

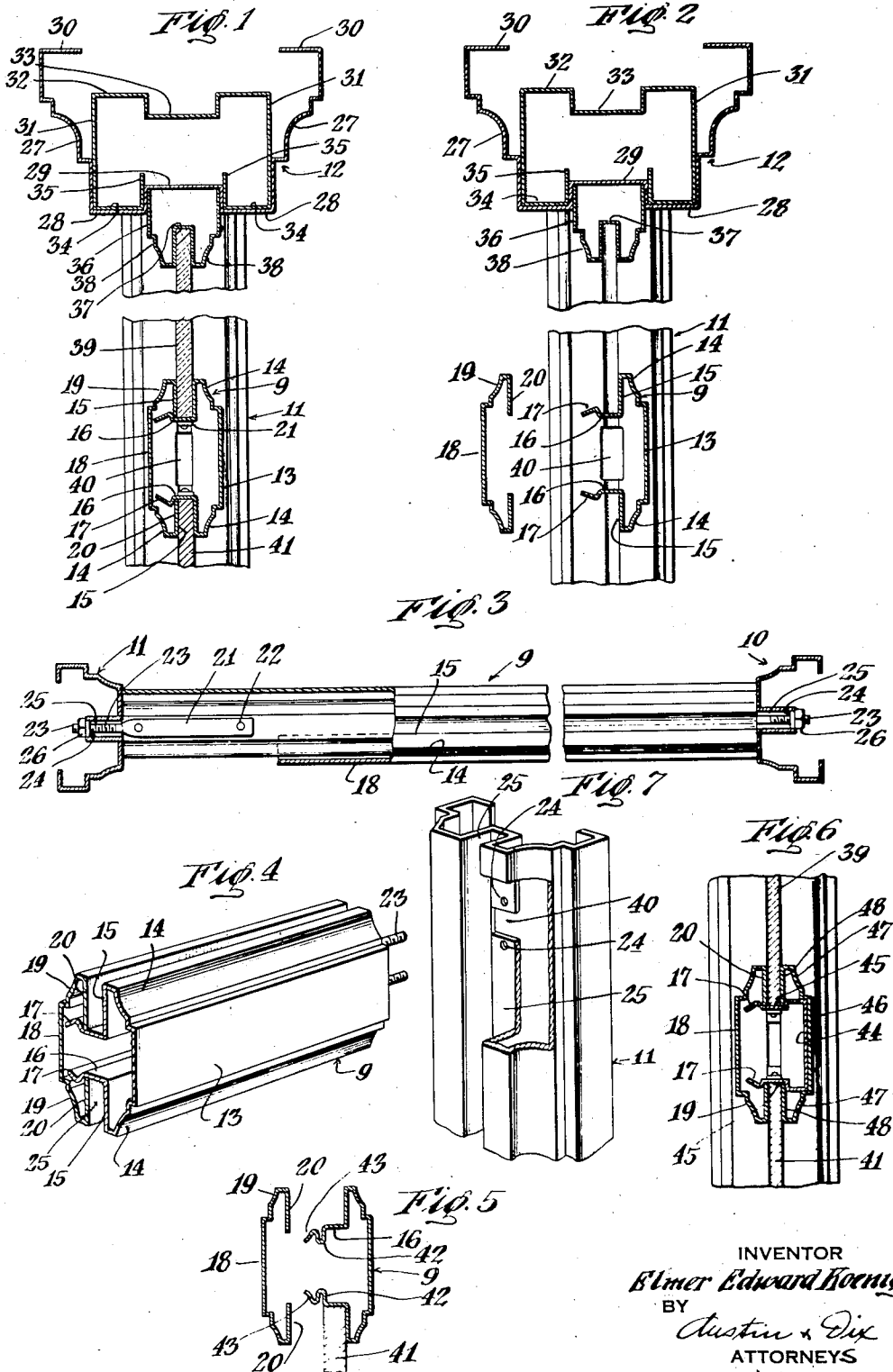
July 10, 1934.

E. E. KOENIG

1,965,598

INTERCHANGEABLE PARTITION

Filed Feb. 8, 1932



UNITED STATES PATENT OFFICE

1,965,598

INTERCHANGEABLE PARTITION

Elmer Edward Koenig, Garfield Heights, Ohio, assignor to The Mills Company, Cleveland, Ohio, a corporation of Ohio

Application February 8, 1932, Serial No. 591,677

11 Claims. (Cl. 189—34)

This invention relates to interchangeable partitions, and particularly to a partition constructed to permit the interchange of panels before or after the partition is erected in place.

Partitions of the movable type having interchangeable sectional units are preferred where offices are often moved or modified to accommodate changes in business or a change in tenants. Such conditions, in many instances, also make necessary or highly desirable a change in the paneling of the partition structure. Complete interchangeability of sectional units, as well as panels, must be realized if full life service from the partition is to be received. Furthermore, the concealment of wiring and conduits within the partition, at the same time rendering them readily accessible for removal, replacement, or rearrangement, are problems that must be given careful consideration.

An object of my invention is to provide a partition structure comprising sectional units so constructed as to permit quick removal and replacement of different panels within the unit.

Another object of my invention is to provide a sectional unit comprising framing members which can be readily connected or disconnected and variously adjusted to accommodate the section to the requirements of field conditions.

Still another object of my invention is to provide a partition structure having framing so constructed as to facilitate the insertion and removal of all types of conduits and so made as to permit the threading of each conduit through any or all of the framing pieces of the partition, either before or after erection.

Another object of this invention is to provide a frame member so formed as to provide a housing for conduits, which has a fully accessible opening through which the conduits may be inserted or removed, the opening being closed by a cap member which completely conceals the conduits.

Another object of my invention is to provide a frame member having adjustable means for removably retaining one or more partition panels in assembled position in the partition wall, the frame member also serving as a housing for conduits.

Other objects of this invention will become apparent as the disclosure proceeds.

Various other features and advantages of the invention will be apparent from the following particular description and from an inspection of the accompanying drawing, wherein

Fig. 1 is a vertical cross sectional view

through the upper portion of my interchangeable partition showing in particular the cornice unit and horizontal frame member construction;

Fig. 2 is a vertical cross sectional view of my interchangeable partition showing the cap portion of the horizontal frame member removed;

Fig. 3 is a horizontal cross sectional view through a sectional unit showing the section uprights and the horizontal frame member extending therebetween, certain parts being broken away to show the interior construction;

Fig. 4 is a perspective view of a portion of my novel rail member;

Fig. 5 is a cross sectional view of a rail member of slightly modified construction;

Fig. 6 is a cross sectional view of another rail member of modified construction; and

Fig. 7 is a perspective view of the vertical upright frame member, certain parts being broken away to more clearly show how the horizontal member is secured to the upright.

Like reference characters denote like parts in the several figures of the drawing.

Referring more particularly to the drawing, I have shown a partition structure formed of separable sectional units. Each sectional unit comprises a pair of channel shaped uprights 10 and 11 spaced apart, with the flange portions thereof extending outwardly. A frame or horizontal rail member 9 extends between and abuts the web portions of the spaced uprights 10 and 11. A cornice unit 12 seats the uprights 10 and 11 and extends the full length of the partition.

The frame member 9 comprises more particularly a channel shaped member having a web or face portion 13 and flange portions 16. The flanges are each provided with a shoulder or abutment portion, as clearly shown in Fig. 4, which is formed to represent a moulding strip. This abutment portion comprises an outer wall portion 14 which may be bent into an artistic formation, and an inside wall portion 15. The lower and upper edges of wall panels 39 and 41 respectively seat against and abut the flange portions 15.

The frame member 9 is removably secured to the uprights 10 and 11 by means of stud elements 21 which are riveted as at 22 or otherwise secured to the inside face of the flanges 16. Two stud elements are preferably secured to each end of the frame member 9 and are each provided with a threaded end portion 23 which extends through a small aperture 24 provided in the bottom of the panel receiving groove 25 of each of the uprights 10 and 11. By manipulating an adjusting nut

26, provided on the end of each stud element 21, it is seen that the uprights 10 and 11 and the frame member 9 can be drawn together and securely held in sturdy assembly. It is now seen
 5 that wiring and conduits of all kinds can be easily placed within the frame member 9 through the longitudinal opening provided between the spaced flanges 16. These conduits can be threaded through openings 40 provided in each of the up-
 10 rights 10 and 11 so that the conduits can be passed from or to the frame member and through the uprights to any location desired.

The frame member 9 may be closed by means of a cap member having a face portion 18 similar
 15 to the face portion 13 of the rail member. Shoulder or abutment portions are provided on the cap member correlative to the shoulder portions provided on the rail member 9. These shoulder portions each comprise generally an artistically
 20 shaped outer wall portion 19 and an inturned flange portion 20 which is adapted to abut against the edge of the wall panels to retain the same in assembled position. The inturned flange portions 20 also resiliently engage catch projections
 25 17 formed on the end of the flanges 16 and thus removably retain the cap member in position on the frame member.

It is now seen that the cap member serves two purposes. It provides a cover which permits
 30 ready access into the interior of the frame member for the insertion of conduits, and it also provides the means for removably retaining both the upper and lower panels 39 and 41 in assembled position in the sectional unit. When the cap
 35 member is removed either the upper panel 39 or the lower panel 41 may be removed and replaced by another panel as desired. When the cap member is again resiliently snapped in place, both panels are firmly retained in position. It is further
 40 seen that the flange portions 16 provide a groove formation which forms a seat for each of the upper and lower panels and that the catch projections 17 are bent outwardly to assist in the positioning of the panels within these panel receiving grooves.
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The cornice unit comprises generally an outer channel shaped trim member and an inner channel shaped reinforcing member which are preferably so arranged as to break joints and to present a continuous cornice unit. The outer trim
 50 member has the flange portions thereof formed to present artistic side wall portions 27. The web portion 28 of the trim member is preferably recessed as at 29 to receive the panel frame member 36. The upper ends of the side wall portions
 55 27 may be bent inwardly to provide inturned flanges 30 which adds considerably to the strength of the cornice unit. The inner reinforcing channel member may be of heavier gauge than the
 60 outer trim member and comprises flange portions 31 and web portion 32 having a recess portion 33 adapted to receive certain parts of the partition structure placed above the cornice (not shown). The free ends of the flange portions 31 are bent
 65 inwardly as at 34 and upwardly as at 35 to closely conform to the inner contour of the trim member. This close fit between the trim member and the reinforcing member provides an unusually strong cornice unit and makes unnecessary the use of
 70 screws or any other securing devices for holding the trim member and inner strengthening member assembled.

The frame member 36 which seats within the recess 29 may be of general channel form having
 75 a panel receiving recess 37 defined by the panel

abutment portions 38. It is seen that by removing the cap member 18, shown in Fig. 1, the panel 39 may be pulled outwardly and downwardly out of seating engagement with the panel receiving grooves 25 of the uprights 10 and 11
 80 and the panel receiving grooves 37 of the frame member 36, thus permitting the insertion of another panel as desired.

I have shown in Fig. 5 a frame member of slightly modified construction, the difference in
 85 this rail member over that shown in Fig. 4 being in the formation of the catch projections at the end of the flange portions 16. The catch projections shown in Fig. 5 are formed by a sharp
 90 rebend in the outer ends of the flanges 16 so as to provide a short vertical wall 42 against which the flange portions 20 of the cap member seat and a return bend shoulder portion 43, behind
 95 which the flange portions 20 of the cap member will snap when pressure is applied to the cap member. The wall portions 42 define the exact seating location of the flange portions 20 so that the cap member will be prevented from movement with respect to the rail member 9 and will,
 100 at all times, be properly positioned in true vertical and horizontal alignment.

I have shown in Fig. 6 still another frame member, the main feature of which is the inner reinforcing channel 44 having shoulders 45 on
 105 the flange portions thereof. A rail member comprising a face portion 46, moulding portions 47 and inwardly bent flange portions 48 telescopes over the web portion of the reinforcing member 44 in such a manner that the inwardly extending
 110 flange portions 48 seat against the shoulder portions 45 of the reinforcing member. The upper panel 39 and the lower panel 41 seat against the flanges 48 of the reinforcing member. The inturned flange portions 20 of the cap member
 115 18, similar to the cap member heretofore described, engages the catch projections 17 to removably retain the cap member and the panels 39 and 41 in assembled position.

It is now seen that I have provided a partition structure which not only embodies interchangeable sectional units, but is so constructed to also permit the interchangeability of panels. This
 120 interchangeability of the panels may be effected by simply removing the cap member covering the frame member with a simple tool and then either the upper or lower panel or both can be removed,
 125 replaced, or interchanged, as desired. Conduits may also be placed and replaced and fully protected and housed within the frame member. These conduits can be strung to any location
 130 desired through the hollow frame members and uprights and the conduit apertures provided therein. The construction presented is economical to manufacture and can be easily and quickly
 135 erected by unskilled workmen, and it possesses the additional advantages of complete flexibility and interchangeability which is so much desired in general office and commercial partitions.

While certain novel features of the invention have been disclosed and are pointed out in the
 140 annexed claims, it will be understood that various omissions, substitutions, and changes may be made by those skilled in the art without departing from the spirit of the invention.

What is claimed is:

1. A partition structure of the character described, including in combination, vertical uprights, a channel shaped horizontal member removably secured to said uprights, the web portion of said channel shaped horizontal member
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extending substantially parallel to said uprights and the flange portions thereof extending substantially transverse of said uprights, a panel extending between said uprights and abutting said horizontal member, and a removable cap member on said horizontal member removably retaining said panel in position.

2. A partition structure of the character described, including in combination, vertical uprights, a channel shaped horizontal member removably secured to said uprights, the web portion of said channel shaped horizontal member extending substantially parallel to said uprights and the flange portions thereof extending substantially transverse of said uprights, a panel extending between said uprights and abutting said horizontal member, and a cap member removably secured to said horizontal member removably retaining said panel in assembled position.

3. A partition structure of the character described, including in combination, vertical uprights, a channel shaped horizontal member removably secured to said uprights, the web portion of said channel shaped horizontal member extending substantially parallel to said uprights and the flange portions thereof extending substantially transverse of said uprights, a panel extending between said uprights and abutting said horizontal member, and a removable cap member adapted to resiliently engage said horizontal member to removably retain said panel in assembled position.

4. A partition structure of the character described, including in combination, vertical uprights, a channel shaped frame member extending between said uprights, the web portion of said channel shaped frame member extending substantially parallel to said uprights, said frame having a shoulder portion on one of the flanges thereof, a panel extending between said uprights and seated against said shoulder portion, and a removable cap member adapted to grip said flange to removably retain said panel in position.

5. A partition structure of the character described, including in combination, vertical uprights, a channel shaped frame member extending between said uprights, the web portion of said channel shaped frame member extending substantially parallel to said uprights, catch projections on said frame member, a panel extending between said uprights and abutting said frame member, and a removable cap member having elements adapted to engage said projections to retain said panel in assembled position.

6. In a partition structure, including in combination, channel shaped uprights, a channel shaped horizontal member secured to the web portions of said uprights, a cap member removably secured to said horizontal member, said uprights having openings in the web portions thereof so as to permit the passage of wiring and conduits through said horizontal member and into said uprights.

7. A partition structure, including in combination, channel shaped uprights, a channel

shaped horizontal member secured to the web portions of said uprights, said uprights having openings in the web portion thereof, and a cap member removably secured to the flanges of said horizontal member so as to permit the placing of wiring and conduits within the horizontal member and threading the same through the openings provided in the uprights prior to the placement of the cap member in position, and means for removably retaining said cap member in assembled position.

8. A partition structure, including in combination, channel shaped uprights having openings in the web portions thereof, a channel shaped horizontal member extending between said uprights so as to cover said openings, means concealed entirely within said uprights for removably securing said horizontal member to the uprights, said channel shaped horizontal member providing a housing for conduits which can be threaded through the openings provided in the uprights, and a closure cap member adapted to be removably secured to said horizontal member.

9. A partition structure, including in combination, channel shaped uprights having openings in the web portions thereof, a channel shaped horizontal member extending between said uprights so as to cover said openings, means concealed entirely within said uprights for removably securing said horizontal member to the uprights, said horizontal member having shoulder portions on the flange portion thereof, panels extending between said uprights and seated against said shoulder portions, said channel shaped horizontal member also providing a housing for conduits which can be threaded through the openings provided in the uprights, and a removable cap member forming a closure for said horizontal member and operative to removably retain said panels in assembled position.

10. A partition structure, including in combination, vertical uprights, a cornice unit seated on said uprights, a rail member seated within a receiving recess provided in said cornice unit, a channel shaped horizontal frame member extending between and removably secured to said uprights, a panel extending between said uprights, horizontal member and rail member, and a removable closure cap member removably secured to said frame member and removably retaining said panel in assembled position.

11. A partition structure of the character described, including in combination, vertical uprights, a channel shaped frame member extending between said uprights, the web portion of said channel shaped frame member extending substantially parallel to said uprights, said frame member having shoulder portions on the flanges thereof, panels extending between said uprights and abutting said shoulder portions, and a removable cap member having correlated shoulder portions engageable with said frame member to removably retain said panels in assembled position.

ELMER EDWARD KOENIG.