

S. LEWIS.
WOOD-MATS.

No. 180,771.

Patented Aug. 8, 1876.

Fig. 1.

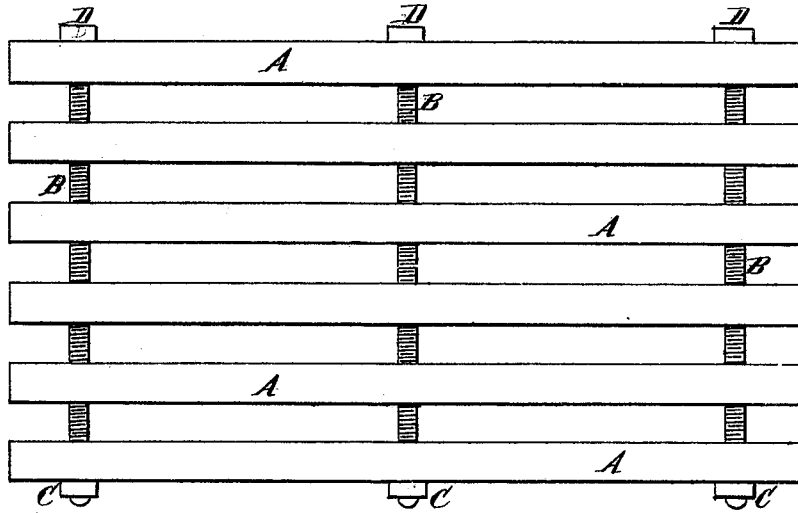
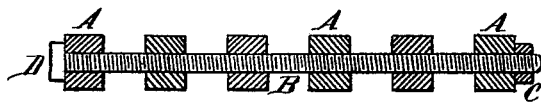


Fig. 2.



Witnesses
Edwin M. Donnelly
Robt. H. Dureau

Inventor
Samuel Lewis
By Thos. P. How
Atty.

UNITED STATES PATENT OFFICE.

SAMUEL LEWIS, OF BROOKLYN, E. D., NEW YORK.

IMPROVEMENT IN WOOD MATS.

Specification forming part of Letters Patent No. **180,771**, dated August 8, 1876; application filed January 22, 1876.

To all whom it may concern:

Be it known that I, SAMUEL LEWIS, of Brooklyn, E. D., in the county of Kings and State of New York, have invented certain Improvements in Wood Matting, of which the following is a specification:

This invention relates to that class of matting composed of wooden slats placed apart from each other, so as to allow dirt to fall between the slats or sticks of which the matting is composed; and is designed to furnish a cheaper as well as better mode of construction.

Said invention consists in a mat, of the general construction above mentioned, and composed of slats, properly spaced apart from each other, and connected by screw-rods extending through the slats, and screwed into and through them, so that the slats form nuts upon the said screw-rods, and are thereby kept in place and at a proper distance apart from each other, substantially as hereinafter more fully set forth.

Figure 1 is a plan of a section or portion of my improved mat. Fig. 2 is a vertical section of the same, taken along the line of one of the screw-rods which unite the slats, the rod being shown entire.

A A are the wooden slats, which form the principal portion of the mat. B B are screw-rods, which unite the slats A A and keep them in their proper relative positions. These rods B are screw-threaded throughout their entire length. The slats A having been properly made and finished, and having had holes, slightly smaller than the rods B, bored through them at the proper points to receive the said rods, the rods B are then screwed through the entire series of slats designed to form the mat, or the section or portion of it designed to be constructed in one piece or section, care being taken to keep the slats A A at the proper distance apart from each other to form the mat. This is very well done by means of a frame having notches to embrace the slats A at the ends and hold them in the proper position, and at the proper distance apart. The rods B may be very well screwed through the series of slats by means of a bit-brace or some equivalent device which will grasp the head of the rod, or one end of it, and furnish means for turning it rapidly to screw it into place. The nuts C are then screwed upon the ends of the rods to

keep the sections of the mat apart, when used in a railroad-car, or in other position, and also to give additional strength to the mat at the ends of the rods; or, if there be heads D at one end of the rods B, the nuts are screwed upon the other, care being taken that the nuts, and the bolt-heads, if any, shall be brought home snugly against the outer slats, and the mat is complete.

The rods B can be very well threaded by passing them through dies in a bolt-threading lathe, and probably this may be the best and most convenient mode of performing this portion of the work. They should be completely screw-threaded from end to end, or from one end to, or nearly to, the head upon the other end, if there is such head, so that every slat shall be held in position by the screw-threads upon the rods B B.

The holes in the slats A for the reception of the rods B should be sufficiently smaller than the outer circumference of the said rods, to form a perfect and closely-fitting and firm thread upon the rods B when they are introduced, so as to secure the slats A firmly in position—so firmly that they will not be liable to displacement by any ordinary or reasonable usage.

The nuts C and the heads D may be dispensed with, if desired, though I prefer to use them for the purposes already stated.

The slats may be of any form desired—as, for example, they may be rounded or beveled on the top or bottom, or both; or they may be diamond-shaped, with a flat, or slightly-flattened, portion upon the edge, to give a proper bearing to stand upon.

This mode of construction furnishes a wood matting admirably adapted to use in street-cars, and in other locations where such matting is required; and this matting is firm and substantial, and not liable to get out of order, being exempt from most of the destructive casualties to which most other wood mattings designed for the same uses are liable. It is also cheaper than any other wood matting which is at all reliable.

Wood matting in which the slats are kept properly separated and spaced apart from each other by wooden blocks or washers, or washers made of any rigid material, is liable to dis-

ruption by the swelling of the wood of the slats, and, perhaps, of the washers, when the mat is subjected to moisture; and though this difficulty has been, to a great extent at least, obviated by the use of india-rubber washers, these are nevertheless quite expensive, and add very greatly to the cost of construction.

This invention, however, obviates all these objections, as the slats, being entirely isolated from each other, cannot, by the swelling of the wood, caused by moisture, crowd off the nuts or the heads of the bolts, or break the rods which unite them, while at the same

time, by this construction, a perfectly firm and substantial mat is produced.

I claim as my invention—

A matting made of slats A, united and held in position apart from each other by rods B screwed through them, the said slats forming nuts upon the rods B, substantially as hereinbefore set forth.

SAMUEL LEWIS.

Witnesses:

H. A. D'ARCY,
THOS. P. HOW.