

J. H. DE W. WALLER.
CONSTRUCTION OF REINFORCED CONCRETE SLAB ROOFS FOR BUILDINGS.
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1,367,289.

Patented Feb. 1, 1921.

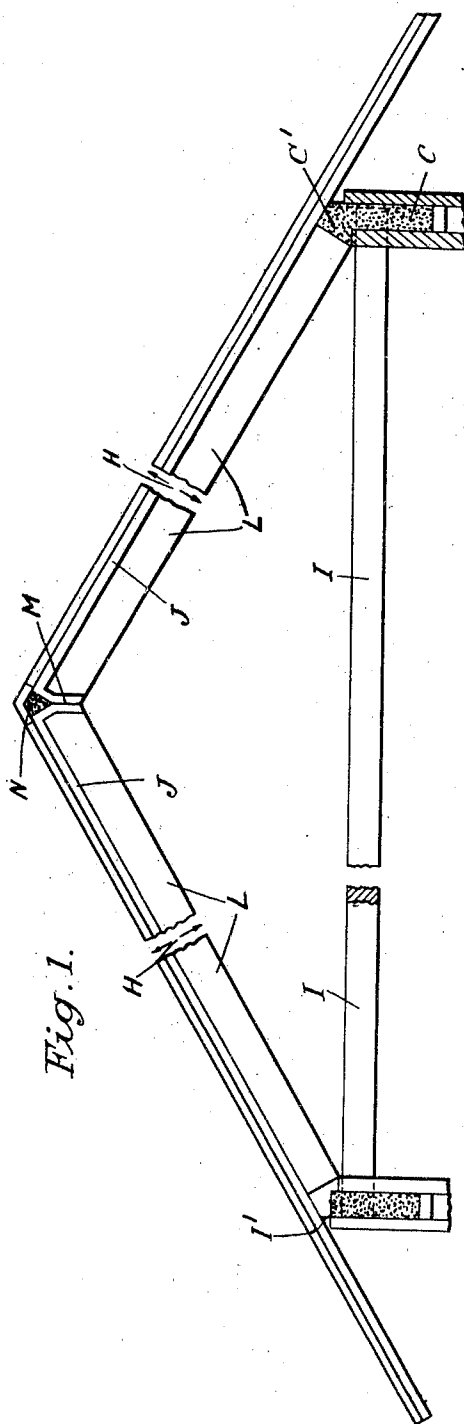


Fig. 1.

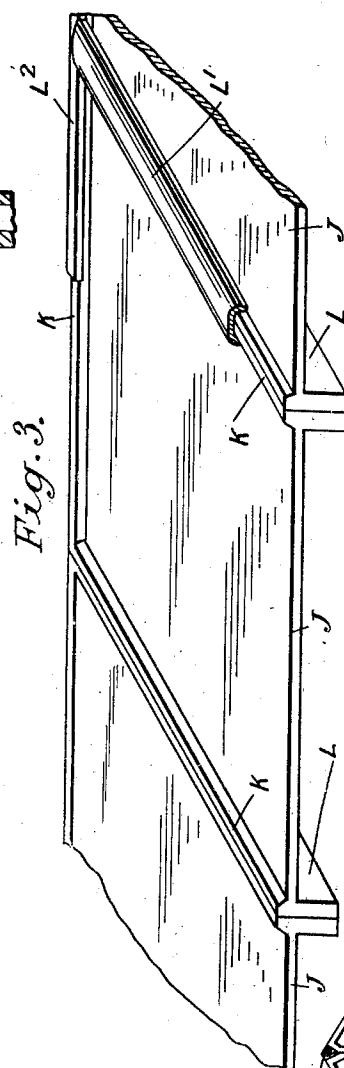


Fig. 3.

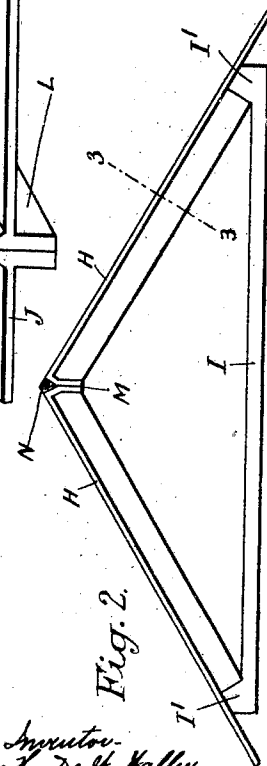


Fig. 2.

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UNITED STATES PATENT OFFICE.

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CONSTRUCTION OF REINFORCED-CONCRETE-SLAB ROOFS FOR BUILDINGS.

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Specification of Letters Patent.

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Application filed February 17, 1920. Serial No. 359,363.

To all whom it may concern:

Be it known that I, JAMES HARDRESS DE WARRENNE WALLER, a subject of the King of England, residing at 115 Grafton street, Dublin, Ireland, (whose post-office address is 115 Grafton street, Dublin, Ireland,) have invented certain new and useful Improvements in the Construction of Reinforced-Concrete-Slab Roofs for Buildings, of which the following is a specification.

This invention relates to the construction of roofs for huts, houses, factories, mills, and the like buildings from pre-cast reinforced concrete slabs.

According to this invention the roof is composed of a couple formed of a ceiling joist and two roof sections all three being pre-cast.

The ceiling joist is cast with upturned projecting ends against which butt the lower ends of rafters cast on the roof sections and above the joints are placed tiles or reinforced concrete capping.

In the accompanying drawings—

Figure 1 is an end elevation of part of a building showing my invention applied thereto each roof section being supported in a slightly different way to the other;

Fig. 2 is a diagrammatic end elevation showing the roof couple; and

Fig. 3 is an isometrical projection of the plane of section 3—3 in Fig. 2.

The same letters of reference where they occur are used to denote the same or corresponding parts in all three figures of the drawings.

The parts of the roof couple are two sections H and a ceiling joist I having haunched or upturned ends I'.

As will be seen in Fig. 3 each roof section consists of a slab portion J which has formed on the upper side of each of its edges, except that edge which forms the eave, a raised weathering or beading K and on its lower sides rafters L having faces which abut against the haunched ends I' of the ceiling joists I or against shoulders C' on wall-plates C (Fig. 1) which latter are cast in po-

sition so as to tie in the ceiling joists. On the ends of the roof sections which form the ridge are formed small ridge beams M (Figs. 1 and 2) which butt against each other and may be formed so as to leave a V-shaped channel N (Fig. 1) running along the ridge of the roof which may be filled with concrete *in situ* suitably reinforced so as to hold the roof sections and prevent them from separating from each other. Each section of the roof is composed of a series of longitudinal members placed side by side, as shown in Fig. 3, the meeting edges of the adjacent beadings K being covered with tiles L' running parallel to the slope of the roof and L² running along the ridge of the roof so as to keep all the parts weatherproof.

Having fully described my invention, what I claim and desire to secure by Letters Patent is:—

1. A reinforced concrete slab roof for buildings composed of pre-cast reinforced concrete slabs forming roof couples comprising ceiling joists having haunched ends and roof sections having rafters on the lower sides and formed with raised weathering on the upper sides, the lower ends of said rafters abutting against the haunched ends on the joists, and caps on said raised weathering.

2. A reinforced concrete slab roof for buildings composed of pre-cast reinforced concrete slabs forming roof couples comprising ceiling joists having haunched ends, roof sections having rafters on the lower sides and formed with raised weathering on the upper sides, the lower ends of said rafters abutting against the haunched ends on the joists, and tiles for covering the meeting edges of adjacent raised weathering on the roof sections.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses this 23rd day of January, 1920.

J. H. DE W. WALLER.

Witnesses:

B. COLBY,

H. C. CARPENTER.