(No Model.)

C. W. TROTTER.

MAT.

No. 418,299. Patented Dec. 31, 1889.

Fig. 1.

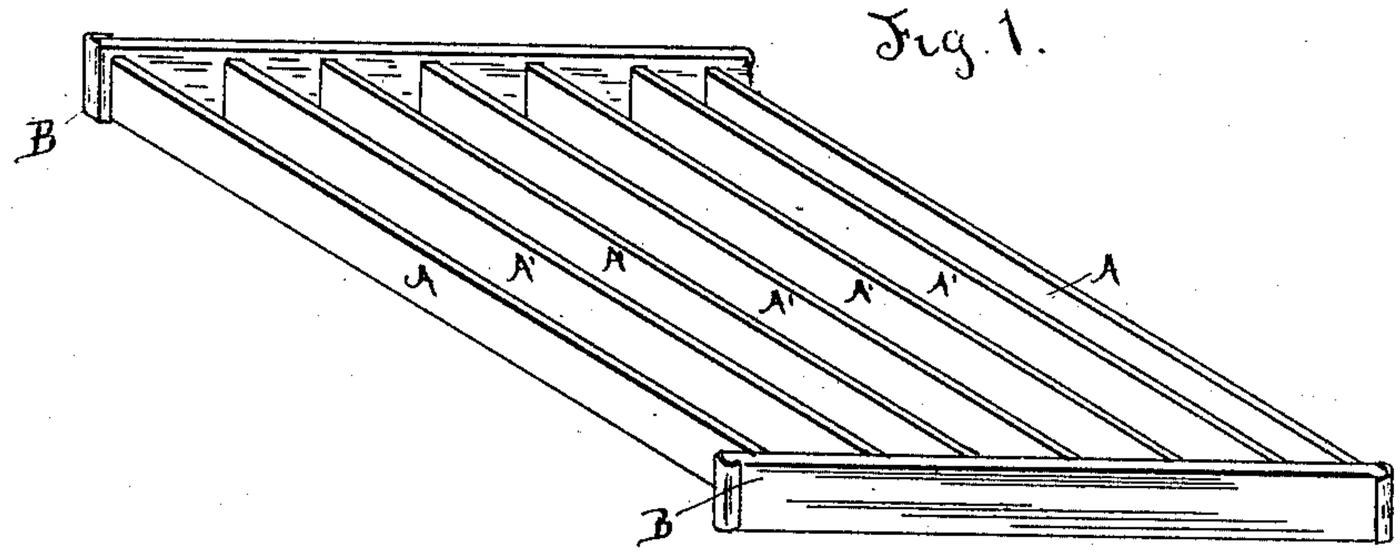


Fig. 2.

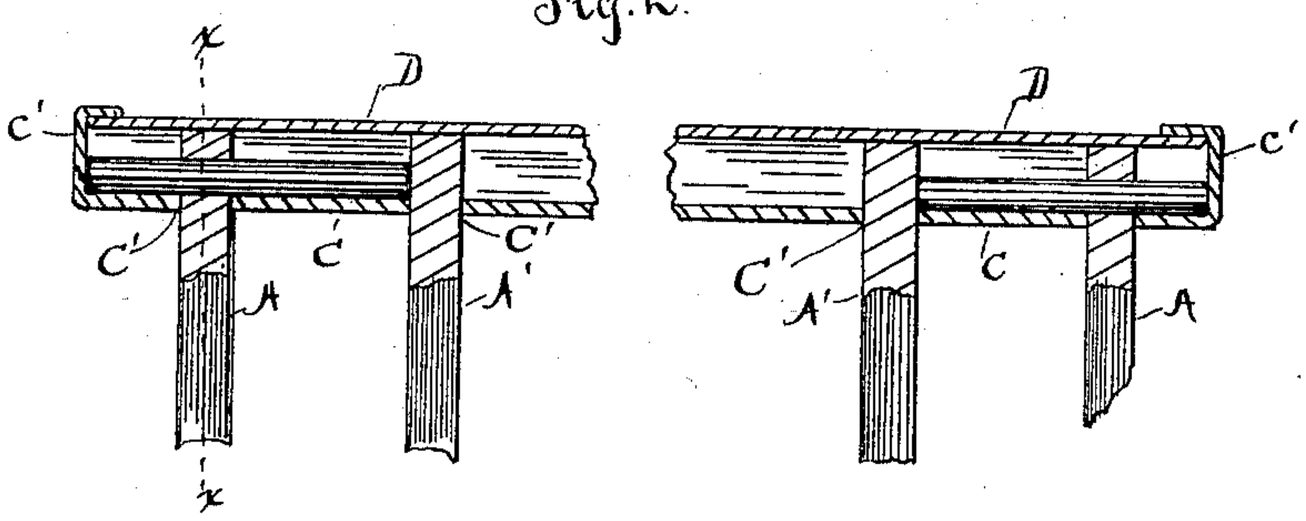


Fig. 4.

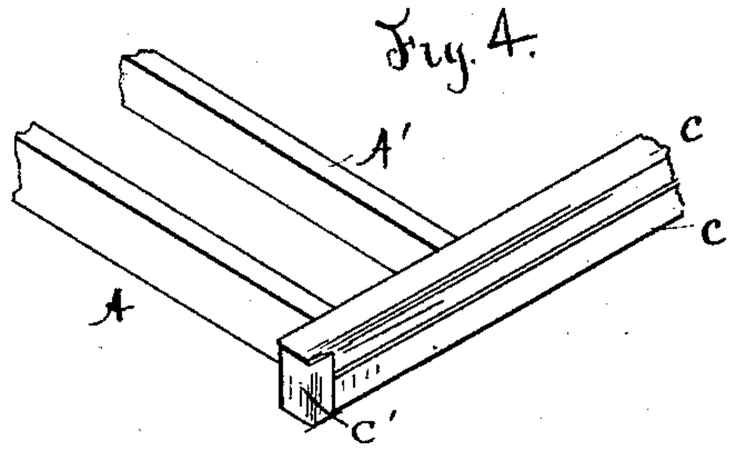
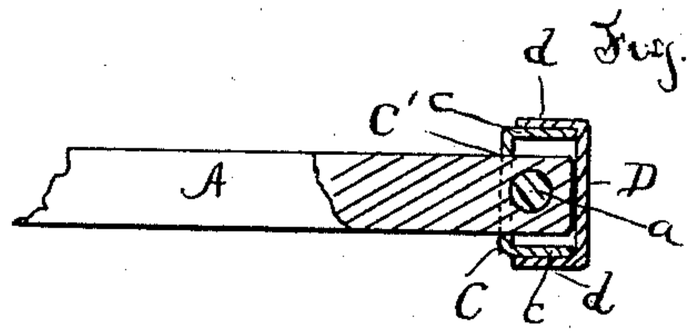


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES W. TROTTER, OF ROCHESTER, NEW YORK.

MAT.

SPECIFICATION forming part of Letters Patent No. 418,299, dated December 31, 1889.

Application filed September 5, 1889. Serial No. 323,047. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. TROTTER, of the city of Rochester, county of Monroe, and State of New York, have invented certain new and useful Improvements in Mats; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to letters of reference marked thereon.

My present invention relates to metal mats or gratings adapted for use either as door-mats or as gratings to form shelves for refrigerators, or for any other purpose desired, and has for its object to provide a mat that can be easily and cheaply put together without the nesessity of employing skilled workmen; and it consists in certain improvements and constructions of parts, all as will be hereinafter described, and the novel features pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 represents a perspective view of a portion of mat or grating constructed in accordance with my invention; Fig. 2, a horizontal sectional view showing the means of fastening the end strips; Fig. 3, a vertical section on the line *x x;* Fig. 4, a view of a modification.

Similar letters of reference indicate similar parts.

The body or central portion of my mat or grating consists, in the present instance, of a series of metal rods or strips A A′, which may or may not be connected at intervals by suitable cross rods or strips, said strips or rods being connected by suitable end pieces B and held securely together. The ends B of the mat are preferably constructed of two pieces of sheet metal C and D, the former provided with suitable perforations C′, through which the ends of the longitudinal strips A A′ pass, and connected to two or more of them, preventing their inward movement, and the latter D connected to piece C and preventing the movement of the strips A A′ in the other direction, at the same time covering the strip ends, giving a finished appearance to the mat and materially strengthening it.

In the present construction I provide the piece C with the side flanges *c c*, which serve to strengthen it and prevent bending, and piece D with corresponding flanges *d d*, adapted to fit over and have a bearing upon the first-mentioned ones, and prefer to fasten the parts together by forming on the ends of pieces C small flanges *c′*, adapted to be turned over the ends of pieces D, as in Fig. 2, securely clamping the parts together, thereby forming a tubular end piece, in which the ends of strips A A′ are confined. As a means for attaching the strips to the end pieces, I form perforations *a* in the ends of two or more of them, preferably those on the ends, and pass keys *b* through, outside of piece C, as shown, said keys being long enough to touch the second strips from the end, preventing their inward movement, while the flanges *c′*, when turned up to lock parts C and B together, will prevent their outward movement. The outward movement of the longitudinal strips is effectually prevented by the outside pieces D, and their bearing against the sides of the apertures C′ holds them securely, though, if desired, they could be otherwise secured together on the outside of piece C. While I prefer to form the end-securing flanges *c′* on the piece C, it is obvious that they could be formed on piece D and clasp around the ends of C. The parts constituting the end pieces can be cut and struck up from sheet iron or steel, and the mat can be readily put together by unskilled workmen at very slight cost. When designed to use it as a floor-mat, the ends can be made as stiff as may be necessary, and if desired the longitudinal strips can be secured together between the ends by transverse strips, the latter being secured in place in any suitable manner. It is, of course, desirable that the mats be galvanized, which may be accomplished by coating the parts separately, or, if desired, after being put together, in which latter event the galvanizing material will serve to, in a measure, solder the parts together, and consequently this manner of finishing the mat is preferred. In some instances the outside piece D of the ends B may be dispensed with and the flanges *c c* on piece C made longer and turned over, as in Fig. 4, to confine the ends and prevent the longitudinal movement of the strips A A′. In this construction also the end flanges *c′* perform the operation of locking the flanges

c c down and confining the locking keys or pins in position.

Other modifications could be made without departing from the spirit of my invention, and I therefore do not desire to be confined to precisely the construction shown.

I claim as my invention—

1. In a mat, the combination, with the longitudinal strips or rods, of the perforated end strip, the locking key or pin passing through one of the longitudinal strips, and the flange or projection on the end strip for holding said key in position, substantially as described.

2. In a mat, the combination, with the longitudinal strips or rods, of the perforated end strip having the longitudinal flanges, the locking-key passing through one of the longitudinal strips, and the flange or projection on the end strip for holding said key in position, substantially as described.

3. In a mat, the combination, with the perforated end strip, of one or more longitudinal strips or rods passing through the end strip, a locking-key for securing the longitudinal and end strips together, located on the outside of the latter, and the covering-pieces secured to the end strip and covering the locking-key, substantially as described.

4. In a mat, the combination, with the longitudinal strips or rods, of the perforated end strip having the longitudinal flanges, a device for locking one or more of the longitudinal strips to the perforated strip, the covering-strip having the flanges corresponding to those on the perforated strip, and means for locking said strips together, substantially as described.

5. In a mat, the combination, with the longitudinal strips or rods, of the perforated end strip having the longitudinal flanges and the flange at the end, a locking device for securing one or more of the longitudinal strips to it, and the covering-strip having the horizontal flanges corresponding with those on the perforated strip, substantially as described.

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