June 3, 1930. J. ROSE 1,761,410

DAMPPROOF BUILDING

Filed Aug. 30, 1928

Fig. 1.

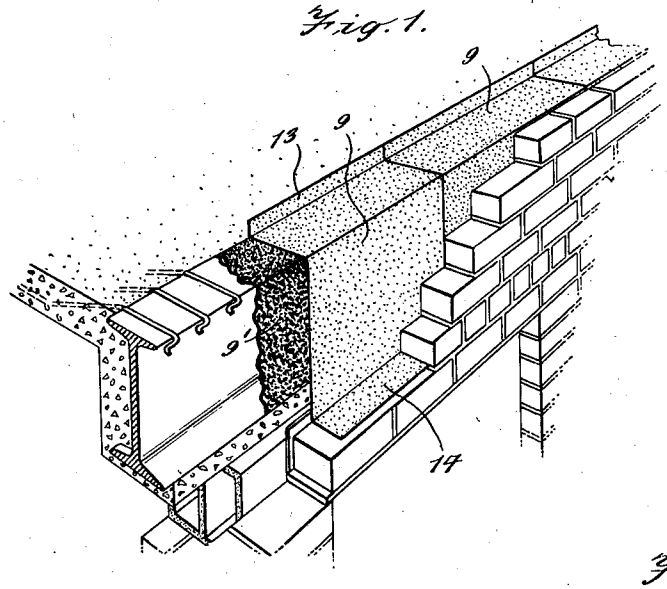


Fig. 2.

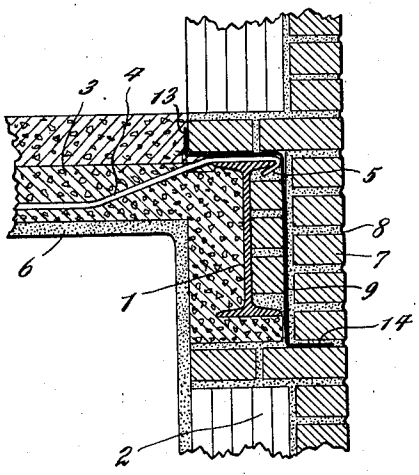


Fig. 3.

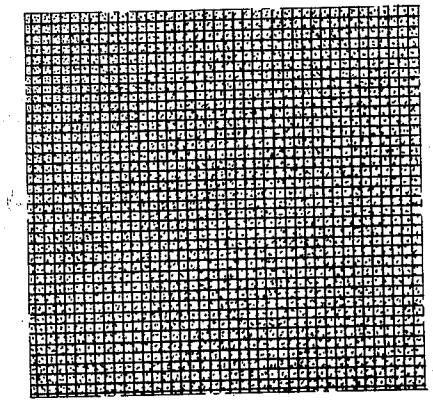
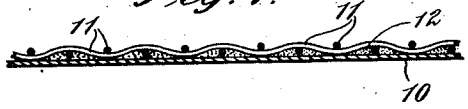


Fig. 4.



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Patented June 3, 1930 1,761,410

UNITED STATES PATENT OFFICE

JOSEPH ROSE, OF NEW YORK, N. Y., ASSIGNOR TO STRUCTURAL WATERPROOFING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

DAMPPROOF BUILDING

Application filed August 30, 1928. Serial No. 302,941.

My invention relates to method of damp-proofing buildings and the resulting structure.

A difficult problem is presented of preventing dampness on the inside of buildings in the region of the spandrel beams, particularly when the type of construction illustrated in the attached drawings is employed. The object of my invention is to prevent this dampness by a method of construction which will be later described.

My invention will be better understood by reading the following description in connection with the accompanying drawings, in which

Fig. 1 is a perspective view of a building structure in the region of a spandrel beam with my invention applied thereto;

Fig. 2 is a cross section of a wall embodying my invention;

Fig. 3 is a plan view of the reinforced damp-proofing fabric employed by me; and

Fig. 4 is a sectional view of such reinforced fabric.

Referring to Figs. 1 and 2, the spandrel beam 1 supports the wall 2. The floor 3 is usually of concrete and has reinforcing bars 4 which extend over the top flange of the spandrel beam and are bent inwardly, as shown at 5. The plaster 6 of a room in the building is shown in section in Fig. 2. On the front face of the spandrel beam 1 is a veneer composed of brick 7 and mortar 8. Because of this brick veneer, which ordinarily is about 4 inches thick, water which beats against the wall seeps through these bricks 7 into the space back thereof and then runs down into the wall below the spandrel beam 1 and a damp spot appears on the plaster 6 along the side wall of the room just below the base of the spandrel beam. It is difficult, if not impossible, to treat the interior wall of the room so as to prevent the appearance of dampness.

I have devised a means and method by which dampness can be entirely avoided. This means is a reinforced fabric member 9 which is preferably of the construction shown in Figs. 3 and 4. The same consists of a cotton fabric 10 and a reinforcing screen wire 11 placed on one side of the fabric 10, the whole being then saturated with damp-proofing compound 12. Sheets of reinforced fabric are applied to the spandrel beam, as shown in Figs. 1 and 2. From these figures it will be noted that the fabric covers the entire face of the spandrel beam, extends up over its top and is turned up at 13 so that the portion 13 is substantially parallel with the face of the wall. This fabric is also carried downwardly below the base of the spandrel beam and is turned outwardly at 14. It is carried out almost to the face of the wall, preferably within 1 inch of the face of the wall. A course of brick is then placed on the part 14 and when the brickwork is carried up over the spandrel beam, the upturned portion 13 is arranged to receive the brick and prevent water from running inwardly across the floor. From the foregoing it will be evident that the wall is completely damp proof in the region of the spandrel beam and that it is, therefore, impossible for any water which might seep through the brick 7 to get into the interior portion of the wall or beam region.

The space between the reinforcing sheet 9 and the web of the spandrel beam is bricked in to receive this membrane. An adhesive 9′ may be used, if desired.

The damp-proofing fabric is applied cold, as shown in Figs. 1 and 2, and because of the reinforcing means the portion 13 when turned up will remain in position so that it will not be necessary to turn up this part of the damp-proofing material after the wall 2 has been completed. This method has the advantage that the accumulation of mortar drippings will be prevented which would be the case if the damp-proofing membrane were not reinforced, in which event the part 13 would not remain in upturned positioned during the construction of the wall. Furthermore, the reinforcement 11 will prevent the ends 5 of the reinforcing bars 4 from puncturing the damp-proofing membrane, as it is not always possible to carefully bend down the ends 5 as smoothly as illustrated in Figs. 1 and 2.

My construction has, among others, the following advantages:

It provides a practically non-puncturable membrane; it is semi-rigid and conforms to the parts over which it is applied; it will hold its shape in place and will allow the inner edge to be turned up to receive brickwork; it is unnecessary to bind the damp-proofing membrane to the brick work or steel with any mastic or other adhesive material; this membrane can be installed much more quickly than any membrane previously used, as it eliminates the necessity of first trowelling the brick and steel surface to which it is applied with mastic or other adhesive; it can be applied directly to a wet surface without impairing its efficiency in any way. This last feature is of considerable importance because this material can be applied on wet brick work immediately after the brick layers have completed their work.

Slight changes in the details of construction can be made without departing from the spirit of my invention.

I claim:

1. In building construction, the combination of a spandrel beam, brickwork on the outside of said beam and reinforced fabric damp-proofing material between said beam and brickwork and extending upwardly over said beam, downwardly below said beam and outwardly to a point near the face of the brickwork.

2. In building construction, the combination of a spandrel beam, brickwork on the outside of said beam and reinforced fabric damp-proofing material between said beam and brickwork and extending upwardly over said beam, downwardly below said beam and outwardly to a point near the face of the brickwork, said material having its upper edge upturned parallel with the face of the brickwork.

JOSEPH ROSE.