(No Model.)

W. B. KEYSER & J. A. BUSH.

SHELF FOR REFRIGERATORS.

No. 577,758. Patented Feb. 23, 1897.

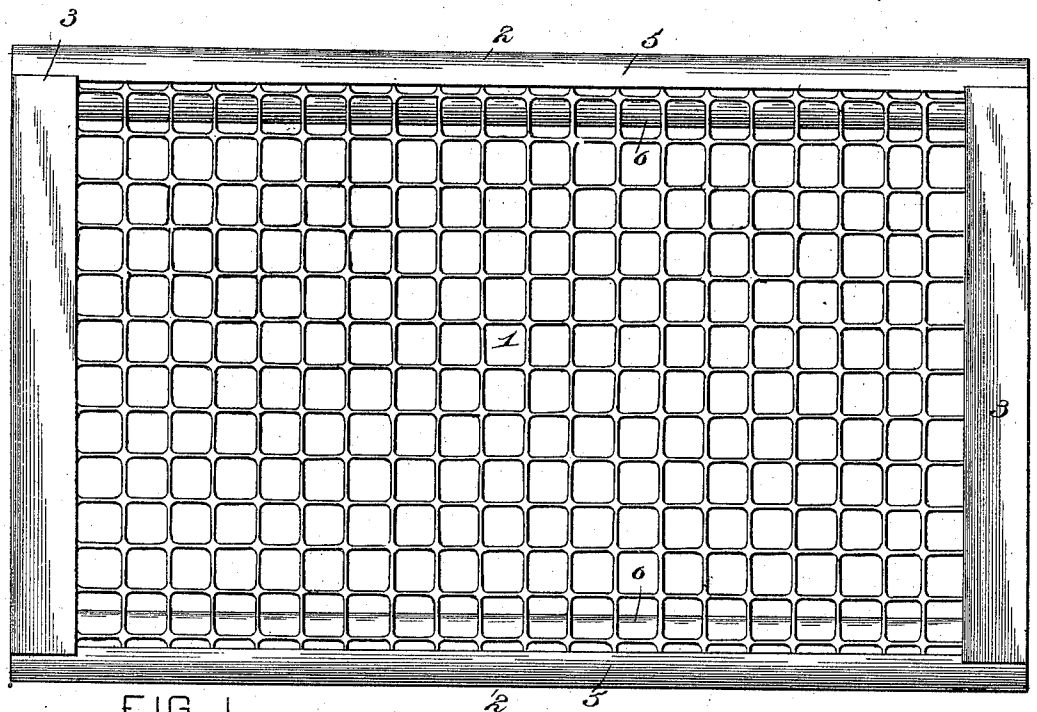

FIG_1_

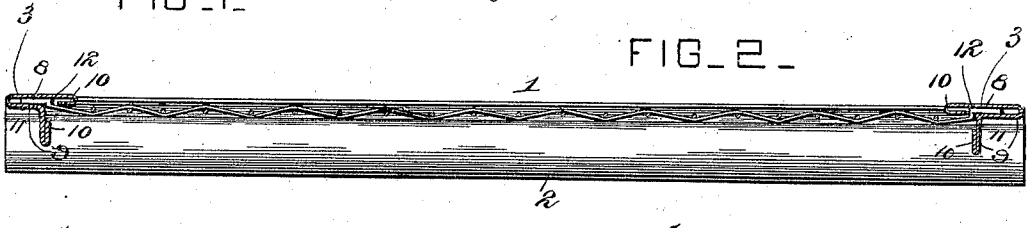

FIG_2_

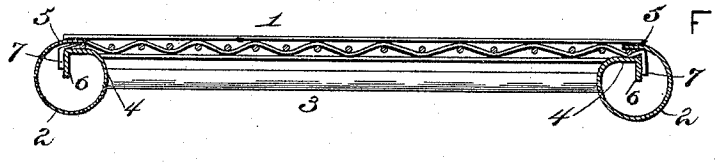

FIG_3_

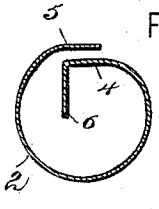

FIG_4_

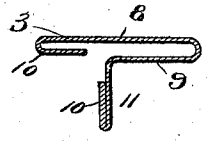

FIG_5_

Inventors

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and
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Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM B. KEYSER AND JAMES A. BUSH, OF CHATTANOOGA, TENNESSEE, ASSIGNORS TO THE KEYSER MANUFACTURING COMPANY, OF SAME PLACE.

SHELF FOR REFRIGERATORS.

SPECIFICATION forming part of Letters Patent No. 577,758, dated February 23, 1897.

Application filed June 13, 1896. Serial No. 595,458. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM B. KEYSER and JAMES A. BUSH, citizens of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented a new and useful Shelf for Refrigerators, of which the following is a specification.

This invention has for its purpose to devise a metal rack for refrigerators and other places where a metal shelf is desirable and which will be light, stiff, insure a free circulation of air, and present a surface which will obviate the tilting of articles placed thereon having a small base. Metal racks or shelves having parallel bars to secure the requiste strength, durability, and circulation of air must needs have the bars spaced apart and made comparatively wide. Hence when placing articles upon the shelf having a small base care must be exercised to place the article squarely upon one or the other of the bars; otherwise it will tilt and topple over, and if it be a vessel containing a fluid the latter will be spilled.

The purpose of this invention is to enable the use of wire fabric in the construction of shelves and racks, said fabric forming the body of the rack and being secured at its edges to a metal frame constructed solely of sheet metal so formed as to provide a stiff and substantial structure, the edges of the wire fabric interlocking therewith, resulting in a neat, light, durable, and cheaply-constructed shelf or rack for attaining the foregoing-noted advantages and such others as may pertain to the nature of the invention.

For a full understanding of the invention, its merits and advantages, reference is to be had to the accompanying drawings and the following description, in which corresponding and like parts are indicated by the same reference-characters.

Figure 1 is a top plan view of a rack or shelf constructed in accordance with the principles of this invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a transverse section of the same. Fig. 4 is an enlarged section of a side bar. Fig. 5 is an enlarged section of an end bar.

The shelf or rack comprises a body 1, of wire fabric, and a frame, the latter formed of side bars 2 and end bars 3, which are secured together at their meeting ends in any convenient way, preferably by soldering. The side bars 2 are similarly constructed and are tubular, being formed of a strip of sheet metal, such as zinc, galvanized iron, or tin, said strip being curved or rolled between its longitudinal edges, providing an inner edge portion 4 and an outer edge portion 5, which overlap and are spaced apart a distance corresponding to the thickness of the wire fabric 1, which is placed between them. The inner part 4 has an edge portion 6, bent inward toward the center of the tube, so as to stiffen and strengthen the bar and at the same time provide a flange for the bent edge portion 7 of the wire fabric 1 to bear against. This bent portion 7 also materially strengthens the side bar and prevents its bending when the shelf or rack is loaded. The edge portions of the wire fabric are bent and slipped endwise into the tubular side bars and interlock with the latter by engaging with the bent edge portions 6, as previously described.

The end bars 3 are constructed substantially alike and are formed from a strip of sheet metal, which is folded upon itself midway of its edges, providing the parts 8 and 9, which are spaced apart and extend in parallel relation and having the edge portions folded inward, as shown at 10, to reinforce and stiffen the edges and at the same time obviate sharp edges and give a neat finish. The edge portion of the lower part 9 is bent about at right angles, as shown at 11, to stiffen the end bar and prevent its sagging or bending when the rack is weighted. This part 11 forms in effect a bracing-rib and adds materially to the strength of the end bar. The part 11 is bent on a line coming inside of the folded edge 10 of the part 8, enabling an offset 12 to be formed in the end portion of the wire fabric, which will engage with the inner edge of the upper part 10, thereby assisting in retaining the end portion of the wire fabric in engagement with the end bar. To insure a positive engagement of the end portions of the wire fabric with the end bars, so as to obviate accidental disengagement, these parts may be secured together by soldering, but generally this will not be necessary.

A shelf or rack constructed substantially as herein set forth possesses strength, is durable, can be easily cleaned, affords an extended bearing for articles having small bases, and attains a maximum amount of circulation of air, which is desirable in refrigerators to insure the rapid escape of noxious odors, moisture, and warm air.

Having thus described the invention, what is claimed as new is—

1. In a rack or shelf for refrigerators, &c., the combination of a tubular frame-bar constructed of a strip of sheet metal rolled between its longitudinal edges and having the edge portions overlapping and spaced apart, and having the edge portion of the inner part bent inwardly and extending substantially toward the center of the tube, and a body portion slipped into the tubular frame-bar and having its edge bent to engage with the said inner bent edge portion of the frame-bar, substantially as set forth.

2. The combination of a body, and an end frame-bar formed of a strip of sheet metal having its edge portions inwardly folded and doubled upon itself between its edges, and receiving an edge portion of the body between the folded parts, and having an edge portion of a folded part bent about at right angles on a line inside of the folded edge portion of the opposite part, whereby an offset is had in the said body, substantially as shown for the purpose described.

3. The herein shown and described shelf or rack for refrigerators, &c., comprising a wire-fabric body having its edge portions bent about at right angles, and a metal frame composed of side and end bars secured together in a substantial manner, the side bars being tubular and formed of a strip of sheet metal curved between its edges into a tubular form, and having an inner and an outer edge portion and an inwardly-extending part, the edge portions of the wire body being received between the said inner and outer edge portions in the manner set forth, and the end bars being formed of a metal strip folded between its edges to receive the adjacent edges of the wire-fabric body, and having the edge portions of the lower parts bent about at right angles, substantially as shown for the purpose set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WM. B. KEYSER.
JAMES A. BUSH.

Witnesses:
JAMES H. KEYSER,
ALBERT E. KEYSER.