United States Patent

Kelsey

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[54] **METHOD FOR MAKING SLAB-FACED AND HEADED PANELS INCLUDING CORNERS OR RETURNS**

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[52] **U.S. Cl.** **264/90,** 264/256, 264/261, 264/277, 425/123, 425/453

[51] **Int. Cl.** **B32b 31/06**

[58] **Field of Search**.....264/256, 261, 90; 25/1 B–D, 2, 41 L

[56] **References Cited**

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[57] **ABSTRACT**

There is disclosed a system for top pouring and vertical pouring of concrete or other construction material composition panels faced on one side or both sides with slabs (including full brick) wherein each panel includes a corner or a return at least partly faced with slabs. The casting is accomplished in a special, angulated casting box having the surfaces where slabs are to be located covered with vacuum plate inserts which are, in effect, combined resilient gaskets for preventing backing composition soilage of slab faces and means for holding slabs against the mold as the mold is moved or disposed to facilitate backing composition pouring.

6 Claims, 11 Drawing Figures

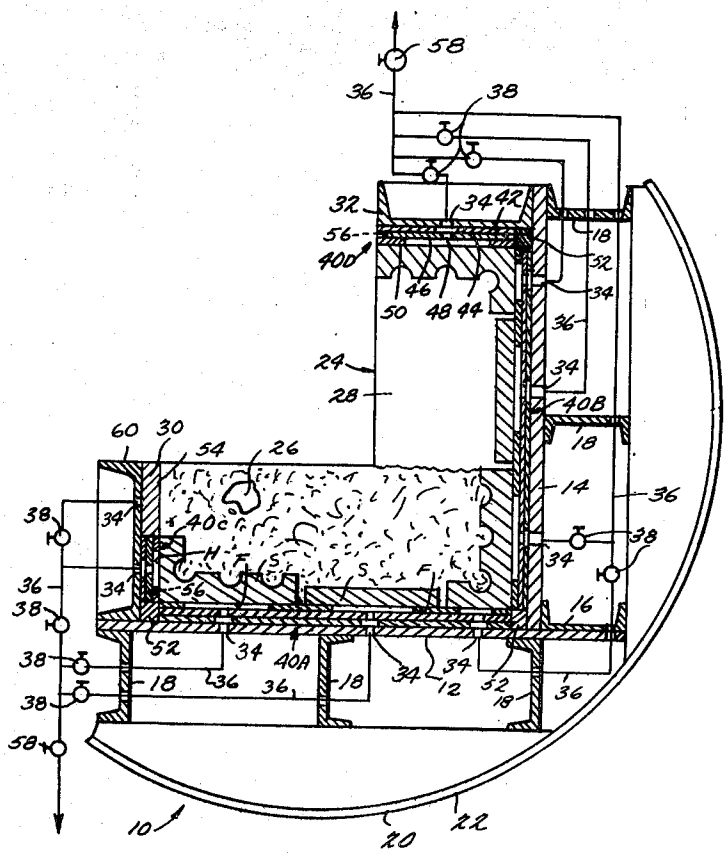

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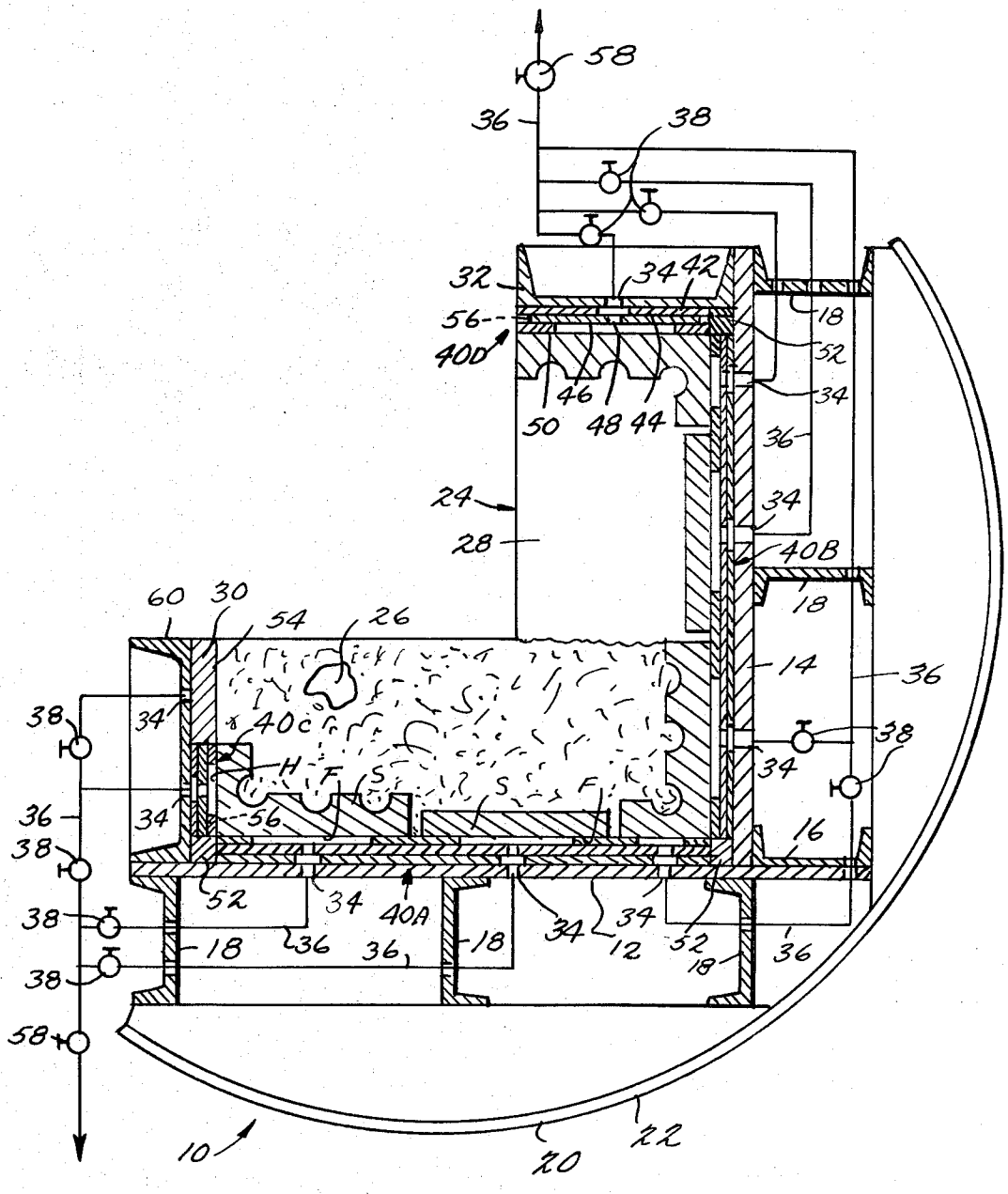
Fig. 1.



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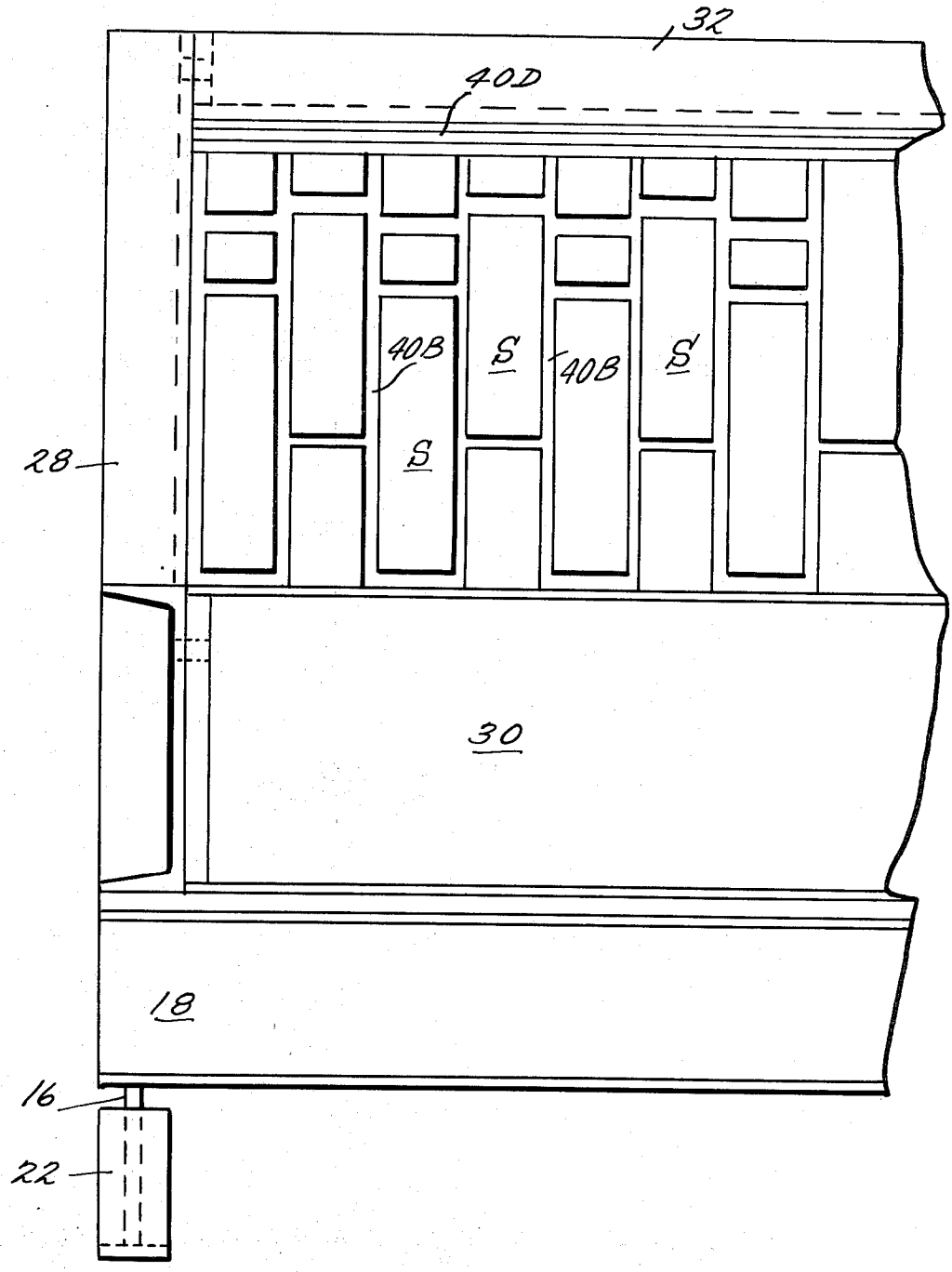

Fig. 2.

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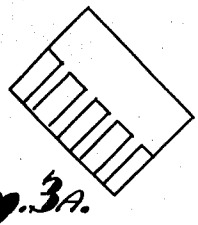

Fig. 3A.

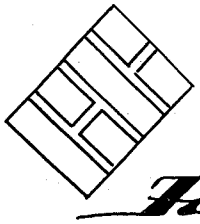

Fig. 3B.

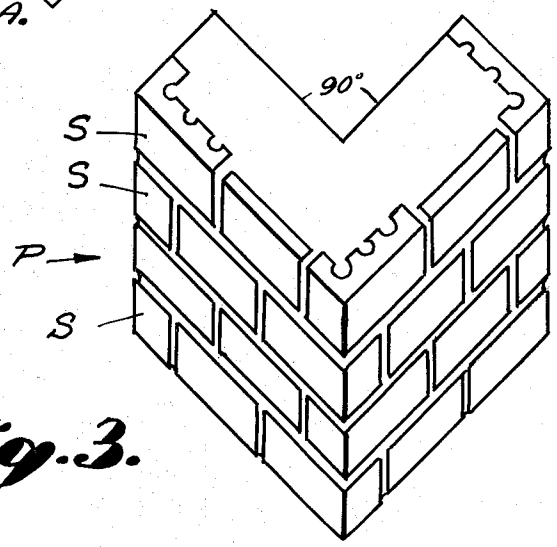

Fig. 3.

Fig. 5B.

Fig. 5C.

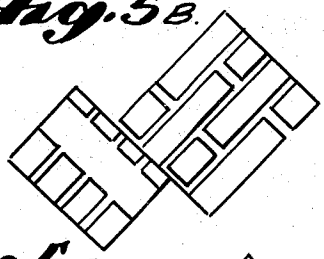

Fig. 5A.

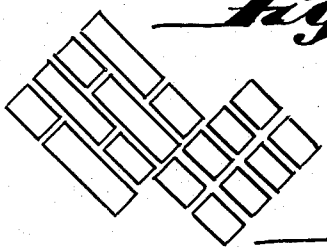

Fig. 5D.

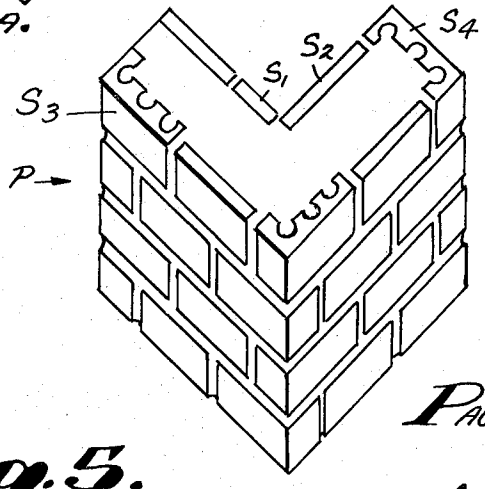

Fig. 5.

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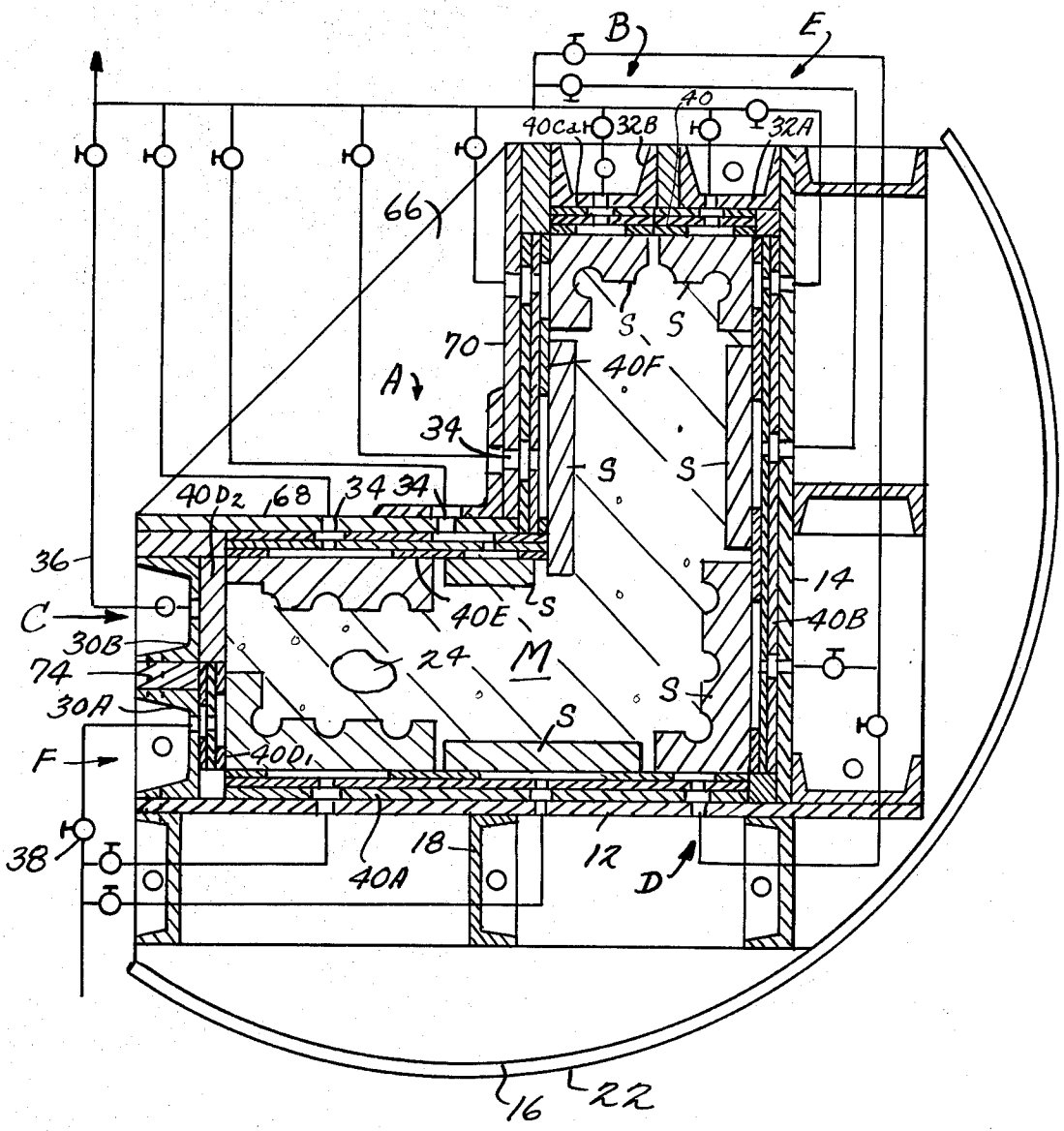

Fig. 4.

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METHOD FOR MAKING SLAB-FACED AND HEADED PANELS INCLUDING CORNERS OR RETURNS

BACKGROUND OF THE INVENTION

In my co-pending U. S. Pat. application, Ser. No.49152, filed June 23, 1970, the background of slab-faced panel casting systems is disclosed in detail. Reference to the discussion there is recommended, that application also discloses a panel casting system wherein a casting box having at least one vacuum line connection through its floor is provided with a laminated insert plate which includes a resilient upper layer provided with one vacuum line opening for each slab, and which incorporates conduits extending from the openings to communication with the casting box floor. A placement grid having individual cells for receiving individual slabs is received in the casting box on the insert plate upper layer. After a slab has been placed in each cell, a heavy seater is lowered onto the slabs to force them into sealing contact with the insert plate resilient upper layer and a vacuum is drawn through the casting box floor to hold the slabs so tightly against the insert plate resilient upper layer that the layer bulges up between adjacent slabs. The seater is removed with the assistance of removable lateral shims and a settable composition such as concrete is poured into the casting box upon the slabs. The panels so formed have slabs set therein with simulated semi-flush concave joints. A modified device for production of panels faced with slabs on both sides is also disclosed.

Corners and returns have consistently presented a problem for those who would wish to entirely industrialize the production of slab-faced masonry walls. Even plain square or rectangular buildings have four corners, more complex perimetrical shapes often necessitated by building lot shapes or dictated by architectural considerations result in more corners, some of which may be acute or oblique, rather than being simple, right angle corners.

A "return" results where an exposed window or door casing or the like is not brought out flush with the straight-away wall portion it is included in.

In normal hand laid brick structures, "corners" and exposed areas at windows and doors give a most pleasing appearance because there is no vertical line break off or demarcation line. The normal "bond" and its jointwork follow around corners in a very pleasing manner – one that not only is pleasant to look at, but also one that indicates strength through the "tie ins", or really, the "lap ins" achieved. In such construction, the brick at the corners or returns each have a face exposed on one wall and a head (i.e. an end) exposed on the other wall.

Sometimes, even in hand laid brick structures, bricklayers or those who direct the work, will out of expediency or a willingness to accept less than what a craftsman would know to be right dispense with normal corner bonding and instead produce a break at the corner characterized by a straight, vertical mortar joint. Obviously, this is more than aesthetically displeasing; it is structurally weaker since the two walls are not tied together with intercalated brickwork. Similar expediency leads builders to cover over brickwork with wooden millwork around doors and windows where half or full returns would be more aesthetically pleasing.

Most precast slab-faced panel system developers appear to have thrown up their hands on the question or how to produce normal corner bonding and the appearance of well executed returns and reveals.

SUMMARY OF THE INVENTION

There is disclosed a system for top pouring and vertical pouring of concrete or other construction material composition panels faced on one side or both sides with slabs (including full brick) wherein each panel includes a corner or a return at least partly faced with slabs. The casting is accomplished in a special, angulated casting box having the surfaces where slabs are to be located covered with vacuum plate inserts which are, in effect, combined resilient gaskets for preventing backing composition soilage of slab faces and means for holding slabs against the mold as the mold is moved or disposed to facilitate backing composition pouring.

By utilizing a tiltable combination, horizontal and vertical vacuum casting table, that has special vacuum pads on both faces adjacent to the corner line, and by making two spaced pours, one can duplicate the jointwork attained in normal hand laid brick corners. By incorporating special vacuum inserts adjacent to end or side channels, one can duplicate the jointwork achieved with hand laid brick at door and window opening returns as well as exposed indented joints sometimes effectively used between adjacent precast panels.

With the addition of a base plate and a splitting of the mold, a very practical assembly is provided for casting all faced corner units vertically.

The principles of the invention will be further hereinafter discussed with reference to the drawings wherein preferred embodiments are shown. The specifics illustrated in the drawings are intended to exemplify, rather than limit, aspects of the invention as defined in the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

In the Drawings:

FIG. 1 is a vertical, transverse sectional view of an angular casting box lined with vacuum plate inserts, coursed slabs and after completion of the first of two pours of backing composition;

FIG. 2 is a left-half side elevation of the apparatus and partly completed product of FIG. 1;

FIG. 3 is a perspective view of a panel produced in the apparatus of FIG. 1;

FIG. 3A is the projection of one end of the panel of FIG. 3 showing a half return;

FIG. 3B is the projection of another end of the panel of FIG. 3 showing a full return;

FIG. 4 is a horizontal, transverse sectional view of a modified angular casting box designed to produce angular panels faced interiorly and exteriorly with slabs and shown lined with slabs and ready to have backing composition poured thereinto;

FIG. 5 is a perspective view of a panel produced in the apparatus of FIG. 4; and

FIGS. 5A, 5B, 5C and 5D are projections of respective surfaces of the panel of FIG. 5.

DETAILED DESCRIPTION OF THE PRESENTLY PREFERRED EMBODIMENTS

The term "slabs" is used generically herein to include blocks of brick, thin brick, slate and similar construction materials. Unless otherwise indicated, dimensions are given by way of example.

The casting box **10** of FIGS. **1** and **2** includes a first base plate **12** and a second base plate **14** which adjoins the first at an included angle of other than **180** degrees. In the instance depicted, the second base plate adjoins the first somewhat to the left of the right edge thereof. A channel brace **16** is welded or otherwise secured to the protruding right marginal portion of the first base plate and to the outside of the second base plate. Several other channel braces **18** are welded or otherwise secured to the outsides of the first and second base plates to provide support and resistance to buckling for the casting box base plates.

During use of the FIGS. **1** and **2** embodiment of the casting box in a horizontal position, it is necessary to rotate the casting box from a condition wherein the first base plate **12** is horizontal to another condition wherein the second base plate **14** is horizontal. To facilitate this, the casting box **10** is provided with two axially spaced circularly curved rockers **20**, shown equipped with flat, circularly curved runners **22** adapted to support the casting box **10** on a surface. The runners extend sufficiently in a circumferential extent to allow the casting box to be moved between the two above-mentioned conditions.

The casting box **10** further includes two L-shaped end walls **24** of opposite ends of the casting box. The two legs **26, 28** of each end wall **24** respectively provide up-standing end walls for the two base plates **12** and **14** and may be defined by channel members. The casting box sides are shown completed by a channel member **30** extending between the outer ends of the two walls **26** and another channel member **32** extending between the outer ends of the two walls **28**. As shown, the inside surfaces of the walls **26, 28, 30** and **32** are all flat.

Each of the walls **30** and **32** and the base plates **12** and **14** have openings **34** therethrough for application of vacuum to hold slabs against the interior of the mold. Suitable vacuum lines **36** connected to the openings **34** exteriorly of the casting box are communicated to a source of suction, e.g. a vacuum pump. Shut off valves **38** are interposed in the vacuum lines **36** in each branch to permit isolation of communication of suction to the several openings **34**. The interior of the casting box **10** is shown provided with vacuum plate inserts **40A, 40B, 40C** and **40D** respectively having the first base plate **12**, the second base plate **14**, the sidewall **30** and the sidewall **32**.

Each of the vacuum plate inserts (collectively referred to by the numeral **40**) includes an outer layer **42** of closed cell foam rubber or like resilient material, an intermediate layer of stiffer material such as plywood or steel plate **44** and an inner liner **46** of closed cell foam rubber or like resilient material. The layers **42, 44** and **46** are provided with interconnecting openings **48** positioned to communicate the vacuum openings **34** with each site on the inner face **50** where a slab is to be held positioned by vacuum. The preferred shape of the openings **48** is as depicted and explained in my above-mentioned copending U. S. Pat. application.

The layers of the vacuum plate inserts are secured to one another, for instance, with suitable adhesive.

Fillers **52** of square cross section are secured in the three corners of the casting box where edges of two vacuum plate inserts **40** adjoin one another so that one insert **40** does not have to slip behind an edge of another and so that the corners are occupied.

As depicted, the vacuum plate insert **40D** extends only part way up the wall **30** (i.e. the length of a brick head). The remainder of the wall **30** is covered by a spacer **54** whose thickness equals that of the vacuum plate insert when the latter is compressed.

The casting box **10** is prepared for casting by cleaning and oiling its interior metal surfaces, installing the vacuum plate inserts as shown. If necessary, the vacuum plate inserts may be maintained in place by means such as removable pins **56** projecting inwardly through the end walls **24** into slots in the corresponding edges of the intermediate layers **44** of the vacuum plate inserts. The slots are slightly elongated in such sense as to maintain the respective inner liner **46** abutting the respective casting box surface when the vacuum is off, but allow the respective vacuum plate insert to compress toward the respective casting box surface when the vacuum is turned on.

Next the casting box containing the emplaced vacuum plate inserts is lined with slabs S, each slab covering an outlet of an opening **48**. By preference, as shown each slab S which has a head H against one vacuum plate insert and a face F against another vacuum plate insert covers an outlet of an opening **48** on each respective vacuum plate insert. Placement grids are preferably used to locate the slabs as described in my above-mentioned copending application. When all of the slabs S covering openings **48, 34** in one branch of the lines **36** are properly located and pressed against their respective vacuum plate inserts, the corresponding shut off valve **38** is opened and the slabs seated against the respective vacuum plate insert. This results in gasketing of the insert against the casting box, gasketing of the insert against the slabs which cover it, some resilient compression of the linings **42** and **46** of the vacuum plate insert and some bulging of the liner **46** up between adjacent slabs.

Openings **34** covered by spacers **54** may have their respective shut-off valves **38** left closed.

When all of the slabs have been positioned in this manner and the casting box positioned as shown in FIG. **1**, fluid, settable backing composition, such as mortar M may be poured into the casting box and screeded level with the upper edges of the walls **30** and **26**. After this composition has set sufficiently, the casting box **10** is rocked about a horizontal axis on the rockers **20, 22** until the vacuum plate insert **40B** is disposed horizontally. Then a second quantum of backing composition is introduced into the casting box and screeded level with the upper edges of the walls **32** and **28**. It should be noted that the bulging of the liner **46** between adjacent slabs causes a desirable semi-flush concave joint simulation to be created between adjacent slab faces. When the backing composition has set, the vacuum is turned off by closing the valves **38** or their master **58**, the casting box is partly disassembled, for instance by removing one or more of the sidewalls **30, 32** and the completed panel P is removed from the

casting box. As shown in FIGS. 3, 3A and 3B, the exemplary panel P formed in the casting box 10 has two outside surfaces faced with brick slabs S in what appears to be normal coursing; a half return is provided on the wall edge depicted in FIG. 3A and a full return is provided on the wall edge depicted in FIG. 3B. The included angle of the corner panel P depicted is 90 degrees and the two interior surfaces of the panel are plain and unfaced in the example.

The use of an open topped mold on rockers maximizes access to the interior of the casting box and makes less disassembly necessary for permitting removal of completed panels.

However, it should be apparent that the mold shown horizontally in FIG. 1 could be used vertically provided vertical sidewalls extending up toward the viewer were provided at the edges 60 and 62 meeting one another at the corner 64 and extending to connection with the channels 30 and 32. Such additional sidewalls would require bracing such as the channel bracing provided for the first and second base plates 12, 14. The uppermost end wall 24 would have to be provided with an opening or preferably eliminated, to permit pouring of backing composition B into the casting box. Very succinctly, the changes mentioned in the foregoing paragraph and a few further modifications constitute what is depicted in FIG. 4.

In the embodiment of FIG. 4 which is capable of producing the panel P2 of FIGS. 5 and 5A–5D, the changes just outlined are supplemented by provisions for greater disassembly of the casting box, of a stronger bottom wall and of added vacuum plate inserts disposed against the two added aforementioned walls.

The corresponding elements between the embodiments of FIGS. 1 and 4 have been given the same numerals. The differences apparent in the FIG. 4 embodiment are as follows:

1. The casting box is sitting upright and the viewer is looking downwardly into it. Thus, what would be an upper end wall has been eliminated in order to create an open top mold.
2. The opposite, lower end wall 24 has been expanded from L-shape by the inclusion of a strengthening triangular web 66.
3. The extra walls 68, 70 have been provided to complete the inner sides of the mold as outlined above and these have been lined with vacuum plate inserts 40E and 40F. The walls 30 and 32 have each been divided into two portions 30A, 30B and 32A, 32B and their covering vacuum plate inserts have likewise each been divided into two portions 40C1, 40C2 and 40D1, 40D2.

This permits ease of assembly and disassembly of the mold, since, in assembly, the walls 30A, 12, 14 and 32A may be bolted to one another and to the bottom base plate 24 as shown at 72, as a first assembly, and the walls 30B, 68, 70 and 32B may be secured to one another as shown, as a second assembly. After the two assemblies have been cleaned, oiled, vacuum plate inserts respectively installed, slabs S emplaced, seated and vacuum applied to maintain them in place through the lines 36, the two assemblies may be bolted together at 74.

As a review, it should be noted that the mold of the preferred embodiment of FIG. 4 may contain eight vacuum plate inserts: 40A, 40B, 40C1, 40C2, 40D1, 40D2, 40E and 40F. Actually, in the embodiment depicted, the insert 40D2 is a spacer substantially identical to the spacer 56 of FIG. 1 in order to produce the special wall ending depicted in FIG. 5A.

The mold is depicted in FIG. 4 with all of the slabs S in place, vacuum communicated to all of the vacuum plate inserts and ready for acceptance of a pour of backing composition.

To back track slightly, a use of the mold as depicted in FIG. 4 to produce a mortar backed panel faced on all sides with brick or brick slabs will now be discussed in detail in order to more clearly exemplify certain aspects of the invention.

In the following discussion, the individual casting box walls or pairs of walls having respective vacuum plate inserts bolted to them will be referred to as "sub assemblies" in accordance with the following schedule:

Sub Assembly	Casting Box Wall(s)	Vacuum Plate Insert(s)
A	68, 70	40E, 40F
B	32B	40C2
C	30B	40D2
D	12, 14	40A, 40B
E	32A	40C1
F	30A	40D1

It is assumed that the sub assemblies and the bottom plate which make up the vertical pour casting box of FIG. 4 have been individually cleaned and oiled.

Step 1

A. Rest sub assembly A on horses, (not shown), of suitable height so that its securely bolted in place vacuum plate inserts are face up.
B. Bolt in place beside the vacuum plate inserts two temporary 2 ½ inches × 2 ¼ inches × ¼ inch angle irons which are to both complement and help hold in correct position their respective slab locating placement grids, (not shown, but of the same general design as are fully discussed in my aforementioned co-pending U. S. Pat. application).
C. Position the locating grid for vacuum plate insert 40F.
D. Fill that locating grid with required 1 inch thick half slabs S1, special 1 inch thick slabs 8 ¾ inches long S2, half corner split brick S3 or full corner split brick S4 as required. Each slab or corner split brick is to be individually hand seated and individually vacuum gripped.
E. Remove the locating grid from vacuum plate insert 40F and its complementary supporting angle iron.
F. Duplicate above procedures with vacuum plate insert 40E.

STEP 2

A. Position sub assembly B and vacuum grip to it adjacent half and full corner split brick headers as shown in FIG. 4.
B. Bolt sub assembly B to sub assembly A.
C. Proceed in the same manner with sub assembly C.

STEP 3

A. Bolt bottom plate 24 to sub assembly D.

B. Position sub assembly D in a horizontal position and so that the surface to which vacuum plate insert **40B** is secured is horizontal and vacuum plate insert A is secured to that main surface which is vertical.

C. Bolt in place two temporary 2 ½ inches × 2 ½ inches × ¼ inch angle irons, which are to both complement and help hold in position their respective locating grids.

D. Position a locating grid upon vacuum plate insert **40B**.

E. Fill the locating grid with appropriate **1** inch thick half **S1** or full slabs **S4** and half **S3** or full **S4** corner split brick, hand setting and individually vacuum gripping each one. Where a split corner brick has two faces in contact with vacuum pad inserts, the vacuum is to be applied to the header face H first and to the stretcher face F last.

F. Remove the locating grid and its complementary supporting angle iron.

STEP 4

A. Rotate main rocker casting box frame (i.e. sub assembly B) **90** degrees, thus bringing vacuum plate insert **40A** to a horizontal position and vacuum plate insert **40B** to a vertical position.

B. Proceed to place a locating grid on vacuum plate insert **40A** in its correct position and then place in its cells the appropriate slabs or brick as was done on vacuum plate insert **40B**.

C. Seat the slabs and brick and apply vacuum.

D. Remove the supporting angle iron and locating grid from vacuum plate insert **40A**.

STEP 5

A. Position sub assembly E and vacuum grip adjacent half and full corner split brick headers to it.

B. Bolt sub assembly E down to sub assembly D.

C. Proceed in the same manner with sub assembly F.

STEP 6

A. Lower sub assembly A with its complement of vacuum gripped brick and brick slabs and installed sub assemblies B and C into position onto sub assembly D and its complement of brick and brick slabs and attached sub assemblies E and F. Coaxial bolt holes in adjacent sub assemblies E and B as well as in adjacent sub assemblies C and F allow these two major assemblies to be bolted together. Like coaxial matching bolt holes at this time allow the bolting of sub assemblies F, C, B and E directly to the bottom base plate **24**.

STEP 7

A. While continuing to maintain vacuum, the fully assembled and completely faced casting box is lifted into a vertical position on its bottom plate, i.e. to the position shown in FIG. **4**.

STEP 8

A. Pour the casting box full of fairly soft consistancy mortar or other fluid, settable backing composition at a slow even rate while maintaining moderate internal vibration.

B. Screed off top and imbed heavy duty lifting core with attached reinforcing rods into casting at its approximate geometric center.

C. Keep vacuum on until mortar is quite hard and form removal is in process.

STEP 9

A. Release vacuum from all branches of line **36**.

B. Remove bolts holding sub assembly A to sub assemblies B and C.

C. Lift off sub assembly A.

D. Remove sub assemblies B and E from sub assembly D and base plate **24** after removing necessary bolts.

E. Remove, in the same manner, sub assemblies C and F from sub assembly D and base plate **24**.

F. At this point with some types of facings the completed corner unit (the panel of FIG. **5**) can be safely freed from the remaining casting box and removed to storage. However, certain facing materials may not permit safe removal at this stage without the introduction of high pressure air into that part of the vacuum piping which still leads to areas where there is still contact between facing units and the vacuum plate inserts' surfaces. There may be an individual or a few facings that will not "break loose" even with the air treatment. In such cases, it may be necessary to further dismantle the casting box. The whole assembly backing up vacuum plate insert **40B** can be removed by removing a few more bolts. Likewise even the base plate can be detached. With contact only left between the casting and vacuum plate insert **40A**, there can be no further removal difficulty. The built-in disassembly provisions just described are provided to make it possible to safely remove castings regardless of how tough or penetrating their facings may be.

It should be apparent that the casting boxes have been shown having right angle corners since right angle cornered panels are obviously in most demand; casting boxes having different included angles do not differ in principle from the two just discussed. It should also be appreciated that many other kinds and arrangements of facings can be provided than those depicted and that by substituting spacers **54** for any vacuum plate inserts, the desired panel surfaces or parts thereof can be left unfaced.

It should now be apparent that the slab-faced and headed panels including corners or returns as described herein above possesses each of the attributes set forth in the specification under the heading "Summary of the Invention" hereinbefore. Because the slab-faced and headed panels including corners or returns of the invention can be modified to some extent without departing from the principles of the invention as they have been outlined and explained in this specification, the present invention should be understood as encompassing all such modifications as are within the spirit and scope of the following claims.

What is claimed is:

1. A process for manufacturing slab-faced panels which include corners, comprising:

a. disposing two generally planar surfaces to meet at an inside corner having an included angle of less than 180°;

b. completely bordering said two surfaces, except longitudinally along the corner, with upstanding confining surfaces extending generally normally to the respectively bordered surfaces;

c. providing a covering of resilient gasketing material on said two surfaces;

d. temporarily disposing a reticulated placement grid, having a plurality of slab-receiving cells, flatwise, upon each of said covered surfaces;

e. inserting a slab front-face-forward in each cell;

f. pushing each slab, upon the rear face thereof, against the resilient gasketing material with sufficient force greater than atmospheric pressure to seal the front face of each slab to the resilient gasketing material; while

g. drawing a vacuum through the resilient gasketing material generally centrally of each cell to maintain the slabs in contact with the resilient gasketing material and to so resiliently compress the gasketing material that it bulges up perimetrically of each of the slabs; then

h. terminating the exertion of said greater-than-atmospheric pressure force;

i. removing the reticulated placement grid from the vicinity of the slabs;

j. disposing two generally planar covering surfaces to meet at an outside corner having an included angle generally equal to the angle of step (a) and securing the covering surfaces in such disposition peripherally upon borders of the upstanding confining surfaces, distally of said two surfaces of step (a) that the covering surfaces generally parallel the respective ones of said two surfaces of step (a);

k. introducing a hardenable fluid backing composition onto the array of slabs sealed to the horizontal one of said two surfaces in a sufficiently fluid condition and in sufficient quantity that the composition substantially fills the free space unoccupied by said slabs upon the resilient gasketing material and slabs disposed on one of said two surfaces and unoccupied by said slabs upon the resilient gasketing material and slabs disposed on the other one of said two surfaces, up to the level of the respective covering surface;

l. allowing the hardenable fluid backing composition to harden;

m. terminating said drawing of vacuum; and

n. removing the slab faced corner panel thus created from the vicinity of said two surfaces, resilient gasketing material, upstanding confining surfaces, and covering surfaces.

2. The process of claim **1** comprising the additional steps of:

c'. providing a covering of resilient gasketing material on at least one of said upstanding confining surfaces;

d'. defining an array of slab-receiving cells on that covered upstanding confining surface as a progression of the cells temporarily defined on the respectively adjacent of said covered two surfaces;

e'. inserting a slab front-face-forward in each cell of said array on that covered upstanding confining surface;

f'. conducting step (f) in respect to the slabs of (e');

g'. conducting step (g) in respect to the gasketing material of step (c') and the slabs of step (e'), prior to conducting steps (h) through (n) to produce a slab faced corner panel having at least one at least partial return.

3. The process of claim **2** comprising the additional steps of:

c''. providing a covering of resilient gasketing material on at least one of said covering surfaces;

d''. defining an array of slab-receiving cells on that covered covering surface;

e''. inserting a slab front-face-forward in each cell of said array on that covered covering surface;

f''. conducting step (f) in respect to the slabs of step (e'');

g''. conducting step (g) in respect to the gasketing material of step (c'') and the slabs of step (e''), prior to conducting steps (h) through (n), to produce a slab faced corner panel having at least the inner and outer surfaces thereof extending from the inside and outside corners thereof faced with slabs.

4. The process of claim **3** wherein at least some of said slabs are arrayed in a simulation of staggered courses and wherein at least some of said slabs are L-shaped, so that conducting each of steps (e), (e') and (e'') includes inserting at least one L-shaped slab in an L-shaped cell having front faces simultaneously on two of said covered surfaces, and so that conducting each of steps (f), (f') and (f'') includes pushing each such L-shaped slab upon both rear faces thereof, against the resilient gasketing material on the two respective ones of said covered surfaces.

5. The process of claim **1** comprising the additional steps of:

c'. providing a covering of resilient gasketing material on at least one of said covering surfaces;

d'. defining an array of slab-receiving cells on that covered covering surface;

e'. inserting a slab front-face-forward in each cell of said array on that covered covering surface;

f'. conducting step (f) in respect to the slabs of step (e');

g'. conducting step (g) in respect to the gasketing material of step (c') and the slabs of step (e'), prior to conducting steps (h) through (n), to produce a slab faced corner panel having at least the inner and outer surfaces thereof extending from the inside and outside corners thereof faced with slabs.

6. A process for manufacturing slab-faced panels which include corners, comprising:

a. disposing two generally planar surfaces to meet at a corner having an included angle of less than 180°;

b. completely bordering said two surfaces, except longitudinally along the corner, with upstanding confining surfaces extending generally normally to the respectively bordered surfaces;

c. providing a covering of resilient gasketing material on said two surfaces;

d. temporarily disposing a reticulated placement grid, having a plurality of slab-receiving cells, flatwise, upon each of said covered surfaces;

e. inserting a slab front-face-forward in each cell;

f. pushing each slab, upon the rear face thereof, against the resilient gasketing material with suffi-

cient force greater than atmospheric pressure to seal the front face of each slab to the resilient gasketing material; while

g. drawing a vacuum through the resilient gasketing material generally centrally of each cell to maintain the slabs in contact with the resilient gasketing material and to so resiliently compress the gasketing material that it bulges up perimetrically of each of the slabs; then

h. terminating the exertion of said greater-than-atmospheric pressure force;

i. removing the reticulated placement grid from the vicinity of the slabs;

j. disposing said two surfaces so that one of them is generally horizontal and the other projects upwardly;

k. introducing a hardenable fluid backing composition onto the array of slabs sealed to the horizontal one of said two surfaces in a sufficiently fluid condition and in sufficient quantity that the composition substantially fills the free space unoccupied by said slabs upon the resilient gasketing material and slabs disposed on the horizontal one of said two surfaces and unoccupied by said slabs upon the resilient gasketing material and slabs disposed on the upwardly projecting other one of said two surfaces, up to the level of the upper extent of the upstanding confining surfaces bordering the horizontal one of said two surfaces;

l. after said hardenable fluid backing composition has hardened sufficiently to retain the shape and disposition thereof if moved to an upright disposition, redisposing said two surfaces so that the other one of them is generally horizontal and said one of them projects upwardly;

m. introducing an additional quantity of said hardenable fluid backing composition onto the array of slabs sealed to the horizontal other one of said two surfaces, beside and in intimate contact with said sufficiently hardened hardenable fluid backing composition, in a sufficiently fluid condition and in sufficient quantity that the additional quantity of said composition substantially fills the free space unoccupied by said slabs, and unoccupied by said sufficiently hardened hardenable fluid backing composition, upon the resilient gasketing material and slabs disposed on the horizontal other one of said two surfaces, up to the level of the upper extent of the upstanding confining surfaces bordering the horizontal other one of said two surfaces;

n. allowing the hardenable fluid backing composition to harden;

o. terminating said drawing of vacuum; and

p. removing the slab faced corner panel thus created, from the vicinity of said two surfaces, resilient gasketing material and upstanding confining surfaces.

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