No Model.)

H. E. LAUGHLIN.

DOOR MAT.

No. 385,561. Patented July 3, 1888.

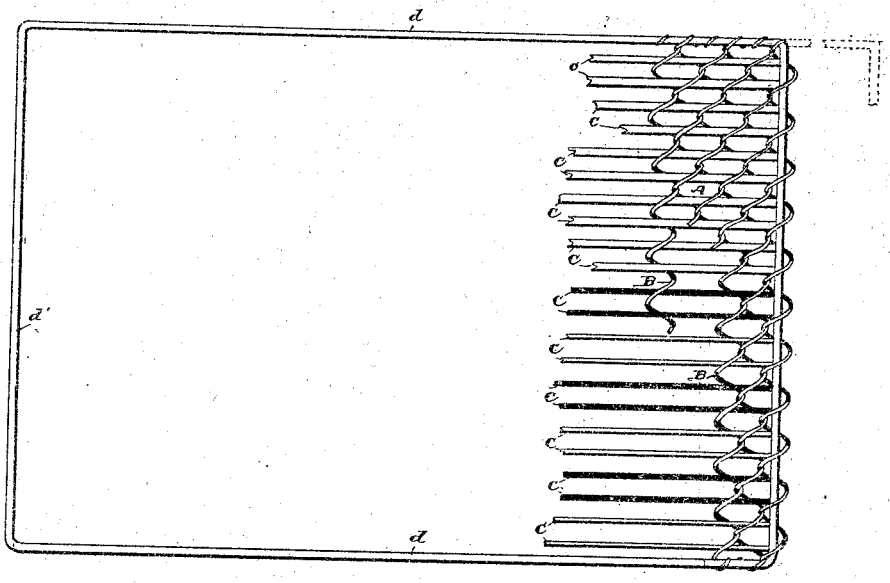

Fig. 1.

Fig. 2

Fig. 3.

WITNESSES.
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UNITED STATES PATENT OFFICE.

HOWARD E. LAUGHLIN, OF CLEVELAND, OHIO.

DOOR-MAT.

SPECIFICATION forming part of Letters Patent No. 385,561, dated July 3, 1888.

Application filed February 4, 1887. Serial No. 226,516. (No model.)

To all whom it may concern:

Be it known that I, HOWARD E. LAUGHLIN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Door-Mats; and I do here by 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 pertains to make and use the same.

My invention relates to improvements in door-mats, in which the body of the mat is formed of interlocking spiral coils of wire arranged substantially as in a well-known class of bed-springs, and a binder secured around the outer edges of the interlocked coils. A filling consisting of strips of wood, metal, or other suitable material is inserted in the respective coils, to the end that the filling holds the wire fabric distended and prevents the coils from being crushed when stepped upon, by reason of which the wire can be much lighter than would otherwise answer the purpose, and consequently the mat can be made at a reduced initial cost.

In the accompanying drawings, Figure 1 is a plan view of part of a mat embodying my invention. Fig. 2 is a cross-section, and Fig. 3 is an edge view in side elevation.

The body of the mat A is made of a series of spirally-coiled wires, B. The wire is passed through a machine that gives the desired spiral form and imparts a rotating movement to the coil as it is discharged from the machine. A coil previously made is laid upon a table in position for the forthcoming coil by means of the rotating movement of the latter to interlock with the folds of the stationary coil. This is repeated until a fabric of the desired width is had, and usually of considerable length, and the fabric is afterward cut into suitable lengths, according to the uses for which it is intended—bed-springs, door-mats, &c. A filling consisting of strips, C, is inserted in the meshes of the fabric, usually crosswise of the coils. The strips C are usually of wood, although they may be of metal or other suitable material; but wood is preferable on account of its cheapness. The strips C, if of wood, are usually about three-sixteenths of an inch, more or less, in thickness and as wide as will fit snugly into the meshes of the wire fabric. The lead of the spirals is usually about equal to the diameter of the coils, and in such case the meshes for receiving the filling will be about equal either lengthwise or crosswise, and the filling may therefore be inserted in either direction; but I usually insert the filling crosswise of the coils as being better adapted to hold the fabric distended. Different-colored wood may be employed in the filling to make the mat more ornamental, and here and there a filling-strip may be omitted to give greater variety. When metal filling is used, I usually make the same of thin galvanized sheet-iron cut into strips of suitable width. Here and there such iron strips may be used with good effect with wooden filling. The filling-strips of course set edgewise and prevent the coils of wire from being crushed, and consequently comparatively small wire may be used, thus greatly reducing the weight and the initial cost of the mat. As the filling-strips are thin, there is ample space left for the dirt to fall through the mat. For a binding around the edges of the mat I use preferably half-round iron about the same width as the filling-strips. This half-round iron is cut into lengths to reach round the respective mats, and is bent flatwise and at right angles to form the legs *d* a suitable distance apart to enter the two sides of the mat. The part *d'* between the legs *d*, as it is brought against the end of the mat, is secured by a coil woven to the body of the mat, the end of the coils being bent to leave the ends thereof inside the legs *d*. Next, the ends of the legs protruding beyond the other end of the coil (see dotted lines, Fig. 1) are bent down next to the end of the mat, and secured in the manner just described by weaving a coil around the binding. This completes the mat.

Door-mats of such construction will be found very serviceable, and are made at a small initial cost.

What I claim is—

1. In door-mats, the combination, with a border and a wire fabric made up of a series of spirally-coiled interlocked wires secured to said border, of rigid filling-strips arranged at right angles to the coiled wires and adapted to hold them distended and support the coils against collapsing, substantially as set forth.

2. In a door-mat, the combination, with a wire fabric made up of a series of spirally-coiled interlocked wires and rigid filling-strips, substantially as indicated, of a binder arranged about the edges of the mat, the same being inserted in the two outer coils of the mat, and secured across the other sides by the ends of the respective coils, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 7th day of January, 1887.

HOWARD E. LAUGHLIN.

Witnesses:
CHAS. H. DORER,
ALBERT E. LYNCH.