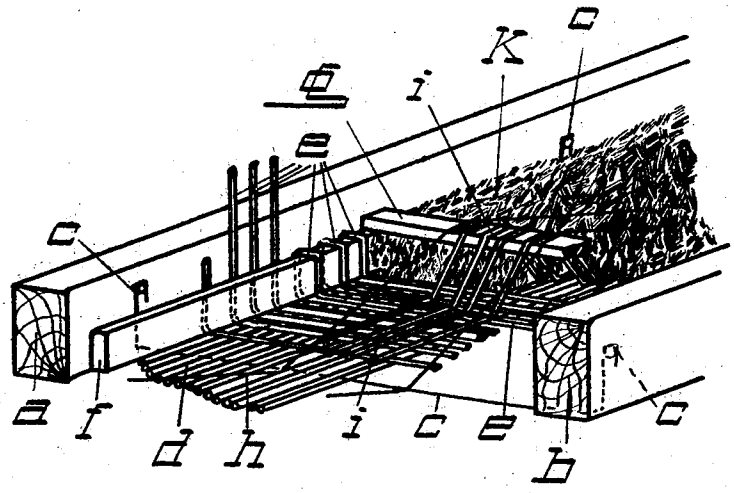
J. HARTMANN.

INSERTED JOIST CEILING.

APPLICATION FILED AUG. 29, 1921.

1,414,332. Patented Apr. 25, 1922.



Witness:
W. Smith
Ferd Wittiger

Inventor
Johannes Hartmann
by Geo. Wittiger
Attorney

UNITED STATES PATENT OFFICE.

JOHANNES HARTMANN, OF CASSEL, GERMANY.

INSERTED JOIST CEILING.

1,414,332. Specification of Letters Patent. Patented Apr. 25, 1922.

Application filed August 29, 1921. Serial No. 496,680.

To all whom it may concern:

Be it known that I, JOHANNES HARTMANN, a citizen of the German Republic, residing at Cassel, Germany, have invented certain new and useful Improvements in Inserted Joist Ceilings, (for which I have filed application in Germany August 26, 1920,) of which the following is a specification.

In inserted ceilings of known construction a considerable quantity of wood is used as the boards of the slab are in close contact with one another. In such ceilings a double reed fabric serving as supports for the plasterwork is further nailed upon laths placed from beam to beam at a distance of 2 centimeters. The price of the reed fabric is at present very high.

According to this invention only two boards are required per meter of slabbing instead of eight boards as at present and the expensive double reed fabric is eliminated altogether.

According to this invention the lower surface of the inserted ceiling is formed by a layer of longitudinally arranged rush placed crosswise upon layers of straw, and wires, fixed to the beams, serving to support this rush and straw layers. The supporting wires are prevented from bending by means of longitudinal wires placed over the slab boards. In order to stretch the straw of the transverse layers also the ends of the straw are wound around the laths which are parallel with the beams. The space up to the upper edge of the slabbing is filled with binding material.

A form of construction of the improved inserted ceiling is shown in perspective view by way of example in the single figure of the accompanying drawing.

The improved ceiling is constructed in the following manner. Between the beams *a*, *b* wires *c* are fixed which are spaced at convenient distances, and are bent to U-shape as can be seen from the drawing. These wires *c* serve as supports for the rushes *d* arranged in longitudinal direction. The straw *e* is arranged parallel to the wires *c* and held by laths *f* which are placed upon the straw in a longitudinal direction parallel with the beams *a*, *b* and fixed to said beams. The upwardly directed ends of the straw are placed over the laths *f* and slab boards *g* are placed between the wires *c* upon the laths for bridging over the space from one lath to the other. The space below these boards *g* has been filled previously with loam admixed with straw.

In order to prevent the flexure of the wires *c* longitudinal stretching wires *h* are provided which are placed below the wires *c* but over the slab boards *g*. Straw *i* which is arranged in a longitudinal direction is bent instead of going straight from *g* to *c*.

All the constructional parts are finally covered with a layer *k* of loam admixed with straw, said layer reaching up to the upper edge of the boards *g*.

As in plasterwork straw must be fixed by wires upon the lower surfaces of the beams, *a*, *b*, the horizontal part of the wires *c* is arranged slightly below the lower surface of the beams so that a uniform layer of mortar can be applied. Upon the layer of straw-loam a filling of coke or the like can be placed as usual. Instead of the straw loam a mortar composed of lime, sand and gypsum, or any other suitable binding material could be used.

The improved ceiling can be made in much less time than is required for the building of the inserted ceilings of usual construction and although much less wood and nails are used, the resistance of the ceiling is equal to that of the ceilings of known type.

I claim:—

An improved inserted joist ceiling comprising in combination with the beams, supporting wires leading from beam to beam, slab boards upon the beams, longitudinal wires under said cross wires of the beams designed to prevent the bending of the cross wires and being guided over the said slab boards, a layer of longitudinally arranged rush and of transversely arranged straw upon said supporting wires, longitudinal laths placed upon the straw layer and nailed to the beams the ends of the cross layer of straw being bent over said laths, a filling of straw loam upon said layer of straw, an upper layer of straw upon said filling, said straw being bent over said slab boards and a final filling of convenient binding material reaching up to the upper edge of said slab boards.

In testimony whereof I affix my signature in presence of two witnesses.

JOHANNES HARTMANN.

Witnesses:
W. SMITH,
FERD BÜTTIGER.