Sept. 5, 1944. E. M. WALSH 2,357,367

BUILDING CONSTRUCTION

Filed Oct. 29, 1941 2 Sheets-Sheet 1

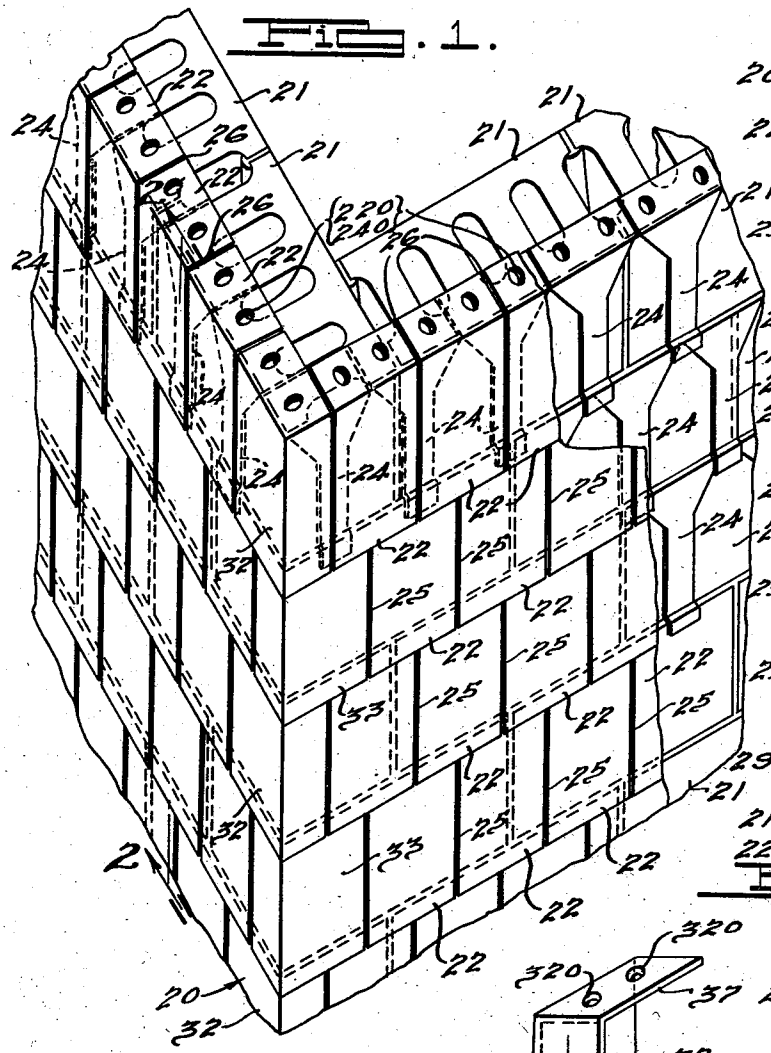


Fig. 1.

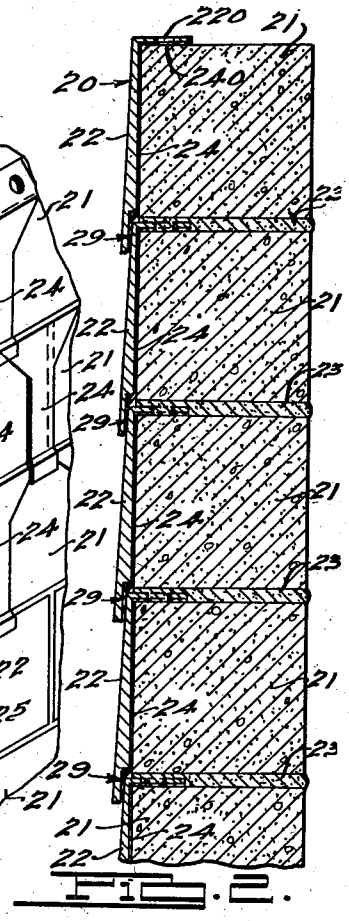


Fig. 2.

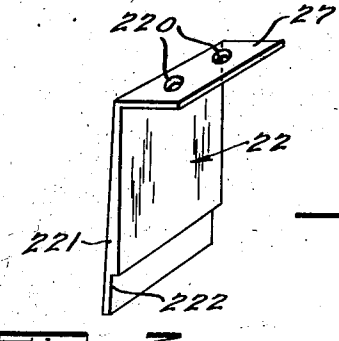


Fig. 3.

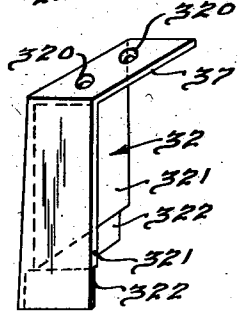


Fig. 4.

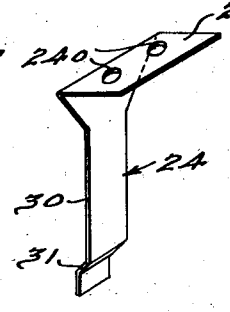


Fig. 5.

INVENTOR

BY Edgar M. Walsh.
Emmett H. Wright
ATTORNEY

Sept. 5, 1944. E. M. WALSH 2,357,367

BUILDING CONSTRUCTION

Filed Oct. 29, 1941 2 Sheets-Sheet 2

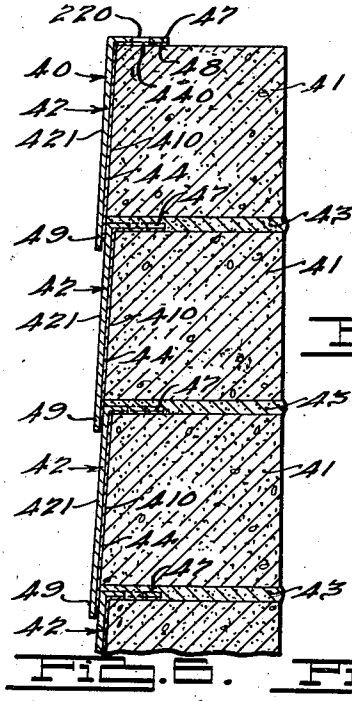


FIG. 5.

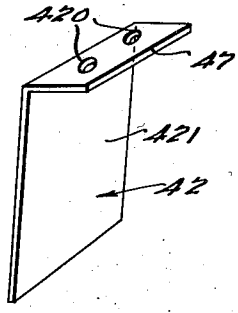


FIG. 7.

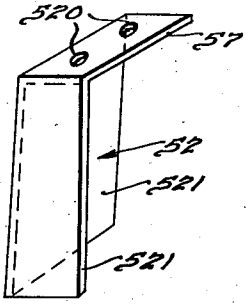


FIG. 8.

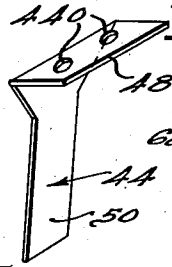


FIG. 9.

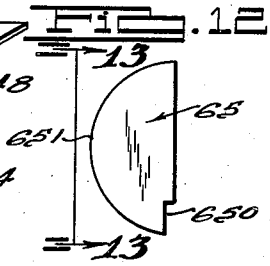


FIG. 12.

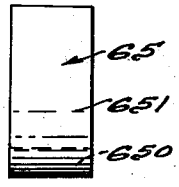


FIG. 13.

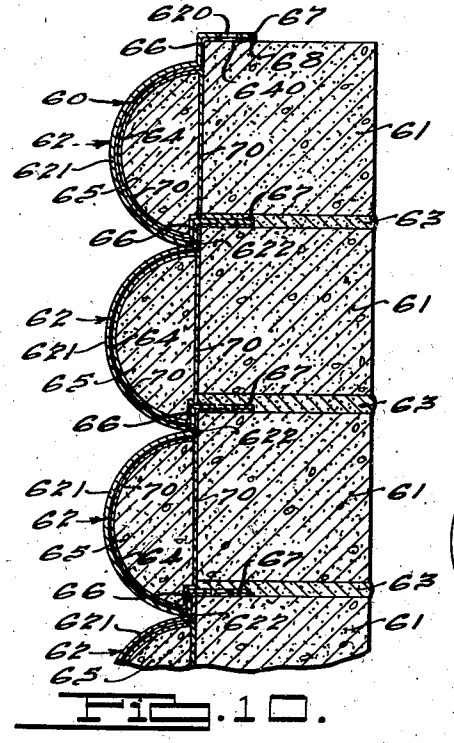


FIG. 10.

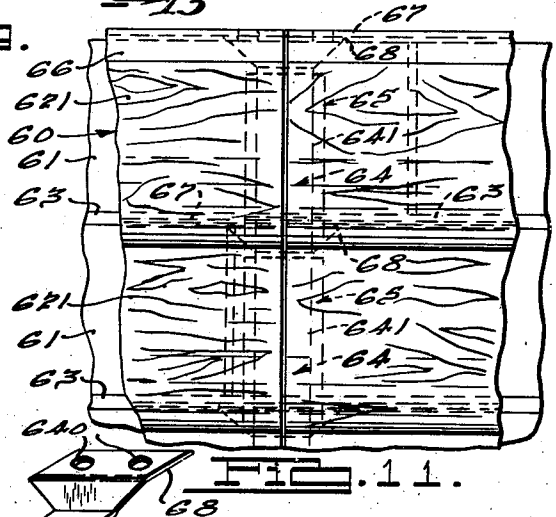


FIG. 11.



FIG. 14.

INVENTOR

BY Edgar M. Walsh.
Ernest G. Wright
ATTORNEY

Patented Sept. 5, 1944 2,357,367

UNITED STATES PATENT OFFICE

2,357,367

BUILDING CONSTRUCTION

Edgar M. Walsh, Grosse Pointe Farms, Mich.

Application October 29, 1941, Serial No. 416,954

9 Claims. (Cl. 72—21)

This invention relates to building construction and in particular to improvements in the art of wall construction.

One object of the invention is to provide an improved exterior wall construction which may be finished completely in a single operation, which is completely fireproof and waterproof, which has a high insulating value, and which is inexpensive to construct and maintain.

Another object of the invention is to provide a simple, inexpensive, fireproof and waterproof wall construction susceptible to various architectural treatments to represent shingle walls, clapboard walls, log walls, and the like.

Another object of the invention is to provide a cinder or concrete block wall including an exterior weatherproof facing therefor erected with the wall whereby to provide a complete wall construction for low cost housing, country homes, and the like where permanency and weather resistance with substantially no upkeep are essential.

Other objects of the invention will become apparent by reference to the following detailed description taken in connection with the accompanying drawings, in which:

Fig. 1 is a view in perspective showing wall construction embodying the invention employing standard rectangular backing blocks.

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a view in perspective of a typical facing unit preferably employed.

Fig. 4 is a view in perspective of a left-hand corner facing unit preferably employed.

Fig. 5 is a view in perspective of the flashing strips preferably employed below the joints between facing units in the embodiment of the invention disclosed in Figs. 1 to 5 inclusive.

Fig. 6 is a vertical sectional view of another embodiment of the invention which employs sloping faced backing blocks rather than standard rectangular backing blocks.

Fig. 7 is a view in perspective of a typical facing unit employable with sloping faced backing blocks.

Fig. 8 is a view in perspective of a left-hand corner facing unit employable with sloping faced backing blocks.

Fig. 9 is a view in perspective of flashing strips preferably employed below the joints of facing units in the embodiment of the invention disclosed in Figs. 6 to 9 inclusive.

Fig. 10 is a vertical sectional view of still another embodiment of the invention wherein the completed wall represents a log wall.

Fig. 11 is a fragmentary elevational view of the wall disclosed in Fig. 10.

Fig. 12 is a side elevational view of a filler block employed behind the flashing in the construction disclosed in Figs. 10 and 11.

Fig. 13 is a front elevational view of the filler block shown in Fig. 12.

Fig. 14 is a view in perspective of flashing strips preferably employed below the joints of facing units in the embodiment of the invention disclosed in Figs. 10 to 14 inclusive.

Referring now to the drawings wherein like numerals refer to like and corresponding parts throughout the several views, the illustrative embodiment of the invention disclosed in Figs. 1 to 5 inclusive comprises a wall 20 of rectangular cinder or concrete backing blocks 21 faced with facing units 22 anchored in the horizontal joints 23 of cementitious material between horizontal rows of backing blocks 21 with a suitable flashing 24 of such material as copper or bronze sheet, permanently waterproofed building paper, or the like disposed to the rear of the vertical joints 25 and below the horizontal joints 26 between the ends of laterally adjacent facing units 22.

The facing units 22 are preferably formed of asbestos-cement, tile, or other suitable water and weatherproof material into inverted L-shaped sections having a rearwardly extending anchorage tongue 27 which is laid over the backing blocks 21 as indicated in Figs. 1 and 2 after the flashing 24 is positioned over the said blocks laterally central with respect to the vertical and horizontal joints 25 and 26 between facing units 22. A rearwardly extending anchorage tongue 28 of the inverted L-shaped flashing 24 preferably employed is suitably apertured as indicated by the numeral 240 in Fig. 5 to register with suitable apertures 220 formed in the tongue 27 of the facing units 22 as indicated in Fig. 3 to admit of mortar or like cementitious material in the horizontal joints 23 between the backing blocks 21 to extend therethrough for the purpose of anchoring the said wall facing units 22 to the backing blocks 21 whereby to provide a complete unitary structural and weather-faced wall 20 in a single erection operation and without employing separate wall ties, nailing, grounds for nailing, mechanical anchors, or the like.

The facing units 22 are preferably deeper than the height of one course of backing blocks 21 and are tapered at 221 to be thicker near the bottom thereof than at the top thereof and are longitudinally notched at 222 to provide a weather lap in the completed wall as indicated by the nu-

meral 29 in Fig. 2. The tapering 221 and notching 222 of the facing units 22 as indicated in Figs. 1, 2, 3 and 4 permit their use with rectangular backing blocks 21 without the completed wall 20 becoming out of plumb. The depending portion 30 of the flashing 24 is preferably narrower than the anchorage tongue 28 thereof to save material. The said depending portion 30 of the flashing 24 may be offset near the bottom thereof as indicated by the numeral 31 in Fig. 5 to accommodate it to the horizontal weather lap 29 between rows of facing units 22.

Although the facing units 22 have been shown shingle width in Figs. 1, 3 and 4, obviously, they may be constructed in long lengths to imitate clapboards. In laying up a wall 20, left-hand and right-hand corner facing units 32 and 33 respectively are preferably employed to form a right angle corner as shown in Fig. 1. A left-hand facing unit 32 is illustrated in Fig. 4 and is provided with tapers 321, notches 322, and an anchorage tongue 37 having apertures 320 therein, all like and similar to a typical wall unit 22. By cutting a few typical facing units 22 and left-hand and right-hand corner facing units 32 and 33 respectively to desired widths, any person skilled in masonry and building may lay-up a completed wall 20 to any desired dimension and leave any desired openings therein.

The embodiment of the invention disclosed in Figs. 6 to 9 inclusive is like and similar to the embodiment of the invention disclosed in Figs. 1 to 5 inclusive except that the backing blocks are provided with a tapered front face and the wall units are neither notched or tapered.

Referring now particularly to Figs. 6 to 9 inclusive, the illustrative embodiment of the invention disclosed comprises a wall 40 of rectangular cinder or concrete backing blocks 41 having an outwardly and downwardly tapered face 410 faced with facing units 42 anchored in the horizontal joints 43 of cementitious material between horizontal rows of backing blocks 41 with a suitable flashing 44 of such material as copper or bronze sheet, permanently waterproofed building paper, or the like disposed to the rear of vertical and horizontal joints between the ends of laterally adjacent facing units 42.

The facing units 42 are preferably formed of asbestos-cement, tile, or other suitable water and weatherproof material into inverted substantially L-shaped sections having a rearwardly extending anchorage tongue 47 disposed at an angle slightly greater than 90 degrees with respect to the main or depending portion 421 thereof. The anchorage tongue 47 of the facing units 42 is laid over the backing blocks 41 as indicated in Fig. 6 and the outwardly sloping depending portion 421 thereof is on such an angle with respect to the said anchorage tongue 47 as will cause the said depending portion 421 to follow the slope of the outwardly and downwardly tapered face 410 of the backing blocks 41. The rearwardly extending anchorage tongue 48 of the inverted substantially L-shaped flashing 44 preferably employed is suitably apertured as indicated by the numeral 440 in Fig. 9 to register with suitable apertures 420 formed in the anchorage tongue 47 of facing units 42 as indicated in Fig. 7 to admit of mortar or like cementitious material in the horizontal joints 42 between the backing blocks 41 to extend therethrough for the purpose of anchoring the wall facing units 42 to the backing blocks 41 whereby to provide a complete unitary structural and weather-faced wall 40 in a single erection operation without employing an independently constructed backing wall, wall ties, nailing, nailing grounds, mechanical anchors, or the like.

The facing units 42 are preferably deeper than the height of one course of backing blocks 41 to provide a weather lap in the completed wall as indicated by the numeral 49 in Fig. 5. The tapering of the face of the backing blocks 41 and the forming of the facing units 42 to lay on the taper of the flashing blocks 41 permit their use without employing notched or thickened facing units 42. The depending portion 50 of the flashing 44 is preferably narrower than the anchorage tongue 48 thereof to save material.

Although the facing units 42 have been shown in shingle width, obviously, they may be constructed in long lengths to imitate clapboards. In laying up a wall 40, left-hand and right-hand corner facing units are employed alternately at the corners of such walls. A left-hand corner facing unit 52 is illustrated in Fig. 8 and is provided with outwardly sloping depending portions 521 and an anchorage tongue 57 having apertures 520 therein, all like and similar to a typical wall unit 42. By cutting a few typical facing units, left-hand corner facing units, and right-hand corner facing units to desired widths, any person skilled in masonry and building may lay-up a completed wall 40 to any desired dimension and have any desired openings therein.

The embodiment of the invention disclosed in Figs. 10 to 15 inclusive is like and similar to the embodiments of the invention previously described except that the facing units are formed to represent logs whereby to provide a log cabin effect of the completed structure.

Referring now particularly to Figs. 6 to 9 inclusive, the illustrative embodiment of the invention disclosed comprises a wall 60 of rectangular cinder or concrete backing blocks 61 faced with facing units 62 anchored in the horizontal joints 63 of cementitious material between horizontal rows of backing blocks 61 with a suitable flashing 64 of material such as copper or bronze sheet, permanently waterproofed building paper, or the like disposed to the rear of and below vertical and horizontal joints between laterally adjacent facing units 62. Filler blocks 65 are employed behind the flashing 64 to hold the said flashing 64 tightly against the rear of the outwardly curved log representing portion 621 of the said facing units 62.

The facing units 62 are preferably formed of asbestos-cement, tile or other suitable water and weatherproof material into inverted L-shaped sections having a rearwardly extending anchorage tongue 67 disposed at right angles with respect to the upper part 66 of the depending portion 621 thereof which is formed curved to a radius and exteriorly ornamented as indicated in Figs. 10 and 11 to represent the surface of a log. The lower end 622 of the depending portion 621 of the facing unit 62 terminates outwardly with respect to the upper part 66 of the depending portion 621 of the subjacent facing unit 62 when laid up in a wall to accommodate the lower end 641 of the flashing 64 and to permit the wall 60 to be laid up plumb.

The flashing 64 is formed inverted L-shaped and is curved at 641 to lie complementary to the inside of the curved depending portion 621 of the facing unit 62 and is provided with a rearwardly extending anchorage tongue 68 suitably apertured as indicated by the numeral 640 in Fig. 14 to register with suitable apertures 620 formed in

the anchorage tongue 67 of facing units 62 as indicated in Fig. 10 to admit of mortar or like cementitious material in the horizontal joints 63 between the backing blocks 61 to extend therethrough for the purpose of anchoring the wall facing units 62 to the backing blocks 61 whereby to provide a complete unitary structural and weather-faced log simulating wall 60 in a single erection operation.

Filler blocks 65 have a front curved face 651 and are preferably placed between the back of the curved portion 641 of the flashing 64 at all vertical joints between facing units 62 to hold the flashing 64 out against the rear of the curved depending portion 621 of the said facing units 62 and to prevent water from running into the space between the said facing units 62 and the backing blocks 61. The rear of the said filler blocks 65 is preferably provided with a horizontal notch 650 thereacross to permit them to clear the upper part 66 of the depending portion 621 of the facing unit 62 therebelow, see Figs. 10, 12 and 13. Mortar or mastic or like cementitious material 70 may be employed to fill up any space that may occur between the said filler blocks 65 and the backing blocks 61 and the flashing 64, and to hold the filler blocks 65 in place during erection of the wall 60. The depending curved portion 641 of the flashing 64 is preferably narrower than the anchorage tongue 68 thereof to save material.

The log representing facing units 62 may be of any suitable width to represent any length of log that is convenient to handle. The said facing units 62 are preferably colored or stained to the color of logs. The ends of facing units 62 and the backing blocks 65 may be mitered or otherwise formed to provide suitable corner construction for structures employing the invention.

Although but several embodiments of the invention have been disclosed and described in detail, it is obvious that many changes may be made in the size, shape, arrangement and detail of the various elements of the invention, therefore, it is intended that all matter contained in the description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. In a wall construction, in combination with a plurality of masonry backing blocks laid up in tiers having horizontally disposed cementitious joints therebetween, a facing therefor composed of a plurality of laterally adjacent vertically overlapping facing units, each facing unit including a rearwardly extending tongue anchored in the horizontal cementitious joints between said backing blocks, and a flashing strip disposed behind the joints between adjacent facing units, each flashing strip including a rearwardly extending tongue anchored in the horizontal cementitious joints between backing blocks below the tongue of said facing units.

2. In a wall construction, in combination with a plurality of masonry backing blocks laid up in tiers having horizontally disposed cementitious joints therebetween, a facing therefor composed of a plurality of laterally adjacent vertically overlapping facing units, each facing unit including a rearwardly extending tongue having apertures therethrough anchored in the horizontal cementitious joints between said backing blocks, a flashing strip disposed behind the joints between adjacent facing units including a rearwardly extending tongue on each flashing strip having apertures therethrough disposed below the tongues of the said facing units in registry with said apertures through the said tongues of said facing units anchored in the horizontal cementitious joints between backing blocks.

3. In a wall construction, in combination with a plurality of masonry backing blocks laid up in tiers having horizontally disposed cementitious joints therebetween, a facing therefor composed of a plurality of laterally adjacent vertically tapered overlapping facing units longitudinally notched across the back of the lower end thereof to overlap the upper end of the next subjacent facing unit, each facing unit including a rearwardly extending tongue at the top thereof anchored in the horizontal cementitious joints between said backing blocks, and a flashing strip disposed behind the joints between adjacent facing units, each flashing strip including a rearwardly extending tongue anchored in the horizontal cementitious joints between backing blocks below the tongues of said facing units.

4. In a wall construction, in combination with a plurality of masonry backing blocks laid up in tiers having horizontally disposed cementitious joints therebetween, a facing therefor composed of a plurality of laterally adjacent vertically tapered overlapping facing units longitudinally notched across the back of the lower end thereof to overlap the upper end of the next subjacent facing unit, each facing unit including a rearwardly extending tongue at the top thereof having apertures therethrough anchored in the horizontal cementitious joints between said backing blocks, and a flashing strip disposed behind the joints between adjacent facing units including a rearwardly extending tongue on each flashing strip having apertures therethrough disposed below the tongues of the said facing units in registry with said apertures through the said tongues of said facing units anchored in the horizontal cementitious joints between backing blocks.

5. In a wall construction, in combination, a plurality of masonry backing blocks having an outwardly and downwardly tapered face laid up in tiers with the backs thereof in vertical alignment, horizontally disposed cementitious joints between said backing blocks, a facing composed of a plurality of laterally adjacent vertically overlapping facing units lying parallel to the tapered face of said backing blocks, each facing unit including a rearwardly extending tongue at the top thereof anchored in the horizontal cementitious joints between said backing blocks, and a flashing strip disposed behind the joints between adjacent facing units, each flashing strip including a rearwardly extending tongue anchored in the horizontal cementitious joints between backing blocks below the tongues of said facing units.

6. In a wall construction, in combination, a plurality of masonry backing blocks having an outwardly and downwardly tapered face laid up in tiers with the backs thereof in vertical alignment, horizontally disposed cementitious joints between said backing blocks, a facing therefor composed of a plurality of laterally adjacent vertically overlapping facing units lying parallel to the tapered face of said backing blocks, each facing unit including a rearwardly extending tongue at the top thereof having apertures therethrough anchored in the horizontal cementitious joints between said backing blocks, and a flashing strip disposed behind the joints between adjacent facing units including a rearwardly extending

tongue on each flashing strip having apertures therethrough disposed below the tongues of the said facing units in registry with said apertures through the said tongues of said facing units anchored in the horizontal cementitious joints between backing blocks.

7. In a wall construction, in combination with a plurality of masonry backing blocks laid up in tiers having horizontally disposed cementitious joints therebetween, a facing therefor composed of a plurality of laterally adjacent vertically overlapping outwardly curved facing units, each facing unit including a rearwardly extending tongue anchored in the horizontal cementitious joints between said backing blocks, a flashing disposed behind the joints between adjacent facing units, and a filler between said backing blocks and said flashing holding said flashing against the back of the outwardly curved portion of said facing units, each flashing including a rearwardly extending tongue anchored in the horizontal cementitious joints between backing blocks below the tongue of said facing units.

8. In a wall construction, in combination with a plurality of masonry backing blocks laid up in tiers having horizontally disposed cementitious joints therebetween, a facing therefor composed of a plurality of laterally adjacent vertically overlapping outwardly curved facing units, each facing unit including a rearwardly extending tongue having apertures therethrough anchored in the horizontal cementitious joints between said backing blocks, a flashing disposed behind the joints between adjacent facing units including a rearwardly extending tongue on each flashing having apertures therethrough disposed below the tongues of the said facing units in registry with said apertures through the said tongues of said facing units anchored in the horizontal cementitious joints between backing blocks, and a filler between said backing blocks and said flashing holding said flashing against the back of the outwardly curved portion of said facing units.

9. A facing for walls constructed of masonry backing blocks laid up in tiers having horizontally disposed cementitious joints therebetween comprising a plurality of laterally adjacent vertically overlapping facing units each including an outwardly curved portion representing a log, a vertically disposed upper section over which the lower end of the outwardly curved portion of the next above facing unit laps, a tongue extending rearwardly from the top thereof in anchored relationship in the horizontal cementitious joints between said backing blocks, a flashing disposed behind the joints between adjacent facing units including a rearwardly extending tongue disposed below the tongues of said adjacent facing units in the horizontal cementitious joints between said backing blocks, and a filler between said backing blocks and said flashing holding said flashing against the back of the outwardly curved portion of said facing units.

EDGAR M. WALSH.