(No Model.)

E. C. MORRIS.

COMBINED PLASTIC AND NETTING LINING OR FINISH FOR PARTITIONS, &c.

No. 344,671. Patented June 29, 1886.

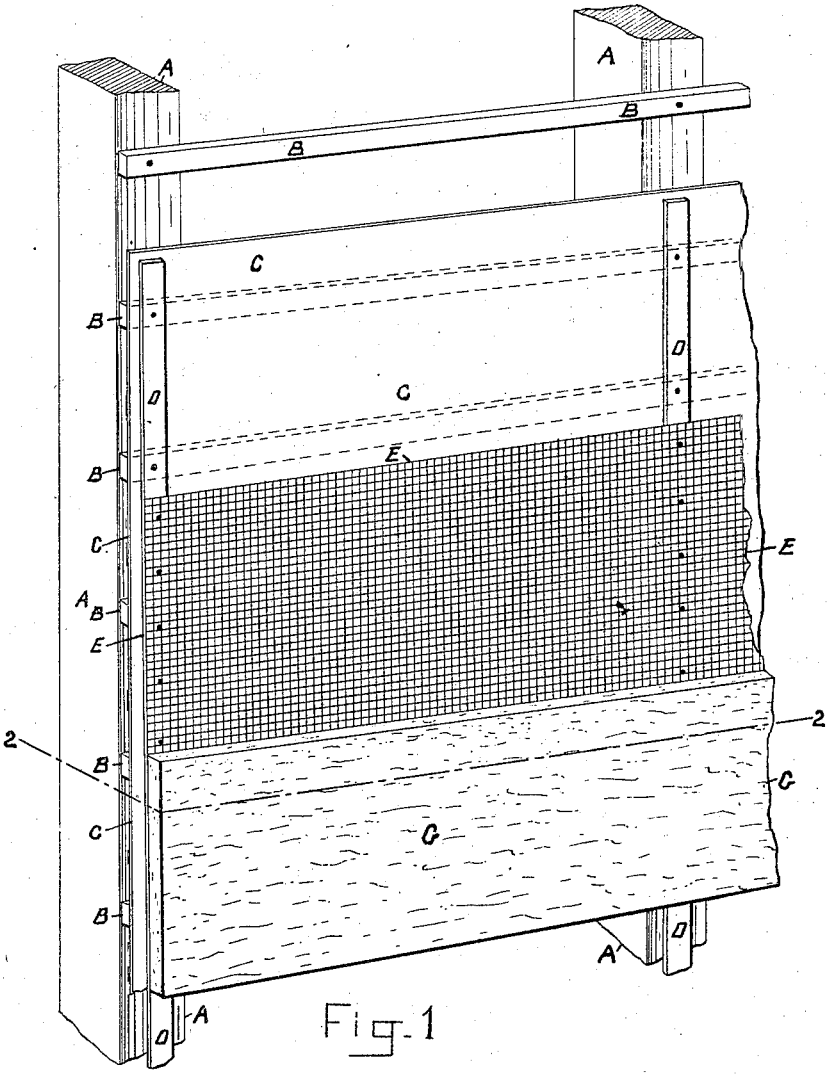

Fig. 1

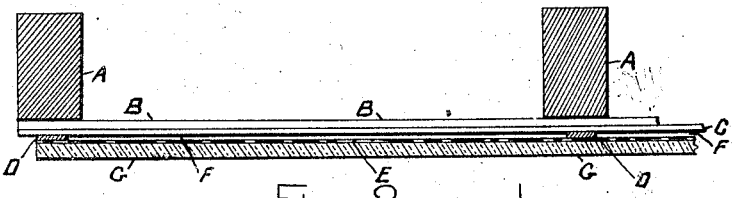

Fig. 2

WITNESSES

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UNITED STATES PATENT OFFICE.

EDWARD C. MORRIS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO MORRIS & IRELAND, OF SAME PLACE.

COMBINED PLASTIC AND NETTING LINING OR FINISH FOR PARTITIONS, &c.

SPECIFICATION forming part of Letters Patent No. 344,671, dated June 29, 1886.

Application filed April 17, 1886. Serial No. 199,237. (No model.)

To all whom it may concern:

Be it known that I, EDWARD C. MORRIS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Compound Plastic and Netting Lining or Finish for Partitions, Walls, Ceilings, &c., of which the following is a full, clear, and exact description.

As well known, a compound finish or lining for walls, partitions, ceilings, &c., of buildings, &c., has been used, consisting of a backing made of wire-netting of sufficient strength and a covering thereto composed of a layer of plastic material—such as ordinary lime-plaster—which is applied to it and forced through its interstices or meshes, and thereby keyed, as it were, and secured to and about the wires of the netting, the netting being first secured in place, and then the plastic material applied to it and properly smoothed and evened off. In the construction of this finish or lining for walls, &c., of buildings, as well known, the plastic material passes through the meshes to the back side of the wire-netting without restraint or hinderance, and more especially is this so if the mesh of the netting is a somewhat open one, and which for economy it is desirable it should be, the whole resulting in the consumption of a considerable amount of plastic material and an amount largely in excess of that really and practically required for all purposes of the lining or finish.

To obviate these objections, and without otherwise materially increasing the cost of the lining, but in fact economizing in its cost by enabling a most open mesh of wire-netting to be used as compared with the mesh heretofore capable of being practically and serviceably used, is the object of this invention; and to that end the invention consists of a lining or finish for walls, ceilings, partitions, &c., composed of a layer of material—such as paper or other pulped board, wood, metal, &c., but preferably paper or other pulped board, and which at least has been in any suitable manner made water-proof, and also as well fire-proof—directly surfacing and covering the wall, ceiling, partition, &c., and properly secured in position, a layer of wire or other netting or equivalent material surfacing said paper layer and secured in position in any suitable manner, and preferably with a space between its wires or strands and said paper layer, and a layer of plastic material—such as ordinary lime plaster or other suitable material—applied to the outside of the netting layer and forced into and through its meshes against the paper layer back thereof, and also, if a space is left between the wires of the netting layer and the paper layer, into said space, filling it and the openings or meshes of the netting, all substantially as hereinafter described.

In the accompanying drawings, forming a part of this specification, one form of carrying out this invention is illustrated, and Figure 1 is a sectional perspective view of a portion of the studding of a wall lined or finished in accordance therewith. Fig. 2 is a horizontal section on line 2 2, Fig. 1.

In the drawings, A is the studding.

B P are the furring-strips nailed to studding A.

C is a layer of material—such as paper or pulped board—nailed to the furring-strips B B.

D D are a series of strips of paper-board nailed to the layer C, of paper-board, and to and in line with the furring B along the length of the studding A.

E is a layer of netting, made of wire or of strands of other suitable material, and securely nailed and fastened against the paper strips D.

F is an open space between the layer E of netting and the layer C of pulped board, and G is a layer of plastic material—such as ordinary lime-plaster or other suitable material—but preferably a plastic material or compound such as described in the schedule annexed to the Letters Patent of the United States issued to Henry W. Merritt, of Boston, Massachusetts, dated July 14, 1885, No. 322,307, or other material or compound having practically similar adhesiveness, hardness, and fire and water proof qualities. The pulped board C, which preferably is water-proof, as also fire-proof, but for which other material—such as wood, metal, &c.—may be substituted, makes the inner surface or layer, the plastic material G the outer surface or layer, and the netting E, or other equivalent sheet material, the intermediate surface or layer of the compound finish or lining of this invention. The plastic material fills the meshes of the netting E. and

also enters into and is confined in the space F, which is between the netting and the pulped board, and the pulped board limits and restrains the inward movement of the plastic material, which, in the making up of the lining or finish, is applied to the outside of the netting and forced through its meshes. Again, as the plastic material is so applied the pulped board acts to spread and dispose it at the back of and around and to confine it most closely to the strands of the netting, and so as the plastic material dries and hardens, the better to secure the union and adhesion of it with the strands of the netting.

In constructing the lining or finish described the inner layer, C, is first secured in place, and then the intermediate layer, E, of netting, preferably leaving a space, F, between its strands and the inner layer, C, and afterward the plastic material is applied to the outside of the netting and entered into its meshes, and also into the space F between it and the inner layer, C, the whole resulting in the production of a lining or finish in one form in accordance with the invention.

As particularly shown and described, the space F, between the inner layer, C, and intermediate layer, E, of netting, is produced by separate strips D of paper applied to the inner layer. These strips D may be of other material, and again they may be first attached to the netting, and then to the paper-board; and also they may be dispensed with and a space, F, secured by raised portions or knobs or ribs of the layer C, or pulped board or of the layer E, or netting, or otherwise, in any suitable manner, the essential feature of this invention in this regard being an intermediate space, or, in other words, a space back of and between the strands of the netting E and the inner layer, C, of sheet material.

The construction of a lining or finish as herein described allows netting of a most open mesh to be used, for the reason that the passage of the plastic material through the meshes is restrained and limited by the inner layer, C, and with an intermediate space, F, the plastic material is afforded ample opportunity to lock itself about, upon, and back of the strands making up the netting. In this lining or finish the netting is in reality the part depended upon to support the plastic material; but in the construction of the lining, and also, as is obvious, even after its construction, the inner layer, C, serves a most useful purpose, in the first instance, as a limit or restraint to the inward movement of the plastic material, and also as a surface for the plastic material to adhere to between the wires and in the open meshes of the netting, and again with a space, F, between the inner layer, C, and the wires of the intermediate layer, E, of netting for the entrance and passage of the plastic material to and around the back of the wires; also, as a means to confine and hold the plastic material as it dries and sets in close contact with and around, and thus the better to unite it to the wires, and in the second instance, as a protection, and more particularly so if it is water and fire proof, against moisture, dampness, and fire.

The plastic compound patented by Mr. Merritt, herein referred to, is the plastic compound, as before stated, most preferable to be used, but it is not intended to limit the invention thereto, and for a description of said compound reference is hereby had to the Letters Patent hereinbefore mentioned, and again it is not intended to limit the invention to any particular kind of plastic material.

In the construction of the lining or finish of this invention it is preferable to use a netting of wire, but netting made of strands of other material—as for instance, of animal or vegetable fiber—and again, a perforated plate of metal or other material, may be used.

Having thus described my invention, I claim—

1. A lining or finish for walls, ceilings, partitions, &c., constructed of an inner layer of pulped board or other suitable material, an intermediate layer of netting or such like material, and an outer layer of plastic or such like material, all substantially as described, for the purpose specified.

2. A finish or lining for walls, ceilings, partitions, &c., constructed of an inner layer of pulped board or other suitable material, and a layer of netting or such like material with a space between said two layers, and in combination with a layer of plastic or such like material applied at the outside of the intermediate layer and entered into the space between it and the inner layer, all substantially as described, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDWARD C. MORRIS.

Witnesses:
ALBERT W. BROWN,
KATE E. BELLOWS.