Feb. 16, 1926. 1,573,154

I. L. GELDER

GRATING

Filed Oct. 24, 1925

Fig. 1.

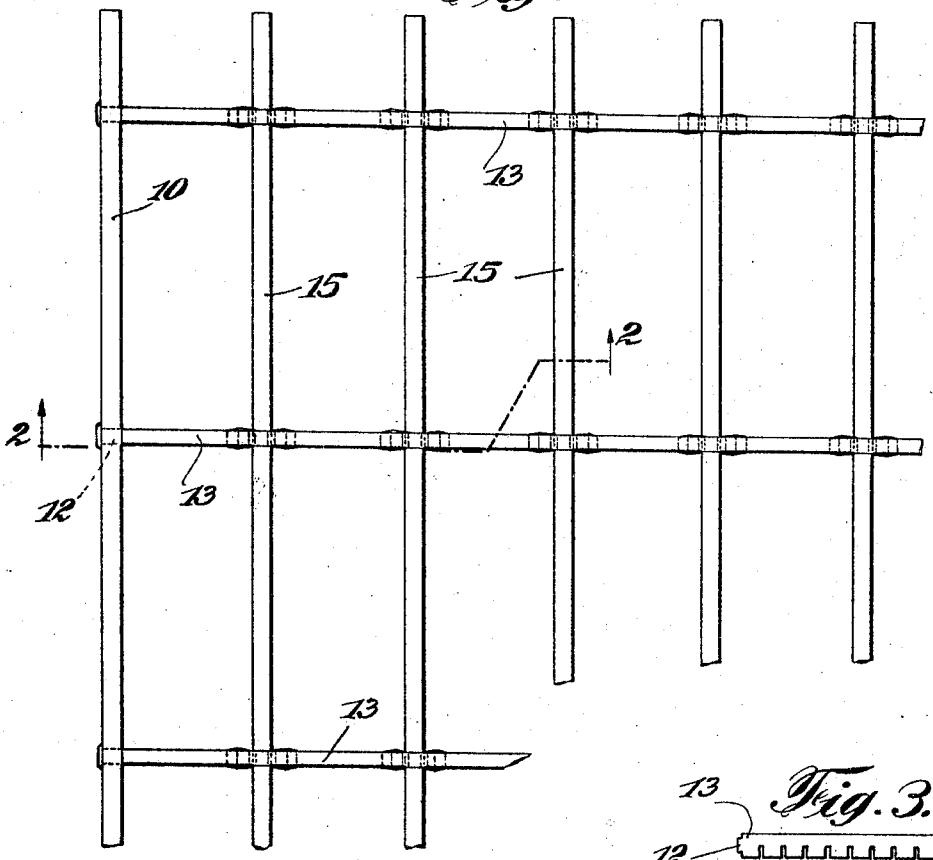


Fig. 3.

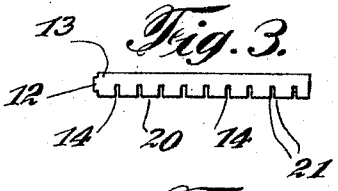


Fig. 2.

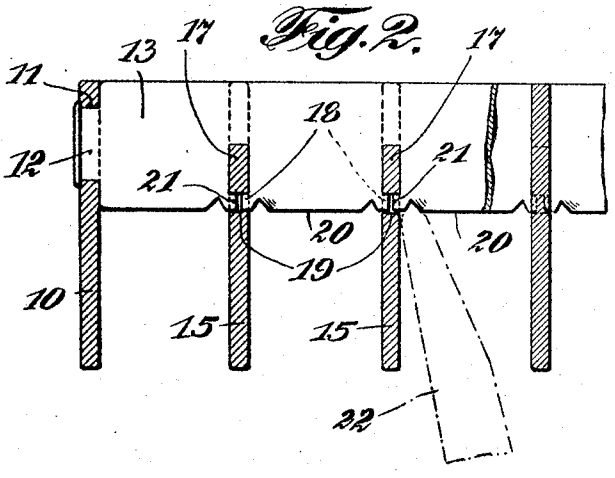


Fig. 4.

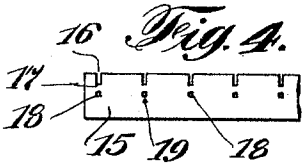
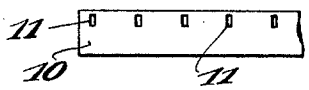


Fig. 5.



INVENTOR

Irving L. Gelder

BY Paul Klein

his ATTORNEY

Patented Feb. 16, 1926. 1,573,154

UNITED STATES PATENT OFFICE.

IRVING L. GELDER, OF BROOKLYN, NEW YORK.

GRATING.

Application filed October 24, 1925. Serial No. 64,516.

To all whom it may concern:

Be it known that I IRVING L. GELDER, a citizen of the United States, and resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Gratings, of which the following is a specification.

This invention relates to gratings and the process of making same.

One of the objects of this invention is a simple inexpensive and efficient method of interlocking bars of gratings or the like, by which method a rigid construction is produced which will not only withstand a severe thrust in vertical direction but also resist side motions of any kind.

Another object of my invention is to provide a rigid interlocking grating produced by my method.

The foregoing and further objects will be more fully apparent from the following discription and the accompanying drawings forming part of this disclosure and in which:—

Figure 1 is a top view of a grating,

Figure 2 is a cross sectional view taken on line 2—2 of Figure 1,

Figure 3 is a diminutive detail view of a cross bar employed in my grating,

Figure 4 is a diminutive detail view of a supporting bar and,

Figure 5 is a detail view of an end supporting bar of my grating.

Referring to the figures, numeral 10 denotes the end supporting bar of my grating which is provided at 11 with perforations to receive the reduced ends 12 of the cross bars 13. This reduced end protrudes beyond the end supporting bar 10 and is riveted firmly together with the latter.

The cross bars 13 are provided with slots indicated at 14 which extend in transverse direction to the bar and substantially to the center of its width. These slots may be made in various shapes depending whether or not a rectangularly joined grating is required or a grating having openings of other designs, as for instance diamond shape or the like.

Between the end bars is arranged a series of supporting bars indicated at 15. These supporting bars are provided with slots 16 disposed in transverse direction to the width of the bars and extending into the bars to a length which corresponds to the distance between the end of slot 14 and the upper edge of bar 13. In the direction of slot 16 of bars 15 and separated from the slots by a sufficient width of material indicated at 17 are provided apertures 18, the lower edge 19 of which corresponds with the lower edge 20 of cross bars 13.

The supporting bars and cross bars are joined at their slotted portions as clearly seen in Figures 1 and 2, and when thus joined the inner edges 21 of the slots 14 of the cross bars are forced into the apertures 18. This operation is indicated in Figure 2 where a tool 22 is shown which is adapted to force edges 21 of the slots 14 towards each other and into aperture 18. By this method a very rigid joint between the bars is produced. The bars can not move sidewise because of the interlocking of slots 14 and 16 of the cross and supporting bars, respectively. They can not disengage in vertical direction because the edges 21 of slots 14 interlock with apertures 18. It is therefore impossible for the cross bars to elevate beyond the upper face of the supporting bars. The method of joining grating bars in this manner is inexpensive and highly efficient and provides a solid grating which will withstand readily not only the wear and tear, but also transportation and handling. The thus produced grating is compact and void of any third medium as for instance, rivets which may work loose.

It is evident that various designs of gratings may be produced by the same method and it is therefore understood that I shall not be limited to the showing or the specific description of the method.

I claim:—

1. In an interlocking grating, a supporting member provided with a slot and an aperture, a cross member also provided with a slot and joined at its slotted portion with the slotted portion of said supporting member, the edges of the slots of said cross member engaging the aperture in said supporting member.

2. In an interlocking grating, a supporting bar member provided with a slot at one edge and perforated below the slot, a cross bar member provided with a slot extending substantially to half of its width, said cross bar member interlocking at its slotted portion with the slotted portion of said supporting bar member and having the edges of its slot extending into the perforation of said supporting member.

3. In an interlocking grating, a flat supporting bar intended to stand on edge and provided at its upper edge with a slot and perforated below said slot, a flat cross bar of lesser width than said supporting bar also provided with a slot extending substantially to half of its width, said cross bar resting with its slotted portion in the slot of said supporting bar, the edges of the slot of said cross bar interlocking with the perforation of said supporting bar.

Signed at New York, in the county of New York and State of New York this twentieth day of October, A. D. 1925.

IRVING L. GELDER.