(No Model.)

# A. SACKETT.

## INSIDE WALL COVERING.

No. 520,123. Patented May 22, 1894.

FIG. 1.

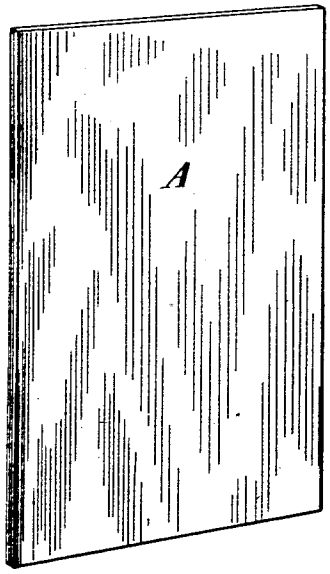



FIG. 3.

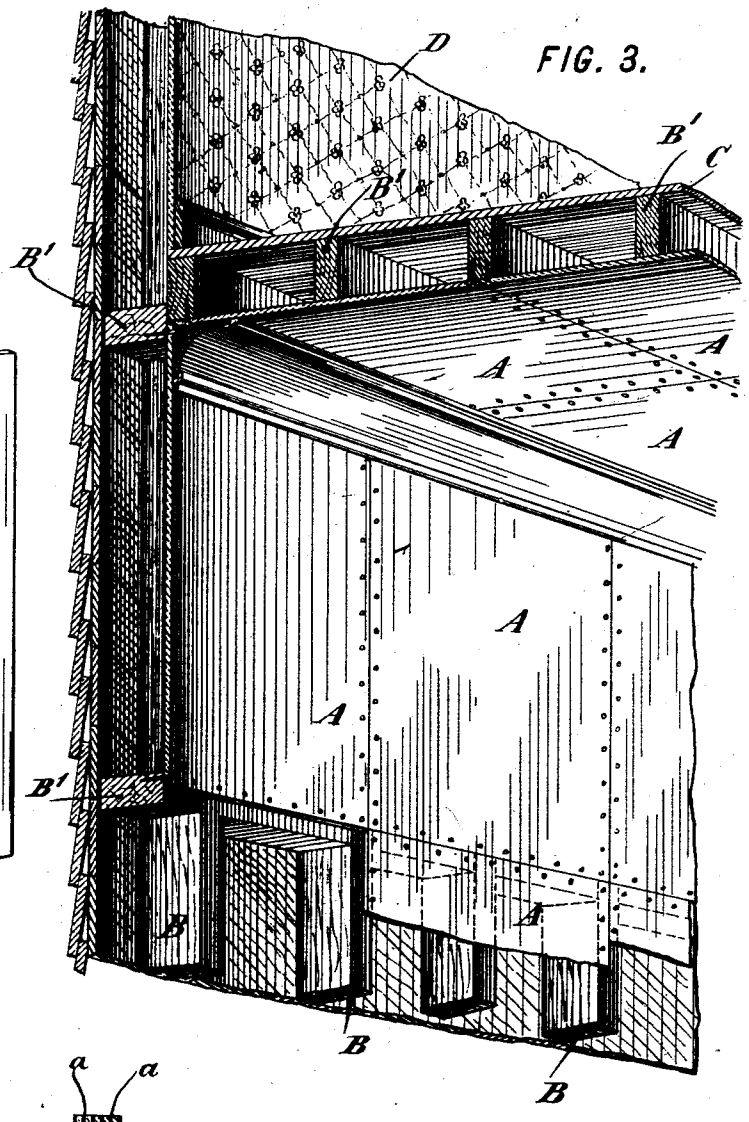
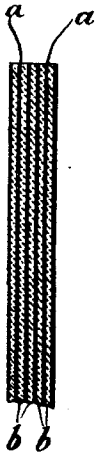



FIG. 2.




WITNESSES:
John Becker
Fred White

INVENTOR:
Augustine Sackett,
By his Attorneys,
Arthur C. Fraser & Co.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

AUGUSTINE SACKETT, OF NEW YORK, N. Y.

## INSIDE-WALL COVERING.

SPECIFICATION forming part of Letters Patent No. 520,123, dated May 22, 1894.

Application filed May 23, 1890. Serial No. 352,952. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUSTINE SACKETT, a citizen of the United States, residing in New York city, in the county and State of New York, have invented certain new and useful Improvements in Inside-Wall Coverings, of which the following is a specification.

The object of this invention is to provide boards or plates which may be used as a substitute for lath and plaster as a material for forming the inner walls of houses or rooms. It is designed that the material may be made up in large sheets or plates of sufficient thickness to give the requisite rigidity, and of sufficient size to avoid undue frequency of joints, and that it may be manufactured and delivered in condition to be immediately fastened in place by nailing it to the studding of the walls or partitions of a house. The invention aims to provide a material for this purpose which shall be sufficiently stiff and rigid to form a firm wall surface, sufficiently strong to resist the effect of any ordinary blows or concussions to which it may be subjected; sufficiently soft to admit of nails being driven through it, and sufficiently tough and tenacious to prevent its cracking when in place on the wall.

To these ends my invention consists of a board or plate built up of alternated webs of paper and layers of some hard adherent plastic substance in the nature of a lime cement. The substance which I have thus far found preferable is plaster of paris (calcined gypsum.) The inherent brittleness of the plaster or other substance of this character is sufficiently overcome by applying it in thin layers alternated with webs of paper to produce, as the result of the superposition of a suitable number of such layers and webs, a board or plate of great stiffness, strength, rigidity and toughness in comparison with its thickness, and which is in every way admirably adapted as a material for inside wall surfaces.

In preparing my new board or plate I proceed preferably as follows: I select a suitable thin Manila paper, such as a fairly light Manila wrapping paper, or preferably the quality of paper used in the manufacture of what is known as "builders' sheathing paper." This paper should be as wide as the width of the boards or plates to be made. The plaster composition is preferably made by mixing calcined gypsum, or plaster of paris, with enough water to make it spread easily, being the consistency at which plaster of paris is usually worked. The plaster composition being thus prepared to the proper consistency it is spread in a thin layer upon a sheet of paper, a second sheet of paper is laid upon the first, a second layer is spread upon it, and so on until as many layers have been superposed as are necessary to produce a board of the required thickness. Ordinarily from four to eight or ten sheets of paper with their intervening layers of plaster composition will be used, the number depending upon the thickness of the board desired. For a board three-sixteenths of an inch thick, which would be suitable for ordinary purposes, eight layers give a good result. The thickness of the layer of plaster composition may vary greatly, say, for example, from one one-hundredth to five one hundredths of an inch, or even thicker. The layers should be spread as rapidly as possible in order that the plaster shall not set, and when the required number have been superposed the plate or board should be placed between flat surfaces and subjected to pressure in order that it may dry in a perfectly flat condition. Several boards or plates may be superposed, being separated by intervening sheets of paper and subjected simultaneously to pressure in a suitable press. The boards should be held flat until they are dried, or at least until the plaster has fully set.

If desired the plaster composition may be somewhat hardened by dissolving a small quantity of saccharine matter, as sugar, molasses, &c., in the water with which the plaster is to be mixed, a suitable proportion being about one pound of solid saccharine matter to the gallon of water. This admixture of saccharine matter, however, I have not found necessary in practice.

Preferably a sheet of water-proof paper is placed on one side of the board, which is best done in the process of manufacturing the board, although the water-proof paper can be applied subsequently, or one side of the board might be water-proofed by applying to it a water-proof varnish, paint or composition. I prefer water-proof paper which has been pre-

pared by being coated with some bituminous substance, such as coal-tar pitch. In applying the boards the water-proofed sides should be placed toward the outside of the house so as to bring the absorbent side of the board to the inner side of the wall.

My improved board or plate thus formed is fire-proof, makes a dry, firm, durable wall surface, takes paint or calcimine as well as ordinary plaster walls, and may be decorated in any way in which a plaster wall may be decorated, as for example, by means of paper hangings. The boards or plates are easily applied by bringing them to meet edge to edge, with both the joining edges lapping onto a studding, and nailing both edges to the studding. The material, although sufficiently stiff and rigid, is, by reason of the sub-division of the brittle plaster into thin layers interleaved with sheets of elastic paper, rendered sufficiently soft and yielding to admit of the driving of nails through it without cracking.

My improved boards or plates take the place of the lathing, plaster and hard finish commonly employed, and have the advantages thereover of being conveniently and quickly applied, of being perfectly dry so that the room is ready for immediate occupancy, and of freedom from cracking which is so objectionable in plaster walls.

The accompanying drawings illustrate the practical operation of my invention.

Figure 1 is a perspective view of one of the composition boards or plates lettered A on a reduced scale. Fig. 2 is a fragmentary transverse section thereof showing the alternated layers of paper *a a* and plaster composition *b b*. Fig. 3 is a sectional perspective view of a fragment of an ordinary frame house the inner walls of which are finished by means of my improved boards or plates A A, in lieu of the ordinary lath and plaster.

Referring to Fig. 3, the boards or plates A A are fastened by being nailed around their edges to the vertical studding or framing B B, and to horizontal framing B′. In the room beneath the floor C the wall is shown not yet papered or decorated, but on the upper floor it is shown at D as covered with wall paper or other decoration whereby the joints between the plates are concealed.

The plaster composition may be greatly varied, my invention not being by any means confined to a composition of plaster of paris. For example, a mortar of lime and fine sand may be used instead of plaster. Or hydraulic cement may be used. Other cements are also admissible. In general it may be said that any lime cement, or substance or composition in the nature of a lime cement, may be used as the plaster composition in the manufacture of my improved board.

My invention excludes cements or binding materials in the nature of rosins, glue or other cements of an animal or vegetable origin. My invention is essentially limited to cements of mineral origin, or the essential ingredients of which are of mineral character. It excludes also waxy materials, and in fact all materials which soften by heat, such for example, as ozocerite and bitumen. I am aware that bituminous cements, such as pitch, have been used, combined with sheets of paper in the manufacture of roofing material, but such products are essentially different from the new product introduced by my invention.

I claim as my invention—

1. A flat board or plate for wall coverings consisting of webs of paper alternated with layers of hard adherent plastic substance in the nature of lime cement, substantially as and for the purpose set forth.

2. A flat board or plate for wall coverings consisting of webs of paper alternated with layers of plaster, substantially as and for the purpose set forth.

3. An inside wall covering as a substitute for lath and plaster consisting of boards or plates of alternated paper and plaster or other equivalent plastic substance in the nature of a lime cement, the boards being stiff and firm, but sufficiently soft to admit the driving of nails through them to fasten them to the studding, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

AUGUSTINE SACKETT.

Witnesses:
ARTHUR C. FRASER,
JNO. E. GAVIN.