHN E. BURCH,

PHILIP D. ROLLHAUS.