JAMES PHILLIPS'

Method of Lining Walls of Stone, Brick &c.

112376

PATENTED MAR 7 1871

Fig. 1.

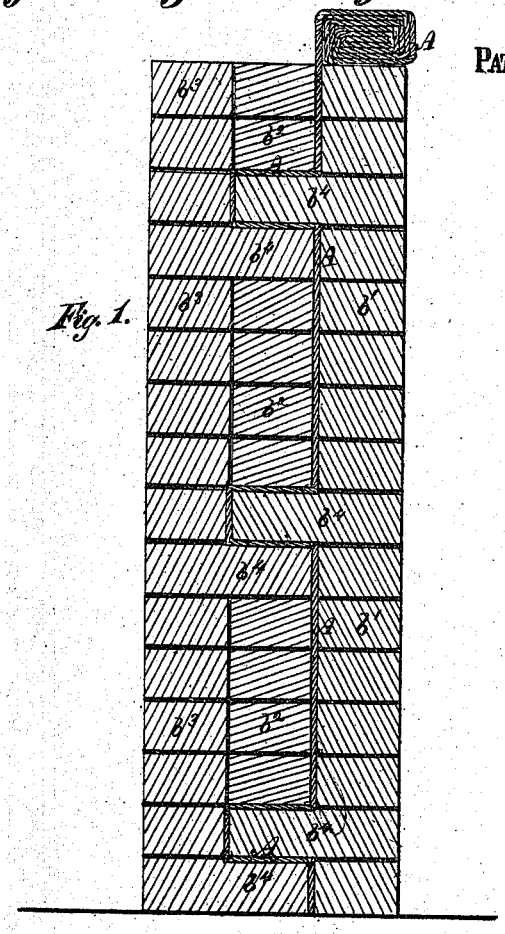

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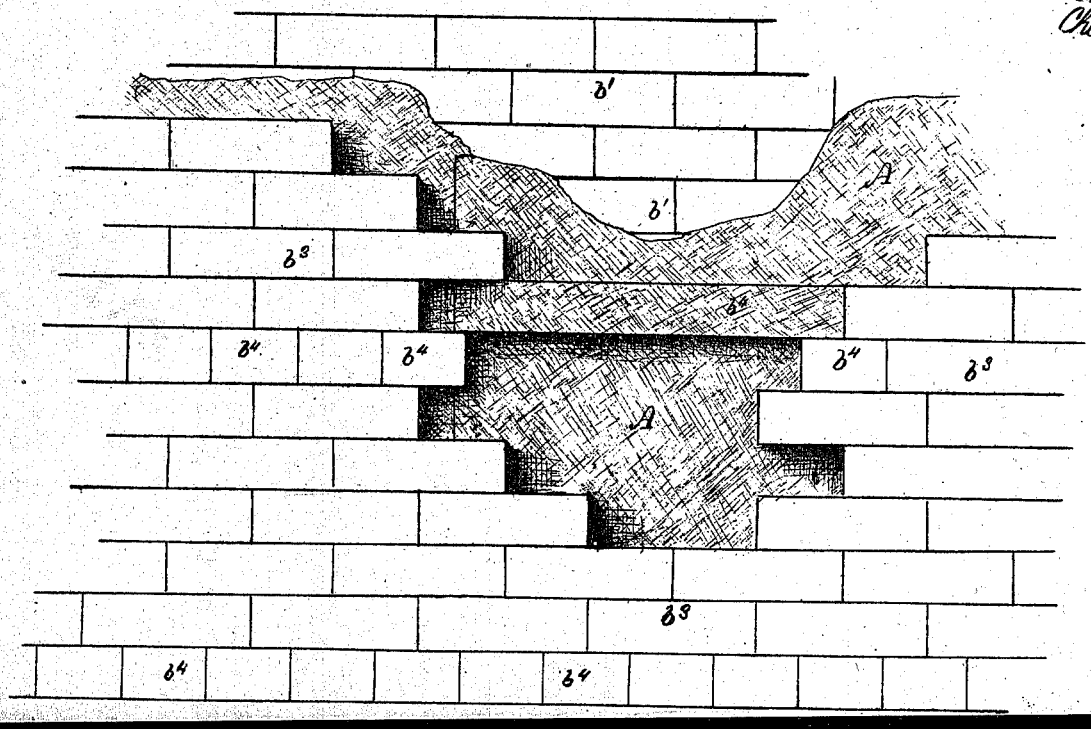
Fig. 2.



UNITED STATES PATENT OFFICE.

JAMES PHILLIPS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LINING WALLS WITH FELT, &c.

Specification forming part of Letters Patent No. **112,376**, dated March 7, 1871.

To all whom it may concern:

Be it known that I, JAMES PHILLIPS, of the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and Improved Method of Lining Brick, Stone, or Concrete Walls with Felt or other Non-Conducting Material, of which the following is a specification.

The invention consists in extending a continuous surface of paper or cloth felt between the different layers of a brick, stone, or concrete wall, for the purpose of acting as a non-conductor to heat, cold, and moisture, as hereinafter set forth.

In the drawings, Figure 1 is a sectional view of a brick wall with my improvement applied thereto, and Fig. 2 a side elevation with part of the bricks removed to show the lining.

A represents the felt or other non-conducting lining, which is interposed between the different layers of the wall. B is the wall itself, and b' b^2 b^3 the different courses of brick or other material, and b^4 the heading or binding courses.

The preferable method of applying the felt, tarred paper, or other equivalent non-conducting material is as follows: The mason having laid his heading-course b^4 on the foundation-wall, and carried up the outer or front layer, b', the height of the next heading-course, takes a roll of the lining material and unrolls a sufficient length to reach from the lower heading-course to the next above it, and then lays the roll on the top of the outer layer, b', just referred to, and shown in Fig. 1. He then takes another roll and repeats the same operation, and so on, until the whole surface of the wall is covered. The edges of the felt are of course lapped one upon another. The rolls of lining material are preferably made square, so as to rest firmly upon the wall, and when so placed are entirely out of the way of the workmen. Having thus covered the inner surface of the outer course, b', with the lining, the second course, b^2, is built up even with the surface of and close against the lining and the outer curse, b', the wall thus being the same in all respects as it is usually built, save that the lining is interposed between the two courses. The third course, b^3, which, to accord with the drawings, we will suppose to be the innermost course, is then built up to the height of the two former courses. After this the workmen take the rolls and unroll them sufficiently to allow them to be brought over the two inner courses, b^2 b^3, and laid at their feet while they are laying the second heading-course and carrying up the outer wall to the height of the their heading-course. They then take the rolls and lay them on the top of the outer course, b', and proceed to build up the second course as before. In erecting walls of greater thickness, a second lining could be used between the additional layers in the same manner, if desired.

It will be seen that there can be but little hinderance to the masons in using the lining.

The advantages secured by the invention are important. By excluding the moisture absorbed by the outer layer from the inner courses the latter are kept quite dry, thus making it possible to apply plaster directly to the walls. This would obviate the need of furring or boarding the walls, as also the lathing, and the plaster would not need to be supplied with hair. The workmen can proceed more rapidly when plaster is laid upon the wall itself than when required to lay it on lathing, and it adheres better to the former than to the latter. The dryness of the inner part of the wall does not increase the tendency of wood in contact with it to decay, as is the case in the present mode of construction, but allows of inserting into the wall the supporting-beams and joists without fear of rottenness from this cause. There is a sanitary as well as an economical gain here, decaying wood being well known to be injurious to health.

As the various kinds of building-felts and tarred paper are excellent non-conductors of heat, the buildings in which this improvement is employed are rendered more secure against the heats of summer and the frosts of winter. It will thus be seen that both the economic and healthful value of this invention is very great.

I am aware that the non-conducting materials which I employ are in common use in the construction of wooden houses, both in

connection with the roofing and siding. I do not therefore make any claim for their use in the erection of wooden buildings; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The lining A, composed of felt, tarred paper, or other equivalent non-conducting material placed between the different layers of a brick, stone, or concrete wall, for the purpose specified.

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

JAMES PHILLIPS.

Witnesses:
C. C. PECK,
GEO. W. MIATT.