(No Model.)

D. C. STOVER.

WIRE FABRIC.

No. 361,334. Patented Apr. 19, 1887.

Fig. 1.

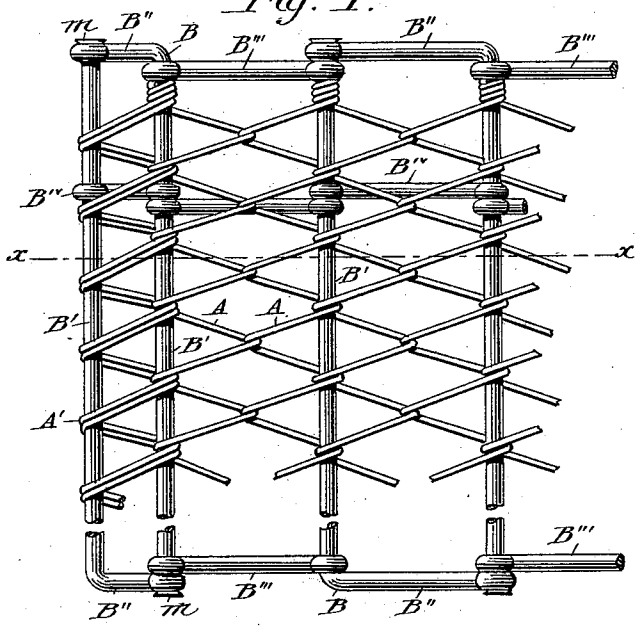


Fig. 2.

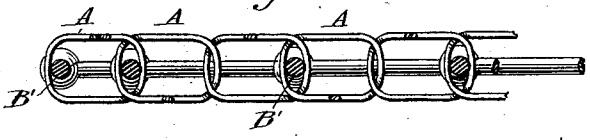


Fig. 3.

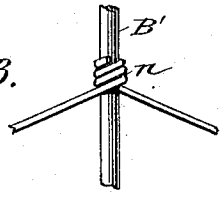
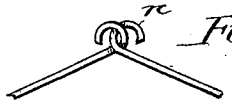


Fig. 4.



Witnesses.
Norris L. Clark
W. H. Lamar

Inventor
Daniel C. Stover
by Miles V. Greene
his attys.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

DANIEL C. STOVER, OF FREEPORT, ILLINOIS.

WIRE FABRIC.

SPECIFICATION forming part of Letters Patent No. 361,334, dated April 19, 1887.

Application filed December 10, 1886. Serial No. 221,242. (No model.)

To all whom it may concern:

Be it known that I, DANIEL C. STOVER, a resident of Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Wire Fabrics; and I 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 pertains to make and use the same.

My invention is especially adapted for coverings for floors, and, when formed in smaller pieces, for use in place of the ordinary door-mats. Its object is to abate the dust nuisance common to many rooms, carpeted and uncarpeted, to diminish noise, to save wear upon carpets where carpets are used, and to promote cleanliness in public halls and public conveyances. When employed without an overlying carpet the wire fabric itself takes the place of a carpet and receives direct wear. In this case dust falling passes through the interstices of the fabric to the floor, where it remains undisturbed, and the same is true of much of the foulness arising from the use of tobacco in public rooms. When the wire fabric is used as a carpet-lining the wear on the carpet is less than when the carpet is laid upon the ordinary surface, for it is well known that the "grit" accumulating in and beneath much-used carpets cuts out the threads, while in this case ordinary use of the carpet subjects it to a gentle beating, and thus the dust is driven through and deposited upon the underlying floor.

The invention is fully set forth in this specification and the accompanying drawings, wherein—

Figure 1 is a view of the fabric seen from above. Fig. 2 is a view looking at the edge of the fabric and at the ends of its parallel constituent coils. Figs. 3 and 4 are detail views, hereinafter fully explained.

In the drawings, A A are parallel coils of wire, each interlocking the adjacent coils at each turn of the wire. B are rods at the ends of the coils, at the outer side of the outer coils, and at intervals between the outer coils, for the purpose of attaching to the floor and to give permanency and rigidity of form to the whole fabric. Each of these rods consists of a body, B′, and a portion, B″, bent at right angles to said body and looped about its fellow rod, so that when detached from the floor the fabric, being jointed at each rod, may be readily rolled or folded for transportation. The two ends of the fabric or edges transverse to the axes of the coils are symmetrically formed, and the alternate openings or gaps in the chain B″ B″, consequent upon the formation described, are spanned by links B‴. At suitable intervals the rods B′ are joined by other similar links, B^{IV}, preventing undue stretching of the fabric transversely to the coils.

As shown, the outer coils, A′, are doubled for the sake of appearance and also for strength, since then a greater weight may be thrown upon a single coil—that is, for example, the entire weight of the body may be thrown upon a few turns of that coil alone, but, owing to the small size of the coils, cannot be so thrown upon any other coil.

The coils A A are preferably of the form illustrated in Figs. 1, 2, the upper and lower exposed surfaces of each of the coils being plane, and the wires of the interlocking coils, when seen in plan, forming practically-straight diagonal lines. It is evident that the use of the rods B is the same whatever may be the form of the coils, and such coils may therefore be either cylindrical or non-cylindrical, so far as their combination with the rods B is concerned. Any non-cylindrical form is, however, preferable to the cylindrical, for the reason that parallel cylindrical coils tend to roll under pressure, and the form illustrated in the drawings is preferable to an oval or other similar form, for the reason that the flat-sided coils give the greatest possible wearing-surface. I have found in practice that either oval or cylindrical coils wear through first at the highest points, and thus become useless long before the body of the fabric is appreciably affected by use.

The use of rods passing through the fabric, substantially as illustrated, is an important improvement; but it is not absolutely essential, and I therefore do not limit the use of the flat-sided coils to their combination with the rods. When the rods are used, I prefer to place them so that each passes through all the spirals of two interlocking coils, and the rods may be so distributed that each coil is traversed by either one or two rods, or so that the rods pass

through only one coil out of every two, three, or more. The spaces between the lines of links B″ may of course be varied at pleasure, and, if it be desired, the main rods may be dispensed with, leaving only the lines of transverse links.

The ends *m* of the rods B may be headed, as shown, or bent, to prevent withdrawal from the encircling-loops, and the ends *n n* of the coils A are formed into hooks interlocking with each other around the rods, as in Fig. 3, or with each other simply, as in Fig. 4.

It is evident that this covering or fabric may be formed in strips like ordinary matting of the full size of the room, or in smaller portions for mats and other purposes.

What I claim is—

1. A wire fabric for floor-covering, consisting of a series of suitably-connected wire coils whose wearing-faces are made up of approximately straight lines of wire lying in the same plane, substantially as and for the purpose set forth.

2. In a fabric of the class described, the combination, with a series of interlocking wire coils, of a series of parallel rods passing longitudinally through said coils and joined by transverse flexible connections, substantially as and for the purpose set forth.

3. The combination of the interlocking parallel coils A, the double marginal coils A′, the rods B′, passing longitudinally through the interlocking coils and having transverse extensions B″, and the links B‴ B^{IV}, joining the rods B′, substantially as shown and described, and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

DANIEL C. STOVER.

Witnesses:
C. W. GRAHAM,
J. A. CRAIN.