

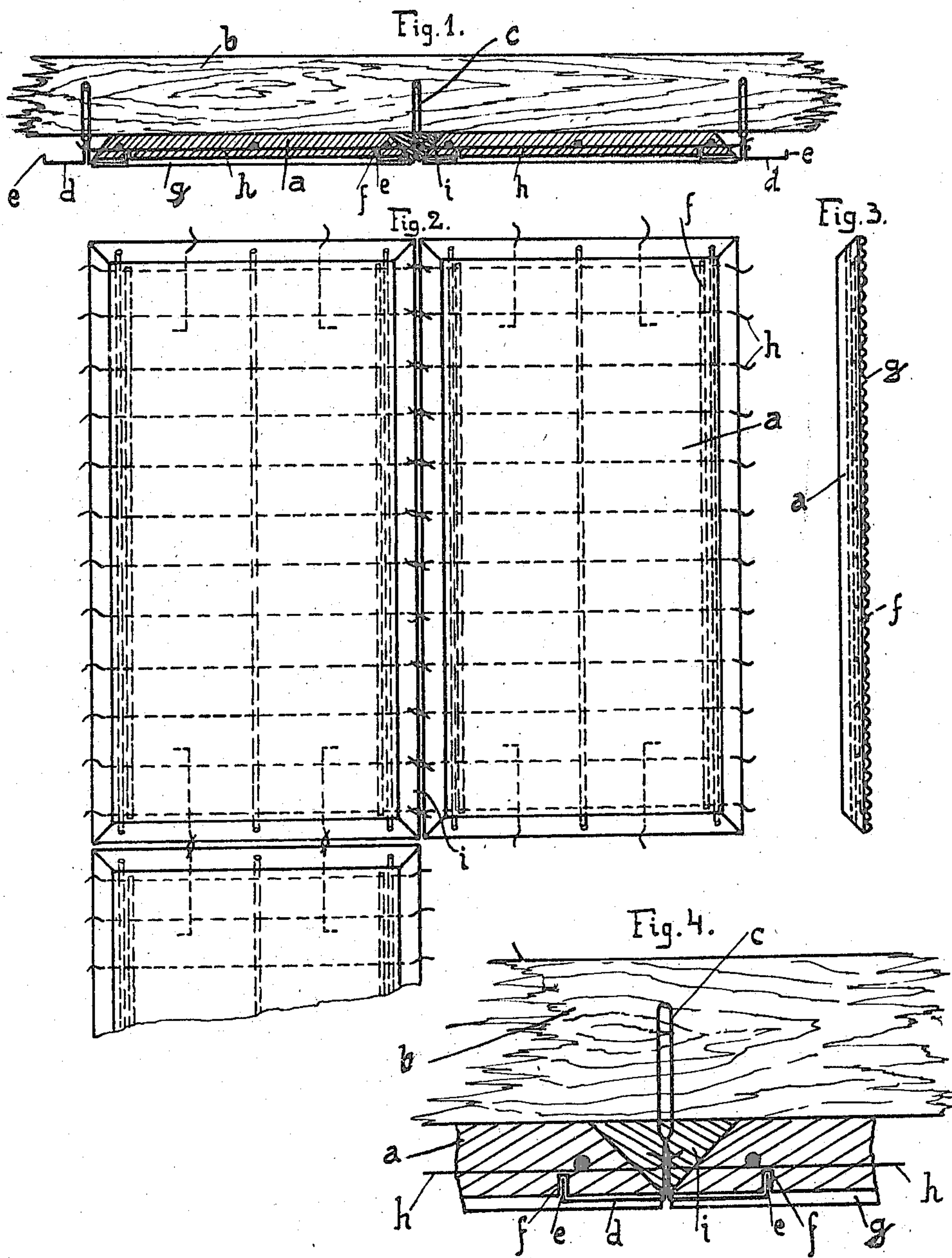
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O. HARTMANN

CEILING

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Witnesses:

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UNITED STATES PATENT OFFICE.

OTTO HARTMANN, OF ESSEN, GERMANY.

CEILING.

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To all whom it may concern:

Be it known that I, OTTO HARTMANN, a German citizen, and a resident of Essen, Germany, have invented certain new and useful Improvements in Ceilings, of which the following is a specification.

This invention relates to improvements in ceilings comprising single slabs, for instance of concrete or armoured concrete, forming a continuous surface and supported by fixed suspension straps having bent-up ends in engagement with recesses in said slabs, and its novelty consists in providing the slabs at their undersides with long grooves in which engage said strap ends at any point thereof and in firmly connecting the slabs by wires integral therewith and projecting from the downwardly inclined butt-edges of said slabs into the free joints between said slabs formed by said inclined butt-ends, said joints being then filled out with mortar. The improved ceiling is thus almost equivalent to one large freely suspended ceiling of iron concrete.

In the accompanying drawing: Fig. 1 is a cross-section of part of the ceiling as suspended from a wooden beam, Figs. 2 and 3 are respectively a plan view and an edge view of the same, Fig. 4 shows a detail of Fig. 1 on a larger scale.

The slabs *a* are suspended from ceiling beams *b* by means of suspension straps *c* of inverted T shape embracing said slabs from below and having on their horizontal members *d* bent-up ends *e*. The slabs are at their undersides provided with long grooves *f* in which said ends *e* are adapted to engage at any point thereof, so that the straps can be easily and quickly applied, which means an economy of time and work without im-

pairing the construction of the ceiling. The underside of the slabs is preferably corrugated, whereby a safe immovable support of the slabs on the suspension straps is ensured as the horizontal members of the latter engage in the spaces between each two corrugations. Armouring wires *h* are cast in the slabs when moulding the same, in such a way that they project freely from the butt-edges of the slabs, which are downwardly inclined or recessed, in such a way that free joints *i* open at the top are formed between each two slabs. By interlacing the wires *h* of each two adjacent slabs, the latter are firmly connected. The free joints *i* are then filled out with mortar.

What I claim, is:—

1. A ceiling comprising single slabs forming a continuous surface and having long grooves in their undersides, downwardly inclined butt-edges on said slabs forming between said slabs free joints open at the top, fixed suspension straps embracing said slabs from below and having bent-up ends in engagement with said grooves at any point thereof, and wires integral with said slabs and freely projecting from said butt-edges into said joints, the wires of each two adjacent slabs being interlaced within said joints, substantially as set forth.

2. In a ceiling as specified in claim 1, a corrugated underside on said slabs, substantially as set forth.

3. In a ceiling as specified in claim 1, a mortar filling in said joints, substantially as set forth.

In testimony whereof I have hereunto set my hand.

OTTO HARTMANN.