

SYMPHONY

ON

A CITY



The above is a picture of treasured possessions of the City of Newcastle. The Royal Charter conferring the Lord Mayoralty upon the City is shown at the top of this group. At the left is the Address of Welcome to Her Majesty Queen Elizabeth II and His Royal Highness the Duke of Edinburgh, when they visited Newcastle on Tuesday, 9th February, 1954. At the right is the Visitors' Book at Newcastle City Hall, containing the signatures of Her Majesty Queen Elizabeth II and His Royal Highness the Duke of Edinburgh; below it is Her Majesty's Reply to the Address of Welcome to the City. In the centre of the picture is the Lord Mayoral Chain of Office.

SYMPHONY ON A CITY

*The Story of the City of Newcastle, New South Wales;
its Birth, its Development and its Place in Australia*

Produced by
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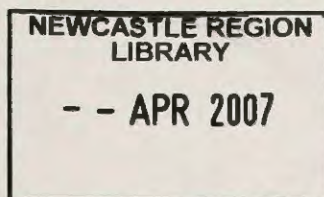
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This obelisk has been a landmark at Newcastle for 107 years. It replaced the first windmill on "The Hill." When the old mill was demolished, seafaring men protested, and the obelisk was erected in its place to guide vessels into port.



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REFACE

THREE THOUSAND MILLION YEARS AGO, the Earth was nothing more than part of a plan for the future of the Universe.

It was formed when a vast mass separated from the Sun and was projected off at a tangent into space.

It whirled on, rotating madly, and the gases and molten substances of which it was composed, gradually cooled and moulded into a sphere with an outer crust. It thus became a planet, revolving around the Sun.

In the course of time, vegetation grew upon the Earth's surface. Dull monotonous of colour became brighter, more brilliant.

Sound developed – the sound of the wind in the trees, the thunder of the ocean rollers as they broke and raced up the sands.

Through millions of years of evolution animals and birds came into being, and with them were born new and stranger sounds.

Man was created, and woman; more sounds, the sounds of speech and singing.

Then man fashioned crude machines, musical instruments – more sounds.

Sound became an art – the combining of sounds to form musical notes and chords, harmonies and discords. Composers were born – composers whose names are now by-words in the world of music. Groups of musicians joined together and formed great orchestras.

Music has thus come to be a dominant influence in the lives of the people of every nation – varying, in its origin and theme, from the barbaric, rhythmic beat of the drum in the heart of Africa, to the classical, liquid notes of the harp and other highly specialised instruments of modern civilisation.

Life, in all its phases, creates its own music. The explorer, the adventurer discovering new land, lays out the manuscripts on which are drawn the first few notes of a musical theme. The landing of new settlers, their tents and huts, their stock, their equipment, all play a part in history – the opening bars of what will some day be a great symphony.

And so it was with Newcastle. When Lieutenant John Shortland sailed 'round Nobbys and landed at the gateway to the rich and beautiful valleys of the Hunter and Williams Rivers, he it was who penned the first notes that, through the years, have developed into a grand composition – a Symphony on a City – the City of Newcastle, the great Industrial Capital of Australia!



9th FEBRUARY, 1954, the young Queen of England passed down Hunter Street, the main thoroughfare of Newcastle, during her first visit to Australia.

The capital of the Hunter Valley had its populace swelled on this occasion by visitors from the hinterland and from many parts north and south of the City.

In her Royal Progress the young Queen saw Newcastle bedecked for a great occasion, its high buildings flagged, the bells of its cathedral and churches ringing, its parks and gardens brilliantly flowered for this magnificent day. Its industries, the economic foundation of the Australian way of life, ceased pulsating for a breathless moment.

All turned, with eagerness and with proud affection, to Elizabeth the Second.

The visit of the Queen brought to an end, in a sense, an historical epoch. But not an epoch as the term applies in other countries, for history here in Australia has not moved with that slow deliberation



which has marked the passing of the centuries in older parts of the world. Australia's history has hurried, so that what *is* today was barely a thought yesterday.

In this year, 1958, Newcastle, the great industrial steel city of the Commonwealth, is third only to Sydney and Melbourne as the most important port of Australia. Its story began little more than one hundred and sixty years ago. . .

The tiny isle of Nobbys, now famous as a lighthouse, was sighted by Captain Cook on his voyage along the coast of New South Wales in 1770, when he observed a "small clump of an island."

The first landing of a white man in this area occurred about 1791, when a party of convicts from

the first and second fleets, led by William and Mary Bryant and accompanied by their two young children, made their escape in Governor Phillip's cutter.

Government men on the trail of other escaping convicts were also reported to have made contact with Newcastle, and at the beginning of the nineteenth century George Howe, Government printer at the time, refers to coal being found "near Port Stephens in June, 1796. The coal is now received from Hunter's River, now called Newcastle."

But the real discoverer of the site of Newcastle and the Hunter River was Lieutenant John Shortland, R.N., who sailed past the island of Nobbys on 9th September, 1797, and in doing so sounded the keynote of what has developed through the years into a symphony in stirring movements.

On 10th September, 1798, Shortland wrote to his father in England: "About a twelve-month since I went on an expedition in the Governor's whaleboat as

far as Port Stephens, which lies 100 miles to the northward of this place. In my passage down I discovered a very fine river, which I named after Governor Hunter. The enclosed I send you, being an eye sketch which I took the little time I was there. Vessels from 50-250 tons may load there with great ease and completely landlocked. I daresay, in a very little time, this river will be a very great acquisition to the settlement. The short time we remained at this river we had rain which prevented me doing so much as I otherwise should."

Governor Hunter was delighted when Shortland reported that he had discovered evidence of coal and wrote to the Colonial Secretary, Captain Collins: "Although Lieutenant Shortland failed to capture the convicts (the main purpose of his expedition), the pursuit, however, has not been without advantage, for he entered a river which he named the Hunter River. The river is about ten leagues to the southward of Port Stephens, into which Lieutenant Shortland carried three fathoms of water at the shoal of part of its



entrance, finding deep water and a good anchorage within. The entrance to this river is but narrow and covered by a high, rocky island lying right off it so as to leave a good passage round the north end of the island between that and the shore. A reef connects the south part of the island with the south shore of the entrance to the river."

Through the Governor's letter the scene of Newcastle entered the eyes of men, and Nobbys, the "high, rocky island," received its first official mention.

But notwithstanding the bright prospects foretold by his discoveries, Shortland's manuscript at this time was penned in a depressing minor key.

Here is a description by an immigrant, John Slater, in 1818 — "The punishment inflicted at Newcastle is corporal, and that by the beat of the drum, two floggers alternately administering twenty-five lashes until enough be given."

The first settlement was made on 14th June, 1801, when the little brig, Lady Nelson, of 60 tons, brought Lieutenant James Grant, Lieutenant Colonel Paterson and Ensign Barallier to the Hunter River.

Paterson discovered something else besides coal — limestone. "The quantity of oyster shells on the beach is beyond comparison. They are in some places for miles. These are four feet deep without sand or dirt."

The oyster shells were to play their part in the early history of Newcastle, for the convicts were forced to work, in punishment for their sins, in the appalling, soul-searing heat of the lime pits.

Governor King followed the visit of Grant and Paterson by establishing a small post at the Hunter, under Corporal Wixtead, with six soldiers and twelve prisoners; but his plans produced little of note.

The first real settlement of Newcastle was achieved when Lieutenant Menzies of the Royal Marines arrived on 30th March, 1804. Earlier in that month Governor King had written to Lord Robert Hobart, Secretary of State for War and the Colonies, stating that he had named the town "Newcastle" (presumably after the City of Newcastle in Northumberland, England) and the surrounding county, Northumberland.



The sad music of the convict days played on for many a year, but through it a more hopeful message for the future was occasionally heard, as from muted strings.

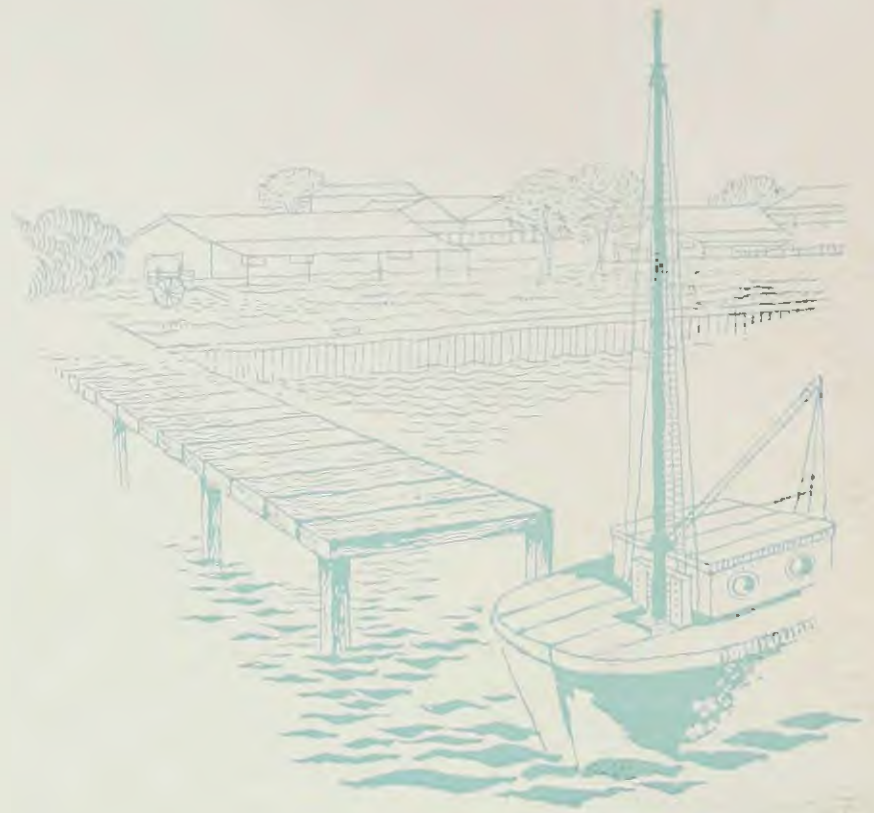
Dr. Charles Throsby was Acting Deputy Surveyor-General in the early days of the Colony, and when he came to Newcastle on official business he marked out thoroughfares which later became parts of six of the principal streets of modern Newcastle. No roads were actually made, but alignments for fencing were detailed, and the barracks and the gaol were the principal buildings.

Today, Newcastle clearly shows its origins in these early times. The Royal Newcastle Hospital, the second largest in the State, was first planned for soldiers and convicts.

In 1813, Lieutenant Skottowe began work on the breakwater which eventually connected the mainland and Nobbys. The population in 1813 was about 700 persons, military and prisoners, and the underlying characteristic of the settlement was misery, which was only to be expected, for Newcastle was a gaol for twice-convicted felons.

But, despite this, the march of civilisation was not to be denied. Explorations had been carried on towards Maitland; Raymond Terrace was established; Morpeth, for many years a shipping port on the Hunter River, was founded. In 1821, John Howe discovered Patrick's Plains near Singleton. Free settlers began to take up land on the Hunter; shipping called with regularity. A new theme emerged with the rhythmic beat of industry and the bustle of commerce.

One of the greatest single events in the history of Newcastle and the north was the establishment on 1st November, 1824, of the Australian Agricultural Company. This great organisation, which played such an important part in the development of the district during the nineteenth century, is still a lively and prosperous concern.



While the A.A. Company was primarily interested in the growth of the pastoral resources of the north and of Australia generally, its main significance, as far as Newcastle is concerned, was the expansion of the coalfields.

In 1801, Governor King wrote to Sir Joseph Banks: "The first cargo of coal brought from the Coal River in a Government vessel I exchanged with the master of the 'Cornwallis' for iron. I believe this is the first return ever made from New South Wales."

Coal was found as a seam in 1801 in the vicinity of the present City Bowling Club's green in King Edward Park, at a depth of 38 feet. The "Chronicler" of Newcastle, Captain John Bingle, says that up to 1827 the Government was the sole producer of coal, but in that year it handed over its interests in the mineral to the A.A. Company, which commenced operations with an enthusiasm that reflected great credit upon its management.

The A.A. Company monopolised the coal trade until an action in the Supreme Court in 1851-52, brought by James and Alexander Brown, resulted in an agreement which eventually cleared the way for the development of the mineral wealth of Newcastle on more extensive lines. The Browns introduced Australian coal to the markets of San Francisco and China, distributing their first shipment to the East and to the United States free, so that it could be given a trial.

Convict labour had not been a success in mining, and in 1840 the A.A. Company imported a



number of miners from England. The coalfields extended out from Newcastle into the Lake Macquarie area and into the north. Coal brought ships, people and industry to Newcastle, particularly the coal trade with California, which began in 1849. Ships came from every port of the world until Newcastle harbour was a regular forest of masts of sailing vessels, and it is symbolic of the development of that period that the foreshores of Stockton were built on the ballast of craft unloaded there for more than fifty years; so Stockton might truly be said to be founded on foreign soil!

The first movements in unionism in the north dated from about the middle of the century, by which time the business of coal mining was giving impetus to the City's cultural and municipal life, and to building and the establishment of services.

The Town of Newcastle had been incorporated in 1859, following dissatisfaction with the working of the Old District Council, which had been established five years earlier. James Hannell was the first Mayor. A self-made man, he was born on 1st December, 1813, and came to Newcastle as an hotel-keeper and acquired some land. He became a Magistrate and was elected

A traveller of 1841 gave a somewhat barbed description of Newcastle in that year. He said:

"Newcastle is, without deceit,
The devil's glasshouse, sand and heat."

But he was probably biased. By 1900, certainly, things had improved, although the sand problem was still unsolved — the sand which blew over the City from the eastern harbour front whenever a southerly came along.

Still, in the sixty years to the turn of the century, Newcastle had become quite a lively place. There were theatrical performances on a lavish scale, for entertainment had vastly progressed from the 1840 period when a Mrs. Elizabeth Bushelle had to receive the Colonial Secretary's "permission and licence to give concerts of vocal and instrumental music in Newcastle, for a period of one month."

Newcastle being predominantly a seaport town, it was also largely a boarding house for sailors. The boarding masters were important people and ran their business with cunning. In the 'eighties the shanghaiing of men or crimping of crews was common in



to Parliament twice as representative for the City and once for the County. He epitomized the spirit of the Newcastle of his day, had a keen vision for the future and yet was so intimately connected with the early days as to ever refer to his State as "the Colony."

The coal trade, which was founded on the extensive deposits of the mineral, was later to benefit immensely from the research of Professor David, of Sydney University, whose analysis and assessment of the coal measures of the north laid the foundations for a further fifty years of prosperity, and eventually attracted the great steel industries of the present day.

Newcastle. A sailor of the period, writing of these boarding masters, said that they "had any amount of impudence and would entice an entire crew to leave the vessel so that they could arrange, for a consideration, for the same crew to return next day to the identical vessel. Any day," he said, "you can see four or five of these worthies running between the corner of Bolton Street and the shipping offices like so many scripsharper trying to float a rotten company."

Another interesting feature of the life of the town in the 'eighties was the competition between

butchers and other tradesmen to gain the trade of vessels newly entering the port. Thirty or forty of these tradesmen's boats would make ready near Nobbys whenever a sail was sighted and then race out to meet the ship, boarding her like pirates, each seeking to gain the first interview with the captain, who held a reception in the saloon of the vessel.

The regattas held on the Hunter River had been a feature of Newcastle holidays for perhaps forty years, and the participation of famous oarsmen of the time attracted sightseers from many other places in the Hunter. On the Williams River, which was then an important waterway for trade and commerce, "Going-Down-Day" as it was called, on New Year's Day, attracted hundreds of holiday-makers who made the trip down to Newcastle in the small steam launches of the period, returning home under the stars.

In the Hunter Valley itself the pioneers were busy converting the rough bushlands into ordered pastures. They settled at first on the rich river flats which, with a small amount of clearing, bore bountiful harvests. They lived in bark huts that afforded primitive shelter from rain and heat, and the sawing of



timber for their later, more permanent dwellings was done with a hand saw. The farmer's wife and family worked the farm together.

In the early days wheat and grain crops were grown mostly on the river flats, while the hilly country was used for pasturing. Today, one of the most important sections of rural activity in the Hunter

Valley is devoted to dairy farming, which came into prominence about the turn of the century with the advent of the cream separator.

In those days the rivers, such as the Williams and Paterson and that portion of the Hunter which was navigable, were important lines of communication between the country and the City. They were channels of trade, recreation and information and provided a connecting link, as they still to some extent do today, between Newcastle and its Hunter Valley.

In this century, Newcastle's greatest single economic event was the establishment, in 1913-1914, of the Broken Hill Proprietary Company's steelworks at Port Waratah. In 1899 the B.H.P. acquired leases of iron ore deposits at Iron Knob, South Australia, and the late Mr. David Baker, a leading American iron and steel authority, was engaged to come to Australia to report on the suitability of this ore for smelting and making into steel.

Mr. Baker selected a site in the Hunter River swamps at Port Waratah, Newcastle. The difficulty of building on swampy ground was overcome by driving in 45,500 piles as foundations for the various parts of the plant.

In 1915, No. 1 open hearth furnace was charged and a quantity of steel was produced, and in that year the Newcastle Steelworks were officially declared open by Sir Ronald Munro Ferguson, Governor-General of Australia.

The development of the Newcastle steel industry, based on its high quality coal resources, was, in a word, the development of the City of Newcastle for the next thirty years. In more recent times Newcastle's industry has become more diversified and includes such activities as the manufacture of rayon, cotton, wood fibre boards, electrical equipment and many other products.

Another departure took place in industry in 1914 with the establishment of a dockyard at Walsh Island. Whilst it prospered for a period, it later failed, but was revived at Carrington, a suburb of Newcastle, in 1941 and is now a successful and highly valuable industry with a great future in Australian shipbuilding and the manufacture of heavy engineering equipment. The turnover of this dockyard now exceeds £3,000,000 a year.

In addition to its many thousands of loyal citizens who served in the Australian Forces in two great wars, Newcastle and the Hunter Valley have played a major part in providing the sinews of defence, in steel production, in ammunition production, shipbuilding and in other important ways.

There have been few decades in the history of Newcastle and the Hunter Valley that have not seen great changes. At times the City and its hinterland have paused, as it were for a breather, before taking the next step, but in the main the historical scene, right from the early days, has been one of continuous development and progress.

In the municipal field, the suburbs of Newcastle were incorporated in the same decade as that which saw Newcastle's incorporation, but in the first thirty years of this century such expansion in home building and industrial development took place that comparison between one municipality and another was illogical.

It became evident in the 'thirties that Newcastle was one city, and a movement towards a Greater Newcastle reached its climax in 1938 when the municipalities of Newcastle were merged into one city under a Greater Newcastle Council, with Alderman A. Griffiths the first Mayor.

The City reached the peak of legal eminence when, in 1948, Alderman H. D. Quinlan became the first Lord Mayor of Newcastle.

The story of Newcastle is the story of a city whose eyes have been steadfastly fixed on the future. Everything is new here, even the past. The changing skyline since the end of World War II epitomises the development that has taken place throughout the whole

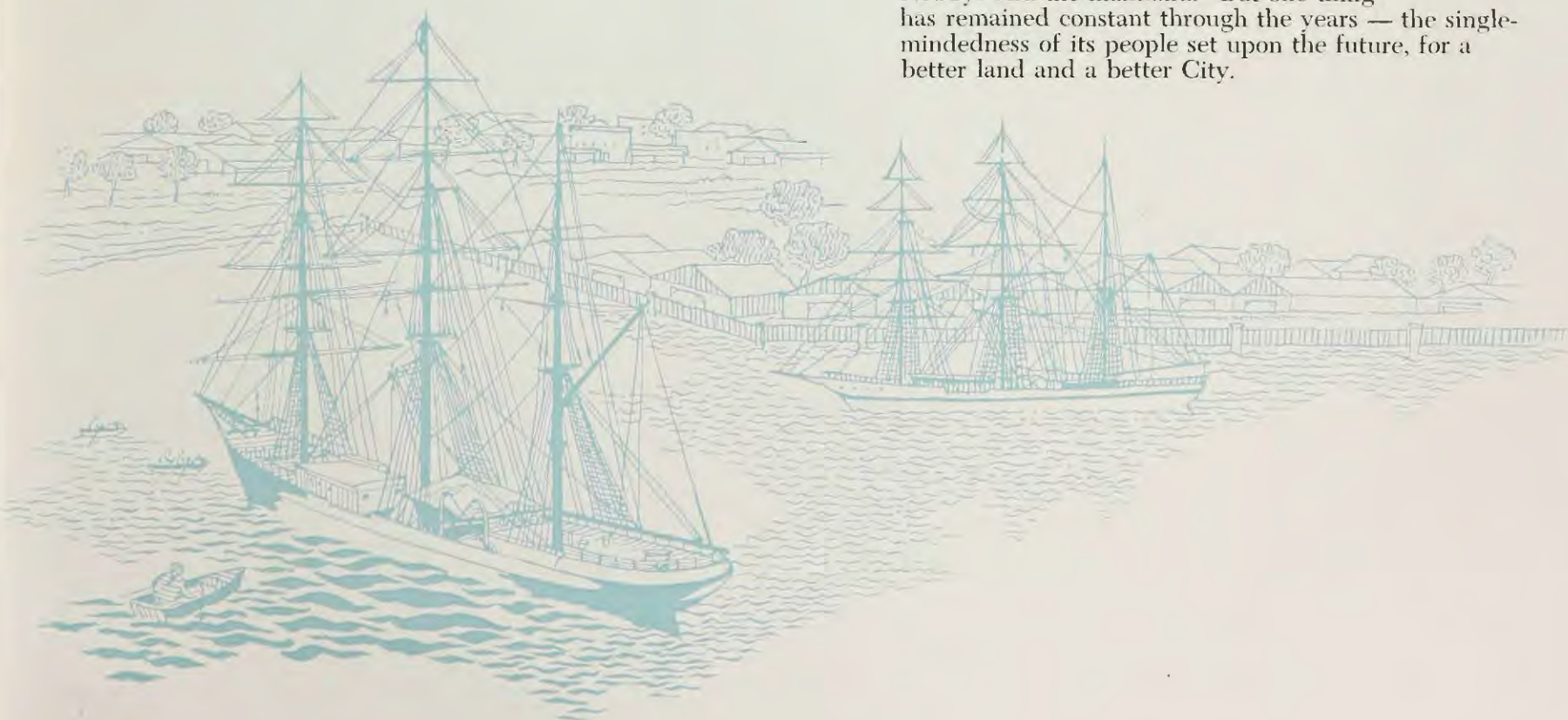


of the City. New, modern buildings have risen and are still rising; new suburbs have been created in what was once bushland around and in the City's boundaries.

All this has emphasised the necessity for sound future planning and to this end the Northumberland County Council was constituted and has produced a Master Plan for development in Newcastle and district over the next fifty years — a plan which aims to retain a harmony between bursting progress and happy living.

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Much has changed in Newcastle since Lieutenant Shortland first sailed between the island of Nobbys and the mainland. But one thing has remained constant through the years — the single-mindedness of its people set upon the future, for a better land and a better City.

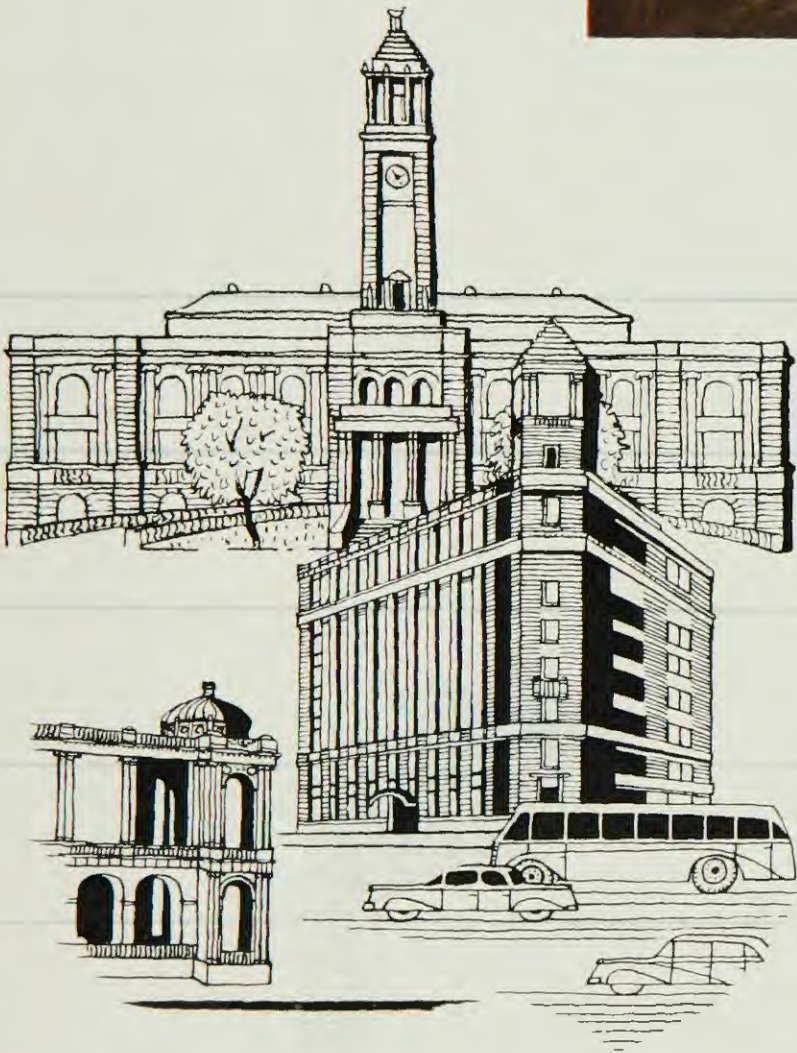








Sunrise over the City of Newcastle.



WHEN THE SUN lifts over the red rim of the Pacific and glows on Nobbys Light, life in Newcastle has already begun its overture to the working day.

At eight o'clock the horns of the orchestra sound, the hooters and the whistles of the factories in various tones, all a little sharp or flat because of the distance separating them.

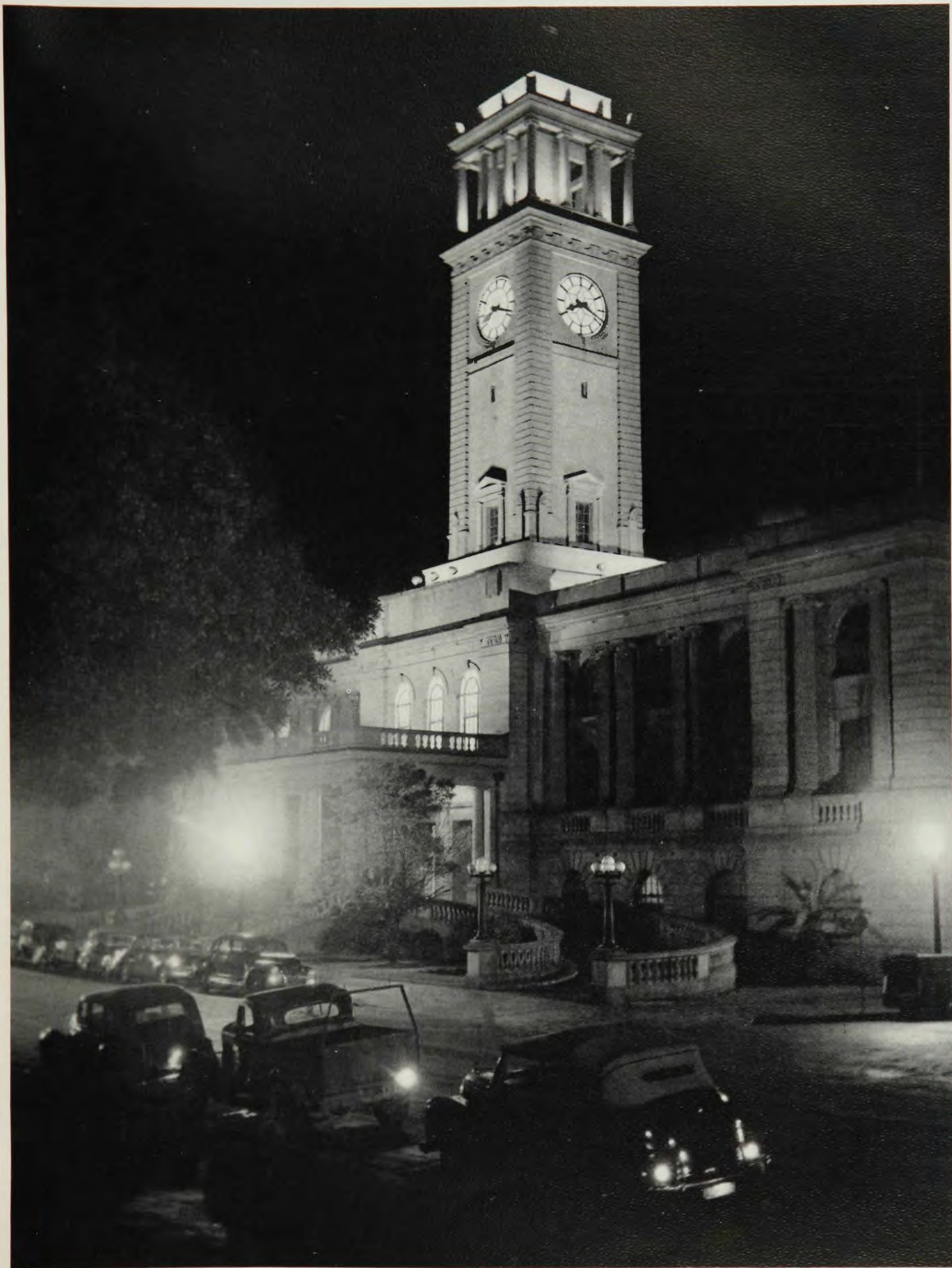
The first light catches the smoke of industry to the north-west of the City, for industry has been working all night long.

To the north the great bow of Stockton beach stretches to Port Stephens, which on a clear day can be seen as blue hills on the horizon. To the south, more sandy coastline springs to the eye — Newcastle Beach, right at the City's front door, at the end of its main street; Bar Beach and Merewether Beach, both popular suburban beaches, and then a variegated necklace of sand and headland falling south until the coast is obscured in mist.

Newcastle is built on an old river delta, and consequently the major portion is fairly flat.

Hunter is the main street — a market place extending for more than a mile. This is the historic centre of Newcastle, named after Governor Hunter. Scott Street was so called after an early magistrate, and Watt and Bolton Streets perpetuate the names of famous engineers. Tyrrell Street commemorates the memory of the first Bishop of Newcastle and many other well-known streets owe their names to personalities of the City's past.

The skyline of Hunter Street is rapidly changing as modern new buildings rise, replacing the relics of an earlier prosperity with the greater prosperity and progress of today. In Hunter Street, and in the streets adjoining, the great banking companies of Australia are represented. They have contributed to the appearance of the City with their buildings as, too, have such Government institutions as the Court House, the Post Office and the Customs House.





King Edward Park.

This concentration in a small section of the City has an historical basis, for it is in this area that Newcastle began. Today, however, the City is expanding and new areas, once suburban, have changed into outlying arms of commerce.

The civic and municipal activities of Newcastle are centred on the City Hall, a mile down Hunter Street from the seafront, facing King Street and Wheeler Place. The City Hall is a large stone building surmounted by a clock tower. It was opened in 1929, being built through the untiring efforts of the late Alderman Morris Light, who was Mayor of Newcastle in 1925.

Beside the City Hall in King Street is Nesca House, a fine architectural conception, which till the advent of the Shortland County Council Power Supply Authority on 1st September, 1957, was the home of the electricity department of Newcastle City Council.

The City of Newcastle from Merewether Heights.





Newcastle Beach, with the Royal Newcastle Hospital on the right.

Under the Council, Nesca (Newcastle Electricity Supply Council Administration) provided power not only for Newcastle and its industries and its rapidly expanding residential centres, but also for areas in the hinterland.

Shortland County Council administers the area formerly supplied by Nesca. The long years of pioneering effort by Newcastle Council laid the foundation of electric supply in the region, building up an efficient and powerful organisation.

The City Council has other undertakings. For example, it owns two theatres in the City, an hotel and many valuable shops and commercial centres. Ideas in view for further development — ideas which Newcastle City Council has devoted all the resources of its power and influence to bring about — include the building of a large, modern aerodrome at Hexham, where there is a considerable area of flat land, and the building of a bridge connecting the City of Newcastle to its northern suburb of Stockton.

The City Council also acts as an important influence in the attraction of new industries to Newcastle and assists in the provision of industrial land for that purpose.

In spiritual spheres, too, there has been an encouraging growth. This is shown in the number of beautiful new churches which have been built since the war in an effort to keep pace with the increasing population of the City.



Hunter Street at Civic Centre.

One of the important aesthetic fountainheads is the Newcastle War Memorial Cultural Centre, overlooking Civic Park opposite the City Hall. This building provides the citizens with a centre for their library, music, pictures, paintings and the arts generally, drama and other cultural activities. The Cultural Centre was built as a War Memorial as the result of expressions of general concern at the merely material progress of the City and the Hunter Valley. Most citizens felt that this should be balanced by an equal growth in cultural things, a growth which could only be stimulated and developed if the City had an appropriate home for its cultural activities. The Newcastle City Council has fostered the development of this Centre and has made it truly a community effort, assisted by donations from every section of commerce, industry and private citizens. Planning has embraced the Cultural Centre,

City Hall and Nesca House, as an imposing civic group linked by attractive gardens and lawns. The Newcastle City Council also operates a free library service, with headquarters in the Cultural Centre and branches in outlying suburbs.

Going further out from the City, the once separate municipalities have — since 1938 — been incorporated into a Greater City. With this incorporation and with the end of the Second World War has come an expansion in residential and industrial building to such an extent that residential areas are now pressing out into the bushland which circles the City.

In every suburb of Newcastle this development is taking place. At Mayfield, to assist housing, Newcastle City Council fostered a large building settlement

Eastern end of the City of Newcastle—Nobbys Head in background.





Newcastle City Hall.

and a journey around the perimeter of the pre-war City will show that new buildings now occupy what were once paddocks and areas of scattered trees. The Council has also acquired other large areas for residential developments. Wallsend, an historic coalmining town, is another case in point. This former municipality, now a suburb of Newcastle, has had its character changed completely in a matter of ten years by an influx of new people, living in new homes, whose history and associations are not connected with coalmining in any way.

On the beach front, as at Merewether, heights formerly thought to be inaccessible for building have been scaled by the architect and now many delightful and luxurious homes dominate the headlands, overlooking the City to the north and the sweep of coastline and beach to the south.

Along the highway linking Adamstown, another suburb of Newcastle, to Swansea, the houses form an almost unbroken chain on each side of the road. Swansea, sixteen miles away and formerly a fishing village, is now a residential, holiday and light industrial town. This development has taken place within the last ten years. While the towns along this route, Charlestown, Belmont and Swansea, are part of the adjoining Shire of Lake Macquarie, many of the citizens living in them work in Newcastle.

On the western side, new residential areas have been established at New Lambton and Cardiff, and so earnest is the expansion and so rapid the building that many citizens have taken action to ensure that the gum trees, which give grace to the environs of the City, be

B.H.P. Central Research Laboratories at Shortland, Newcastle.



The Newcastle War Memorial Cultural Centre.

Royal Newcastle Hospital.



A fine exhibition of locally grown blooms arranged by Newcastle Horticultural Society in the City Hall, ground floor.

retained, in part at least, to prevent complete denuding of the natural beauty.

The City Council of Newcastle is not unmindful of the desirability of preserving the natural flora, and it has taken steps to acquire a large area of bushland on the western boundary of the City, part of which will be retained as a park. The Blackbutt Reserve is adjacent to this area and, as the buildings extend further westward, it will be like a forest in the heart of the City — an unusual and valuable asset to any modern metropolis.

The salient feature of Newcastle life is its capacity for healthy and happy living. In this fast-developing city, work is abundant. Recreation is easy and natural. The people's attitude to life is perhaps best illustrated by the picture of Newcastle City workers on a summer's midday luncheon break, walking down to the seaward end of Hunter Street to take a plunge in the surf at Newcastle Beach, and return, mightily refreshed, to the afternoon's work.

Newcastle is proud of its children, and a not inconsiderable portion of time and community effort is directed towards making their lot happy and healthy. The City abounds in playing fields and parks, and outdoor sports are a feature of the Newcastle way of life.

A great majority of the people of Newcastle and district either own their own homes or are in the process of obtaining them. This trait of the Novocastrian citizen cannot be given too much stress, for it has certainly determined the individualistic form of residential development which has taken place in Newcastle. The preference is for homes rather than for flats.

Newcastle City Council has paid particular attention to the development of civic parks and gardens. One of the best-known of these is King Edward Park, sited beside the sea and overlooking the City. The sunken garden at King Edward Park is the pride of the City Council's gardeners. Because it is such a beautiful place it is also, to an open-air-minded community, the site of many of its public functions. It is used for open-air concerts, for religious services and for the annual Anzac Day Remembrance Services. Its flowers bloom by the sea, which has always been so much a part of Newcastle's history. Its pines are the first to sway to the cooling southerly that brings relief on hot summer days.

There are many other community parks and gardens in Newcastle and these, too, are beautiful and well-tended.



Newcastle from the Harbour, showing Christ Church Cathedral and commercial buildings.



Sunken Garden, King Edward Park

This love of flowers and well-tended gardens is seen right throughout the City. Few industrial areas of the world can show such a colourful background. Newcastle holds its annual garden competitions, its orchid shows, its floral festivals. And suburban homes are ample evidence of the fact that in such a pleasant climate almost anything can be grown.

The Royal Newcastle Hospital, the second largest in the State, began as a Government institution in 1814-17, but in the middle of the last century its growth and development were promoted by a committee of civic-minded men, and their efforts have resulted in the great hospital of today, the Board of which is representative of the community and whose members voluntarily give their services for the management of the hospital.

Similarly, the Mater Misericordiae Hospital at Waratah, an institution commenced in 1921 by the Sisters of Mercy, has developed to meet the growing demands of the City.

The other hospitals of the district, Wallsend, Rankin Park, the Western Suburbs, are all community projects.

The people of Newcastle have always been

noted for their interest in music, even far back in the last century, when choirs and bands provided a popular means of entertainment. There is always a large group of young students of music in the district, and all play a part, at their various levels, in the eisteddfods, school concerts and the Newcastle Conservatorium of Music student concerts. The interest which the Newcastle and northern community takes in its students of music is manifest in a variety of ways, not the least being the arrangement of children's concerts organised by the Australian Broadcasting Commission through its Youth Concert Committee, through lunch-hour recordings and similar sessions provided by the W.E.A. and other bodies.

Not least among public entertainments in Newcastle is that provided by the Newcastle City Orchestra, the Newcastle City Choir, and the district's many bands, which have a long and noteworthy history, and in past years have filled prominent positions in band competitions throughout Australia.

The influence of modern music on the younger generation cannot be ignored. Dancing is endemic in Newcastle's youth as it is elsewhere, and modern bands and modern rhythm hold a place of importance in the City's life often overlooked by — perhaps even unknown to — the older generation. Modern

*Right: Sacred Heart Roman Catholic Church,
Hamilton. Centre: Christ Church Anglican
Cathedral, Newcastle.*



*Right: Assembly Hall of Newcastle Technical
High School at Broadmeadow.*



In the primary educational field, government and denominational schools are in every suburb and district.

The Kindergarten Movement provides model kindergartens at Wickham, Mayfield East and Merewether.

Education at the tertiary level is provided by the Newcastle University College and the vast, modern Newcastle Technical College.

The Newcastle University College of the New South Wales University of Technology, is playing an important role. It has been established only a few years, but is allied to a certain extent with the Newcastle Technical College, which was established well over fifty years ago. The buildings at Islington, which now house the University College and the Newcastle Technical College, are another tribute to community effort and community ideas. For to Newcastle, devoted to the needs of modern industry, the training received at the Technical College and at the science



St. George's Anglican Church, Hamilton South.

dancing, modern music and films provide the most popular forms of entertainment for the younger people.

The migrants who have come to Newcastle have also contributed their quota of interesting variety. These New Australians have a great love of music, and their folk songs and favourite Continental airs are often attractions at nightclubs, parties and cafe concerts.

These, however, are variations on the main theme of the City's life. Newcastle is a city of industry and commerce, but it is also a city proud of its children, and on special occasions, as during the annual Health Week, large numbers of school children march through the streets, and there is a great display of affection for, and pride in, the younger citizens.

The main secondary schools at Newcastle are the Boys' High School and the Girls' High School. The Marist Brothers' High School for boys at Hamilton, the Newcastle Church of England Grammar School for girls, and a number of Roman Catholic convent secondary schools provide the main denominational secondary education.



St. Andrew's Presbyterian Church, Newcastle.

Modern homes at Newcastle.

and technological branches of the University College is of primary importance.

Reflecting long-term ambitions, the Arts department of Newcastle University College affords the means and basis of cultural learning desired by the community.

The University has also confirmed its importance in the scope of ideas which it provides for the adult community.

Just as it would be wrong to ignore the lighter side of life in Newcastle, it would be similarly unbalanced to present a picture which failed to give true importance to the religious life of Newcastle. Many denominations are represented and all of them have built fine shrines at which their adherents may worship. On the hill dominating the City of Newcastle is Christ Church Cathedral. In the heart of the business section is the Central Methodist Mission and at the junction of Pacific Highway and Maitland Road, one of the busiest parts of the City, is the Church of the Sacred Heart. Beside the Cultural Centre is the Baptist Tabernacle. Near to the Civic Centre is St. Andrew's Presbyterian Church. Other and smaller denominations have their centres in various parts of the City, and in the suburbs new churches are rising to keep pace with the new homes already built.



Prizewinner in a Newcastle Garden Competition.





Typical of the fine homes at New Lambton Heights.



Hunter Street, looking east, with City Council properties in the foreground.



*Top left: The Newcastle Club.
Centre left: Ballet is a popular form of cultural
development at Newcastle. Centre right: Marist
Brothers' High School at Hamilton. Below, left:
Newcastle University of Technology. Below, right:
Entrance to the Nickson wing of the
Royal Newcastle Hospital.*





Proscenium of Council-owned Civic Theatre, Newcastle.



*Foyer of the Strand Theatre, Newcastle—
Newcastle City Council property.*

Newcastle City area is bounded by the Shire of Port Stephens on one hand and the Shire of Lake Macquarie on the other. Both areas are fast being drawn in to be the residential environs of a great city, and many commuters travel from the lakeside or northern Port Stephens, to work in Newcastle. Modern transportation and good roads have opened up large tracts of building land, and new subdivisions are being developed on every side.







Newcastle Harbour.

NEWCASTLE is Australia's third port.

It attained this status after a comparatively short period, following phenomenal industrial and commercial growth.

Although coal has played and still is playing a major role in the Port's activities, it has not achieved recognition by this alone. It is also a vital centre of overseas and interstate trade in a diversity of products — the yield of Newcastle's great industries and the products of the north and north-west regions of the State.

Newcastle Harbour occupies the mouth of the Hunter River, artificially extended by breakwaters on the northern and southern sides of the river outlet. The depth of the rock bar at the harbour entrance is being continually deepened for the dual purposes of allowing larger ships to enter the Port and to

facilitate the scouring of the harbour when the river and its tributaries are in flood. The provision of modern wharfage has been a feature of recent development, and more up-to-date loading facilities are in process of installation.

The New South Wales State Dockyard handles major repairs. The Port has a total wharfage length of 16,790ft., of which 5,330ft. of wharfage, 1900ft. of tie-up berths and 550ft. of inflammable liquids wharf are under the control of the Maritime Services Board; 5,810ft. are held by the Railways Department and 3,200ft. are owned by the B.H.P. Company. Under the new plan, an inflammable liquids wharf will be built on Walsh Island, in the middle of the river. New slipways and tie-up berths have been started. The development plan is linked with a scheme to reclaim industrial sites from lower-river islands. It envisages rail and road access to these, and dredging





Net fishing off a Newcastle beach.



Shipping on Newcastle Harbour.



The North-eastern sector of the City of Newcastle.



Harbour wharfage.

of channels and a basin. As the navigation authority, the Maritime Services Board has general supervision of the harbour. It controls the general cargo wharves. The Public Works Department does maintenance. The Railways Department controls coal shipping. The Board is assisted by an advisory committee, representing local trading, shipping and employees' interests. The chairman is appointed by the Governor.

With the expansion of commerce, the skyline of Newcastle is rapidly changing. Modest commercial houses are being supplanted by semi-skyscrapers of concrete and steel. This development has its by-product of ever-increasing land values and, consequently, the City's commerce is radiating out, having as its centre the valuable hard core of commercial houses of top prestige.

By day, Newcastle is a thriving centre of commerce flowing from its primary and diversified secondary industries — by night, it is a fairyland of multi-coloured lights when viewed from the many vantage points overlooking the City.

The commerce of Newcastle relies to a great extent upon its rail and road transport systems which link the rich, fertile lands of the North Coast and of the Hunter Valley to the City proper and to the grazing lands and the wheat countries of the west and north-west.

The railways provide Newcastle with a speedy passenger service over the 104 miles to and from Sydney by the finest train in the State, the air-conditioned Newcastle Flyer. They also provide fast services to Brisbane and to other important towns in other parts of New South Wales.

Air travel, of course, services Newcastle, the airport being at Williamtown, ten miles from the heart of the City.

Newcastle was proclaimed a City on 20th March, 1885, at a time when the town was small, and — apart from the coal industry — with no hint of what the next seventy-five years might bring forth.

The Northumberland County Planning Scheme estimates that the population of the City of New-



Ships from all parts of the world visit Newcastle.

A harbour view of the City of Newcastle.



castle will be 300,000 by the year 2,000, which is not so very far away. It is necessary that planning from all points of view must be effected to achieve this objective, but Newcastle people regard this challenge to their foresight, not as a problem, but as an opportunity.

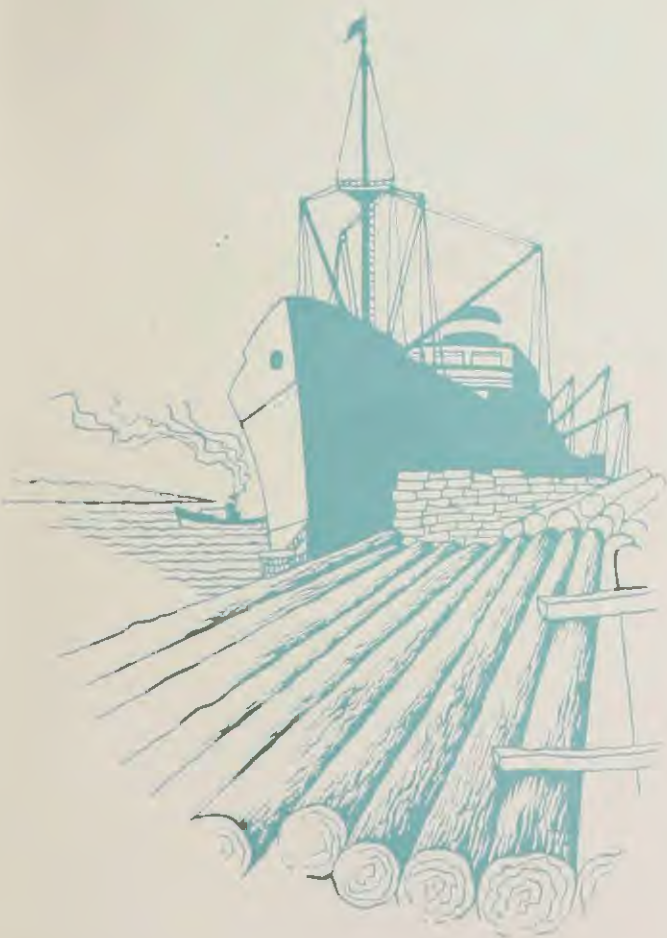
The establishment of the University in Newcastle has assisted thought on these subjects by the addition of a school of Commerce, the formation of which was promoted largely by a committee of citizens, who not only placed the idea before the University authorities, but subscribed a substantial part of the finance for the establishment of a course.

It is also envisaged that, arising out of this course, a research division in Commerce be established, as a means of providing continual information for those directing the City's business in the years to come, and in training men for executive positions.

The Newcastle Chamber of Commerce, constituted in 1856, has played a prominent part in the development of Newcastle's commercial life.



Chichester Dam, a major source of water supply for the Newcastle and Coalfields area.



Electricity power station at Wangi, with Lake Macquarie in the background.



Prawning has developed into a profitable industry at Newcastle.



*Wheat Silos and
Terminal Station.*

Since its beginning it has watched over and promoted the interests of commerce and has co-operated when necessary with other public bodies in carrying out general services to the benefit of the community. The Chamber publishes a journal and issues reports containing data of value to the industrial and commercial community, and obtains up-to-date commercial references for the use of its members.

Among Newcastle's first trading transactions was the export of 154 tons of coal, sent to Calcutta in 1814, as payment for rum purchased from merchants of Bengal. For the year ended 30th June, 1956, 9,170,700 tons of coal were won, and this was paid for in cash.

The wool trade of Newcastle has developed to an extraordinary degree in recent times. In the 1920's there was a strong move to have wool from the north and north-western districts taken to Newcastle to avoid the hundred miles additional travel to Sydney. Many difficulties had to be overcome in achieving this, and wool sales were not established until 1928/29. The choice of Newcastle as a selling centre for the fine and superfine wools grown in the New England district became completely justified as the years went by. Today, when about 600,000 bales are grown in the area, more than 54 million lbs. of greasy and scoured wool is exported from Newcastle annually. All main

wool-selling brokers are represented in the Newcastle sales, which are held regularly, and in recent years a modern wool-selling centre has been opened to cope with the demands of the trade.

The nett tonnage of shipping using the Port of Newcastle in 1946/47 was 3,293,116 tons, whereas today it has grown to four million tons, represented by over 2,500 vessels per annum.

Using a similar yardstick, imports into Newcastle in 1946/47 were 1,695,081 tons, and exports 812,907 tons. The inward tonnage of cargo today totals more than 2½ million tons, and outward cargoes measure almost double that weight. The total tonnage handled by the Port is in the region of 7½ million per year.

The total quantity of coal produced in the northern districts each year is valued at £27½ million.

Items of export other than coal include frozen meats, about 1¼ million lbs.; timber, almost 5 million super feet; greasy wool, about 54 million lbs.; approximately 600,000 cwt. of iron and steel; and wheat exported exceeds £1½ million in value.

Newcastle also is growing in prominence as an importing centre, for the annual value of imports is between £11 million and £12 million — clear indication of the City's enterprise.

ELECTRICITY is so much a part of our daily life that we take its boon for granted. Our modern City is alive and throbbing with human endeavour. The pulse of this great activity is electricity, providing power and light for homes, offices, shops, factories and major industries. Without its help we could not hope to progress; our era is one of electronic marvels, easier and better ways of doing things, and Newcastle's vast network of power cables carries the life-blood of this busy metropolis. . . .

Let us look at the "power potential" of Newcastle and the near north.

The modern Lake Macquarie Power Station of 330,000 kilowatts capacity (together with projected stations) will more than meet the power needs of the future. In the City there is an up-to-date electricity undertaking under the control of the **SHORTLAND COUNTY COUNCIL**, with headquarters at Nesca House, in King Street. This County Council provides electricity supply throughout 3,515 square miles of

territory for domestic, commercial, industrial and agricultural use.

Electricity was first switched on in Newcastle on 1st January, 1891, and provided supply to 240 street lights initially with 105 horsepower generator capacity. Today it requires over 118,000 horsepower to supply the load of the system at the period of maximum demand.

At December, 1956, the total consumers supplied were 68,134, whilst the revenue for the year 1956 was £4,119,870 from 373,019,063 kilowatt hours.

The total route length of high-tension lines (33kV and 11kV) in service at the end of 1956 was 835 miles and the total number of poles in use 41,957. The number of substations, with transformers varying in capacity from 10,000 kVA to 5kVA, in service at the end of the same period was 614.

Electricity has contributed greatly in the development of the areas now supplied by the County

Nesca House, Administrative Headquarters of the Shortland County Council.

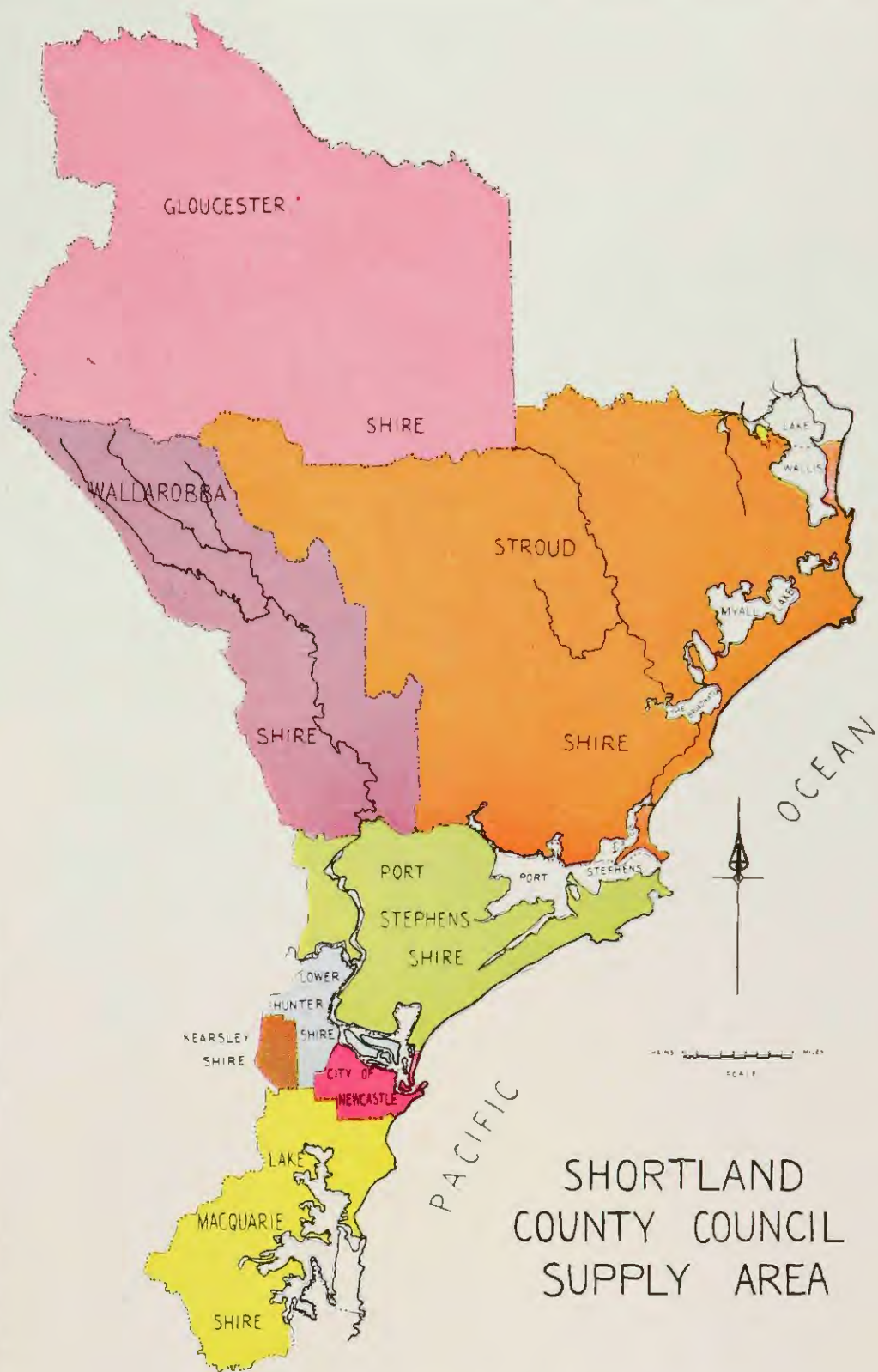


district, as evidenced in the growth of farms supplied. From a mere handful in 1937, it has grown to 1,462 today, in such localities as Wallarobba, Gloucester, Stroud, Port Stephens and Lower Hunter Shires, where primary industry predominates. The expansion and development of secondary industries has also been accelerated by adequate electric power. Throughout the entire County area, electricity is provided for all industries.

Side by side with the development of industry has been a rapid residential development, until today the County district covers a population of 257,000.

Shortland County Council can be justly proud of the part local government has played in the development of electricity for domestic use throughout its area, as evidenced by the fact that of the total of 68,134 consumers at December, 1956, 27,642 are using electric ranges in their homes. Since the Second World War, the growth of residential areas in Lake Macquarie and Port Stephens Shires has been most spectacular, for it is in these localities that a large number of the workers in industry reside.

Transformers, such as these at Broadmeadow, supply power for many of Newcastle's great industries.



The changing skyline of the commercial section of the City of Newcastle is indicative of the progress that has been made in this sphere. The many fine office buildings at present being erected, and those being planned, will bring increased demand on the electrical system of the Council for air-conditioning, heating and lighting which will be readily met.

Shortland County Council takes the long-range view of electricity supply. As industry develops and housing activity increases, so will the pulse quicken to extra needs. Those who invest in Australia's industrial capital will find the power of electricity close at hand.



Typical Merino Rams.



Reclassing wool at Newcastle.

FOR MORE THAN a quarter of a century Newcastle has been one of the world's wool-selling cities. Ideally situated at the gateway to the Hunter Valley, Newcastle provides a natural marketing and shipping centre for wool and other primary products from the vast and highly productive areas of northern New South Wales.

A key junction to all main northern rail links and highways, Newcastle is looked upon as a leading market for wools grown in the northern parts of the State, where upwards of 600,000 bales are produced annually. Much of this is grown in the New England District, where scientific development is being widely used to increase the carrying capacity of the country and to improve the general health and standard of the flocks. Aerial top-dressing, not so long ago a rare procedure, is in wide use, bringing about the extension of improved pastures and the conversion of mountainous and difficult country to productive grazing land.

The areas mentioned are famous for the very attractive Merino wools produced, ranging from superfine specialty types, sought after by the leading Continental and American manufacturers of luxury materials, to the bolder, deep stapled wools, so suit-



Shipping wool from Newcastle.

Below: Wool sales in progress at the Newcastle Wool Exchange.



able to the requirements of the United Kingdom, Japan and local mills.

This range of Merino types is a feature of Newcastle offerings which compares very favourably with selections available in other centres.

Wool sales, which are held at regular intervals throughout the year, attract representative operators from all overseas and local buying houses. This centre has also gained popularity amongst wool growers who visit the City at wool sale time to witness the auctioning of their clips and to keep in touch with trade requirements.

Modern wool stores have been erected by brokers operating in the centre, accent having been placed on the natural lighting of the show floors for the display of clips. Australia has long been at the forefront in the production and preparation of its wool clip, and the Wool Selling Organization is unsurpassed.

As is common throughout Australian wool selling centres, buyers make morning inspections of wool catalogued for sale, selecting lots to suit their particular requirements, and during the afternoon attend the auction sales at the Wool Exchange.

Newcastle is justly proud of the Wool Exchange, conveniently situated in the heart of the City. This building, controlled by local wool brokers, is the most modern in Australia, containing three sale rooms as well as numerous offices for the use of wool buyers, and providing facilities for the comfort and convenience of visiting wool growers.

The following wool brokers are established in Newcastle:—Australian Mercantile, Land & Finance Co. Ltd. (Inc. in England); Country Producers' Selling Co. Ltd.; Dalgety & Co. Ltd. (Inc. in England); The Farmers & Graziers Co-operative Grain Insurance & Agency Co. Ltd.; Goldsbrough Mort & Co. Ltd. (Inc. in Vic.); Nenco Limited, which is amalgamated with Elder, Smith & Co. Ltd.; New Zealand Loan & Mercantile Agency Co. Ltd. (Inc. in England); Pitt Son & Badgery Ltd.; Schute Bell Badgery Lumby Ltd.; Winchcombe Carson Ltd.

Visitors to Newcastle desiring to avail themselves of the opportunity of inspecting the Wool Exchange or Wool Brokers' Stores, will be made welcome, and should apply to the Secretary, Newcastle Wool Selling Brokers' Association, at the Wool Exchange, 149 King Street, Newcastle.

THE NEWCASTLE WATER BOARD controls an area which is rich in sources of water supply. Water for the population of Newcastle, Maitland and the adjoining coalfield and lakeside townships is at present obtained from Chichester Dam, distant some 50 miles from Newcastle, and from a unique source of supply known as the Tomago Sandbeds, situated within ten miles of the heart of the City of Newcastle.

The Board supplies approximately 11,000 million gallons of water annually to meet the needs of a population exceeding 300,000 people and the industries in which many are engaged. The Broken Hill Pty. Company Limited alone uses about 4½ million gallons of fresh water each day, equivalent to the requirements of a township of 50,000 people.



Above: Spraying Basins at Tomago where the Board has developed the largest ground water supply in the Commonwealth. Up to 25 million gallons of water per day can be obtained from the Sandbeds.

Left: A scene on portion of the storage lake at Chichester Dam.

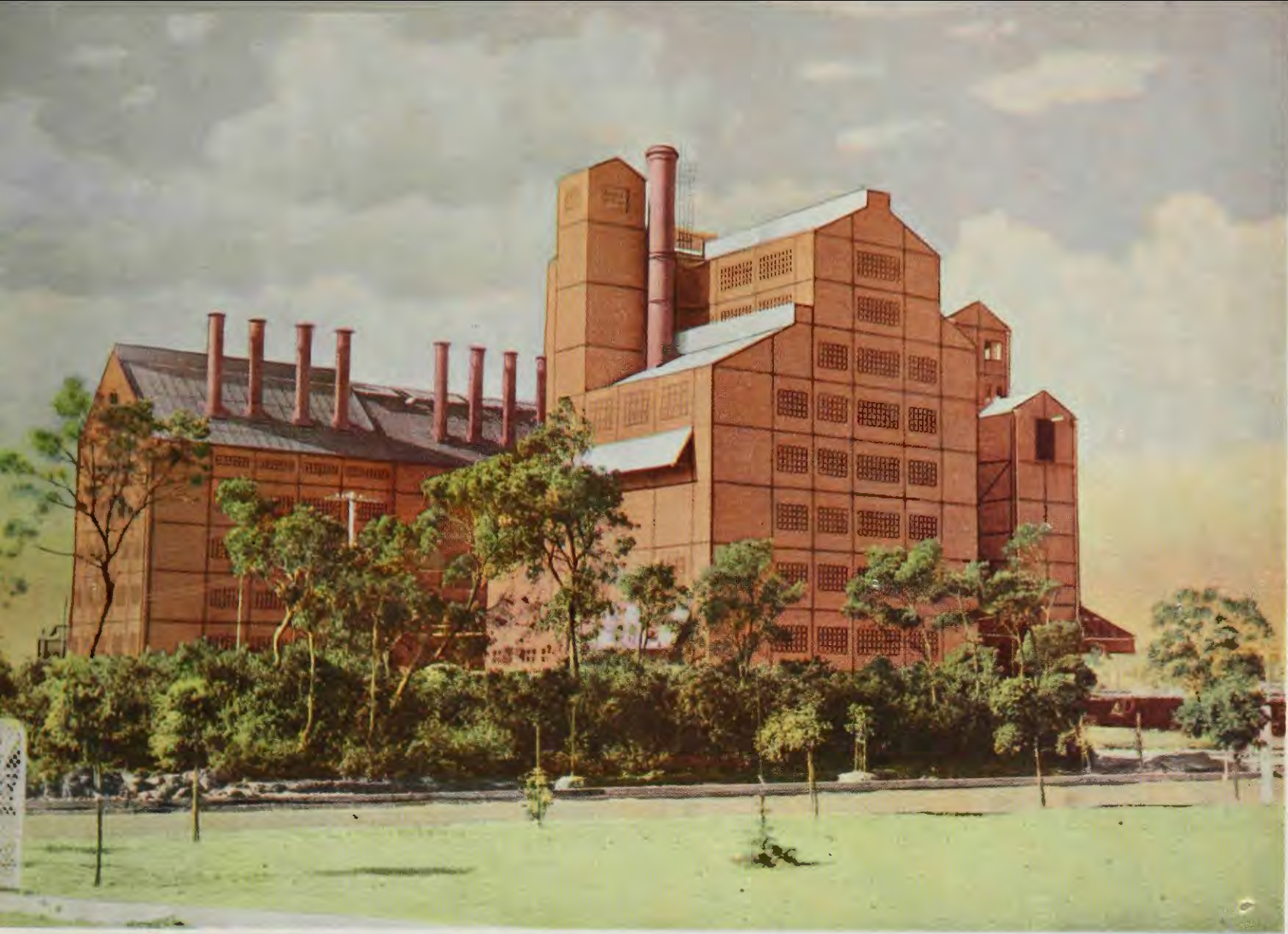
With a view to the future growth of population and industry, the Board is embarking on the development of a new major source of water supply at Grahamstown, adjacent to Raymond Terrace and Tomago, which is estimated to cost about £10,000,000. The Board proposes to divert water from the Williams River, near Seaham, to a reservoir capable of storing 40,000 million gallons of water, or eight times the capacity of Chichester Dam.

On completion of the scheme, the ability of the Board to supply water to Newcastle and district

will be doubled, and is estimated to provide for requirements to the end of the century. Work has commenced on the scheme, which will be developed in stages.

Most of the major towns in the Board's area are provided with sewerage services, which, of necessity, require water supply to enable them to function satisfactorily.

The Board has assets approximating £19,000,000, and is spending over £4,000,000 annually on administration, construction, renewals and maintenance work.



The works of the City of Newcastle Gas and Coke Co. Ltd.

THE FOUNDING of The City of Newcastle Gas and Coke Co. Ltd. goes back to 1st December, 1865, when several influential residents met to discuss plans to supply to the citizens of Newcastle, coal gas for use as a lighting agent.

The Company was incorporated on 28th December, 1866, and by 26th October in the following year, gas was being manufactured ready for reticulation for public consumption through the mains that had been laid in the meantime.

THE CITY OF NEWCASTLE GAS AND COKE CO. LTD. has expanded greatly since then, growing with the community and maintaining a peak of production to enable it always to have some reserve in hand. The Company has thus played a major part in the development of what is today Greater Newcastle and district.

Gas lighting has now gone, but in this day and age, gas and its main by-products coke and tar, play a more vital part in everyday living than ever before. From the basic functions of heating and cooking, to the great industrial uses of gas, the versatility and myriad applications of it are such that there is no section of the community that does not benefit.

Newcastle's modern gas and residual demands are supplied by the Clyde Street, Hamilton Works of The City of Newcastle Gas and Coke Co. Ltd. This plant, with holder stations in the City and at Wallsend, is the culmination of years of steady growth and technical "know how", and is one of the most modern of its kind. It produces a gas claimed to be the cheapest and most calorifically efficient (550 B.T.U.'s.) in the Commonwealth.

Since 1950, reticulation has been extended beyond Greater Newcastle to supply the Shire of Lake Macquarie, and the total length of mains in all areas served at present is well in excess of 350 miles.

In addition to supplying high grade gas and residuals, the Company gives a very real assistance to customers by constantly attending to their problems and considering new applications for gas on their individual merits. This policy is reflected in the Company's willingness to discuss special rates for the supply of gas and residuals where such concessions will materially help in the future development of Newcastle.



Above: H.M.S. Newcastle being bunkered during her visit to the City of Newcastle last year.

Left: Two road tankers under Newcastle installation's high-level shelter — the fastest vehicle-filling point in N.S.W. Four tankers can be filled simultaneously, at up to 600 gallons a minute.



AS NEWCASTLE serves Australia with sinews of steel, so **BP AUSTRALIA LIMITED** (formerly The Commonwealth Oil Refineries Ltd.) plays a vital role in the storage, distribution and marketing of the petroleum products which are the life-blood of so many of our nation's industries.

One signal example of the role being played by this expanding organisation is its recently completed £500,000 bulk storage installation at Newcastle, from which operates the port's only ships' oil-bunkering service.

BP Australia Limited, to whom this vast land of ours is a perpetual challenge to achieve greater things, salutes Newcastle, the City where so large a part of Australia's industrial greatness has been forged for posterity.



Aerial view of Abattoir buildings and portion of property.

NEWCASTLE CITY ABATTOIR, at the gateway of the rich Hunter Valley, commenced operations in June, 1916, as the result of much public agitation. The establishment of an Abattoir ensures that all stock are slaughtered by the most modern, humane methods and under the strictest hygienic conditions. Stock are inspected by certified meat inspectors, both by ante- and post-mortem inspection, which gives the consuming public the necessary protection and ensures that the community receives wholesome meat.

The 500 acres of Abattoir property is divided into a number of resting paddocks which are supplied with adequate town service water.

Newcastle Abattoir slaughters all types of stock for home consumption and export and has been able to keep abreast of modern development in abattoir practices. At the present time a long-range building and plant development scheme has been finalised, which ensures that the Abattoir will be able to handle the meat supplies both for the City and for the overseas markets — at least for the next 20 years.

The slaughtering capacity of the Abattoir is 2,000 large cattle, 10,500 sheep and lambs, 1,000 calves and 3,000 pigs weekly. Adequate chilling accommodation is available with 14 hanging beef chillers which will hold approximately 2,000 carcasses of beef; 9 mutton and pork chillers with a capacity to hold 10,000 carcasses; 7 hanging freezers and 3 cold stores. Four hundred tons of electrical compressor power is available to take care of the refrigeration of slaughterings.

The treatment of tallows, stock foods and animal fertilisers is done by the modern dry-rendering units, and for inferior types of animals, digestors are used. A modern machine has recently been installed for cutting and wrapping half and one pound packages of edible dripping and lard, which is sold within the area.

The Newcastle City Council owns saleyards which are on the Abattoir property, with a rail siding provided in which stock sales are held on Wednesday and Thursday of each week. The capacity of the yards is 1,000 cattle and vealers, 10,000 sheep and lambs, 2,000 small calves and 500 pigs.

Section of brick-paved reeler pens at Abattoir saleyards, Waratah, during auction sale.



Dressing section, beef slaughter hall.

A modern bacon factory curing 200 to 300 pigs weekly is conducted and bacon is sold under the well-known "Mildness" brand.

The Abattoir Department also conducts a large wholesale meat trading department which sells in the vicinity of 500 cattle, 1,200 sheep and lambs, 400 calves and 100 pigs weekly.

Stock buyers from this Department buy in the saleyards of the Hunter Valley and the north-west slopes and plains as well as on many large properties.



Winns' Hunter Street Building.

WHEN William and Isaac Winn opened their retail business in Newcastle, in 1878, little did they realise that it would become an important link in the history of the City of Newcastle, and that their one assistant would be the forerunner of 350 employees, 79 years later.

From a small shop, with a single frontage, the business founded by the Winn brothers has grown to a flourishing retail organisation and today **WINNS'** modern store occupies more than 100,000 sq. feet of floor space, with over 30 Departments.

In keeping with their progressive policy, many Departments have been modernised during recent years, and further improvements and alterations are planned for future expansion.

A modern glass-fronted building of three floors has replaced the back section of the store. Up-to-the-minute Electrical and Crockery Departments occupy the ground floor, spacious Soft Furnishing and Floor-covering Departments, the first floor.

On the second floor, the magnificent "Shortland Room" is situated, and is one of the finest reception rooms in the State.

Winns' King Street Building.



Shortland Reception Room.



BANKING — harmonious counterpoint of the industrial melody — dancing rhythm, played on the purse-strings of commerce, heard through the clangor of industry's brass and percussion!

From all manner of instruments comes the symphony of this City. The tune is played on steel, and coal, and shipping . . . but from the muted halls of banking echoes the contrapuntal theme . . .

Unique in the busy world of banking, and set deep in Newcastle's financial heart, is **THE COMMONWEALTH TRADING BANK**. Unique because it belongs to the people; unique, because as a quasi-governmental institution, it openly and successfully competes with private banking institutions; unique because its profits are returned to the people to reduce the National Debt, and to improve the Bank's services to the people.

In the Newcastle area, the Commonwealth Trading Bank serves the people through three City offices and twelve other branches in the suburbs. The rapidly growing strength and popularity of this Bank is emphasised by the opening of six new branches in the district in the last two years.

The C.T.B. is proud to be banker to Australia's largest industrial undertaking — B.H.P. (Broken Hill Pty. Co. Ltd.). It is proud, too, to be banker to thousands of "little people" — for, as it claims in its slogan, it has "The Will to Serve the Smallest and the Skill to Serve the Largest."

This is no mere bank of stone and marbled halls — in serving the people it is served by a staff of people — two hundred and fifteen Novocastrians with a common purpose. They play their part in the City's symphony, to the clack of typewriter and maraca-chatter of ledger-machine — all swept along in the movement of the overriding theme — Newcastle.

The Commonwealth Trading Bank's branches in the Newcastle area reflect the trends of twentieth century architecture. From top to bottom: Cardiff, Newcastle and Swansea branches and the interior of the newest City branch at Hunter and Scott Streets.

FOR many years **THE RURAL BANK** recognised the need to provide an "on-the-spot" banking service for Rural Bank customers who lived and worked in the City of Newcastle and its suburbs.

In 1951 a branch was opened at Civic Centre, on the corner of Hunter Street West and Merewether Street. Business at this branch increased to such an extent that the Bank found it necessary to obtain new and larger premises. An imposing ten-storey building is now being erected to cater, not only for increasing banking needs, but also to provide office space for letting, of which there is a shortage in the City.

The new Rural Bank building is on the site of the old Criterion Hotel, on the corner of Hunter and Bolton Streets. When complete, it will be the second building in Newcastle to reach the 100-foot height limit. It will include the most modern lighting and will be mechanically ventilated throughout. Extensive use of glass will provide occupants with the maximum of natural light.

The Rural Bank has always played a leading role in New South Wales in financing the building of homes. A great many families in and around Newcastle are paying their homes off through the Rural Bank. Recently the Bank's operations were extended to cover the sale of Housing Commission homes on easy terms and the financing of building societies. Much of the housing development in the Shortland, West Waratah and Lake Macquarie districts is being assisted by the Bank.

The Bank's Personal Loans Division proves a blessing to thousands of people needing money for medical, hospital or dental expenses, as well as for



The new Rural Bank building, on the corner of Hunter and Bolton Streets Newcastle.

such constructive purposes as the purchase of refrigerators and furniture and education. Since the Newcastle branch of the Bank opened, thousands of persons have been assisted in this way.

There is no limit to the way a bank enters into the community life of a district. Church, cultural and recreational bodies in Greater Newcastle have all received assistance from the "Rural".

In Newcastle, and in more than 100 other cities and towns in New South Wales, the "Rural" is truly Australian in character, providing a full, efficient and friendly trading bank service to all sections of the community, including industry, commerce, agriculture and home building. It is guaranteed by the State Government, and has, since its inception, operated at a profit.



OVER the past one hundred years **THE RAILWAYS** have been a dominant influence in distributing Newcastle's population and locating its industries. They have provided the necessary means to open up its adjacent rural areas, to develop its great coal resources, and to establish its heavy industries.

The first railway in Newcastle was opened on 30th March, 1857. It extended a distance of 16 miles 59½ chains to Victoria Street, which was then known as Maitland.

From this small beginning, the railways serving Newcastle have developed into a vast system that extends to the far northern and north-western parts of the State and into Queensland as far as South Brisbane. Newcastle's direct railway link with Sydney was effected on 1st May, 1889, when the first railway bridge over the Hawkesbury River was completed.

Today, Newcastle has air-conditioned passenger train services of the highest standard. The first of the State's modern trains were placed in service as Newcastle Expresses on 30th April and 23rd November, 1948. These comfortable trains provide ideal travelling conditions and frequent daily services between Newcastle and Sydney. In addition, the Newcastle area is served by the air-conditioned Northern Tablelands Expresses, which operate between Sydney and Armidale on the main northern line, and the air-conditioned North Coast Daylight Expresses, which operate between Sydney and Grafton on the North Coast line.

Also today Newcastle is served by an intricate freight-train system. It conveys millions of tons of coal annually from the collieries to the ports and other destinations, it handles large quantities of steel products for the heavy industries, and it maintains regular supplies of perishables and general goods essential to the welfare of the community. Newcastle's railway system has made possible its existing prosperity and provides further opportunities for future progress.



Top: An air-conditioned express, hauled by a diesel-electric locomotive.
 Centre: Newcastle Railway Station.
 Bottom: Portion of railway yards, Newcastle.







Looking towards the entrance to Port Stephens.



A surf club parade at Newcastle Beach.





NEWCASTLE is a city open to the ocean and the wide Pacific sky — and therein lies the key to much of its natural charm.

Sited by the sea, many Newcastle citizens are devoted to surfing and swimming.

When the old-timers built the breakwater which links the mainland to Nobbys Light, their object was to protect the harbour from ocean storms. A by-product of this work was Nobbys Beach, formed when the sea built its sand up against the causeway. This is now one of Newcastle's most popular resorts and like all its swimming and surfing fronts, it is adequately provided with dressing accommodation by the Newcastle City Council.



Sailing on Lake Macquarie.

A scenic drive links all the beaches to the south of the City, starting at Nobbys and skirting the cliff face on which stands Fort Scratchley. The Ocean Baths, on the drive beside Newcastle Beach, are the rendezvous for swimming associations in the area and here the regular school swimming carnivals are held. On sports days during the school week the baths are filled with schoolboys and schoolgirls, just as at weekends they are the mecca of adults and small children. It is here, and at Merewether Baths, that many of the citizens of Newcastle have been taught to swim in the regular "Learn to Swim" campaigns run by the Department of Education and by the swimming clubs.

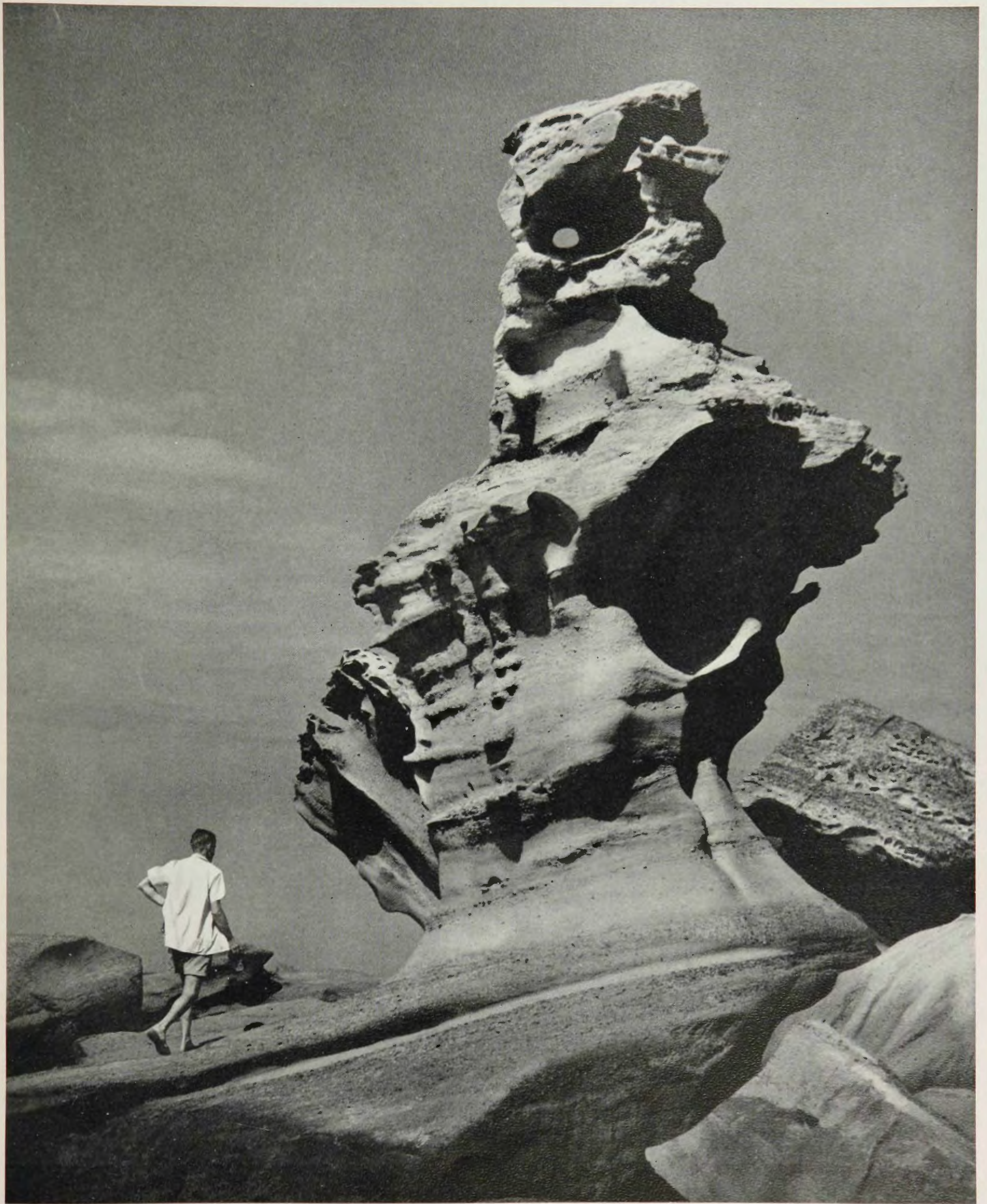
The drive along the ocean front proceeds south till it comes to Newcastle Beach, over which towers the Royal Newcastle Hospital, and here again a characteristic scene meets the eye. A hundred yards or so out from the beach, a group of swimmers can be observed bobbing in the water. They are waiting for a big wave to carry them to shore: the thrill of surfing, which is to many Newcastle citizens, the champagne of life. With them are the surf-skiers, who paddle their slick, shallow craft with ease and insouciance amidst the headlong seas. And, again, there may be a surf boat manned by members of one of the many surf lifesaving clubs, out for a practice row, waiting for a "boomer" which will shoot them towards the gleaming sands.

Newcastle's beaches are policed mainly by lifesavers employed by the City Council, men whose task it is to guard and save lives on the ocean shores. They are assisted by the surf lifesaving clubs, all amateurs, whose members on numberless occasions over the years, have brought back swimmers in difficulties to the safety of the shore.

Further south the hills rise again, the road turning away from the sea and winding through King Edward Park, ascending till it reaches the top of Shepherd's Hill. Then, below, there is a rock pool called the Bogey Hole, long a favourite spot for those bathers who like to withdraw from the beach throng and take their swimming and sunbaking in comfort and relative seclusion.

The Memorial Drive now skirts the inner part of the cliff and looks out over the City of Newcastle, providing a magnificent view of the City, harbour and the heavy industries section. At this point the Memorial Drive is part of the much favoured residential area of Bar Beach.

Bar Beach and Merewether Beach are almost entirely used by suburban families. At Bar Beach there is a natural enclosure providing safe bathing, while at Merewether Beach there are unenclosed Council Baths equipped with a fine dressing shed, picnic facilities and a promenade.



Weather-worn rock formation on Newcastle coast.

Port Stephens from the Signal Station.



Northward of the harbour, Stockton has a shark-proof swimming enclosure inside the harbour, and there is also the great, long, white bow of Stockton Beach — favoured as a camping area and caravan park — which stretches right up into the northern distances towards Port Stephens. Such long and lonely shores attract the beach fishermen.

The anglers of Newcastle vary from small boys who dangle a line over the wharves on Sunday afternoons, apparently indifferent whether they catch fish or not, to the men who like to spend their nights sitting and walking along the beaches north and south of the City from midnight to dawn, attracted there by some whisper that the fish are running. These fishermen, though amateurs, are equipped with every device and lure which experience or advertisement has convinced them will afford a better chance of catching the denizens of the deep.

Beyond the long stretch of Stockton Beach there is Port Stephens, lying 32 miles to the north of Newcastle. It can be reached by bus or car along an excellent highway which continues almost to the dramatic southern headland of the port — Tomaree.

The great harbour of Port Stephens is a holiday centre painted on a vast canvas, with an outer harbour

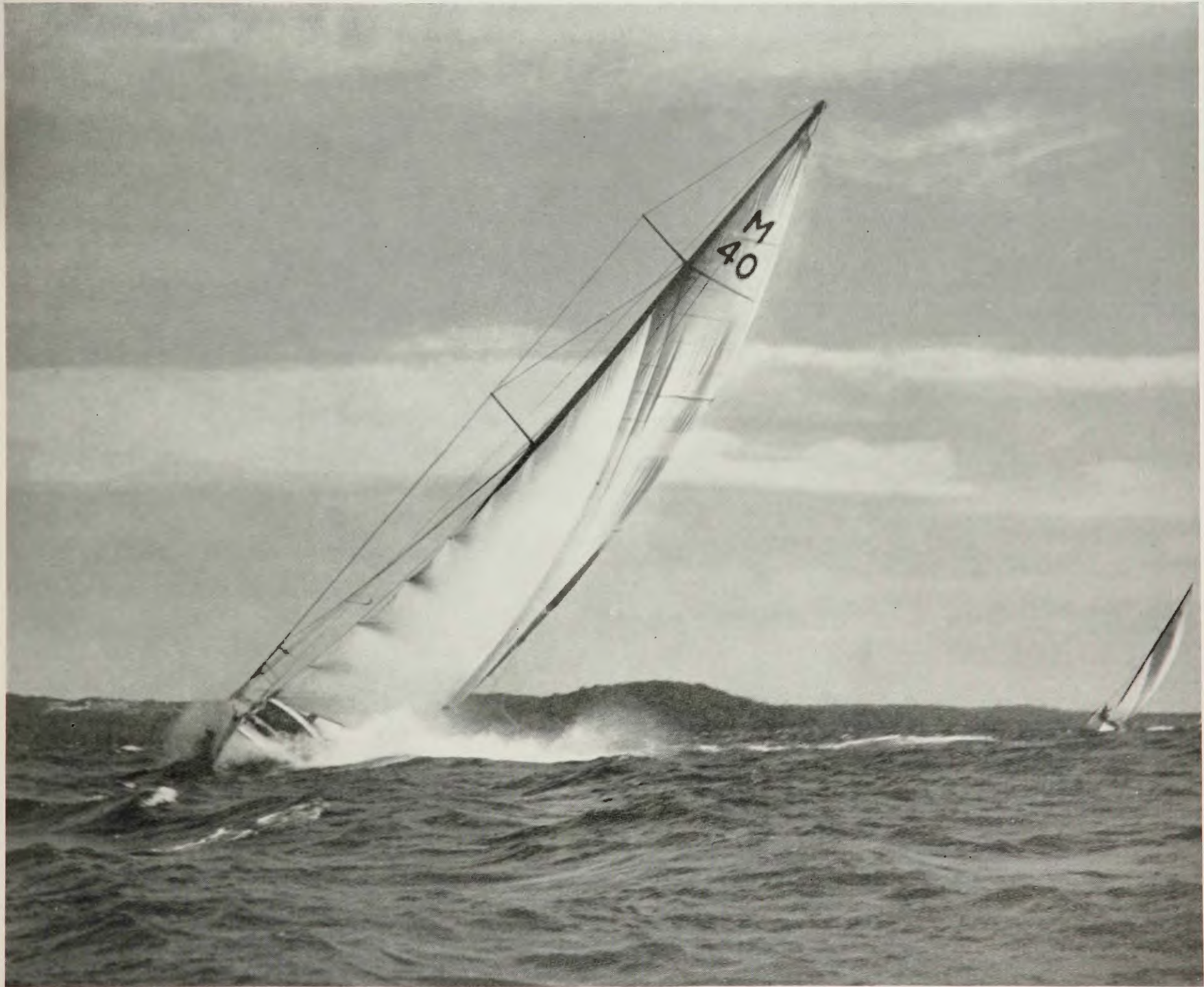


Getting ready for a regatta on Lake Macquarie.

dominated by two high mountains at the mouth. Somehow, the weather seems always to be sunny at Port Stephens, and the limpid waters, the blue skies, the olive-green of surrounding trees and the bright-tiled homes are an irresistible lure to swimmers, fishermen and holiday-makers in general. Nelson Bay is the main town of this district. It stands near the entrance to the inner harbour, an area of water quite as big as the outer harbour, and presents the same attractive picture of foliage-covered slopes falling down to little beaches. Both areas have had their wildness brought to heel by holiday homes, fishing centres, boatsheds and roads. There is a carefree, homely air in this great playground which joins Karuah at the top of the inner harbour. The most noted fishing spots in this part include Nelson Bay, Shoal Bay, Soldiers Point, Lemontree Passage, Salamander Bay, Karuah and Tea Gardens.

At Port Stephens one may indulge in that happy sort of fishing at which fish are always caught, fish from tiddlers for the toddlers, to shark and marlin for the deep sea anglers who venture out on the ocean. The whole of the coast from Port Stephens down to Lake Macquarie is a game fishing stretch, and annually game fishermen congregate there from Sydney and other parts of the coast to engage in annual competitions.

*Nobbys.
Newcastle.*



Thirty-five-foot Racing Sloops.



For the more placid fisherman there is a bountiful store of recreation to be found at Lake Macquarie, south of Newcastle and reached easily by bus. It is the largest lake in Australia, with 108 miles of foreshores, sheltered waterways, and many holiday resorts.

Coming from Sydney, glimpses of picturesque Lake Macquarie are seen from the road which runs out of the hills into Swansea, a quiet fishing and holiday town on the seaward entrance to the Lake. The view from Swansea reveals a great expanse of vivid blue water against the sandy shallows at the Lake entrance, becoming blue-grey as the water recedes into the distance towards the Wattagan Mountains. On any sunny weekend, the Lake waters are scattered with sailing and fishing craft. A typical scene from the shores of Belmont depicts white sails against the sky, fine weather clouds drifting over the southern boundaries of the Lake, sunlight scintillating on the rippling water and close-by, children, bronzed by the sun, playing happily and safely in the shallows.

On the southern shores of the Lake, Wangi is a colourful township, ideal for a quiet vacation, for walks in the bush, or swimming at the many beaches. At Toronto, the motor boats hold sport, sending out a powerful drone of sound to echo down the Lake, and tracing long lines of spray and foam on the placid water. Cottages stretch along the foreshores here, and add their colour to the holiday charm of Lake Macquarie.





Lake Macquarie in sunny weather is an inspiring sight. Belmont is the headquarters of the Lake Macquarie Yacht Club, whose graceful craft cruise around, while the smaller V-J dinghies and sailing skiffs skim across the water, seeming almost to equal in pace their graceful bigger sisters. At Toronto, on the western shore, the Lake Macquarie Motor Yacht Club provides thrills with speed boat racing.

With such an interest in sailing, the building of boats has long been an industry at Lake Macquarie. Some of the east coast's most successful yachts have been built there, whilst Swansea in particular is renowned for the building of surfboats.

Lake Macquarie is the natural playground of Newcastle, and at weekends the traffic emerging from the City and travelling the various roads leading to the Lake foreshores is considerable. Miners from the coalfields have long followed the custom of spending their Christmas holidays at the Lake, and at that season the foreshores blossom into thousands of tents, where coalfields workers and their families make their annual pilgrimage to this favourite spot of charm and quiet and sun.

Mark's Point and Blackalls are extremely popular at Christmas time, particularly with campers, but

there are many other sites on both sides of the Lake which also draw their quota of holiday seekers.

Four-and-a-half miles south of Swansea is Nord's Wharf, and on the seaward side there are many popular beaches, such as Fraser Park.

Behind the coastal plain of Lake Macquarie rear the Wattagan Mountains, a bushland eminence which has begun to interest tourists as a delightful holiday area. The Wattagan Mountains are not high as mountains go, but they are quite extensive, have the authentic tang of mountain air and mountain scenery, and, while readily accessible and easily traversed, are quite unspoiled. A day's trip through these mountains is recommended for those who want to get away from civilisation without the need to travel too far.

With Toronto as a starting point (for preference in Spring or Autumn) the motorist must proceed south some distance to Martinsville to gain the ascent to the Wattagan Mountain Range. This mountain scenery provides a delightful picnic-day and bushwalks are possible in the heights. Heaton's Lookout, on the seaward side of the range, surveys the whole of the coastal plain from Terrigal to Port Stephens and Hunter's Lookout, on the crest, displays a dramatic panorama of part of the Hunter Valley.



The Waratah Golf Club (residential) at Cockle Creek.





Coastline looking south from Newcastle.

All this beautiful country opens up a varied scene as the seasons progress — watercourses, tall trees and fairy glades and the wild life of the bushlands. On week days, the timber cutters may be seen at work. In this area, also, two famous tributaries of the Hunter River rise — Wallis Creek and the Cockfighter Creek (Wollombi Brook).

The return journey to Newcastle passes through Quorrobolong and Mulbring on the way to Toronto.

There are many other trips on the northern and western sides of Newcastle. Crossing Newcastle Harbour, the road leads through Williamstown to Port Stephens and this, too, is a delightful one-day trip of a nature different to that of the Wattagan country, but still through fairly level rain-forest land leading to the golden sands and blue waters of Port Stephens Harbour.

For those more adventurous, trips to the Barrington Tops area, to Chichester Dam, Gloucester and Dungog are easily accomplished in one day, while there is ever-varied interest in a tour of the farmlands of the Lower Hunter in the region of Raymond Terrace, Miller's Forest, Maitland and Morpeth.

Golf enthusiasts are catered for by the Newcastle Club at Stockton, just across the Hunter River, the Merewether Club at Merewether, the Waratah Residential Club at Cockle Creek, clubs at Raymond Terrace and Belmont, and the B.H.P. Club, set in beautiful bushland at Shortland.

Football is, of course, a long-established game in Newcastle and district. Rugby League, Rugby Union, Soccer and Australian Rules are the main codes to which Newcastle has contributed notable players.

Naturally, cricket is the great national sport, and many clubs compete, with keen rivalry, during the summer season.

In Newcastle, too, is the largest aero club in the world — the Royal Newcastle — training school for scores of pilots. The Club services an area of 120,000 square miles through affiliated clubs, and flies an average of 15,000 hours a year. The Club has 30 aircraft for the use of members, and its assets are valued at £65,000. The Club's aerodrome is at District Park, in the heart of the City.

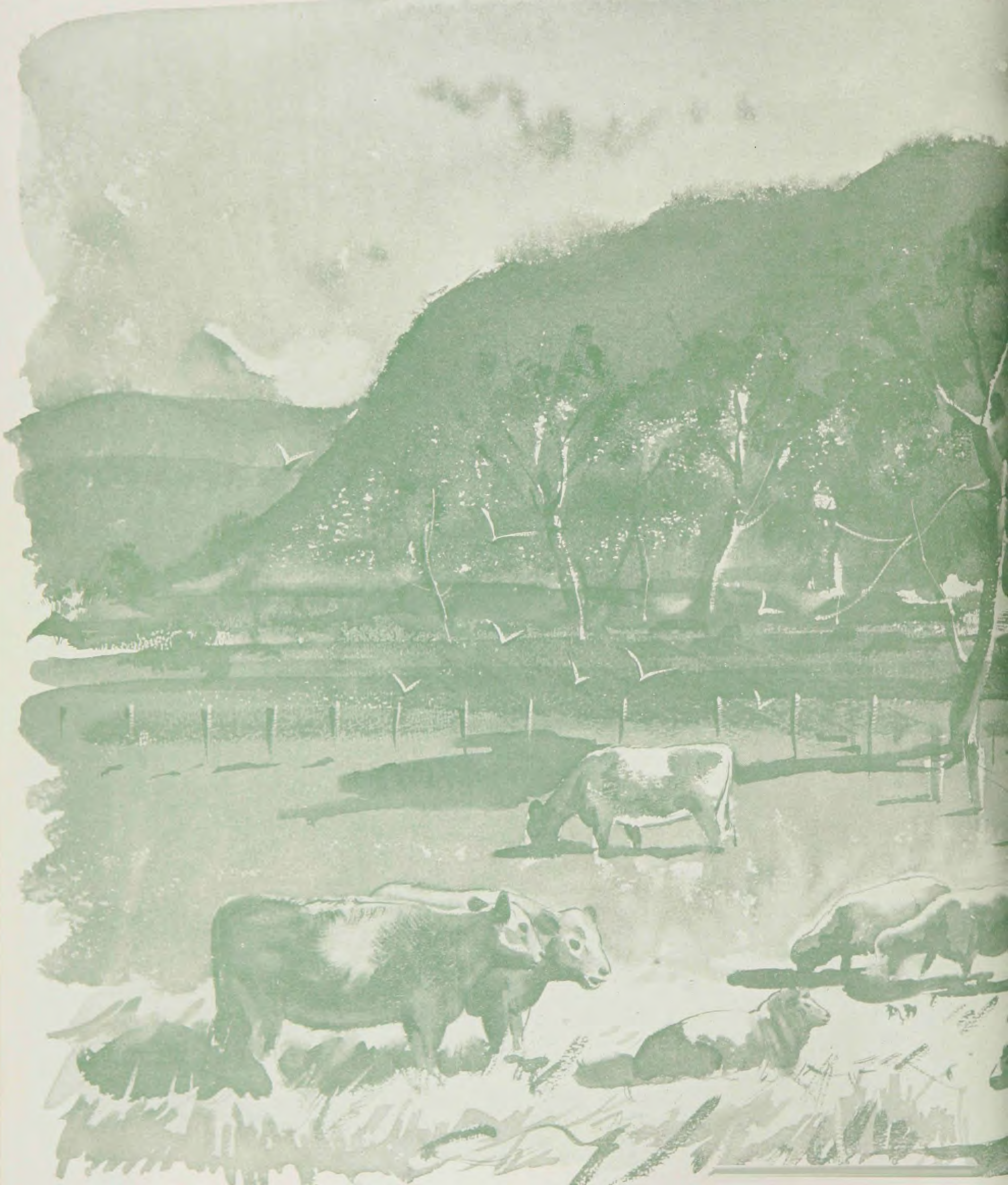
The Newcastle Jockey Club has its headquarters at the Broadmeadow Racecourse, and a modern track for greyhound racing adjoins it. Trotting events are held at Newcastle Showground, the headquarters of the Newcastle Agricultural, Horticultural and Industrial Association, on week nights, and the Newcastle Stadium provides a centre for boxing and wrestling.

At the Olympic Games, held in Melbourne in 1956, Newcastle was well represented. It provided no less than 16 men and women athletes and swimmers.

Famous in the history of Australian boxing is Les Darcy, who came from Maitland and to whom a memorial now stands in that city. Many other boxers, well-known in Australia, have first appeared in the ring at Newcastle Stadium.

All other types of popular sport suitable to the district are played at Newcastle, including hockey, baseball and basketball, sport for women and girls being particularly well catered for. The centre for most girls' sport is National Park. On Saturday and holiday afternoons, this wide, green area ringed by trees is made colourful by the uniforms of hundreds of players of hockey, basketball and other women's sports.

The marching girls originated at Stockton, and, in recent years, their gay uniforms have enlivened the scene at many a public function.







Vintage time in the Hunter Valley.





Dairy cattle on the rich pastures of the Williams River area.



THE HUNTER VALLEY is a natural basin, having the Great Dividing Range as its rim. It has a variety of natural resources, unique in Australia, and rare in the world. Its good grazing lands, prolific flats, and rich coal deposits have each played their part in the development of this self-contained agricultural-industrial unit.

Coal-winning developed the port of Newcastle, while cattle-grazing was the staple industry inland. The extension of the Coalfields brought increased population, and farming expanded its activities to meet the growing demand for food. The advent of the steel and subsidiary industries, and the effect of wars, speeded this process. Dairying is now the chief farming occupation, supported by a great variety of subsidiary enterprises.

The basin of the Hunter and its tributary, the Goulburn, forms an irregular ellipse about 140 miles by 100 at its greatest extent, and includes upwards of 8,000 square miles of good farming land.

Newcastle being the commercial outlet of the Hunter Valley, it is natural for the mind to move upstream when seeking to describe the geography of the area. But a better picture of the Valley is gained by

taking a swift journey down from the western rim of mountains. On the far side are Gulgong and Mudgee, and within the rim the Goulburn River rises, with a catchment of about 2,000 square miles. Towns of importance in the area are Merriwa and Denman, Denman being on the junction of the Goulburn and Hunter Rivers about half-way down the Valley.

In the Cassilis-Merriwa area the most important activity is sheep-raising and fattening, with an admixture of cattle, the latter predominating in the middle and higher reaches of the Goulburn Valley. The hills and ridges of the southern part of the mountain rim are generally unsettled and rugged. Nevertheless, there is some beautiful scenery in these parts and flocks of emus and other native fauna are frequently encountered.

A dramatic panorama of the Goulburn Valley begins to unfold from the road through Sandy Hollow. A single mountain, which dominates the entire Valley,

is Mount Dangar, rising to more than 2,000 feet. It is clothed in timber, and can be seen from Denman and Kerrabee and even from the hills behind Singleton. The finest vantage point in this area is Carr's Springs, which looks right across the Goulburn Valley.

Near the junction of the Goulburn and the Hunter Rivers is Muswellbrook, on the New England Highway towards the northern side of the Valley. From Muswellbrook the road winds on to Scone, Murrurundi, and thence through the Murrurundi Gap out of the Hunter Valley on to the Liverpool Plains. Cattle-fattening, sheep-raising and dairying are important in this area, which is to be protected from drought and floods by the Glenbawn Dam on the Hunter River, a few miles out from Scone.

Muswellbrook, a fine modern town looking out on an expansive view, is the centre of a large dairying district. In it is one of the principal factories of the



A racing thoroughbred stud farm.





Making Hunter Valley wines.



Vegetable culture on the river flats at Maitland.

Hunter Valley Co-operative Dairy Company, whose farm lands cover ten thousand square miles of Hunter Valley territory.

From Muswellbrook the Hunter River flows down towards Singleton, and before reaching that town it is joined by the Wollombi Brook (or Cockfighter Creek) coming from the Wattagan Mountains to the south. Here the flat lands are always a variegated pattern of fertile greens and yellows, an area from which the Singleton Dairy Company draws its milk supplies.

The river winds on till it passes the junction of Glendon Brook, and the waist of the Hunter Valley appears — that area where the ranges on one side from Cessnock and Wollombi, and on the other side from Barrington Tops, press in to make a narrow gap through which the Hunter River flows down to Maitland.

Thus the great basin of the Hunter Valley is almost completely enclosed by mountains, and it is only through the Glendon Brook-Maitland Gap that the river falls to the sea; consequently it is the point of enormous pressure when the waters rise in flood time.

Maitland lies on the flood plain of the Hunter River, a flat but extremely rich agricultural area. The Hunter River is joined at East Maitland by Wallis Creek, which also rises in the Wattagan Mountains, only a few miles from the spring of the Cockfighter Creek.

Now the river begins to meander through the flat lands, through Miller's Forest down to Raymond Terrace, where it is joined by the Williams River, the Paterson River having also joined the main stream below Maitland at Hinton. The river flows past Hexham from this point to the sea, the end of a meandering course of some three hundred miles.

At Hexham, beside the main road and opposite the bridge which takes traffic to Raymond Terrace, Gloucester and other parts north, stands the head office



Natural forest—north of Newcastle.



*Beef cattle fording
a river near Newcastle.*

of the Hunter Valley Co-operative Dairy Company Ltd. This great organisation, which began as a very small concern at Raymond Terrace little more than fifty years ago, now has an annual turnover exceeding £6 million. The Hunter Valley provides a substantial proportion of the milk supplied to two and a quarter million people of the State through the New South Wales Milk Board.

Other important representatives of the dairy industry in the area are the Singleton Dairy Company, which operates within the district immediately surrounding Singleton; the Gloucester Dairy Company, in the Gloucester Valley (geographically speaking, not in the Hunter Valley), and the Dungog Dairy Company on the Williams River.

The flood plains surrounding Maitland are known to be among the richest districts in Australia.

This area is given over to vegetable growing and the cultivation of lucerne and other fodders. The district is also an important dairy producer, and within its bounds are several of the State's prominent dairy herds.

Further upstream the principal rural activity is still dairy farming, particularly around the flats of the Hunter River and its tributary brooks and streams. In all the Hunter Valley, some of the richest dairy land can be seen on the flats at Singleton, where the Hunter River is a majestic stream, quite wide, and winding and meandering through the countryside like a great serpent of changing colours.

Singleton is not only an important dairy centre, but a prominent cattle centre, too, the drier lands away from the river being used for agistment and stock raising.

Some of the most rugged cattle country in Australia is found on the slopes and ridges of the Mount Royal Range, which rears dramatically near Singleton to a height of more than 5,000 feet.

However, the wealth of the Hunter Valley lies mainly on the flat land adjoining the river, and bearing in mind the importance of the dairying industry to the district, Hunter Valley progress can be seen in the increase in purebred herds. In 1930 there were about fifty, but by 1950 they had almost trebled their number. The latest methods of scientific farming are adopted in the Valley under the aegis of the great dairy companies, and irrigation, improved pastures, water harvesting, liming and general improvement of soils is widely practised by the progress-minded farmers.

A more recent feature of Hunter Valley dairy farming has been the improvement of herds by means of artificial insemination at the Hunter Valley Co-operative Dairy Company's cattle breeding centre at Aberdeen.

Rural Hunter Valley has seen great changes over more than one hundred years. The coming of machinery to displace the horse has been responsible for one of the greatest changes, and improved transport and roads have made possible an integration of rural activity not dreamed of fifty years ago.

Dairying, though a major industry, is by no means the only important way of life in the Hunter Valley. Cattle-fattening, cattle-raising, pig-raising, sheep-breeding and wool-growing are also primary aspects. In this regard, a successful enterprise by the Newcastle Council is that of the Newcastle Abattoir, one of the largest of such undertakings in New South Wales. The Abattoir is a link, not only with the Hunter Valley, but with the vast scene of Australian pastoral industry, for cattle come to this centre from the north-west of New South Wales, from Queensland and the Northern Territory and even from Central Australia. It is worth remarking that Newcastle, whose origins depended so much on the work of the Australian Agricultural Company, now frequently draws its supply of stock for the Abattoir from stations owned by that Company situated hundreds of miles away.

Another variety in production is the famous wine industry of Pokolbin, near Cessnock. Hunter Valley wines are renowned throughout Australia, and are well favoured on the dining tables of connoisseurs. The wine industry of the Hunter goes back as far as the 1820-30's, when the Superintendent of the Australian Agricultural Company produced wines at Stroud, on the north of the Hunter Valley.

In earlier days wheat growing was popular, but it went out of favour, when, following great floods in the last century, rust made the industry impracticable.

It might be noted here that the predominant geological feature south of the Hunter Valley is the sandstone ridge of the Wattagan Mountains and the Great Divide. To the north, also, there is vast limestone country in the Scone district, where some famous thoroughbred studs have been established, notably Segenhoe. These studs have produced many famous names in the racing history of Australia.

As far as primary production is concerned, coal is unquestionably the most significant single activity within the Hunter Valley.

The Northern Coalfields of New South Wales, for which Newcastle is the seaport, are among the richest in the world for gas coking and steam coal. Over £300 million worth of mineral has been produced, yet barely a tithe of the quantity available has been won. It was the immense coal deposits close to Newcastle that influenced The Broken Hill Proprietary Co. Ltd. to establish its steelworks on the foreshores of Newcastle Harbour.

Coal from the Northern Coalfields has earned a world-wide reputation as fine, bright bituminous coal, of first quality, for gas, steaming, household and coking purposes. It has been stated, authoritatively, that no better gas coal exists than that from the Greta measures, contained in two seams, and worked by mines in the vicinity of Cessnock and Maitland. In the production of coal in the Northern District, about 10,000 men are engaged in the 61 mines and three "open cuts" which are working. Normal coal production of the Northern District, Newcastle and neighbouring areas is about nine-and-a-quarter million tons a year.

The value of production of the Northern Coalfields is in the region of £30 million per annum. The estimated and probable reserves of coal in the Valley are calculated at more than 4,700 million tons.

Coal deposits occur in the middle of the Valley, notably at Muswellbrook, from open cut mines, but there are collieries at Maitland, Cessnock, Greta and the Newcastle coalfields to the south, upon which most of the basic prosperity of Newcastle and its industries is centred. The upper coal measures outcrop at Cessnock and Maitland, whilst the Greta or lower coal measures occur between Rothbury, Cessnock, Kurri Kurri and Maitland. The Maitland-Cessnock-Ellalong district is claimed to be by far the most important coal-mining district in the whole of Australia.

However, there are also many important coal mines in the vicinity of Newcastle, and of these should be mentioned the John Darling Company,

south of the City, which was the first B.H.P.-owned mine to produce coal; the Burwood Colliery at Whitebridge, seven miles from Newcastle; the Lambton Colliery, near Redhead, to the south of Newcastle (today a completely mechanised mine); Elrington Colliery, which is sited six miles from Cessnock, on the Maitland field; Newstan Colliery, near Toronto; and the State Coalmine at Awaba, which is to produce coal for the new Wangi power-station.

Another primary activity of interest is the working of oil shale in Reuben's Gully, Baerami Creek and Widdin Brook in the Goulburn River Valley, and also at Temi.

In the early days of the colony there was a considerable amount of gold won in the area of Copeland, now only a ghost town, near Gloucester.

Valuable limestone deposits occur near Muswellbrook and at Gloucester.

Forestry represents an important part of rural activity in the lower sections of the Hunter Valley, notably in the Wattagan Mountains, where extensive reafforestation has taken place, and also in the areas lining the road going northward on the Pacific Highway in the direction of Gloucester and Dungog.

The towns of the Hunter Valley are interesting, with great historical traditions behind them. Raymond Terrace, out from Newcastle about twenty miles, was formerly a quiet, peaceful, agricultural town, but has now become an important satellite with great industries established there. The population of this town has been swollen of recent years with factory workers, and also through the Australian migration programme.

Maitland, a City of great historical interest, was first visited by cedar-getters after the discovery of Port Hunter in 1797. It was surveyed in 1828.

Mechanised farming at Maitland.





A trawler returning with a record catch for the Newcastle fish markets.

Its principal thoroughfare, High Street, was originally a bullock track for the drivers bringing down timber and supplies from the country farther north. Now it is lined with attractive, modern shop-fronts and substantial commercial buildings. Maitland is an expanding City, in a rich, rural setting, and is the headquarters of the Catholic Diocese.

On the Hunter River just below Maitland, lies Morpeth, now quiet and peaceful in old age, the bustle of commerce passing it by. It was once not merely a busy town, but actually the port of the Hunter — Newcastle was a place of no account. It was called Green Hills in the early days, and began upon the closing of Newcastle as a penal establishment in 1822-23. The first grant of land at Morpeth was made to Lieutenant Close on the present site of the town. He had come to Newcastle as Deputy-Engineer on the breakwater work joining Nobbys to the mainland.

Morpeth is also the site of St. John's Theological College, which was originally Close's home, Morpeth House. There, too, can be seen the interesting Anglican church of St. James.

Up the Williams River is Clarence Town, the seventh oldest centre in New South Wales, which was once the scene of a busy shipbuilding industry and also a busy port, too. Today the place is a quiet bush town. It was discovered in 1801, and the township named after the Duke of Clarence. There is an interesting old church there, as well as many old relics of Clarence Town's earlier prosperity and business. Almost a hundred years ago it had its flourmills, sugar-mill, tobacco factory and also a tannery. Fancy leathers from this tannery won prizes at the Paris Exhibition.

Proceeding up the Hunter River, we come to Singleton, the centre of busy rural activities, busy in dairying, in cattle, in sheep, in buttermaking. The site of the town was discovered in 1820, when John Howe, who had started from Windsor with a party, explored the districts of the Hunter River, and

discovered Patrick's Plains — that is, Singleton — on St. Patrick's Day. The party followed the river down to where the City of Maitland now stands.

On their return home, a horse named Cockfighter, belonging to one of the men, got bogged in a creek. This is the famous Cockfighter Creek, or Wollombi Brook, which joins the Hunter River above Singleton.

The old-established town of Wollombi stands on the road which connected the Hunter Valley to Windsor. The Wollombi district is still an important dairy and cattle fattening area.

Further north, other towns such as Muswellbrook, Scone, Merriwa, Denman and Murrurundi present a pleasing picture of modernity and progress, reflecting the solid wealth of the Hunter Valley.

The rural community is united not only by geography, by the rivers and its economics, but also by the very nature of the life of the people. Local Government flourishes in these areas, and the municipalities and shires work together in the Hunter Valley Local Government Association, a body which is doing much to provide a forum through which unity of purpose and direction can be obtained.

The Hunter Valley Conservation Trust is an important semi-governmental institution, drawing representation not only from government departments, but also from the various sections of the community. It exists to promote the progress of the Valley, particularly in relation to protection from drought and from floods.

One of the organisations which emerged from high level discussions after the 1955 flood was the Hunter Valley Research Foundation, whose function was to compile scientific and economic data upon which plans for flood prevention and water conservation in the Valley might be built. This organisation is receiving wide community support and the fullest co-operation of eminent authorities such as the C.S.I.R.O.

IT'S BEEN a wonderful vintage in the Hunter River Valley this year, one of the best the wine-grower has known for a long time. A warm, golden summer, and the rich, deep soil of the river flats combined to make the grapes in the Dalwood and Penfold Vale vineyards the answer to a vintner's dream — firm, clean and heavy, with the clear, sugary juice that turns to wine.

Penfolds Hunter Valley vineyards, with their Riesling and Blanquette vines, produce the finest of white wines — Hock, Chablis, Graves and Sauterne — and the red Hermitage grapes produce the lovely Dalwood Hermitage Claret — wines of subtle taste and delicate bouquet — that have earned a world-wide reputation for Australia as a wine-growing country.

There is an excitement and urgency about the vintage that is not shared by any other harvest. The lush, warm grapes must be picked and crushed as swiftly, yet as gently as possible, to capture the fresh richness of their ripening.

It requires at least two to three years for **PENFOLDS TABLE WINES** to achieve their traditional standard of smooth perfection. Every bottle contains more than a century of traditional quality.



Above: In Dalwood Winery the big oak casks that mature the wine are more than 100 years old.

Right: These big barrels of freshly picked grapes go straight to the winery and are processed within a few hours to capture their sun-drenched flavour.



THE HUNTER VALLEY is one of the most important dairying districts in the Commonwealth. Its milk production supplies a large proportion of the requirements of the N.S.W. Milk Board, which distributes milk in Sydney, Newcastle, Wollongong and other large centres. It also contributes substantially to a steadily expanding overseas trade in canned and processed milk.

In the Maitland area where the Hunter River flows out of the Valley on to a rich plain, the soil is so fertile that farmers dispense with fences, which would hinder the full use of a considerable area of land. The country here is flat and the mountains which encircle the Hunter Valley draw close together into a bottleneck at this point. The scenery is typical of rich lowlands, a colourful chequer pattern of browns and greens.

The winding course of the Hunter upstream passes tidy farm lands with much irrigation being done on the river-side flats to maintain the highest levels of production in the driest seasons. The Glenbawn Dam, on the Hunter River near Scone, is also a vital water conservation measure.

Improved pastures have long been developed in the Hunter, while modern methods of dairy farming are widely practised.

The main dairy breeds in the Valley are Jersey, Ayrshire, Australian Illawarra Shorthorn, Guernsey and Friesian. Herd improvement is a standard practice which has been greatly assisted by **THE HUNTER VALLEY CO-OPERATIVE DAIRY COMPANY**, which established an artificial cattle breeding service throughout the Hunter Valley. Bulls of the highest quality are maintained by the Company and semen is distributed to farms by means of a deep-frozen technique developed by the Company in conjunction with scientists from Sydney University.

The Hunter Valley Co-operative Dairy Company Limited began as the Raymond Terrace Co-operative Dairy and Produce Company Limited, being formed by a band of farmers who decided to work together for the common good. The first half-year's income from this small enterprise in 1903 was £20,680. In the years following, the organisation developed, removed its head office and factory to Hexham, and progressed to such an extent that other dairy co-operatives

A scene of the Hunter Valley, showing typical rich river flats extensively used for dairying.



in the Hunter Valley joined with it to form the present Hunter Valley Co-operative Dairy Company Limited.

That this Company is one of the largest agricultural enterprises in Australia is indicated by the figures for 1956-57, which showed that sales totalled £5,810,950 and assets were valued at £1,190,544.

Today the Hunter Valley Co-operative Dairy Company is the focal point of dairying in the Hunter Valley, and in addition to its large factory at Hexham—the Head Office—operates a new and modern factory at Muswellbrook to cope with expected Upper Hunter development, a modern milk bottling plant at Morpeth, and subsidiary plants in other areas of the Valley.

For the year ended June, 1957, the Company's factories treated 26,397,018 gallons of milk and produced 7,492 tons of milk derivatives for the Australian and export markets. The development of overseas trade has resulted in Hunter Valley products being known in most of the markets of the world, in particular those now being explored in Asia. In general the Company supplies fluid milk to the N.S.W. Milk Board and produces 'Oak' Full Cream Powdered Milk (Spray Process), 'Oak' Skim Milk Powder (Spray Process), 'Oak' Dried and Liquid Ice Cream Mix, 'Oak' Bottled Milk (Plain and Flavoured), 'Oak' Bottled Cream, 'Oak' Butter, 'Oak' Cheese and 'Oak' Coffee and Milk.

Dairying today is a technology as well as an art, and the Company has encouraged progress in the industry by technical assistance to its suppliers which covers many aspects of dairying. A Company field officer helps farmers in the provision of technical information and general guidance, laboratories test soils for suppliers, and liming and weed spraying are carried out as typical additional services.

In the field of factory techniques, great strides have been made involving a large capital expenditure on new equipment such as the milk powder plant, milk handling plant and ancillary equipment both at the Head Office at Hexham and at the branch factories at Muswellbrook and Morpeth. A large fleet of trucks, working on a contract basis, manages the whole of the daily operations of milk collection. The Company's own trucks carry bulk milk from collection points to treatment points or from the factory to the distribution point. A number of large Company tankers, with capacities ranging from 1,500 gallons to 3,600 gallons, operate between distribution points in Newcastle and the Coalfields.

The quality of the Company's products is kept at peak grade by a daily operation reaching out over 10,000 square miles of territory which achieves, despite the distance involved, maximum cleanliness, maximum speed and maximum integration of effort.



Head office of the Hunter Valley Co-operative Dairy Company Ltd. at Hexham on the Hunter River.



RUFUS WARRIS





HERE, IN PICTURE AND STORY, is Industrial Newcastle, the centre of the greatest concentration of heavy and light industry in Australia.

Its steel plants, powerful and efficient, were the core of Australia's war effort in the dark and anxious years of 1939-1945 and are ever-expanding, hand in hand with diversified secondary industries, to consolidate the City's economic stability.

Newcastle — the term is used broadly — looks to the future with confidence. For Australia, it is a principal mainstay of production. The reasons for this are simple. There is a rich and virtually unlimited supply of coal; Newcastle is Australia's third shipping port; fresh water is plentiful; good quality steel can be made as cheaply as anywhere in the world; there is an adequate supply of electric power to meet all demands at very competitive rates; lines of communication and transportation are carefully planned for future requirements.

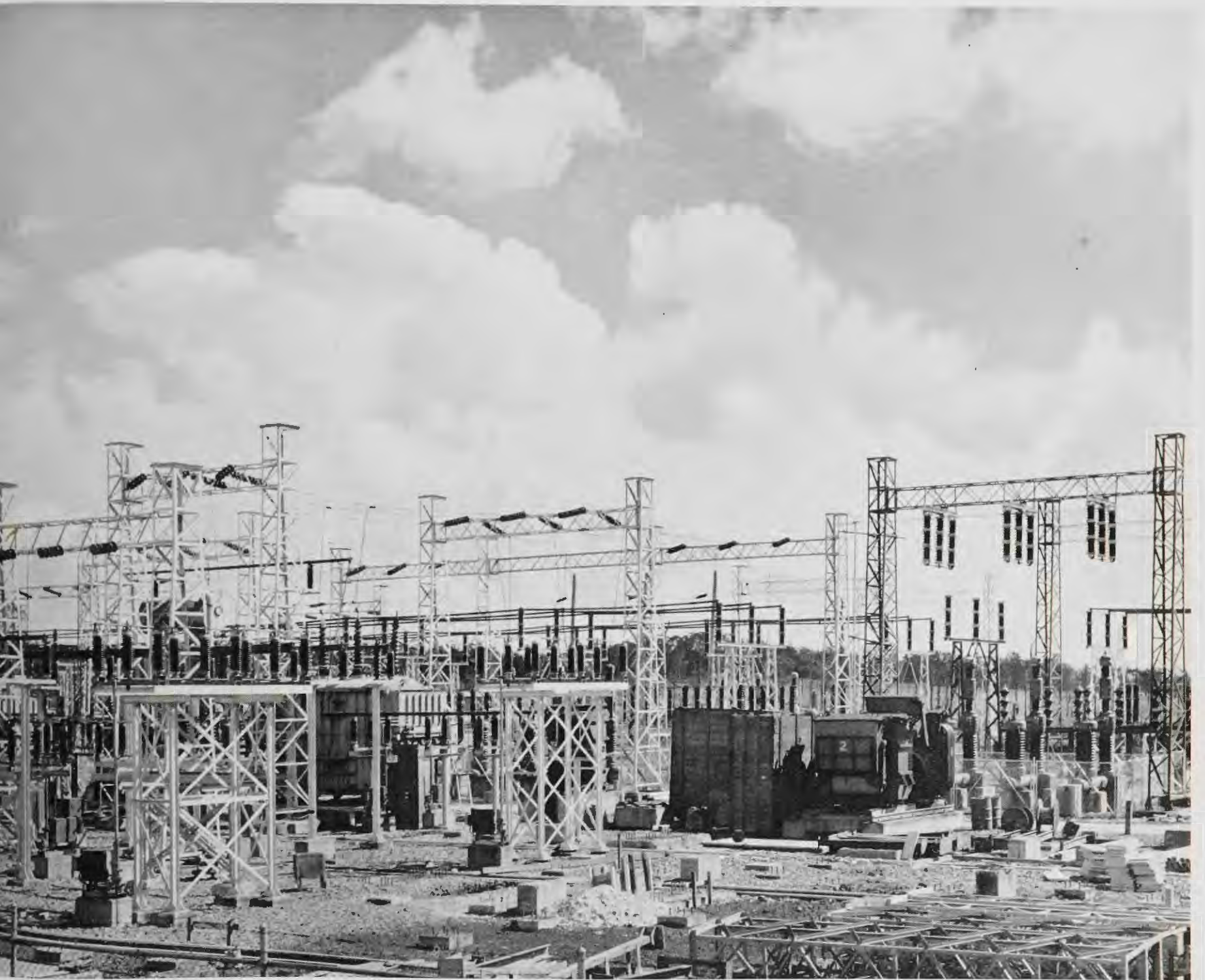
Then there is land — miles of it — available for all purposes, also carefully planned for future development.

The State Government is in the process of making available — by reclamation of the Hunter River Islands — sites for heavy industry, to form a continuation of the existing concentration of industrial activities. This reclamation scheme will provide almost ten square miles of land — more in area than that occupied at present by Newcastle's industrial might — and will be served by rail and wharfage facilities.

Burwood Colliery. Coal is essential to the vast manufacturing industry of Newcastle.



Electric power distributing centre for Newcastle and surrounding areas.





Miners about to descend for the day's work—Burwood Colliery.

Newcastle's industrial strength is primarily based on steel production, with its radiating manufactures of such products as stainless and special steels, structural steel for building purposes, galvanised iron, hardware, nails, screws, wire, wire netting, wire rope and steel pipes.

There is practically no manufactured product in Australia which does not utilise some component from Newcastle.

The area has factories producing almost all the electric light globes manufactured in Australia, all the rayon cord for Australia's car and truck tyres, cotton products, building boards, glass, chemicals, industrial gases, acetate and viscose thread, clothing, hosiery, softgoods, bedding, furniture, flour, foodstuffs; in fact, almost every conceivable variety of product.

In national decentralisation, where Great Britain and other countries seek new and productive bastions, Newcastle has a vital place.

Newcastle extends a greeting to the world, to those who are reaping a major benefit from the use of its products, and to those who are desirous of sharing in its great potential development and prosperity.



Coal-loading cranes, on the basin wharf at Carrington.



COURTAULDS (AUSTRALIA) LIMITED, which brought rayon manufacture to Australia in 1949, is part of a great organisation which is one of the world's leaders in the textile industry.

In 1816 Samuel Courtauld started his own business at Bocking in Essex and it was this small enterprise which marked the earliest beginnings of the present Company. Samuel Courtauld then formed a partnership and in 1891 the partnership was converted into a private Company. In 1904 it was converted into a public Company and in 1913 reorganisation under the present title of Courtaulds Limited took place, so that one hundred years after that modest beginning Courtaulds were world leaders in the development and production of rayon, the man-made fibre which now makes up 20% of the world's textiles. Today the Company has widespread interests in Canada, the United States, France, Germany, Spain, Italy, South Africa and Australia.

Courtaulds (Australia) Limited was formed to spin Australia's first viscose and acetate rayons at Tomago, on the northern banks of the Hunter River. The Tomago factory, which is 15 miles from New-

castle, has the distinction of being the only Courtaulds factory in the world to produce both viscose and acetate rayon under the one roof.

The 1,400 acre Tomago site was chosen after surveying possible factory locations in all the eastern States. The Newcastle area was preferred because of its vigorous and rapid industrial development and the facilities it offered for the processes concerned.

Today the Tomago plant covers 30 acres and employs more than 1,200 men and women. The Australian Company is not a subsidiary of Courtaulds, England, but it is associated with and receives every technical assistance from its English parent.

The Australian member of the family brings more than a century of textile knowledge to the Hunter Valley, and the Company's steady development is a national asset.

When Courtaulds (Australia) Limited decided to build a £7,000,000 factory at Tomago eight years ago, the then Federal Prime Minister, the late Mr. Chifley, asked them to concentrate on rayon tyre cord as it would "help Australia in peace and war". Today at least nine out of every ten vehicles in the Commonwealth run on tyres made of rayon cord.

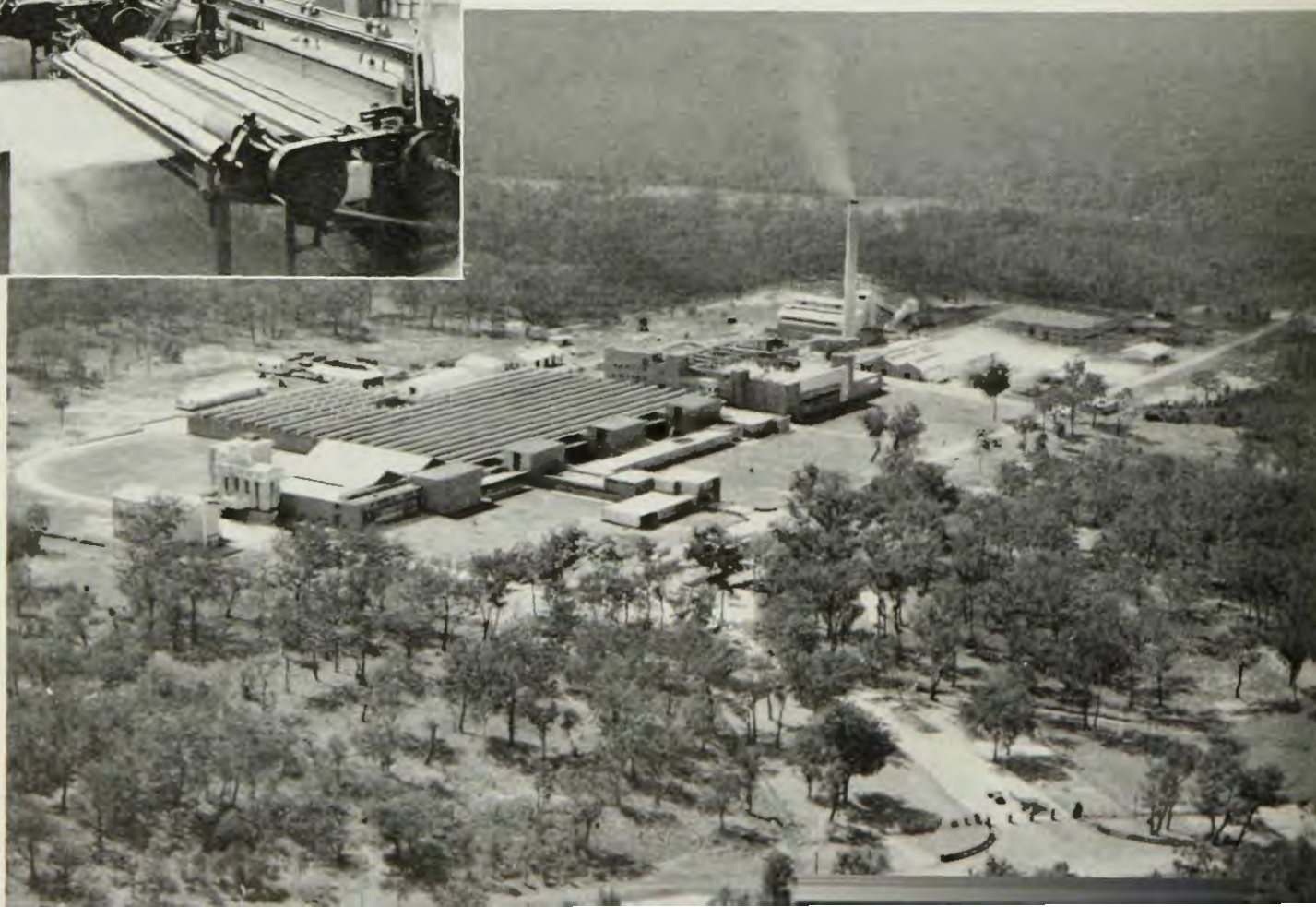
Acetate rayon production (which began at Tomago in 1953) is used in dress materials, underwear, outerwear, furnishing fabrics and many other textiles.

The decision to establish Australia's first rayon industry near Newcastle was based on the belief that this great industrial centre would continue to develop and expand. Courtaulds are already sure their decision was a wise one.



Above: Rayon tyre yarn being woven into fabric.

Right: An aerial view of Courtauld's factory at Tomago, N.S.W.





General view of the Sulphide Corporation's works at Cockle Creek.

SULPHIDE CORPORATION, a member of the Consolidated Zinc Group since 1949, began operations as a lead smelter in the 1890's, and was then the first major industrial plant in the Newcastle area. Operations soon extended to the production of sulphuric acid and, subsequently, superphosphate. Smelting operations ceased in 1922, and since then the Corporation's main activity has centred on the production of sulphuric acid, superphosphate and mixed fertilisers.

SULPHURIC ACID: Acid production capacity at Cockle Creek is close to 90,000 tons annually. Most of it (two thirds) is used in the manufacture of superphosphate and the rest goes to various industrial users.

FERTILISERS: Sulphide Corporation is one of two manufacturers of superphosphate fertilisers in New South Wales. Its current production capacity exceeds 180,000 tons annually. The bulk of Sulphide superphosphate is railed inland, where it is used in wheat growing and pasture improvement.

CURRENT EXPANSION: Sulphide Corporation recently announced plans for a £6,000,000 capital expansion programme. This involves the establishment of a new-type zinc smelting unit, designed and developed by the Imperial Smelting Corporation in the United Kingdom, which will have an output of 36,000 tons of zinc metal yearly. Sulphuric acid capacity of the Company will be doubled, and increased supplies will be available for sale to other industries.

Superphosphate production capacity will also be expanded to more than double the present output.

Sulphide Corporation at present employs about 400 persons, but this number is expected to reach 800 upon the completion of the expansion programme. This will mean added industrial strength for the Newcastle area and will, for the first time, provide Australia with zinc smelting facilities on the mainland close to major industrial consumers of the zinc metal.



Hot heat exchanger (left) and converter in the Acid plant.

Sulphuric acid road transport.



Electrostatic mist precipitations (outlet side) at Cockle Creek.



Above: The B.H.P. Newcastle Steel Works, looking north over the Hunter River. Left: Part of the conveyor system which feeds coke from the ovens to the blast furnace at B.H.P. Steel Works.

Lower left: A 10½" circumference slipway haulage rope, produced by Australian Wire Rope Works Pty. Ltd. Below: A 5,100-ton Schloemann Press at Commonwealth Steel Co. Ltd.'s works, forging a shaft.



Opposite page, left: Winding frames in one of the three galvanising plants at Rolands Bros. (Australia) Pty. Ltd., manufacturers of the world's biggest range of wires. Right: Tapping molten steel at B.H.P. Newcastle Steel Works.

ALTHOUGH great advances have been made by other industries in the area, Newcastle's stature as a premier industrial City rests firmly on its renowned Steel Works and associated industries.

The momentous decision by **THE BROKEN HILL PROPRIETARY CO. LTD.** to build a large-scale steel works on the swampy banks of the Hunter River initiated Newcastle's transformation from a coal port to a unique industrial region. And in a wider sense, the commencement of steel manufacture at Newcastle, in 1915, marked the beginning of Australia's transformation from a rural to a highly industrialised nation.

The decision to make steel followed the Company's discovery, while operating at Broken Hill as a leading silver-lead-zinc producer, of a large-scale iron-ore deposit in South Australia. Newcastle, with its adjacent high-grade coalfields and tidewater anchorage, was chosen as the ideal position for this major undertaking.

Despite teething problems and strong competition from imported steel, the Steel Works, thanks to a vigorous pursuit of efficiency, expanded steadily. On the eve of World War II, the Works' installed capacity was 1,000,000 ingot tons a year, and with a wide range of rolling mills and engineering shops it provided the nation with a sound foundation for defence.

Today capacity has been expanded to 1,200,000 tons a year, and productivity has been raised further by the steady replacement of plant with more efficient equipment. Rolling mill capacity is being expanded with the installation of a new skelp mill, which will also enable output of merchant bar to be raised.

The Works supplies an almost complete range of steel sections — merchant bars, rails, plates, and cold rolled strip. They are used throughout the Commonwealth by farm and factory alike. In addition, the Works is a major supplier of semi-finished steel sections, which are further processed by the associated and allied industries of Newcastle into various wire products, pipes and tubes of many sizes, cables and galvanised sheets.

The fact that the Steel Works has these adjacent complementary industries reflects the stimulation and assistance given by B.H.P. in the establishment of these steel-using industries.

Because of its isolation from the world's specialised suppliers, the Newcastle Steel Works undertakes a number of activities ancillary to iron and steel making. They include the manufacture of ferro alloys, iron and steel castings, the rolls used in the shaping of steel, tungsten carbide and basic refractories. In addition, of course, there is a large number of engineering and maintenance shops.

The Steel Works provides employment for 9,000 people, and their salaries and other payments total approximately £200,000 a week.

Of the subsidiary steel-using companies, the **COMMONWEALTH STEEL CO. LTD.** is the largest. It holds a unique position in Australia's industrial structure, being the largest manufacturer of special steels, including high-speed carbon and alloy tool steels. It is on tools made from these that almost every manufacturing process is reliant. Other products include alloy, heat-resisting and stainless steels. The Company also supplies most of Australia's railway and tramway wheels, tyres and axles. In addition, it is one of the leading forging companies: it has a wide range of forges including a massive 5,100-ton Schloemann press.

RYLANDS BROS. (AUSTRALIA) PTY. LTD. — another subsidiary company — manufactures wire and fencing products in a range as large as any wire manufacturer in the world. Plain and barbed wires, wire netting, fencing and steel posts, wires for conversion to nails, screws and bolts are turned out in a huge volume every week.

AUSTRALIAN WIRE ROPE WORKS PTY. LTD., another subsidiary, uses Rylands wire in the manufacture of ropes, meeting practically all of Australia's requirements. Output at present is over two million feet per month, and, in addition, some 960 miles of galvanised strands for electric transmission lines are produced each month.





ON A MAN-MADE PENINSULA, built on a foundation of ballast discharged from early sailing vessels, in the centre of Newcastle Harbour and within a stone's throw of the City, the State Dockyard, one of Newcastle's youngest and yet largest industries, was established in 1942. Together with its Ship Repair Establishment, which is located near-by at Carrington, **THE STATE DOCKYARD** is today recognised as one of Australia's most valuable ship-building and marine engineering assets.

Founded under emergency conditions by the New South Wales Government to undertake the urgent repair and construction of ships during wartime, the Dockyard has grown to the point of providing employment for nearly two thousand men.

By the cessation of hostilities in August, 1945, the Dockyard had completed one Twin-Screw Corvette, one Twin-Screw Frigate, and twenty-two 250-ton dead-

*Left: M.V. "Iranda" in Floating Dock.
Below: Aerial view of the Dockyard.*



weight-capacity Auxiliary Cargo Vessels, together with six sets of propelling engines for Naval vessels. At the same time, fully 600 vessels of varying types, up to 14,000 tons deadweight, had been docked and/or repaired, many of which had been heavily damaged by enemy action or in collision.

Peacetime production has resulted in the commissioning of eight 3,000-ton Cargo Vessels, two 3,000-ton Passenger/Cargo Vessels, one 7,000-ton Bulk Motor Collier, three Trailing Suction and one Side Suction Dredges, one Twin-Screw Grab Hopper Dredge, two Tugs, a Cutter Suction Dredge, a Rockbreaking Vessel and a Passenger Ferry, making a total of 45 vessels since commencement of construction of the Dockyard in January, 1942.

The equipment of the Ship Repair Establishment includes a 15,000-ton capacity Floating Dock, two Patent Slipways of 1,250 and 300 ton capacity, an 80-ton Floating Crane, and modern workshops, fitted to cater for the varying requirements of the shipping world. Since January, 1942, approximately 1,360 vessels, totalling about 5,561,000 tons have been docked and repaired and, in addition, fully 3,450 vessels, approximating 12,527,000 tons, have been repaired alongside wharves.

In the post-war years, the Dockyard has undertaken engineering work of an ever-increasing variety. Thermal power station equipment includes Condensing, Feed Heating and Evaporating Plant for four 30,000 kW and two 100,000 kW Turbo-Alternators for Tallawarra, four 30,000 kW sets for Wallerawang, and one Condensing Plant for Koolkhan Power Station. Hydro-electric power station equipment includes the manufacture of two large Spiral Casings for the Hume Power Station (Victoria), three Spiral Casings for Wayatinah Power Station in Tasmania, and a large Butterfly Valve and Draft Tube for Warragamba Power Station (N.S.W.).

In the structural engineering field, the Dockyard has built a 16-span bridge over the Hunter River and a 10-span bridge over the Clyde River.

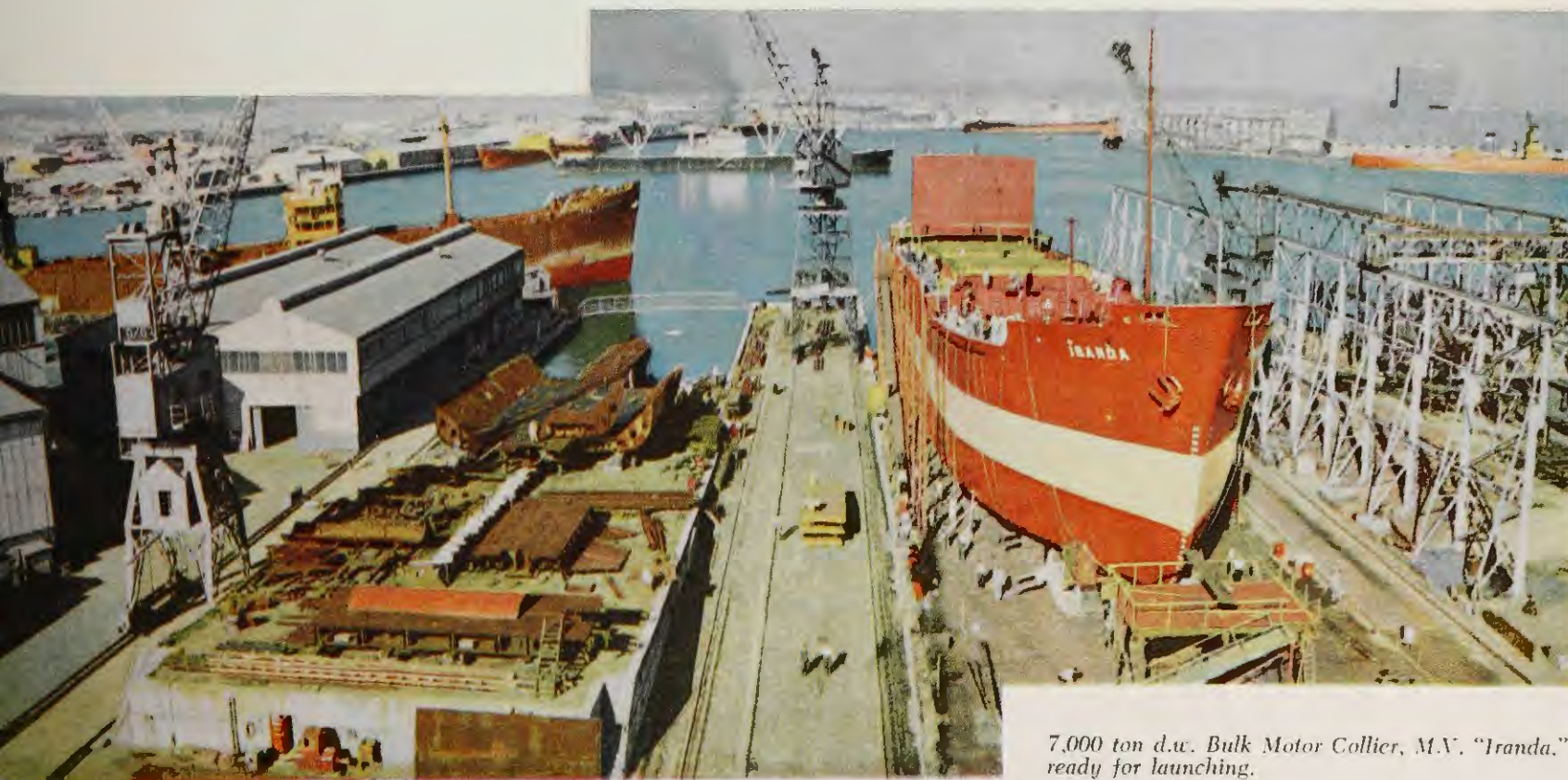
The Dockyard has been able to make a substantial contribution to the expansion of the Steel and other Heavy Industries over recent years, and has also been called upon to manufacture urgently needed Brickpresses for the State Brickworks, and steelwork, Mine Cars and other plant for the State Coal Mines.

A further development by the Dockyard has been in regard to the manufacture, under licence to the Swedish principals, of the "Australian Polar" Marine Diesel Engine.

The present order book of the Dockyard includes the construction of a Diesel Electric Grab Hopper Dredge, the second of two 7,000-ton Bulk Motor Colliers and a high-speed Vehicular/Passenger Ferry for the Bass Strait service. This interesting vessel, propelled by twin diesel engines developing a total of 9,340 h.p. to give a service speed of 18 knots, will ply between the ports of Melbourne and Devonport. It will have accommodation for 120 cars or a lesser number of transport vehicles, whilst overnight accommodation is provided for 400 passengers.

In the course of the fifteen years which have elapsed since commencement of construction, the turnover of the Dockyard has exceeded £22,000,000 in value, and during the past two years has averaged £3,000,000. All employees of the Dockyard benefit from a Profit-Sharing Dividend Scheme, introduced in 1951, since when a total of £591,000 has been distributed between them.

This firmly established and profitable undertaking, with its many ramifications, is indeed playing an important role in the mercantile, commercial and industrial life of Newcastle.



7,000 ton d.w. Bulk Motor Collier, M.V. "Iranda." ready for launching.



Main entrance to Administration Building and Canteen.

IN 1930 the world's largest manufacturers of incandescent lamps decided to pool their resources with a view to establishing production of lamps in Australia on an economical basis. Thus came into being **ELECTRIC LAMP MANUFACTURERS (AUSTRALIA) PTY. LTD.**, which today, in one of Australia's most highly specialised manufacturing plants, produces most of the electric lamps used in commerce, in industry and in homes throughout the Commonwealth.

The Second World War revealed how greatly Australia was dependent upon her industrial development. In those years many essential items of everyday life would have ceased to be available had it not been for the establishment between the two wars of many of our biggest industries. Not the least important of these was electric lamps, so vital in every home,

office, workshop, industry and public utility. Without adequate supplies of lamps there can be no doubt that the Australian war effort would have been seriously impaired.

The decision to make electric lamps in Australia was based on the following factors: One — there was a large market which could be supplied economically by establishing production in Australia; two — It was desirable to make Australia as far as possible self-supporting in essentials; three — to provide Australia with lamps of the highest standard; to supply to a discriminating public, lamps having great advantages over the inferior and so-called "cheap" electric lamps then available from certain foreign sources.

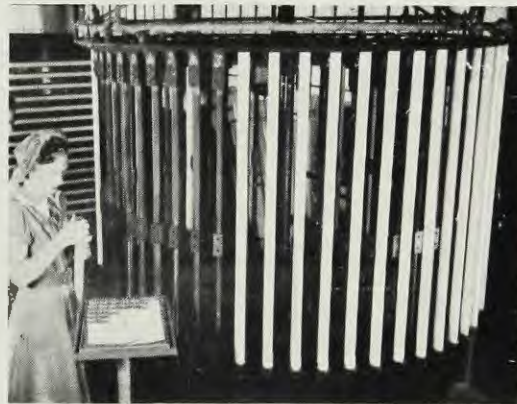


Incandescent Lamps.

With perfect precision and outstanding skill, this machine flattens the nickel ends of the two leading-in wires and forms them into a hook into which "vacuum fingers" place the filament. The machine closes the hook, cuts to the correct length the filament supports which are inserted in the hot glass stud, blows the filament against the supports with air, rolls the ends of the supports into eyelets around the filament, and produces the finished mounted foot.

The Newcastle Glass Works Pty. Ltd., a subsidiary of ELMA, established in 1940, now supplies all the glass parts necessary for the making of lamps. From the raw materials, all obtainable in Australia, silica-sand, soda ash, felspar, limestone, etc., glass is made for the blowing of bulbs and drawing of tubing and rods.

The plant is geared to produce the comparatively new and revolutionary mains voltage fluorescent lamps which, by reason of their unique properties, found their place in wartime industry, and are now steadily finding general use in industry, commerce and homes.



Fluorescent Lamps.



Glass Making.

So successful has been the enterprise that today the plants at Hamilton, N.S.W., are capable of supplying, with minor exceptions, the incandescent and fluorescent lamp requirements of Australian homes, municipalities, Government departments, railways, tramways, offices, theatres, churches, streets, parks and sports arenas.

This great lamp industry in Newcastle has brought very real benefits to the Australian people. Backed by the world's largest electrical research laboratories, ELMA has at its command every new

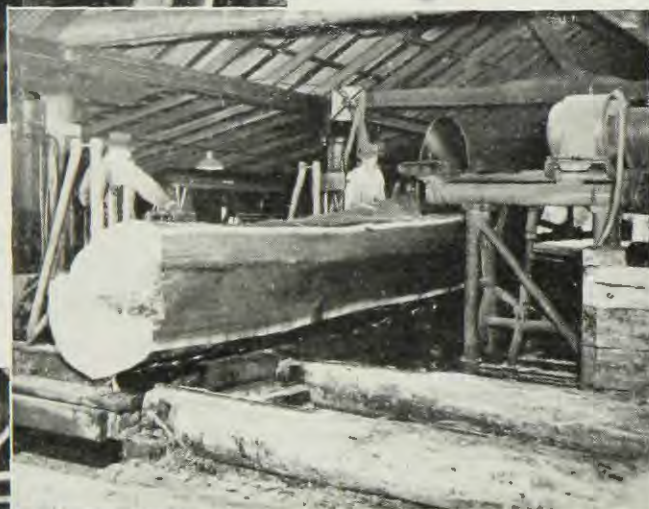
development in lamp-making technique; ELMA is an organisation which transfers the full benefits of mass production to the people in the form of a very high standard product at a minimum cost.

Finally, ELMA provides an industry which employs large numbers of Australians, who are well paid, and work under attractive conditions.



Left: Log delivery.

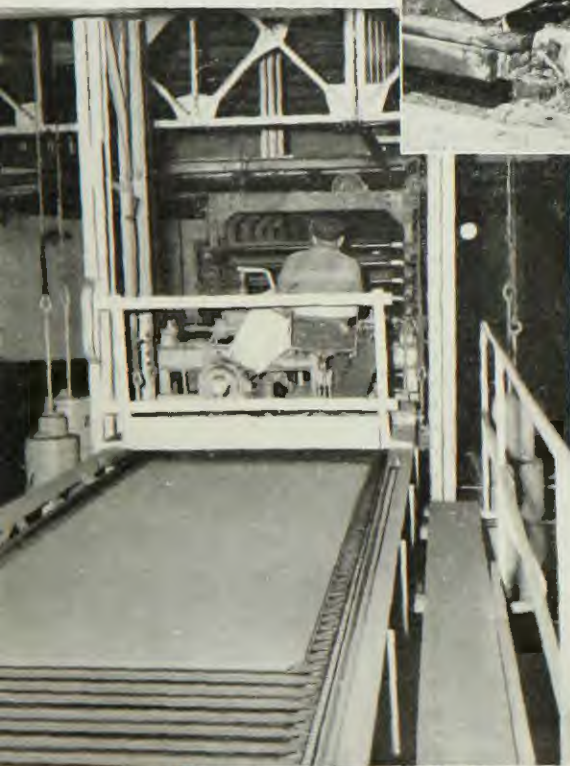
Below: Sawing logs.



SITUATED at Raymond Terrace, the factory of **THE MASONITE CORPORATION** is in the heart of thousands of acres of heavily timbered country — timber hitherto regarded as being commercially useless. On the site are practically inexhaustible supplies of subterranean water — and coal, a vital necessity, is in the immediate vicinity.

Today, some twenty years after the first sheets were produced in Australia, Masonite Presdwoods are finding their way into a myriad of manufactured products and into almost every factory and home in this country.

In the manufacture of Masonite, logs are conveyed to the chipping machine which in a matter of seconds reduces them to tiny chips. These are carried to the top of the building and showered into a great overhead storage bunker. From this the chips are fed into the "guns". This is really the most spectacular part of the Masonite process — the firing of the "gun". Steam is introduced into a charge of chips and the release of a valve expands the steam with terrific velocity, disintegrating the chips into a mass of separate wood fibres. These go through various processes, and take the form of a fibre mat or "wet lap". This is cut into lengths and placed into enormous hydraulic presses which exert a pressure totalling millions of pounds. The combined processes produce sheets of fully formed Masonite Hardboard. Upon the pressure used and on subsequent treatment depend the finished type of board, Standard Presdwood, Tempered Presdwood, Temprtile, Leatherboard, Primecote, Termite Treated Board and Concrete Formboard.



Left: Loading of racks . . . below left: Hydraulic presses . . . below: Grading of sheets . . . below right: Despatch.



THE FIRST TUBE was produced at the Mayfield Works of **STEWARTS AND LLOYDS (AUSTRALIA) PTY. LIMITED**, 23 years ago. Prior to that time, the forerunner of the present company marketed the products of Stewarts and Lloyds Limited of Great Britain — a company associated with steel pipe manufacture for fully 100 years.

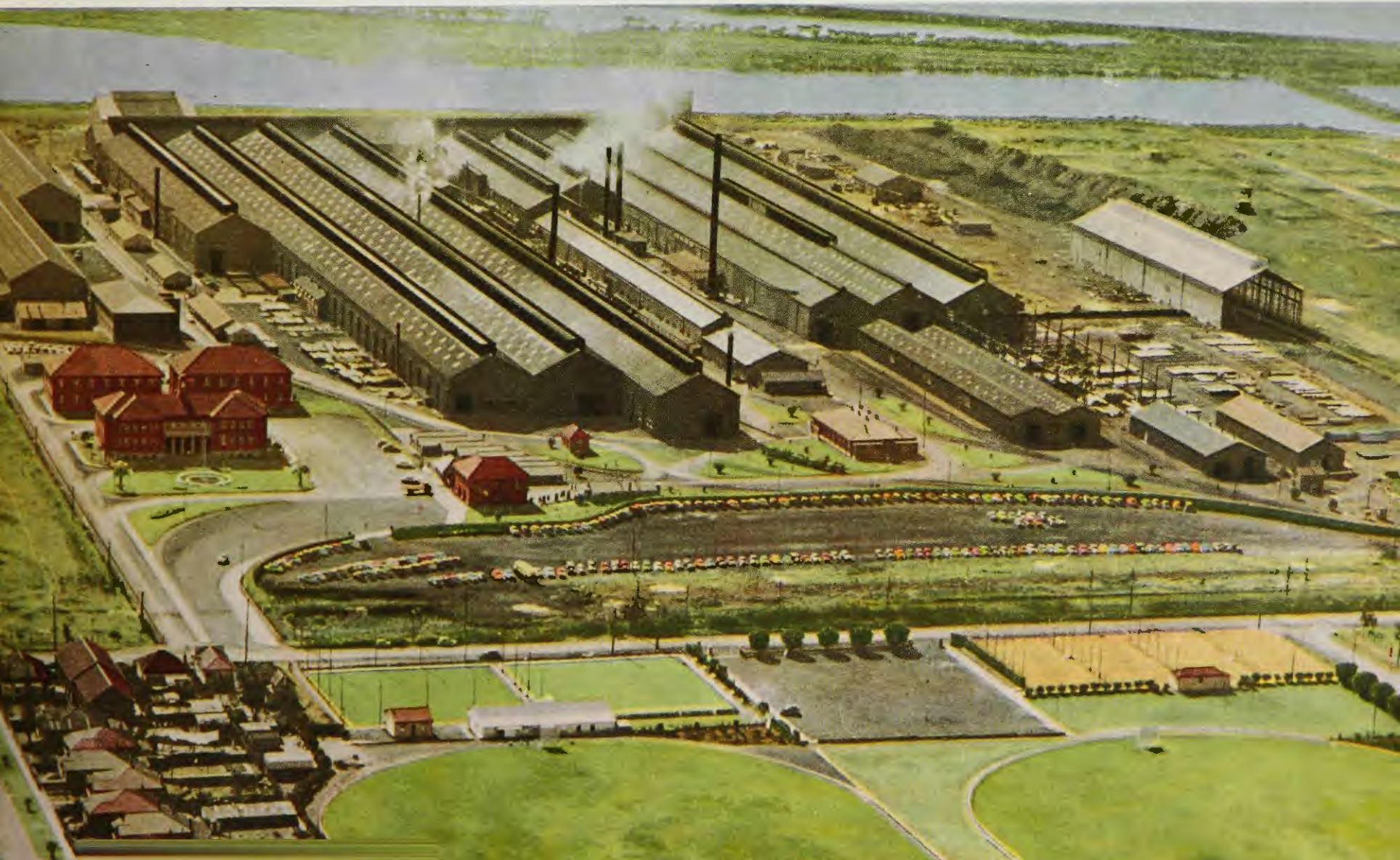
Steel pipes are manufactured by the Australian company, using the continuous weld process, where steel strip is raised to welding temperature, then passed through a series of rolls which shape it to circular form, forcing the edges together and so producing a strong, continuous weld. The welded pipe is cut to length and mechanically transported through the various finishing operations such as galvanising, hydrostatic testing, screwing, etc. In 1949, increasing demands made it necessary to install a second mill, which more than doubled the capacity of the plant for the production of continuous-weld pipe.

In 1939, a mill for the production of seamless steel pipe was installed, and a second plant for making

small size seamless tubing commenced production at Adelaide in 1945. These mills, which employ the push-bench process, supply tubing up to 8" bore for general use and for steam mains, boilers, artesian bore casing, oil line piping and for the production of cold-drawn steel tubing. The roof trusses which span the Olympic Pool at Melbourne were fabricated from 8" high-tensile seamless steel tube, manufactured at the Newcastle works. Steel and malleable cast-iron pipe fittings are manufactured, including special fittings where uniform wall thickness is maintained despite bending. These butt-weld fittings are now extensively used in power-houses and similar high-temperature, high-pressure applications.

Stewarts and Lloyds (Australia) Pty. Limited have also specialised in pipe fabrication, covering all types of bending and manipulation. Fabrication shops are maintained in the various States of the Commonwealth, and the latest radiographic inspection equipment for the examination of welds is available for both shop and site operations.

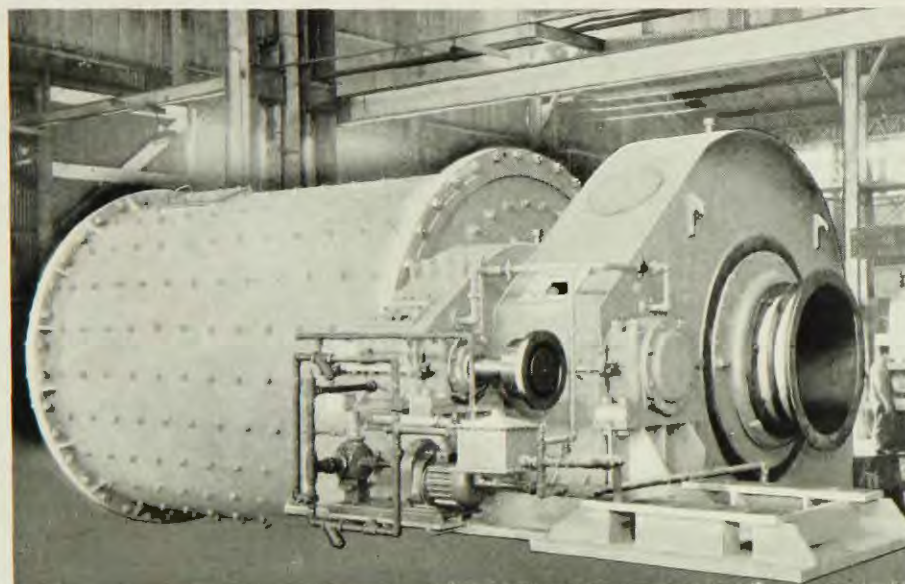
A general view of the Mayfield Works of Stewarts and Lloyds (Australia) Pty. Limited.



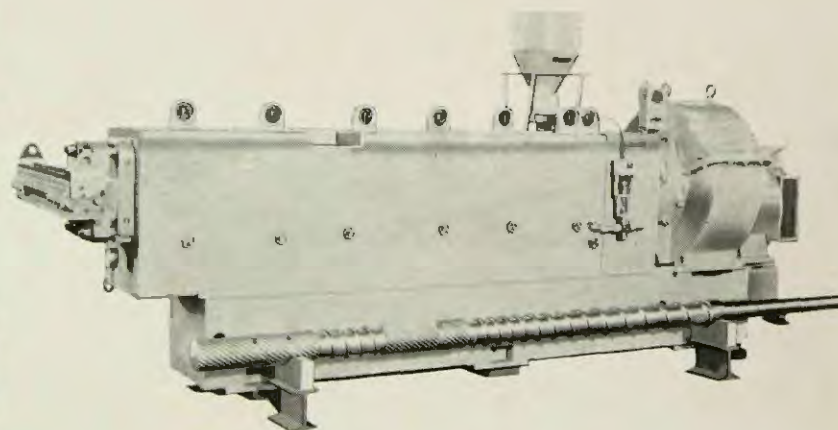
A. GONINAN & CO. LIMITED has grown to the great industrial enterprise it is today since it was formed in 1905 to take over an established iron foundry and structural engineering concern. Now, as well as structural activities, it manufactures railway rolling stock, skips, mining machinery, boilers, drop-forgings, iron and brass castings and gear-cutting of all types.



(Above) A 60 ton Hot Metal Car.



(Above) N.R.M. Model 55 Thermoplastic Extruder.



(Above left) A 12 ft. dia. x 10 ft. 6 in. long Ball Mill.

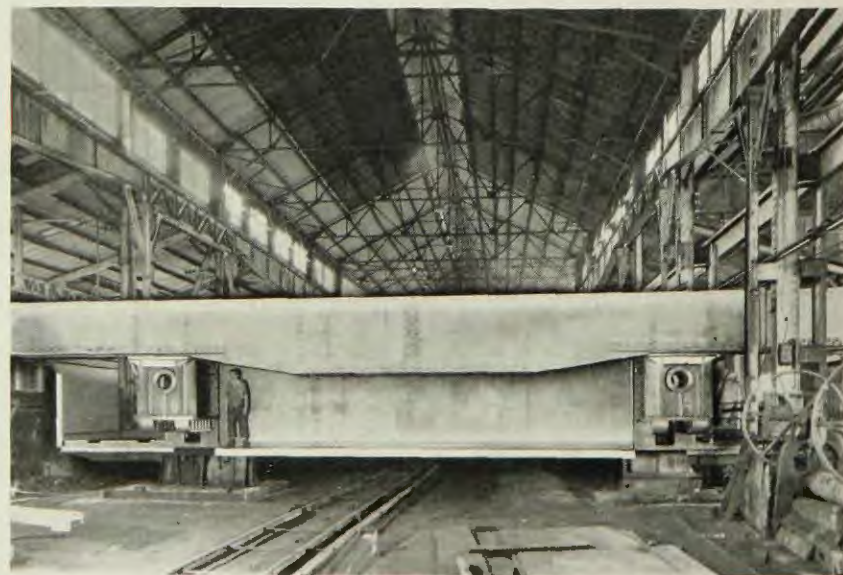
(Below) A section of a 110 ton Overhead Travelling Crane.

Through the years the Company has formed very close connections with many world-renowned overseas organisations and is currently manufacturing under licence a diversity of essential equipment, including Steam Generating and Ancillary Plant, Chilled Iron Rolls, Battery Locomotives, Hydraulic Machinery and Presses, Plastic and Rubber Machinery, Stokers and Ancillary Firing Equipment for boiler installations.

Over the last few years additions and extensions have increased plant facilities to such a degree that some of the largest constructional work and castings ever made in Australia have been recently produced entirely within their works.

Centrally situated at Broadmeadow, Newcastle, close to the great northern coal mining areas, steel mills and shipbuilding yards, Goninan's, with their traditional association, has shared in the growth and development of these important industries.

This fact, together with their service record and experience with practically every Secondary Industry, puts them in the unique position of not only having played a vital part in Newcastle's industrial progress, but having made a vigorous contribution to the prosperity and high standard of living now being enjoyed in Australia.





Graphite Products.



A Group of Refractory Shapes.

NEWBOLD GENERAL REFRACTORIES LTD.,

now Australia's largest producer of refractory products, was founded originally at the then steel-making centre of Lithgow in 1908 as Newbold Bros., and transferred its activities to Mayfield in 1918.

The Mayfield works—the largest of four separate refractory plants operated by Newbold — occupies an area of 18 acres and operates twenty-six intermittent rectangular draught kilns producing at the rate of 65,000 tons per annum, the equivalent of an output of 18 million 9-inch standard size refractory bricks per year.

Quite apart from volume production, Newbold manufactures the largest range of refractories, whether viewed from the standpoint of variety of materials used or types of refractory products made from these materials.

These products include Fireclay Refractories, High Alumina Fireclay, Kyanite, Silica, Chrome, Magnesia, Chrome-magnesia, Nozzles, Sleeves, Refractory Cements and Mortars, Graphite Products and Mouldable and Castable Refractories.

In addition to manufacturing plants at Thirroul, Port Kembla and Wollongong, the Company owns and operates some twelve mines and quarries throughout New South Wales.

Fireclays, quartzites, magnesite, sillimanite and chrome are obtained from deposits in New South Wales and Queensland, other raw materials being drawn from England, India, the Philippines, U.S.A., South Africa and Madagascar.

A "key" industry, Newbold's operations are vital to the Steel, Gas, Electric Power, Cement and Metals Refining industries in Australia, and overseas, in New Zealand, the Pacific and the Far East, industry is looking more and more to Newbold for refractories.

An aerial view of the Newbold General Refractories' Works at Mayfield.





Sunset over the City of Newcastle.

Our Symphony on a City has now unfolded — in five impressive movements. From the first few notes of the quiet Prelude of the early days, the scintillating melody of life in the City is followed by the brisk Scherzo of commerce and the steady activity of shipping. Then the fourth movement, the peaceful and beautiful Intermezzo of the golden, ocean-lined beaches, the azure lakes and the greens and browns of mountain and bushland. The Hunter Valley is a glorious setting for a Pastorale and the whole great work reaches its finale in Moto Perpetuo — the never-ending movement of the wheels of a vast industry. Some day a Coda may be written, when Australia has become a mighty and puissant nation and the importance of Newcastle is measured, not in terms of comparison with the cities of Australia, but in relationship to the Ruhrs, the Pittsburgs and the Liverpools of the western world.

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