My invention relates to brick wall construction and more especially to fabricated wall construction wherein a wall is built of a number of panels each preferably made before its delivery on the job and made in a form requiring little or no modification before it is fitted into a wall.

A further purpose of my invention is to provide a fabricated brick wall construction possessing a maximum of strength with a minimum of weight permitting each panel to be more easily and conveniently handled from the time it is being made in a manufacturing plant up to the time that it is fitted into a brick wall.

A further purpose of my invention is to provide a fabricated brick wall panel construction wherein the panels are each constructed with brick slabs of any desired texture set into a relatively thin wall of a mixture of a binding cement and a comparatively light weight aggregate as a body with the brick slabs arranged in broken jointed formation with the outer exposed faces of the brick slabs all showing as perfectly and as ornamentally attractive as it would be possible to show such ornamental face brick in a wall construction ordinarily made by the use of the entire brick and built in the usual manner.

A particular purpose of my invention is to provide a portable panel in any desired form from which a brick wall construction may be made and to provide such a panel in a form and weight that may be conveniently handled and substantially held together without having an excessive weight and a panel wherein the exposed brick members are actually brick slabs fixed in a relatively thin body of binding cement and comparatively light weight aggregate mixture with the brick slabs arranged in broken jointed formation and with each panel not only having a substantial reinforcing body of relatively heavy wire throughout the body of the binding agent and aggregate mix but with each end of the panel provided with terminal header bricks each shaped to define a complete brick and approximately one half of its length and an integral brick slab for the balance of its length, with an upright hole through that end of the brick that is complete to accommodate a tie rod adapted to extend down through a series of vertically aligned such holes when the panel is set into a wall construction with the tie rod extending down through corresponding holes in intermeshing header bricks of the adjacent ends of adjacent connected panels.

An important feature of this form of header bricks is found in the fact that when the panels are set into a wall, the header bricks when thus vertically aligned in intermeshing broken jointed formation with adjacent terminals of adjacent panels, will form a stabilizing and strengthening plastron in the wall which when utilized in connection with other such plastron in the wall will provide a very substantial stability for a wall which possesses everything that is needed in a brick wall construction with the elimination of the details of construction that are not needed. I attain the objects of my brick panel described in the annexed specific details as clearly set forth in the claims and illustrated in the accompanying drawings wherein like reference numbers indicate like parts in the several figures.

Referring to the figures:

Fig. 1 is a perspective of one of my fabricated brick wall panel constructions disclosing the exposed face thereof.

Fig. 2 is the perspective of the panel shown in Fig. 1 and disclosing the rear portion thereof.

Fig. 3 is a vertical section of the panel shown in Figs. 1 and 2.

Fig. 4 is a horizontal section of one of my panels taken between two adjacent layers of brick slabs.

Fig. 5 is a detail in perspective illustrating the manner in which adjacent ends of adjacent panels are fitted together in broken jointed connection with the added stabilizing tie rod.

Fig. 6 is a perspective of a corner construction showing two adjacent fabricated panels about to be fitted together on a corner in broken jointed formation with the reinforcing tie rod.

Fig. 7 is a perspective of one of the terminal header bricks shaped to define one of the end bricks of each panel which helps to form a plastron when adjacent panels are connected in a wall giving greater stability to the wall.

Fig. 8 is a perspective of a form preferably used for locating the brick slabs in the panel in desired position when preparing new panels.

Referring to the details of preferred construction of my invention, it may be said that in the common practice with brick wall construction, it has been the experience with contractors putting up brick buildings, especially residence work, to make the brick walls of solid bricks utilizing the entire rectangular brick body which is set into the wall with mortar and which involves a great deal of weight and a great volume of material in the wall than may be commonly needed for the support and protection of such buildings as residences, and the like.

A brick construction has been recognized as desirable but has also been regarded as comparatively expensive and by way of comparison,
a frame residence has been considered in this
country to be much less expensive than a brick
building of the same room capacity.

With my invention, it has not only been my
purpose to provide a brick wall construction that
is distinctly attractive, solidly strong and
substantial in construction for any residence pur-
poses but it has been my purpose to provide a
brick wall construction that will have all the
stability that is needed for relatively small build-
ings such as residence construction; that will
possess a beauty which is commonly found in
brick walls; that will form panels which are
portable, convenient and relatively light weight to
handle for construction purposes; that will in-
volve details of construction which will make the
panels simple and convenient to set into a wall
and a panel construction which will, when set
into a wall, be provided with a series of spaced
Integral pilasters offering a more substantial
stability to the wall.

One of the preferred constructions of my in-
vention is shown in the drawings. It is obvious
that minor changes in detail may be made with-
out departing from the spirit of the invention;
since it is true that the kind of material used
and the exact form of the brick slabs, or the
exact form of the brick slab members of the header bricks is not essential
to the operating requirements of my invention.

It will be noted in the drawings that I provide
as the salient features of my invention a fab-
culated brick wall panel construction wherein a plurality of brick slabs 1 are set into a Jig form
2 with their faces down where they are held in
a position to provide broken jointed formation
with the spaces between the bricks and between
the brick rows uniform; while in the same Jig,
form, header bricks 3 are set with their faces down.

When thus preparing one of my panels, retain-
ing side plates are provided on the Jig form 2 to
hold the binding cement and the light weight aggregate mix 4 as it is poured in on top of the
brick slabs 1 and the slab portion of the header
bricks where this mix will then fill in the spaces
that are intended to be filled between the brick
grooves. In this manner, when the panel
formation is completed, the brick slab members
then will be substantially held in place by the
binding cement 4.

In order to more substantially hold my panel
construction together in a reinforced manner,
I provide a reinforcing wire 5 which when under
construction, is laid into the body of the light
weight aggregate filler 4 and then covered with
more aggregate so that the reinforcing wire 5
will be imbedded into the body of aggregate when
the binding agent and the aggregate are set. Thus, with this placement of the reinforcing
wire, an added strength is provided for this rel-
tively thin construction with a tendency to hold
the slab construction together substantially as
a compact unit for wall construction.

In the construction of my panel, I have also
found it advisable to provide a reinforcing bar
6 laid into a channel 7 of the slab portions 8 of
the header bricks 3 so that such bars will have
a reinforcing contact with the reinforcing wire
5 when the aggregate 4 is poured into place to
bind the bricks together in the panel.

It will be noted that the terminal header
bricks 3 in my panels are shaped so that about
one-half of the brick's length forms a solid
brick body with a transverse hole 9 therein to ac-
commodate tie rod 10 for aiding and substantial-
ly holding the adjacent connected panels together
in a corner in the wall.

The other portion of the header bricks are in
each case shaped to define a slab portion of
a brick with its smaller end approximately the
thickness of the other slabs in the panel wall.
When this header brick is formed, it is preferably
made so that a series of spaced transverse chan-
nels are set in place when the brick is molded to
define spaced holes through which the undesired
portion of the brick may be broken off after the
brick is burned. This spacing of the header
bricks are formed as they are forced out of the die in a plastic condition and
as the plastic column leaves the die these trans-
verse channels are formed by fixed pins while at
the same time that portion of the header brick
which is not needed, is cut from the other portion
by a wire fixed on the mouth of the die as the
plastic column is discharged therefrom. In order
to protect the needed portion of the header brick
through their firing operation, this undesired por-
tion of the plastic column is left in place and
all the operations of wire cutting the individual
bricks from the column and drying and firing
the bricks; after which it is a comparatively easy
matter to break off the undesired portion of each
brick unit.

It is not essential that my panel units be all
alike but the salient features of each are similar
in their construction and it is obvious that since
my fabricated panels are made preferably in a
construction plant and delivered to the job to be
put into a building then the arrangement of fit-
ting parts of each panel is disposed in a manner
which will permit adjacent panels to snugly and
substantially fit together in a broken jointed
formation arrangement of the header bricks of
each so that a tie rod may be effectively used to
aid in binding the adjacent connected panels to-
gether in addition to the use of a binding cement
that is effectively used to hold the adjacent and
vertically aligned header bricks of connected
panels rigidly in their intended structural con-
nection.

The header bricks of adjacent panels are cemented together in a neat and sub-
stantial manner as each horizontally adjacent
panel is set up in the wall structure and this
cementing operation is facilitated by using a
form of the front and rear surface of the ad-
jacent connected header bricks of adjacent
panels into which form the binding agent be-
tween the adjacent panels is poured and permitted
to dry.

Thus, it will be seen that when the panels of
my invention are set into fitting position in a
brick wall construction then the construction of
the header bricks is such as will permit them
to define an upright plasterer in every position
where the adjacent panel units are connected and
this plasterer will have a tendency to reinforce
the wall construction and provide a substantial
stability for the wall construction.

I thus find it possible with my invention to
make the individual panel units in a manufac-
turing plant and have them transported sepa-
rately to the job where a building is to be erected
and this manner of making them permits the
individual panels and wall constructed thereby
to possess all of the effective ornamental beauty
of a brick building with only that portion of
the brick showing and with only that portion
to each individual brick slab used in the
panel construction which is needed for holding
it into the binding agent. It is also obvious that by constructing these individual panels where in only the exposed face brick slab is used along with the binding agent and aggregate then only about one-eighth of the body and the weight of an ordinary brick is needed for each unit with the result that in this construction eight times as much face exposure may be provided out of the same amount of material that is ordinarily utilized in one single brick.

In addition to these merits of my invention, I am not only making it possible to provide a substantial brick wall construction for residences and other light structural jobs, but I provide such wall construction in a manner that utilizes a minimum of brick material in an effective combination with a mixture of binding cement and very light weight aggregate such as haydite, and the like, which does not weigh more than approximately seventeen percent of the weight of ordinary plaster and cement mix.

Thus, I am able to provide, with my invention, a substantial and stable wall construction for residences and other like construction purposes with ample strength, minimum of material used and with every detail of construction provided therein that may be observed in a brick building, so far as beauty of design, strength, stability and economy are concerned.

With the added feature of simplicity of construction operation, accuracy in details of wall construction and uniform fitting arrangement of the connected parts.

Under the usual conditions where brick residences are built having face brick the entire brick has been used throughout the brick wall construction whereas only the exposed face or end of such ornamental face brick would be observed when looking at the finished building.

With my invention, therefore, it is obvious that the exposed faces to be observed by the passerby are each relatively thin slabs and are not necessarily depended upon to form a vital portion of the supporting wall with the result that this invention presents a situation wherein approximately eight times as much area in the exposed face brick wall may be covered by a face brick material the same amount of which was previously required to make one complete brick unit.

Furthermore the header bricks used in the construction of my fabricated brick panels are shaped in a novel manner and not only are made in such a shape with a view to utilizing a minimum of material but serve in their organization as a very efficient element of the connection between adjacent panels whether in a straight wall or in a corner and are adapted in their design to accomplish this efficient connection not only with a minimum of material but in a shape that will provide increased stability for the wall structure when the header bricks and adjacent ends of adjacent panels are vertically aligned and anchored together by a tie rod wherein each connection between adjacent panels these header bricks are vertically aligned in shape to define a plaster to aid in stabilizing the wall structure.

Having thus described the nature of my invention, what I claim is:

1. A fabricated brick wall panel construction comprising a portable panel including a plurality of brick face members each having an outer face exposed to view on one side of the panel fixed into a body of binding cement and light weight aggregate mixture in broken jointed formation; said body provided with a reinforcing material and the panel provided at both ends with alternately spaced and uprightly aligned header brick members each having an uprightly disposed hole each adapted to be vertically aligned with corresponding holes and other header bricks on the same end of the panel; said header bricks at each end of the panel each provided with an upright reinforcing bar and providing an upright anchoring bar and to provide a more substantial anchorage for the body of binding cement and light weight aggregate and said reinforcing material set into said mixture of cement and light weight aggregate in a position where it will be held in contact with said anchoring bars registering with said upright channel of the terminal header bricks of the panel.

2. As a new product of manufacture, a fabricated brick wall panel construction comprising in one portable unit a plurality of brick slabs with outer faces exposed to view, fixed in broken jointed formation into a relatively thin body of mixture of a binding cement and relatively light weight aggregate; said panels having their end bricks further shaped to define means for anchoring the panel to an adjacent panel by an intermeshing broken jointed fitting relation wherein adjacent panels are connected in a horizontal wall alignment in the same vertical plane and when connected at an angle to each other on a corner a wall, said end bricks arranged in alternate space relation on each end respectively and in vertical alignment with an upright hole extending through the same to accommodate a vertical reinforcing bar to provide a strengthening tie between said panel and adjacent connected panel, said end bricks further shaped to define headers which when meshed with and anchored to adjacent headers of adjacent panels in the wall construction will form a strengthening platter for the wall construction, a reinforcing element shaped within said body of binding cement and aggregate mix behind said brick slabs in said panel; said header bricks having an integral slab portion provided with one or more upright channels and an upright reinforcing bar set into vertically aligned channels of said slab portions of the header bricks with each having a reinforcing bar at the respective ends of the panel making a fixed and reinforcing contact with said reinforcing member of the panel when set into said binding cement and light weight aggregate mix.

3. In a brick wall construction, a fabricated brick wall panel construction comprising in one portable unit a plurality of brick slabs with outer faces exposed to view fixed in broken jointed formation into a relatively thin body of mixture of a binding cement and relatively light weight aggregate; said panels having their end bricks shaped to define means for anchoring the panel to an adjacent panel by an intermeshing broken jointed fitting relation wherein said adjacent panels are connected in a horizontal wall alignment in the same vertical plane and when connected at an angle to each other on a corner in a wall, said end bricks arranged in alternate space relation on each end respectively and in vertical alignment with an upright hole extending through the same to accommodate a vertical reinforcing bar to provide a strengthening tie between said panel and adjacent connected panel, said end bricks further shaped to define headers which when meshed with and anchored to adjacent headers of adjacent panels in the wall con-
struction, a reinforcing element shaped within said body of binding cement and aggregate mix behind said brick slabs in said panel; said header bricks having an integral slab portion provided with one or more upright channels and an upright reinforcing bar set into vertically aligned channels of said slab portions of the header bricks with each reinforcing bar at the respective ends of the panel making a fixed and reinforcing contact with said reinforcing member of the panel when set into said binding cement and light weight aggregate mix.

4. A brick wall construction comprising a plurality of portable brick panels each respectively shaped and respectively fitted to adjacent panels in a pre-determined fitting relation and said panels each comprising in one portable unit a plurality of brick slabs with outer faces exposed to view, fixed in broken jointed formation into a relatively thin body of mixture of a binding cement and relatively light weight aggregate; said panels having their end bricks shaped to define means for anchoring the panel to an adjacent panel by an intermeshing broken jointed fitting relation when said adjacent panels are connected in a horizontal wall alignment in the same vertical plane and when connected at an angle to each other on a corner in a wall, said end bricks arranged in alternate space relation on each end respectively and in vertical alignment with an upright hole extending through the same to accommodate a vertical reinforcing bar to provide a strengthening tie between said panel and adjacent connected panel, said end bricks further shaped to define headers which when meshed with and anchored to adjacent headers of adjacent panels in the wall construction will form a strengthening pilaster for the wall construction, a reinforcing element shaped within said body of binding cement and aggregate mix behind said brick slabs in said panel; said header bricks having an integral slab portion provided with one or more upright channels and an upright reinforcing bar set into vertically aligned channels of said slab portions of the header bricks with each reinforcing bar at the respective ends of the panel making a fixed and reinforcing contact with said reinforcing member of the panel when set into said binding cement and light weight aggregate mix.

5. As a new article of manufacture, a header brick unit adapted to be provided as a fixed terminal connecting element in a fabricated brick wall panel and shaped to define a brick member comprising approximately one half of the longitudinal body of a brick and an integral portion of said brick unit shaped to define a slab, the face of which is in the same plane with the panels of the longitudinal portion of the brick and the rear surface of which slab is shaped to define one or more transverse channels and a rough contacting surface for providing more substantial engagement of a binding cement therewith when the header brick is set into a wall panel construction; said first portion of the header brick provided with an upright hole centrally disposed therein to accommodate a tie rod for said header brick when used in conjunction with others for connecting adjacent ends of adjacent panels adapted to provide at such connections a pilaster construction in a wall structure that will make a wall more stable and substantial.

6. As a new article of manufacture, a header brick unit adapted to be operatively utilized with and shaped to define a fixed terminal connecting element in a fabricated brick wall panel, approximately one half of the length of said brick unit from one end, shaped to provide an upright relatively large hole to accommodate an upright tie rod, and the balance of the length of said brick unit shaped to define a relatively thin upright slab, the rear surface of which is shaped to define irregular roughnesses for operatively anchoring a binding agent thereto, in the formation of said panel, the face of said brick unit forming a plane adapted to operatively register in the plane of the face of other bricks in said panel; said brick unit adapted to be used in conjunction with other spaced like units disposed in vertical alignment at the end of one of said panels and connecting adjacent ends of said panels, as described, and to provide at such connections, a plurality of vertically aligned header brick units defining for said panels when in a brick wall, a pilaster construction adapted to make the wall more stable and substantial.

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