Nov. 3, 1925. 1,559,697

M. G. HENN

PORTABLE TOURIST'S GRATE

Filed Sept. 13, 1922

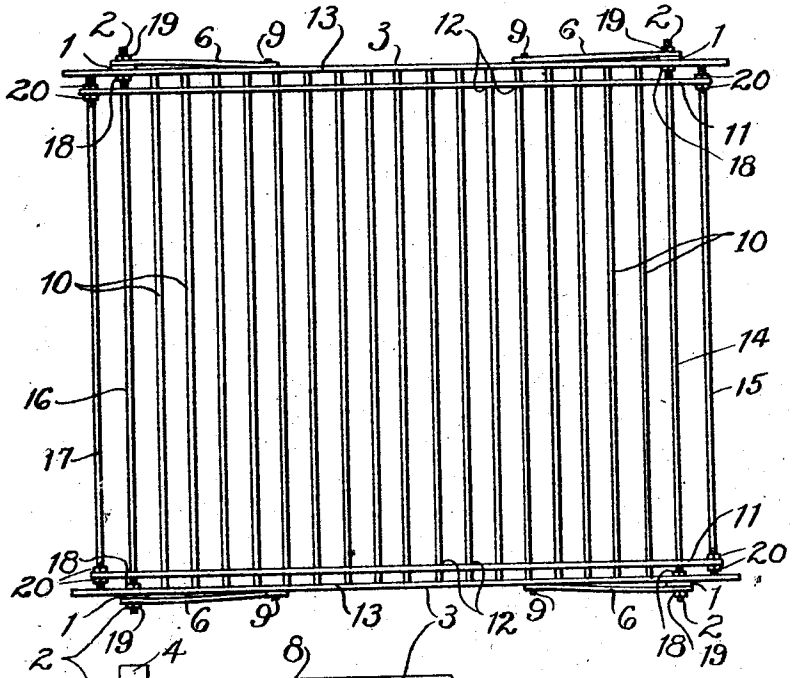


Fig. 1.

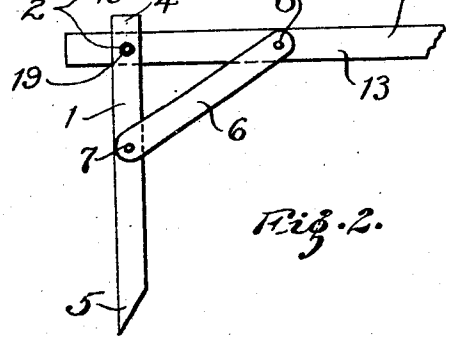


Fig. 2.

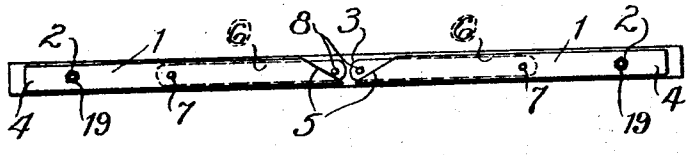


Fig. 3.

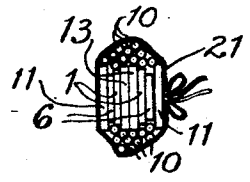


Fig. 4.

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UNITED STATES PATENT OFFICE.

MELVIN G. HENN, OF ST. LOUIS, MISSOURI.

PORTABLE TOURIST'S GRATE.

Application filed September 13, 1922. Serial No. 587,945.

To all whom it may concern:

Be it known that I, MELVIN G. HENN, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have invented new and useful Improvements in Portable Tourists' Grates, of which the following is a specification.

This invention relates to a portable tourist's grate, and it is intended to be especially useful to persons touring in automobiles or under similar circumstances, where the space for packing accessories is limited. The general object of the invention is to produce a grate of simple construction, the parts of which can be packed into a compact bundle, but which can be readily assembled so as to produce a rigid grate supported on legs above the ground. A further object of the invention is to provide a grate with legs having a special construction to facilitate their being driven into the ground, and also to enable them to be readily folded up out of the way when the grate is not set up for use.

Further objects of the invention will appear hereinafter.

The invention consists in the novel features, and in the general combination of parts to be particularly described hereinafter, all of which contribute to produce a simple and efficient portable tourist's grate. A preferred embodiment of my invention will be particularly described in the following specification, while the broad scope of my invention will be pointed out in the appended claims.

In the drawing:—

Figure 1 is a plan of the grate, and representing the same set up or standing upon its legs;

Figure 2 is a side elevation of one end of the grate and illustrating the construction of the corner legs and the means for bracing the same in position;

Figure 3 is a side elevation of the grate with the legs folded;

Figure 4 is an end elevation showing the compact bundle which may be formed by the parts of the grate when it has been taken apart.

The grate consists of a grid or body supported on four legs 1 which are preferably attached respectively by pivot pins 2 near the ends of two side bars 13, which form the sides of the grate. When these legs 1 are in the upright or vertical position (see Figure 2), a tail extension 4 of each leg projects above the plane of the grate so as to provide a point which may be struck by an axe or hammer to drive the point 5 of the leg into the ground.

The leg is preferably provided with a diagonal brace 6 which may be permanently secured at one end and disconnectible at the other end. In the present instance, the brace 6 is secured by a pivot pin or rivet 7 to the leg, and at the other end, is provided with an opening 8 which fits over a stud or pin 9 which projects from the outer face 3 of the side bar. This brace 6 should be constructed of strap iron or steel and be so constructed that it tends to press its face against the outer face 3 of the side bar 13. However, it is flexible enough to permit the end of the brace to be detached from the stud 9 simply by pulling the same outwardly. After this has been done, the legs may be folded against the sides of the grate (see Figure 3).

While this improvement described above, may be applied to a grate of any kind, I prefer to construct the grid or grate of a plurality of substantially parallel grid bars 10. These grid bars are simply rungs or round iron bars. They are preferably disposed substantially parallel and equidistant from each other.

In order to hold these bars spaced apart, I provide a pair of oppositely disposed distance bars 11, and these bars are provided with means for engaging the grid bars. In the present instance, the distance bars 11 are simply provided with openings at the points 12, through which the grid bars pass. These distance bars prevent lateral movement of the grid bars.

Means is provided for preventing longitudinal movement of the grid bars, and for this purpose, I provide a pair of side bars 13, each side bar 13 corresponding to one of the distance bars 11 and extending parallel therewith. These side bars 13 simply abut against the ends of the grid bars. I provide means for rigidly securing the side bars, and if desired, means is also provided for securing the distance bars against movement. For this purpose, I prefer to provide two tie-rods 14 and 15 at one end of the grid, and similar tie-rods 16 and 17 at the other end. The tie-rods 14 and 16 constitute means for securing the side bars 13 together. For this purpose, the ends of the tie-rods 14

and 16 are threaded and extend through the side bars. The projecting ends of these tie-rods constitute the pivot studs 2 for the legs 1. The tie-rods 14 and 16 may be provided with nuts 18 near each end against which the side bars 13 seat, and on the outer side of each leg, a nut 19 may be provided for securing the legs in place and for clamping the side bars against the inner nuts 18. The tie-rods 14 and 16 pass through openings in the distance bars 11 in the same manner as the grid bars 10. If desired however, these distance bars 11 may also be secured rigidly together by means of the tie-rods 15 and 17, which may pass through their ends, and the tie-rods 15 and 17 may be threaded to receive clamping nuts 20, which seat against the opposite faces of the distance bars to hold the same in position.

It should be understood that all the grid bars and the tie-rods are preferably constructed of round iron or steel, and the other bars are constructed of flat metal or strap iron.

If the tourist has sufficient space to carry the grate simply with the legs folded into the plane of the grate, as illustrated in Figure 3, the grate may be carried in a car folded in this way.

However, if desired, the tourist may take the grate completely apart and lay the rods and the side bars together in a parallel arrangement so that they may be tied into a bundle by means of cords, such as the cord 21, as illustrated in Figure 4, which shows such a bundle as viewed in end elevation.

It is understood that the embodiment of the invention described herein is only one of the many embodiments my invention may take, and I do not wish to be limited in the practice of my invention nor in my claims, to the particular embodiment set forth.

What I claim is:

1. A portable tourist's grate consisting of a plurality of substantially parallel grid bars, a pair of oppositely disposed distance bars extending transversely to the grid bars and having means for holding the grid bars against lateral movement, a side bar corresponding to each distance bar operating to hold the grid bars against longitudinal movement, and means for securing the side bars and the distance bars together.

2. A portable tourist's grate consisting of a plurality of substantially parallel grid bars, a pair of oppositely disposed distance bars extending transversely to the grid bars and having openings therethrough receiving the grid bars and holding the same against lateral movement, means for holding the grid bars against longitudinal movement, and means for securing the distance bars to each other.

3. A portable tourist's grate consisting of a plurality of substantially parallel grid bars, a pair of oppositely disposed distance bars extending transversely to the grid bars and having means for receiving the grid bars to hold the same against lateral movement, a side bar corresponding to each distance bar and abutting the ends of the grid bars to hold the same against longitudinal movement, and means for securing the side bars and the distance bars together.

4. A portable tourist's grate consisting of a plurality of substantially parallel grid bars, a pair of oppositely disposed distance bars extending transversely to the grid bars and having substantially equidistant openings therethrough to receive the grid bars, and operating to hold the same against lateral movement, a tie-rod at each end of the grate, and means for securing the same to the ends of the distance bars.

5. A portable tourist's grate consisting of a plurality of substantially parallel grid bars, a pair of oppositely disposed distance bars extending transversely to the grid bars, distance bars having openings receiving the grid bars for holding the same against lateral movement, side bars disposed substantially parallel respectively with the distance bars abutting against the ends of the grid bars and operating to prevent longitudinal movement of the same, and a tie-rod at each end of the grate for securing the side bars together.

6. A portable tourist's grate consisting of a plurality of substantially parallel grid bars, a pair of oppositely disposed distance bars extending transversely to the grid bars and having means for holding the grid bars against lateral movement, a side bar corresponding to each distance bar abutting against the ends of the grid bars operating to hold the same against longitudinal movement, and tie-rods connecting the side bars and the distance bars and securing the same.

In testimony whereof, I have hereunto set my hand.

MELVIN G. HENN.