

June 19, 1934.

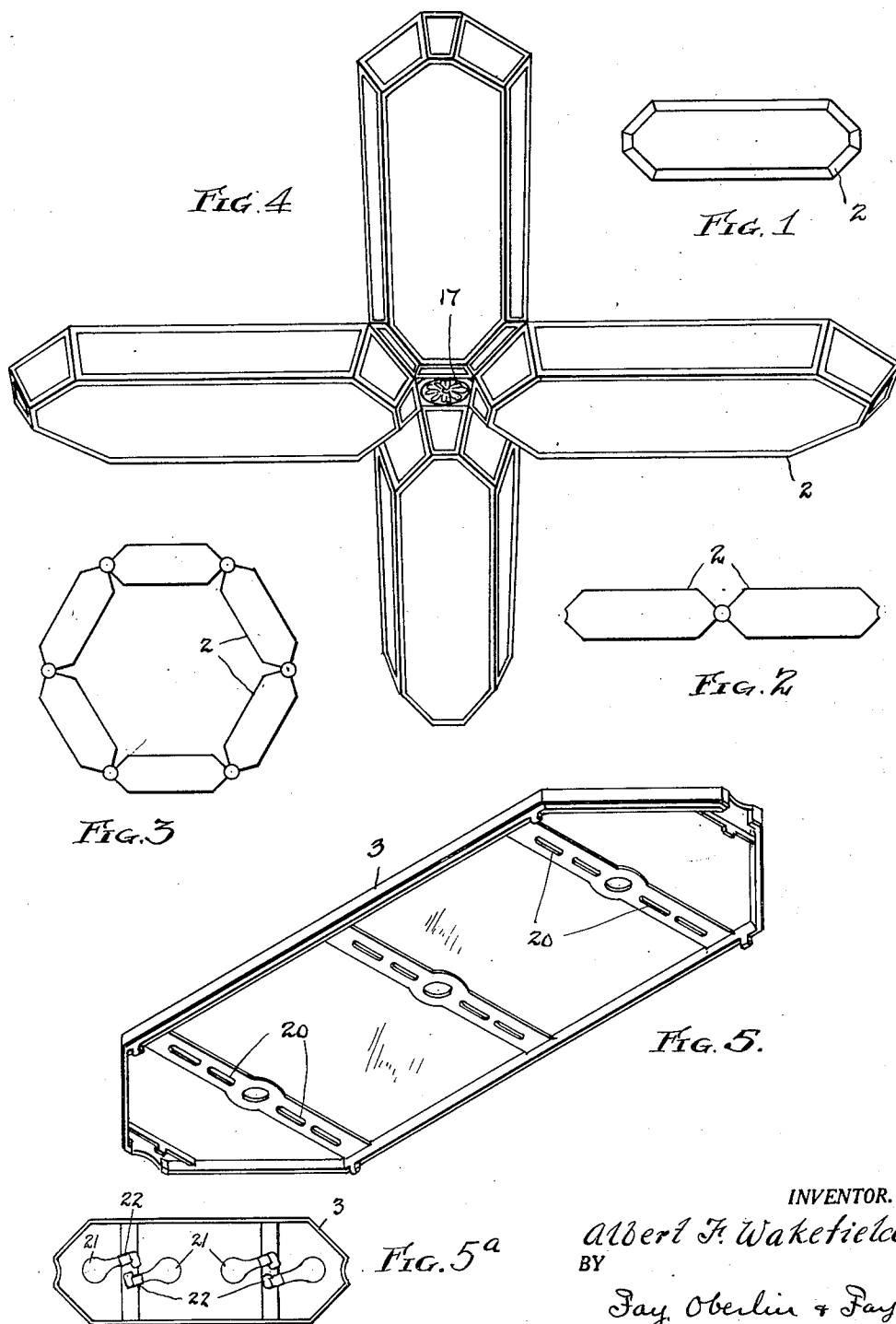
A. F. WAKEFIELD

1,963,218

LIGHTING FIXTURE

Filed Jan. 6, 1932

3 Sheets-Sheet 1



INVENTOR.

Albert F. Wakefield.

BY

Jay Oberlin & Jay
ATTORNEYS.

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A. F. WAKEFIELD

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3 Sheets-Sheet 2

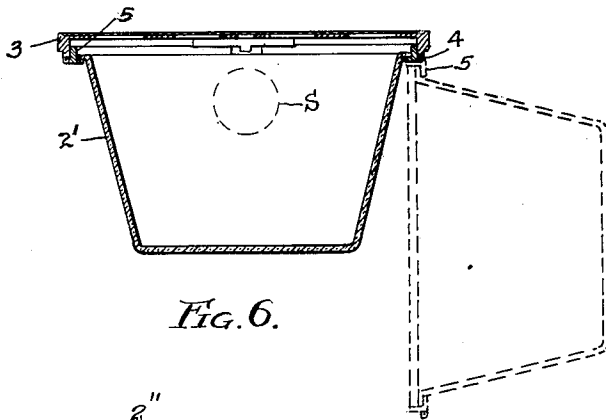


Fig. 6.

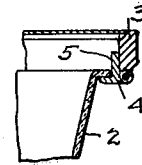


Fig. 8

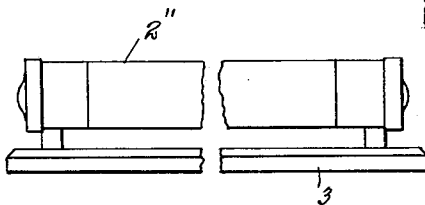


Fig. 6^a

Fig. 7

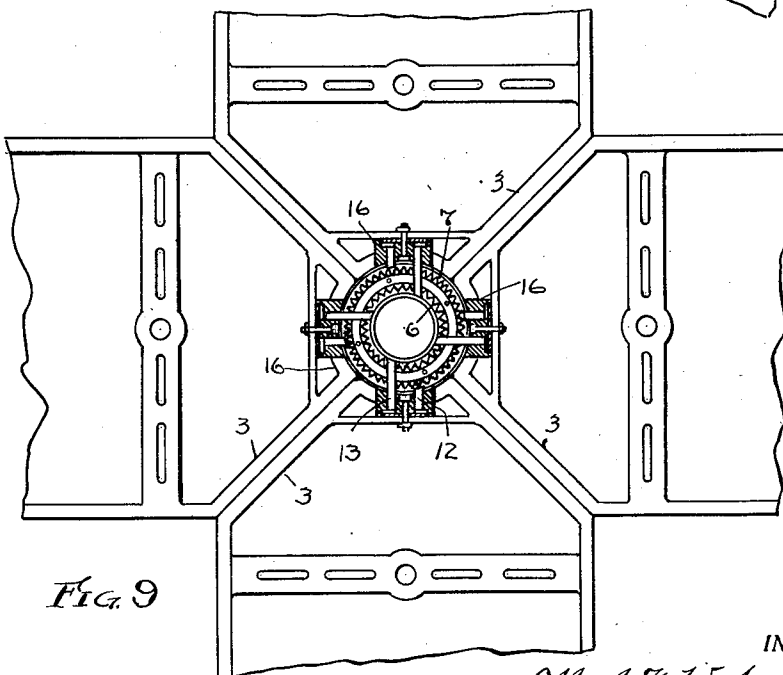
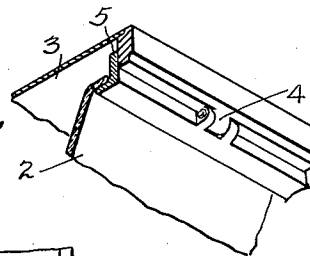


Fig. 9

INVENTOR.

Albert F. Wakefield.

BY

Fay, Oberlin & Fay
ATTORNEYS.

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A. F. WAKEFIELD

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3 Sheets-Sheet 3

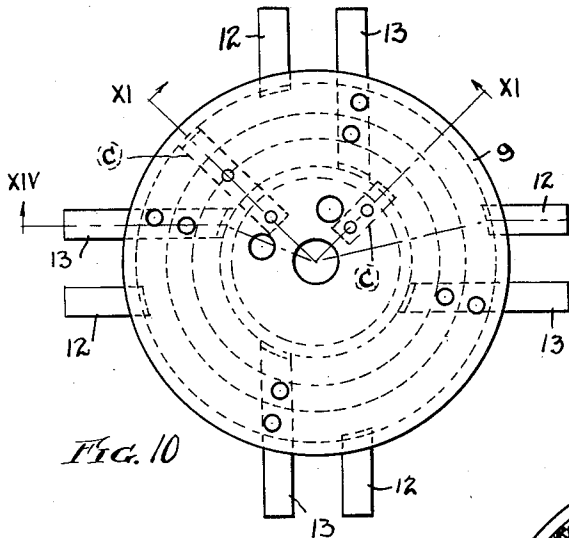


Fig. 10

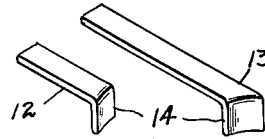


Fig. 13

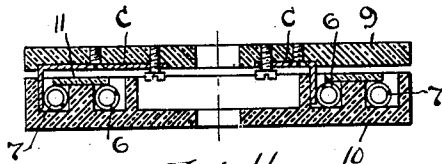


Fig. 11

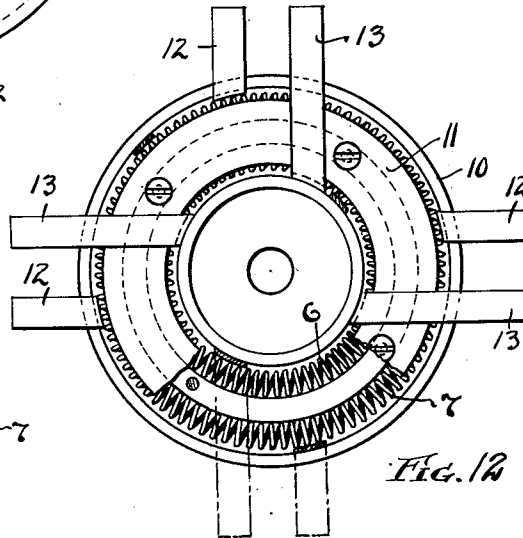


Fig. 12

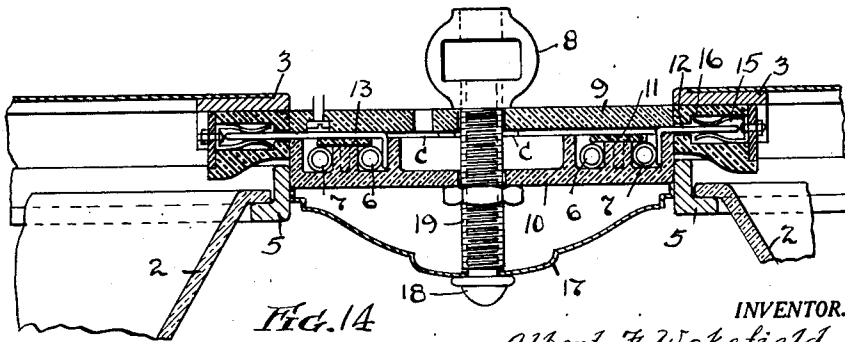


Fig. 14

INVENTOR.
Albert F. Wakefield.

BY

Day, Oberlin & Day
ATTORNEYS.

UNITED STATES PATENT OFFICE

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LIGHTING FIXTURE

Albert F. Wakefield, Vermilion, Ohio, assignor to
The F. W. Wakefield Brass Company, Vermilion,
Ohio, a corporation of Ohio

Application January 6, 1932, Serial No. 585,046

10 Claims. (Cl. 240—78)

This invention relates to lighting fixtures, and more particularly to fixtures which can be readily applied to buildings presenting various conditions, and without requiring a built-in or embedded placement. It is among the objects of the invention to provide a unit form of fixture capable of being used individually or in assembly with similar units in simple or elaborate geometric arrangement. Another object is the provision of a construction having universal wiring connections adaptable irrespective of the number of units assembled.

Other objects and advantages will appear as the description proceeds.

To the accomplishment of the foregoing and related ends, the invention, then, comprises the features hereinafter fully described and particularly pointed out in the claims, the following description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative however, of but a few of the various ways in which the principle of the invention may be employed.

In said annexed drawings:—

Fig. 1 is a face view of a unit fixture in accordance with the invention; Figs. 2 and 3 are similar views showing various geometric assemblies of such units; Fig. 4 is an isometric view of an assembly of four units as positioned on a ceiling, the scale being somewhat enlarged; Fig. 5 is an isometric view of a unit base-plate; Fig. 5a is a reduced face view of a base-plate with lamps thereon; Fig. 6 is a transverse section of a unit; Fig. 6a is a reduced side elevational view of a slightly different form; Fig. 7 is a fragmentary perspective detail; Fig. 8 is a fragmentary transverse sectional detail; Fig. 9 is a plan view of a plurality of unit base-plates as assembled with current-carrying contact-means, the cover plate of the latter being removed; Fig. 10 is a plan view on a large scale of the contact-means; Fig. 11 is a sectional view thereof taken on a plane indicated by the line XI—XI, Fig. 10; Fig. 12 is a view of the contact-means with portions removed, showing the internal structure; Fig. 13 is an isometric view of blade detail; and Fig. 14 is a sectional view through the contact-means and two assembled units, portions being broken away.

Referring more particularly to the drawings, there is shown a lighting unit having a luminous member 2, in whole or in part of glass, transparent or translucent by frosting or like means, such member being in a form to be supported from a suitable base-plate 3 which is secured to the ceiling or wall surface. The luminous member in

some instances is a lamp, for example of filament or glowing-gas types, and in other instances the luminous member is an outer cover over a lamp or plurality of lamps within. In the form shown in Fig. 6, the luminous member is a light-transmitting cover over a lamp S, and is here of a trough-like form having truncated pyramidal ends. Whatever the detail construction of the lighting member 2, it is adapted to assemble, member to member, in various numbers and arrangements, whether in straight-line assembly end to end, or in radiating form, or various enclosed rectangular, polygonal or circular arrangement as the fancy of the ultimate user may dictate. With a light-transmitting member of such form, suitable accommodation for a lamp or lamps therewithin is thus advantageously had, and such lamps may be supported by suitable lamp-carrier means on the base-plate 3. One suitable arrangement for this is shown in Fig. 5a. The light-transmitting member 2' is supported on the base-plate, preferably in a manner permitting easy removal for cleaning and changing, etc. For this, the base may carry, as by means of hinges 4 (see Figs. 6, 7) a rim or flange-member 5 of a shape to co-act with the edge of the light-transmitting member 2', so as to retain the latter within the rim when properly positioned and closed.

In the form shown in Fig. 6a the luminous member 2" is itself a lamp mounted on the base 3.

At a suitable point in the periphery of the base, preferably at the end, provision is made for current-carrying contact connections. Advantageously, the current supply may be had from current-conducting members 6, 7, which are connected with an outlet box in the wall or ceiling, as for instance by wires and contact-arms c, the wires extending through a hickey or like element 8, Fig. 14, the precise detail of which may, of course, be varied and is immaterial. The current-carrying members 6, 7, are desirably arranged in such manner as to be accessible at any one of a number of various points, thereby simplifying assembly of units therewith, irrespective of the number of units desired in any installation. In the embodiment of this feature of the invention illustrated in detail in Figs. 9–14, it will be seen that the current-carrying members may be in the form of helices which lie between insulating plates 9, 10, being suitably centered and positioned, as by grooves in one or the other of these, and desirably having a locking-plate 11 as a further securing means, the latter of course, being of insulating material. For effecting communication then between the current-carrying

members and the lamps in the light-transmitting members, contact-blades are provided, allowing a simple plugging-in action to establish current flow. Such blades may be carried by the members variously as convenient, but in the form illustrated in Figs. 10, 12 and 14, comprise short blades 12 and long blades 13, each having a hooked end 14 adapted to set against the conductors 6, 7, respectively. The free ends of such blades then project and are available for insertion into relation with receiving-prongs 15 in the end of the adjacent unit base. The latter prongs are, of course, carried in suitable insulating material 16 and are secured in the base and wire connected to the lamps. Within the plates 9, 10, it will be seen that the current-carrying members 6, 7, are thus available at any desired point circumferentially, and by correspondingly contouring the adjacent surfaces of the unit-bases, an accurately fitting assembly disguising the built-up character of the device may be had. A further ornamental rosette-like plate 17 may be applied over the plate 10 and be held by suitable means, for instance a plug 18 threaded into a tube 19.

In the mounting of fixtures of this character, an outlet box being available on the ceiling or wall surface, the contact-carrying plates 9, 10 are mounted in relation with the outlet box, with the connector or the like 8, and then in accordance with the number of luminous units to be applied, one or more base-plates 3 are brought into relation with the contact-blades in position, and the base is secured in place by screws applied at two or more points through the slots 20. In this manner, such number of units as may be desired may be assembled to a common source of current, and a correspondingly simple or more extensive fixture lay-out results, and coloration effects variously may be had, dependent upon the glass employed in the light-transmitting covers. As already noticed, where lamps within a cover are used, these may be mounted on the base 3 in convenient manner. If the unit be large and more than one lamp be enclosed, it is preferable to place the lamps on the base somewhat in line in order to uniformize the light-distribution. One illustration of this is shown in the arrangement of the lamps 21 in staggered sockets 22, in Fig. 5a.

It will thus be seen also that the refinements of artistic lighting are made possible on any available ceiling or wall surface where an outlet can be had, without necessitating recourse to elaborate and expensive recessing or special indenting to receive the fixture, and relief-lighting with its correspondingly advantageous lateral distribution is feasible in manifold application.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the means stated in any of the following claims, or the equivalent of such, be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. In combination with a ceiling or wall surface, a lightning unit seatable on such surface to project in relief thereon for lateral and vertical radiation and having electric terminals, an electrical outlet means on such surface, and means for connecting the unit with the outlet means at any circumferential point, said means including con-

tact surfaces mateable uniformly at all orbital points between said outlet means and said lighting unit.

2. In combination with a ceiling or wall surface, a plurality of lamp-containing units joined together thereon in peripheral relation, and electric-connector means joining electrically said units at the periphery in optional angles.

3. In combination with a ceiling or wall surface, a plurality of lamp-containing units joined together thereon in peripheral relation and having truncated pyramidal lateral faces, and electric-connector means joining electrically said units at the periphery in optional angles.

4. In combination with a ceiling or wall surface, a plurality of lamp-containing units joined together thereon in peripheral relation, each unit having an elongated body and angularly faceted sides, and electric-connector means joining electrically said units at the periphery in optional angles.

5. In combination with a ceiling or wall surface, a lighting unit seated on said surface, and an outlet means on said surface having a substantially continuous annular opening for receiving connections from said unit at any circumferential point.

6. In a lighting fixture, a lamp-containing unit having a base-plate, means for mounting the base-plate on a plane support-surface, a lamp-carrier on such base-plate, and current-supply contact-means including spaced insulating plates, circularly placed conductors between said plates, and contact-blades resting against the respective conductors and projecting from between the insulating plates and connecting with said lamp-carrying unit.

7. In a lighting fixture, spaced insulating plates, concentric current-carrying conductors between said plates, long and short contact blades resting against the respective conductors, and a luminous unit having a base mounted on a plane support-surface, such base having also contact-prongs assembled with the contact-blades.

8. In a lighting fixture, spaced insulating plates, current-carrying helices between said plates, long and short contact-blades having hook-ends resting against the respective helices, and a luminous unit having a base with contact-prongs assembled with such contact-blades.

9. In a lighting fixture, spaced insulating plates, current-carrying helices in grooves in one of said plates, long and short contact-blades having hook-ends resting against the respective helices, and a plurality of luminous units having bases with contact-prongs in association with the contact-blades.

10. In a lighting fixture, spaced insulating plates, current-carrying helices in grooves in one of said plates, long and short contact-blades having hook-ends resting against the respective helices, and a plurality of lamp-carrying units having ceiling-attached bases with contact-prongs in association with the contact-blades, and light-transmitting covers over said lamp-carrying units, said light-transmitting covers being of elongated trough-like form with pyramidal ends.

ALBERT F. WAKEFIELD.