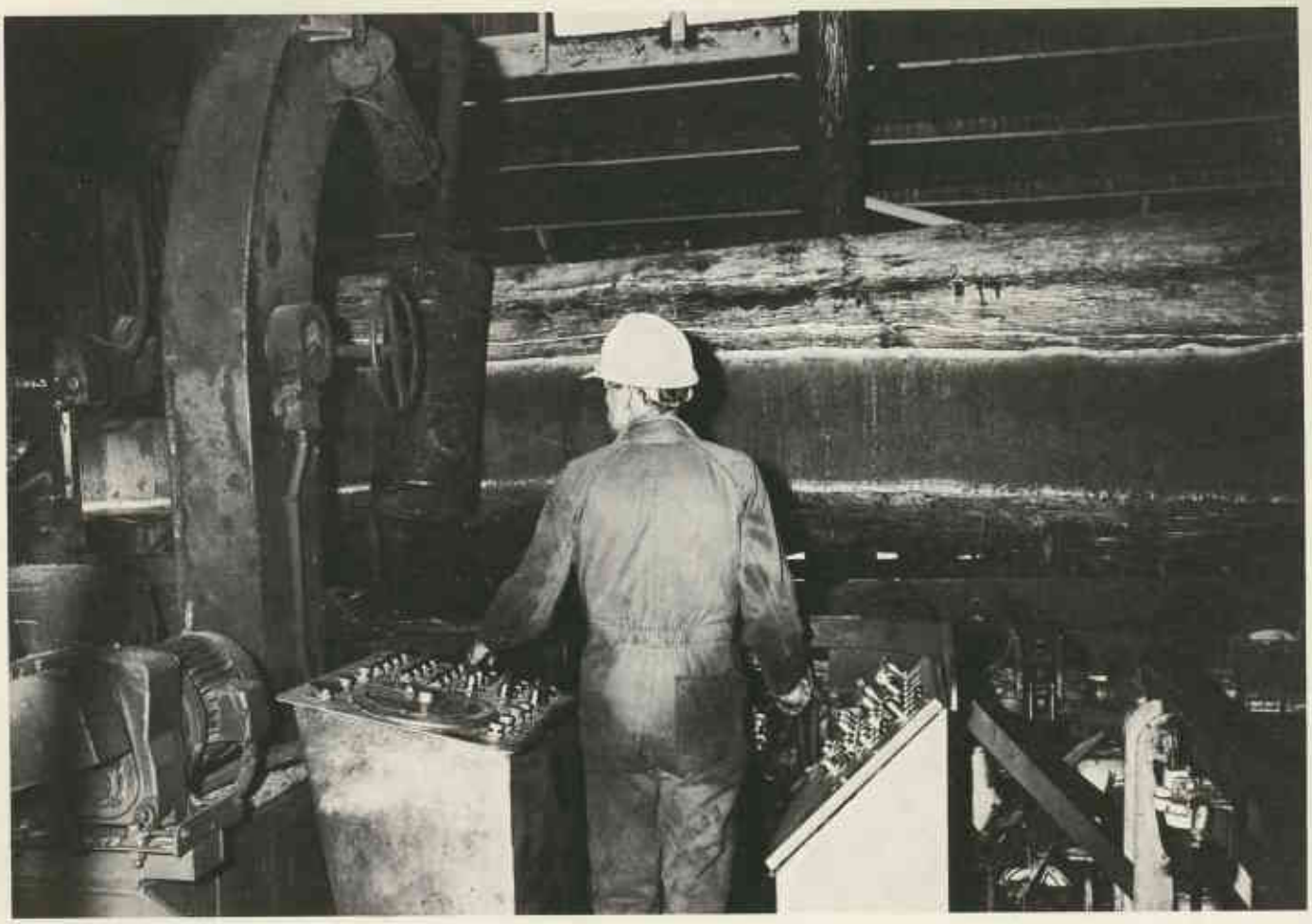


▲ *Push-button operated bandsaw log breakdown unit at Lloyds Lumber Co., Greenbushes.*

THE PUSH-BUTTON AGE

The large, modern sawmill of today is as much in the "push-button" age as most of the nation's highly mechanised industries.

Walk into a large modern sawmill and what you'll see is as far removed from the early sawmilling days as the broad-axe and crosscut saw are removed from the lightweight chainsaws which today fell our karri giants of the South-West.

This revolution embraces not only mechanics and size of machinery, but also electronics, hydraulics and efficiency factors.

Many of the new mills now in operation have incorporated the most advanced techniques known to the industry throughout the world where operators sit at complicated-looking push-button consoles directing massive and expensive precision equipment with their fingertips.

It's almost an eery atmosphere where giant arms grapple with huge sections of karri and jarrah trees on riderless log carriages, positioning them with apparent ease.

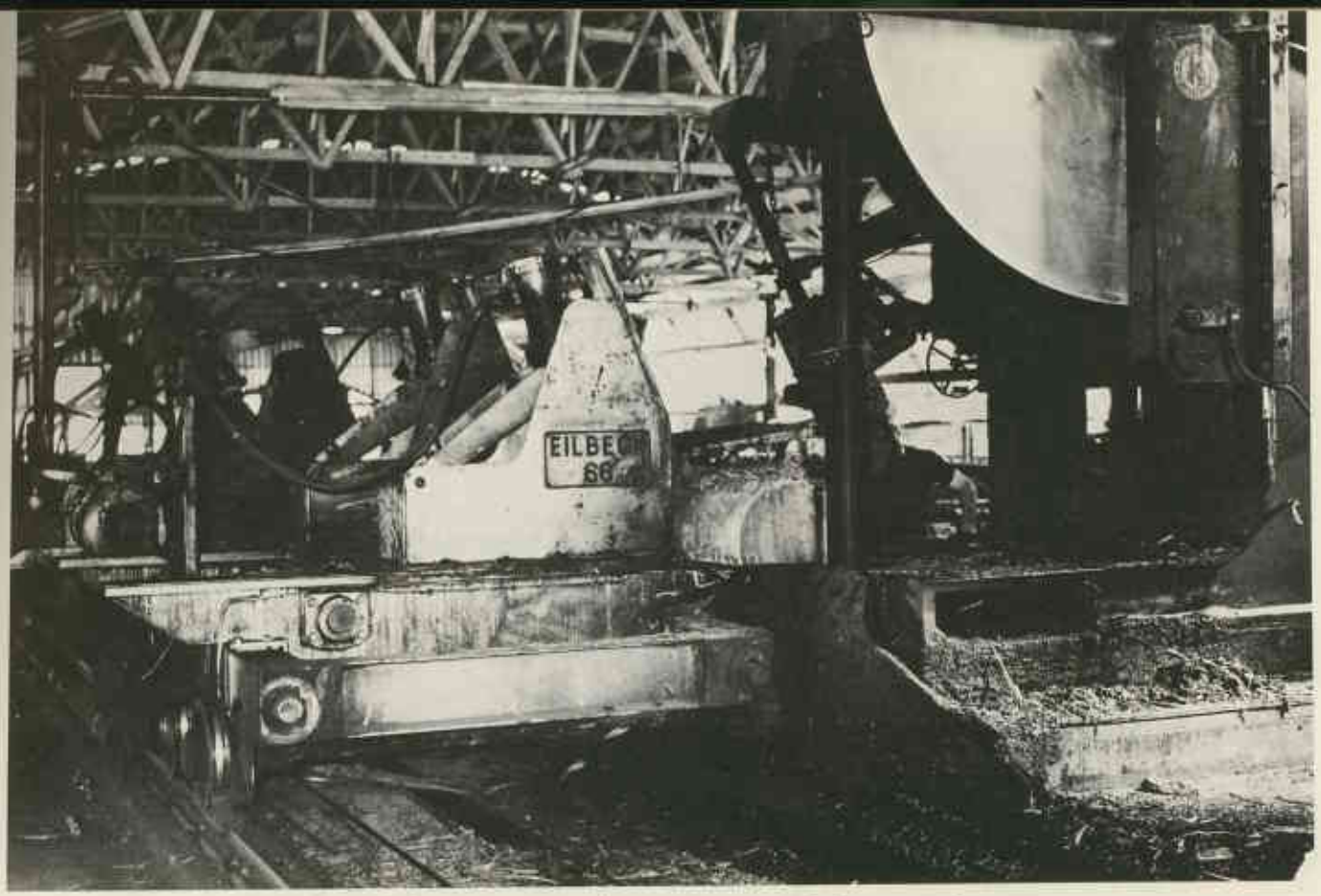
All this can be accomplished electro-pneumatically—by one man sitting before his console, dextrously manipulating the controls.

The log carriages are capable of sawing accurately to dimension and combined with faster log handling equipment, have meant a considerable advance in the breaking down operation where the giant logs are fed through huge high-speed twin circular or band saws.

Selectively sized flitches (large piece of sawn log intended for further cutting) produced by these high capacity precision machines reduce the amount of sawing required in succeeding operations to produce finished timber.

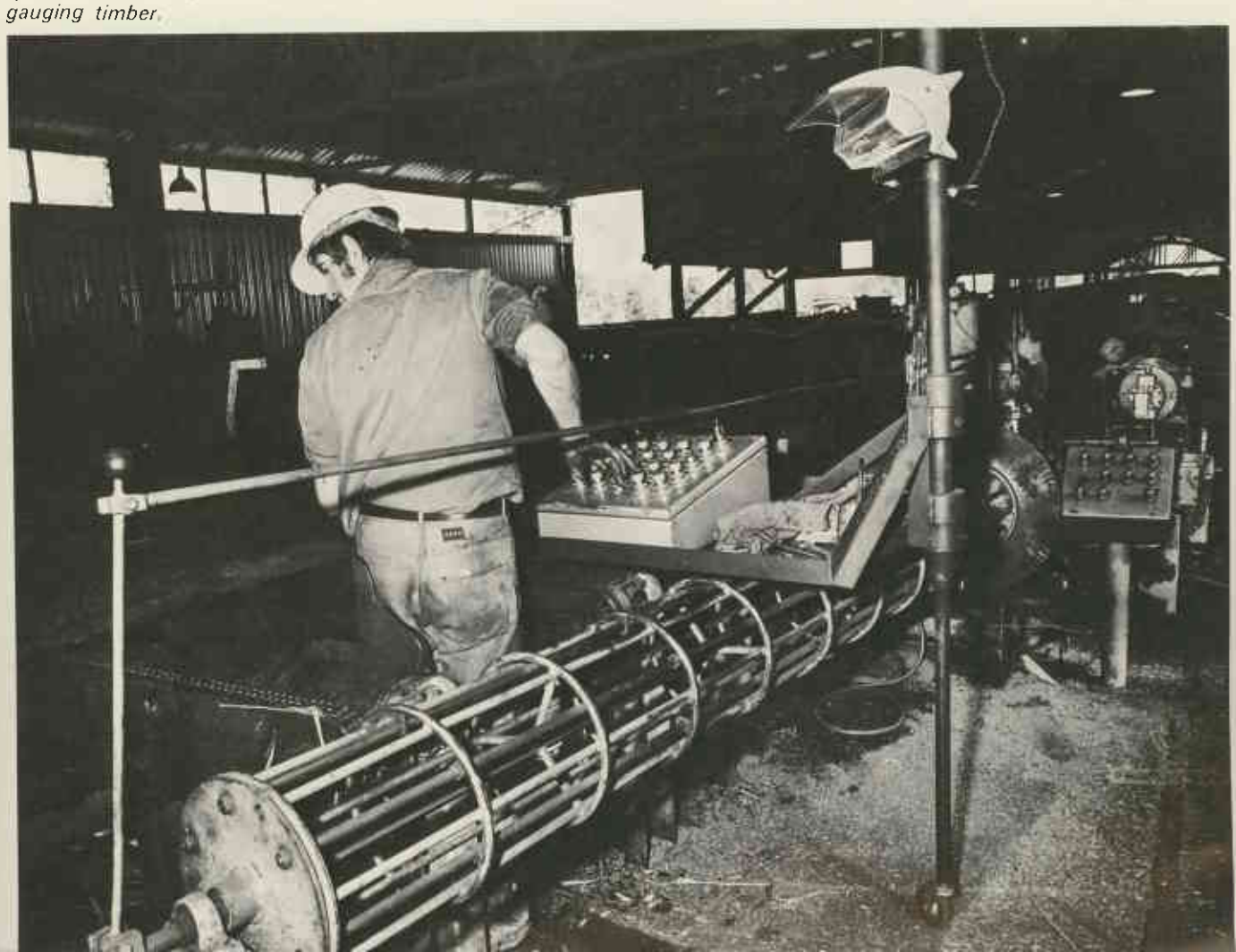
Electro-pneumatically controlled power-feed benches capable of fast, accurate sawing, break down these flitches to the required timber sizes.

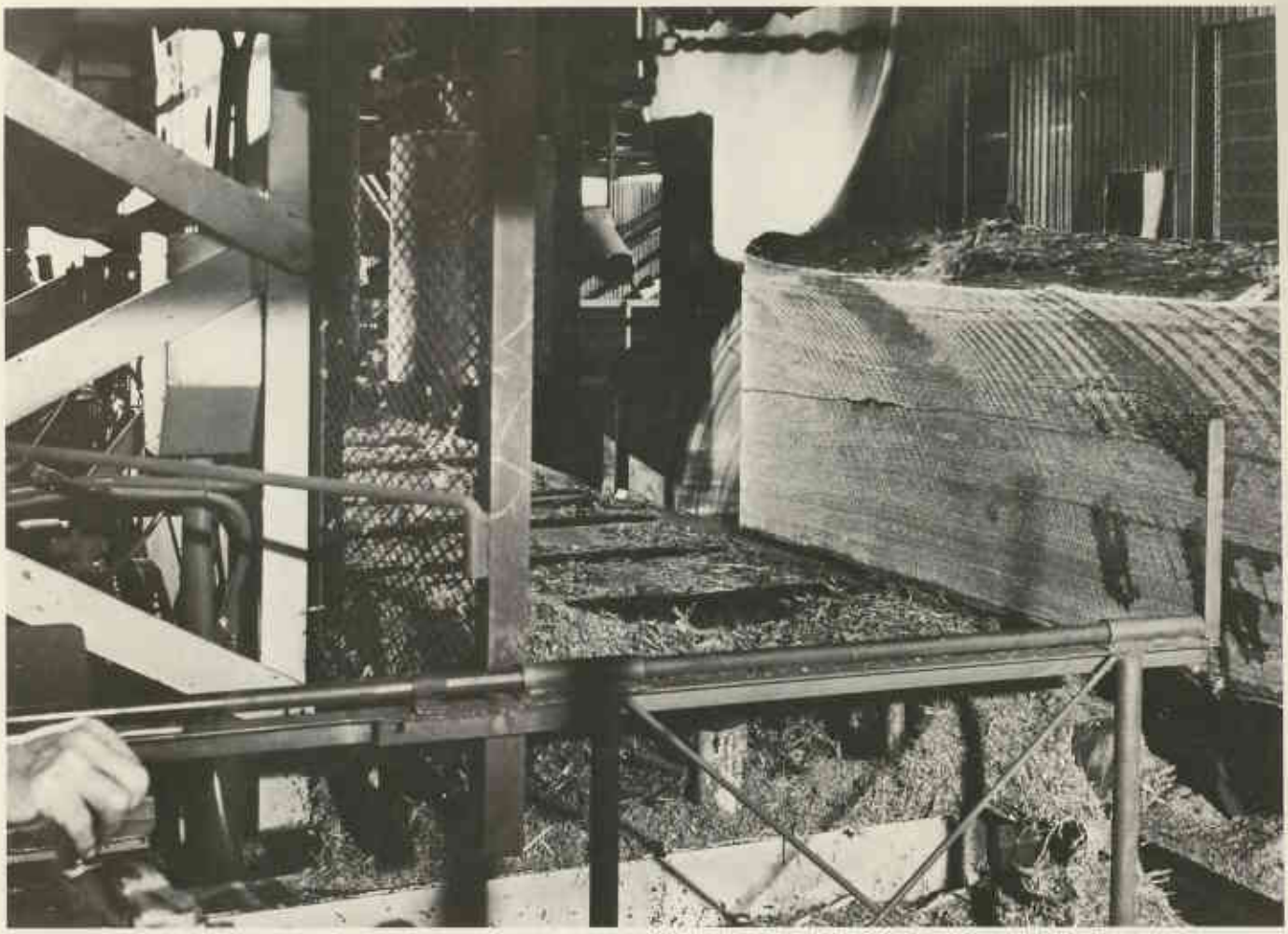
Powered docker saws, transfers, rollers and improved mill layout are all factors reducing heavy manual handling and represent a drive for greater efficiency in the industry.



▲ *Rear view of bandsaw breakdown showing riderless log carriage.*

▼ *The Lloyds No. 1 bench, also push-button controlled. The handle and roller mechanism are additional controls for gauging timber.*





▲ *Jarrah log entering twin circular breakdown saws at Whittaker's timber company's Welshpool mill.* (Brian Stevenson)

Confronted like most other industries with the problems of a changing and highly competitive world, the attraction and retention of an experienced labour force and steeply increasing costs for equipment, manpower and other necessary items, the timber industry is compelled to increase efficiency by improved recovery from the log, better sawmill layout, greater mechanisation, faster handling methods and the offering of an improved final product.

This mechanisation does not stop at the sawmill door. In the yard the introduction of mobile cranes, forklifts and green chains or sorting tables have eliminated a lot of the physical effort previously associated with timber handling.

In the forest logging operations, specially designed and larger handling equipment has also led to greater efficiency and effectiveness of smaller work forces. The effect of modern mechanisation has been beneficially felt even by the man who starts the whole chain of events in the timber industry—the tree feller.

The old axe and crosscut saw method of tree felling has been completely replaced by the one-man chainsaw, which is the most economical tool for the job.

These saws have increased the felling rate per man, which in turn has kept costs steady during periods of increased labour charges. Their use has also increased the individual earnings of the timber feller who is traditionally paid on a piece-work basis.

The introduction of the one-man chainsaw has also had the effect of lowering stump heights, and increasing the utilisation of marginal quality logs from the forest.

Chain saw felling still requires a high degree of skill, as did the earlier axe and crosscut method.

Plywood and chip-board mills manufacturing reconstituted wood products are also examples of highly mechanised modern industries. This section of the timber industry demands precision equipment of a completely different nature for the slicing of flitches and peeling of logs.

Certain types of plywood qualify as man's toughest sheet material on a strength-weight basis.