

No. 693,905.

Patented Feb. 25, 1902.

A. RINCKLAKE.

CONSTRUCTION OF CEILINGS AND WALLS.

(Application filed June 22, 1899.)

(No Model.)

FIG. I.

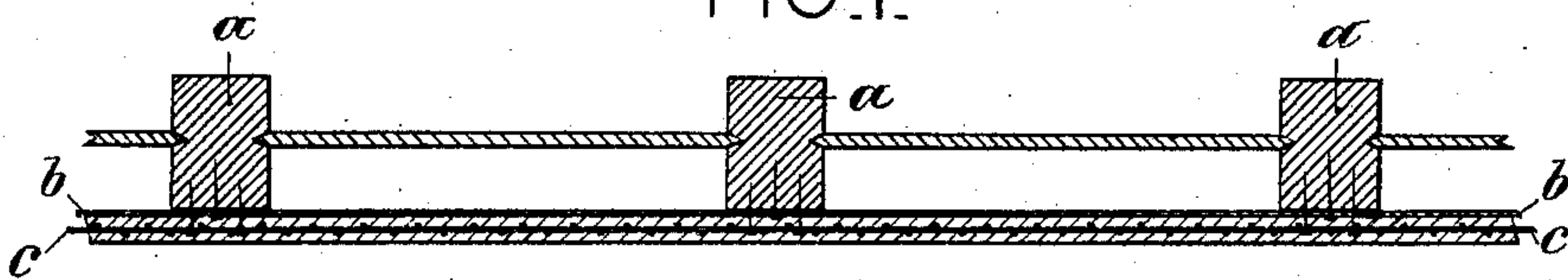


FIG. II.

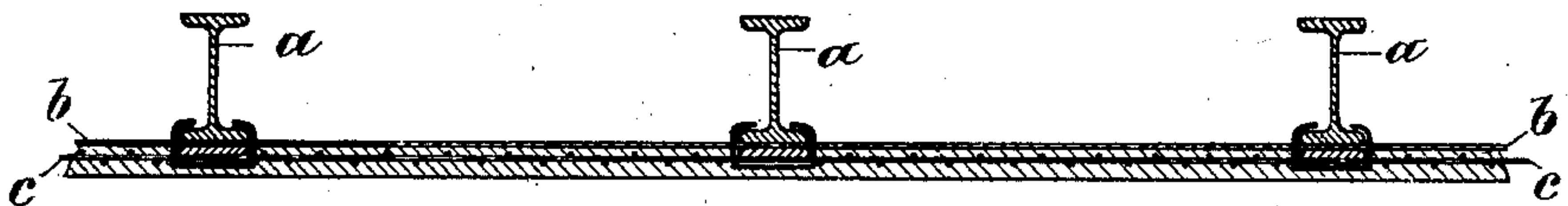


FIG. III.

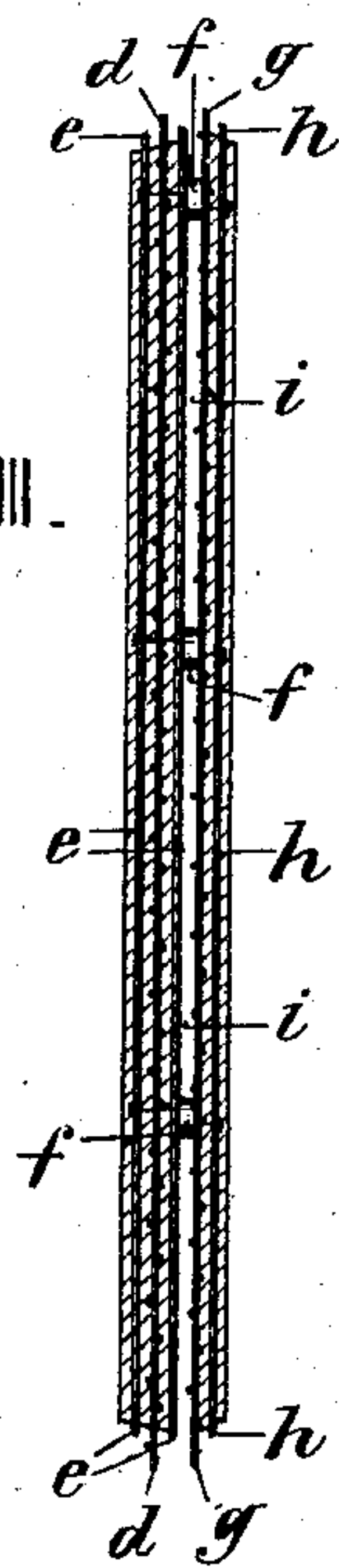
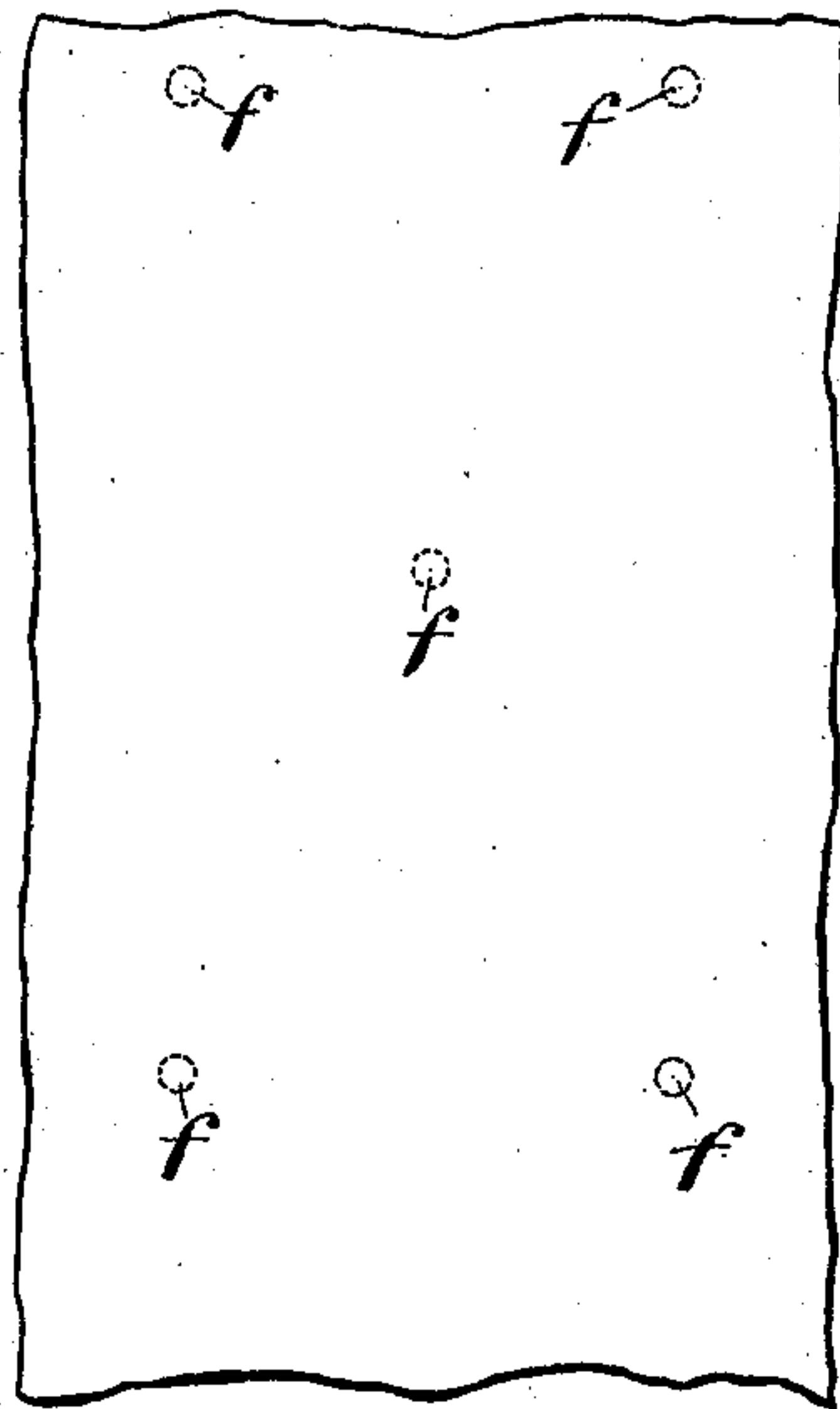


FIG. IV.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUGUST RINCKLAKE, OF MÜNSTER, GERMANY.

CONSTRUCTION OF CEILINGS AND WALLS.

SPECIFICATION forming part of Letters Patent No. 693,905, dated February 25, 1902.

Application filed June 22, 1899. Serial No. 721,514. (No specimens.)

To all whom it may concern:

Be it known that I, AUGUST RINCKLAKE, a subject of the German Emperor, and a resident of Brüderstrasse 6, Münster, Westphalia, Germany, have invented certain new and useful Improvements in the Construction of Ceilings and Walls, of which the following is a specification, reference being made to the annexed drawings, in which—

Figures I and II are sections of ceilings, and Fig. III a section of a wall. Fig. IV is a side view of Fig. III.

Underneath the beams or joists *a*, Figs. I and II, there is fastened from beam to beam woven jute sheeting *b* or other suitable close fabric, and underneath it at a short distance there is stretched and fastened in a suitable manner on the beams a net *c*, of string, flax, hemp, wool, or the like material which tends to shrink when moistened and dried. This structure is then plastered with a quickly-hardening material—for instance, gypsum or cement plaster. This plaster penetrates the wide meshes of the net and remains sticking on the jute sheeting or the like, which thus by the augmented weight lies closely in or upon the meshes of the net, which, having been moistened by the plaster, tends to become very taut as it dries. When the cement or gypsum plaster has grown hard, the net, the jute, and cement or plaster form a thin but very resistant plate, well stretched and flat, which can be reinforced as desired by putting more plaster on it. This ceiling is also more sound-proof than previous constructions, since the upper side of the jute fabric or the like, which is naturally not penetrated by the plaster and is by itself a bad sound-conductor, comes directly in touch with the lower surfaces of the beams or joists *a*. In making walls a somewhat similar process takes place as in making ceilings, only the difference necessitated by the vertical arrangement of the walls—namely, that in ceilings the jute fabric when plastered falls automatically into the meshes of the net, while with walls this has to be done by hand-pressure.

In making walls the process is therefore as follows: First, a vertical fibrous net *d*, as

aforesaid, Fig. III, is stretched in place over the whole expanse where the desired wall is to be—for example, on a frame of the size required or between any kind of means for carrying or supporting its edges—and then jute sheeting or the like fabric *e*, in pieces of convenient size for handling—say a yard square—dipped into gypsum or cement plaster, is pressed by hand on each side against the net. When the plaster is set, the shrinkage of the fibrous net, due to its moistening and drying, will insure that the thin wall so made is flat and stiff. It can be further plastered in any desired manner or thickness. This part of the wall being finished, as on the left-hand side of Fig. III, one can fasten on different parts of it pegs *f*, then a second vertical fibrous net *g* as aforesaid, is stretched at the distance of the height of the pegs from the first finished wall and from the outside jute fabric dipped in gypsum or cement plaster is again pressed against the net *g* and the so-formed second wall-face is then plastered from the outside. An air-isolating layer *i* has thus been formed between the two wall parts of a thickness varying as required. A wall so produced has extraordinary stability, especially when care is taken to have good connection between the pegs *f* and the wall-surfaces.

One can of course build up a thicker wall with more air-isolating layers *i*, one behind the other, or they may, on the other hand, be entirely omitted, so that it consists only of a fibrous net covered on one or both sides with plaster and jute fabric in the manner before described.

I am aware that walls have been proposed to be made by use of a net of textile fiber which will contract when moist plaster comes in contact therewith, and thus produce a tension which tends to stiffen the wall; but such process has proved impracticable, since the plaster does not adhere readily and permanently to such net unless an additional sheet of fabric is used, as in this invention, in which case the fabric gives adherence and solidity to the combination, while the net stiffens it in the manner described.

I claim as my invention—

The method of constructing a taut ceiling

or wall consisting in extending in the plane
of said ceiling or wall, a loose fabric to which
plaster is adapted to adhere and in proximity
thereto, a wide-meshed net of a fibrous ma-
5 terial, adapted to contract when moistened
and dried, and applying to said net and fab-
ric moist plaster, substantially as set forth.

In witness whereof I have signed this speci-
fication in the presence of two witnesses.

AUGUST RINCKLAKE.

Witnesses:

LOUISE BARNES,
WILLIAM H. MADDEN.