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FORESTS DEPARTMENT.

THE

FIRE-RESISTING QUALITIES OF JARRAH.

Issued under the authority of the Minister controlling the
Forests Department,

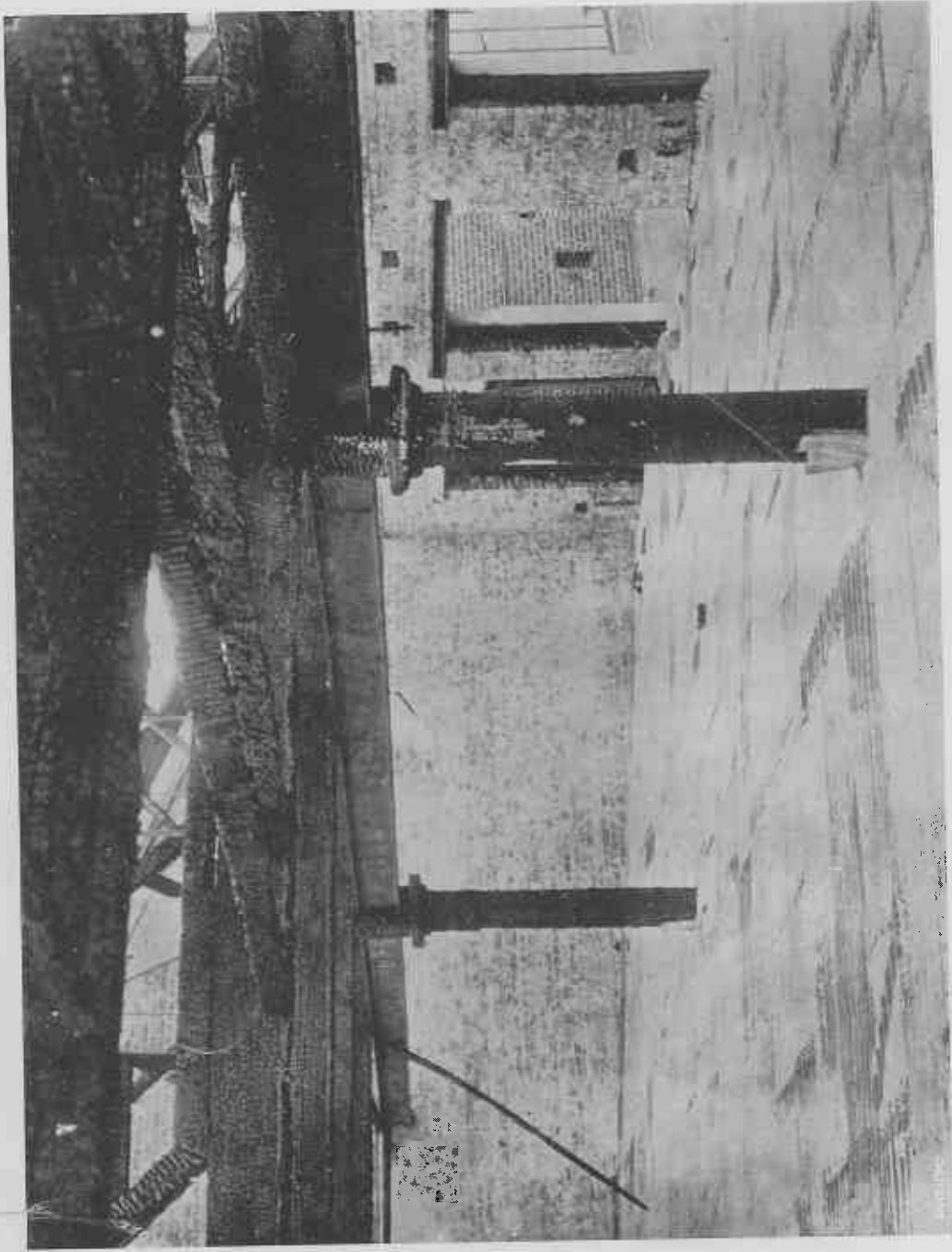
THE HON. R. T. ROBINSON, K.C., M.L.A.

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Jannah Pillars only charred after a destructive fire.



The Fire-Resisting Qualities of Jarrah.

IN considering the merits of any timber for constructional purposes the degree to which it resists fire is a matter of the first importance. In point of non-inflammability the whole eucalypt family holds a deservedly high place. Fires which would consume pine and other softwoods, and which would damage beyond repair such timbers as beech, elm, and oak, would do comparatively little harm to jarrah. Its fire resistance quality has led to the utilisation of jarrah for beams and pillars, in place of steel, in large constructions such as warehouses and factories. In the city of Perth and in Fremantle some of the largest warehouses have floors of jarrah carried on beams of jarrah, and supported by jarrah pillars. The space occupied by such beams and pillars is no greater than that required for steel. In the tension of a great fire steel bends and buckles, leading to the collapse of the whole structure, whereas jarrah chars only to a limited depth, and, by remaining in position, minimises the loss. The illustration on the opposite page shows portion of a warehouse in Perth which suffered severely from a fire. It will be observed that the jarrah pillars are charred only, and are still efficiently doing their duty of supporting the great steel beam over them. The intensity of this fire was such that steel pillars would have bent and failed at the critical moment; and what, owing to the use of jarrah, was only a moderately destructive visitation would, if steel pillars had been employed, have become a conflagration involving the whole of the extensive premises. Wharves, quays, jetties, and bridges in Western Australia are constructed almost exclusively of native timbers, but no instance of a destructive fire on any of them is on record.

In the reconstruction of the damaged premises, part of which is shown in the illustration, it has been decided to use jarrah and karri throughout, and the beams, pillars, and principals will be of those timbers. The exhibit in this collection is part of one of the charred beams removed from the old building after the fire.