L. SAUERBECK.

MOISTURE PROOF INTERIOR COVERING OR LINING FOR USE IN BUILDINGS.

APPLICATION FILED MAR. 17, 1910.

978,655.

Patented Dec. 13, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

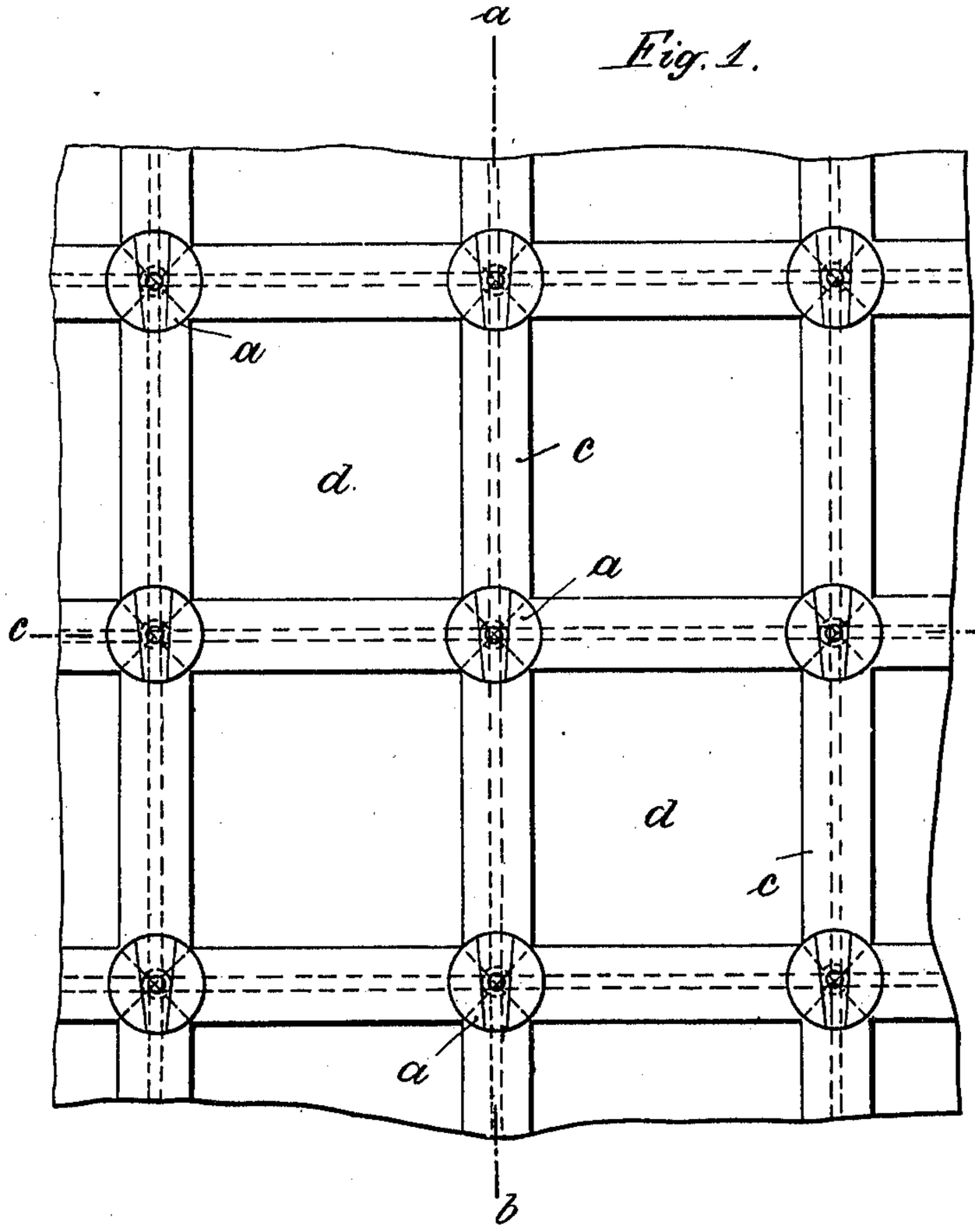


Fig. 2.

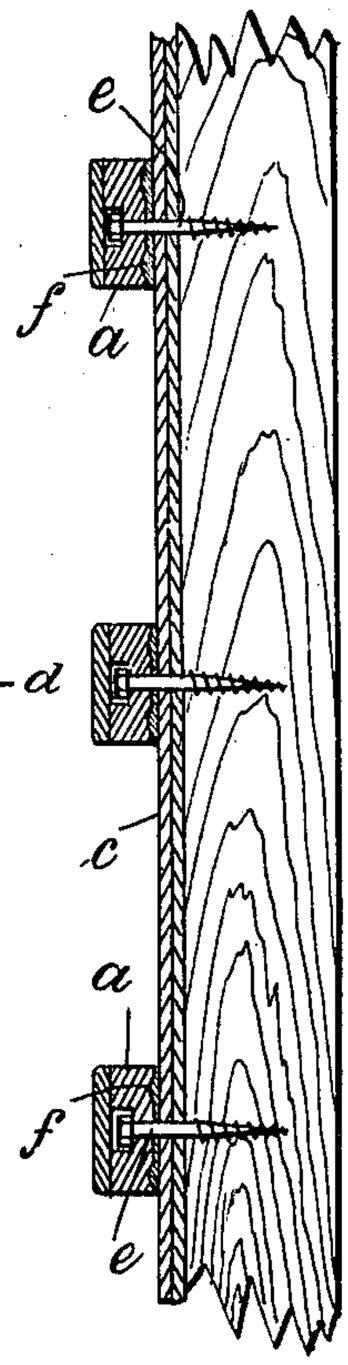
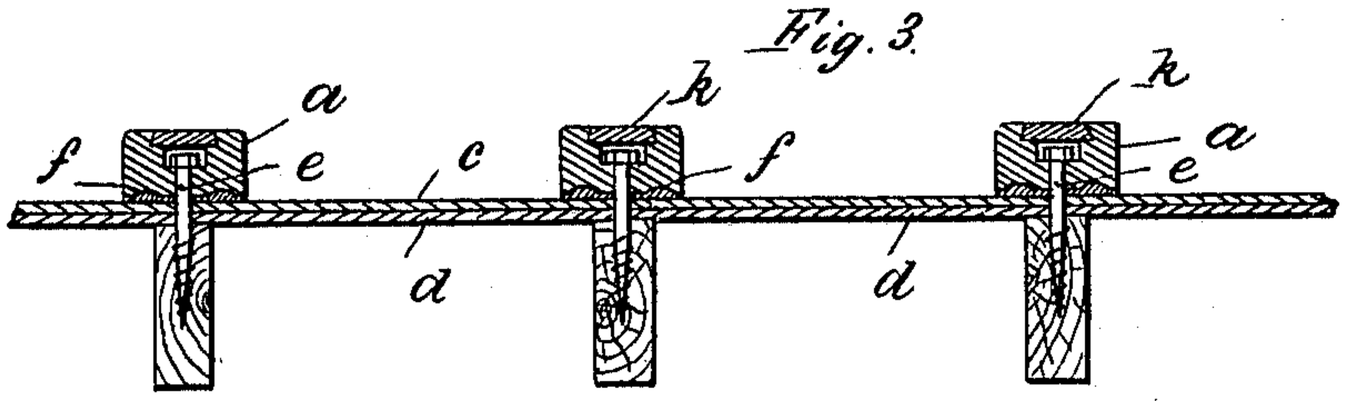


Fig. 3.



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2 SHEETS—SHEET 2.

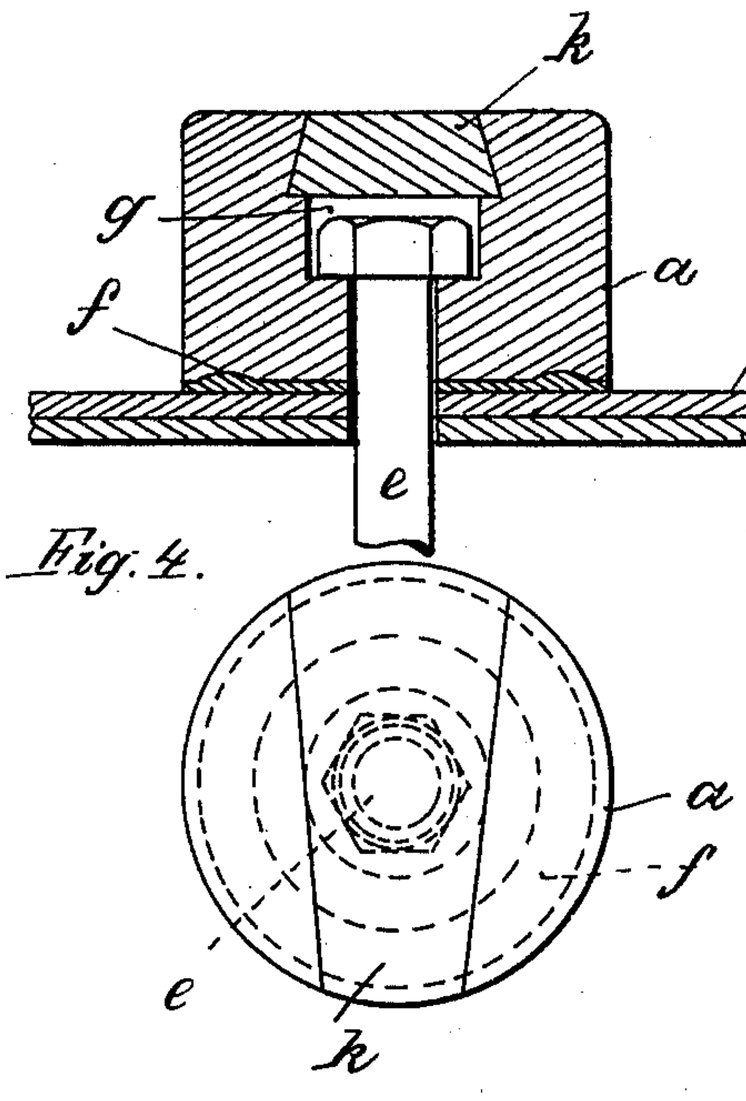


Fig. 4.

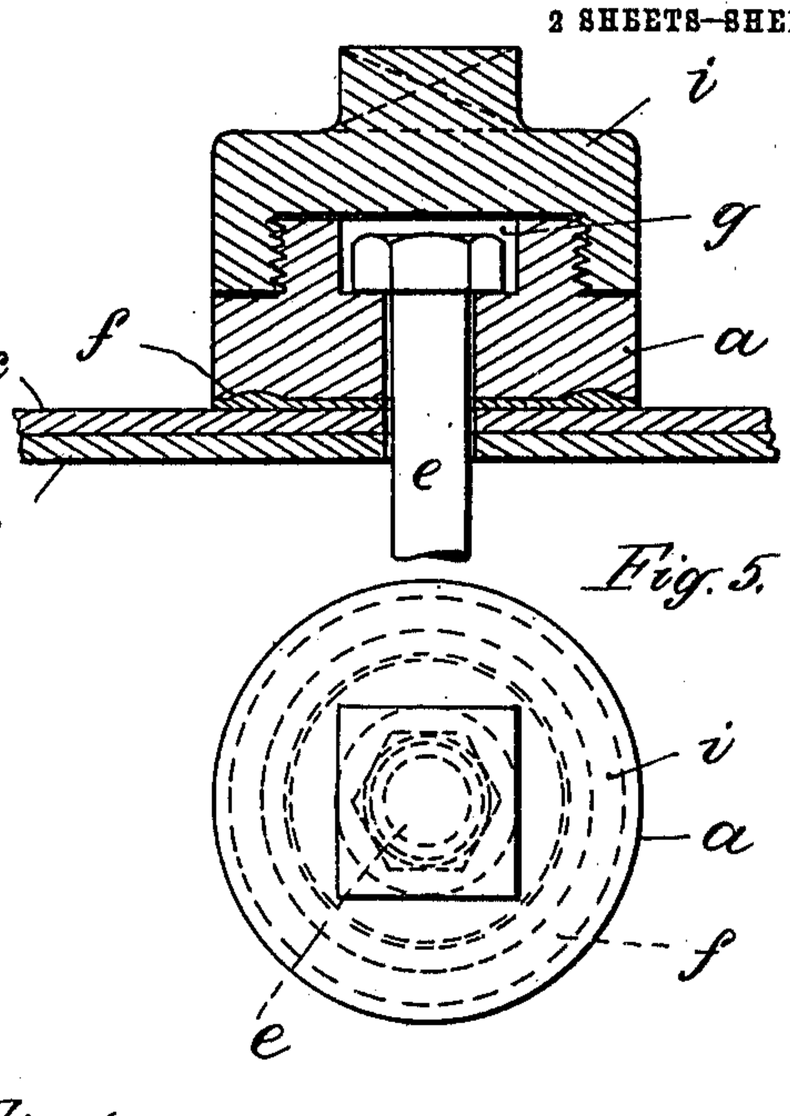
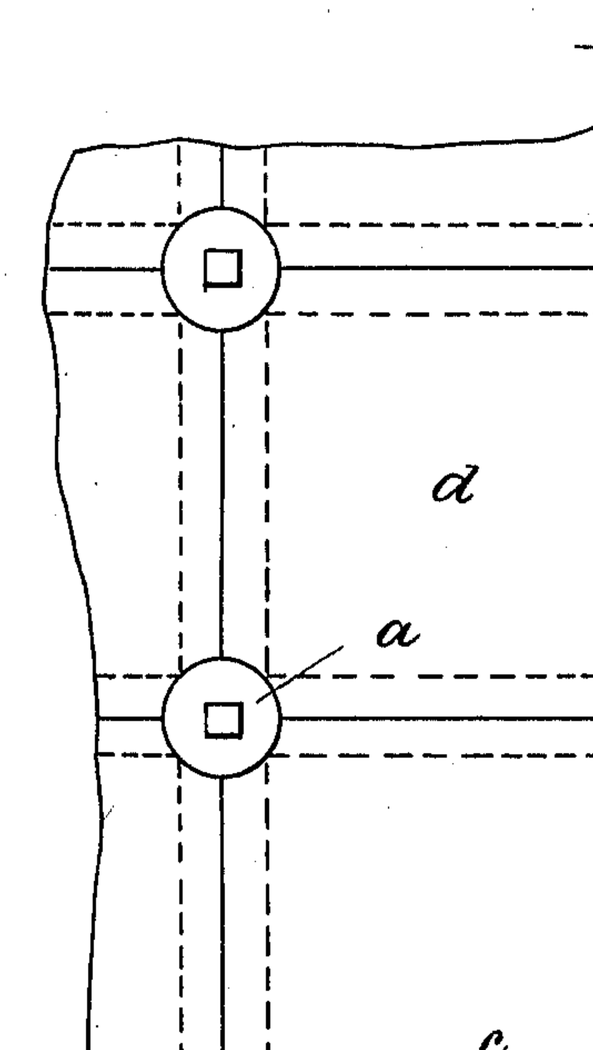


Fig. 5.



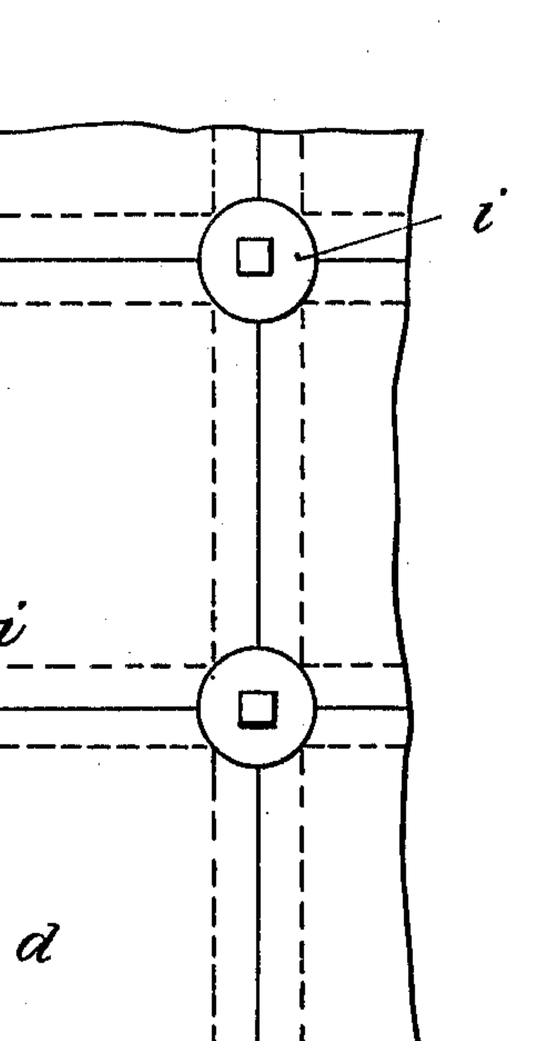


Fig. 6.

Witnesses:

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UNITED STATES PATENT OFFICE.

LOUIS SAUERBECK, OF GERA, REUSS, GERMANY.

MOISTURE-PROOF INTERIOR COVERING OR LINING FOR USE IN BUILDINGS.

978,655. Specification of Letters Patent. **Patented Dec. 13, 1910.**

Application filed March 17, 1910. Serial No. 549,969.

To all whom it may concern:

Be it known that I, LOUIS SAUERBECK, a subject of the German Emperor, residing at Reichstrasse 2, Gera, Reuss, Germany, have invented certain new and useful Improvements in Moisture-Proof Interior Coverings or Linings for Use in Buildings; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which is appertains to make and use the same, reference being had to the accompanying drawings.

The invention relates to moisture proof interior coverings or linings for use in buildings and other structures and fixing means for securing such linings in position.

Hitherto for the purpose of lining roofs and walls boarding has been almost exclusively used. For places in which the air contains a considerable quantity of moisture, for example in dye-works, this has been found unsuitable, as in consequence of the large quantity of moisture contained in the air the linings become completely rotten in 5 or 6 years. A further important inconvenience, especially in dye-works is that in these places, owing to the absorption of moisture by the wood, the metallic parts, such as nails, screws and the like employed for fixing the lining, become rusty very quickly, so that in a short time the different parts of the lining deteriorate, and at the same time rust forms on the parts employed for fixing and falls on to the articles to be dyed, considerably injuring the goods, and necessitating the employment of additional hands for cleaning the goods which have been thus damaged.

It is true that devices for carrying off the sweat-water which collects directly below the roof in workrooms filled with steam are already known. In such devices scale-like plates are suspended below the rafters in such a manner that spaces are left between them through which the steam passes above these plates to the rafters and acts so that after a longer or shorter period they rot in consequence of the permanent humidity. The present invention obviates this disadvantage, the whole of the wood-work, which is exposed to the steam, being provided with a lining of steam-proof material.

Linings or facings made of steam-proof material such as tiles, are known for example for walls. Such wall covering cannot however be used directly for lining a roof so as to make it steam-proof from inside, as joints remain between the different tiles which are fixed to the square laths and let the steam through. The rotting of the wood work may certainly be delayed by such wall tiles but certainly not avoided. This disadvantage is obviated by the present invention the lining plates or sheets (made of asbestos or the like) being fixed in position by a lattice work, secured over the joints of the sheets or slabs by recessed blocks held by completely concealed screws and each securing four contiguous ends of the lattice bars to the roofing slabs. Lining of this kind is suitable for all kinds of coverings for damp and foggy places, for lining the insides of walls, for roofs, ceilings, ventilator shafts and the like.

One form of the invention is illustrated by way of example in the accompanying drawing, Figure 1 being an elevation, Fig. 2 a section through *a*—*b* in Fig. 1. Fig. 3 a section through *c*—*d* in Fig. 1. Fig. 4 is a view on an enlarged scale showing the fixing of the screw-heads by means of a wedge pushed over the same. Fig. 5 illustrates the same with a screwed-on cover employed as a fixing device. Fig. 6 is a modification.

The slabs *d* for the lining, consisting of asbestos plates or the like engage with one another in any known manner for example tongue and groove. The joints are covered by means of strips *c* made of similar material. For fixing the slabs *d* and strips *c* recessed blocks or ceiling roses *a*, consisting of material such as hard rubber or the like which is impervious to damp are applied and held by nails or screws *e* driven into the rafters or into the wall timber. In order to prevent damp from penetrating to the nail or screw bolts from the sides, the bearing surface of the ceiling rose *a* is formed with an annular groove *f* which is coated with asbestos or rubber cement. On the outside of the ceiling rose *a* a recess *g* is arranged for the reception of the nail or screw head, this recess being likewise filled with a packing cement before the screw is inserted and into this the screw head is pressed. The outside of the screw head is tightly fastened by a screwed on cover *i*, as shown in Fig. 5, or by a wedge *k* which is inserted in a dove-tail shaped groove in the ceiling rose and may be made of the same material as the latter. In this manner damp is reliably prevented

from reaching the nail or screw bolt and causing rust.

If the lining is employed for ventilator pipes, the screw bolt may be carried right through, so that the ventilator pipe can be lined on two sides and this lining be held by oppositely situated ceiling plates in a similar manner.

In the modification shown in Fig. 6 the strips *c* are arranged at the rear side of the plates *d* so as to form an even front surface of the covering and to allow the drops formed by the condensation of steam to flow easily off.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a moisture proof lining for the inside of roofs or other parts of buildings, lining sheets and means for fastening said sheets, said means consisting of blocks each having its inner face formed with a circular groove, a moisture proof compound interposed between the outer faces of the sheets and the inner faces of the blocks, said compound filling said grooves of the blocks, and means engaging the blocks and extending through said lining sheets to hold the latter to the roof or other building parts.

2. In a moisture proof lining for the inside of roofs or other parts of buildings, lining sheets and means for fastening said sheets, said means consisting of rosettes comprising blocks having recesses in their upper faces, bolts having heads received in said recesses and extending through apertures formed in the blocks, said blocks having dove-tail shape channels formed in their upper faces, and wedges slidably received within the said channels.

The foregoing specification signed at Gera, Reuss, Germany, this 28th day of February, 1910.

LOUIS SAUERBECK.

In presence of—
ALFRED BURS,
CHARLES NEUER.