United States Patent Office.

JUDD M. COBB, OF BELOIT, WISCONSIN.

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IMPROVEMENT IN THE MANUFACTURE OF STRAW-BOARD FOR THE CONSTRUCTION OF BUILDINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JUDD M. COBB, of Beloit, in the county of Rock and State of Wisconsin, have invented a new and useful Prepared Plastering-Board; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same.

My invention has for its object to provide an improved covering for the walls and ceilings of buildings as a substitute for laths and plaster, and an exterior covering to be employed in place of boards and siding.

In the formation of what is termed building-board, to wit, a thick straw-board made in continuous lengths upon a paper-machine, and wound into rolls for the market, the pulp from the paper-cylinders passes to the driers in long thick strips, and from thence to the calenders, by which it is "surfaced" and hardened, and from which it is delivered to a rolling device to be wound into rolls.

This board, when used for roofing or sheathing purposes, is passed through a vat of coal-tar before being wound into rolls, for the purpose of rendering it water-proof.

While the board so treated forms an excellent exterior covering for buildings under the siding, or as a base for roofing, it cannot be practically applied to the interior in place of laths and plaster, for the reason that the odor of the tar is offensive, particularly in winter, when fires are necessarily employed for heating purposes.

My invention consists in treating the board with water-proof material in the following manner, to render it applicable to the interior of dwellings, and in its further manipulation to adapt it for siding.

After leaving the driers and while still warm, the upper surface of the board is coated with oil, the latter being delivered to a roller or other suitable device for spreading it uniformly. Owing to the warmth of the board the oil is readily absorbed, and forms the base of the water-proofing.

From the spreading-roller the board is passed through a vat containing warm linseed-oil and resin, mixed in about equal proportions, by which both sides are coated.

After leaving this mixture it is carried to the calenders, first passing between suitable scrapers so arranged as to scrape the superfluous compound from both sides.

The calenders then stretch and press the board sufficiently to harden it and force in a large proportion of the oil and resin.

The object in treating the board first upon one side is to saturate it to a considerable degree with a cheap oil, which shall form the base of the water-proofing, so that it shall not absorb too large a quantity of the more expensive compound of oil and resin. I am enabled, therefore, to cheapen the cost of manufacture materially.

By this treatment, also, the sides of the board differ in appearance and degree of finish, the side first treated forming the back and the opposite side the face. The former being treated with a base of oil before the final coating, presents a dead surface, while the latter receiving only the compound, possesses a glazed coating of considerable fineness.

Instead of putting the cheap oil upon the upper surface of the board, it may be applied to its under side with equal effect, and it is apparent that water-proof materials other than resin may be used in connection with the oil in the manner described, and be productive of substantially the same results.

In the manufacture of all water-proof board or paper that is wound into rolls for shipment, the water-proof material employed is of such a sticky or adhesive nature that frequently, when attempting to unwind the rolls, the board or paper is torn and injured. This difficulty is greatly increased by the manner in which the board or paper is treated in its manufacture, viz: by being saturated with the water-proofing as it leaves the paper-machine, and immediately wound into rolls before being thoroughly dried.

By my invention these difficulties are entirely overcome, as the oil furnishes a non-adhering surface to the board, so that, when the rolls are unwound, there is no danger of their being torn or injured.

Straw or plastering-board prepared in accordance with my invention is entirely inodorous, and is not, like plain or unsaturated board, liable to warp under the influence of moisture when employed as an exterior covering, or when nailed to the studding in place of laths and plaster.

To apply the plastering-board, it should be cut into suitable lengths and the edges trimmed square. These strips are then met evenly on both sides and rolled up, being allowed to stand on the edge until thoroughly dampened. Treated in this way it swells slightly, and when put on and dried shrinks down smooth.

When thus prepared it is tacked upon both edges to the walls, commencing at the top. It may also be tacked in the center occasionally.

After one strip is applied another is put on in the same way, keeping the edges close together without lapping, the joints and tack-heads being afterward

covered with narrow strips of cloth or paper. After the board thus applied is thoroughly dried, it may be covered with wall-paper or painted, as preferred.

In preparing the board as a substitute for siding, it is cut by suitable machinery into narrow strips of uniform width, either before or after being rolled, and applied to the exterior boards or studs by nailing, as in ordinary siding.

The heavy, wide rolls could not well be used for this purpose, inasmuch as their weight would render them difficult to handle, and their width produce an unfinished appearance, besides rendering them liable to injury from the weather, because a greater surface of each board would be exposed.

Having thus described my invention,

What I claim as new is—

1. The prepared plastering-board as a new article of manufacture, substantially as herein described.

2. The process, substantially as herein described, for producing the plastering-board.

3. The siding for buildings, constructed and prepared in the manner substantially as herein described.

JUDD M. COBB.

Witnesses:

J. BRITTAN,

FRANK H. SMITH.