E. DIECKMANN.

CEILING.

APPLICATION FILED SEPT. 9, 1909.

979,658. Patented Dec. 27, 1910.

Fig. 1.

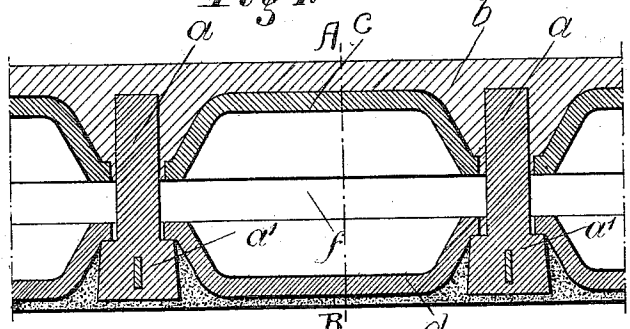


Fig. 2

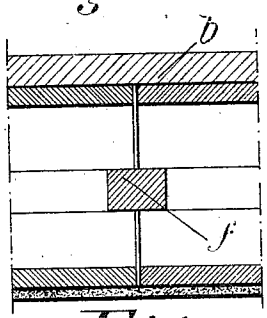


Fig. 3.

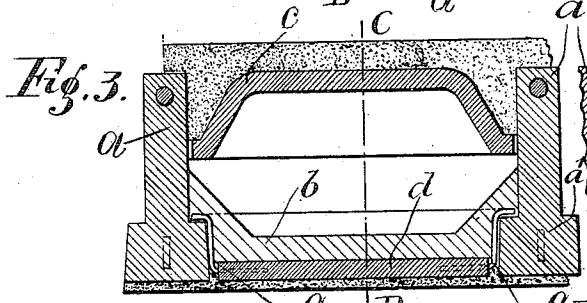


Fig. 6.

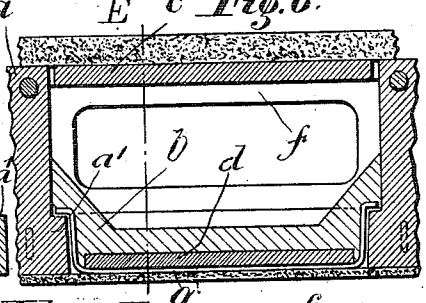


Fig. 4

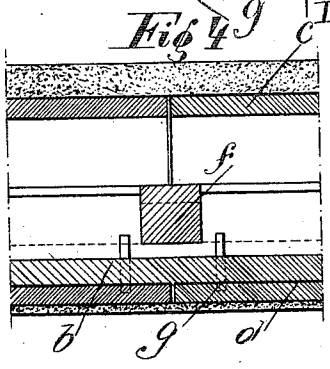
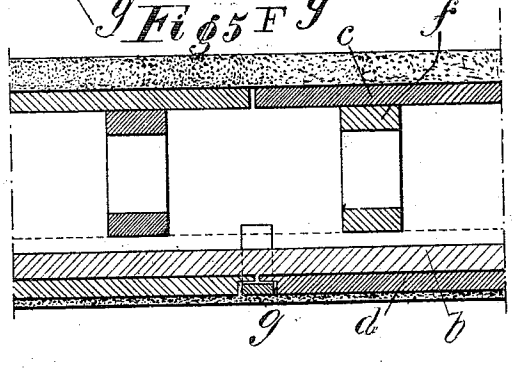


Fig. 5



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CEILING.

979,658.

Specification of Letters Patent. **Patented Dec. 27, 1910.**

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To all whom it may concern:

Be it known that I, EMIL DIECKMANN, a citizen of the German Empire, residing at Barmen-Unterbarmen, in the Province of Rhineland and State of Prussia, Germany, have invented new and useful Improvements in Ceilings, of which the following is a specification.

The present invention relates to a ceiling consisting of beams of reinforced concrete, in a layer of concrete arranged according to the static conditions in the upper or lower part of the ceiling and in filling bodies composed of upper and lower plates or cups and in cross-pieces, spaced apart from one another, in which arrangement the lower cups bear either immediately or with the aid of braces against the offsets of the beams of reinforced concrete.

The accompanying drawings, in which similar letters refer to similar parts throughout the several views, show several forms of this invention.

Figure 1 demonstrates a form of construction in longitudinal section; Fig. 2 is a section taken on the line A—B of Fig. 1; Fig. 3 is illustrative of a second embodiment and the Figs. 4 and 5 are sections taken in the direction of the lines C—D and E—F respectively of Figs. 3 and 6, respectively, the Fig. 6 shows a third design of the object of the invention.

In the form of construction as shown in the Figs. 1 to 5, the ceiling consists of the beams *a* of reinforced concrete, of the upper or lower plates or cups *c*, *d* of the cross-supports *f* and of a layer of concrete *b*. In the ceiling of concrete shown in the Figs. 1 and 2 the layer of concrete is arranged above the upper plates. The lower cups bear against offsets *a'* of the beams *a*. On the lower cups are resting cross-pieces *f* that extend at right angles to the beams, and on the cross pieces are supported the upper cups *c*. The cross-pieces *f* determine the spacing between the cups and the spacing between the beams and prevent the lower cups from rising while plastering takes place.

In the construction as shown in the Figs. 3 to 6 the pressure-binding is placed above the lower cups *d*. These cups *d* are straight plates and they are suspended on the offsets *a'* of the beams *a* by means of metallic ties *g* embedded therein at their one end or by continuous ties underlaid at the joint.

The cross-pieces bear immediately against the offsets *a'* of the beams *a* and have their position at the joint of the cups or at any other points whatever. Owing to this arrangement and shape of the lower cups *d* in the embodiment shown in Figs. 1 and 2 the sides of the beams remain free for contact with the concrete of the layer of concrete provided above the lower plates.

I claim:—

A ceiling comprising a series of concrete beams having offsets, a series of lower plates having hook-shaped ends that project above said offsets and are directly supported thereby, a series of spacing bars also arranged above said offsets and projecting with their ends over the same so as to be supported thereby, and a series of upper plates supported upon the spacing bars.

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