

(No Model.)

C. O. WHITE.
WIRE MAT.

No. 507,952.

Patented Oct. 31, 1893.

Fig. 1.

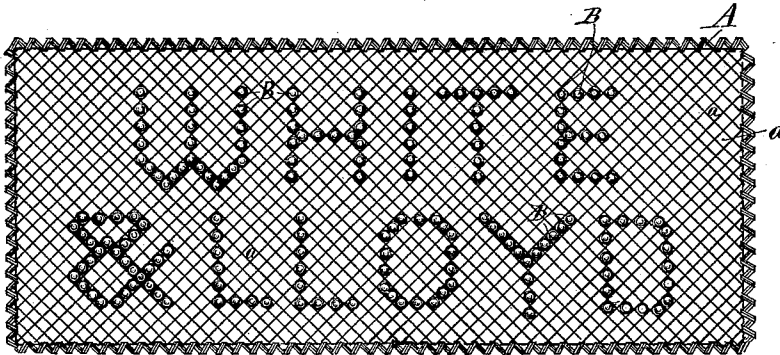


Fig. 2.

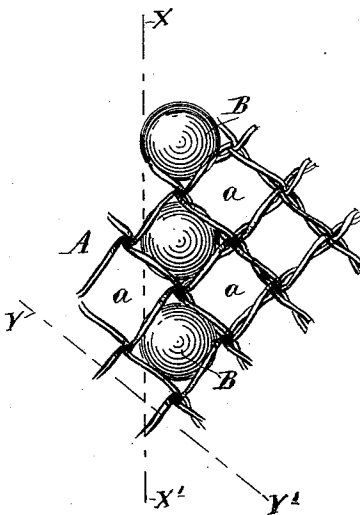


Fig. 3.

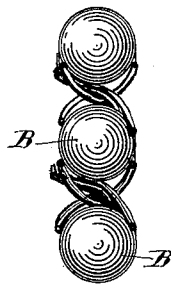


Fig. 4.



Witnesses.

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By his Attorney.

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UNITED STATES PATENT OFFICE.

CLARENCE O. WHITE, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-HALF
TO MARSHALL B. LLOYD, OF SAME PLACE.

WIRE MAT.

SPECIFICATION forming part of Letters Patent No. 507,952, dated October 31, 1893.

Application filed May 5, 1893. Serial No. 473,102. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE O. WHITE, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Wire Mats; 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 appertains to make and use the same.

My invention relates to wire mats and other similar wire fabrics; and has for its object, to provide a convenient and economical means of lettering, ornamenting or filling the mat. To this end, I employ a double web wire mat or other similar fabric having cage-like meshes; and I effect the lettering, ornamentation, or other filling of the mat, by means of marbles or other loose independent filling pieces, mounted and held in the meshes of the fabric. The marbles, or other pieces, are inserted into position, after the fabric is woven; and are made of greater size in central cross section than the external or surface cross section of the meshes. They are forced into position by springing the external or surface strands of the meshes; and hence, when once in the meshes, and the wires have sprung back into their normal position, the marbles, or other similar pieces, will be securely held against displacement under ordinary usage. The marbles, or other pieces, when in position, will be either below or flush with the surface of the fabric. By the proper arrangement of the marbles or other loose pieces, with respect to each other, any desired ornamentation or letters may be produced in the mat.

My invention is illustrated in the accompanying drawings, like letters referring to like parts.

Figure 1. is a plan view of a double web, double wove wire mat, embodying my invention. Fig. 2. is a plan view of a fractional part of the mat on a larger scale, the meshes being shown full size. Fig. 3. is a section on the line $x x'$ of Fig. 2. Fig. 4. is a section on the line $y y'$ of Fig. 2.

A represents the double web double wove wire mat, or other fabric.

a represents the cage-like meshes of the same. In the particular mat with the double

weave, as shown, the meshes are six sided, and of substantially cubical form. The corners, however, are somewhat contracted. The expression, cage-like, is designed to include any kind of an open mesh, which is capable of holding a marble or other similar loose filling piece.

B represents the marbles, or other loose independent filling pieces, which are mounted and held in the meshes, a . The marbles, as will appear from inspection of the drawings, are larger in diameter, than the cross section of the meshes, at the surface of the mat; hence, after they have been forced into position by springing the surface strands of the mesh, they will be held from dropping out by gravity or from displacement under any ordinary usage. The marbles may be arranged, with respect to each other, as shown in Fig. 1, so as to form letters suitable for signs or advertising purposes. They might equally well be arranged so as to form ornamental designs of any desired pattern. While I have shown a mat having substantially cubical meshes, it will, of course, be understood that the meshes might be circular or of any other suitable form, as long as they formed a cage which would hold the loose marbles or other independent pieces. I expect to use marbles for filling the meshes, as described, but it will be understood that these loose filling pieces might be cubical or polygonal in form, and be composed of any suitable material. Marbles are well adapted to the purpose, on account of the contrast with the wire, afforded by their glazed and bright surface. The use of filling pieces of this kind, and their insertion into position after the mat or other fabric is woven, constitutes a cheap and efficient means of lettering or ornamenting wire mats.

The double woven mat herein shown, is composed of four spirally woven strands, running substantially at right angles to each other, and interlocked or interwoven at their intersections. This forms a six sided mesh with four openings, contracted at the corners of the mesh, which is peculiarly well adapted to hold the marbles or other filling pieces.

What I claim, and desire to obtain by Letters Patent of the United States, is as follows:

1. A cage meshed wire fabric, having inde-

pendent filling pieces, each filling piece being held in a single mesh, substantially as described.

2. A wire fabric, having independent filling pieces held by the meshes of the fabric, said filling pieces being arranged with respect to each other, so as to form letters or other designs, substantially as described.

3. A cage meshed wire fabric, having independent filling pieces, each filling piece being held in a single mesh, and said filling pieces being arranged with respect to each other, so as to form letters or other designs, substantially as described.

4. A cage meshed wire mat or other fabric, having in the meshes of the fabric independent loose filling pieces of greater central cross section than the surface cross section of the fabric mesh, whereby the filling pieces will be held in position by the meshes of the fabric, substantially as described.

5. As a new article of manufacture, the sign

mat herein shown and described, the same consisting of a double weave wire body, having cage-like cubical meshes, and a series of marbles arranged with respect to each other in selected meshes of the mat, to form the letters and words of the desired sign, substantially as described.

6. The combination with the mat herein shown and described, consisting of four spirally woven strands, running substantially at right angles to each other, and interlocked at their intersections, forming cubical meshes, with contracted corners, of filling pieces of greater central cross section than the surface cross section of the mesh, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CLARENCE O. WHITE.

Witnesses:

JAS. F. WILLIAMSON,
EMMA F. ELMORE.