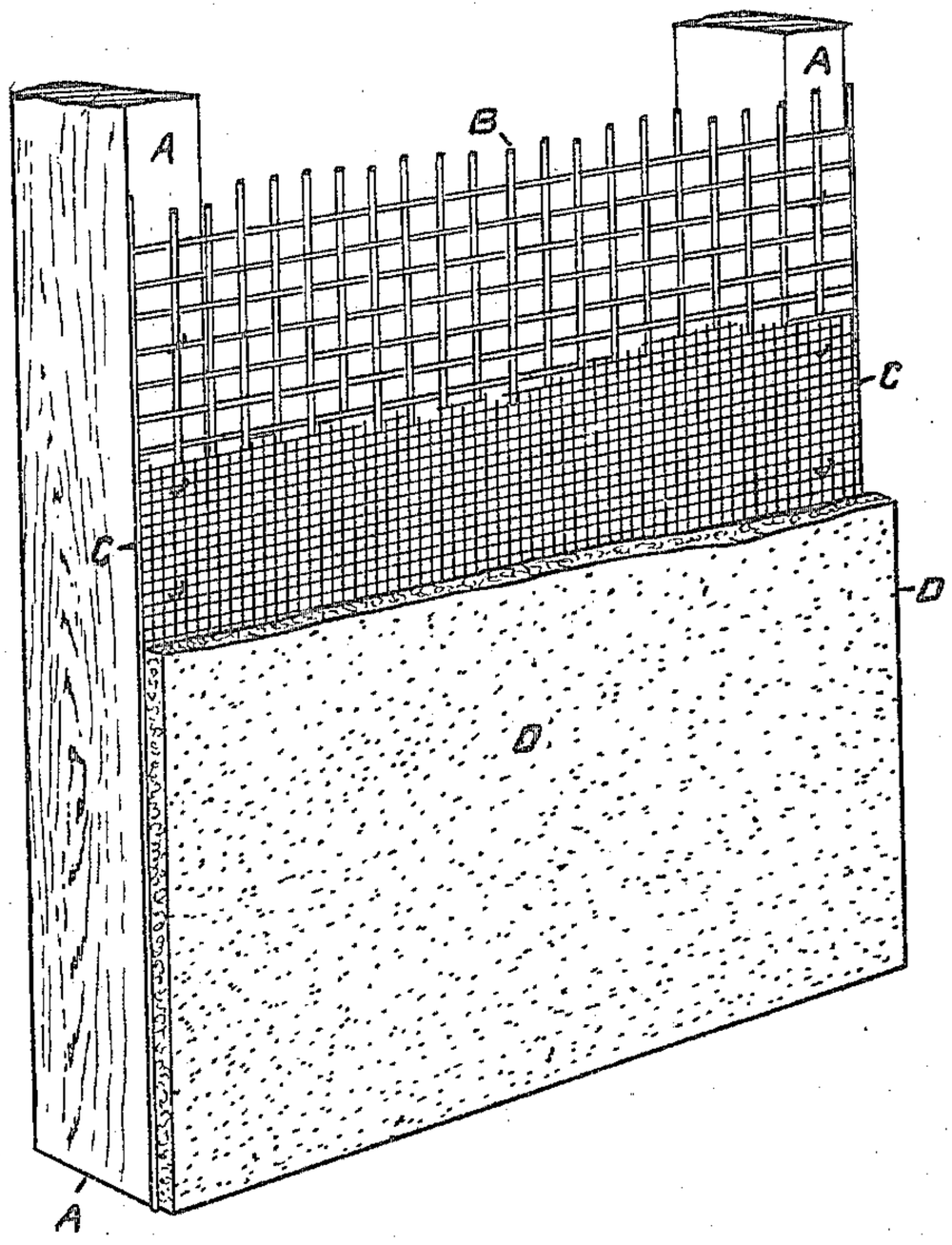
(No Model.)

E. C. MORRIS.

COMPOUND PLASTIC AND WIRE NETTING LINING OR FINISHING FOR PARTITIONS.

No. 344,670. Patented June 29, 1886.



WITNESSES:

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

COMPOUND PLASTIC AND WIRE-NETTING LINING OR FINISHING FOR PARTITIONS.

SPECIFICATION forming part of Letters Patent No. 344,670, dated June 29, 1886.

Application filed April 14, 1886. Serial No. 198,851. (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 Wire-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 somewhat open mesh, and a covering thereto composed of a layer of plastic material—such as ordinary lime plaster—and which is applied and forced through the interstices thereof, 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, all as well known. In the practice of this mode of constructing a finish or lining to walls, &c., of buildings, it has been found that a greater proportion of the plastic material enters into and through the meshes of the wire-netting and to the back side thereof than is really or for any practical purpose or utility necessary to accomplish the keying of the plastic material to the wire-netting, and thus to that extent an unnecessary and useless waste of plastic material is had, which, obviously it is desirable to avoid, provided, of course, that by so avoiding it the support for the plaster is in no practical degree affected or expense in other directions made which would counterbalance or more than counterbalance the advantage or economy then secured in relation to the plastic material.

The primary object of this invention is to avoid waste of the plastic material, as above stated, and without practically increasing the expense of the compound lining or finish, or in any way detracting from the advantage thereof as a whole; and to that end this invention consists in the combination, with the wire-netting or with a perforated plate of metal, of another series of meshes or perforations of reduced area as compared with the meshes of the wire-netting or perforations of the perforated plate which are produced from the employment of a material such as vegetable or animal fiber, and as, for illustration, strands or threads—vegetable or animal—woven or intertwined either with the wires making the meshes of the wire-netting or with each other in a separate netting or nettings, and applied and secured or held to either one or both sides of the wire netting or perforated paper-pulp board, and the whole so as to make a backing for the plastic material in two parts, each part performing a distinct function, the one—that is, the wires of the wire-netting or the metal about the perforations of the perforated plate—the function of a practical support to the plastic material by the keying of the same thereto, and the other, as before stated, the function of a regulator or limit to the extent to which the plastic material can pass through the meshes of the wire-netting or perforations of the metal plate, and at and about and to the back of them, while at the same time in no practical way or manner hindering or preventing the disposition of a proper amount of the plastic material about the metal supporting part of the compound backing for the plastic material, all substantially as hereinafter fully described.

In the accompanying drawings, forming a part of this specification, one form of carrying out this invention is illustrated, and the figure is a sectional perspective view of the portion of the studding of a wall lined or finished in accordance with this invention.

In the drawings, A is the studding. B is a netting of wire. C is a netting of fibrous strands or threads, and D is a layer of plastic material, which may be 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. The wire-netting B is fastened to the studding A by nails or otherwise in any suitable manner, and the fibrous netting C is applied to and so as to cover the outer or exposed side of the wire-netting, and made to adhere thereto by means of silicate of soda, paraffine, or other suitable adhesive material, or in any other suitable man-

ner. The plastic material D is applied to the outer or exposed side of the fibrous netting, and as so applied forced into and through its meshes, and thence into and through the meshes of the wire-netting, and at and about the strands of the fibrous netting and the wires of the wire-netting and the whole, so as to secure a practical keying, as it were, of the plastic material to the wire-netting, the fibrous netting affording no hinderance thereto, it being not only flexible and pliable, but compressible. As wire is expensive, for purposes of economy, which is quite necessary in the use of it, to make a compound wire-netting and plastic compound lining or finish, the meshes of its netting are made quite open and large in area, and, as is plain, the plastic compound in its application thereto, if not otherwise obstructed, as it is in the combination of this invention, and as will hereinafter appear, is allowed most free passage through them and to the back of the netting, resulting, finally, in the placing of a considerable amount of it at the back of the wire-netting, where it is of no practical use, except so much thereof as is requisite to key it to and about the wires of the wire-netting. In this manner much of the plastic compound is wasted—that is, more is used than is of any practical benefit or utility; but if, by avoiding such waste of the plastic material, the meshes of the wire-netting are made smaller in area by using more wire, resulting in a saving of the plastic material, an expense is added to the lining or finish in another direction more to the disadvantage thereof for its practical employment than the use of a wire-netting having the larger and more open meshes, accompanied as it is by a practically useless consumption of the plastic material. The meshes of the fibrous netting as compared with those of the wire-netting are small in size and area, and, again, being such, they cross the meshes of the wire-netting, and thus, as it were, reduce them to a corresponding size, and, as is plain, in a manner that while practically adding but slightly to the expense or cost of a compound lining or finish of wire-netting and a plastic material, the meshes of the wire-netting are in a nature made impediments or obstructions to the passage of the plastic material through them to an extent as to practically prevent the placing of the plastic material through the meshes of the wire-netting and to the back thereof to an extent beyond what is necessary or requisite for the desired fastening by keying of the plastic material to the wire of the wire-netting. This result or saving of the plastic material, plainly with the use of a fibrous netting, is secured in a most economical way, and one that leaves the plastic material on the wires for all practical purposes as closely and effectively as if the fibrous netting were not used.

Fibrous netting may be placed against and secured to the inside of the wire-netting or against and secured to both the inside and outside of the wire-netting; but it is preferable to apply it to the outside, as has been described, or otherwise in any suitable manner. Again, the fibrous netting, in lieu of being in a sheet separate from the wire-netting, as has been described, may be in the same sheet therewith—as, for instance, the wires and meshes of the wire-netting may be crossed and intertwined with strands, animal or vegetable. Again, for the fibrous netting, a netting of animal's hair or animal fibers may be substituted, as also a sheet of pulp fibers, perforated through its thickness, and for the wire-netting a perforated metal plate may be used. A wire-netting, however, as well, also, as a fibrous netting, is most preferable, and a combination and arrangement of them such as described.

The plastic compound patented to a Mr. Merritt, as 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 thereon before mentioned.

Having thus described my invention, I claim—

1. A lining or finish for walls, ceilings, partitions, &c., of buildings, composed of a backing in part made of metal, such as wire-netting with meshes or a plate with perforations, and in part of fibers, animal or vegetable, in the form of a netting with meshes or perforations in reduction of the area of said metal meshes or perforations, in combination with a plastic material applied to said backing, substantially as described, for the purpose specified.

2. A lining or finish for walls, ceilings, partitions, &c., of buildings, composed of a backing in one layer of wire-netting with meshes, and in another and separate layer of fibrous netting with meshes, applied together in combination with a plastic material applied to said backing, 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,
K. E. BELLOWS.