

No. 36,472.

PATENTED SEPT. 16, 1862.

C. McINTIRE.
CULVERT.

Fig 1.

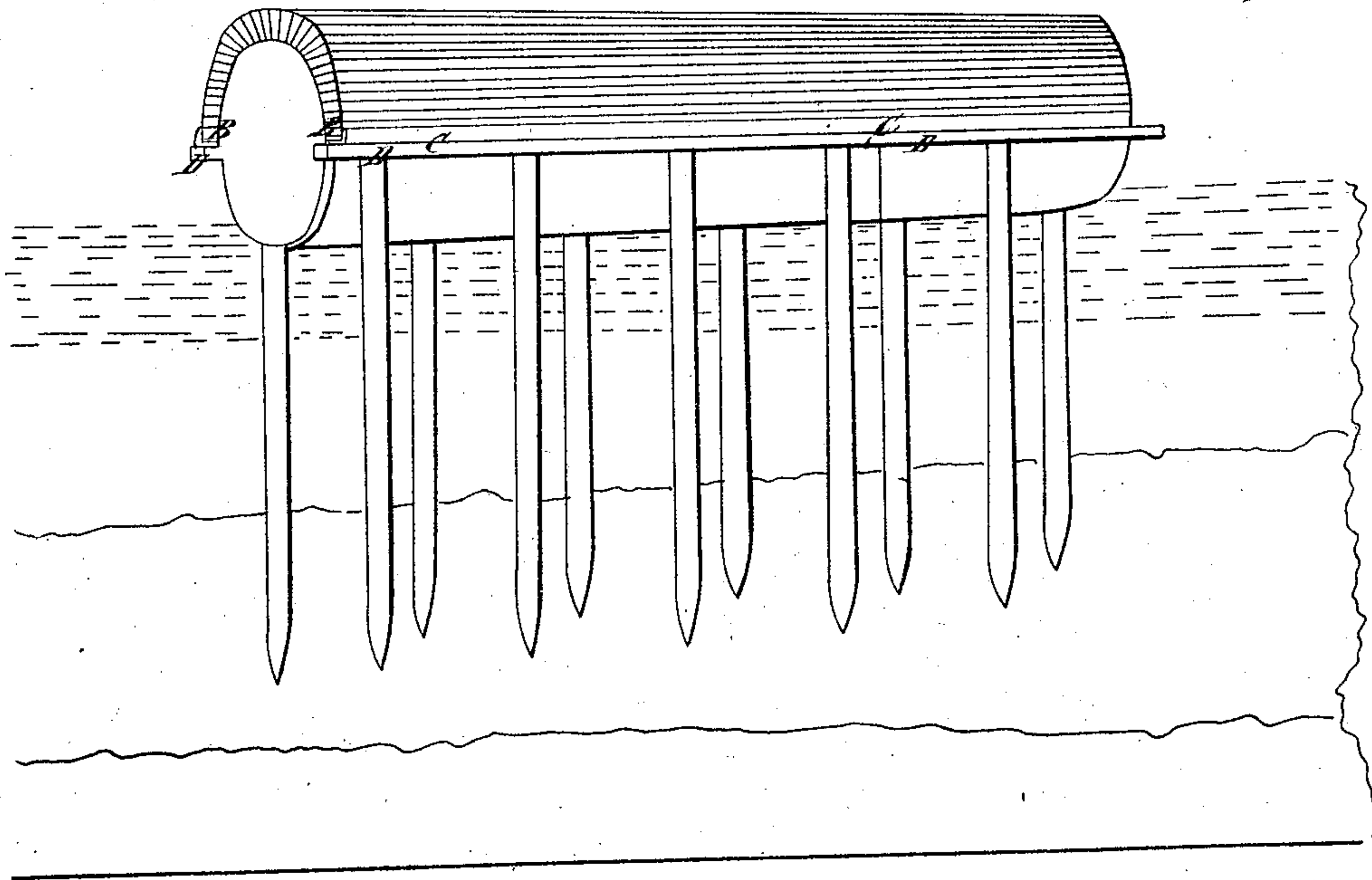
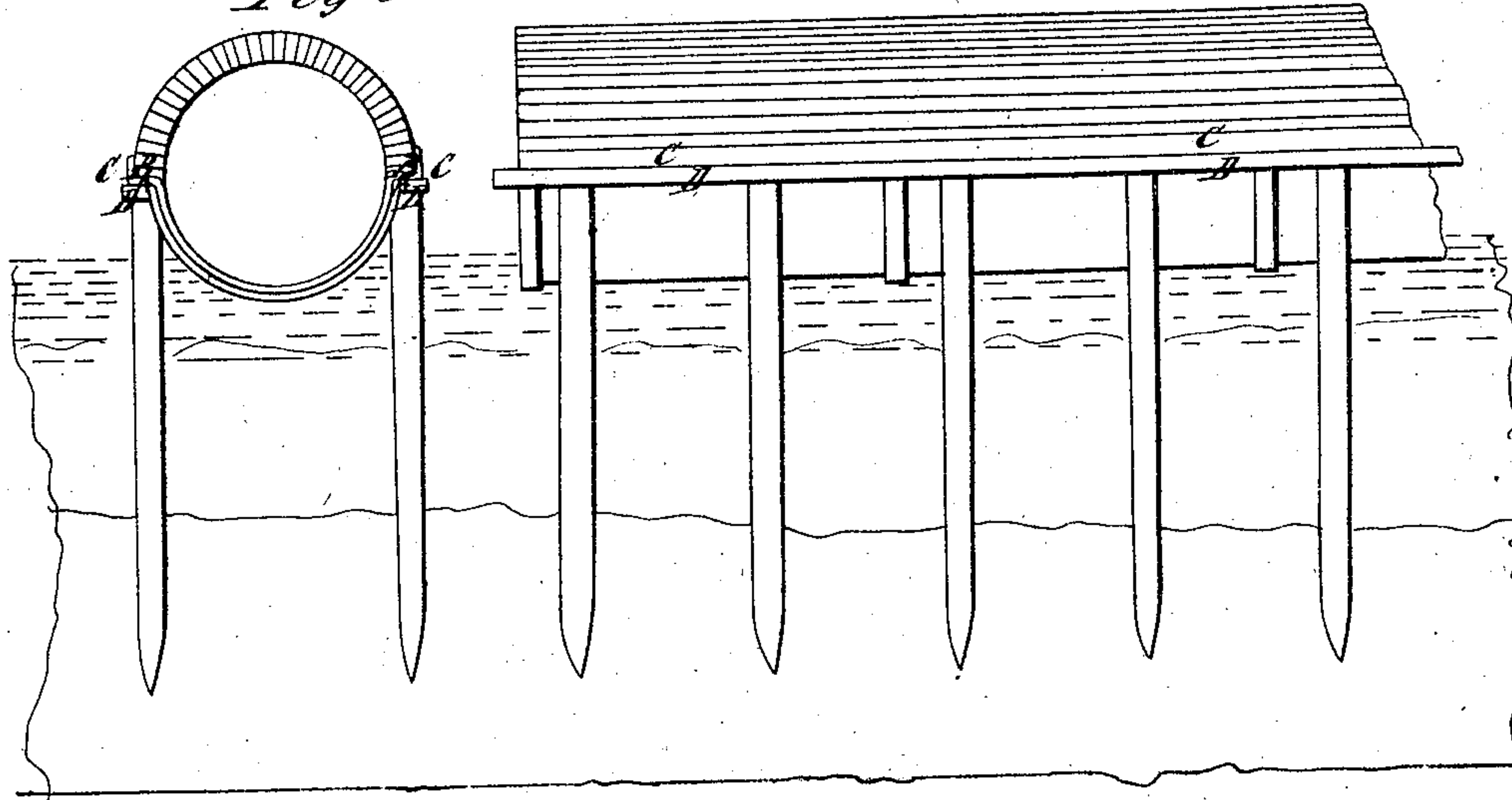


Fig 3

Fig 2



Witnesses

A E Brown
J Moore

Inventor

Charles M. McIntire

UNITED STATES PATENT OFFICE.

CHARLES McINTIRE, OF EASTON, PENNSYLVANIA.

CULVERT.

Specification of Letters Patent No. 36,472, dated September 16, 1862.

To all whom it may concern:

Be it known that I, CHARLES McINTIRE, of Easton, in the county of Northampton, in the State of Pennsylvania, have invented a
5 new and Improved Mode of Constructing Culverts in Marshes, Creeks, and Quicksand by Dispensing with the Use of Cofferdams and Cradling; and I do hereby declare that the following is a full and exact
10 description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the suspension of iron, or iron and other
15 materials, to form the bottom section of the culvert; reference being had to the annexed drawings, making a part of this specification in which—

Figure 1, is a perspective view; Fig. 2 a
20 longitudinal elevation, Fig. 3 a transverse section.

To enable others skilled in the art to construct and use my invention, I will proceed to describe its construction and operation;
25 but in order to dispense with the use of the coffer dam and cradling.

I construct my culvert in any of the known forms, by a row of piles driven at each side of the culvert and at any distance
30 apart to secure a proper foundation; the piles to be cut off at the required height to suit the grade, and a string piece secured on the top of the piles, as shown at D in the ac-

companying drawings. I make the bottom section of the culvert of iron (perforated 35 when required for drainage) and with a projecting flange from each side of the culvert resting on the string and secured thereto with bolts, and which forms the abutment for the upper arch of brick or stone 40 for the top section, as shown at B and C in the accompanying drawings. The lower section (or arch) of the culvert being properly secured to the string. I then proceed to fill around the lower section of the struc- 45 ture with dirt, and the water will pass through it and it will not prevent the workmen while they are proceeding to build the top arch of the culvert in the usual method of culvert work, consisting of brick or stone. 50

I claim—

In the construction of culverts to be used in water and quicksands—the combination of the upper arch, of brick, or stone, with the lower arch of iron when the latter is 55 constructed with the flanges B and C, the flange B being constructed to suspend the lower arch, upon piles, stringers or their equivalent, and the flange C as a base support for the upper arch of brick or stone in 60 the manner and for the purpose herein described.

CHARLES McINTIRE.

Witnesses:

A. E. BROWN,
S. MOORE.