

No. 741,593.

PATENTED OCT. 13, 1903.

W. D'A. RYAN & L. L. SAGENDORPH.

CEILING CONSTRUCTION.

APPLICATION FILED JAN. 19, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

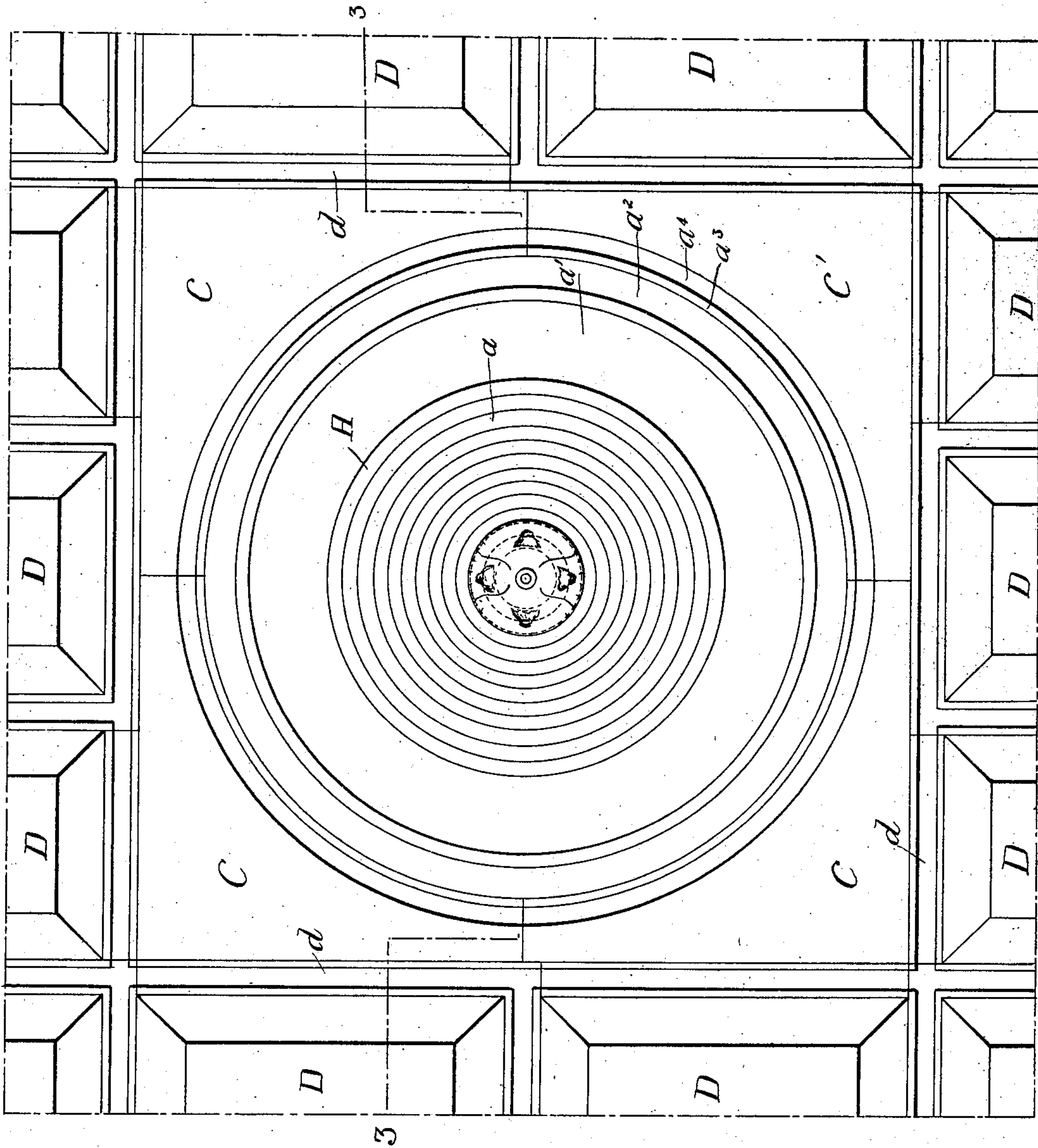


Fig. 1.

Witnesses:-

*Augustus B. Coffey*  
*Chas W & Co.*

Inventor:-

*Walter D'A. Ryan,*  
*Longley L. Sagendorph,*  
*by his Attorneys;*  
*Howan & Howan*

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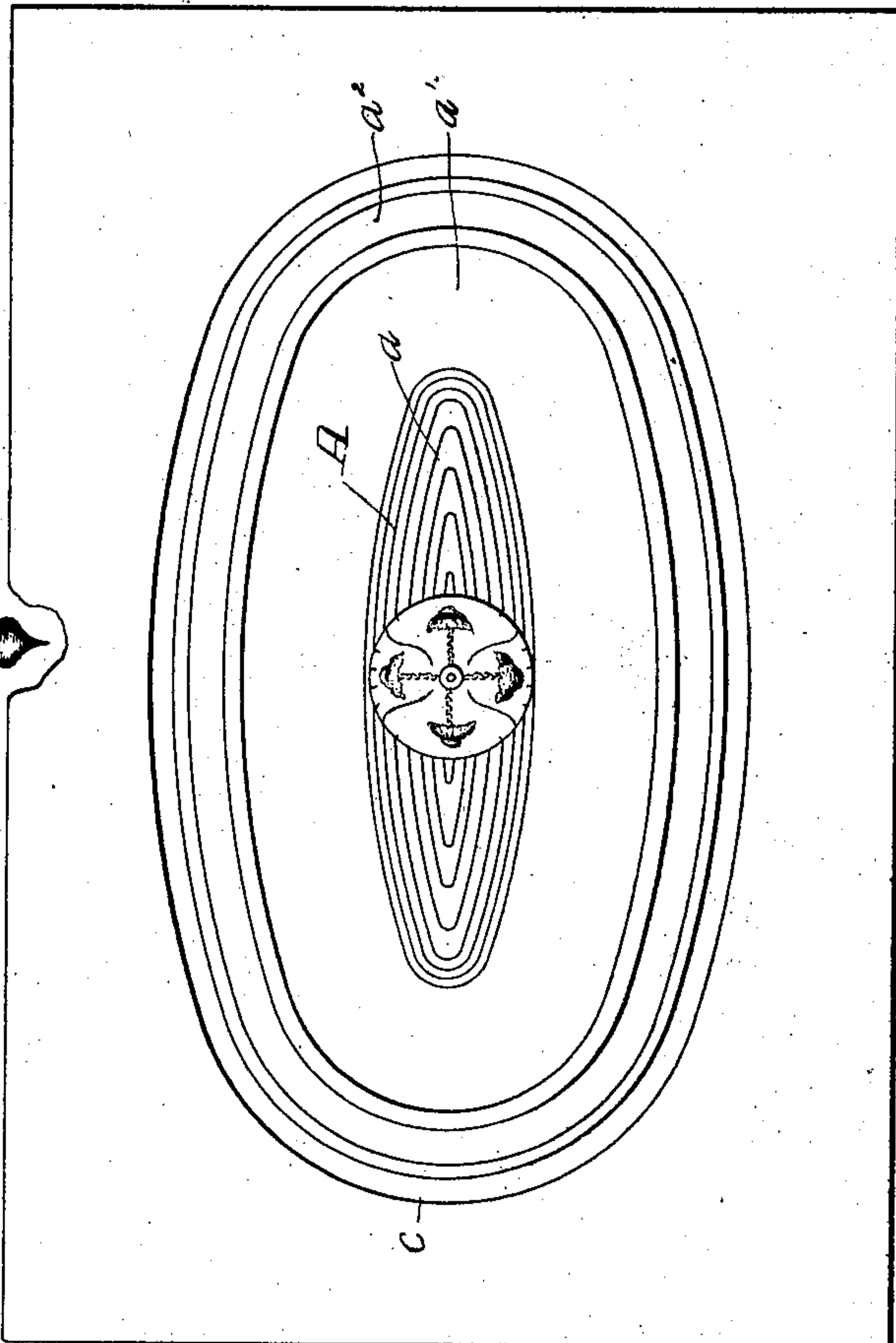
2 SHEETS—SHEET 2.

NO MODEL.



*Fig. 3.*

*Fig. 2.*



Witnesses:-

*Augustus B. Cooper*  
*Charles C. Co.*

Inventor:-  
*Walter D'A. Ryan,*  
*Longley L. Sagendorph,*  
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*Howson & Howson*



# UNITED STATES PATENT OFFICE.

WALTER D'A. RYAN, OF LYNN, MASSACHUSETTS, AND LONGLEY L. SAGENDORPH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS OF ONE-THIRD TO HARLAN P. LLOYD, OF CINCINNATI, OHIO.

## CEILING CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 741,593, dated October 13, 1903.

Application filed January 19, 1903. Serial No. 139,644. (No model.)

*To all whom it may concern:*

Be it known that we, WALTER D'A. RYAN, a subject of the King of Great Britain and Ireland, and a resident of Lynn, Massachusetts, and LONGLEY L. SAGENDORPH, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Ceiling Construction, of which the following is a specification.

Our invention consists in certain improvements in the detail construction of metallic ceilings, having for its object the provision of means whereby the curved metallic plates comprising the reflecting-surface for a lamp may be made to join rectangular ceiling-plates of any of the standard constructions at present known to the art, a further object being to provide a construction such that the fitting of standard ceiling-plates to such curved pieces may be quickly and easily accomplished and that without the necessity for or use of unsightly joints. These objects we attain as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is an inverted plan view illustrating a section of a metallic ceiling and showing our improved construction by which standard ceiling-plates of varying sizes may be fitted to a circular metallic reflecting-section. Fig. 2 represents an inverted plan view of a special form of section, showing the applicability of our improved construction thereto; and Fig. 3 is an enlarged sectional elevation taken on the line 3 3, Fig. 1, illustrating the detail construction of a ceiling-section made according to our invention.

In the above drawings, A represents a reflecting ceiling-section, which in the case illustrated is made in two parts, of which one,  $a$ , consists of a substantially conical surface provided with a number of annular projections or corrugations of increasing amplitude from the apex of said surface to its base, while the second part,  $a'$ , of said surface is concave in form and extends downwardly and outwardly from the base of said conical surface. Any desired source of light is placed in the line of the vertical axis of the surface

$a$  and adjacent to its apex, this source being in the device illustrated an electric-arc lamp of the inclosed-arc type.

In order that the above device may have a slightly appearance and may at the same time be conveniently united to standard rectangular metallic ceiling-plates, we unite to the lower edge of the surface  $a'$  an upwardly-extending annular portion  $a^2$ , which as it approaches the level of the ceiling is provided with one or more annular flanges  $a^3$ , having grooves  $a^4$ .

The ceiling represented at B has in the case illustrated a series of furring-strips, of which one is shown at  $b'$ , and to these the reflecting structure as well as the metallic ceiling-plates are fastened in any desired manner, being thereby retained in position.

By reference to Fig. 1 it will be seen that we provide four sections or pieces C, designed to surround the reflecting-section A, forming together a figure whose external configuration is angular and which has a cut-away portion wholly within the area inclosed by its periphery conforming to the shape and for the accommodation of the said reflecting-section. Both of the outer and inner edges of these junction-sections C are flanged and either recessed or grooved, as indicated at  $c$ , there being also, as above noted, corresponding recesses or grooves  $a^4$  in one of the flanges projecting from the annular portion  $a^2$  of the reflecting-surface. It will be seen, therefore, that by the use of the sections C the curved section A, which may be made, as shown in Figs. 1 and 2, either circular or elliptical in outline, is extended so that angular ceiling-plates D, which in the case illustrated are four-sided and of various sizes, may be united therewith to form a regular and slightly construction of ceiling, the grooved or recessed portions  $d$  of said ceiling-plates fitting into the correspondingly-formed recessed portions  $c$  of the junction-pieces C and these in turn uniting with the grooved flanges of the curved reflecting-section.

We claim as our invention—

1. The combination of a series of ceiling-plates, with a light-reflecting section, said



section forming a portion of the ceiling and being joined to said plates, substantially as described.

2. The combination of a series of ceiling-plates, with a section placed to be substantially continuous therewith, said section having a light-reflecting portion, substantially as described.

3. The combination of a series of ceiling-plates, a curved reflecting ceiling-section and junction-plates uniting the ceiling-plates with said reflecting-section, substantially as described.

4. The combination of a reflecting ceiling-section having a curved outline, and a series of junction-sections of a construction to fit the ceiling-section, said junction-sections being of an angular exterior configuration, with a series of ceiling-plates constructed to unite with said junction-sections, substantially as described.

5. The combination of a ceiling-section having a curved outline, said section having a grooved flange surrounding the same, a series of junction-sections having portions designed to fit said grooves of the curved sec-

tion and to form together a figure of angular outline, and ceiling-plates also having grooved portions and designed to unite with said junction-sections to form a complete ceiling, substantially as described.

6. The combination of a light-reflecting ceiling-section of curved outline, an annular flanged portion surrounding the same, said flanged portion being grooved, a series of junction-sections having grooved portions designed to fit the grooved portion of the curved section, said junction-sections completely surrounding the curved section and being rectangular in outline, with a series of ceiling-plates grooved along their edges and designed to be united to the correspondingly-grooved portions of said junction-sections, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WALTER D'A. RYAN.

LONGLEY L. SAGENDORPH.

Witnesses:

WILLIAM E. BRADLEY,

JOS. H. KLEIN.