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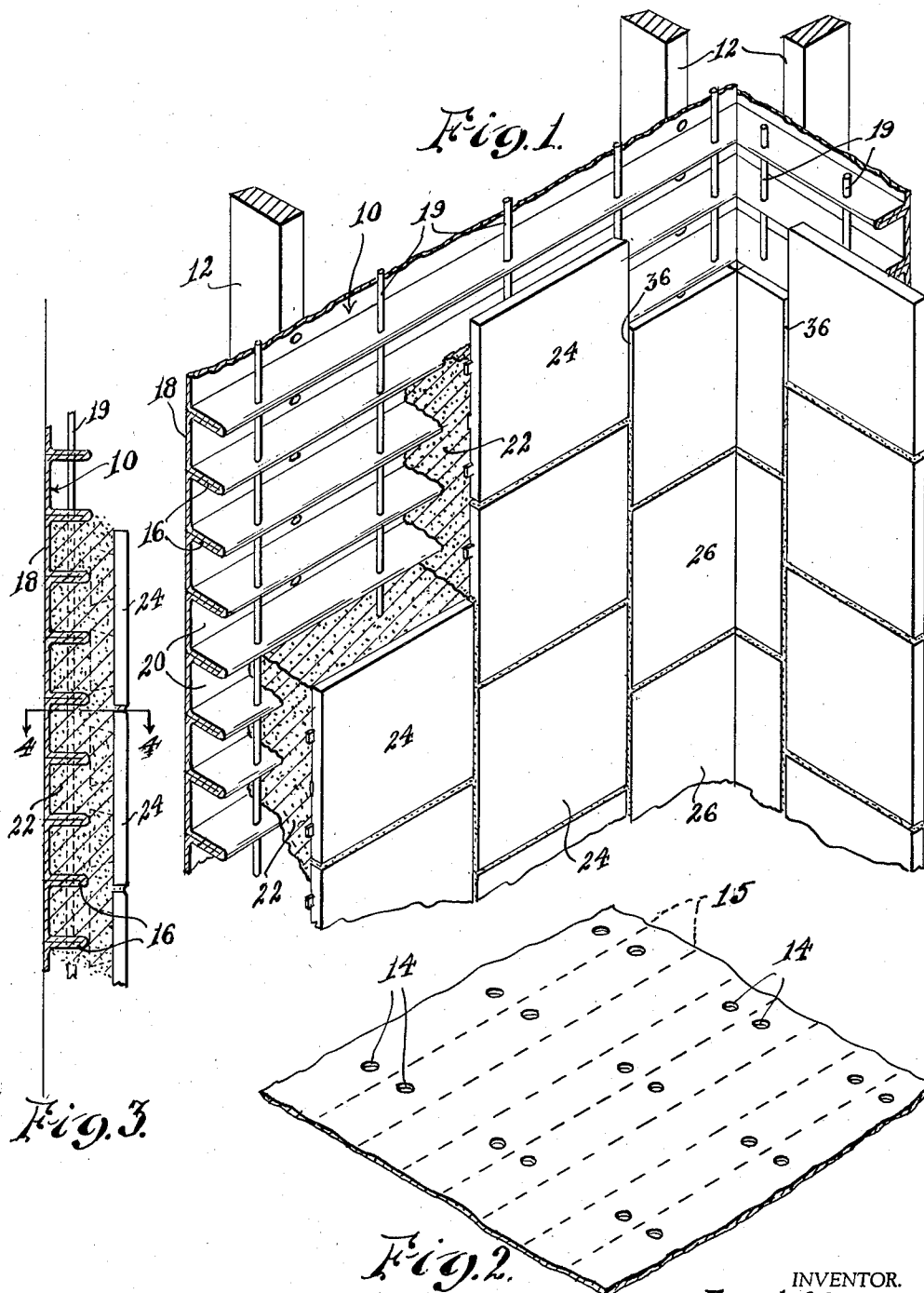
F. G. DRESSER

2,218,377

SURFACE CONSTRUCTION FOR WALLS AND THE LIKE

Filed May 22, 1939

2 Sheets-Sheet 1



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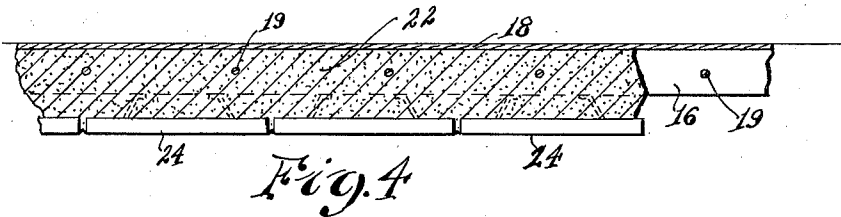
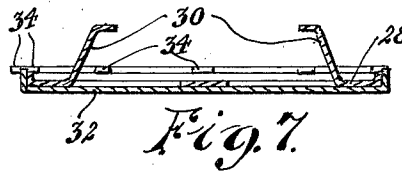
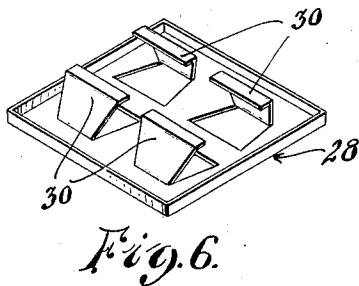
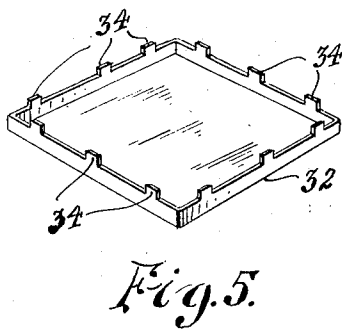
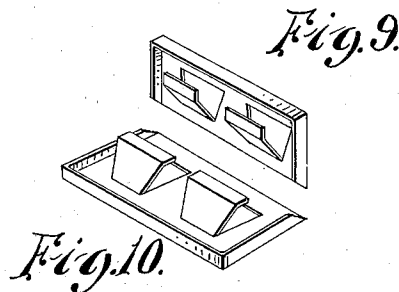
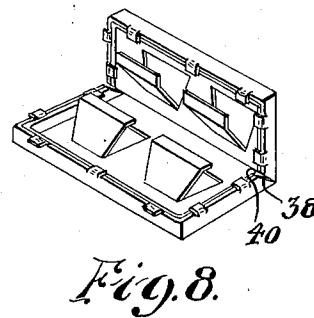
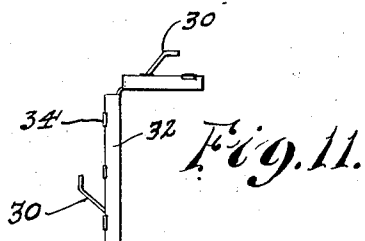
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SURFACE CONSTRUCTION FOR WALLS AND THE LIKE

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2 Sheets-Sheet 2



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SURFACE CONSTRUCTION FOR WALLS AND
THE LIKE

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5 Claims. (Cl. 72-18)

This invention relates to improvements in surface constructions for walls and the like. More especially it has to do with a new type of plate-like construction units and supporting and retaining means therefor which may be employed for surfacing sidewalks, roads and exterior walls of buildings, but which are particularly appropriate for use interiorly of buildings, for surfacing walls, floors and ceilings.

The invention is herein disclosed as embodied in the construction of an interior wall of a building, but it will be obvious that the structural features hereinafter disclosed have general application where an inexpensive, permanent and attractive composite-block surface is desired.

It is among the objects of the invention to provide plate-like construction units which may be combined to produce a hard, durable and attractive block-surface. The face of these units may be suitably colored to give the appearance of ceramic tile, but the dangers of chipping, cracking, or discoloration inherent in such tile are entirely avoided in my construction. This follows from the fact that my improved plate-form units may be made of metal and hence will be non-cracking and practically non-marrable in use. Moreover a surface composite of the units can be much lighter in weight and have more durability than ceramic tile.

Further objects are to provide means on each unit for effectively anchoring the units in plaster, concrete or the like, and to provide a pre-formed metal web which constitutes a support both for the plate units and for the plaster or like substance, thereby eliminating the need for the usual back-boards or lathing.

These objects may be attained by providing rectangular plate units of sheet metal, of any suitable area, which may be arranged edge to edge in rows across and along the structure, or may be staggered if desired. Preferably these units will be of galvanized iron faced with aluminum, and the exposed surface of the latter may be oxidized to produce an extremely hard surface with attractive color effects.

The units have means projecting from their rear sides constituting spacers for spacing the units from a web support, and serving also as clinchers around which plaster or the like may engage for anchoring the units in place.

The web support may be of sheet metal pre-formed to have multiple parallel ribs extending at right angles to the base plane of the web. In the case of an interior wall, the web, of size to extend over a considerable section of wall, may be

nailed to the usual studding, with the ribs projecting in a horizontal plane and constituting shelves for supporting plaster which will be packed therein behind the plate units. The spacers of the units rest on the outer edges of the ribs. Preferably there will also be spacing lugs on two adjacent sides of each plate-unit for providing crevices around each unit, which may be filled with plaster or cement to attain a desired plaster-like effect.

It is intended that the patent shall cover, by suitable expression in the appended claims, whatever features of patentable novelty exist in the invention disclosed.

In the accompanying drawings:

Figure 1 is a perspective illustrating interior walls of a building, as if in the course of construction, and showing a wall structure embodying features of my invention;

Figure 2 is a perspective of a flat sheet of metal, perforated and adapted to be formed into my improved ribbed web support;

Figure 3 is an elevation in section through a wall embodying features of the invention;

Figure 4 is a plan in section on 4-4 of Figure 3;

Figure 5 is a perspective of the face portion of one of my surface units;

Figure 6 is a perspective of the lining portion which fits within the face portion of Figure 5;

Figure 7 is a sectional view through a completed surface unit on a line extending through two of the spacers;

Figure 8 is a perspective showing a surface unit formed for a corner location;

Figures 9 and 10 are perspectives showing the section of a lining portion which may be employed for a corner unit like that of Figure 8; and

Figure 11 is an edge elevation of another surface unit suitable for a corner.

Referring to the drawings, and more particularly to Figure 1 thereof, my pre-formed supporting web 10 is shown nailed to the usual studding 12 of a wall structure, each section of web being preferably of size to span several spaced apart studs and being of any desired and predetermined area. Preferably, a section of web at a corner location will terminate at or close to the corner, and a like section of web, on the other wall, will extend to meet or to closely approach it at the corner.

Each web section may be formed of suitable sheet metal, such as galvanized iron for example. Before the web is formed, the flat sheet of metal,

as represented in Figure 2, may be punched with holes 14, which are arranged in rows and spaced at precise predetermined intervals apart. Then, in any suitable way, or by any suitable means, the sheet is bent and folded into its web form of Figure 1, wherein multiple ribs 16 extend in spaced parallelism, and each projects at right angles to the plane of the base 18 of the web. In Figure 2, the dotted lines 15 indicate the lines of bending or folding in the formation of the web, and it will be observed that pairs of the holes 14 register together at the ribs 16 so that plaster retaining rods or wires 19 can be thrust through the aligned holes so as to cross any desired number of the valleys 20 between ribs. The web 10, with the plaster retaining rods 19 extending through its ribs and across the valleys between ribs, at suitable spaced locations along each web section, makes unnecessary the use of back-boards and lathing, because plaster 22 or the like is effectively supported against sagging by the ribs 16, and is retained in the valleys of the web by the retaining means 19.

My improved plate-form surface units 24, 26 may be made of any suitable strong material but, preferably, will be of galvanized iron, faced with aluminum. In a preferred form, as shown in detail in Figs. 5 to 7, each unit 24 comprises lining portion 28 here shown as a rectangular, flanged plate. This may be made of galvanized iron, or other suitable material, and in the case of galvanized iron, a thickness of sheet of .015 to .020 of an inch will suffice. Such a lining 28 may have spacers 30 secured thereon, or, preferably, punched out of its sheet body, to project from its rear side for resting on the edges of ribs 16 of the web, and to be buried in the plaster which is between the web 10 and surface units. Each surface unit comprises, in addition the lining portion 28 face portion 32. This is also illustrated as of flanged rectangular shape and size to fit over the outer face and edges of the lining 28. Preferably the face portion will be of aluminum, and if so, sheet aluminum of .020 of an inch in thickness will be adequate, because the face portion is strongly reinforced by the galvanized iron lining 28.

As seen in Figures 5-7, the flange of the face portion 32 may be formed with a plurality of tongues 34 spaced along the edge of flange at each side of the element. Some of the tongues at each side, after the face is placed over the lining 28 may be bent inward over the flanged edge of the latter, to secure the face and the lining together. Others of the tongues, preferably on two adjacent sides of the unit, may be bent outward for engaging adjacent units and thus constitute spacers for providing a crevice 36 between adjacent units. The crevices may be filled with plaster or cement after the units are mounted, to provide a desired plaster line effect around each unit.

Figure 8 represents an angular unit suitable for corner locations. It is essentially the same as the other units except that the flanges of the lining and face portions are notched as at 38, 40 to facilitate bending of the units to the illustrated angular shape. Preferably, if a one-piece lining is employed, zinc will be used instead of galvanized iron for the lining, because it is more easily worked. However, as indicated in Figures 9 and 10, a lining of galvanized iron in two sections conveniently may be provided for the corner units.

It will be obvious that there should be a pre-

determined definite relationship between the spacing of the ribs 16 of the web and the size and spacing of the spacers 30 of the units, so that the spacers will, in every case, come in position to rest on the edges of ribs 16, thereby ensuring that the faces of the units will be in a common plane.

Although plaster is mentioned as the substance to be packed between the web and the surface units, any suitable substance may be employed without departing from the scope of the invention, and the use of the term "plaster" in the claims should be regarded in the broad sense of including any substance capable of serving the purpose of plaster in the claimed combination.

I claim as my invention:

1. A surface construction unit, comprising a lining portion of strong and stiff metal, and a flanged face portion of metal adapted to provide a hard and attractive surface, said lining portion being of shape and size to fit within the flange of the face portion and having spacers at its rear side for resting on a support and for anchoring the unit in place, and said face portion having tongues on its flange, engageable over the lining portion, for securing said portions together.

2. A surface construction unit, comprising a lining portion of strong and stiff metal, and a flanged face portion of metal adapted to provide a hard and attractive surface, said lining portion being of shape and size to fit within the flange of the face portion, and having spacers at its back side for resting on a support and for anchoring the unit in plaster, and said face portion having tongues on its flange, some of which are bent inward over the lining portion for securing the portion together, and some of which are bent outward for engaging adjacent units, thereby to attain a predetermined slight spacing apart of adjacent units.

3. A surface construction unit, comprising a flanged lining portion of strong and stiff metal, and a flanged face portion of aluminum, said lining portion being of shape and size to fit within the flange of the face portion and having a plurality of spacers punched from its body and projecting at its rear side for resting on a support and for anchoring the unit in plaster, and said face portion having tongues on its flange engageable over the flange of the lining portion, for securing the portions together.

4. A surface construction unit, comprising a lining portion of strong and stiff metal, and a flanged face portion of metal adapted to provide a hard and attractive surface, said lining portion being of shape and size to fit within the flange of the face portion and having means at its rear side for anchoring the unit in place, and said face portion having tongues on its flange, engageable over the lining portion, for securing said portions together.

5. A surface construction unit comprising a flanged face portion of relatively thin light metal adapted to provide a hard and attractive surface, a lining portion of strong and stiff metal backing said face portion, being of shape and size to fit within the flange of the face portion and having means integral with and outstanding from its rear side for resting on a support and for anchoring the unit in place, and means securing said elements together to form said unit.