

Jan. 18, 1938.

E. V. POSTON

2,105,613

FABRICATED BRICK CONSTRUCTION

Filed June 17, 1935

4 Sheets-Sheet 1

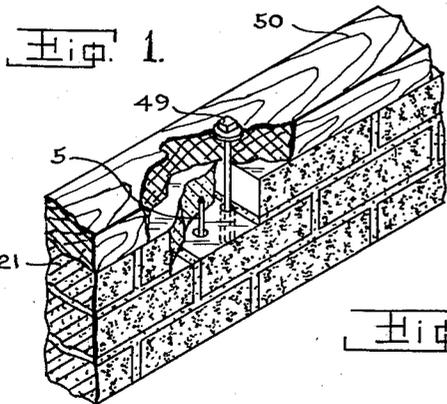
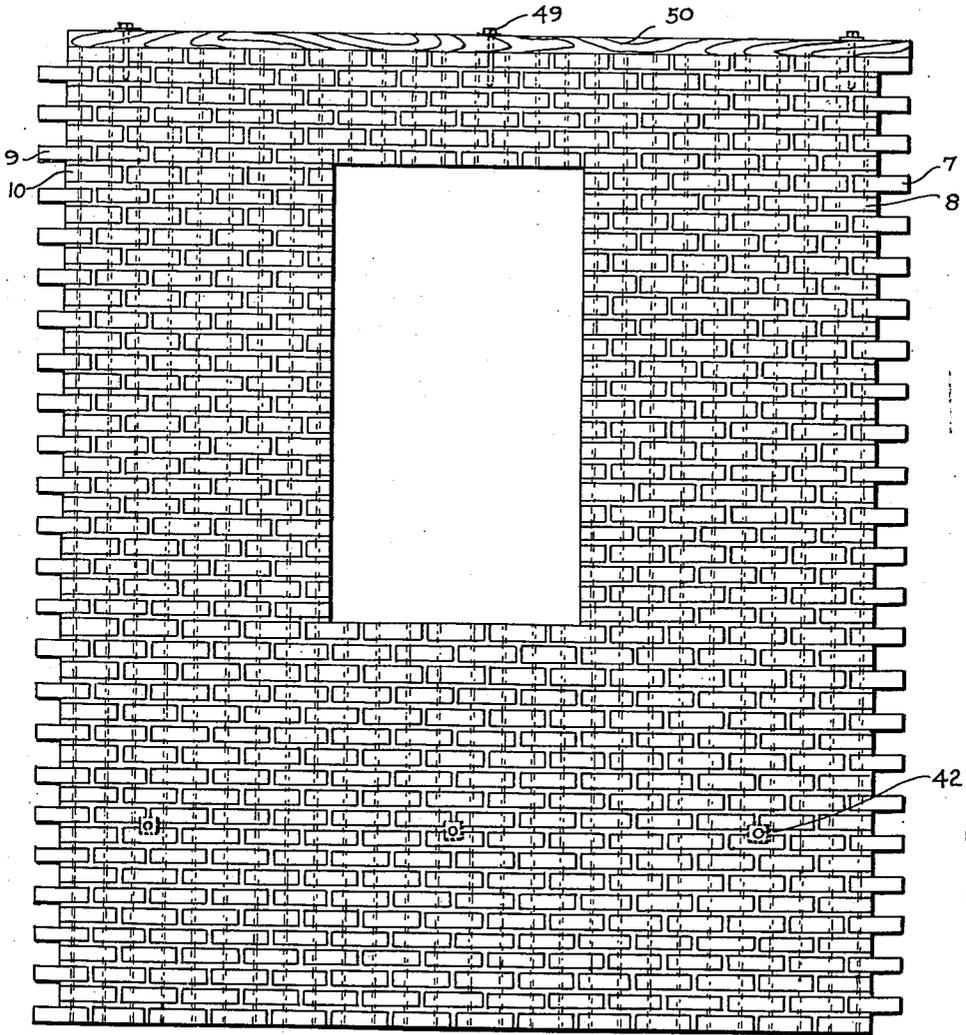


Fig. 2.

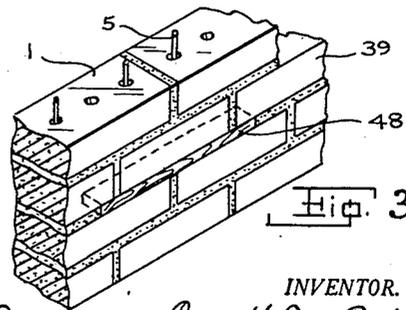


Fig. 3.

INVENTOR.  
*Emmett V. Poston*  
BY: *A. B. McCall*  
ATTORNEYS.

Jan. 18, 1938.

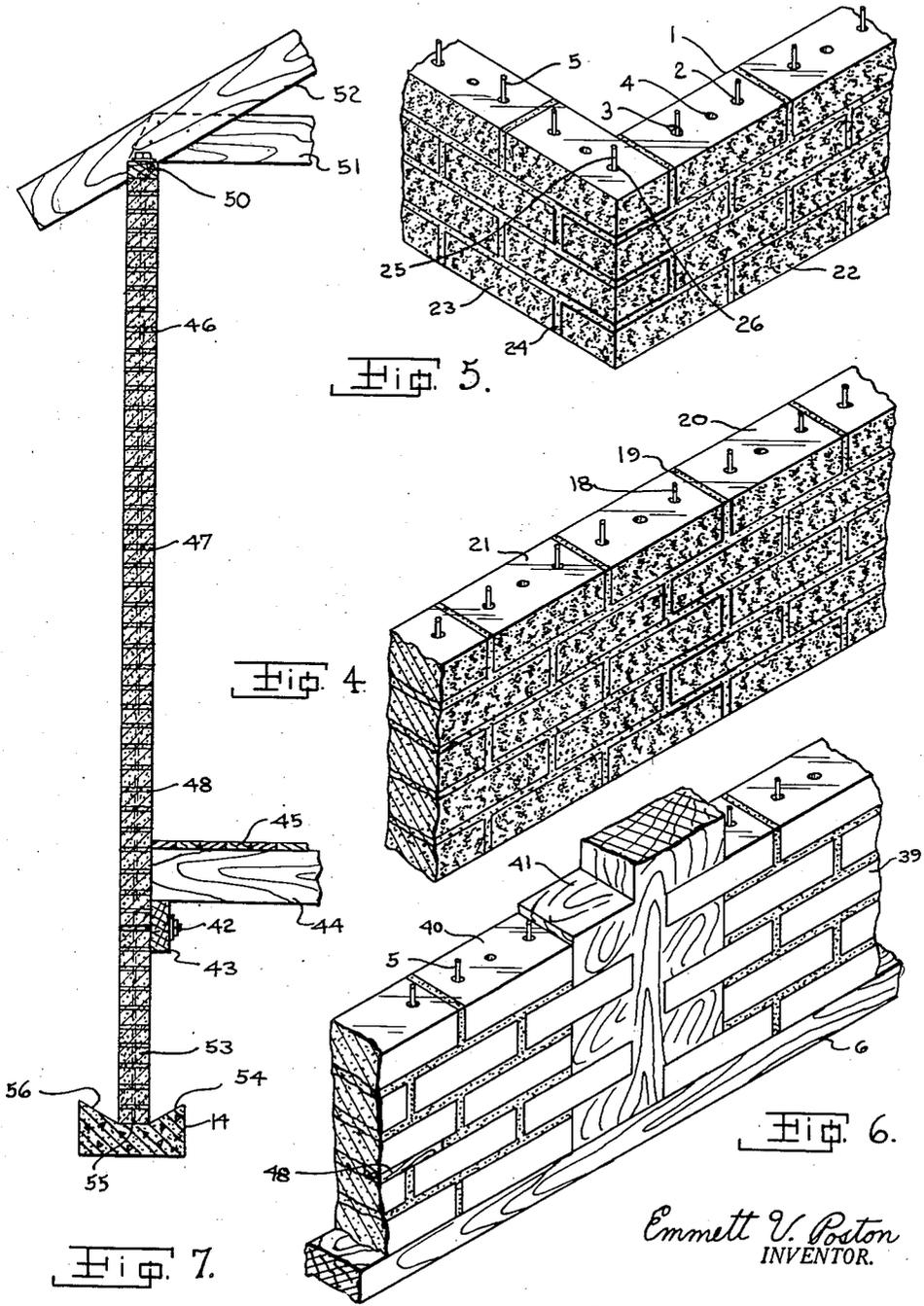
E. V. POSTON

2,105,613

FABRICATED BRICK CONSTRUCTION

Filed June 17, 1935

4 Sheets-Sheet 2



Emmett V. Poston  
INVENTOR.

BY: *A.B. McCall*  
ATTORNEYS.

Jan. 18, 1938.

E. V. POSTON

2,105,613

FABRICATED BRICK CONSTRUCTION

Filed June 17, 1935

4 Sheets-Sheet 3

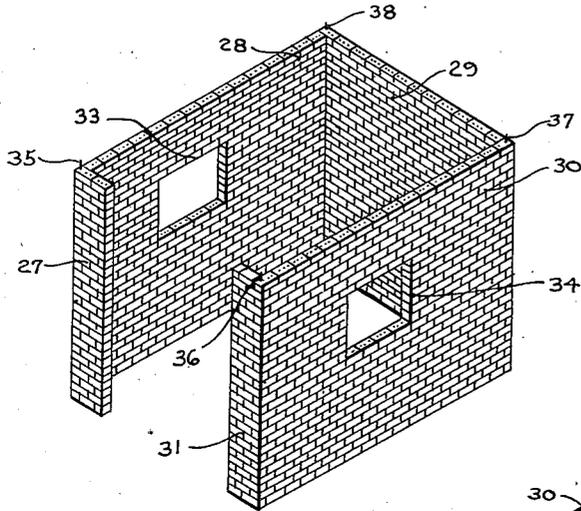


Fig. 9.

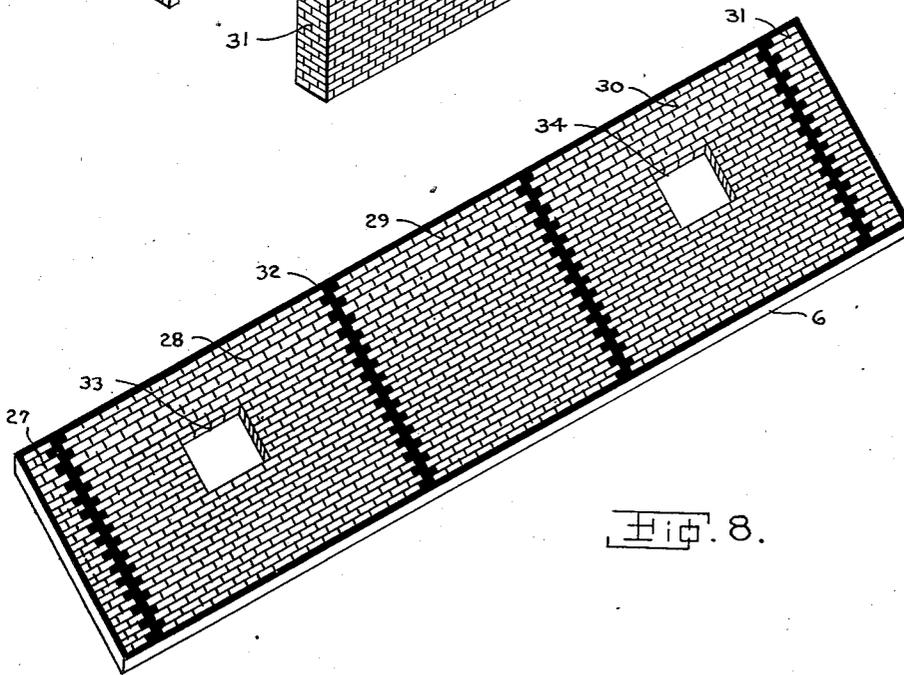


Fig. 8.

*Emmett V. Poston*  
INVENTOR.

BY: *A.B. McCall*  
ATTORNEYS.

Jan. 18, 1938.

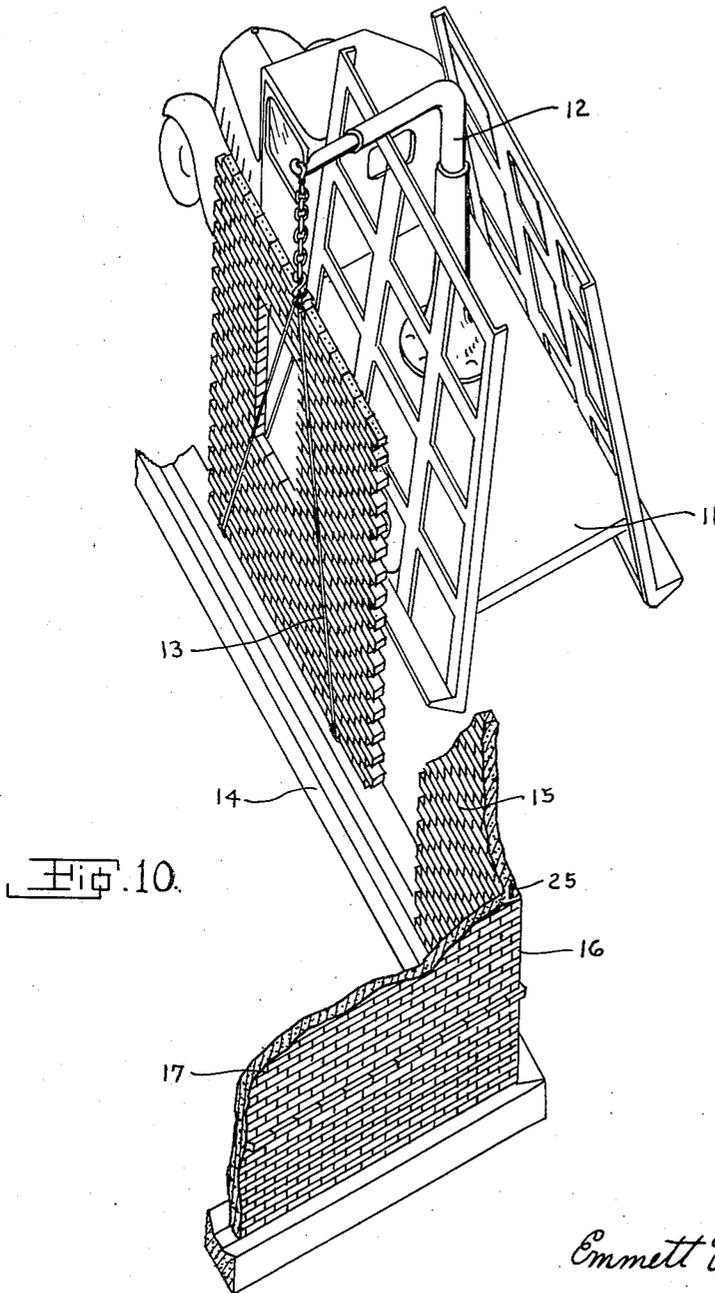
E. V. POSTON

2,105,613

FABRICATED BRICK CONSTRUCTION

Filed June 17, 1935

4 Sheets-Sheet 4



Emmett V. Poston  
INVENTOR.

BY: A.B. McCall  
ATTORNEYS.

# UNITED STATES PATENT OFFICE

2,105,613

## FABRICATED BRICK CONSTRUCTION

Emmett V. Poston, Springfield, Ill.

Application June 17, 1935, Serial No. 26,992

### 1 Claim. (Cl. 72-40)

My invention relates to brick construction and especially to brick walls wherein the construction thereof may be most successfully accomplished by making the wall in sections or panels at the place of manufacture thereof and then moving or transporting the same to a foundation at the location where they are to be used.

A purpose of my invention is to provide a new and novel type of brick wall construction which may be made in a manner permitting the brick units to be carefully and accurately laid in place in a broken jointed formation and with each of the brick units provided with two or more transverse holes located so that when the brick unit is set into position in a panel then such holes will be located so that they are lined up with corresponding transverse holes in adjacent brick units in adjacent brick rows in the panel, permitting a reinforcing rod to extend through such holes adjacent each end of each brick unit and through the panel for strengthening the same after a cement binding agent of suitable consistency is filled into the space between the bricks and filled into the holes about the reinforcing rods as they extend through the brick unit.

A particular purpose of my invention is to provide in a fabricated brick wall construction a means by which the wall may be made in panels or sections wherein reinforcing rods are used for strengthening the wall; while a binding cement of desirable consistency is used along with the reinforcing rods so that when the panels are finished they may be transported from the form where they are made, by a truck, to a foundation or building site where the wall structure is to be set up. The several sections or panels are secured together in broken jointed formation with a reinforcing rod running through the holes in the bricks and the binding cement agent also is used as a substantial and practical means of holding these panels together, either when in a straight wall or when thus tied together at a corner.

I attain the objects of my invention in the brick wall construction described in this specification and recited in the claim and illustrated in the accompanying drawings; wherein like reference numerals indicate like parts in the several figures.

Referring to the figures:

Fig. 1 is a face view of one of the brick panels incorporating my invention.

Fig. 2 is a detail in perspective of a portion of one of my panels and showing how the top roof supporting plate may be anchored thereto and also showing one of the reinforcing rods in place extending through a hole in one of the bricks.

Fig. 3 is a perspective disclosing the broken jointed arrangement of bricks in one of my panels as well as the reinforcing rods extending through transverse holes in the bricks and a wood plate insert set in the space between the brick rows to be used for nailing plaster board.

Fig. 4 is a perspective of a portion of two adjacent panels as when connected together in broken jointed formation and reinforced by reinforcing rods and the binding cement. In this figure the adjacent panels are set up in an alignment.

Fig. 5 is a perspective of a section of two adjacent panels set up together on a corner.

Fig. 6 is a perspective of a portion of two adjacent panels in a form when set up on edge and disclosing one of the forms of the spacers is used to separate the panels and properly form their ends so that when the sections are fitted together the adjacent bricks are set up in broken jointed formation.

Fig. 7 is a vertical section of a wall and foundation showing the manner in which the panels defining my brick wall construction may be set up.

Fig. 8 is a perspective of a rectangular form in which necessary panels for a garage are laid out with spacers between them.

Fig. 9 is a perspective of the walls of a garage set up from the panels shown in Fig. 8 and disclosing the corner connection where the reinforcing rods which connect the panels at the corner are shown at their top ends.

Fig. 10 is a perspective of a portion of a wall under construction where my invention is used and disclosing the manner in which a transporting truck may handle a panel of a wall when putting it in place. The foundation disclosed in this perspective can be below the surface of the ground and probably in most cases would be.

Referring now to the salient features of my invention and to the preferred construction and arrangement thereof, I provide a new, a novel and a practical teaching in the building art such as will make it possible to comply with all of the best standards of workmanship, architecture, ornamental design and a practical economy in building.

For instance, it has been the practice of those engineers, contractors, architects and construction workers generally to use bricks for building purposes for a period of many years; but because of the excessive cost connected with the manufacture and use of bricks for building purposes there have been numerous occasions where

those who propose to use brick as the building material could not successfully compete with those who propose to furnish the necessary wood for a frame building.

It is true that so long as those well known methods of preparing and handling brick are used then the cost of brick building construction will make it difficult if not impossible to compete with frame construction used for the same purpose regardless of the additional merits that are found in the use of brick as a building material.

It is obvious to those who manufacture bricks for building purposes that if they are to stay in business and continue to make progress in this art there must be developments in the art which will make it possible to manufacture, sell, and handle building bricks in a manner that will make it possible to make and handle them in a way that will be economical, practical and safe for all concerns while meeting the competition set up for them in the art of frame building construction.

It has been my purpose therefore in the development of my invention to achieve the ends above mentioned and to accomplish this purpose in the preparation and use of bricks for building purposes in a manner which simplifies construction work in building walls where bricks are used, saving much time and difficulty in the work connected with the building of brick walls; while the ultimate results as observed in the finished building will be superior to the construction of brick walls in a building as accomplished by the old method and old materials used.

For instance, I do not follow the old well known procedure in constructing a building wherein the workmen go on the job and lay the bricks, one after another, upon the foundation using cement, mortar and the like; but instead with my invention, I prefer to construct the brick wall by first preparing panels and sections of the wall in forms prepared for that purpose and then move these panels and sections or transport them to the building site by means of a conveyance such as a truck with a lifting derrick and let the panels and sections of the wall down in place upon a prepared foundation, where they are moved into the necessary position for them to be inter-locked and reinforced in their broken jointed fitting relation.

It will be obvious to those who are familiar with the building trade arts that when by following the teachings incorporated in my invention it has been shown by tests that a brick building which in every way is substantial and practical for residences and other purposes can be put up at a production cost not to exceed the comparative cost of a frame building of like plan and purpose, then the merits of my invention may be recognized with my teachings in this connection with the building arts resulting in the achievement of much benefit to the public.

It will also be obvious to those who are familiar with the handling of materials in the building trades that in order to achieve the purposes of my invention by preparing such brick wall panels and sections in one place and then transporting them and setting them up on a foundation in another place, they must be substantially reinforced for such handling; while at the same time such reinforcement as may thus be needed will then better prepare a brick wall for more lasting durability.

In describing some of the outstanding merits of my brick construction, I prefer to explain one of

the ways in which it may be regarded as practical to make a brick wall panel incorporating my invention.

For instance, in order to build one of the panels to be used in a brick building, I prefer to prepare a form the size of the desired panel placing the rails thereof on the ground about a prepared space for this purpose.

Within the form thus set I level off the surface and provide a coating of fine sand thereon that will be level.

The brick units 1 to be used will each be provided with two or more transverse holes by preferably the terminal holes 2, 3, and a central hole 4, to accommodate reinforcing rods 5. Such brick units laid in place in the form may be laid with the face down in the sand within the form to better protect the face when preparing the panel. However while it may be preferable to lay the face down when the brick units are laid in the form yet the brick units can be laid with the face up where a suitable method is provided for pouring the cement in between them.

I lay face bricks for instance, within the forms 6 (see Fig. 8) in a broken jointed formation so that the bricks thus laid in the form will have the several rows in a uniform space set off by templets to get the rows uniform in their alignment while the individual bricks laid in broken jointed formation in each row have those transverse holes adjacent their respective ends and are aligned with corresponding holes in the opposite end respectively of adjacent bricks in adjacent rows so that the reinforcing rods 5 may be made to extend through the aligned holes in these brick units as a means of reinforcing the bricks in the panel.

When the bricks thus laid in the panel and thus reinforced by rods 5 are aligned in such an accurate manner, then a binding cement possessing a suitable pouring consistency is filled in the space between the brick units and also permitted to run into holes in the brick units about the reinforcing rods extending therethrough. Thus the bricks when laid in each panel will have the appearance and will actually be lined up in a manner that cannot be exceeded by expert brick masons.

It may be desired in some cases to further reinforce this panel construction wherein a horizontal reinforcement may be used; in which case a part of the binding cement would be poured into the space between the brick units, then a reinforcing rod may be laid into the space between the rows of bricks after which more cement having a preferably soupy consistency may be poured into this space to fill it.

When reinforcing rods are thus put into the space between adjacent rows of bricks they are thus laid approximately at right angles to those reinforcing rods which extend through the holes in the brick units; thus bracing the panel in both directions.

It may not be found necessary to brace the panels in both directions but in situations where windows and doors are prepared in the panel it is thought that such cross bracing may be found advisable for the proper protection of the brick panel while handling the same before it is ultimately set up in the wall on a foundation and connected up with other panels.

When both ends of such panels are to be connected up with adjacent panels in a wall, those bricks 7 and 8, 9 and 10, (see Fig. 1) thus left at the end of the panel in a broken jointed forma-

tion are so arranged as to permit the panel to properly fit into adjacent panels having a corresponding broken jointed arrangement of its terminal bricks.

5 Thus when each panel is prepared and reinforced with reinforcing rods and a good quality of cement, the completed panel will be prepared for transportation to the building site to which it will be transported on a truck 11 built for such purposes as shown in Fig. 10 where a derrick 12 of some suitable type for such purposes may be used permitting the finished brick panel 13, for instance, to be carried directly to the foundation 14 where the panel may be set up in a proper alignment with panel 15 shown to be already connected at the corner 16 with panel 17. These panels are each connected by a broken jointed fitting relation between adjacent bricks while a reinforcing rod 25 will be used after the adjacent panels are set up to run down through the vertically aligned holes in the adjacent overlapping bricks of the two panels to serve as a reinforcement rod 18 (see Fig. 4) along with a filling of cement 19 between the adjacent panels 20 and 21 to hold such panels more firmly together when the panels are aligned on a foundation. Similar panels 22 and 23 may be in like manner fitted together on the corner of a building by using a filling 24 of cement and a reinforcing rod 25 at the corner to extend down through the vertically aligned holes 26.

It is obvious that as illustrated in Fig. 8 a number of panels 27, 28, 29, 30 and 31 may be all prepared at the same time in form 6 by using a suitable detachable spacer 32 between the panels and by providing a detachable form defining window openings 33 and 34.

In Fig. 8 there is shown all in one form the necessary layout to prepare the side walls for a garage as shown in Fig. 9, and on each of the four corners of this garage the adjoining panels are reinforced in their connection by the vertical reinforcing rods 35, 36, 37 and 38 running vertically down through the aligned holes in the brick units connected at the adjoining corners of the adjacent panels; which corners are further reinforced by a filling of cement of a suitable consistency to be filled in the spacing between the bricks on these corners.

50 It will be observed in Fig. 6 that I have shown in detail of panels 39 and 40 set up on edge but illustrated in perspective to show one type of detachable spacer 41 adapted to separate these panels when the bricks are being laid; but it is evident that any one of a number of different spacing devices could be used and accomplish the same purpose which is to get the adjacent panels of bricks not only spaced correctly within the panel but to provide a spacing for the terminal bricks

in the panel which will permit the adjacent panels to operatively fit together with the necessary reinforcing connecting rods and binding cement, where such panels are fitted up together in alignment on a foundation in the fitting manner shown 5 in the Fig. 4 just above this figure; while the same panels may be fitted together on a corner as shown in Fig. 5, after using the same kind of a spacer if desired as shown in Fig. 6.

In a house having a brick wall constructed in 10 this manner it is obvious that it will be convenient and practical to provide in the wall, bolt members 42 holding a wooden plate 43 for the support of a floor joist 44 holding a floor 45, while wooden insert members 46 and 47 and 48 may be 15 provided in the wall for the support of such wall coverings as plaster board and the like, which are nailed to these wooden plates or inserts.

It will be observed that along the top of the brick panels I provide anchoring bolts 49 (see Fig. 20 2) for holding in place a top wooden plate 50 adapted to support ceiling joist members 52.

I prefer to use in connection with my brick construction a foundation support for the wall 25 a channel 54 where this wall 53 may be promptly and easily centered on the flat area 55 at the middle thereof when the sloping sides 56 of the foundation 14 are provided for the wall to slide down to the center on if necessary. This novel 30 foundation 14 is serving as the subject matter for a separate and distinct patent application of my own and does not define one of the novel features of this invention.

Having thus described the nature of my invention and having set forth the advantages thereof what I claim is:

A portable panel of brick wall construction comprising a panel made of brick units each laid in rows and arranged with adjacent rows in broken jointed formation; said bricks each provided with two or more transverse holes, which are aligned with holes of adjacent bricks in adjacent rows, reinforcing rods extending through said aligned holes and a binding agent such as cement filling the space between said bricks and filling said holes about said reinforcing rods; said panel having its terminal bricks set to provide a fitting relation in broken jointed formation with adjacent panels when aligned in a wall therewith and a reinforcing rod with a cement filler between said adjacent bricks in said adjacent panels and said terminal bricks of said adjacent panels arranged to be thus tied together and reinforced in like manner when fitted together at an angle with each other; said wall construction when set up defining a part of a building construction.

EMMETT V. POSTON.