

(No Model.)

T. V. ALLIS & R. H. WOLFF.
METALLIC DOOR MAT.

No. 421,040.

Patented Feb. 11, 1890.

Fig. 1.

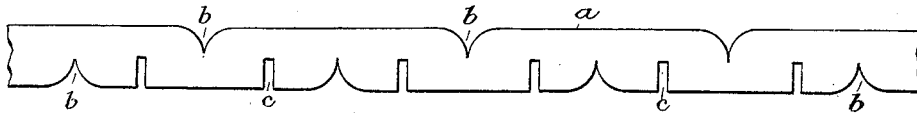


Fig. 2.

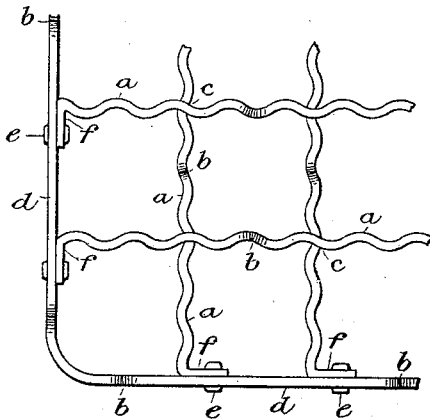


Fig. 4.

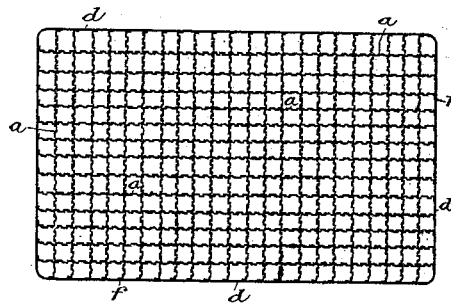
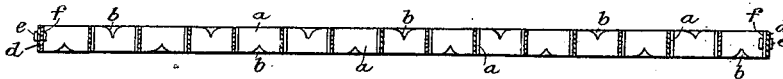


Fig. 3.



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UNITED STATES PATENT OFFICE.

THOMAS V. ALLIS AND RAPHAEL H. WOLFF, OF NEW YORK, N. Y.

METALLIC DOOR-MAT.

SPECIFICATION forming part of Letters Patent No. 421,040, dated February 11, 1890.

Application filed January 18, 1889. Serial No. 296,726. (No model.)

To all whom it may concern:

Be it known that we, THOMAS V. ALLIS and RAPHAEL H. WOLFF, citizens of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Metallic Door-Mats; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention comprises improvements in the form or contrivance of the metallic strips of which the mat is made to facilitate the scraping of mud from the shoes and to prevent slipping on the mat, also improvements in the manner of uniting and securing the strips together in the mat, all as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a strip such as we provide for our improved mat. Fig. 2 is a plan view of a section out of a corner of our improved mat, these two views being about full size. Fig. 3 is a longitudinal sectional elevation of the mat on a smaller scale, and Fig. 4 is a plan view of a complete mat on a still smaller scale.

We take metallic strips *a*, of approved width and thickness, the same being about as represented in Figs. 1 and 2, but variable, as circumstances may require, and make V-shaped notches *b*, having rounded or convex sides, as shown, at intervals along each edge alternately, and being of suitable depth to form scrapers for the edges of the shoe-soles, the strips being so placed together in the mat that the notches of all the strips lying in one and the same direction come in lines transversely to the strips, forming channels or grooves across the mat, and also so that these grooves or channels are located midway, or thereabout, between the strips lying in the same direction with them. The notches *b* are also useful to prevent slipping sidewise, and for this purpose are alike useful, whether arranged in line, as described, for the scraper-grooves or not, and when used for this purpose only we do not limit ourselves to the alignment of the said notches. We also in some cases crimp these strips sidewise in short and rather abrupt crimps of two or more

crimps to the mesh of the completed mat, as shown, or to the distance of the strips apart suited to prevent slipping lengthwise of the strips when snow and ice adhere to the soles of the shoes, and then notching them, as at *c*, suitable for "halving" them together crosswise and edgewise. As is common in the making of mats of strips of any kind, we set up the slats comprising the web and secure them in a frame consisting of the binding-strip *d*, which may have notches *b* or not, as preferred, by bending the ends *f* parallel to and so as to bear on the inside of the binding-strip, and riveting said ends thereto, as at *e*. It will be seen that with these scraper-notches rounded or convexed, so as not to form angles that would cut the shoes, and arranged in lines practically constituting grooves in the face of the mat, very efficient scrapers are produced for cleaning the edges of the shoe-soles by turning the feet sidewise, so as to run the edges of the shoes along the grooves, and the short and abrupt crimps, such as we represent, are adapted to prevent slipping lengthwise along the strips, which is very liable when the strips are straight, and even where the strips are made with long parallel corrugations, as they sometimes are.

It is better for preventing slipping that the crimps of the different strips are not parallel, and we prefer to so arrange them; but, being short, they are effective either way, and they are also useful in mats having strips arranged in only one direction.

We arrange the strips in the mat irrespectively as to the order of the crimps of the respective strips—that is, whether the crimps come parallel or not. For example, as in Fig. 2, in which the crimps are parallel in the strips of one direction and are reverse to each other in the strips of the other direction.

Our mat is reversible and alike useful either side up, the strips being notched in both edges; but of course the strips may only be notched on one edge, if so desired. The manner of fastening the web of the inner part to the binding-frame is alike useful for strips of any form, and however interwoven or crossed, and whether made with scraper-notches and crimped or not, and is very simple, and enables the assembling and securing the parts with very little care and trouble.

What we claim, and desire to secure by Letters Patent, is—

1. A strip for metallic mats, said mats composed of two series of plain flat parallel strips crossing each other at right angles and being set up edgewise, said strip consisting of a plain flat strip having notches in one edge for connection with the crossing-strips, and also notches in one or both edges intermediate to said notches for the crossing-strips, substantially as described.

2. A mat made of metallic strips set edgewise upward and having notches with rounded corners in the edge or edges, substantially as described.

3. A mat made of metallic strips set edgewise upward and having notches with rounded corners in the edges alternately along the same, substantially as described.

4. A mat made of metallic strips set edgewise upward and having scraper-notches with rounded or convex sides in the edges and arranged in line, forming scraper-grooves in the face of the mat, substantially as described.

5. A mat composed of metallic strips set edgewise side by side and being corrugated sidewise with short abrupt crimps adapted to prevent slipping lengthwise on the strip and placed irrespectively as to the order of the crimps of the respective strips.

6. A mat made of longitudinal and cross metallic strips set edgewise upward and having scraper-notches with rounded or convex sides in the edges and arranged in lines forming scraper-grooves in the face of the mat, and also having two or more short abrupt sidewise crimps to the mesh of the cross-strips or to the distance of the parallel strips apart, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

THOMAS V. ALLIS.
RAPHAEL H. WOLFF.

Witnesses:

W. J. MORGAN,
A. P. THAYER.