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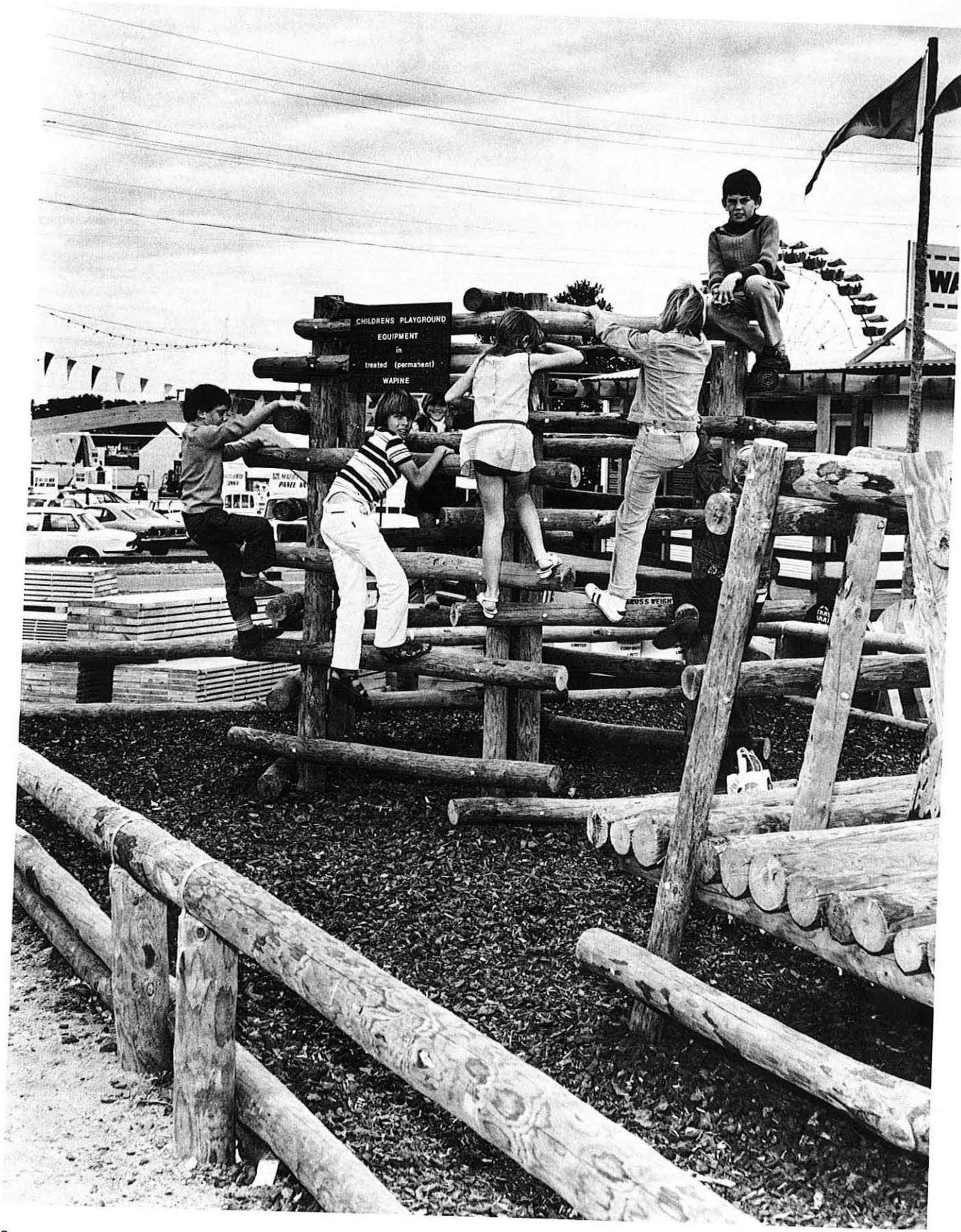
FOREST FOCUS

NUMBER 9 DECEMBER 1972

NATURAL ROUNDS—PUSH-BUTTON AGE COUNTRY RECREATION GRANT


CHILDRENS PLAYGROUND
EQUIPMENT
in
treated (permanent)
WAPINE

Officer in Charge,
Forests Department,

FOREST FOCUS INTERNAL DISTRIBUTION

It has been brought to my attention that Forest Focus is available to some staff members on a circulation-only basis.

While this is good from the cost-saving point of view, it is considered worthwhile to supply the magazine to any staff member who is sufficiently interested to obtain it from his divisional or district office. It is hoped that the value would then be obtained not only as a internal Public Relations medium, but as an external medium (for which it was originally intended) through his family and/or friends.

At this stage all divisions receive 20 copies with more on application. Perhaps a good way out of this situation would be to either double quantity or estimate requirements and inform the Registrar. In estimating the quantities required, it is suggested that allowance be made for both internal and possible external distribution to school libraries, interested persons, etc.

Dale Watkins

Dale Watkins
Publicity & Extensions Officer
November 6, 1972

If you require a copy for personal use please inform Registration Branch, Head Office

FOREST FOCUS
Number 9, December 1972

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Compiled and photographed by Dale Watkins *(unless otherwise credited).*

Front cover

Pine shelter, Como beach. Timber is one of nature's most versatile materials. Add man's technology in the form of timber preservation and it takes on a new dimension—unlimited durability. It becomes immune to attack by termites, borers and decay.
(Brian Stevenson)

Back cover

See Forestscapes, page 15.

◀ *Children exercising their imaginations and limbs on the natural rounds at the Forests Department's Royal Show display. The outdoor area proved as popular with the children as the indoor area was with the adults.*

NATURAL ROUNDS—here to stay

The chances are that the last oyster you ate—or that cultured pearl you sometimes wear—was grown with the aid of multi-salt treated pine poles.

In the comparatively short time they have been available, preservative treated round pine poles and posts have come to stay. This is not altogether a play on words based on their durability.

They have come to stay in both the decor and durability senses. With the increasing pressure of modern living there is now a corresponding awakening to the natural elements in life. Among these natural elements, which also gives the required "made to last a lifetime" durability, is the multi-salts treated pine pole.

It is no coincidence that the name coming into vogue for them is "natural rounds", as most people—consciously or otherwise—associate them with the growing trees.

Their pleasant shape offers some counter to the sterility which is so much a part of today's urban scene.

Natural rounds are to be seen in all kinds of settings from the pearl farms' rafts to embankment walls in park and garden settings, steps, pergolas, fences, carports and adventure shapes for children to climb on and exercise their imaginations and limbs.

Preservative treatment

The outstanding ability of radiata and pinaster pine to retain preservatives which prevent them from rotting or being attacked by termites or marine pests, has made possible the production of virtually a new type of timber.

Untreated softwood placed in the ground would, of course, not last very long under our conditions.

However, multi-salt treated pine becomes immune to the attack of termites, rot and fungus.

The copper-chrome-arsenate (CCA) treatment is carried out in large cylinders in which is created firstly a vacuum to remove air from the wood cells, and then high pressure (usually 200 p.s.i.) to replace this air space with preservative.

Although initially soluble in water, these multi-salts unite chemically with wood during pressure impregnation, becoming "fixed" and extremely difficult to remove by leaching.

In other states where it has been available for a longer period, treated pine timber finds a wide variety of uses—farm buildings and fence posts, industrial buildings, wharves, jetties and other structures exposed to marine life, fences, garden borders, outdoor furniture and many uses in house construction. In fact, wherever timber is exposed to weather or timber pests, treated pine is used for long life.

Long life—no maintenance

After treatment the timber is an attractive pastel green colour, which weathers to a light grey-green. This colour results from small amounts of preservative salts remaining on the timber's surface.

If this is removed by dressing or sanding, the colour revealed is a light olive-grey. When exposed unprotected to rain and sunshine this darkens slowly to a warm ruddy brown shade.

▲ *A safe log-pile shape for the young and very young, at Manning. Young Clinton, engrossed in his own thoughts, is four years old.*

These colours are attractive and their distinctive appearance and the fact that no painting or clear finishing is needed if not desired often causes them to be used for decorative and external cladding purposes.

Treated pine at Show

For the first time, the Forests Department mounted a display at the Perth Royal Show, in 1972.

◀ *Adventure playground equipment at Jolimont. This type of rugged, treated pine equipment is to be seen all over the Metropolitan area.*

Featured at this display was a Bunnings transportable house, sheathed in CCA treated radiata pine, together with treated pine verandah and pergola. Treated natural rounds were also a feature of the display, and included a beach shelter, children's playground equipment, low pole fencing and flag poles.

Bunning Bros. and Hicksons Timber Impregnation Co. (Picton), two of the three suppliers of treated pine, also had displays at the show. The third company treating pine is Barmell Pty. Ltd.

Numerous other pine products supported the outdoor display section, while internally the house featured a range of tinted pine panelled and plywood walls with three types of flooring—strip jarrah, pine chipboard and pine aquatite plywood. The reconstituted pine flooring by Westralian Plywoods Hearn Industries, is a waterproof and preservative treated product.

▲ *Girl Guides at a conservation day project, Lesley picnic grounds and nature track.* (P. N. Hewett)

Forests Minister Approves Grant for Country Works

At least 147,000 of the quarter of a million people who will this year (1972-1973) visit forest areas within 35 miles of Perth, will use facilities provided by the Forests Department.

This was indicated in a series of surveys carried out by the department in the Kelmscott and Mundaring forest divisions.

In line with these findings, the Minister for Forests, Mr. H. D. Evans, earlier this year approved a $10,190 grant for 1972-1973 allowing extension of forest recreation facilities ranging from Wilbunga Grove, 45 miles north of Perth, to Dombakup Crossing, four and a half miles from Northcliffe.

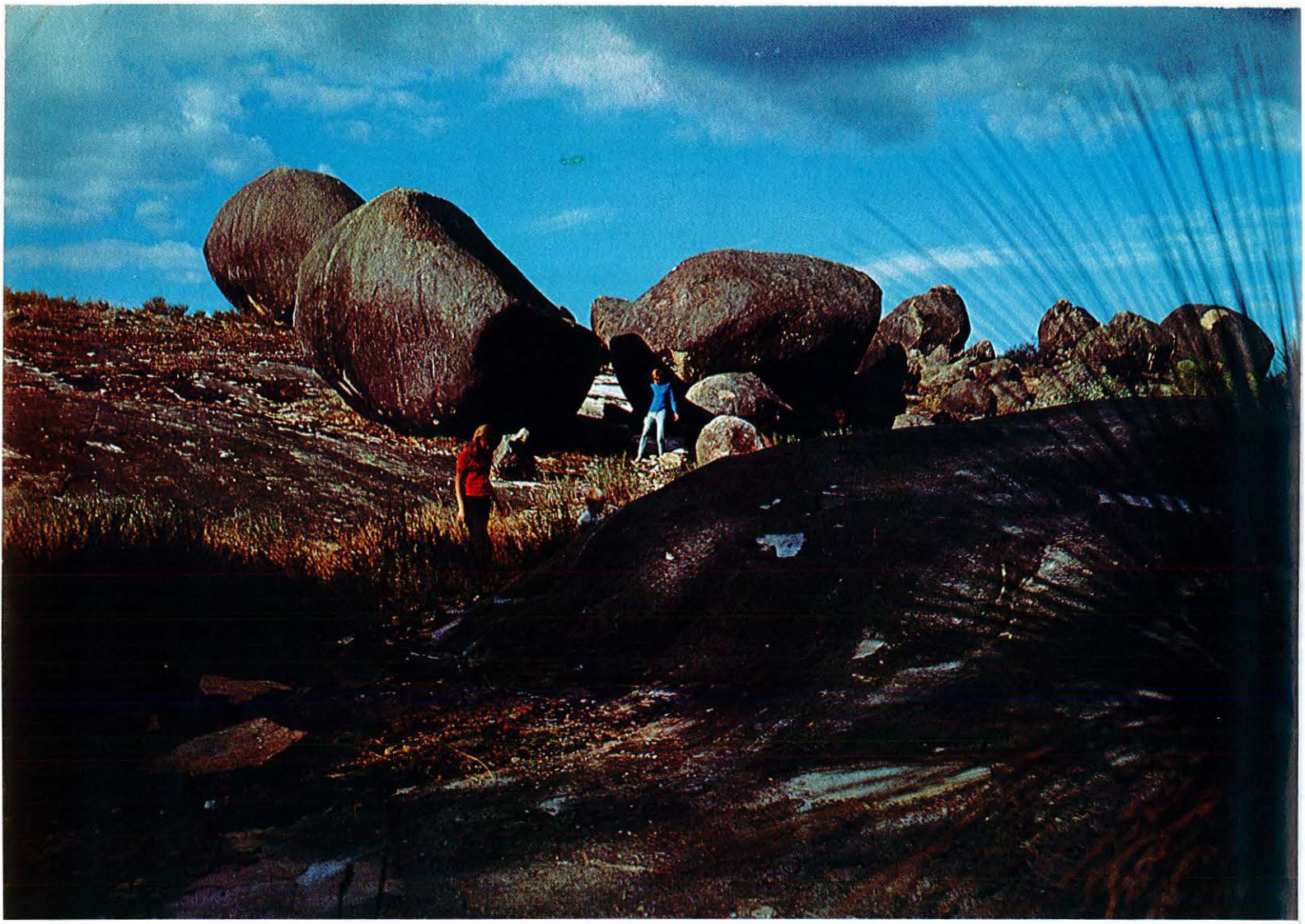
◀ *The Four Aces, a well known tourist landmark west of Manjimup. All four trees are well over 200 ft. high. The tree second from left is 260 ft. with a clear bole of 150 ft. to the first limb. The tree on the left has a girth of 22 ft. at 4 ft. 3 ins. from the ground.* (Brian Stevenson)

New works, extensions and maintenance of existing facilities, and completion of work in hand at newer picnic sites, will be made possible by the grant.

The money was allocated according to estimates prepared by the 10 Forest Divisional Offices concerned.

The major new projects are in the Harvey and Pemberton forest divisions where, in addition to maintenance and completion allocations, an extra $1,875 will be spent on new barbecue areas, rustic seats, tables and fireplaces at:

- Waroona dam, Waroona;



▲ *Boulder Rock on the Brookton Highway.*

- Logue Brook dam, six miles north of Harvey;

(Both of which will have recreation, forest walking tracks, fishing, swimming, boating, water skiing and caravan parks provided in association with Waroona and Harvey Shires and the P.W.D.)

- Rooney's Bridge over the Warren River, South-Western Highway;
- Dombakup Crossing, four and a half miles from Northcliffe on the Pemberton road;
- Moons Crossing, one mile west of Wheatley Road, nine miles from Northcliffe.

Over the past two decades the Forests Department has become increasingly involved in the provision of facilities for the touring public.

The first major works using Treasury funds were carried out in the karri forest region with the construction and upgrading of access tracks to forest country attractive to the touring public. The Rainbow Trail near Pemberton is a classic example with its walking trails, picnic spots and rustic seats, tables and fireplaces.

The Cascades and Lefroy Brook 100-years-old karri plot, both also near Pemberton, are examples of other picnic spots with scenic walking trails.

In the northern forest area, Gleneagle and Lesley (33-mile peg Albany Highway and 30-mile peg Brookton Highway) are good examples. The walking trail at Lesley has been planned as a nature trail, with native trees and the more important shrub species identified and tagged along the route. Leaflets are available from an information box at the start of the trail and give information on local flora and birdlife plus other items of general interest.

Over 200 sites

A current total of 202 sites within State Forests have been developed as picnic grounds or selected as proposed picnic areas, scenic drives, attractive river stretches and places of interest.

The problems of providing all-weather car access, sign-posting and facilities are considerable.

By forest division, the proposed and developed locations are: Busselton 12, Collie 13, Dwellingup 18,

▲ *One Tree Bridge picnic area by the Donnelly River, west of Manjimup.*

Harvey 32, Kelmscott 27, Kirup 12, Manjimup 5, Mundaring 13, Nannup 26, Pemberton 33, Walpole 7, Wanneroo 4.

Examples of the developed picnic spots are Willow Springs, an abandoned mill town and forest settlement near Nannup; Gloucester Tree fire lookout near Pemberton, Diamond Tree lookout near Manjimup and, near Busselton, picnic spots have been located in prime tuart forest on Bussell Highway.

In Collie forest division there is the scenic Lennard Drive along Lennard River, and a second scenic drive through a flora reserve adjoining the Collie River. Collie is also noted for its fishing and marroning potential. (See Forestscapes, P.15.)

▼ *Christmas tree,* Nuytsia floribunda, *at Boulder Rock.* (Brian Stevenson)

▲ *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.

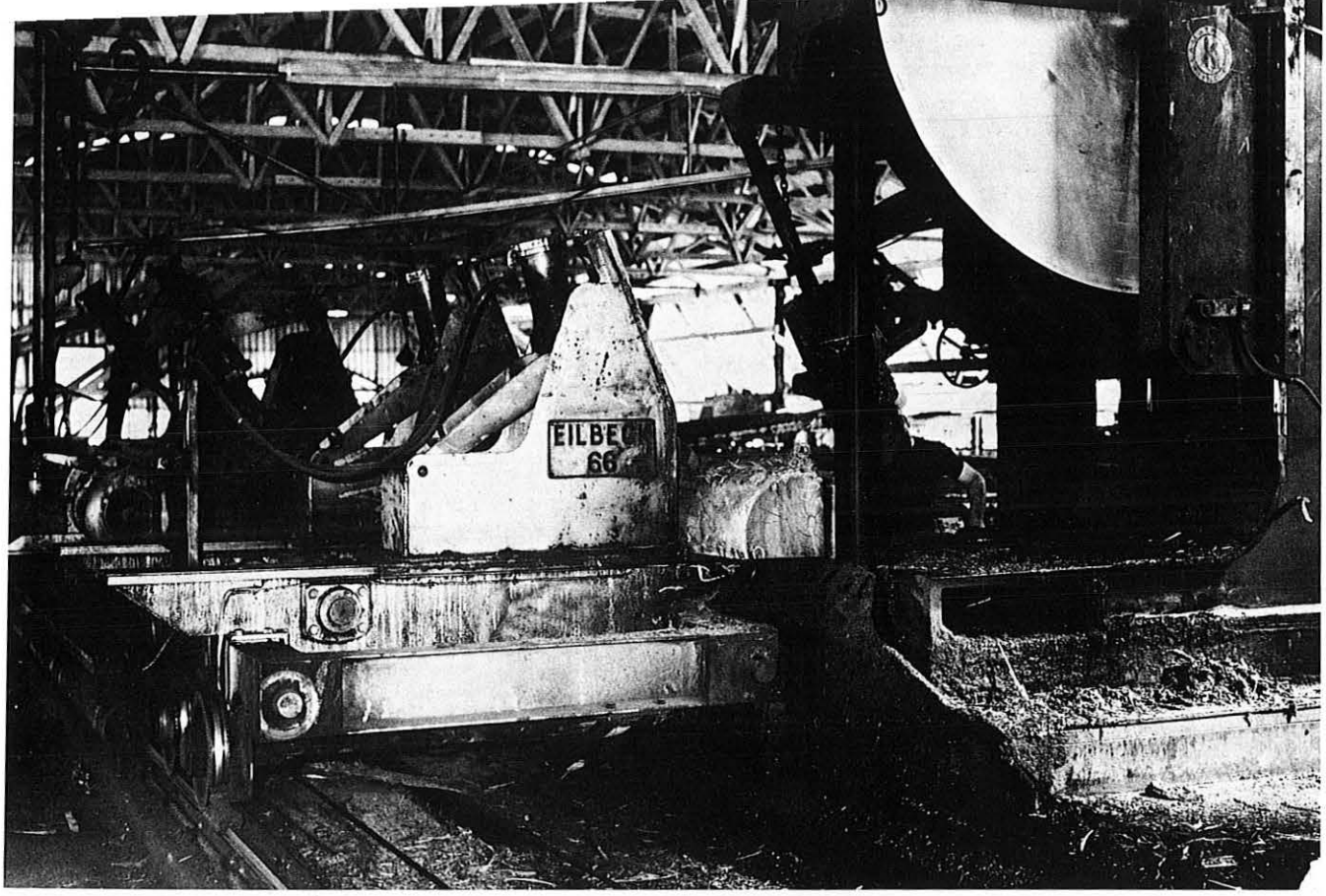
All this can be accomplished electro-pneumatically—by one man sitting before his console, dextrously manipulating the controls.

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.

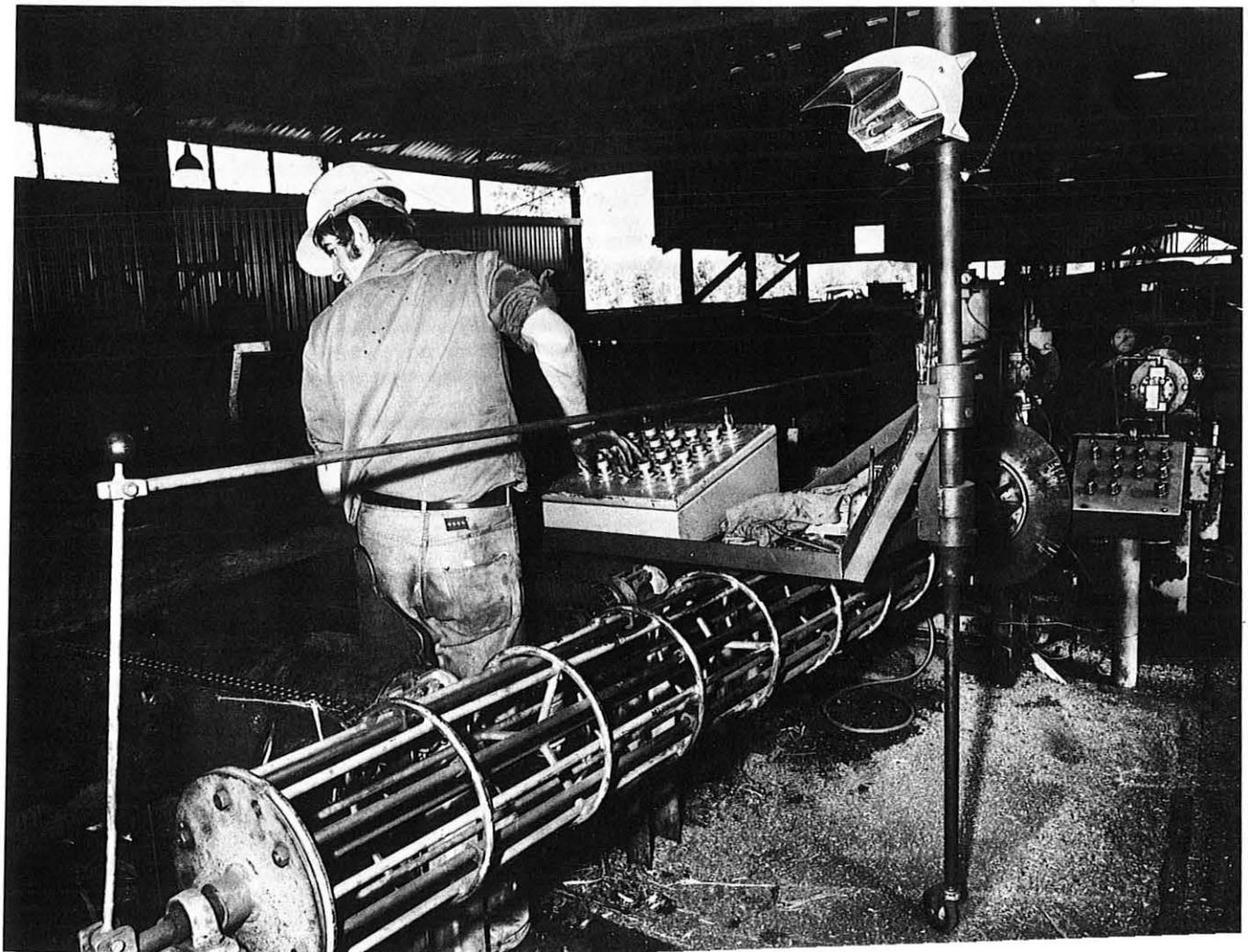
Electro-pneumatically controlled power-feed benches capable of fast, accurate sawing, break down these flitches to the required timber sizes.

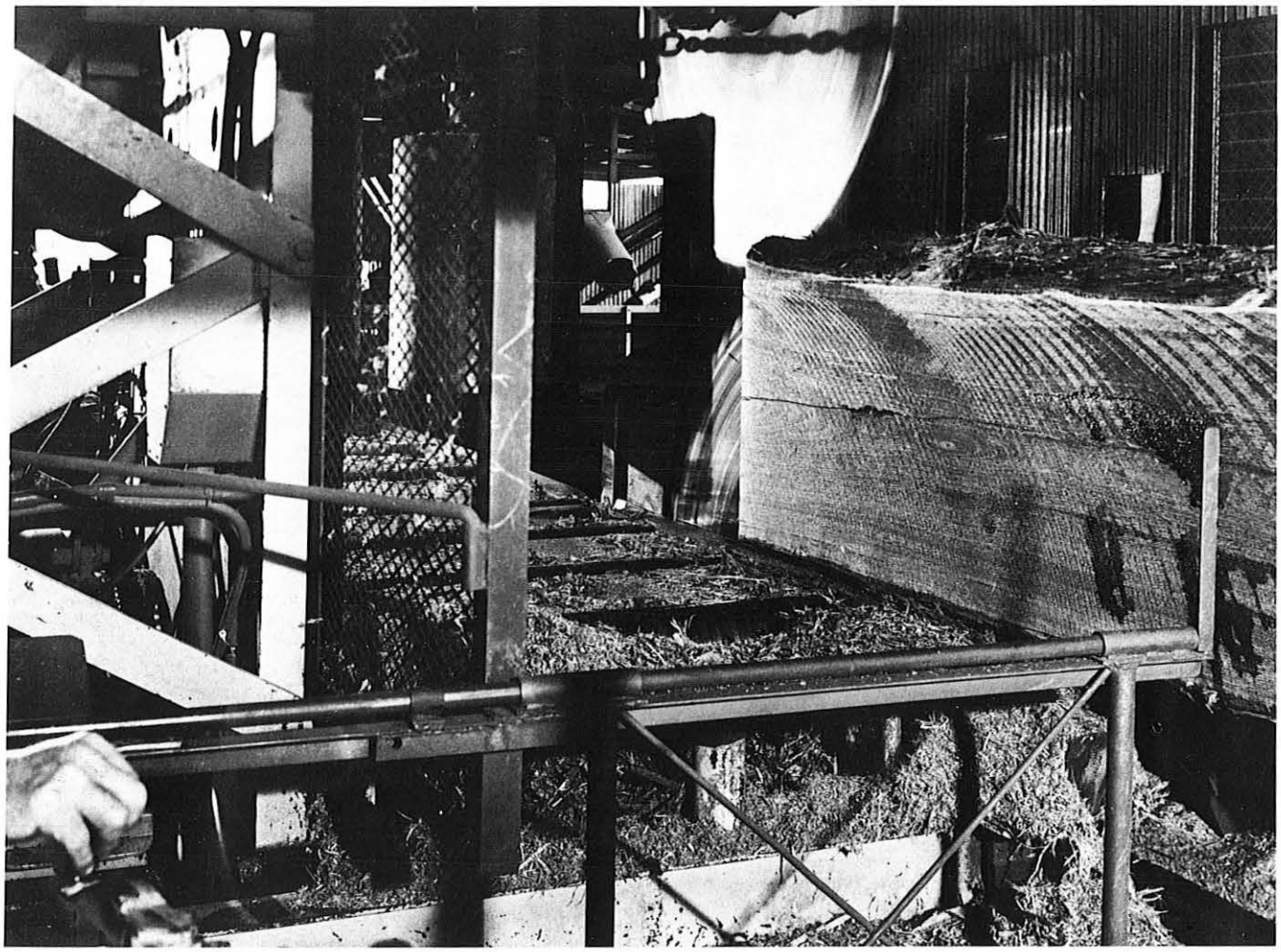
Powered docker saws, transfers, rollers and improved mill layout are all factors reducing heavy manual handling and represent a drive for greater efficiency in the industry.



▲ *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.

Selected
FLOWERING EUCALYPTS *of* WESTERN AUSTRALIA

$1 (post free within Australia)

Back cover illustration. ▼

NEW PUBLICATIONS

Comprehensive book on forestry

A new, fully revised edition of *Forestry in Western Australia* is now on sale from the Forests Department.

Dealing with every aspect of forestry, the 213-page octavo-size book includes four pages of colour plates on birds and animals in the forest environment chapter, and another four pages of colour plates of trees and flowers in the forest formations chapter.

While some subjects can be only briefly covered, quite considerable detail is included in those subjects which lend themselves to book presentation in general terms.

An indication of the breadth of coverage can be seen from this summarised list of chapter headings: forestry and forest policy; environment; forest formations; forest protection; pine plantations; forest management; harvesting and marketing; research; tree planting, boronia and sand drift reclamation; training; safety.

Price $1, post free within Australia.

New leaflets

Three revised leaflets are also now available (free): "What we get from trees"; "Suitable trees for planting in the Wheatbelt"; "Suitable trees for planting in the South-West and Esperance Plains".

Dryandra leaflet

This leaflet is available free to interested persons and consists of the colour map and 11 colour photographs appearing in the last edition of *Forest Focus*.

Flowering trees

The recently published *Selected Flowering Eucalypts of W.A.* is still available (see colour picture, page 13).

This 48-page (plus cover) book contains 68 full colour plates of flowers and trees and one colour plate of Western Australia showing State Forests and isohyets. Each of the species described is accompanied by a line illustration of the bud and fruits (nuts) to assist identification in the field, and the area of natural occurrence is mentioned. The book costs $1, post free, within Australia.

Pine Seedlings Survive

Although a record dry start to 1972 threw into doubt the future of one-third of the 2,500 acres of new pine plantation scheduled for planting at Wanneroo by the end of last July, sufficient following rains enabled establishment with only minimal additional crop losses.

Due to the poor sandy nature of the coastal plantation areas and planting experience over the years, the planting period in northern plantations is restricted to a six-week period from June 15 to July 31.

Normally, all of this time is required to achieve the planting target figure.

The Wanneroo planting, by far the biggest area to be planted at any one location in 1972, was hit hardest, and could only be remedied by additional daily working hours.

It was impossible to greatly speed the rate of planting and because all machines were in use, additional manpower would have been of little value.

The next largest areas planted were 700 acres each at Kirup and Nannup. These centres normally begin planting on June 1, and sufficient rain fell to allow planting to proceed largely unaffected.

In the Wanneroo division, three or four inches of good soaking rain is required before planting.

Because of the need to re-establish a good root system to support the 9-12 inch high stem and crown before the soil dries out, young pines require more starting rains than cereals, which may be planted dry if necessary.

Over the years, experience has proven the wisdom of terminating planting on July 31. Last year (1971), when the wet season continued for longer than normal, later plantings would have survived. However, on other occasions two or three weeks of dry weather or an early close to the season has resulted in death of all late plantings.

TIMBER INDUSTRY and the NATIONAL ECONOMY

The Australian timber industry is a significant contributor to the national economy—to the order of $400,000,000 a year—and employs mainly in the decentralised areas about 50,000 people (not including forest service staff in each state).

This represents about 11 per cent of the rural work force.

Even so, the cost of timber and timber products *imported* into Australia in 1969-1970 was over $266,000,000, and at present could well be around the $300,000,000 mark.

These imports include sawnwood, roundwood (saw logs, veneer logs, etc.), processed wood (plywood and veneer, particle board and other wood manufactures) and wood pulp and pulp products (paper, etc.).

Despite the fact that it employs 11 per cent of the rural work force (plus forest services) the timber industry has not been accorded the special consideration given other industries located in rural areas. A study group reporting for the Commonwealth Departments of National Development and Trade and Industry claimed it is deserving of such.

TREES are REGULATORS of the ENVIRONMENT

What is a tree worth? You can get many answers, most of which have some merit. One inescapable fact is that they are essential to life on our planet.

They moderate temperature and affect pollution (sometimes pollution affects trees), noise, wind and water.

As trees grow they provide a home for wildlife and products for our daily living. In old age (sometimes earlier) they are cut and in their place is space for a new tree to grow.

The daily evaporation from a single well-watered tree can produce an estimated cooling effect of more than a million BTUs. This is equal to 10 room-sized air conditioners operating 20 hours a day.

Because of the "greenhouse" effect of waste particles in polluted air the air temperature may be 11°C. higher in urban settings than it is in nearby rural areas. *This can be an important reason for having green space in cities.*

Trees absorb polluted air and emit air richer in oxygen and somewhat freer of pollutants. A growth of one ton of wood releases at least 1·1 tons of oxygen and absorbs at least 1·5 tons of carbon dioxide according to figures released in the United States.

Fossil fuels

It has been recognised that our oxygen reserve is being reduced by burning fossil fuels. Removal of big areas of plants—for people—is reducing the oxygen supply. It is thought that three-quarters of the conversion of carbon dioxide back to oxygen takes place in the ocean, but trees play an important part on the land. Obviously both sources of oxygen supply are worthy of protection.

Forests and rows of clumps of trees dampen city noise. Each 100 ft. of forest is now believed capable of dissipating about six to eight decibels of sound.

This can be put in perspective by realising that a human ear has the ability to detect one decibel, ordinary speech is at about 60 decibels, and the range of audibility is considered to be about 130 decibels.

Windbreaks

A windbreak provides full protection to an area 10 times its height and some protection for 20 times its height downwind. A five-row windbreak 35 ft. high will reduce a 35 m.p.h. wind in the lee 100 ft. The wind will have built up to only 15 m.p.h. in the lee 200 ft.

Fuel use in the home can be reduced 20 to 30 per cent by properly located windbreaks. Livestock, under U.S. conditions gain weight faster and require less feed where protected by a windbreak; and calving and lambing is better.

Wildlife living space and cover are provided by trees. Forest type, productivity, growth rate, trees per acre, age and size, extent of acreage, availability of water and other factors influence the value of various foods that the trees may provide.

Back cover

FORESTSCAPES

A log footbridge over the Donnelly, connects the recently completed Deadman's Trail walking track to a second and more scenic road covering the short distance between One-tree Bridge picnic spot and the Four Aces, on Graphite Road, west of Manjimup.

Deadman's Trail was named after Mr. Herb Deadman of the Glenoran forestry settlement.

The One-tree Bridge picnic ground, Deadman's Trail and Four Aces area is a delightful place; a place to escape from the noisy confusion of life, to be yourself, and to think of your achievements as well as your plans.

This is productive forestry, multiple use forestry, in full swing as much as any other area where logging or regeneration is under way. Each is a stage in the production cycle of permanent forestry. After logging, an area is regenerated by foresters and a new forest of young trees slowly takes shape, providing an additional variety of habitat and lushness for those animals, birds and insects ranging across the general area.

With its differing faces of tranquillity, challenge, pleasure, hardship and sometimes a sense of wilderness, nature plays its part in strengthening the spirit to shield us in sudden misfortunes.

For our own sake we must protect the forest.

In addition, we must protect the other inhabitants of the forest—they too have a right to be there. Without them the whole structure and character of our life would not exist. Without their environment of trees, plants—even the tiny soil organisms—there would be no inhabitants at all.