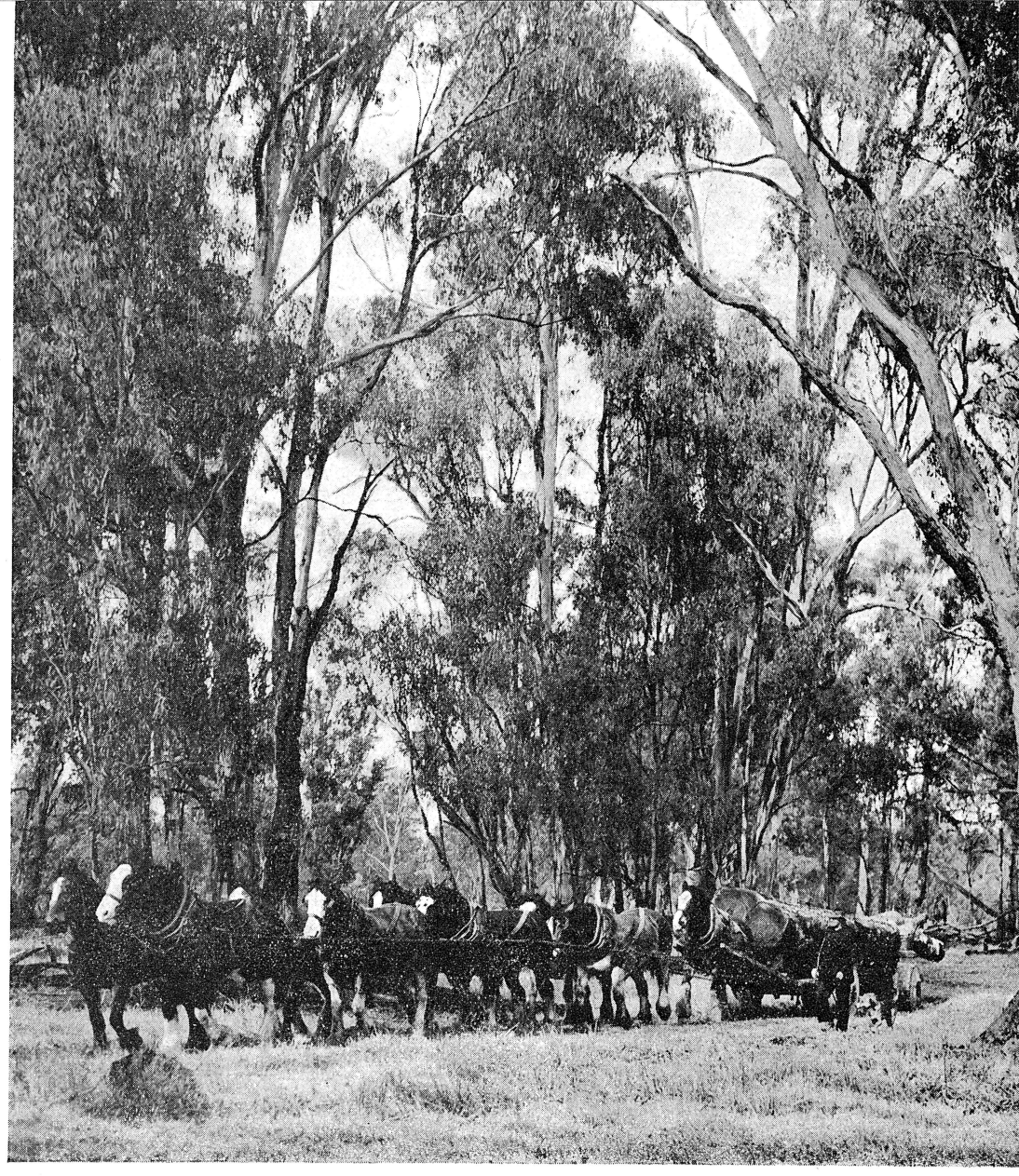


Australian official photos.

AUSTRALIA'S ROMANTIC RED-GUM INDUSTRY

In a quiet Corner of the Murray Valley, Bullock-team and Paddlesteamer have defied modern progress.

NOTA. — La traduction de cet article suit page 54.

For almost a century, the red-gum forests along parts of the middle section of Australia's greatest river, the Murray, have supported a logging industry, and that industry has remained unaffected by the passing years.

Centred around the Victorian Murray-side town of Echuca, the red-gum logging industry has been carried on without interruption since the 1850's. Here the horse-team and the bullock-team, now displaced almost everywhere in Australia by the motor truck and tractor, and the picturesque river paddlesteamer combine in this one industry to defy the challenge of mechanised progress.

An extensive area upstream from ECHUCA is covered with water for about four months after the spring thaw begins in the snowfields of the Australian Alps, which feed the Murray and its tributaries. Spreading out over a great flat depression, the river's water inundates to a depth of three or four feet an area of something like 100.000 acres, comprising the MILLEWA, GULPA ISLAND and MOIRA State Forests of New South Wales and the 7,500-acre BARMAH State Forest of Victoria. There are also some very fine stands below ECHUCA at KONDROOK, KULKYNE and LINDSAY RIVER.

It is in these areas of annual flooding that the red-gum (*Eucalyptus Camaldulensis*) grows to perfection. Elsewhere along the river in this region the red-gum forest areas are less extensive.

Close-grained and bright red in colour, red-gum timber is very heavy and extremely durable. It is resistant to the attacks of white ants. Nowadays, it is generally reserved for use in main-line railway sleepers, building timber and street blocks while poles are used for electric and telephone standards and for bridges.

In the past, when red-gum forests along the Murray and other rivers were being cut out to create grazing lands, it was used widely for railway sleepers (some of which found their way to the United Kingdom, India, Ceylon, South Africa and New Zealand), and as mining timber and bridge piles.

Establishment of the first sawmills in the red-gum area about Echuca dates back to 1856. In the 1860's operations were greatly extended following upon the beginning of railway construction in Australia. Echuca's prosperity was largely built on the future sawmills set up there. Associated with them were river slipways on which paddlesteamers were built of red-gum for the cargo and passenger traffic then developing along the inland waterways.

Then as now, the great logs were hauled to the river by horse or bullock-teams. The logs could not be made up into a floating raft since red-gum is so heavy that it sinks in water. From points above Echuca, the logs were attached to outriggers placed across barges, and held suspended in the water (thus lessening their weight). Those that had to be taken upstream were loaded into barges towed by paddlesteamer.

Indiscriminate cutting resulted in the depletion of some forest areas. Where trees were removed, the floods replenished the area with new growth, and then with a re-growth, but the mills could not continue on the old scale.

Two sawmills are still operating in Echuca. Each has its own small paddlesteamer which tows barges and makes a weekly trip to each of the riverside logging camps.

State forestry officers exercise strict control over the cutting of the trees, marking them according to a girth system. In addition, damaged trees are allowed to be cut if it is believed that the removal of a tree will assist the growth of others.

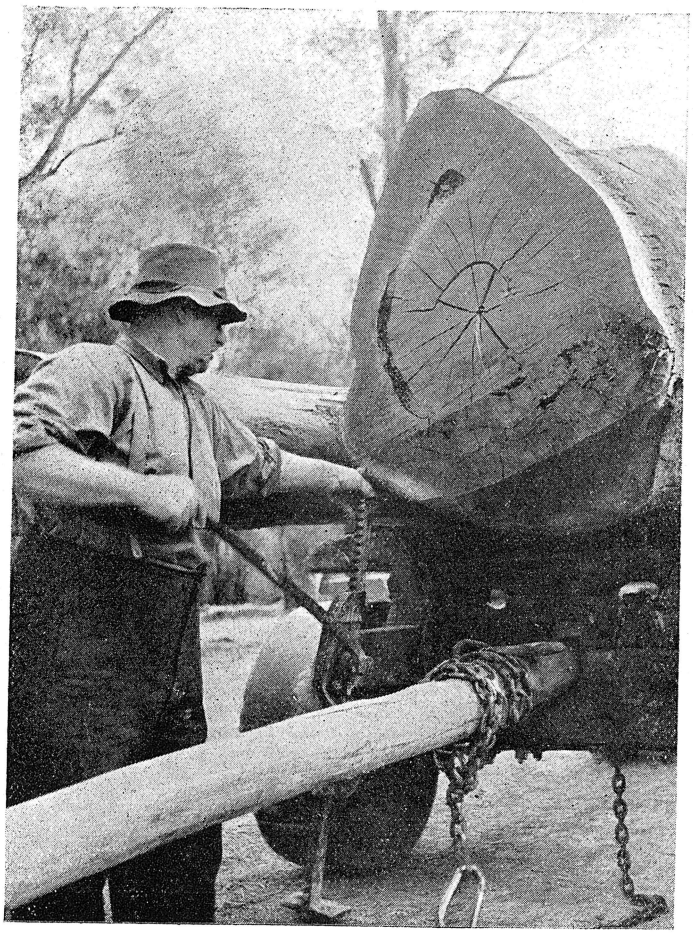
Up to 5,000 super feet of timber may be cut from the biggest of the trees — giants that are 500 or more years old. The maximum height of the trees is from 150 to 160 ft. and the average height of a well-grown specimen about 120 ft.

The trees grow almost to the water's edge in an open forest that gives the impression of a great parkland stretching back for a mile or two from the river.

The Murray has the appearance of a wide canal. It usually flows within four or five feet of the banks. The trees are mainly centuries-old giants that have won the struggle for sunshine and living space. Some are still competing for final supremacy. Here and there, light saplings, which will eventually thin themselves out by the natural process of survival, form patches of thick forest. The whole of the flooding area is given over to red-gum ; no other tree is so well adapted to the special conditions of prolonged yearly inundations.

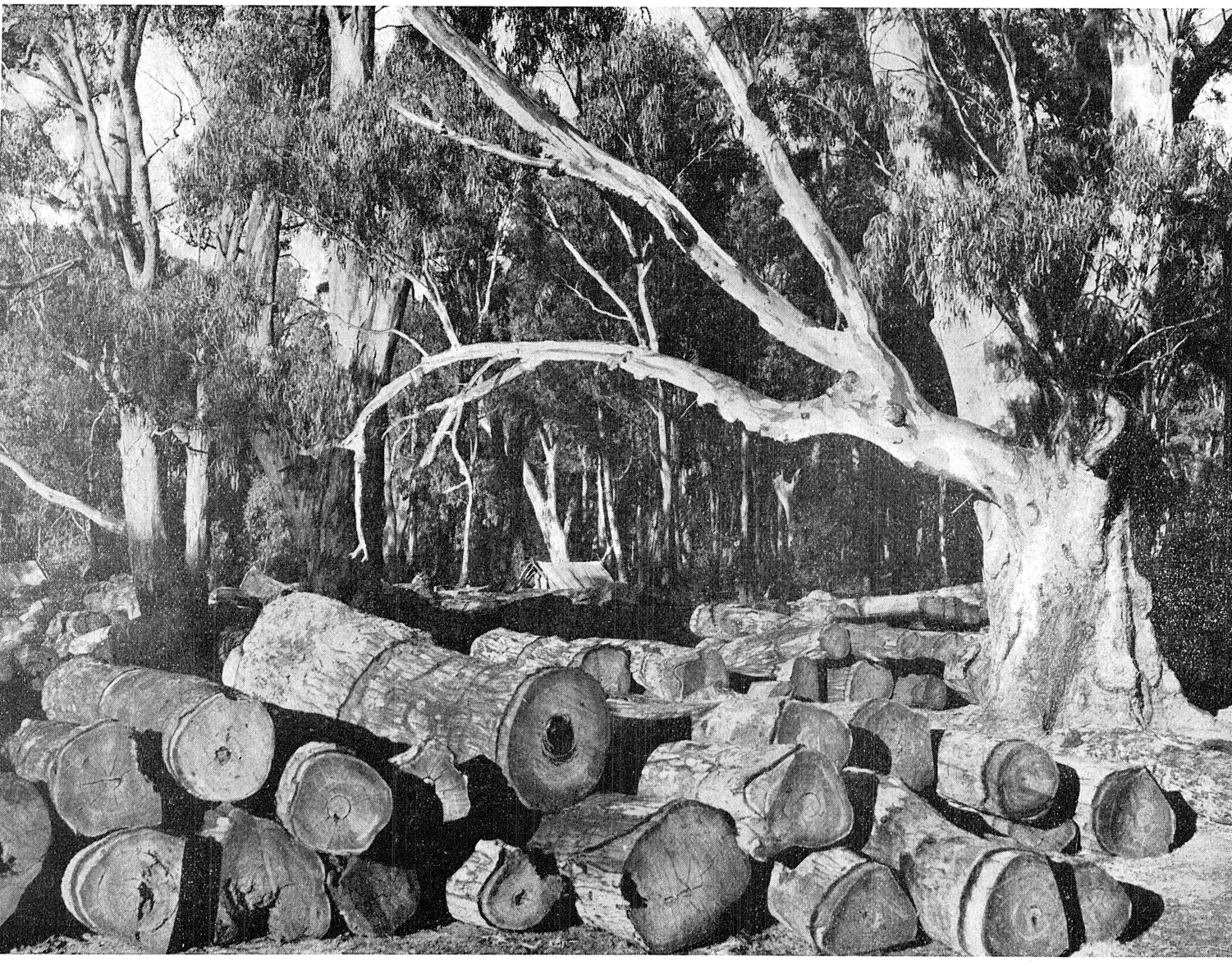
Railway sleepers are cut in the Millewa forest area. The biggest trees are sawn into logs that are transported by barge to Echuca and there sawn into building timber, street blocks and fencing droppers.

Tree-felling operation.
Abatage d'un arbre.



On arrival at the river-side log landing, the teamster uses a jack to roll the logs off the jinker.

A l'arrivée sur la rive, déchargement des grumes au moyen d'un cric.



Red gum logs at the timbermen's camps, on the river bank.
Billes de gommier rouge au camp des bûcherons, au bord de la rivière.

All through the summer, autumn and winter the cutters and the log-haulers are at work. Here in the heart of the forest the only evidence of the 20th century, the only touch of modernity is the passing overhead of a sleek aircraft morning and evening.

Barging the logs downstream can have all the elements of an exciting job, but the men who do it are not so enthusiastic.

It was late in July when we drove in along the river to the log-landing three or four miles upstream from Barmah. The winter mist hung in the trees well into the morning, but the cold did not deter the teamsters and the cutters, who were up at dawn.

" *Jim over there can tell you about barging* ", said the 70-year-old bullock driver as he yoked up the last of his bullock-team.

" *You see, my job ends when I get the last of the logs to the river — and then get these flaming bullocks out of here before the flood comes. But Jim here, he seems to like the barging. Least, he must, cos he's been at it years now. Maybe it's a change after driving that horse team of his* ".

The teamster Jim didn't seem to think there was much to it.

« *It's simple if the weather's good — and if you have a bit of luck* » he said. « *Mind you, there can be trouble.*

« *Two of us go down on a barge. We hook a dinghy on behind, and just let the barge drift. She keeps to the middle of the stream. It's* 33 *miles down the river from this log landing to Echuca, and we do the trip in about* 23 *hours.*

" *Whirlpools and snags are the main trouble* " Jim went on. " *If we hit a snag, one of us goes out in the dinghy and makes a line fast to a tree. The other end of the line is taken round the capstan and the man on the capstan can usually pull the barge off. Sometimes a line is used to correct the barge when she's coming to a bad spot* ".

The progress of the barge varies according to the position it takes up in the current. At night, one barge sometimes passes another barge travelling in the same direction, unknown to the sleeping men. Each barge carries lights and, unless a barge is in the middle of the stream and cannot be passed, steamer skippers coming upstream may not even toot.

There are times when a barge becomes so badly snagged that nothing can be done until a steamer comes along to pull it clear.

Whirlpools and eddies can play tricks. It is possible for a barge to become caught up and to be whirled round all night, unknown to the sleeping men. There have been occasions when the men have looked out in the morning, hoping to see some landmark close to the destination, only to find their barge slowly circling within some river bend.

The principal river red-gum forest area is located downstream from the Barmah and Moira lakes, where there is deep river silt. Geologists explain that a subsidence took place over this locality, while an uplift of about 40 ft. occurred downstream. In this raised area the Murray passes through a bottleneck which reduces the river's flow. The water banks back over a considerable area, the lowest parts being lakes in which the water remains throughout the year. Other areas are low enough to be covered with water at spring high-river.

Investigations are now being undertaken in the various red-gum forest areas to determine whether the trees are dependent on flooding or on soak drifts from the river at lower levels. The question assumes considerable importance in view of plans to complete the river locking system and to incerase the storage capacity of the Hume Dam, which together might mean the end of the annual flooding of these areas.

It has already been found that the depth of the water table in the forest areas varies from 9ft. 6in. to 25 ft. In some places the soil is a granite sand, in other places it is clay soakage.

Where the construction of a lock has raised the water level so that the trees are permanently standing in water, the trees have all died. Similarly it has been found that summer flooding kills the trees. This is believed to be caused by the " cooking " of the surface roots when the shallow flood water is heated by the sun's rays.

It is believed that the red-gum forests might be jeopardised if the water level were raised as a result of the completion of the locking system over this section of the Murray, or if the annual flooding ceased as a result of better control of the river's flow.

R. YOUNGER.