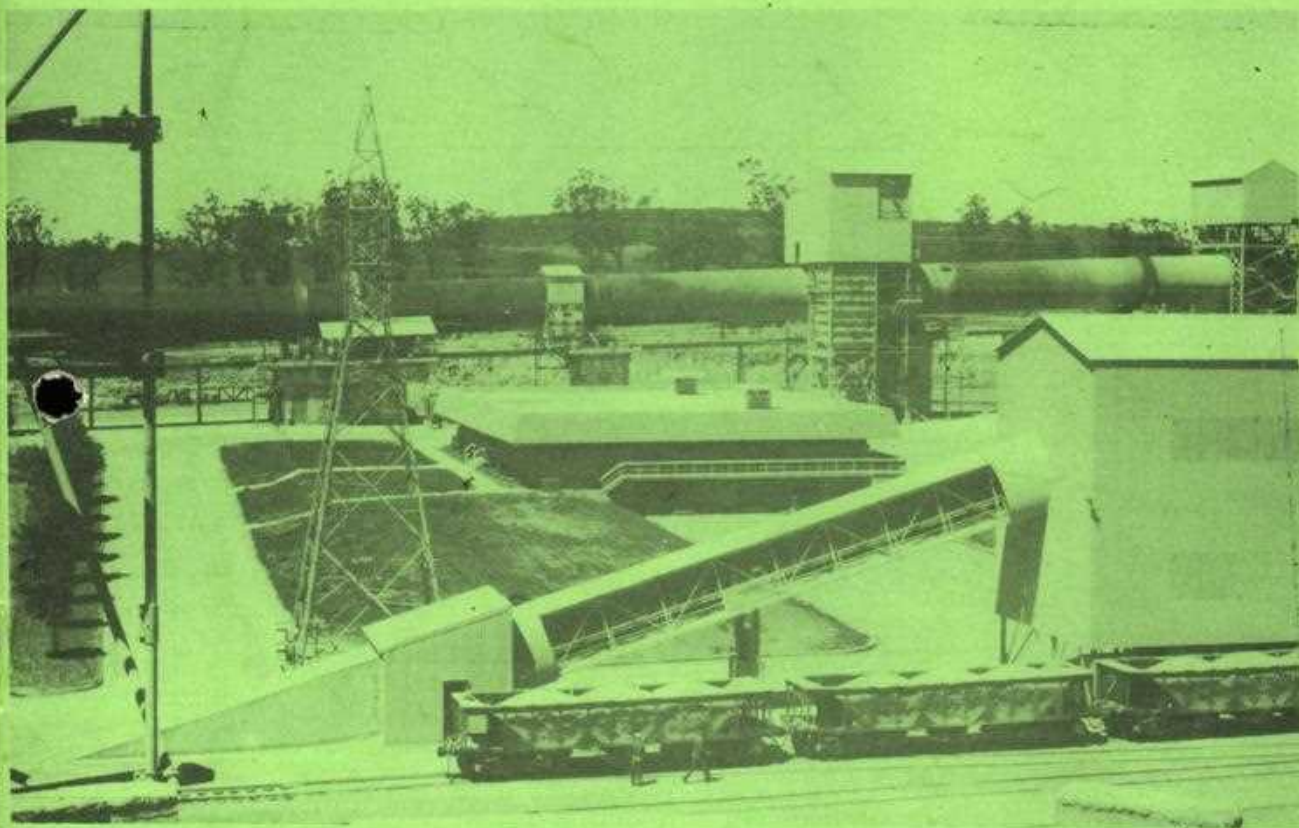




AUSTRALIAN PORTLAND CEMENT LTD.  
and  
SOUTHERN PORTLAND CEMENT LTD.  
Berrima — Marulan — Medway — Sydney

# NEWS

VOL. 1 — No. 8  
JANUARY, 1972



Part of Berrima Plant showing limestone trucks, conveyor to the Hazemag Crusher, Technical Services Centre, and No. 5 Kiln.

# *A.P.C.L. and S.P.C. News*

JANUARY, 1972

VOL. 1 — No. 8

## CONTENTS

PAGE—		PAGE—	
1	A New Year Message.	12	Reunion after 29 years.
2	Editorial. Did You Know That	13	Discovering Fiji (continued).
3	Heard on the Grapevine.	14	North Australian Adventure.
4	Facts About Australia. Mr. M. Whalan Retires. Sydney Office Christmas Party.	15	The History of Cement (continued).
8	Fishy Tales. Bits and Pieces. Preliminary Notice.	16	Gardening Notes. Obituary.
11	Discovering Fiji.	17	Junior Competition Results. Reasons for choice of answers—Rytewords No. 6. For Your Information.
		18	Safety Rytewords, No. 7. Junior Crossword.

### REGULAR CONTRIBUTORS

BERRIMA . . .  
R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Souter — Nature Notes.  
J. Lewis — Bits and Pieces.

SYDNEY OFFICE:  
Miss Lorraine Lucas.

MARULAN . . .  
W. McCallum.  
E. Cooper.

COLLIERY . . .  
M. Thorpe.

PHOTOGRAPHY . . .  
C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:  
Australian Portland Cement Limited  
and  
Southern Portland Cement

PRINTERS . . .  
Southern Highlands News Pty. Ltd.  
Bowral.

All-correspondence and enquiries to:—

THE EDITOR,  
A.P.C.L. and S.P.C. NEWS,  
P.B.S. No. 4, Moss Vale, N.S.W. 2577.

**COPY DEADLINE:**  
28th of the month prior to the month  
of issue.



# A New Year Message

It is interesting now that a new year is with us, to look back on 1971 and review some of the results which have stemmed from the collective efforts of every employee of Berrima plant.

We can be justly proud of some of these results, on the other hand in some cases, there is still room for improvement in 1972.

There is no doubt that money is a very important item to every one of us, but it is far from being everything. Pride in our work and our work place is also extremely important, and it brings a sense of achievement which can be very satisfying.

All personnel can again take pride in the safety record of 1971 which continued the high standards of previous years, and has, in fact, resulted in a lifting of safety standards by most of the cement plants in Australia. We can all rejoice in the fact that this general uplift in safety standards has saved many workers from injury and perhaps even death!

Are we as safety-minded outside of the works?

Let us try in 1972 to take our safety attitude to all our families and friends in the way we drive, and in every detail of our conduct in everyday life.

Generally speaking, plant housekeeping in 1971 has been a cause of pride and satisfaction, most sections ran very well.

One area in which we fall behind the standard set by some Australian plants, and many overseas plants, is in the availability of our main source of production, No. 5 Kiln. It is common in the areas mentioned to have a 92% availability for a Kiln, which means that it would be out of production only four weeks in every 12 months. At Berrima in 1971, all the major and minor stops totalled 13 weeks! This works out at an availability of 76.9%.

As a matter of pride we should try to life all our standards in 1972. This will not be an easy matter and will take the combined efforts of us all.

Whether we do a job poorly or well, and whether we do a decent day's work or not, is often known only to ourselves so that our success in lifting the availability of No. 5 Kiln in 1972 will depend on pride in our work as individuals.

Let us determine individually to make 1972 a year of satisfaction to all at Berrima Plant.

MR. W. GALE,  
Production Superintendent.



# EDITORIAL

1971 has passed, never to return. We cannot alter the past, but we can still do something about the present and the future.

You may well say, "I've worked hard, tried again and again, yet I don't seem to make any headway, what's the use of going on?" There are many young people today who have just left school, some have found employment, but many are experiencing great difficulty in finding an opening in the career on which they had pinned their hearts and minds, and they wonder — "What of the future? "Has all my long years of education been in vain?" Most people at some time in their lives face this question, "What's the use of keeping on trying?"

It is natural. It is then a good time to take stock, to write down an inventory of what you possess, and what you have already accomplished. You will most likely have a pleasant surprise and take heart again.

It is also a great help to read the life stories of men and women who have succeeded, and we begin to realise that courage and perseverance play a much greater part than inborn gifts and abilities.

Leonardo da Vinci, one of the most accomplished men of all time, felt himself inferior because he was left-handed, yet like many other great sculptors, he used his affliction to become ambidextrous. Harry Houdini was laughed at when he was a boy, because of the peculiar formation of his joints. Later he used this deformity to become the greatest escapist in the world. Demosthenes had an inferiority complex because of his stammering, yet he overcame it to become the greatest orator of his day.

Moses, one of the greatest leaders the world has seen, was referred to, at one time in the Bible, as the meekest of men, there are suggestions that this may have been because of an impediment in his speech, but he overcame through faith in God.

This ability to conquer, to overcome the restrictions of circumstances and environment, is possessed by all in some degree, yet we so easily allow the spark to be extinguished by the reverses of life, yet we so easily allow the spark of stupor, where it is too much trouble to bestir ourselves.

The message for 1972, is to look forward to better things, and to know that each and every one of us can have some measure of success in our particular sphere of life. It depends on ourselves. The great writer and missionary, Paul, put it something like this: "Let us forget those things that lie behind, and look forward pressing towards our goal."

## DID YOU KNOW THAT

Cement Kilns are the largest rotating equipment in the world.

ooOoo

More than 1% of all the electricity used in Berrima works, is required to provide hot water for the bath-rooms.

ooOoo

Cement is one of the cheapest chemicals in the world, 1c per lb (compared with petrol at 6½c per lb).

ooOoo

In order to maintain checks on cement quality, the laboratory does 30,000 separate sample analyses each month.

Southern Portland pioneered the manufacture of low heat cement in Australia.

ooOoo

While cement sales are generally increasing year by year, the sale of bagged cement is generally static.

ooOoo

The bricks used to line the kilns are manufactured to very close dimensions and quality, and cost between \$1 and \$2 each.

ooOoo

The works weir on Wingecarribee River holds over 300 million gallons of water.

ooOoo

Geelong and Berrima have Kilns which are identical. (No. 8 at Geelong and No. 5 at Berrima).



# HEARD ON THE GRAPEVINE

## BERRIMA

Another fishing trip to Burrinjuck Dam is being organised by the Electrical Shop. It is planned to take place early in February. The party departs on Friday night and returns Sunday night. Anyone interested please contact Alan Duxbury or Chris Bromfield.

ooOoo

Bill Rutter was in the district recently. He says he has been so busy fixing up his new abode that he hasn't even had time for a game of bowls! He requested that his best wishes be conveyed to all friends.

ooOoo

Bruce, nine-year-old son of Mr. E. Liu, Planning Engineer, A.P.C.L., Berrima, recently topped his class obtaining all "A" passes, and also came third in his grade. On speech day, he received a prize for his class work, and also a pennant for his proficiency in sport. To encourage his good effort, his parents presented him with a tennis racquet. Congratulations, Bruce!

## COLLIERY

Our sympathy is extended to Mr. Jack Lockwood of Berrima Colliery also to Mrs. Ron Allan, whose mother died suddenly in December.

## SYDNEY OFFICE

Since APCL Sydney Office was introduced in an earlier issue of the "News," little has been heard from us, so we felt it was time we appeared again to mention the considerable changes in the "line-up" of staff in the office.

The major change is Onoda A'Asia moving their head office to Brookvale. In this way we have lost Len Titow — the photographer who helped introduce our office.

There have been many changes in the female side of the staff. Marion Ariesen has transferred to Reception in place of Lorraine Lucas who is now secretary to Barry Peck, Accountant, Sydney.

Barbara Williams is Typist for the General Office in Marion's old position. Audrey Goderie — who was overseas and missed being photographed when we were introduced is now back in the office in the capacity of Accounts Clerk. Another new Accounts Clerk is Rhonda Berecny, who has again joined APCL after 12 months with Onoda.

Over the last couple of months we have lost from our female staff — Sue Parker, the General Office Typist and Rhonda Curren a Junior and "News" reporter for Sydney. To make up for our losses, we have gained, on a temporary basis, Kerry Scott (recently of Berrima) as office junior.

Geelong has done well out of our office in abducting Peter Harley our Project Engineer, but now Bob Owen from Kandos has "filled Peter's shoes" even to the point of running the Cafe-bar dry daily!

Sam Catalano left the company recently, our Accountant N.S.W., whose position has been combined with that of Accountant Services by Barry Peck. Also we lost Harry Butler, our Technical Service Manager, N.S.W., who had been with the firm for four years; but he has promised to visit us often.

## HOLIDAYS RECENTLY

Nancy Carter our Telephonist recently went on a trip through inland Australia and I hope to get something from her for the magazine (if her arm is twisted far enough)!

Gail Dobson is now visiting her parents in Queensland on her holidays, and Carmal Young has recently returned from a short visit to Nambucca Heads very tired, but sunburned and healthy.

## GOSSIP

Mr. Barnett received for Christmas (from three female admirers)! a stunnig tie in a large floral pattern in the flattering shades of lolly pink, lilac, orange, blue green, etc. — It was felt there was a need for him to dress in line with his young, outdoor image. Your reporter has wind of a conspiracy to give him a purple shirt for his birthday.

Who was the member of staff who gave all the girls Caterpillar Balloons for Christmas?

## NEXT MONTH

1. Mr. Peerman has promised to find some juicy gossip of interest to all. This should be very interesting, don't let us down JEP.

2. Comprehensive travelogue on inland Australian by N.C.



## FACTS ABOUT AUSTRALIA

The following information is republished from "Facts," published by the Institute of Public Affairs. The I.P.A. is a non-profit organisation which aims at educating the public in the true facts of our economic system.

The Editor acknowledges with thanks.

- Q. Who provides the money out of which a business meets its payrolls — the management, the shareholders or the customers?
- A. The customers. A business can only pay its employees out of money it receives from its sales.
- Q. If prices keep on rising at their present rate (4% a year) how long will it take to halve the purchasing power of the \$?
- A. 18 years.
- Q. What items take the biggest bite out of the average person's pay envelope?
- A. Food 18p.c., income tax 10p.c., housing 9p.c., clothing 8p.c., motoring 8 p.c., tobacco and liquor 8p.c., furniture and electrical goods 6p.c.
- Q. How big a proportion of the total income of the nation is represented by payments for work?
- A. Something like three-quarters of the national income would represent payment for personal work of all kinds — by farmers, tradesmen, doctors, managers, office and factory employees and so on. The remaining quarter of the national income is profits, rent and interest earned on property and investments.
- Q. What is the correct way to measure the size of profits?
- A. As a percentage of the capital funds employed in earning them. The total profit is meaningless. A profit of \$1 million earned by a business with funds of \$10 million is no greater proportionately than a profit of \$1,000 earned by a business with capital funds of \$10,000.
- Q. Which country has taken the most migrants since the war? —
- A. The United States with over five million; Canada is second with 2,700,000 — closely followed by Australia with 2,600,000. However, in proportion to total population, Australia leads easily with 22 p.c., followed by Canada 13p.c. and United States 3p.c.
- Q. What proportion of students who matriculate in Australia receive a Commonwealth Scholarship?
- A. About one in five.
- Q. Why are profits important?
- A. They reward enterprise and risk-taking. It is largely through profits that resources are directed into the production of goods and services which consumers want most, not what some planners say they should have.
- Q. How many overseas students are being educated in Australia at the present time?
- A. About 7,000. In the main they are attending universities and technical colleges. Most of them come from Asia, especially Malaya and Singapore.
- Q. With the growth of automation, more efficient industries, the prospect of atomic power, are there grounds for fears of general over production?
- A. Not in the foreseeable future. Most people could do with more than they have got today; there are still slums and sub-standard levels of living; and in the world as a whole there are hundreds of millions of people who are desperately short of even the bare essentials for a decent life.

## MR. M. WHALAN RETIRES

A farewell party was given in honour of Mick Whalan at Moss Vale Golf Club on Saturday, 11th December.

Mr. Liol Bush officiated, and various guests voiced their opinions regarding Mick (mostly good!).

It will be an evenning long remembered by the guest of honour. He was presented with a pop-up toaster by Bill Tiyce, and a cigarette lighter by Tim Tickner on behalf of his mates at the Stockhouse. He was also presented with a life membership of the Entertainment Fund, by Mr. W. Strong, President, on behalf of the Fund Committee. This was in recognition of his willing service throughout the years.

Mick retired from A.P.C.L. on Friday, 3rd December, 1971, after working in the Stockhouse for 13 years. For most of the time he worked as a Silo-man, but Mick told me he was recently promoted to cleaner — first class.

Previous to his work with S.P.C. and A.P.C.L., he worked for 25 years on the railway at Moss Vale as a ganger.

Mick is now in his 67th year. His mates and all who knew him wish him happiness and longevity in his retirement.

Pictures on opposite page.

## SYDNEY OFFICE CRISTMAS PARTY

For our Christmas party, the whole of Sydney office was taken out to dinner at a French Wine Bar, Restaurant, called Dionysius at Milsons Point.

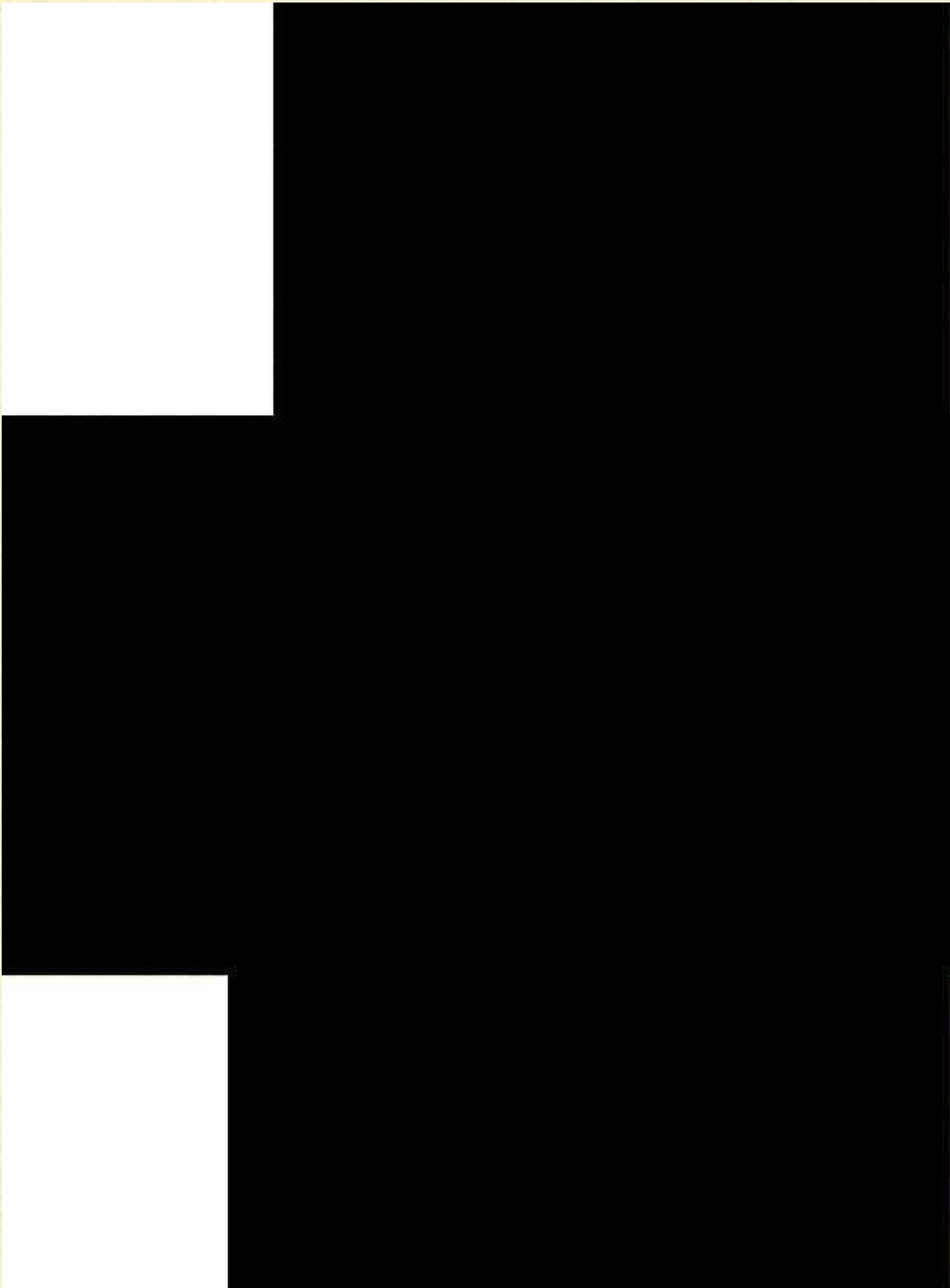
The evening began about 6.00 p.m., with a three course meal enjoyed by all, and continued on for some hours (depending on your staying power).

Next morning, although one or two were missing, some late, but eventually arriving, and a few who had overnight attained a shade of light to dark green (individual tones) we struggled through the day admirably.

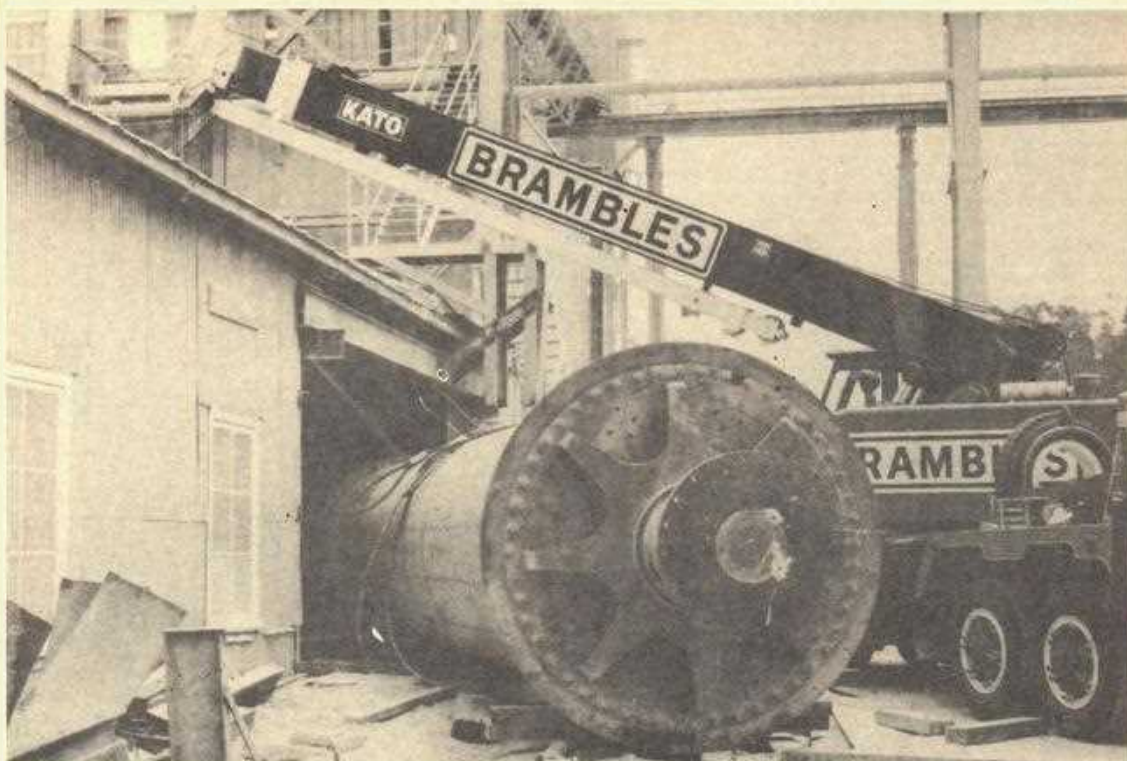
Our "get-together" was a great success as it was the first "gathering" of "Southern" and APCL employees at Sydney since our companies merged, it gave everyone a chance to meet their co-workers as friends celebrating the Christmas Season.











## The New No.1 Raw Mill Being Placed in Position

Recently No. 1 Raw Mill at Berrima was replaced. Mr. R. Magnus, Construction Supervisor, gave us the following details.

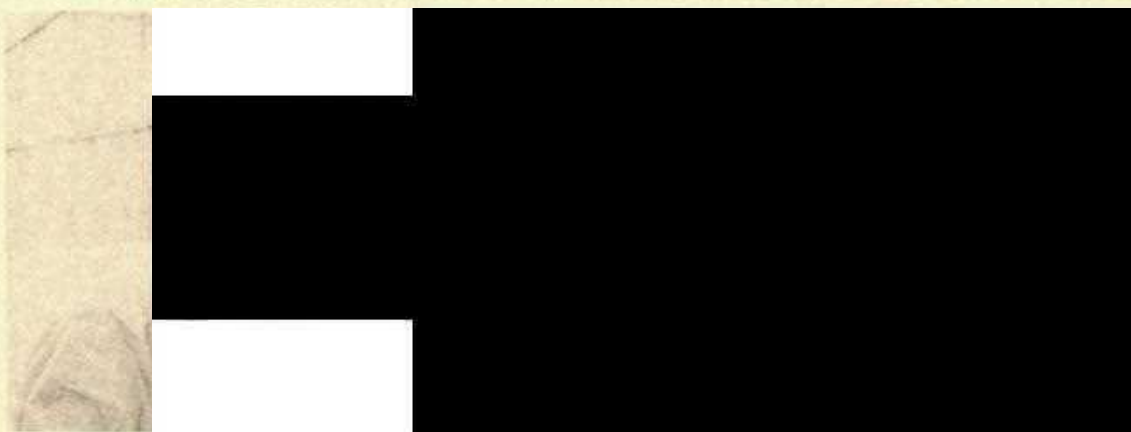
It is a Vickers type mill with an extra thick shell. A unique feature is that the mill is completely rubber lined, including the discharge diaphragm. It is expected that this will give a longer lining life.

The coupling on the Raw Mill is also of a different

type using rubber drive pads. This type of coupling has proved successful in the cement mills. The work has been carried out by Hornibrooks on contract.

Tyres have also been renewed on No. 4 kiln shell at the same time. The pictures give some idea of the work being carried out.

A full story on No. 4 kiln will be given in a later edition.



Bob Magnus, Construction Supervisor, on the job.

Bob and Mr. F. Elliott, Foreman Contractor, discuss the repairs to No. 4 Kiln.





Mr. E. Rodnidge, on right, front row, conducted the teachers from Goulburn Technical College on a tour of the Berrima plant.



Mr. Andrew Dalley, Assistant Scoutmaster (at rear) and the 2nd Artarmon Scout Troop, enjoyed a tour of Berrima plant last month.



## FISHY TALES

Watching boating recently in a secluded part of Middle Harbour, Sydney, I was surprised to see a row boat come into view. I suppose there's nothing spectacular about this, except that he was pulling very heavily on the oars, and making very slow headway!

The next instant a large launch full of people came into view — being towed by the row boat! A chap in a large blue trimaran saw their plight, and to everybody's delight (the rower included) hooked onto the launch and the row boat too!

Whilst watching this drama, I also observed a lady and gent fishing from a jetty. The man excitedly pulled in and unhooked a seven-inch Bream, putting it in his bucket. Must have been starting a Hall Stand Aquarium.

I'm very pleased about the new metric system. My next 10-inch Bream will be an enormous one — exactly 254mm — may even go to 454gms! (1 lb). — and my 50lb. Jewie will be just on 23 kilos! This won't be too bad on a hot day though, because the 80°F temperature will only be about 27° Celsius! Of course to finish off the day one must down a litre of grog! Well — only 1,000 mls!

Needless to say, we are approaching the shark season, and one must be on the lookout for them in murky shallow water as well as in deep water. It really doesn't pay to bathe in any but the patrolled areas. When wading for odds and ends, wear sandshoes or something similar, to protect from Stonefish — watch for Blue Bottle Threads — and Blue Ringed Octopus!

As a matter of fact, one would probably be safer at home reading a book!

---

## BITS AND PIECES

Have you ever thought that dancing is not an activity particular only to the human race. Animals of all kinds enjoy their own forms of dancing.

The lowliest of life — such as the tiny single-cell animals, the amoebas and protozoa — spend almost their whole existence in a ceaseless pirouetting, jerking around this way and that. They are actually equipped with minute hairlike appendages which they lash out to spin themselves round and round.

Scientists watching the primitive mating rites of these microscopic creatures (two cells simply merge into one, or one divides into two), have been amazed to find that there is a distinct dancing performance.

Snails and slugs, dancing during their mating season, crawl around and round a selected partner, approaching and receding in a definite pattern.

Tortoises do the same, but add interest to their rituals by tapping on one another's shells during the performance.

When an octopus feels lovesick, he will indulge in one of the most grotesque of under water dances, warily approaching the female at first, striking her with one of his long arms. Then as excitement mounts, the pair grapple in a violent submarine tango prior to actually pairing.

Many forms of insects dance beautiful and interesting aerial or semi-aerial dances. Mosquitos, gnats and many flies dance in chosen spots in mid-air.

Many forms of ants, wasps and bees perform their distinctive dance patterns, usually prior to the fertilisation of a nest queen. Hive bees dance outside the entrance to the nests, to ventilate their quarters with their beating wings or to signal certain information to their fellows.

Butterflies dance in the sun, and many kinds of fish dart and dash in a form of dancing, whilst almost all birds perform some type of dance.

Australian lyre birds, South American manakins, African ostriches perform intricate dances whilst the blue Bird of Paradise actually displays himself upside down.

Elephants have been filmed dancing and even the venomous scorpion has its own peculiar dance.

Not satisfied with dancing, some of the higher apes actually provide their own music by thumping on the ground or on trees or, even on their own bodies.

---

## PRELIMINARY NOTICE

A special meeting of the S.P.C. Employees Welfare, Sick and Accident Fund is being called towards the end of February. The date and details will be announced later.

C. W. KNOWLSON, Sec.





# DISCOVERING FIJI

ABOVE: All ashore to explore the island and have a dip.  
BELOW: Three tourists gone native. Mrs. Medland in the centre.



is located.

On disembarking from the plane, the humidity was quite overwhelming after leaving the comfort of the air-conditioned "Jumbo." Immigration and customs formalities were soon over, and having collected our baggage we found ourselves being whisked away in a taxi driven by a very sharp and talkative Indian driver. (90% of the taxis are Holden air conditioned station wagons).

He was very curious about our holiday plans. I told him we intended taking a hire car and driving around the island, at this he instantly retorted "why not hire me," thinking about taxi fares in our country, I soon told him this would be too expensive.

However, after a lot of bargaining, a deal was made — \$60 for the 300-mile trip round the island, we could stay where we wanted to for one, two or three days and then he would pick us up and carry on to the next stop.

(Continued on Page 13)





## REUNION AFTER 29 YEARS

Milos Manojlovic recently arrived in Australia from Yugoslavia in 1943 and for a while was in a prison camp in Germany. After the war he served with the British Occupation Forces for three years, he then came to Australia. He has been with S.P.C. and A.P.C.L. for many years — leaving for a time to operate his own trucking business, carting limestone from Marulan Quarry, and later returning to Berrima plant.

Mick left Yugoslavia in 1943 and for a while was in a prison camp in Germany. After the war he served with the British Occupation Forces for three years, he then came to Australia. He has been with S.P.C. and A.P.C.L. for many years — leaving for a time to operate his own trucking business, carting limestone from Marulan Quarry, and later returning to Berrima plant.

When Mick left home his son was 13 years old. Now, 29 years later, Mick has a granddaughter who has just graduated as a professor of mathematics and languages, and a grandson who is in his second year studying Atomic Physics at Skopje University in Yugoslavia.

Milos, Mick's son, speaks perfect German, and very good French, in addition to his own tongue. Unfortunately he has not had the opportunity of studying English, but his dad also speaks French and German.

Mick tells me that there are three language areas in Yugoslavia, that of Croats, the Serbs and the Macedonians, but the people can understand each other, as the languages are similar in many respects.

Needless to say, after all these years it is wonderful for Mick to see his son again, and we rejoice with both father and son.



Mr. S. Kumalasamy, of Ceylon, was with us for two weeks in December, whilst with us he was known as "Kumar." He was the recipient of a Colombo Plan scholarship for one year to be spent in Australia. Kumar had worked with the Ceylon Government Cement Corporation as Accountant for some time. Whilst here he was scheduled to spend three months with various cement companies, three months with Ready Mixed Concrete, Artarmon, and six months with the R.M.C. Group. We were happy to have him with us and wish him every success in his endeavours.



## DISCOVERING FIJI

As it turned out we never regretted this decision, because the road round the island coast line is narrow, twisting and covered in loose gravel, driving a hire car over a strange road under these conditions would have been very tiring and would have spoilt, what turned out to be, one of the highlights of our holiday.

The first part of our trip was along the southern coast towards Suva, this part at the coast is called the Coral Coast and is the main tourist area where the best and most expensive hotels are located.

Our first stop after leaving the Mocambo Hotel at Nandi was the Reef Hotel near Sigatoka, here we stayed two days.

The accommodation, meals, music and entertainment left nothing to be desired.

Every whim of the guests is catered for, even the swimming pools of which there are two, one for those who wish to swim and one for those who cannot swim. The latter was called the "Sip and Dip" pool, it is fitted with stools on which you sit in the water, the waiters serve drinks and snacks to you as you sit in the crystal clear water.

The majority of guests in this hotel were Americans, which appeared to be the case in all the luxury hotels, however, we found a married couple from the United Kingdom and soon became firm friends, the outcome of which was that they decided to join us in our trip, the taxi being a station wagon presented no problems with the extra passengers and baggage.

Our Indian taxi driver was only too happy about the extra passengers at no extra cost, so the fare was split down the middle, \$30 for each couple.

Continuing our journey along the Coral Coast towards Suva we had by now ceased to wonder at the lush and colourful Fijian scenery that no sophisticated colour photography could possibly reproduce.

Arriving at Suva, we stayed at the luxurious Travelodge Hotel, here as with the other luxury hotels on the Coral Coast, the Fijian atmosphere is recreated with interior Fijian decor and hotel staff.

Whilst at Suva, I visited the cement works where Dick Ransome, known to quite a few of the engineering staff at Berrima, made my wife and I very welcome.

We had an evening at his home exchanging

news and gossip from down-under, and afterwards dined out at an Indian restaurant.

Dick is now Assistant General Manager of Fijian Industries and wishes to be remembered to his Berrima friends.

After leaving Suva we travelled via the northern coast towards Lautoka. The northern coast has not been developed for tourism to the extent that the Coral Coast has, the hotels are not as pretentious as their counterparts but none the less are very comfortable with reasonable tariffs.

When we reached Tavua, where we stayed for a couple of days, we visited the Emperor Gold Mine at Vatukoula which is a very impressive concern and completely self-contained with its own powerhouse, township, hospital, schools and churches.

The powerhouse has an installed generating capacity of 9MW. Gold is the second largest export.

After leaving Tavua we made our way to Lautoka which is the second largest town on the island and the centre of the sugar cane industry.

On arriving at Lautoka we stayed at the Cathay Hotel, for it was here that we planned to enjoy the many island cruises that start from Queens Wharf at Lautoka.

We did several one-day cruises including one on the "Sea Spray," star of the television series. The last cruise we took was a three-day 200-mile cruise among the most beautiful islands in the Fijian group on a luxury 227-ton island cruiser with air conditioned self-contained 2-berth cabins equipped with all modern comforts.

The food was fit for a king, the bar well stocked with all the necessary liquid refreshments.

The 25 passengers on our trip were mainly Americans, there only being six Australians including ourselves. Fortunately everybody got together as soon as we left Lautoka and before long everybody joined in the fun and games including the crew with the end result the three days passed much too quickly.

Returning to Lautoka we had a few days at the Cathay Hotel to relax and the pack our bags and return to Nandi to board the "Jumbo" back to good old "Ausie."

This has been a very brief resume of a holiday in a lifetime, to describe it in detail would fill a book.

The people we met and the friends we made will always keep alive the wonderful time we had.



## NORTH AUSTRALIAN ADVENTURE

(by ROGER SEVILLE)

In August-September (1971) we took a trip through Central Australia to Darwin using six weeks' long service leave. This trip was a wonderful experience which I shall endeavour to share with readers.

Travelling in a Kombi van, we reached Hay, first stop, erecting our continental tent and getting camp set up takes only half an hour. We use the tent for eating and cooking and sleeping two adults while the children sleep in the Kombi.

We went on to Mildura, a beautiful city surrounded by irrigated vineyards and orchards, then to Renmark in South Australia where we camped on the Murray River.

At most towns along the Murray are old paddle wheel steamers, some still in working order, as is the case at Renmark. Although there are many irrigated "blocks" or farms with grapes and citrus fruits, there are also large areas of salted out wasteland, now useless.

From Renmark to Morgan where a large pumping station pumps water from the Murray to Port Pirie, Port August and Whyalla, a distance of several hundred miles.

We passed through Burra, an old copper mining town, settled originally by German immigrants who trekked from Adelaide.

Most of the Murray Valley was settled by German or Scotch peoples who trekked from Adelaide. We followed through the Mt. Lofty Ranges, all practically treeless, where young wheat was growing, then came to the beautiful Flinders Ranges.

We stopped at Wilpena Pound a plateau depressed in the centre. The gap through the ranges at Blinman was along a river which if it flooded would be cut. The ranges were too steep to form a road over.

When we came to the western side of the ranges, the countryside was flat as the proverbial pancake, with saltbush and occasional stunted tree.

We turned north towards Leigh Creek where we stayed overnight. Leigh Creek has open cut collieries which are open for inspection. We were able to drive through the works. The coal must be won by open cut methods as the cover is only soil.

We followed the route of the Overland Telegraph line, besides the old railway line to Alice Springs. The new line is about four miles west. All the vegetation now became fleshy plants, so that water could be stored in the leaves. The countryside varied from sandy desert to gibber desert.

The only signs of habitation were cairns of rocks on hill tops, marking the route of the early explorers and for the camel trains that crossed to the inland. Beside the railway line was an occasional abandoned stone house.

At Maree there is a huge road sign warning travellers to report to the local Police Station before proceeding. We were told that the roads which had been cut by floods earlier in the year were now open with the grader working on them. The grader driver tows a caravan with him and keeps grading until he reached the end of his 200 or 300-mile run, then starts back again. This must be a lonely job as there is very little traffic.

At Maree the railway workshop provides some employment. Some locals catch wild donkeys to send to America, at \$1000 per head, which would appear to be the only other industry.

Further on, Lake Eyre South was full of water due to the rains in Queensland. We tried to drive out to the lake edge but stopped when our wheels began to sink into the sand and salt.

Oddnadatta is a small town built around a railway station. There the Australian Inland Mission is operating a hospital.

On the Stuart Highway near Granite Downs we saw aboriginal stockmen with a mob of cattle many miles from the homestead. That day we travelled over 300 miles meeting only three cars on the road during that time.

Until now we had been on good dirt roads, but from here to Ayers Rock and Alice Springs the roads were very bad. After staying overnight and looking at Ayers Rock and the Olgas we went on to Alice Springs, the road becoming two wheel ruts in the sand hills before we got to the main highway. On the way we saw one grader bogged, and another with two flat tyres in the sharp rocky section of road.

This interesting account of Roger's travels will be continued next month — when we hope to have a number of photographs.



## THE HISTORY OF CEMENT

### PART THREE

John Smeaton was an English engineer. The lighthouse on Eddystone Rock had been destroyed by fire, and in 1756 Smeaton was called upon to erect a new lighthouse.

He immediately began making inquiries as to the best building materials for the job.

The foundation for the lighthouse would have to set under water. He found that the usual mortar for work under water was composed of "two measures of quenched or slaked lime, in a dry powder, mixed with one measure of 'Dutch Tarras', and both very well beat together to the consistence of a paste, using as little water as possible."

Smeaton discovered that this so called "Dutch Tarras" came from Andernach, on the Rhine. He tried this mixture but it turned out unsatisfactory.

Smeaton then began a series of experiments, using limes of different origin and subjecting each mixture to a cold water test. He found that lime from Aberthaw in Glamorgan, Wales, gave better results than ordinary lime, this led to the discovery that the best mortars were made from limestone containing a considerable proportion of clayey matter.

This was the first occasion on which the properties of hydraulic lime were recognised.

Smeating also compared various natural and artificial pozzolana endeavouring to find a substitute for the Dutch Tarras or "trass." In the end he settled on mortar prepared with pozzolana from civita Vecchia, thoroughly mixed in equal quantities. With this he successfully rebuilt the Eddystone lighthouse, and it proved well able to withstand the powerful waves.

In the early years of the 18th century a Frenchman, L. J. Vicat was also conducting experiments. He calcined (burned) a mixture of Limestone and clay, that had been ground together in a wet mill. This process was perhaps the principal forerunner of the method used today.

James Frost also patented a cement of a similar kind in 1811, and established his works at Swanscombe in the London district.

He only calcined his mixture lightly, and it was evidently of inferior quality, as it sold at a lower price than the so-called Roman cement, a quick setting hydraulic cement that had been made in 1796.

### THE INVENTION OF PORTLAND CEMENT

The words, cement, and concrete, come

from the Latin, Cement was originally caementum — chips of rough stone from which a kind of mortar was made, concrete comes from the word, "concretus," which means a "growing together."

With their cement the Romans made loose stones "grow together" producing what we know as concrete.

During the late 19th century, and early 20th century, many others were experimenting in the manufacture of cement, among whom were Bryan Higgins, Bergmann, Joseph Parker, J. F. John, and F. C. Johnson, all these helped, but the actual invention of Portland Cement is attributed to Joseph Aspdin, of Leeds, North England, Aspdin was a builder, and whilst, experimenting he worked behind walls twenty feet high. He discovered the art of proportioning, and eventually produced a cement superior to the product of his predecessors. It was made from a burnt mixture of finely powdered lime and clay. He called his product Portland cement, because of its resemblance to a widely used stone from the Isle of Portland.

Of course, his cement was a great deal inferior to that manufactured today, but the basic principles of mixing and burning were the same.

Previously the practice had mostly been to search for raw materials containing the desired elements in roughly the correct proportions. Now thanks to Aspdin and others a synthetic mixture of lime and clay could be prepared to get the results required.

In the 1880's a shaft kiln was developed from the bottle kiln. The fuel and raw materials were fed together at the top, and it was designed for continuous operation.

Soon after came the first rotary kiln, and in 1885 an Englishman by the name of Frederick Ransome took out a patent for an improved rotary cement kiln.

His first kiln was 18-inches in diameter and fifteen feet long. Over the years the rotary kiln has increased in size, until today, our No. 5 Kiln at Berrima and the No. 8 kiln at Gee-long are 560 ft. long and 15' 3" in diameter.

Large as these are, there are still larger kilns, and as far as we can ascertain at the present time, the largest cement kiln in the world is situated at Clarksville, sixty miles north-east of St. Louis, Missouri, U.S.A., it is operated by the Dunee Cement Company. Its length is 760 feet and it has a diameter of 21 feet and 25 feet.

(Continued on foot of next page)



# GARDENING

## JANUARY

**FLOWERS** — Sow: Aster, Antirrhinum, Aquilegia, Alyssum, Anemone, Mollis perennis, Calendula, Canterbury Bells, Carnation Cosmos, Foxglove, Dianthus, Gaillardia, Iceland Poppy, Pansy, Polyanthus, Primula, Primrose, Salpiglossis, Stock, Sweet Pea, Viola, Wallflower.

Plant: Ageratum, Antirrhinum, Aster, Carnation, Dianthus, Petunia, Pansy, Salvia, Stock, Wallflower.

**VEGETABLES** — Sow: Beetroot, Beans, Carrot, Parsnip, Peas, Parsley, Spinach, Silver Beet, Sweet Corn, Swede Turnip, White Turnip, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Celery, Cucumber, Squash, Pumpkin, Rock Melon, Endive, Lettuce, Mustard, Radish.

Plant: Lettuce, Tomato, Cabbage, Cauliflower.

Good rain, over eight inches, in most parts of the district during December, 1971, has caused a phenomenal upsurge of growth and with much cooler weather than usual, pastures around are looking green and lush.

The past year brought a difficult winter, one of the driest and coldest on record for our area, and many plants which gardeners regarded as quite hardy, suddenly completely disappeared. Over many years, it has been found that the morning sun in winter does most damage to any plant which is not completely hardy, so keep this in mind when replanting.

Many of our spring flowering annuals are still in full bloom, so that this will probably delay the planting out of winter flowering seedlings for a week or two.

Nerines, or Spider Lillies as they are called, can be planted now, also Gladiolus corms and winter flowering sweet peas. Keep the weeds under control this month and watch that plants do not dry out. Remove dead flowers from roses and dahlias, to prolong their blooming and give Chrysanthemums a dressing of fertiliser, to help them along.

Spray fruit trees with "Rogor 40" to control Fruit Fly and pick up and burn or bury deeply all fallen fruit. Spray Cherry, Plum, Pear and Hawthorn trees with "Bug-geta" to control Cherry and Pear Slug, which is very active at present.

Best wishes to all for a Happy Gardening during 1972!

## OBITUARY

### MR. K. CHILVERS

Ken, as he was known to all friends, came to this area from Greenwich, on the Sydney Harbour, where he was self-employed. He commenced work with S.P.C. on 7th September, 1964, and worked as gardener, and later as a miller.

He was always interested in the welfare of others, and served in voluntary work such as union representative, and also on the committee of the S.P.C. Employees' Welfare, Sick and Accident Fund. He also had a great interest in the progress of the Employees' Credit Union.

His death on Wednesday, 5th January, 1972, came as a shock to all. He was 58 years of age.

All at A.P.C.L. extend condolences to Mrs. Chilvers and all surviving relatives.

### MR. W. THURKETTLE

Bill Thurkettle commenced with S.P.C. on 7th June, 1966. He had previously been employed at the Bowral Bowling Club for over five years.

Bill was known as a very conscientious and cheerful worker, and he will be especially missed at the works office where he was a very efficient cleaner.

Bill had not been well for a number of years, and at the time of his death on Wednesday, 5th January, he had been in hospital for some time. He was 62 years of age.

The management and all who knew Bill at A.P.C.L., extend their deepest sympathy to Mrs Thurkettle, her sister and relatives.



## JUNIOR COMPETITION RESULTS

### JUNIOR COMPETITION

Leona Lafferty, aged 11; Susan Dicksbury, aged 10; and Graeme Dicksbury, sent the following accounts of the Picnic. They will each receive 50 cents.

#### LEONA LAFFERTY — AGED 11

All the participants in the races were good sports and didn't get into bad moods because they didn't win. All the competitors ran well though, and weren't far behind the winners, most races were very close. Even some of the adults went into the sports, such as the tug-of-war.

The races were a great success, and so were the many other attractions such as the cars, where teenagers and younger children alike, enjoyed themselves.

As you can see by the photographs in the December "News," quite a few young children enjoyed, and amused themselves on the round-a-bout.

Many small children, and teenagers rode on the train, nobody seemed to care how old they were, they enjoyed it, so they did it.

The fun for the children, really began when Santa Claus arrived, and they all gathered round to see what he would give them.

For the rest of the afternoon, there were squeals and giggles of delight, as everyone opened their presents. A few glum faces were around after a message came over the loud speaker saying that the seven-year-old girls' presents had been lost, but luckily they turned up later in the afternoon in time to be distributed.

#### SUSAN DICKSBURY — AGED 10

The things I liked best at the Cement Works Picnic were the train rides and the Merry-go-round, and the free refreshments and the presents. I received a game called "Cross the Bridge," which I have had many hours of fun with.

I had a steak sandwich and cake and cordials and ice cream and cool Paddle Pops.

Dad was in the tug-of-war, but his team was defeated in the last pull.

It was a lovely day and Santa came. I didn't have a ride on the cars as I didn't feel I could control one, but I had plenty of rides on the train instead. We were hoping we would win the raffle, but we didn't even get a prize.

I went in my age-race, but I did not get a place, as I never do and I got a bag of lollies so that was good.

The man in the train let me steer it for a while on one trip. I took a friend's little girl on the Merry-go-round and I got terribly sunburnt, but had a good day.

Although we were all badly sunburnt, we went for a swim the next day.

#### GRAEME DICKSBURY

What I like best at the picnic was the car rides, although I waited till after dinner for mine. I thought everyone would have had their by then, but I still had to wait and when I got into the car, it started to stop and I never had a good go after all.

I got a beautiful gift, it was a "Six-in-one Build Yourself Set," and I have had a lot of fun with it.

I helped Dad all the morning while they ran the races I held the finish line. Dad's team won two pulls in the tug-of-war out of five pulls and they lost to Marulan. I came dead last in the obstacle race, but I had a good day. I had a hot dog for lunch and two tins of cordial, two Paddle Pops and one ice cream.

I like watching the older people having their races and the men and ladies hitting the golf ball.

I like watching to see what all the other kids got for presents and my sister got a "Cross Over the Bridge" game. I have had a good Christmas all round and am looking forward to next year's A.P.C. picnic.

## REASONS FOR CHOICE OF ANSWERS—RYTEWORDS No. 6

Reasons for choice of answers in No. 6 Rytewords:

1. **SAFE** — is the best answer. A sane person is not necessarily a safe person.
2. **AWARE** — Dictionary definitions indicate this is a better answer than awake.
3. **FATE** — An accident can change the whole course of a person's life.
4. **EARNINGS** — are safeguarded by safe working, regarding enjoyment, this depends on the person.
5. **TRAINING** — in safe working is necessary — trusting without training would not be safe.
6. A safe **YEAR** would do a great deal towards boosting morale. A safe yard whilst commendable is not sufficient.
7. **ATTITUDE** — Without doubt one's attitude towards safety is far more important than aptitude.
8. **THE LEAD** — given by employees contributes far more to safety, than merely having a leaning towards safety.
9. **LIGHT or LIVES** — considered of equal merit.
10. A good **TREAD** on tyres is a great help towards safe motoring, far more than just a trend in that direction.
11. Unprotected **HOLES** invites injury, regarding hands, it all depends what you are doing.
12. One should always be **EARNEST** or serious in observing safety rules.
13. The need for a **TREND** towards safe working conditions certainly needs continual emphasis.
14. **ILLEGAL** the best answer, "may" points to this. Unsafe practices are always illogical, or contrary to reason.
15. **MASTER**, the muster or number attending will not necessarily ensure success of a Safety Meeting.

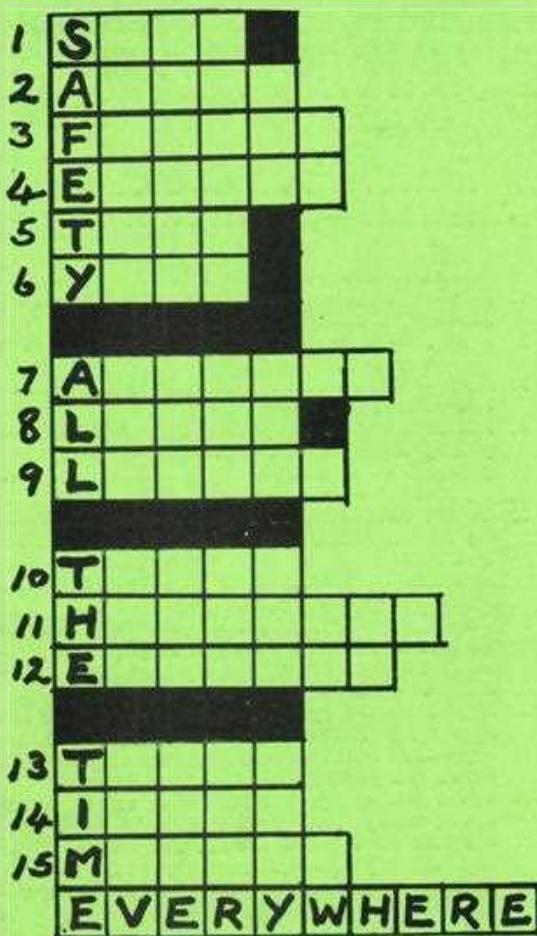
## FOR YOUR INFORMATION

If you are out of Sick Pay and your illness continues, you should apply for Social Services Sickness Benefit. A claim form can be obtained from the office of the Clerk of Petty Sessions, Moss Vale or Bowral or from the Welfare Officer, Apprentice Training Foreman's Office, Machine Shop.

A medical certificate must be sent with your completed claim. Benefit is payable by cheque from the seventh day after the commencement of sickness.

If you are also in the S.P.C. Employees' Sick and Accident Fund and qualify for benefit this does not in any way affect your Social Services Sickness Benefit.





## SAFETY RYTEWORDS

(Copyright — J. LEWIS)

### RYTEWORDS No. 7 CLUES

1. A — approach to any work problems is essential.
2. Accidents cause —.
3. Unwise planning may be —.
4. Management should — the co-operation of employees to work safely.
5. It is always wise to — new plant or machinery before general use.
6. Safe working should be practised throughout the —.
7. It is good to — 100% safety.
8. To work safely in dark places a good — is needed.
9. For safety all poisons should be — carefully.
10. It is always wise to — bare electrical wires.
1. Unsafe conditions only tend to — an employee.
2. One should always be — in applying safety rules.
3. Safety should be the first concern when following a —.
14. It is a good — to have a safe plant.
15. Caused by accidents.

The answers will be found in the words listed below.  
SURE, ANGER, FATAL, ENLIST, YEAR, IDEAL, EAGER, ATTAIN, TRY, TAPE, HAMPER, SAFE, ATTEND, SANE, AGONY, LABELLED, ATTEMPT, LEAD, TRADE TAG, FUTILE, LADELED, HANDICAP, EARNEST, ENJOIN, TEST, MISERY, TRIAL, TREND, TRAIN IDEA, LIGHT, LAMP, YARD.

### SOLUTIONS TO RYTEWORDS No. 6

1. Safe, 2. Aware, 3. Fate, 4. Earnings, 5. Trained, 6. Year, 7. Attitude, 8. Lead, 9. Light or Lives, 10. Tread, 11. Holes, 12. Earnest, 13. Trend, 14. Illegal, 15. Master.

No correct solution was received. Mr. T. Pearson, Marulan had two mistakes and receives the second prize of \$3.00. Three entrants had three mistakes and receive \$1.00 each. They were Mrs. T. Pearson, Marulan, Ueoni Lafferty, Moss Vale, and Mrs. Koschenow, Marulan. The first prize of \$5.00 will jackpot to the next competition.

The first prize for Rytewords No. 7 will be \$10. Second prize \$3.00. There will be a number of consolation prizes of \$1.00 each.

## JUNIOR CROSSWORD

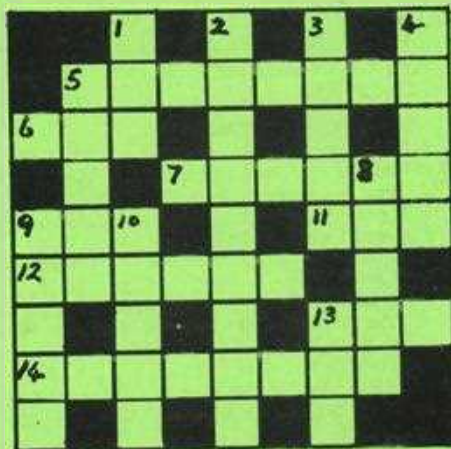
### JUNIOR CROSSWORD CLUES

#### DOWN—

1. Used to carry shopping.
2. Taking place now.
3. Seoul is the capital of the Republic of —.
4. Some words spoken by actor.
5. Properly surfaced for walking.
8. Mixture of metals such as brass.
9. Sign of office which a sheriff may wear.
10. Borders or margins.
13. Cunning or tricky.

#### ACROSS—

5. Small umbrella used to give protection from sun.
6. Move slowly and get behind.
7. To distribute over surface.
9. Insect that produces wax and honey.
11. Liquid made from malt.
12. Putting into one total.
13. Scatter seed on the earth.
14. Very small creatures that attacks plants.







AUSTRALIAN PORTLAND CEMENT LTD.  
and  
SOUTHERN PORTLAND CEMENT LTD.  
Berrima — Marulan — Medway — Sydney

# NEWS

VOL. 1 — No. 9  
FEBRUARY, 1972



Berrima apprentices — over eight years without a lost-time accident.  
Mr. E. Radnidge, Apprentice Training Foreman, at right.

# *A.P.C.L. and S.P.C. News*

FEBRUARY, 1972

VOL. 1 — No. 9

## CONTENTS

PAGE—

1	Editorial.
2	Heard on the Grapevine. More Apprentices become Tradesmen.
3	Did you Know That— Fishy Tales. Nature Notes.
4	Berrima Tops the Safety Competition.
5	No. 4 Kiln Repairs Completed.
6	Record Catch by A. Chaplin, Marulan.
7	Measurement. Australia is Going Metric.

PAGE—

8, 11	North Australian Adventure by Roger Seville. Photographs by the author.
12	Electrical Shop Fishing Trip.
13	Juniors' Page.
14, 15	Just one of Those Days. A short, short story.
15	Acupuncture. New Apprentices.
16	Sunburn. Bits and Pieces.
17	Gardening Notes. Letter to the Editor.
18	Safety Matchphrase Competition. Result of Safety Rytewords, No. 7.

### REGULAR CONTRIBUTORS

BERRIMA . . .

R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Santer — Nature Notes.  
J. Lewis — Bits and Pieces.

SYDNEY OFFICE:

Miss Lorraine Lucas.

MARULAN . . .

W. McCallum.  
E. Cooper.

COLLIERY . . .

M. Thorpe.

PHOTOGRAPHY . . .

C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:

Australian Portland Cement Limited  
and  
Southern Portland Cement

### PRINTERS . . .

Southern Highlands News Pty. Ltd.  
Bowral.

All-correspondence and enquiries to:—

THE EDITOR,  
A.P.C.L. and S.P.C. NEWS,  
P.B.S. No. 4, Moss Vale, N.S.W. 2577.

### COPY DEADLINE:

28th of the month prior to the month  
of issue.



# EDITORIAL

Witnessing a documentary recently on TV, regarding the atomic bomb, and the great variety of nuclear warheads, and missiles that can deliver them at the touch of a button. I naturally thought of the future.

In the various interviews in the film, the speakers, men in responsible positions in the nuclear world presented a grave and rather frightening picture.

Everything has been done, and is being done to prevent the launching of a missile on its journey of death and destruction and the consequent retaliation that would follow. No sane person would press the button but world conditions have brought about a great deal of mental instability and there is a nagging fear.

In our repatriation hospitals there are still many returned men suffering from acute anxiety states and at the bottom of most of their trouble is the inability to stop worrying about the past and the future.

Gordon Powell, M.A., B.D., in his very helpful book, "Personal Peace and Power," relates the experience of a returned soldier who had worried himself into such an anxiety state that he was unfit for normal duty. His doctor told him that he was trying to cope with all his present and future worries all at once. He suggested thinking of life as an hour-glass with the grains of sand dropping through one at a time. If they were all forced through at once it would burst the glass. The soldier learned his lesson and went on to become a successful business man applying the same principle. "Instead of getting taut and nervous, I remember what the doctor said, 'One grain of sand at a time. One task at a time'. By repeating these words to myself I accomplish my tasks efficiently, and without the confused and jumbled feeling that once almost wrecked me."

One day at a time, one task at a time. Sir William Osler, the famous physician, called it "living in day-tight compartments." As a medical student, he had picked up a book by the Scottish essayist and historian, Thomas Carlyle, and read twenty-one words that were to have a profound effect on his future. "Our main business is not to see what lies dimly at a distance, but to do what lies clearly at hand."

Sir William Osler told a group of students "The load of tomorrow, added to that of yesterday, carried today, makes the strongest falter. The only possible way you can prepare for the future is to concentrate with all your intelligence, all your enthusiasm, on doing today's work superbly today. Remember that the Lord's Prayer teaches us to ask only for today's bread. Today's bread is the only kind of bread you can possibly eat."\*

If you and I can practice living in these "day-tight compartments," the chances are we shall make more progress, and taste more of the joy of living; (without the help of artificial stimulants) and the fear of the future, and nuclear power will not paralyze our efforts.

\* "How to stop worrying and start living," by Dale Carnegie.



# HEARD ON THE GRAPEVINE

## Marulan

Those at present on annual leave — L. Lucre, M. Cosgrove, C. Hoare, J. Smart, R. McCallum, S. Bell, F. Bulger, C. Shepperd, R. Craig, J. Penfold, V. Medesic, W. Cramp, L. Elkins, W. McCallum, E. Cooper, P. Knowles.

ooOoo

J. Plonski returned to work on light duties after spending time in hospital with a broken leg as a result of a motor bike accident. Welcome back John.

ooOoo

A. Chaplin boasts of large catches he got during his holidays. Just to prove this he brought in a photo of himself with 15 schnapper (total weight 90lb) and two twenty-pound jewfish he caught in one night fishing with his brother-in-law off Palm Beach.

ooOoo

Jim Galloway just lately seems to have the bug for buying. He recently purchased a Fiat panel van, three caravans (besides the one he already owns) and an FB Holden Car. Perhaps he intends to start in the second-hand dealing business, who knows.

ooOoo

Work has started on the foundations of the extension to the Marulan South Bowling Club. Won't be long before they start those Saturday night functions.

ooOoo

Russ Thompson, his wife and baby and brother Gregory returned recently from their holidays in Samoa. Russ and Greg's parents and sister moved there 18 months ago when their father took a position as foreman in a Quarry to supply materials to build an airstrip. By all reports they enjoyed a fabulous holiday and are planning to make a return trip in the future. Russ is an electrician and Greg a fitter at the Quarry.

ooOoo

Progress reports on Les T(ex) Cooper who had a leg broken at work in December, 1970, is that at last he has had the plaster removed and is walking with the aid of a walking stick and a calliper on his leg. With a little more therapy, we may see you back at work Tex!

## Berrima

Congratulations to John Cook (Berrima plant) and his wife Nora, on the birth of their first child, Lynette Anne, on 13th January, 1972. The 13th day turned out to be a lucky day for John and Nora. Lynette weighed 9lbs.

ooOoo

Henry Newman, electrical fitter started back with APCL after spending nine months in New Zealand. Henry worked in the North Island along with Chris Newstead and enjoyed the experience. They wired the clinical section of a new hospital at New Plymouth.

## Colliery

June, a trained nursing sister, and daughter of Bill Beaton, Mine Deputy, was married to Mr. Tony Elderfield of Caringbah, a Medical Technologist at Bankstown Hospital on the 29th January, 1972. The wedding took place at Berrima followed by the reception at The Chequers, Bowral. All friends at the Colliery and Berrima Plant wish them every happiness.

## MORE APPRENTICES BECOME TRADESMEN

Congratulations to the following who are now tradesmen, after serving their apprenticeship with S.P.C. and A.P.C.L.

Their apprenticeships were completed during the last twelve months.

S.P.C., Marulan:

Electrical, P. Galloway.

Fitting and turning, G. Thompson, D. McCallum, C. Riley.

A.P.C.L., Berrima:

Electrical, J. Hackett, A. Foreman, L. Donti, G. Turczynski, M. Berry, M. Millbank.

Fitting and turning, G. R. Limond, R. Rutledge, I. Beaton, G. Knapman, G. Rowley, R. McAndrew, A. Savage.  
Boilermaking, G. Peszko.



## DID YOU KNOW THAT

Cement is manufactured in most countries of the world because of the relative abundance of raw materials.

10 million gallons of water is pumped from the works weir each day. Most of it returns to the river after cooling steam in the turbine condensers.

One ton of Berrima coal requires 10 tons of air to burn it.

To make cement, iron is one ingredient. Berrima's source of iron is flue dust from the steel works.

The temperature of the flame in a kiln is about 3000 degrees F.

Electrostatic precipitators have very high voltages inside them—30,000 to 50,000 volts.

No. 2 kiln was originally commissioned in 1929.

Radioactive materials are used in the works to measure slurry density.

No. 4 and No. 5 boilers were bought from the oil shale mine at Glen Davis when it closed down.

With the transfer to the metric system all temperatures will eventually be measured in degrees celsius (commonly called degrees C) instead of Fahrenheit.

Berrima Works was built in 1927-29 using Kandos cement which was then a competitor.

## FISHY TALES

I tried to get a look in at the N.S.W. Amateur Fishing Championships at Nowra recently, but unfortunately they had finished.

I did notice however that the main trophy was donated by the B.H.P. The winning team of four did well with 1000 pounds between them. A pity Bill Brooks did not enter; recently he boated off "The Tubes," at Huskisson for some nice leather jacket to two pounds and also mowies for his "assistant," Tom Penfold, and some nice mowie and schnapper to 9½ pounds for himself. Frank Smith "buried" for them!

Me? Well, I landed two nice whiting (from the Co-op)!

Col Ready did well in his new 12 foot aluminium "Savage" off Kiola Bay. Not satisfied with a good bag, he also potted some nice lobster. He tells me that an ordinary ang-

ler is at liberty to operate two lobster pots! He also mentioned that worms are the thing down there. He pulled one out 16 feet long! (or so it seemed) in actuality, I think this should read 16 inches.

I tried the Canal recently, but did no good as regards size. However, I hear they are pulling in some nice flathead and bream on the south beach at Culburra. The whiting are patchy on the local beaches, but there are some good darkies at the canal if you pick the right time.

## NATURE NOTES

(by CHRIS SONTER)

Despite earlier dry conditions and the threat of bush fires in the district, there was still a reasonably good display of wildflowers along the Hawkesbury sandstone regions.

Waratahs were excellent and seemed to last a little longer than previous seasons. As usual Comesperma put on a grand effort to show itself off to passers by on the many bush tracks in the district.

Comesperma, or Match-heads, as they are more commonly known, are those beautiful clusters of mauve-coloured flowers that seem to thrive in the poor sandy soils.

Also this year, there seems to be a good showing of eucalyptus blossom. Unfortunately, the eucalyptus species that are found within our district are all of sombre colours, quite inferior to those beautifully coloured varieties of Western Australia. I think for a fine and varied display of eucalyptus one could not find a better town than Mildura on the Vic.-N.S.W. border in the far west of the state. It appears that most of the better flowering species are best suited to the 10" - 20" rainfall regions. Still, with over 360 species of eucalyptus, there is bound to be a great variety.

Talking of Mildura and its flowering eucalypts, also reminds me of its (native) garden plantations in Deakin Avenue. These are extensive plantings of most varieties of our native trees and shrubs, and despite the fact that many people say our native flora is lifeless, these plantings are rather attractive.

I think many towns and cities could profitably follow this splendid idea, and make or plan a small plantation for the benefit of both towns people and tourists alike. After all is said and done, our native flora was here first.



# BERRIMA ONCE AGAIN TOPS THE LIST IN THE CEMENT AND CONCRETE ASSOCIATION SAFETY FIRST COMPETITION

We have been advised by the Cement and Concrete Association that the Berrima Plant has won the Works Section of the Safety First competition for 1971. Full results of the competition are set out below.

The General Manager and I extend congratulations to all employees without whose co-operation and effort this result would not have been achieved.

F. L. VEAL,  
Works Manager.

Australian Portland Cement Ltd., Berrima, shared with Swan Portland Cement, the honour of first place in the Safety First Competition, during the whole of 1971. Unfortunately for Swan, one lost time accident in December, gave the lead to A.P.C.L., Berrima. There was keen competition all the way, but our experience in safe working no doubt just gave us the head lead. Nevertheless, Swan, Goliath, North Australian and others who were near the top, were very close, and we extend our congratulations to them on their splendid effort.

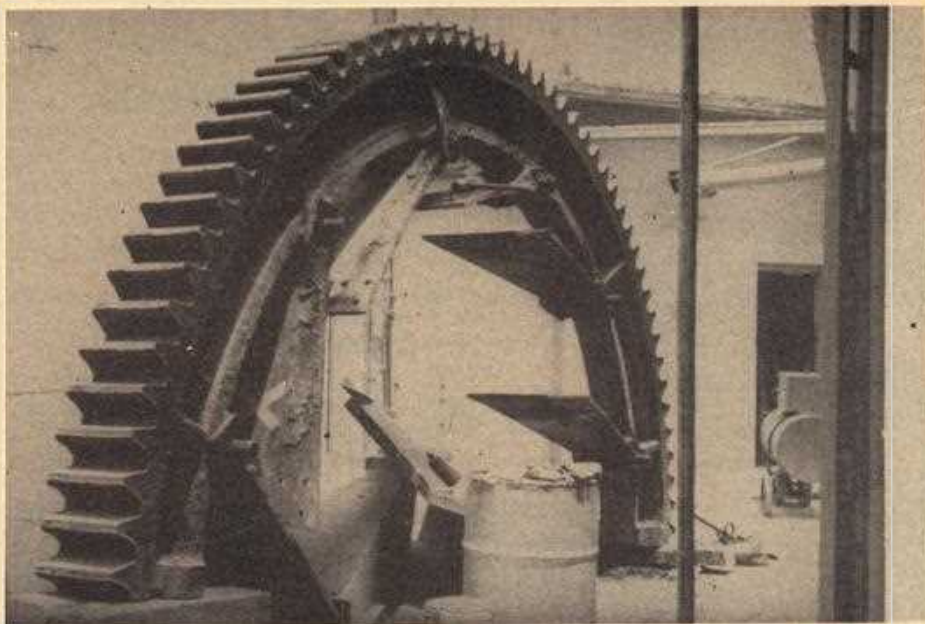
## WORKS SECTION CUMULATIVE RESULTS TO 31-12-71

NAME	Frequency	Severity	F.S.I. as per A.S.S. CZ6
Australian Portland Cement Ltd., Berrima	Nil	Nil	Nil
Goliath Portland Cement Co. Ltd. Ltd.	2.13	31.99	.26
Swan Portland Cement	3.67	18.36	.26
North Australian Cement Limited	2.89	28.93	.29
Cockburn Cement Co. Ltd.	9.17	146.72	1.21
Standard Portland Cement Pty. Ltd.	19.59	86.19	1.30
Victoria Portland Cement Co. Pty. Ltd.	19.82	161.87	1.78
Adelaide Cement Co. Ltd.	32.68	192.81	2.51
Metropolitan Portland Cement Co. Ltd.	35.15	238.00	2.89
South Australian Portland Cement Co. Ltd.	40.77	451.43	4.30
Central Queensland Cement Pty. Ltd.	40.40	545.32	4.70
Australian Portland Cement Ltd., Kandos	56.10	610.56	5.85
Gippsland Cement Ltd.	18.87	4547.81	9.26
Australian Portland Cement Ltd., Victoria	50.15	6582.36	18.17
Queensland Cement and Lime Co. Ltd.	67.07	11997.94	28.37
Commonwealth Portland Cement Co. Ltd.	49.78	17033.66	29.12



## No. 4 KILN REPAIRS





Part of the drive gear when removed from No. 4 Kiln





## MEASUREMENT

From the earliest time man has used some kind of measurement. At first it was an approximation, and it was natural that man should look to parts of the human body to use as standards, such as the hand, the foot, and the fingers.

The cubit, frequently mentioned in the Bible was the length of a forearm, from the elbow to the tip of the middle finger, and according to present standards was about 18 inches.

When the first attempts to establish national standards were made, a king or ruler was selected. An early standard of the English yard was defined as the distance from the end of a certain king's nose to the thumb of his fully extended arm.

During the reign of another king, his belt was established as the official yard.

Later two main systems were established. The British standard of length, the Imperial Standard Yard, is the distance between two lines inscribed on two gold plugs which are inserted in a bronze bar. This standard is preserved at the Standards Department, Board of Trade, London.

The other standard is the International prototype Metre, and is the distance between two lines inscribed on a bar of plated iridium. This bar is preserved at the International Weights and Measurements Bureau, Paris.

As these metals, like all others change in length with varying temperatures, all comparisons are carried out at 69 degrees F.

In a few years time, the Imperial Standard Yard will be a museum piece. A total of 116 countries have now adopted the metric system for everyday use, in addition, 27 countries are actively engaged in conversion to metric, and only eight have not yet made the decision to change their traditional system of measurement. The United Kingdom and Australia are among those who have made the decision. The latest country to give active consideration to conversion is the United States of America.

## AUSTRALIA IS GOING METRIC

Australia will adopt the International System of units, this is referred to as SI.

This internationally agreed system provides the best framework for countries such as Australia, in the process of conversion.

The base SI units are as follows — Metre (length), Kilogram (mass), Second (time), Ampere (electrical current), Kelvin (temperature), Candela (luminous intensity) and mole (amount of substance).

From these seven base units a wide range of other units are derived. They include the square meter (M<sup>2</sup>) as the unit for area, the cubic metre (M<sup>3</sup>) for volume, the metre per second (M/S) for velocity and the Kilogram per cubic metre (Kg/M) for density.

An essential feature of SI is the use of common prefixes for decimal multiples and sub-multiples of base units, and derived units, sub-multiples of base units, and derived units, (km), and 1000 watts (W) are a kilowatt (kw).

This series will be continued next month.

The following tables give the replacements for commonly used imperial quantities of milk products.

### Milk

$\frac{1}{8}$ pint (189 ml)	—	200 ml
$\frac{1}{4}$ pint (284 ml)	—	300 ml
1 pint (568 ml)	—	600 ml
1 quart (1.136 l)	—	1 litre

### Butter

$\frac{1}{4}$ lb (113 g)	—	125 g
$\frac{1}{2}$ lb (227 g)	—	250 g
$\frac{3}{4}$ lb (340 g)	—	375 g
1 lb (454 g)	—	500 g

### Cream

$\frac{1}{4}$ pint (142 ml)	—	150 ml
$\frac{1}{2}$ pint (189 ml)	—	200 ml
$\frac{3}{4}$ pint (284 ml)	—	300 ml
1 pint (568 ml)	—	600 ml

### Ice Cream

1 pint (568 ml)	—	500 ml
$1\frac{1}{2}$ pints (852 ml)	—	1 litre
2 pints (1.136 l)	—	1.25 l
3 pints (1.7 l)	—	1.5 l
$\frac{1}{2}$ gal (2.27 l)	—	2.5 l







# NORTH AUSTRALIAN ADVENTURE

(BL ROGER SEVILLE)

(Continued from last month)

About 80 miles south of the Alice, six miles off the highway, is a group of 13 meteorite craters. The largest was about 660 feet long and 30 feet deep, resembling a huge tank dug by a bull dozer.

Near Alice Springs we got bogged in the sand, but a passing truck driver and his mate helped to push us out.

Alice Springs is a beautiful town, very modern and very much like Canberra.

We stayed for five days, looking around the sights and the different gaps in the Mac Donnell Ranges. While we were there the annual "Henley on Tod" was held, a hilarious series of boat races on the dry bed of the Todd River.

At Alice Springs the railway ends and the road trains take over. These consist of huge trucks towing three or four trailers of goods to Darwin. The song "King of the Road" must surely have been written about these, for they take over the road, travelling at 50 ph or more knowing they are "king."

The countryside after Alice Springs was covered with ant hills starting as small ones about two feet high, growing in height and size until near Darwin they were up to 12 feet to 15 feet high. They continued for hundreds of miles in belts, making a most depressing sight.

North of Waughope we passed the Devils Marbles — great granite boulders scattered across the countryside, then stopped at Tennant Creek, a modern town with gold mining as the main industry.

At "Three Ways" where the Barkley Highway to Queensland branches off is the Flynn of the Inland Memorial. South of Katherine we visited the memorial and graves of the people at Elsey Station, "We of the Never Never." Katherine is another modern town, where a large meat works forms the main employment. From there we went on a trip to Katherine Gorge, which was well worth seeing.

The Katherine River is both wide and deep. Having travelled more than 1,500 miles over desert interspersed with dry steep sided creek beds, few bridges or causeways, the Katherine River was the first permanent water we had seen since leaving the Murray River in South Australia.

At Adelaide River is the beautifully kept war cemetery which we were able to visit.

The vegetation was now becoming like rain forest although still dry.

At Rum Jungle the uranium mines are now abandoned. They consisted of three great holes which filled up during the "wet" and had to be pumped out in order to be worked during the "dry" season. All the creeks around were polluted with chemicals from the mine with dead vegetation along the banks.

We arrived in Darwin after travelling for 16 days. It is a cosmopolitan city with every mixture of race imaginable. There appears to be no noticeable colour bar. Until recently the Mayor was a Chinese citizen. Darwin has a high percentage of public servants as many Government departments are situated there.

Much development makes work readily available but despite this there is a high unemployment rate which is probably caused by the large number of "hippie" types who seem to be there.

We saw the Ross and Keith Smith Flying Memorial where they landed in 1911 on the beach after flying from England to Australia. Swimming in the Timor Sea was enjoyable as the water was hot in September. When the tide is out it drops from 14 ft. to 20 ft. and goes out for at least a mile. There are patches of mud flat in the sand where mud skippers can be found. They look comical as they dart across the mud and burrow in to hide.

At Mary River we saw where iron ore is mined. This is moved by road trains, up to six trailers behind the prime mover. It goes to the railway, on to Darwin and then to the iron ore carriers in Darwin harbour. At Humpy Doo we saw many buffaloes, which are quite friendly providing you leave them alone.

We noticed that there is a scheme underway to tame wild buffaloes by fencing, clearing and putting in large dams in the vast areas. Notices are erected informing people of this and requesting not to frighten them.

Buffalo meat is becoming popular in the south and looks like becoming a big industry. We tried some at a barbeque and it is very tasty.



After 15 days in Darwin we had to head homeward. At "Three Ways" we turned down the Berkley Highway to Camoweel in Queensland. The country was scrubby, flat and treeless much more monotonous than the sandhills in South Australia.

We stopped at Mt. Isa which is a prosperous city with new mines being developed.

The river was so badly polluted by chemicals that there were warning signs about the danger to health if anyone was brave enough to swim in the water.

It is very mountainous around Mt. Isa, with a haze of smoke from the smelters at the mines. We passed through Cloncurry which is a very old fashioned town with wide streets. About 18 miles out of town the bitumen road ended and the dirt road began.

The dust was like fine powder making travel behind a road train a nightmare as the dust blotted out the landscape. On this road there were some bad creek crossings where despite the rough road one had to keep the van moving through the loose sand or bog down.

The Channel country as it is known is almost entirely flat, the roads across this section were still recovering from the floods the previous April. We arrived at Winton, after dark, the lights being visible from 20 miles away. The drinking water here was from bores with a high sulphur content, this continued through to Blackall.

The road was bitumen again to Longreach, here all the towns are fenced off and have grids either side on the highway to keep the cattle out. Here we saw "litter targets"



Roger's Kombi crossing the Gibber Desert.



Daughter Bronwyn, four feet high standing by a giant anthill.



Burrholes, taken with telephoto lens.



which were very effective for keeping roadsides free of litter. The main roads department scoop a hole in the roadside and erect targets like hockey goal posts over them with signs as you approach them telling you to toss your litter at the targets as you drive past.

Everyone conforms with the result that the roadside is one of the cleanest we have seen. Local shires could do well to adopt the ideal solution to rubbish dumping.

When the holes are full they are simply covered over and another made.

Near Blackall we saw several large mobs of horses in very good condition. On the roadside the bottle trees began to appear and continued until we reached Roma. After Roma natural gas pipe outlets were plentiful.

All along the roadside at intervals from 10 to 20 miles these pipes were fenced off with warnings about lighting fires nearby.

From Roma we travelled through the Darling Downs which was a bright green with young wheat growing. The weather had begun to cool down by now. After Toowoomba we noticed how each stop it got colder until we finally arrived home after a wonderful adventure, travelling 6,700 miles.



ABOVE: Katherine Gorge.

LEFT: T.V. Station, Darwin.



Todd Street, Alice Springs.





**Part of the Raw Materials handling section at Berrima Plant.**



The Electrical Shop fishing trip was once again a huge success. Those taking part were John Grilz and his nephew, Stephen, Bob Strobe, Alan Duxbury and son Graham, Malcolm Berry, Ian Betts, Chris Bromfield and Paul Lewis of the Stockhouse. The catch for the two days was 98 perch, the largest 3lb. and three trout about the same weight. All the perch were caught with Cec Warner's famous worms. Another trip is planned to commence on Friday, 21st April. Anyone interested contact Alan Duxbury or any of the Electrical Shop personnel.



# JUNIOR PAGE

It must be very difficult for Australian youth to imagine a town or city about the size of Wollongong, surrounded by a high stone wall, for defence purposes.

Yet in the countries where the older civilisations flourished, there are many such walls, and of course castles.

Your editor was puzzling over what to write for Juniors' Page, and his thought went back many years, and many thousands of miles to his home town, or city of York in Yorkshire, in the North-east of England.

The famous Roman leader, Agricola who took a prominent part in the conquest of Britain overcame a northern tribe called the Brigantes and made his headquarters at York.

It was at that time called Eboracum, this was in AD 79, only about 40 years after the death and resurrection of Jesus had taken place in Palestine.

Now the Romans had turned their attention to Britain, and as they advanced they built the famous Roman roads, some of which can still be seen today.

When Agricola went to Eboracum (York) it was already a military base with the famous ninth legion in occupation. Later it developed into the chief military centre of Roman Britain, the "Altera Roma" or "Other Rome."

York's most prominent relic of Roman days is the so-called Multangular Tower, which formed the South-west bastion of the city wall. This city wall is still standing, and also four of the ancient gateways. Of course in many places, can also be seen the various repairs carried out by the Saxons and Normans.

There are one or two gaps in the walls today, but you can walk up the old stone steps and along the walls, in this way you can almost walk all the way round the old city.

The modern city has extended far beyond the old walls, in every direction.

Four of the old gateways or "Bars" as they are called, still stand each one of them looks like the entrance to a castle.

When the enemy approached, the gates were closed. As a boy, the editor lived quite near to one of the "Bars," it was called Booth-

am Bar, and it still had its ancient porcellis a very strong, heavy, iron grating, that could be lowered vertically, effectively closing the gate.

If you have some imagination, you can hear the tramp, tramp, and the clamp, clamp of the Roman legions entering or leaving the old city, you can "see" them in your mind's eye. History can come alive.

Four Roman emperors are known to have visited York. Hadrian was there about 121 AD. Severus stayed there and died there. The legend says that his body was burned outside the walls, and his ashes carried to Rome in an urn. It is said that before he died he addressed the urn with the words, "You are about to contain a man for whom the world was too small."

Some people believe that Constantine the Great was born there, his British mother being "fair Helena of York," and his father the emperor Constantius Chlorus, who died at York in 306 AD.

In the museums in York are many interesting exhibits, which have been uncovered by continuous excavation. There are altars to the Roman gods of Mars, Hercules and Jove, and a very touching inscription which reads "To the gods, the shades; for Simplicia Florentine, a most innocent being who lived ten months, her father Felicius Simplex of VI Legion dedicated this."

## SIR ISAAC NEWTON (1642-1727)

Isaac Newton was born in a place called Woolsthorpe, Lincolnshire, England on December 25. As a boy he was more interested in inventing things, or using various tools. He is best known for his important discovery of the laws of gravity.

He also proved that a beam of sunlight or white light, is composed of the seven colours of the rainbow . . . red, orange, yellow, green, blue, indigo and violet. He found this out by allowing a beam of sunlight to pass through a small hole into a darkened room, and then through a prism.

Newton was interested in astronomy, and invented a reflecting telescope. It proved to be the first reflecting telescope used in astronomy.

He was elected a fellow of the Royal Society at the age of thirty and was president for 24 years. When he was 63 years of age, he was knighted by Queen Anne.



# JUST ONE OF THOSE DAYS

## A SHORT, SHORT STORY

Bill Travers turned into his gate with a sigh of relief. His car had seen better days, but it did get him home.

It had been a hot, tiresome day. His head ached, he felt weary. He looked forward to seeing his wife and children. He longed to flop into his favourite chair, relax, have a cup of tea, and then enjoy his evening meal.

Olive Travers, Bill's wife, had also had a hard day. Getting the children off to school, caring for baby, washing nappies and other clothing, that so quickly piled up on hot summer days. She had planned a good meal for Bill and the children.

The meal was well on the way when she discovered that she had no salt. Quickly finishing off the cleaning up, she put baby in the pram, and went to the corner shop.

Unfortunately, Olive ran into a neighbour who had plenty of time.

"Oh, Mrs. Travers, how nice to see you, how is baby? — and Mr. Travers?"

Without pausing for an answer, she went on.

"Have you heard . . . ?"

It was the usual chatter.

At last Olive managed to get away.

She arrived home to find the smell of burning food. The special dish was ruined. She felt like crying, baby did, just to help matters along.

Olive knew that Bill would be home very soon now. What could she do?

The children had arrived home from school, and were playing in the garden. Eva, aged eight, ran in.

"Mammy, can I sing to you a new song that I learned today?"

"Not just now, Eva, I must get something ready for Daddy."

"What's for dinner, Mam?"

It was Andrew, two years older than Eva.

"I don't know, it's burnt, just play a bit more in the garden."

"Oh dear, there's Daddy's car, and nothing read."

Bill strode in.

"Hello, dear."

He kissed his wife, and sensed that something was wrong. Then flopped into his chair. As he relaxed for a moment, he was dimly

"Get something yourself if you're hungry." aware of the smell of burning, but paid no attention.

"I feel tired out, had a headache all day, is there a cup of tea handy?"

Olive's reply came like a gunshot.

"You're not the only one who's tired. I'm worn out, and I've got a headache, and I could do with a cup of tea."

Bill's picture of home sweet home, was beginning to fade. He replied as calmly as he could.

"Well then, we'll both have a cup, where's the pot?"

"In the usual place, and the tea's in the caddy, you'll have to boil some water and make it yourself."

That nice cup of tea that he had dreamed of, handed to him by a gentle smiling wife. This was a rude awakening.

Bill made the tea.

His wife sat down in her chair, and was beginning to look rather defiant. He poured her a drink, got his own, and began to sip.

"Come Olive, get your tea, you'll soon feel better."

Baby started to cry, and Eva came to ask, could she sing her song now?

Olive took a sip of tea, and the baby. Eva began to sing her song.

"Mam!" Andrew's loud voice came from the back door. "What's for dinner, I'm hungry?"

Bill thought that was a good question.

"Yes, Olive, what's for dinner?"

"Nothing!"

"Nothing!" echoed Bill.

"Nobody's listening to my song," broke in Eva, almost in tears.

Bill forgot his disappointment, for the moment.

"Come Eva, sing your new song to us now, we'll listen."

Eva struggled through the first verse, the first line of the second, and came to a faltering stop.

"That was very good." He gave her a hug. "Will you sing it again for us tomorrow?"

She ran off to play.

Bill took a sidelong glance at his wife. The atmosphere was still stormy.

"What's happened today, Olive? Maybe I can help?"

"Nothing!"



"Nothing's happened, and there's nothing for dinner!"

If I'm hungry, thought Bill. He began a systematic search.

Unwittingly he began to hum to himself, 'mid pleasures and palaces, there's no place like home.'

Voices came from the back door.

"Is dinner ready yet Mamma? we're hungry!"

Just then Bill discovered some tins of soup. Better than nothing, he thought, as he busied himself and placed the pan on the quick hot plate. It was then that he became consciously aware that something had been burnt. He peeped into the oven. It looked as though it might have been meat and potato pie. So that was it. Olive had prepared one of his favourite dishes, and something had happened. But why hadn't she told him. Surely she knew by now that he would understand. He shook his head in perplexity.

He turned as he picked up the pan of soup and stepped towards the table. The cat became entangled between his legs. He fell, sprawling. Olive rushed to the kitchen and stood horrified. She quickly put baby in the pram, and, avoiding the soupy floor, knelt by Bill's side.

"Bill, oh Bill, are you hurt?"

No answer, the shock of losing his dinner the second time, was more than he could take just then.

"Bill! Olive tried to turn him over.

He sighed.

"I, I think I'm okay, but I have a sort of empty feeling."

She helped him to a chair.

Eva came to the kitchen door. The cat was now enjoying the soup.

"Daddy, why did you give the cat all that soup?"

Her eyes were wide with amazement.

"Daddy, why did you put it all over the floor?"

Andrew looked in.

"What's for dinner Mum?"

Bill and Olive looked at each other and laughed.

Baby cried.

Eva and Andrew stared.

When, at last, Dad managed to control himself, he handed Mam a two-dollar bill.

Mam handed it to Andrew.

"Run round to the shop, we'll have some fried fish and chips!"

## ACUPUNCTURE

In the December issue of the National Geographic Magazine, in a narticle on China, I read a little on the subject of acupuncture, the ancient Chinese medical practice of stimulating certain nerve points with needles.

This is being used to cure deafness.

At a school for deaf-mutes in Peking after one year's treatment, 90 percent of the students have some capacity for hearing.

The author of the article, Audry Topping, along with her father and sister, witnessed certain major operations in which needles were used as the sole anaesthetic. One of these was the removal of a tumor from the throat of a 65-year-old woman.

Immediately the operation was completed, the woman sat up and ate mandarin orange sections. She then left the operating table unaided and waved smilingly at the observers.

The head of this particular surgical department, Professor Chu Fa-tzu, explained that thirty minutes before the operation, two needles had been inserted into the nerve points at each wrist, numbing the tumor area.

Throughout the operation the acupuncturists twisted the needles, and then took them out immediately it was over.

Heart surgery followed. In addition to the needles in the wrists, needles were placed in each forearm. The chest was opened, a rib and some tissue removed, and the heart exposed. Meanwhile the patient drank orange juice through a straw and smiled at the observers.

Professor Chu explained that there are 500 to 800 nerve points in the body that can be used in acupuncture. He said that they know the results they will get, but cannot explain scientifically why they get them.

## NEW APPRENTICES

Electrical trainee, Berrima: Warren Scott.

Electrical fitter-mechanic: David Burnett, Berrima, Barry George, Berrima, Ronald Kruk, Marulan.

Fitting and turning: David Moore, Berrima, David Guymer, Berrima, Brian Slater, Marulan, Terry Baker, Marulan.



## SUNBURN

On a recent week's leave it rained for almost four days and nights, on the fifth day the sun shone, and in spite of the fact that the family took precautions, we were sunburnt, myself worst of all.

This caused me to look for information on the subject.

I discovered that sunburn is an inflammatory reaction of the skin to rays of light, not to heat rays. It can occur on snow fields as easily as in the hottest climates.

As you have probably noticed, the redness does not appear immediately, but several hours later. For ordinary sunlight, most skins can cope, they can produce enough pigment to protect themselves. It is when a large dose of light is received, without gradual preparation, that the acute inflammation occurs.

There is a great deal of variation in reaction to the sun's rays. Blondes mostly grow very red, they burn instead of tanning. Brunettes often do not redden at all, but take on a tan colour, this is due to increased pigmentation in the skin.

If exposure is prolonged, or if redness has lasted for some time, the skin becomes dry and hard, or dead. The top layers peel off.

Pigmentation is the skin's chief protection from the sun's rays.

The pigment containing cells are called chromatophores, literally it means, "colour-loving-cells." Blondes have fewer chromatophores than brunettes.

The coloured races, naturally, have the greatest number of chromatophores, and therefore have greater resistance to the sun's rays.

I now know that when the first signs of sunburn appear, a cold cream should be applied. If there is swelling, a wet dressing of a slightly astringent and cooling solution, such as boric acid, should be applied, followed by a powdery liquid such as calamine lotion.

These reduce heat, cool the skin, and help absorb the water in the skin. The action of cold creams is very good, cooling, soothing and protecting. I also learned on the plant that Johnson's baby powder, applied immediately can be very cooling, soothing and healing.

This came from a doctor's advice.

Exposure to strong sunlight never results in a third degree burn, but is of a first and second degree character.

It could be, of course, that this information is too late for this season, but keep it in mind.

## BITS AND PIECES

Have you even wondered why parrots talk and other birds do not?

It is not true that other birds cannot be taught to talk, but it is true that some birds will learn and others will not.

Probably the way in which a bird hears goes for a good deal. If you do not hear properly you cannot imitate the sounds made by other people. It may be that parrots have better ears than many other birds.

It may also be because these birds have brains to help them distinguish sounds better.

Talking is really a matter of the brain, far more than the teeth and tongue and lips. But the talking of the parrot, of course is utterly different from the first talking of a child as it learns, though very likely the child does not talk as distinctly as the parrot.

When the child talks it means something although we may not be able to understand what it means.

The parrot never means anything, probably because it never understands what the words it hears mean. The parrot is like a tape-recorder. You talk into it and it talks back to you, but understands nothing. So really, the talking of the parrot is not so clever as for example, the way in which insects tell each other what they want.

ooOoo

Can we believe Plato's story of a civilisation that disappeared in a night and a day?

It is clearly not an invention of his, but a story brought from Egypt by the Athenian statesman Solon in 600 B.C.. He had travelled Egypt to gather material for an epic work of history, and was given the story of Atlantis by Egyptian priests who could have had no reason to invent such a story.



# GARDENING

**FLOWERS** — Sow: Antirrhinum, Bellis perennis, Calendula, Canterbury Bells, Carnation, Cornflower, Delphinium, Lupin, Mignonette, Nemesis, Nemophila, Primula, Sweet William, Stock, Wallflower; Plant: Antirrhinum, Cineraria, Iceland Poppy, Pansy, Stock, Viola, Wallflower.

**VEGETABLES** — Sow: Beetroot, Beans, Cress, Lettuce, Mustard, Onion, Peas, Radish, Turnip; Plant: Broccoli, Brussels Sprouts, Leeks, Cabbage, Cauliflower, Herbs.

We have had almost another eight inches of rain during January, and everything in the garden has become soft and sappy, Moulds and mildews are now appearing, so get busy with the Bordeaux Mixture for control.

Hydrangeas have been making a spectacular display over the past few weeks. When these flowers commence to fade, any not needed for winter decorations, should be pruned lightly to firm wood to keep the bushes shapely.

Plant most Spring flowering bulbs this month. Daffodil bulbs only need to be lifted and replanted in new soil every four years. Grape Hyacinth, Lachenalias, and Lily of the Valley, Jonquils, Hyacinth, Nerines, Tulips, Watsonias, Anemones, Freesias, Ranunculi, are more of the favourites which can be planted now.

Prepare the ground for lawn grass sowing next month, keeping the area weed-free.

Spray the fruit trees with Rogor 40 to control Fruit Fly and pick up and burn or bury all fallen fruit.

There's a small, thin, hairy caterpillar which is very active just now and which can defoliate shrubs in a very short time. Watch out for it, and spray plants with "Bug-Getta" for control. Keep baiting for slugs and snails. There are "armies" of them about after all the rain.

After talks with Solon, Plato wrote that Atlantis was a highly organised state; its people highly literate and versed in the art of working in bronze, gold, tin and other metals.

He wrote that the land was beautiful, rich in natural resources, and consisted of two or more islands. Coloured stone, he wrote, was quarried from beneath the centre of the islands.

Over the years, Atlantis has been "located" several times between the Sargasso Sea and the Indian Ocean.

Nowadays, scientists generally agree that its location was in the Eastern Mediterranean. Experts agree that a huge eruption, blew a huge hole in the area in 1470 BC and Atlantis caved in.

Pottery recently excavated tends to prove that Atlantis did, in fact, exist.

## LETTER TO THE EDITOR

I have just received the copies of your "News" and was delighted to see those familiar faces on the "centre spread."

As Scouts have not yet resumed for the year, I have not yet been able to show them the magazine, but, for myself and on their behalf, I would like to express my thanks not only for these copies but also for the friendship and courtesy extended to us all on the tour and especially for the services of such a knowledgeable and amiable guide.

This picture will be more than just a record of our tour to be placed in our log, but also an inducement to those scouts who did not attend the camp to attend others and share in the excitement.

Should anyone from your company require assistance in Sydney, perhaps in the way of sight-seeing or accommodation, we would be pleased to assist them as you have us.

Yours truly,

A. DALLEY,  
I.A.S.M. Second Artarmon





Roger Seville's three children, Martin, Carlene and Bronwyn look like dwarfs against the Devil's Marbles.

## SAFETY MATCHPHRASE RETURNS FOR THIS MONTH

### LIST OF STARTERS

1. It's always wise .....
2. Safety Rules .....
3. Management .....
4. Unsafe conditions .....
5. On top .....
6. Accidental death .....
7. Safety meetings .....

Use one or the above starters, then add from two to six words, making a good Safety Slogan. Each entrants allowed two entries.

First prize \$3.00, second \$2.00, Five prizes of \$1.00 each. Closing date, March 2nd. "Rytewords" again next month.

### CORRECT ANSWERS AND RESULTS OF SAFETY RYTEWORDS, No. 7

1. Sane; 2. Anger; 3. Fatal; 4. Enlist; 5. Test; 6. Yet;
7. Attain; 8. Light; 9. Labelled; 10. Tape; 11. Handicap;

### JUNIOR CROSSWORD WINNERS

12. Earnest; 13. Trade; 14. Ideal; 15. Misery.

No correct answer was received, Mrs. A. J. Shepherd of Marulan had one mistake and is awarded second prize Millhouse, Sydney office.

The first prize will jackpot to the next Rytewords competition in March.

of \$3.00. Four entrants had two mistakes and receive \$1.00 each. They are: Nance Carter, Sydney Office; Mrs. J. Dickson, Berrima; Mrs. N. Koschenow, Marulan; D. J.

Each will receive 50 cents. Douglas Eirth, Marulan. Grahame Dickson, Berrima.



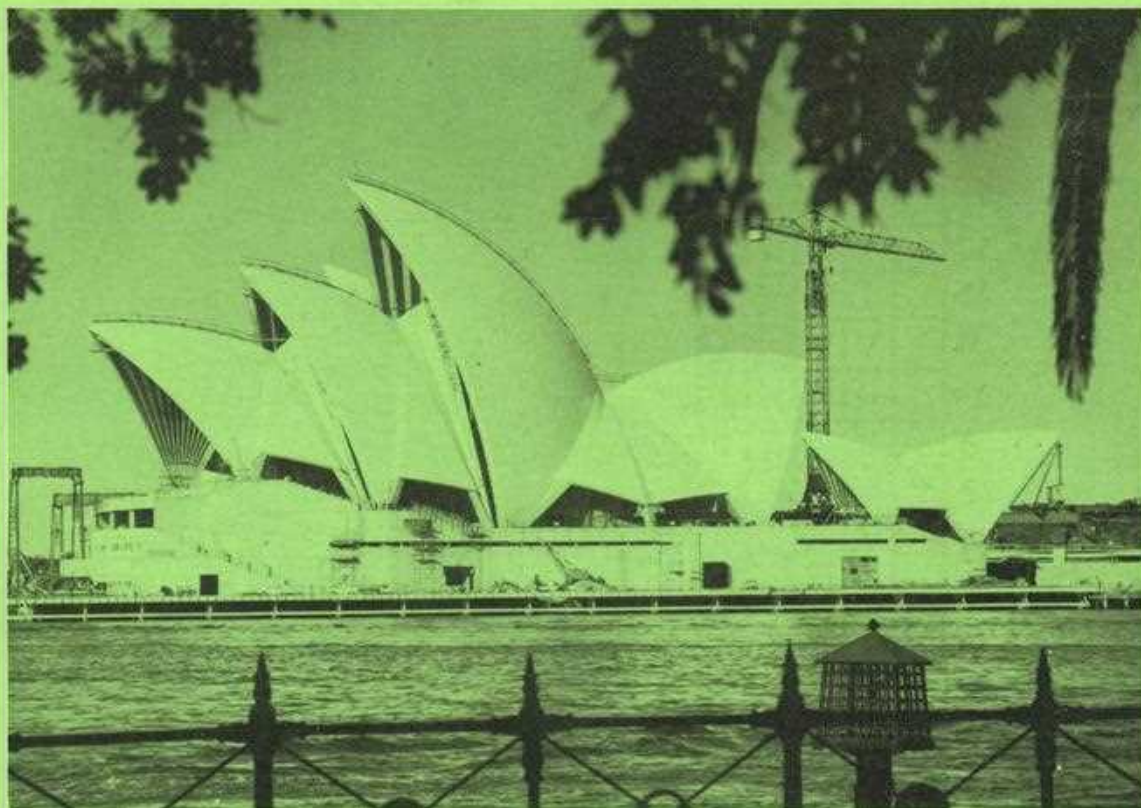
PS



AUSTRALIAN PORTLAND CEMENT LTD.  
and  
SOUTHERN PORTLAND CEMENT LTD.  
Berrima — Marulan — Medway — Sydney

# NEWS

VOL. 1 — No. 10  
MARCH, 1972



Completed tiled shell roofs of Sydney Opera House



# *A.P.C.L. and S.P.C. News*

MARCH, 1972

VOL. 1 — No. 10

## CONTENTS

PAGE—		PAGE—	
1	Editorial.	13	Juniors' Page. Bits and Pieces.
2	Heard on the Grapevine.	14	Metric Messages. Metric Diets. Fishy Tales.
3	Record Tonnage of Cement Despatched. News from a Globetrotter. Bits and Pieces.	15	Nature Notes.
4	The Sydney Opera House.	16	Gardening Notes.
8	N.A.T.A.	17	An Alphabet of Industrial Safety. Safety Matchphrase Winners.
11	Straightening out No. 5 Kiln.	18	Rytewords No. 8.

### REGULAR CONTRIBUTORS

#### BERRIMA . . .

R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

#### SYDNEY OFFICE:

Miss Lorraine Lucas.

#### MARULAN . . .

W. McCallum.  
E. Cooper.

#### COLLIERY . . .

M. Thorpe.

#### PHOTOGRAPHY . . .

C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:

Australian Portland Cement Limited  
and  
Southern Portland Cement

#### PRINTERS . . .

Southern Highlands News Pty. Ltd.  
Bowral.

All-correspondence and enquiries to:—

THE EDITOR,  
A.P.C.L. and S.P.C. NEWS,  
P.B.S. No. 4, Moss Vale, N.S.W. 2577.

#### COPY DEADLINE:

28th of the month prior to the month  
of issue.



# EDITORIAL

The four-day Easter holiday will soon be with us. How many will die on the roads this year? How many will be injured for life? How many lives will be changed for the worse, will endure days and years of mental or physical pain?

Last Easter holiday, 25 people died on N.S.W. roads. Men, women and children, who could have been alive today! But what of the hundreds who are severely injured?

Many become quadraplegics (paralysed in all four limbs), many paraplegics (paralysed in both legs) some become violent because of head injuries. Homes that were happy, normal homes, are turned upside down. Plans have to be changed, often a wife spends the rest of her days looking after an invalid husband or vice versa. Is speed, alcohol or carelessness worth this?

In spite of all the effort in driver education, safer roads, safer cars, it is still the "nut behind the wheel" that is the main cause of the high road toll.

One cause that is often overlooked is emotional stress. In the American magazine "Family Safety" an article entitled "Hang on to your Emotions" showed that emotional stress was prevalent in 80 percent of all accident fatalities studied. To quote, "More than half of those killed, had had a serious interpersonal conflict in the 24 hours immediately prior to the accident."

A family quarrel can bring about the stress induced accident. The affected party takes to his car or motor-cycle, and throws all caution to the winds, using it to express his feelings of rage.

However careful we may drive, the highway is a dangerous place, but reasonable speed, common sense, a car that is regularly checked, and a driver who has a clear head, free from the poison of alcohol, and free of stress, can survive. This has been proved again and again. Let us always keep in mind that at the wheel we are responsible for the safety not only of our own life, but the lives of our passengers, and other road users.

Let us remember to take our safety consciousness with us, when we leave the plant, and reap a far higher "bonus."



# HEARD ON THE GRAPEVINE

## SYDNEY OFFICE

During the period since Sydney office appeared in the "News," we regret to mention the loss to our staff of Miss Atkinson, who retired at the beginning of January, after many years service to this company. Miss A will be missed by all in the office and many of the Berrima staff, will no doubt feel her absence.

ooOoo

Another happy face lost from our staff is that of Kerry Scott. Although Kerry was with the firm only a short while, she had become a popular member of the staff. We would like also to congratulate Kerry on gaining a Commonwealth Scholarship to further her studies at Sydney University.

ooOoo

As well as these losses we are happy to mention two additions to our staff. Mr. F. Meyer has joined us as Technical Service Manager, N.S.W. and Anthony Downes as a member of our clerical staff.

oo Ooo

Holidays seem to be "in vogue" at Sydney during the last few weeks. Len Wilson, Don Millhouse and Jack Peerman have all disappeared to places unknown? Gail Fielder, our horse enthusiast, has spent a week of her holidays horse riding; while Lorraine Lucas recently spent her leave in Perth. Barbara Williams was at The Entrance for a holiday but does not recommend the Sydney weather which supplied a steady drizzle for most of the time. Missing for a week on a short holiday was Chris Sullivan. Nance Carter has again left us, on long service leave, for an exciting cruise to the islands.

## MARULAN

Max Koshenow's daughters have received good passes in their studies. Nadia, at Goulburn College of Advanced Education gained five merit passes at the end of the third semester. She will begin teaching, after her marriage in June this year.

Veronika matriculated and received her Higher School Certificate. She was also awarded a Teachers' Scholarship to the Goulburn College but chose a nursing career, aiming to become a Tutoring Sister. Last year the youngest daughter, Luba, was admitted to hospital for over five weeks, but she passed her third year examinations well. This year she is sitting for her School Certificate examination.

## COLLIERY

Lew and Maria Wilson now have another son, Grant Edward, a brother for Mark and Paul.

ooOoo

Bob and Jenny Krahenbuhl have now returned from an enjoyable caravan holiday in South Australia.

ooOoo

Hec McDonald took part of his long service leave owing to his wife's illness. We hope she is much improved.

ooOoo

Jim (Cricket) Aston recently lost his father who resided at Austinmer on the South Coast. We extend our deepest sympathy to Jim in his bereavement.

## BERRIMA PLANT RETIREMENT

George Kyngdon retired on 18th February. He started in February 1959, being with the company 13 years.

Before the war he was with Quality Casting, Sydney, for 11 years. During the war he worked on production with the Beaufort Bomber Division. The depression years found him working wherever work could be found, in various parts of the country.

For eight years of his stay with S.P.C. and A.P.C.L., George carried out maintenance on the Limestone Cranes. For the last three years, he has worked in the Machine Shop.

George received a cheque from Mr F. L. Veale on the 18th and returned on the 25th, when he was presented with a clock by Keith Graham, Machine Shop Foreman, on behalf of his mates. All who knew George wish him a long and happy retirement.

(Pictures — Centre Pages)



## RECORD TONNAGE OF CEMENT DESPATCHED

Another record was broken by Berrima plant in February of this year, when 47,895 tons of cement was despatched, this in a month of only 21 working days.

The previous record was in September, 1970, when in 22 working days 46,492 tons of cement left the works.

A great deal of long and hard work made this possible. Congratulations to all concerned.

## NEWS FROM A GLOBETROTTER

Mr. L. Humphries, Safety and Employment Officer, Berrima, at the time of publication will be in Europe, on long service leave.

The editor received a letter dated 13th February, and at the time Les was sailing up the Rio-de-la Plata, on his way to Buenos Aires, Argentina.

His letter gave an account of the journey through the Straits of Magellan, and a visit to Punta Arenas, the most southerly city in the world, situated in Chile.

To quote his own words, "The mist began to lift, revealing very high mountains, some partly covered in snow, but as we proceeded it became colder, and now we were travelling with huge snow capped mountains on either side. It was spectacular to say the least, and the sheer beauty of it all was breathtaking. We passed several glaciers. All the mountains of course are part of the great Andes Chain which separates Chile and Argentina.

We sailed through this spectacular scenery for about 10 hours, finally reaching Punta Arenas about 10.30 p.m. Our ship had to anchor some distance off shore, and early the next morning we had two boats from the Chilean Navy to take us to land.

Even though it was mid-summer here, it was very cold, and an icy wind blowing. As soon as we stepped ashore, what did I see, but bags of cement called Bio-Bio being unloaded.

Punta Arenas is supposed to have a population of 75 to 80,000. We found it very drab. The people appeared to be poor, and were not well dressed. We saw a few queues at some of the shops. Even at the post office we had to wait in a line to buy stamps.

The shops were not well stocked, and all goods did not appear to be of the best quality. Many shops seemed to be closed, others displayed notices indicating they would be open at certain hours.

The streets were very narrow, with a great number of vehicles travelling at fast speeds in one direction streets. We soon learned to be very careful when crossing, the drivers just cut the corners, and without a great deal of care one could soon become a casualty.

We also found some streets had gaping holes in the footpaths, where work was apparently being carried out, but not in too great a hurry, and there were no barriers nor signs to indicate a hazard.

So after we had walked around looking for a restaurant in which to have a coffee, and which we didn't find, we had to return to our ship."

So ended the visit to Punta Arenas, as more information comes to hand we hope to pass it on to readers.

## BITS AND PIECES

Have you ever wondered why we get a lump on our heads when we bang them?

What happens is that as a result of the bump, a certain amount of damage is done and the body immediately prepares to repair the injury. The blood vessels in the affected part enlarge so that a quantity of blood goes there. Certain of the fluids of the blood soak through the walls of the blood vessels, while numbers of white blood cells pass through the walls also. This extra amount of fluid and vast gathering of cells create a swelling, or a bump.

The fluids and cells are all these for a purpose; they bring materials from which new substances can be made to repair anything that has been damaged or broken. If microbes are there the fluids include substances that are poisonous to microbes, and the white cells eat the microbes and the lump disappears and the affected part has been made well again.



# SYDNEY OPERA HOUSE

The photographs, history and construction information used in this article is reproduced by kind permission of the Sydney Opera House Trust.

No doubt the question has arisen in your mind, at some time or another, where is our cement being used? In what major projects is it being incorporated?

Now, with the co-operation of management, Sydney Office and those in charge of the publicity of various projects, we are able to throw some light on this.

All of us in the Cement Industry, whatever our job may be, are making a contribution to the building up of Australia in a double sense.

The first article in this series is the story of the Sydney Opera House.

## BRIEF HISTORY

The need for a first class centre for the performing of arts, music, drama, ballet and opera, became increasingly apparent after the Second World War, with the great increase of new settlers, mostly from Europe.

Mr. Eugene Goossens (later Sir Eugene Goossens) when Music Director for the Sydney Symphony Orchestra in 1949, urged the construction of a prestige building to provide accommodation for a variety of entertainment with, of course, the needs of the orchestra primarily in mind.

In August, 1959, the New South Wales Government decided to investigate the possibility of building a suitable centre, to provide for Sydney's expanding cultural needs.

Many sites were considered, but in the end Benelong Point was selected.

An international architectural competition was held in 1956 in order to select a design for the building. The winning design was that of a Danish architect, Jørn Utzon.

Work commenced on the site on March 2nd, 1959. Stage I construction comprised the foundations and base of the building. This was completed in March, 1963. Stage II — construction of the roofs and some subsidiary work, commenced the following month.

The final stage, Stage III, is now in progress, and its completion will make the Opera House complex, fully functional.

This includes internal and external fin-

ishes, glass infilling under the roof openings, air-conditioning and heating, installation of stage machinery and stage lighting equipment, and the many complex subsidiary facilities.

The centre will have five performing halls with a total audience capacity of about 5,500. The concert hall for Symphony, choral concerts and other uses will have seating for 2,700. The Opera Hall, for opera, ballet and large scale drama, will accommodate 1,500.

The drama theatre will have 600 seats. The Chamber Music Room and Cinema 450, and the Recital Hall-Reception Room 150.

All halls will be able to function independently, and simultaneously. Facilities will also be available for multi-language international conventions.

Artists and the technical and administrative staff will have their own dressing and rest rooms, canteens, offices and recreational areas.

There will be a split-level first class restaurant and refreshments for the general public will be available on the north east broadwalk facing Sydney Harbour.

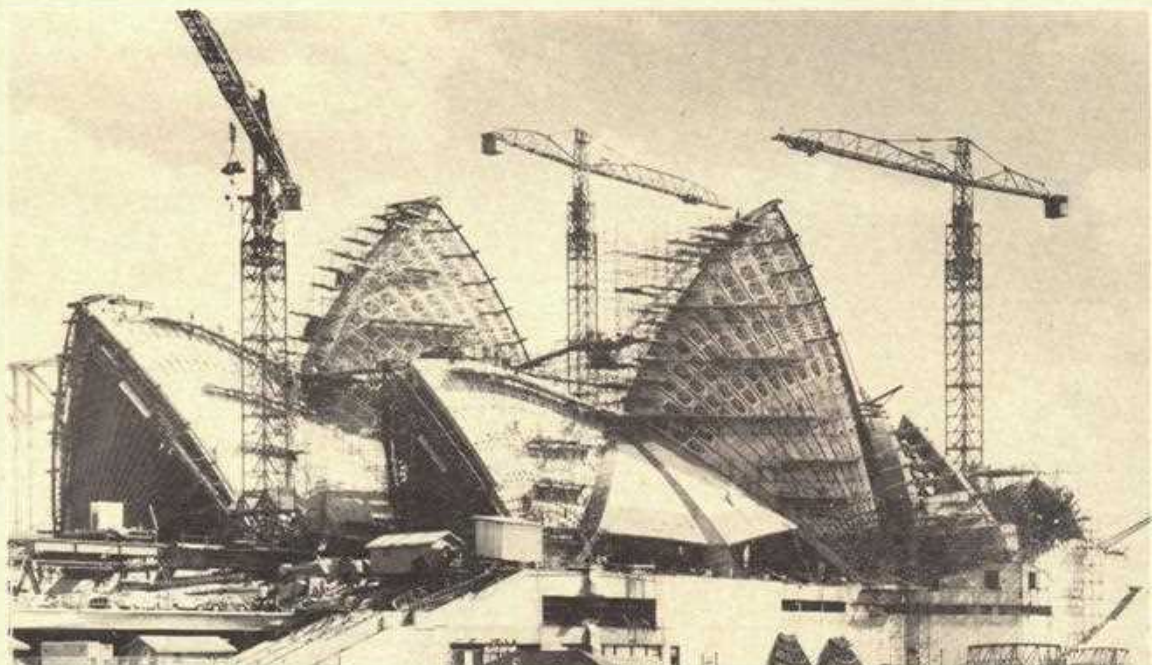
## A MAJOR ENGINEERING ACHIEVEMENT

The construction of the shell roofs involved techniques never before attempted, and was indeed a major engineering achievement.

The main shells have been built up from a series of identically shaped ribs, tapering in fan shape from the ridges to the narrow bases. The three roof groups incorporate 280 ribs. Each rib is composed of a number of pre-cast reinforced concrete segments which have been positioned on top of one another to their full height. Stressing cables tensioned through ducting in the ribs secures them together. A unified arch is formed when the ribs on each side of a shell are joined together at their top by a ridge beam through which additional cables are tensioned. The arches erected against each other, are interconnected by bolts and cables to form the eventual completed shell.

The interior rib surfaces of the roofs will be exposed in natural, off-form concrete finish. The open ends of the shells and open spaces below the side shells will be infilled with 1½" thick laminated plate glass supported on steel mullions.





Concrete formwork used in construction of shell roofs.

Partly covered shell roof, showing tiling and concrete formwork used as base for tiling.

These two pictures and our cover picture show progressive stages of the shell roof construction. Estimated weight of the roof is 26,700 tons, and the highest point is 221 feet above sea level.



About 40,000 square feet of glass with panels up to 10ft by 5ft in size, will be used. Bronze vertical slats on the outside, and smooth finished concrete on the inside will fill the spaces between over-lapping roof sections.

Close attention to detail in all phases of construction has been essential, requiring the constant use of computers to check and correct all work in progress.

It has been estimated that computer work undertaken would have occupied 1,000 mathematicians for more than 100 years!

#### FACTS AND FIGURES

Weight of building (excluding granite paving and cladding) 6,000 tons of steel; 120,000 tons concrete.

Height of tallest shell, 221 feet above sea level.

Weight of roofs, 26,800 tons.

Ground area of building,  $4\frac{1}{2}$  acres.

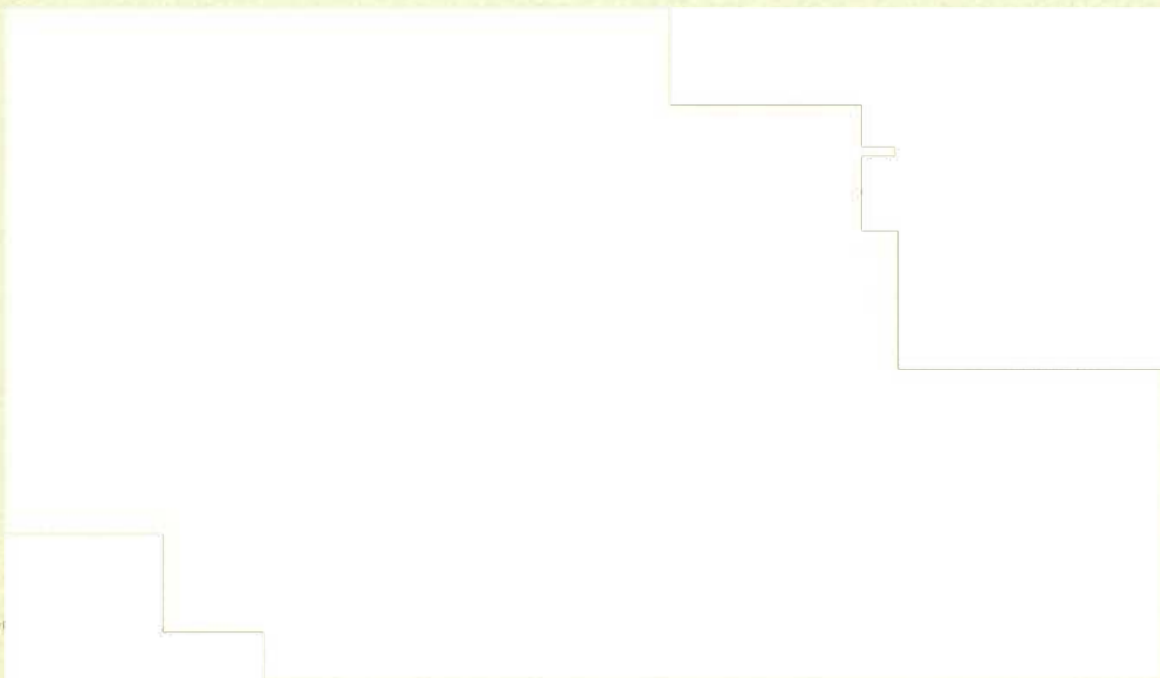
External dimensions of building 186yds x 116yds.

Number of pre-cast segments in roof, 2,194 (weighing up to 15 tons each).

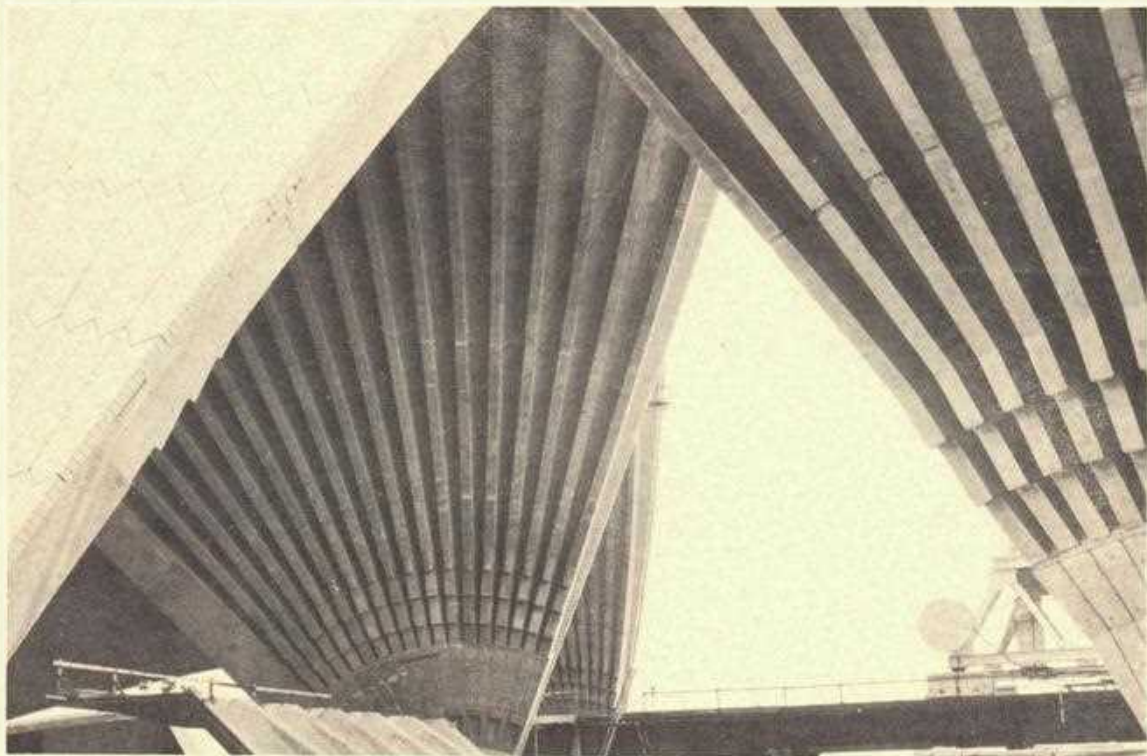
Number of pre-cast tile panels, 2,420.

Total surface area of roof, approximately 200,000 square feet.

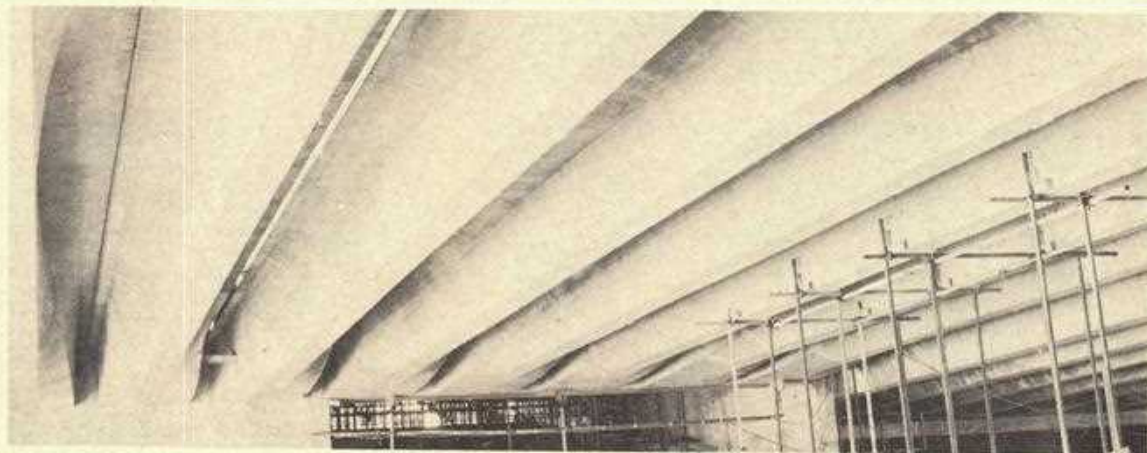
Total length of stressing cables in roofs: 217 miles.







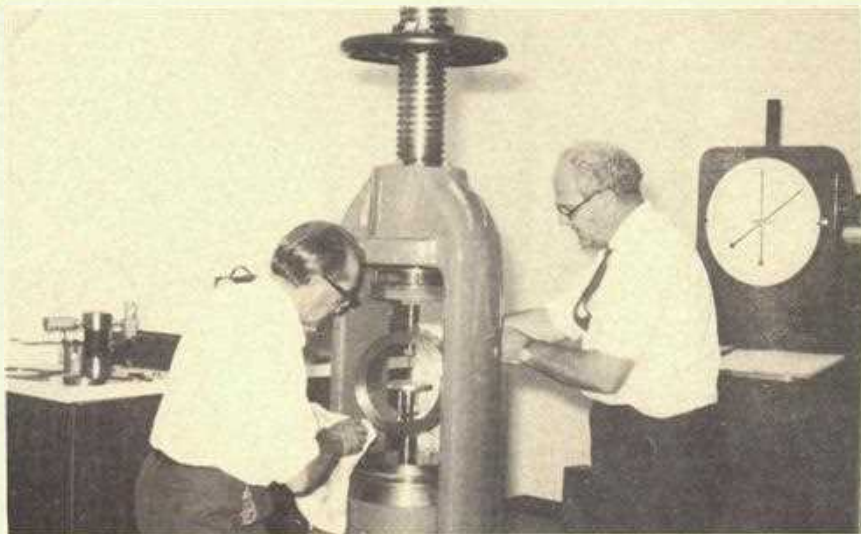
Concrete ribbing on underneath side of shell roof.



Pre-cast concrete ribbing above car entrance.

The 47 folded pre-stressed concrete beams over the car entrance, are understood to be the longest spans of their type in the world, the length of the largest one being 173 feet. They were cast on site during construction of stage I of the Opera House.





## N.A.T.A.

N.A.T.A., National Association of Testing Authorities, is the Australian organisation for the approval of Testing Laboratories. It registers laboratories which meet its standard of performance.

As the Technical Services Centre incorporates a N.A.T.A. Registered Laboratory, at specified intervals it is necessary to have the testing equipment checked by a registered auth-

ority. This ensures that customers are supplied with results of tests which have been carried out according to the highest authorities requirements.

Our pictures show Mr. Kitchen and Mr. Landsmann carrying out checks on our Compression Testing Machines, on behalf of the University of N.S.W. These Amster Testing Machines are checked annually and have met the requirements of the checking authorities since installation.







ABOVE: Top left — George Kyngdon on the job

Top right — George displaying the clock presented by Keith Graham on behalf of his mates.

CENTRE: Mr. K. Graham, Maintenance Foreman, Berrima, congratulates and farewells George.

RIGHT: Mr. and Mrs. Friend toured A.P.C.L., Berrima, in February. Lloyd and Evelyn Friend hail from Canada, Vancouver, B.C., and Toronto, Ontario, respectively. They are working in Australia, and touring the country at every opportunity.







Pictures taken at a recent A.P.C.L. v Chevalier match.  
Photography by Mr. W. Gale, Production Superintendent, Berrima



On February 12th, 1971, the whole of Berrima Plant reached 600 days without a lost-time injury. The 600-day pennant is here being hoisted outside the works office by riggers, Tet Lorkowski and David Crackford, Mr. F. L. Veal, Works Manager, Mr. W. Gale, Production Superintendent, and Mr. L. Landsdown, Works Secretary, in attendance.



## STRAIGHTENING OUT No. 5 KILN

Mr. Roy Shead, Works Engineer gave us the following information on an "operation" recently performed on No. 5 Kiln.

The accompanying photographs also help to tell the story.

Due to a brick failure adjacent to No. 3 tyre; No. 5 Kiln developed a very bad warp, causing the tyre to lift off the rollers for approximately half of each revolution, the maximum lift being approximately half an inch at the time of attempted straightening.

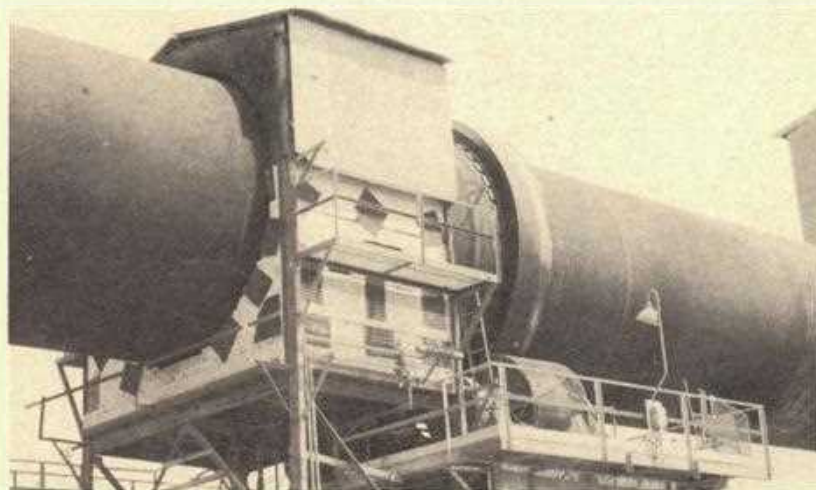
The attempt at straightening was made by building an insulated furnace around the damaged section of the Kiln Shell, and inserting four L.P. gas burners of  $1.3 \times 10^6$  BTU capacity each.

The shell temperature was then brought up to 1350-1400 deg. C for a number of hours to relieve internal stresses in the shell.

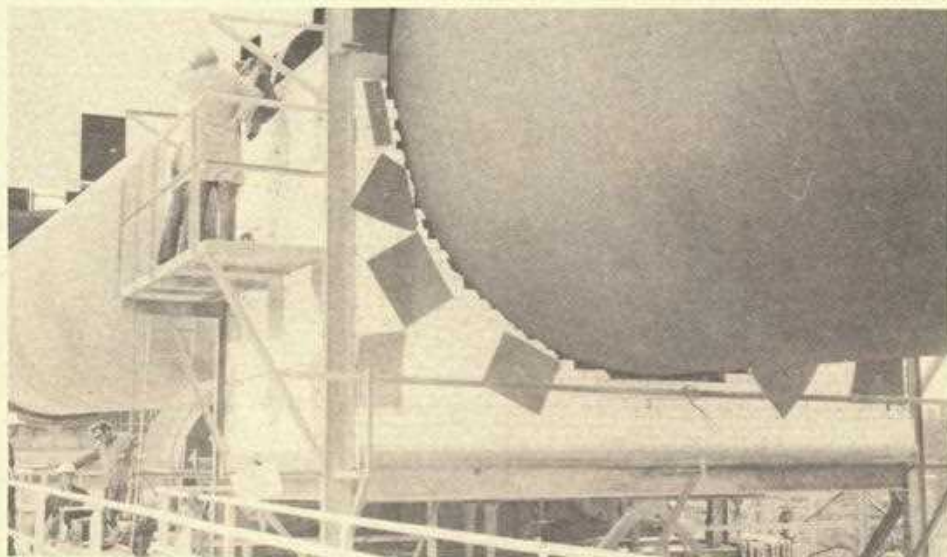
Meanwhile, the lift of the rollers was measure periodically and lead wire prints between the tyre and rollers were also taken periodically, in order to ascertain the pressures between the tyre and rollers.

When measurements showed only 0.055 maximum deflection some 16 hours later, the heating was discontinued.

It was felt no further improvement would be obtained until more pressure could be brought to bear on the kiln shell. For this, improved facilities for moving the rollers would be necessary.

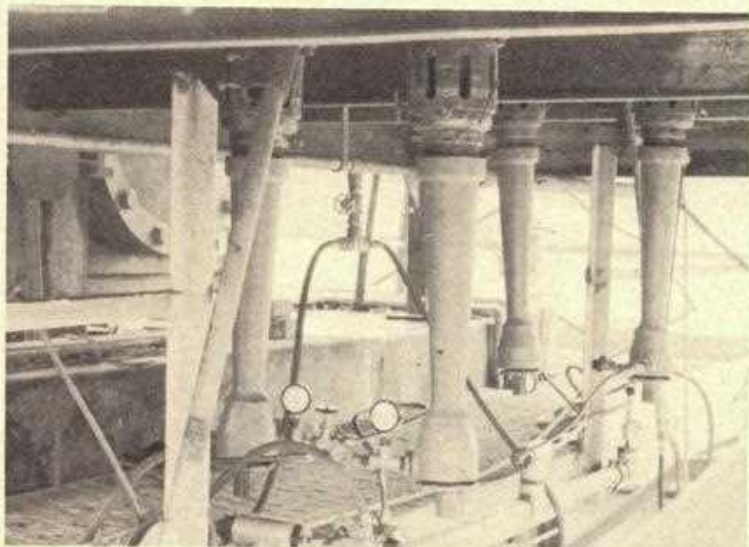






LEFT — A closer picture of the insulated furnace built around No. 5 Kiln for the straightening operation.

RIGHT — How the gas was supplied.



LEFT — The huge gas burners.



# JUNIOR PAGE

## THE CAT FAMILY

It is hard to believe that huge lions and tigers belong to the same family as the small, gentle house cats. Even the extinct saber-toothed tiger belonged to the same family and it had a pair of teeth eight inches long, which looked like daggers.

All cats are among the best hunters, and they are well equipped for this necessary task.

Cats keep their claws sharp by scraping them on tree trunks or other rough surfaces.

Most cat's claws can be pulled back (retracted) into folds of skin (sheaths) at the ends of their toes. When the claws are retracted it can walk silently.

Cats walk on their toes; their heel bones do not touch the ground. They have five toes on each front paw, and four on each back paw. They have small pads on their feet that help them to move quietly.

Most cats hunt at night. They have a fairly good sense of smell, keen hearing, and the ability to see very well in dim light. The cells within a cat's eye are very sensitive to light. At night, the coloured part (iris) of a cat's eye opens very wide, letting in extra light, in this way the cat can see much better than most other animals.

Cats that hunt during the day, such as the lion and the cheetah, have irises which contract into small circles like those of humans and other animals. The night cats' irises close to a thin vertical slit when in bright light.

The cat has over five hundred muscles which it can control and use at will. Its backbone is flexible so that it can twist and turn easily. It can run swiftly for short distances, and take great and powerful leaps.

Most wild members of the cat family are the colour of dry grass, dead leaves, and bare rock which make up the environment in which they live. They usually have from two to five cubs every two years.

There are two kinds of house cats.

Shorthair and longhair. Persian cats have long hair. The Manx cat originally from the Isle of Man, has no tail.

Cats shed their coats three times each year, Spring, summer and Autumn. The purring sounds that most cats make when relaxed are from a pair of false "vocal chords" above the true chords. The true chords relax and air is free to vibrate around the membranes of the false chords.

House cats have from four to eight kittens at one time, and may have litters as often as two or three times a year.

They have very rough tongues, and so can keep themselves clean.

They have thirty-two teeth, designed chiefly for cutting and tearing. For them, flesh is more easily digested than grains and grasses.

Cats eyes glow in the dark because the cells of the retina are coated with a chemical (guanine) which reflects light.

## WHAT IS CHALK?

Chalk is a soft, porous, white or greyish-white limestone made up of minute, marine shells. It was formed as mud on the bottom of an ancient sea and differs from pure limestone because it was not hardened as much. It is still soft and can be rubbed off.

Chalk deposits are found on the White Cliffs of Dover, England, in France and in Western Kansas, USA. They contain preserved skeletons of extinct sea serpents, flying reptiles, birds and fishes.

Chalk is made into whiting for the manufacture of rubber goods, paint, putty, soft polishing powders, tooth powder, Portland Cement and top dressing for soils. Chalk for writing on black boards is made of magnesite.



# METRIC MESSAGES

## NEW NAMES FOR OLD

It is not realised by many people how little actual measuring is done by the average person, or how often certain units are implied rather than stated.

For instance, when we buy a pound of butter, we more often than not ask for a pound packet, and perhaps never actually check its weight, knowing that our interests are safeguarded by government regulations or law.

Petrol is often bought by the dollars worth, the tank full, or a fill up. When tyres are inflated we may ask for, say, "29 all round" and do not specify that we mean "29 pounds per square inch all round."

In day to day living, metric conversion will mostly involve simply getting used to a different size or number. In the case of petrol, it will still be 'three dollars worth, please' and "29 all round," will become "200 (kilopascals) all round" and half a kilogram will take its place in our daily lives as a convenient size for buying some foodstuffs.

In a very short time, these different sizes or numbers will become familiar. Just as the values of various commodities in dollars have become familiar, and precise definitions will not be important in every day life.

In this way, the change should present few problems to the man in the street or the housewife, who will rapidly become used to buying goods and services expressed in metric quantities, with little conscious effort, and certainly with only an occasional need for mentally converting.

## METRIC DIETS

The kilojoule is the unit most likely to replace the calorie in dietetics.

This follows the decision which has already been taken by the International Union of Nutritional Sciences to adopt the joule as the base unit.

The kilojoule — one thousand joules —

is about one-quarter the size of the so-called calorie (in dietetics) which is in fact the kilocalorie. Typical energy values in kilojoules (kj) of some popular foods are:

Apple 150kj.

Slice of white bread, 300kj.

Standard egg, 325kj.

Glass of milk, 540kj.

portion of cheddar cheese, 850kj.

Lamb chop, 1350kj.

Report from the Metrication Board, London.

## FISHY TALES

No doubt you saw the photo of the enormous Groper speared on the north coast of N.S.W. recently. Since reading comments in the newspaper, my thinking has been endorsed. There seems to be a number of folk who fail to appreciate the unnecessary slaughter of our varied wild life on this planet! If something is killed in order to be used as food, clothing, building material, or some other useful purpose, then one agrees.

I remember a story, reported in a digest within the last two years, of a game fisherman in New Zealand waters. He hooked a very big Marlin, and battled with it for over 48 hours. During this time people brought him food and drink.

When he was just about reaching a state of collapse, he thought he had the big fish beaten, but with renewed energy the fish dived deep and broke his tackle. His comment was unexpected. He said "He was a game fighter and he deserved his freedom!"

I think the fisherman would actually have been disappointed had he seen his game opponent lying dead on the deck!

If this wet weather keeps up we will be fishing out the back door! One never knows — I might find the fishing very good after the rough weather, when I visit the far north coast next month.

On my return, one of our old fishermen in the person of Ern Radnidge will be missing from the plant. I am in a good position to say what a fine workman and workmate Ern has been, and he thoroughly deserves many a good trip to his old fishing ground — Foster — in his retirement. All the best, Ern!



# Nature Notes

(By CHRIS SONTER)

Once again summer has slipped by — this time almost unnoticed, and from now on we can expect the days to become shorter and colder. This is the time when nature "rests," a time of "slowing down" or a time when things mature in readiness for the on-coming spring and summer months.

The bushland becomes "dead" and the hot summer skies give way to grey clouds that are driven across its vastness by cold blustery westerly winds.

Migratory birds have left for warmer climates, reptiles have gone into a state of semi-hibernation, seeking protection in hollows, of logs, etc. Insects have died and left their eggs and pupae in protected egg cases and cocoons. The recent "soft" spring and summer growth of the plants will harden to form yet another annual growth ring.

So, briefly, that is winter, and signs of its commencement have already been indicated by the ripening of the hawthorn bushes and various other ornamental shrubs.

Usually it is found that when the bushes are loaded and heavy with fruit it indicates that a long hard winter is at hand. The supply of fruit ensuring an adequate supply of food for birds in particular.

Another interesting indication of approaching winter is the flocking of birds. In this case mainly seedeaters, although I have noticed other species flocking together.

Here in the district, I have noticed a large concentration of Sulphur-crested White Cockatoos. It has been a good number of years since these birds have "flocked" together here. I have noticed that they camp on the southern end of Mount Gibraltar and at about 8.00 a.m. they fly off to feed on pasture land a few miles out of Bowral in the south-east direction.

Whilst going across to Adelaide last winter, my wife and I came across several flocks of another white cockatoo — the Long-billed Corella, an inhabitant of the dry inland regions. Their favourite haunts are sand plains with tree-lined watercourses bordering them.

They seem to have a special liking for those Jam Melon-like fruits known as Pademelons.

Galahs too, are forming themselves into large flocks throughout the district, and, during the last few weeks I have seen up to 40 birds in a single flock. Quite a contrast to out west where hundreds, even thousands come together to form flocks during the non-breeding season.

Although Sulphur-crested Cockatoos and Galahs don't feed upon the fruits of the Hawthorn bushes the familiar Gang Gang Cockatoo does. At present in the district there are several small flocks of up to a dozen or so birds. These birds methodically work over a bush and the only indication of their presence whilst feeding (apart from their wheezing call) is the continuous cracking of the hard seed capsules.

The male of this species of cockatoo are easily distinguished from the sombre-colored female by having a distinct scarlet crest. Also, an interesting feature concerning these birds is that when they are feeding they show very little interest in humans and can be closely approached.

Many of the finches form flocks after the breeding season has ended and around this district such finches as Spotted-sided (Diamond Sparrow), Double-bar and Red-browed readily verify this fact.

"Flocking" in birds shows a remarkable social characteristic, particularly with the smaller species of birds. They can be seen in groups preening each other's feathers, sitting and perching in tight packs and even sharing roost nests together.

However, when birds flock together they as individuals find safety and for a predator it becomes an extremely difficult task to single out a bird from a flock of say 1,000 others.

In some cases birds only form flocks when they are breeding, such as gulls, terns, gannets, etc., and once breeding is over they break up into pairs or small flocks.

Migratory species of birds particularly waders, often form large flocks out of breeding season and probably when they fly at night on their way to distant shores there is greater safety for the whole flock.



# GARDENING NOTES

## FOR MARCH

FLOWERS: Sow — Antirrhinum, Aquilegia, Calendula, Canterbury Bells, Candytuft, Carnation, Delphinium, Eschscholtzia, Gaillardia, Larkspur, Linaria, Lobelia, Lupin, Nemophila, Nigella, Iceland Poppy, Shirley Poppy, Stock, Early Sweet Pea, Wallflower. Plant — Antirrhinum, Bellis perennis, Carnation, Calendula, Pansy, Primula, Stock, Verbena, Viola, Wallflower, Anemone, Ranunculus.

VEGETABLES — SOW: Beet, Broad beans, Carrot, Onion, Parsnip, Peas, Spinach, White Turnip, Cabbage, Cauliflower, Leek, Kohl Rabi, Lettuce, Radish, Endive; Plant — Broccoli, Brussels sprouts, Lettuce, Spinach, Cauliflower, Cabbage, Onion, Eschalots, Garlic, Rhubarb.

February brought us more rain, a few warm days, even a flurry or two of snow and then some more cold weather. Early colouring trees are already showing autumn tints.

Spring-flowering bulbs can still be planted this month. Plant Amaryllis, Anemone, Babiana, Calla, Daffodil, Freesia, Hyacinth, Ixia, Jonquil, Lachenalia, Ranunculus, Snowflakes, Sparaxis, Tritonia, Tulip, Watsonia.

Now is the time to decide which shrubs and trees you intend planting this autumn and winter, bearing in mind some of the evergreen conifers give good winter colour to what would otherwise be dreary corners in the garden.

Shrubs such as Heaths, Camellias (both sasanqua and japonica varieties) winter sweet, viburnum fragrans and tinus, flowering quince, flowering apricot and shrubs with berries or variegated leaves will provide flowers and foliage for house decorating during the winter months.

Plant grass seed this month, to germinate before the very cold weather commences.

Caterpillars are very busy on hedges and "slug" on hawthorns and flowering plums, as well as pears and cherries. Control these with "Bug-geta" spraying preferably in the late afternoon to avoid the hot sun on the sprayed leaves.

Late maturing fruit should be sprayed with Rogor 40 to control fruit fly. Follow the instructions on the container to make sure you use this at the right strength.



# AN ALPHABET OF INDUSTRIAL SAFETY

A is for ACCIDENTS which can be tabooed. The very first step is the right attitude.

B is for the BOONS safety brings in variety to workers, thier family, home and society.

C is for INJURY COSTS, seldom fully revealed; Like icebergs, the far greater part is concealed.

D is for DATA, essential to bare just what are the actual problems and where.

E is for EDUCATION which has no divorcement from sound ENGINEERING and wholesome ENFORCEMENT.

F is for FOLLOW-UP. Surveys are vain without FURTHER check whether hazards remain.

G is for GUARDING and its a disgrace when guards are not used, or not kept in place.

H is for HOUSEKEEPING, a pretty good gauge of whether a firm, SAFETY-WISE is of age.

I is for INJURIES (outcome of flaws). They never just happen; there's always a cause.

J is for JARGON. However sincere, the message is lost if the meaning is not clear.

K is for KNOWLEDGE. But it isn't enough to know what to do; we must still do our stuff.

L is for LIFE and the fruits of our labor. Work safely, for your good and that of your neighbour.

M is for MAINTENANCE, powerful pal to men, to machinery, and to morale.

N is for NOW. Let us faithfully vow to deal with all hazards, and deal with them NOW!

O is for OBSERVANCE of all safety rules — obeyed by the wise, disregarded by the fools.

P is for PREVENTION (far better than cure) that PLANNING and PROGRAMS will help to ensure.

Q is for the QUALIFIED. They understand, production and safety should go hand in hand.

R for REPORTING and RECORDS, both needed, for trends to be quickly discovered and heeded.

S is for SUPERVISION. And experts agree in safety the competent foreman is key.

T is for TRAINING, designed to instil, the desire to work safely, as well as the skill.

U for the UNSAFE work practices that employers, employees, alike should combat.

V is for VISION in hazard detection, and also your VIGOR in hazard correction.

W is for WASTE (and hiw it can hurt!) that, safety and safety alone can avert.

X is for XMAS, with family cheer, for those who work safely the rest of the year.

Y is for YOU, for whom safety is planned. It can't be complete unless YOU lend a hand.

Z is for the ZEALOUS — each one a hero, who strives to bring injuries closer to ZERO.

For the above we are indebted to Australian Safety News, published by the National Safety Council of Australia.

## MATCHPHRASE WINNERS

FIRST PRIZE — \$3.00: Mr. J. Lewis, Loco Driver, Berrima — "SAFETY RULES — EXIST SO THAT SAFETY RULES."

SECOND PRIZE — \$2.00: Mrs. J. Yardi — "IT'S ALWAYS WISE — TO QUESTION, RATHER THAN TO SURMISE."

THIRD PRIZE — \$1.00: Mr. Roger Seville, Colliery — "SAFETY RULES — ARE THE GUIDELINES TO SECURITY."

FOURTH PRIZE — \$1.00: Mr. V. Brimelow, Berrima — "ON TOP — SAFETY — NOT SIX FOOT BELOW."

FIFTH PRIZE — \$1.00: Miss E. Knowlson — "SAFETY MEETINGS — USELESS — UNLESS RULES PRACTISED!"



1		A	L	T	
2		I	N	E	S
3		I	S	H	
4	T	R	E		
5		E	A	T	
6		O	N	G	
7		A	L	E	
8	G	A		E	
9		A	T	E	S
10		O	O	K	
11		A	N		
12		I	P		
13		I	C	E	
14		A	N	D	

## RYTEWORDS No. 8

(Copyright — J. LEWIS)

- Used as a flavouring.
- Has a pleasant aroma.
- A lot of people do this.
- Often give pleasure to people.
- Used to provide warmth in some countries.
- The sound of this in the night may cause alarm.
- Reports of these often make the front pages.
- To do this at another person may be considered rude.
- Cause concern to a lot of people.
- A good one often leaves a "good taste in the mouth."
- Likely to attract attention if unusual.
- A drink.
- These in a home may indicate unclean living.
- To build a home you usually need this.

The answers to Ryte-words will be found in the words listed below.

NIP, VAN, GONG, GAZE, RATES, PEAT, FISH, PINES, SALT, SONG, WISH, WINES, SIP, MAN, GAPE, SALES, BOOK, TREES, GATES, TREAT, COOK, MALT, GALES, HEAT, LICE, SAND, MICE, LAND.

FIRST PRIZE: \$10; SECOND PRIZE: \$5.00

Consolation prizes of \$1.00 each

CLOSING DATE: 6th APRIL

## JUNIOR CROSSWORD

50 cents for first four correct entries received

### ACROSS—

- A surround for curtains; 6. Out size; 7. Single; 8. A way; 9. Girl's name; 10. Not off; 12. Seen at the seaside; 13. Used in billiards or snooker; 14. Name of a mail train; 16. A pronoun; 17. Third person singular; 18. Used to put around the waist; 21. Not truthful; 23. A gang (two words); 25. Used to hear; 26. A rest.

### DOWN—

- Writes poems; 2. To engage; 3. To go in front; 4. Boy's name (ab.); 5. Part of your foot; 6. A smell; 11. Tidy; 13. Provides milk; 15. Type of fish; 16. Not busy; 18. A rod; 19. To touch; 20. A name for the sun; 22. Irish Army; 24. Not anyone else.

1	2	3		4	5		6	
7				8				
9							10	11
12							13	
				14	15			
16				17				
		18			19		20	
21	22				23	24		
25				26				

CLOSING DATE: 6th APRIL



PS

AUSTRALIAN PORTLAND CEMENT LTD. and SOUTHERN PORTLAND CEMENT LTD.

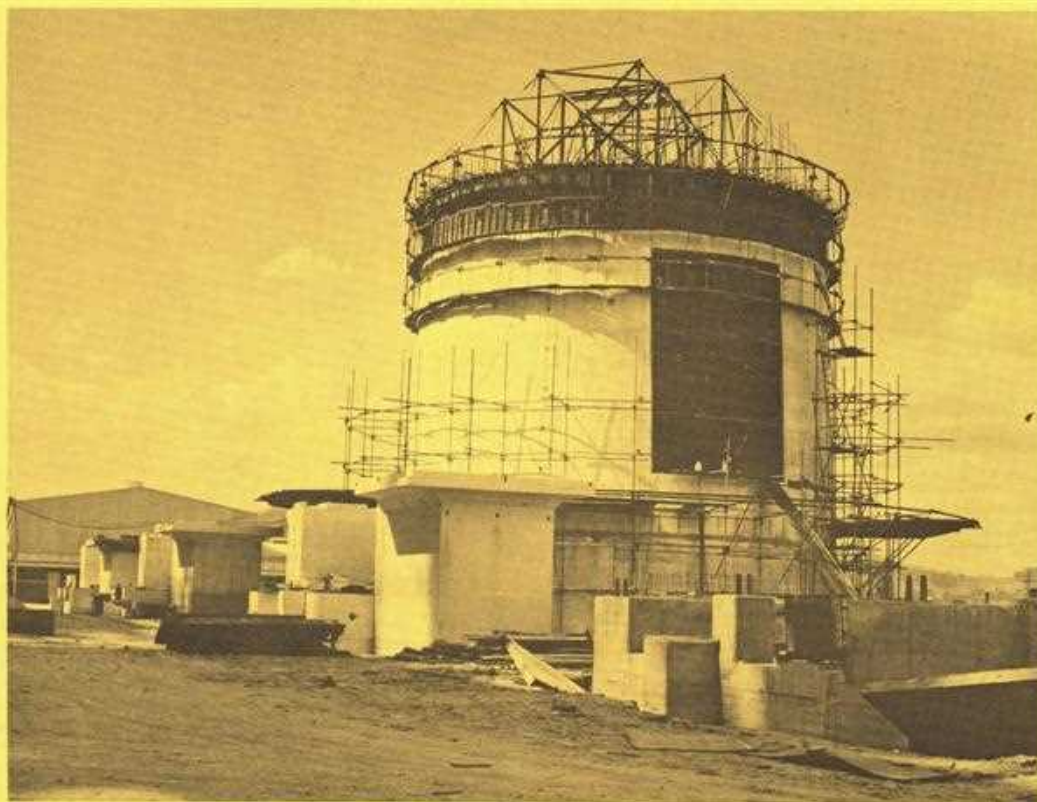


BERRIMA MARULAN MEDWAY SYDNEY



# NEWS

VOL. 1 — No. 11  
APRIL, 1972



Early stages of No. 1 chimney, Liddell Power Station.



# A.P.C.L. and S.P.C. NEWS

APRIL, 1972

VOL. 1 — No. 11

## CONTENTS

- |     |   |       |                                       |
|-----|---|-------|---------------------------------------|
| 1   | Editorial.  | 8-9   | Liddell Power Station.                |
| 2   | Dominican Convent Students visit the Plant.<br>Home Truths. | 10    | Fishy Tales.<br>Sand Blasting.        |
| 3   | Heard on the Grapevine.<br>Percy Aitken retires.            | 11    | Junior Page.                          |
| 4-5 | No. 5 Kiln Overhaul at Berrima.<br>Keep Smiling.            | 12-14 | A.P.C. and the Computer.              |
| 6   | A Letter from Holland.<br>New Apprentices at work.          | 14-15 | Metric Messages.                      |
| 6-7 | Two Stockhouse Characters.                                  | 15    | Bits and Pieces.                      |
| 7   | Nature Notes.   | 16    | Gardening Notes.                      |
|     |   | 17    | Safety Limerick.                      |
|     |   | 18    | Rytewords No. 9.<br>Junior Crossword. |

### REGULAR CONTRIBUTORS

#### BERRIMA . . .

R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

#### SYDNEY OFFICE:

Miss Lorraine Lucas.

#### MARULAN . . .

W. McCallum.  
E. Cooper.

#### COLLIERY . . .

M. Thorpe.

#### PHOTOGRAPHY . . .

C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:  
Australian Portland Cement Limited  
and  
Southern Portland Cement Ltd.

### PRINTERS . . .

"Berrima District Post", Moss Vale.

All-correspondence and enquiries to:—

THE EDITOR,  
A.P.C.L. and S.P.C. NEWS,  
P.B.S. No. 4, Moss Vale, N.S.W. 2577.

### COPY DEADLINE:

28th of the month prior to the month  
of issue.



## Editorial

*In these momentous times, communication seems to have reached its peak. We can pick up the phone and speak to a relative, or make a business call to any country in the world. We can see events as they happen, distance is no object, and yet we may not have learned to communicate with our neighbour!*

*There are many phases of communication, and in industry and commerce; it is a must, if things are to run smoothly and significant progress is to be made.*

*Only a few days ago I learned that a well-known employee at Berrima, had not yet toured the plant, let alone visiting Marulan Quarry. You may say, it is not necessary to visit various plants or departments, you can still do the job. Many could add "but you can do the job a lot better if you see how the other fellow works, and realise the problems he has to face."*

*Some time ago a step was made in the right direction at Berrima plant, some of the General Office employees were conducted over the plant. I am sure that the understanding gained has resulted in a more intelligent performance of their respective jobs.*

*Many visitors come to the plant, and go away with more knowledge of the manufacture of cement than many employees who have been working in their own little corner for years!*

*A certain Person once said, "Let not your left hand know what your right hand doeth" in the sense of giving, in which it was used, this is good advice; but in the world of communication it is disastrous.*

*Through improved communication between individuals and departments at all levels, an increase in understanding of the other fellow and his job will inevitably result. If, then, this understanding can grow through the continued fostering of communication, then progress in the right direction is bound to follow.*

*The worker who knows why a job has to be done, and why it has to be done a certain way, will be a better worker.*

*Effective communication is the responsibility of each individual. In our contacts we can help each other to see the problems we are working on from all angles, and thus gain the co-operation needed for progress.*



## HOME TRUTHS

Why do we never hear of people trying to get even with those who have helped them?

It takes two to make a marriage a success and only one a failure.

No man ever became great or good except through many and great mistakes. To handle yourself, use your head; to handle others, use your heart.

One reason some men don't bring the boss home for dinner — she's already there!

Memory is what tells a man his wedding anniversary was yesterday.

Today's ideas are to-morrow's success stories.

Leisure; is an empty cup. It all depends upon what we put into it.

When it comes to giving some people stop at nothing.

—oOo—

"My wife explored my pockets last night."

"Did she find anything?"

"About the same as any other explorer. Enough material for a lecture."



## HEARD ON THE GRAPEVINE SYDNEY OFFICE

Sydney has been experiencing the warmer weather of a late snatch of summer for the last few days, which is very fortunate for our staff members on leave. Mr. Ian Hewitt, Ross King — house building, with a few holes of golf thrown in, and May Pate who is holidaying in Port Macquarie for 2 weeks with her husband.

All the girls in Sydney Office have been wearing big smiles and pants suits for the last week. Many male members of staff have been heard to mutter about "Womens Lib" and "Long Live the Mini Skirt" but overall most realize the pants suit is sensible office wear for today.

SShhh! ! A whisper was heard by your reporter about a certain male member of staff (L.R.W.) who is to be a Dad for the very first time — congratulations Len!

—oOo—

## BERRIMA

Lyn Byrne of the Works Office is at present in hospital. All friends wish her a speedy recovery, and hope to see her cheery personality back in the office soon.

Welcome back to June Casta, typist to the Purchasing Officer. June has spent some time in hospital but is now on the job once again. Hope you soon recover full health and strength June.

All who know Miss Patricia Bunter of the Typing Pool, General Office, Berrima, will be happy to join in congratulating her on her engagement to Mr. Robert Turner of Moss Vale. Their engagement was announced on the 17th February.

Mr. David Perry has now moved from the Drawing Office to the Production Department. He will be serving as a Production assistant, reporting to Mr. W. Gale, Production Superintendent.

Initially, David will carry out a thorough investigation of all aspects of the operation of cement mills, numbers one to four. This will be done with a view to improving running efficiency.

A.P.C.L. AND S.P.C.L. NEWS—APRIL, 1972

## MISS HELGA ATKINSON RETIRED AT THE BEGINNING OF THIS YEAR AND INVITED THE STAFF OF SYDNEY OFFICE TO A BARBECUE AT HER HOME.

(By Rhonda Berecny)

On the leaving of one of our most loyal workers, Miss Atkinson, (after many years of service as a confidential secretary) the office staff was invited to a barbecue on Sunday, February 6, at her home. The object, to christen the portable barbecue and utensils which were part of her farewell present from the staff of Sydney Office. The barbecue was a huge success with steaks cooking all over the back lawn, and beer on tap flowing at an excessive speed!! The day was thoroughly enjoyed by all who attended, and we are all anxiously awaiting the next invite?! Lucky to say though we had no absentees from work on the following Monday, although it was thought a few people would be suffering from acute headaches!

—oOo—



Percy Aitken, Stockhouse Clerk, retired early in April. Aged 66 years, Percy worked with S.P.C. and A.P.C.L. for twelve years. For some years he worked as Silo-man, taking over the job of Stockhouse Clerk, from Tommy Newstead. Next month we hope to have pictures of Percy's farewell party, held at Mittagong Golf Club.



## KEEP SMILING

Two friends met for the first time in years. "How're things" one asked.

"I had a bad year last year" answered his friend. "My factory burned down, and I wasn't insured."

"That's too bad. How's your wife?"

"In hospital," came the unhappy reply. "Run over by a bus."

"I'm sorry to hear that. How's the rest of the family?"

"My son's been sent to goal."

"Gosh that's tough." Then desperately searching for a cheerful subject "How are you doing yourself?"

"Great" came the jovial answer. "Business is wonderful — I sell lucky charms, you know."

—oOo—

One man we know, was so horrified by what he read of the effects of smoking that he gave up reading.

—oOo—

After falling from a 75 ft. scaffolding to the ground, a steeplejack was rushed by ambulance to hospital.

A policeman accompanying the man to hospital asked him for his occupation.

"An ex-Steeplejack," was the reply. Puzzled the policeman asked him when he gave up his trade.

"About half-way down," he groaned.

## No. 5 KILN OVERHAUL AT BERRIMA PLANT

March was a busy month at the Berrima Cement Works due to an extensive overhaul of No. 5 Kiln and associated equipment.

In addition to the company's own maintenance staff, contract labour was drawn from Moxons, Vale Engineering, Berrima County Council, Macstones and a number of Sydney and Wollongong firms.

A major item was extensive repairs to the Electrostatic Precipitator. The Precipitator removes the dust from the gasses feeding it back into the Kiln, the gasses are then discharged free of dust. This gives some idea of the effort and costs that go into the vital problem of keeping the air as clean as possible. Indeed it is an interesting and perhaps little known fact that in modern plants some 10% of the total capital cost is spent on dust collection equipment.

There was also extensive modifications to the cooler and klinker handling equipment.

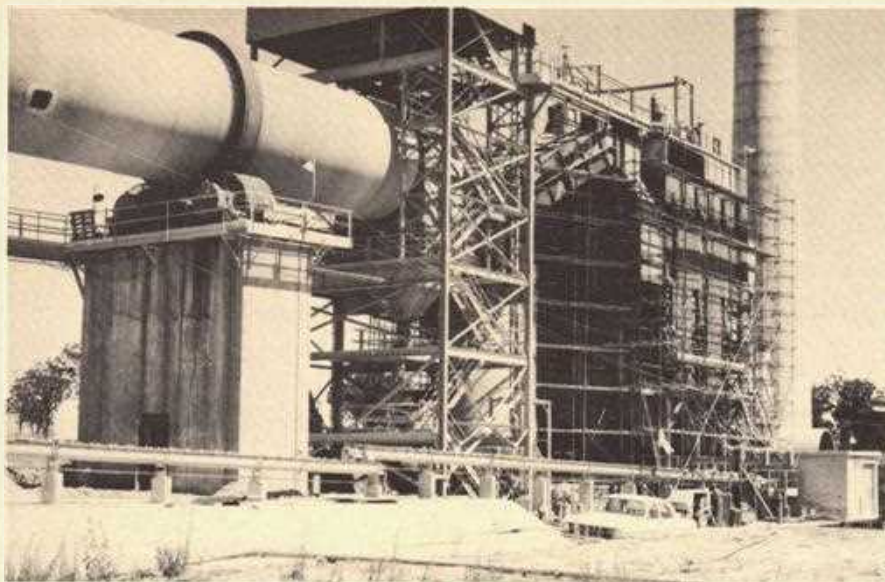
Inside the kiln, there is over 120 tons of chains. When the kiln is in operation the chains are an important factor in the drying of the slurry, acting as a heat exchanger, transferring the heat from the hot gasses to the slurry.

During the overhaul the chains were completely removed, sorted in order to find those that could be used again, and then replaced with a modification to the method of hanging.



The kiln head was relined, but instead of the usual refractory brickwork, a castable material was used. This should result in improved wear resistance at lower cost.





Scaffolding around the precipitator. The internals of the precipitator were removed, and also thousands of square feet of steel plate on the outside, this in order to replace sheets that had partly rusted away.



## A LETTER FROM HOLLAND

Recently the editor received more news from Mr. L. Humphries our Safety and Employment Officer, who is on long service leave. He sends his regards to all. Last month Les was sailing up the Rio de la Plata to Buenos Aires. He continues:—

"We spent an afternoon, night and day in Buenos Aires, what a fascinating city it is! Unfortunately for us it was carnival time, and most of the shops were closed, so that we were not able to do the shopping we had hoped. Our next port of call was Rio de Janeiro. We have all heard of this famous city and its equally famous harbour, and its rivalry with Sydney Harbour. To my mind they are both beautiful in their own particular setting. To sail into the harbour of Rio de Janeiro on a sunny day is a sight never to be forgotten. The fantastic landscape of hills and mountains which surround the city appear to constantly change their shapes and colours as the ship moves slowly into port. Then, to see the city itself, the wide sandy beaches stretching for miles and of course, the great statue of Christ on top of the mountain Corcovado, are the things that make Rio so famous. There, it was also carnival time, and we saw some of the streets gaily decorated. They were a beautiful sight, far beyond anything we have ever had in Sydney.



ABOVE: Mr. K. Whalan on the job, loading bagged cement.

BELOW: Mr. Ernie Radnidge and the first year Apprentices in the Apprentice Training Room.





After leaving Rio we sailed on to Tenerife in the Canary Islands, also very picturesque, and then to Vigo in Spain. This was a most interesting city. The old part with narrow, winding cobblestone streets, and such a variety of shops. We were sorry we did not have more time there. From Vigo we sailed to Southampton. Then we went by coach to Harwich, passing through London en route. Then by boat from Harwich to Holland.

We have been here in Holland over three weeks now, and the weather has been marvellous for most of the time. We did have snow on one occasion, but it soon cleared away. The days have been fine and sunny, but always a nip in the air.

Everywhere here there are acres and acres of tulips (not yet in flower) and large areas of crocuses in flower, which make a very colourful display.

## NATURE NOTES

(by CHRIS SONTER)

"Seagulls in Bowral and district?"

Yes!

It sounds ridiculous, however, it's true. On the 2nd April this year we sighted three Silver Gulls in the main street of Mittagong. If you think that's strange then what about the Silver Gull that was sighted in Alice Springs in the early months of 1971. This caused so much excitement that it received news headlines on the A.B.C., and rightly so because it was the furthest point inland where this bird had been seen. The bird was a loner and stayed in the town for three days before departing.

The sighting of the three birds in Mittagong instantly turned my thoughts back to when, at various intervals, about 16 years ago Silver Gulls were fairly frequent visitors to Bowral. They would stay for a day or so and just as quickly as they came, they would, presumably, return to the ocean.

Silver Gulls are generally carried in by southerly changes or cool moist air currents. For some odd reason beyond my knowledge the seasons have changed and due to this change we have not had the gulls visiting us. I know readers will say that we still have southerly changes, however, the ones I am referring to were those that followed 2-4 days of really hot summer weather, and when the fog came blustering in the temperature would quickly drop 20 deg. or more.



Mr. John Zimnawoda at work on the bagging machine.

In those times a more definite weather pattern was shown.

Readers may well say, — what about the Seagulls in Goulburn, Canberra, or some other inland town, they are always there? This is a good question, but easily answered.

Goulburn and Canberra have substantially permanent large tracts of fresh water where many birds congregate to feed and breed. Where you find such areas you will find nature leading the way in conservation. The common old Silver Gull (*Larus novae-hollandiae*), is just the very bird to place in control of its environment. They are a scavenger-type of a bird, eating offal, waste food scraps, eggs of other birds and dead or dying fledglings of other birds, which would quickly destroy a colony of birds by attracting disease.

Silver Gulls generally visit such locations for certain periods to either breed or feed on a diet other than fish etc. that could not be obtained from the ocean, most would undoubtedly return to their natural environment.

Whilst working at Menindee there were several large flocks of gulls on the lakes, these being the furthest inland observations of this bird that I have so far encountered. Not only do Silver Gulls drift to the large inland rivers and lakes, but also at least 4 members of the Tern family namely Gull-billed, Caspian, Marsh, and White-winged Black Tern.



# APCL BERRIMA CEMENT

## Where does it go...?

No. 2

### LIDDELL POWER STATION

In last month's article many readers were no-doubt surprised to learn that APCL Berrima Cement had been used almost exclusively in the construction of the Sydney Opera House. In this striking landmark, 120,000 tons of concrete were used. By comparison the archway of Sydney Harbour Bridge contains 37,000 tons of steel. Therefore when we learn that 200,000 tons of concrete will go into the completed job at Liddell Power Station, also our cement, we begin to realise something of the size of the construction work involved. When completed in 1974, Liddell will be the largest power station in Australia, generating two million kilowatts of electricity per hour for the N.S.W. System.

#### LAKE LIDDELL

A necessary early feature of the work was the construction of a dam in order to create Lake Liddell. This was necessary because of the large quantities of water needed, mainly as a coolant to pass through the condensers in order to convert steam back to pure water for re-use in the boilers.

The lake is more than three miles long and almost three miles wide at its widest point. At full supply level it has a depth of 115 feet.

Sufficient water for the stations requirements is supplied by the catchment area of the lake, plus water pumped into the lake from the Hunter River during periods of high flow.

#### COAL SUPPLIES

More than six million tons of Coal will be used each year when the power station is completed. Because of this, reserves of more than 150 million tons had to be proved before a decision was made in favour of Liddell as a power station site.

At Swamp Creek and Ravensworth, both about eight miles distant, open cut mines have been developed. Conveyor belt

brings the coal to the storage area, adjacent to the station, at a speed of ten miles an hour, and at a nominal rate of 2,500 tons per hour. The storage area covers about 50 acres and can store more than a million tons of coal.

The coal handling plant will supply 20,000 tons per day to the station bunkers. It is one of the largest automated systems at any power plant in the world, and can be controlled from the plant control room in the power station. The coal is removed from the completed triangular-shaped piles in the storage area, by a reclaimer fitted with a bucket wheel, which picks up the coal and drops it out onto a transverse conveyor. The bucket wheel and a harrow (which frees compacted coal from the end face of the pile) are mounted on a carriage which moves back and forth across a bridge conveyor from which the coal is discharged to other conveyors leading to the station bunkers.

#### LARGEST IN AUSTRALIA

The stations capacity of 2,000 MW will be made up by four 500 MW steam turbo-generators. These units and their associated boilers, will be the largest in Australia. The power will be fed directly into the 'Commissions 330,000 volt transmission system. By 1974 the power generated will be two million kilowatts.

The main station buildings consist of the turbine house, (990 ft. long, 130 ft. wide, and 112 ft. high); boiler structures (240 ft. high, 160 ft. long, 100 ft. wide); main workshops (322 ft. long by 120 ft. wide) together with engineering/Administrative office buildings, stores, and staff amenities rooms, of which there are two, each 300 ft. long by 60 ft. wide.

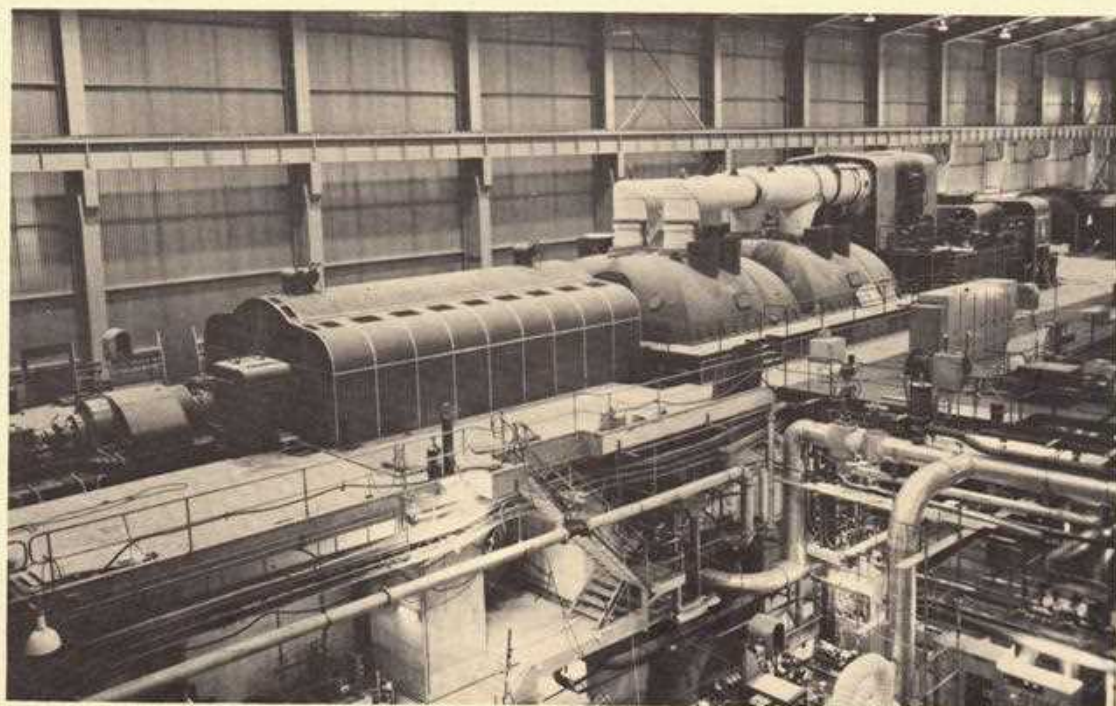
Two chimneys will serve the four boilers, each 550 ft. high, with external diameters of 61 ft. at the base and 32 ft. at the top. Each contains 5,000 cubic yards of reinforced concrete and is lined with approximately 8,000 sq. yds. of heat resistant bricks.

Photographs and information reproduced by courtesy of The Electricity Commission of N.S.W.





LIDDELL POWER STATION



500 MV TURBO-GENERATOR AT LIDDELL





Section of the mill shell showing a partly "Sand" blasted area.

## FISHY TALES

The Loch Ness Monster continues to break into the news year after year. Loch Ness is very deep and whether the "Monster" exists or not, still has to be determined.

However, in the waters around Australia, and extending into the Indian and Pacific oceans, are many sea snakes.

There are about fifty kinds of sea snakes; most occur in warm South Asian and Australian coastal waters. A few species are found as far away as Japan and the Persian Gulf. One of the yellow-bellied Pelamis, has crossed to tropical Americas West Coast and lives by the million in the Bay of Panama. There are none in the Atlantic but a proposed sea-level canal through Panama might introduce them.

A remarkable thing about sea snakes is that some of them can stay under-water for two hours or more. They only have one lung, but it is nearly threequarters as long as the snake itself, the lung also terminates in an air-storage sac.

Another device that helps in the long under-water stay, is the controllable heart-beat. These animals can slow their pulse rate by 50 per cent when they go under.

As far as is known, all are venomous.

Many human beings, mostly Asian fishermen, have died as the result of bites from sea-snakes. Some of them possess a venom



A contractor wearing special protective clothing, prepares to "Sand" blast No. 1 Cement Mill Shell.

## SAND BLASTING

Due to a build up of hardened Cement Dust on the Shell of No. 1 Cement Mill being a contributory factor to overheating, it was decided to have the area concerned, cleaned.

To achieve this the cleaning process known as sand blasting was employed. Neil Moxon Pty. Ltd. contracted to do the job which entails projecting "sand" (Copper Pyrites) from a special nozzle at speeds up to 600 m.p.h. This is achieved by using compressed air at 100 pounds P.S.I.

Because of the tremendous force of the sand hitting the object being cleaned, the operator wears very heavy protective clothing and is supplied air, to breathe, through a special line attached to his helmet.

## FISHY TALES CONTINUED . . .

many times more virulent than that known for any land snake. Fatalities occur in spite of their short fangs and — in some cases — small heads. At present there is no serum for the poisonous reef snakes.

An expedition to study sea-snake behaviours, venoms, and anatomy, recently took place. The team was composed of Australian divers, an American Herpetologist (one who studies reptiles) and Kenneth MacLeish, Senior assistant editor of the National Geographic Magazine to which we are indebted for the above information.



## JUNIOR PAGE

### A PLANET THAT WAS DISCOVERED BEFORE IT WAS SEEN!

In these days of space exploration the planets are in the news. The story of the discovery of Neptune by mathematical means sounds like science fiction.

The story starts with astronomers charting the orbit of another planet, Uranus. In its orbit round the sun it seemed to keep speeding up and slowing down. They checked their figures and calculations, but the same results were obtained. They came to the conclusion that some other heavenly body was exerting a gravitational pull on Uranus: this would cause the change in its speed.

John Couch Adams was a young College Student in England, he became interested in the changing speed of Uranus, and after his graduation he determined mathematically where the unknown planet ought to be.

He then wrote to the Astronomer Royal, at that time it was Sir George Airy, and gave his calculations and conclusions. Unfortunately for some reason unknown to us, the Astronomer Royal did not pay much attention. He could have pointed his telescope at the part of the sky that John Adams had indicated and he would have seen Neptune, but he did not do this.

About the same time, a French Scientist named Leverrier was working on the same problem. He sent his information to an astronomer in Berlin called Galle. Unlike his English counterpart, as soon as he received Leverrier's letter, he looked for the new planet, and saw it. So Galle was the first man to see Neptune and know that it was one of the earth's planets.

The orbital paths of Uranus and Neptune are roughly parallel. When Uranus approaches Neptune, the gravity of Neptune pulls Uranus and increases its speed, when Uranus passes Neptune, the latter's gravitational pull, slows Uranus down.

The diameter of Neptune is more than three times that of the earth. It is the eighth planet away from the sun and is believed to be too cold to support life as we know it.

The orbit of Neptune around the sun is almost circular, its average distance from the sun is about 2,793 million miles, and it takes about 165 years to make one revolution round the sun. Its speed is about 34 miles per second.

## CAN YOU PUT THE RIGHT MAN IN THE RIGHT PLACE?

1. Invented Dynamite, started Nobel Prizes.
2. Invented Pasteurisation.
3. Invented the wireless telegraph.
4. Classified the plant and animal kingdoms.
5. Discovered the circulation of the blood.
6. Discovered electromagnetic induction.
7. Discovered the laws of light, gravity, motion and colour.
8. Discovered X-rays.
9. Invented the telephone.
10. Started antiseptic surgery.

A. Sir Isaac Newton; B. Alexander Graham Bell; C. Joseph Lister; D. Louis Pasteur; E. Guglielmo Marconi; F. Carolus Linnaeus; G. William Harvey; H. Alfred B. Nobel; I. Michael Faraday; J. Wilhelm Konrad Roentgen.

## WHAT IS ALUMINIUM?

Aluminium is the most plentiful metallic element in the earth's crust (about 15 per cent of the crust comprising aluminium compounds) and bauxite is the principal ore from which it can be economically expected.

Because nature enclosed it in a chemical compound that is difficult to reduce directly to aluminium, a costly process is necessary in which the bauxite must first be refined to alumina then smelted to aluminium.

Bauxite takes its name from Les Baux, France, where it was first discovered. It may be as hard as rock or as soft as mud, and may be coloured buff, pink, yellow, red, white or various combinations of these colours. All Australian bauxite is mined by open-cut methods.

In the refining process, finely ground bauxite is mixed with a solution of caustic soda (Sodium hydroxide) in a steam heated unit called a digester. The mixture is heated under pressure and only the hydrated alumina (aluminium hydroxide) contained in the bauxite dissolves. The solids and other impurities are washed out. The filtered solution is then cooled in tall tanks called precipitators to produce a precipitate of hydrated alumina which is then filtered again, washed, and calcined in revolving kilns at 1,800 degrees Fahrenheit.

The resulting white powder — alumina — is then transferred to smelting plants where aluminium is produced by an electrolytic process that separates alumina into its component parts — oxygen and aluminium.

—Reproduced from NAT/DEV. The National Development Quarterly.



## APC AND THE COMPUTER

(By David King, Superintendent E.D.P. Dept.)

As most A.P.C.-ites know, the company has been using a computer in its commercial work for some time. Some of our staff are directly involved in supplying information to the machine, and could probably also supply some colourful opinions on just what should be done with the computer. However, for those who have not yet been blessed with personal contact with our computing system, let us briefly discuss the whys and wherefores of this machine which is having an increasing effect on our everyday lives.

Firstly, what is a computer?

There are two main kinds of computer. The analogue computer is used pretty well exclusively by scientific types, and will not be discussed here. The digital computer is suited to commercial applications and is the type used by A.P.C. The machine we are using is an IBM System/3 Model 10, and takes up no more space than two office desks.

The digital computer comprises an electronic "brain," or processing unit, to which are attached various devices to enable us to communicate with the processing unit.

The processing unit consists of a mass of transistors, resistors and so on, as found in the average transistor radio, and a memory bank. The memory bank resembles a fly screen door with small blobs of magnetic material encircling each pair of crossed wires. The state (i.e. magnetised or unmagnetised) of these blobs can be changed or detected by the processor and in machine language represents numbers and letters. The communication devices vary in detail from machine to machine, but are similar in principle. They include printers for producing type-written reports, punched card and punched tape readers which are low speed input/output units, but which operate at much greater rates than the card and paper tape readers.

The cards and paper tapes are read by sensing the patterns of holes punched in them, and are written, obviously, by punching holes.

Magnetic tapes and disks carry the data in patterns of magnetised appearance to a



Mr. David King.

large tape-recorder. The disks resemble a gramophone record in appearance, but operate in the same manner as the tapes except that they have a rigid surface while the tapes are flexible. The gramophone needle is replaced by a tape-type pick-up head which passes over the surface of the disk rather than riding in a groove.

Basically then, a digital computer is a machine capable of storing vast amounts of information on tapes and disks, of retrieving that information rapidly, and of performing mathematical acrobatics extremely fast and accurately.

Despite its speed and accuracy, the computer is little better than a mechanical moron, incapable of independent thought. If it is not given a precise programme of instruction or not given up-to-date information people end up receiving two telephone accounts, or no child endowment cheque, or some similar embarrassing or annoying thing.

How, then, is the expensive heap of machinery helping A.P.C.?



Mrs. Ann Hall,  
Punch Card  
Machine and  
Verifier Operator.





The Punch Card Machine.

The more obvious advantages of the computer are that with its capacity to store information, the reams and reams of paper that once contained all the data needed by the business are being replaced by compact disks and tapes, and the hours of manual effort needed to compile and process this information can now be directed towards more important tasks.

At the moment, the computer is only being used to process work from Sydney Office.

Every week the computer produces invoices for all sales made within N.S.W., a list of all customers balances, a list of every item sold from every store and depot during the week and a summary of product tonnages sold and price charged for those quantities.

The wrinkles are still being ironed out of a system which lists the total stock, receipts, despatches, sales and losses for each product in each store and depot, the freight charged for transporting stock into stores, and a list of stock still in transit to stores from the Works.

These weekly jobs take four hours on the machine.

In addition, at the end of the month, customers' statements and sales analysis reports are printed and most of the weekly reports are printed showing monthly totals instead of weekly values. This adds two hours to the machine time.



Mr. K. L. Gilroy.

At first glance, this does not appear to be a very complicated job, until it is realised that we have forty outlets in the State selling twenty-four different product types. These products can be obtained from any one of four sources — Kandos, Geelong, Berrima and in some instances purchased from the manufacturers. As the products from each source have to be accounted for individually, we have, in effect nearly ninety separate products on sale. These products are delivered to some two thousand different destinations throughout N.S.W.

To keep track of the various stock sales and movements, it will be appreciated that our storemen have to provide quite a complex array of information, all of which has to be absolutely accurate.



Mr. Ian Dickson.



Those departments whose introduction to the computer is not too far away can take heart from the fact that many of us have already come through without suffering any permanent ill effects.

All very nice, but why the rush to print all of these reports within a few days of the end of the week or month?

Economics is a major factor. The sooner customers know how much they owe, the sooner they are able to pay, and regular income is most desirable, as we all know.

Giving management accurate, up-to-the-minute information is also now possible. Using a purely manual system, many marketing and other trends were an accomplished fact long before management could obtain all the pertinent details. Using the computer, management is able to watch trends developing and can take remedial action in plenty of time.

What is planned for the future?

An Inventory Control System is currently being developed for the Berrima Plant. This system is being designed to reduce the value of stores held on the plant and to reduce the effort and cost involved in controlling stock levels and replenishments. The system, generally, will assist the store to become a better business proposition than is possible with purely manual control.

It is intended that ultimately nearly all of the accounting functions of the Company will be investigated for computer suitability. This includes payroll, paying bills, keeping ledgers, and in fact most of the work carried out by the pen and pencil brigade.

So with the computer running the show, what happens to the people?

Firstly, the computer is only an aid to management, just as the Machine Shop is an aid to production. As such, the computer has as much chance of taking over the business as the Machine Shop does of running production.

Properly run, the computer will never be more than an overgrown adding machine, providing the "people" with information that they previously had to provide themselves.

Secondly, it has been the experience of commerce and industry generally that even though some jobs disappear with the advent of the computer, other jobs spring up in their place.

Generally then, the computer will not run the business, but make it easier for people to run.

The computer will not take jobs away, but make jobs easier for people to do.



Mrs. Ann Hall operating the Verifier.



THE BROKEN HILL PTY. CO. LTD. (B.H.P.) HAS ADVISED THE CHAIRMAN OF THE METRIC CONVERSION BOARD THAT IT HAS ADOPTED THE PASCAL (Pa) AS THE BASIC UNIT OF PRESSURE AND STRESS.

In its advice BHP said that in the company's operations the practical unit will be the megapascal (MPa).

The pascal (Pa) will find extensive general use in Australia's metric conversion. It will become commonly known to the man in the street as the unit of measurement of the air pressure in his car tyres. Popular makes will take 200 kilopascals whereas they might have taken 29 pounds per square inch in imperial terms. In industry the pascal will be used for the measurement of pressure in boilers and compressors and for calculations involving stress and pressure in engineering design and construction.



## HIGH THIRTIES WILL MEAN A HEATWAVE

Weather information to the public will be given in metric terms from 1st September this year.

Temperatures will be measured in degrees Celsius instead of degrees Fahrenheit and the familiar heatwave "near century" temperatures will become temperatures "in the high thirties."

In metric temperatures a heatwave temperature of 100°F will be replaced by 38 degrees Celsius (38°C) (Celsius, a Swede, introduced his scale in 1742. It divides the difference between water's freezing and boiling points into 100 degrees).

In changing to the metric system of measurement, Australia will adopt the Celsius scale of temperature, symbol C. This was previously known as Centigrade but the name has now been changed, by international agreement, to avoid confusion with a unit used in some other countries having the same name, but referring to a fraction of a right angle.

### SOME EXAMPLES OF THE WEATHER TEMPERATURES EXPERIENCED IN THIS COUNTRY IN TERMS OF DEGREES CELSIUS ARE:

HOT	30°C = 86°F
WARM	20°C = 68°F
MILD	15°C = 59°F
COLD	5°C = 41°F
FREEZING	0°C = 32°F

Temperatures below freezing have a "minus" sign, for example, -5°C, which is a useful danger signal implying frozen pipes and icy roads.

Normal human body temperature is about 37°C.

## BITS AND PIECES

All generations have been and still are interested in kite flying. You name the shape and somewhere you can find one. Be they square, round, rectangular, hexagonal, or any other shape, they appear in the guise of fish, birds, snakes, mermaids, dragons, butterflies and are made from paper or in silk, plastic, balsa wood, glass fibre or cotton.

They are used for pleasure, to entertain children on a windy day; to advertise, to protest and to experiment in the atmosphere.

They are by no means a modern innovation. In fact they have been in use for

well over two hundred years. As early as 200 B.C. a Chinese general is said to have flown a kite over a rival's palace to judge the distance between his army and the palace walls.

Kite flying began in the Far East and today it is increasing in popularity the world over. In China special kite days are held and even in America towns and villages are organising kite fairs and contests.

As you would expect after so many years of kite flying, the Chinese are the world's master kite builders. One of the most popular types is the fighting kite.

Several yards of its string are impregnated with powdered porcelain so that the two contestants can manoeuvre their kites against each other in an attempt to saw through their opponent's kite string.

There are also musical kites fitted with humming reeds or whistles and the variety of colours that the Chinese use for their fun flying seems boundless.

By the 18th century kite flying had become a popular pastime in Europe and many other parts of the world. Not only for kiddies. In Japan for instance some of the kites made weighed three tons and measured 20 yards across. They need up to one hundred and fifty men to launch them.

Scientists also found kites had a serious use.

Benjamin Franklin flew a kite in a thunderstorm and observed that electricity from the storm passed down the wet line to a metal key and gave off sparks and also an electric shock when he held his knuckles near it. He was able to prove that Nature has a vast storehouse of electricity in the atmosphere.

By the late 19th century kites were being used for meteorological experiments carrying thermometers aloft to take air temperatures.

From kite designs came the prototypes of free flying gliders then the powered gliders and finally the self propelled aircraft.

The greatest height reached by a kite is 35,530 ft., but in Britain it is illegal to fly a kite over 200 ft. This is because of the danger to aircraft, especially jets as they suck kites into their engines.

It seems that the kite will always be with us; whether for fun or scientific research, contests of skill, or numerous other uses. It is evidently here to stay.



# GARDENING NOTES

## FOR APRIL

- FLOWERS: SOW: Antirrhinum, Aquilegia, Coreopsis, Candytuft, Carnation, Eschscholtzia, Godetia, Larkspur, Linaria, Lupin, Nemophila, Pansy, Sweet Pea, Stock, Viola.  
PLANT: Antirrhinum, Bellis perennis, Calendula, Iceland Poppy, Pansy, Primula, Stock, Verbena, Viola, Wallflower, Anemone, Ranunculus.
- VEGETABLES: SOW: Broad Beans, Carrot, Onion, Parsnip, Peas, Parsley, Spinach, White Turnip, Cabbage, Leek, Lettuce, Radish, Endive.  
PLANT: Hardy Herbs, Eschalots, Garlic, Horse Radish, Rhubarb.

March was a fairly dry month, with two or three frosts and only a little over two inches of rain.

There is quite a showing of Autumn colour noticeable now, but some trees and shrubs have already dropped their leaves, as a result of so much damp weather.

This is a good time to move any evergreen shrubs so that they will be re-established before Winter. When moving these, soak the soil around the plant at least twenty-four hours beforehand, and make sure that the new hole is also filled with water when the plant is placed in its new position. When this water has soaked in, fill in the rest of the soil. Give the foliage a sprinkling at least twice a day for the first couple of weeks afterwards, particularly during windy weather.

There is still time to plant lawn seed to fill in any bare patches in the lawn. Spring flowering bulbs can still be planted, but hurry, as most of those already planted, are now above ground.

Liliums can be planted this month, about 6" to 8" deep, and each Lilium bulb surrounded with "gritty" sand.

Order roses and fruit trees this month, for Winter planting.

Keep the weeds under control in both the vegetable and flower garden, to prevent them seeding.



Marulan — Part of the hydration plant and stockpiles.



## SAFETY LIMERICK

Add a last line of nine syllables, rhyming with "goal" and carrying the thought to a logical conclusion.

To make freedom from mishap your goal,  
Keep each step of your job in control!  
A high price you may pay  
If you let your mind stray

1st prize: \$4; 2nd prize \$2; 3rd prize \$1.

The food reformer was trying to arouse his audience to an awareness of the dangers of certain foods.

Gesturing dramatically, he cried:

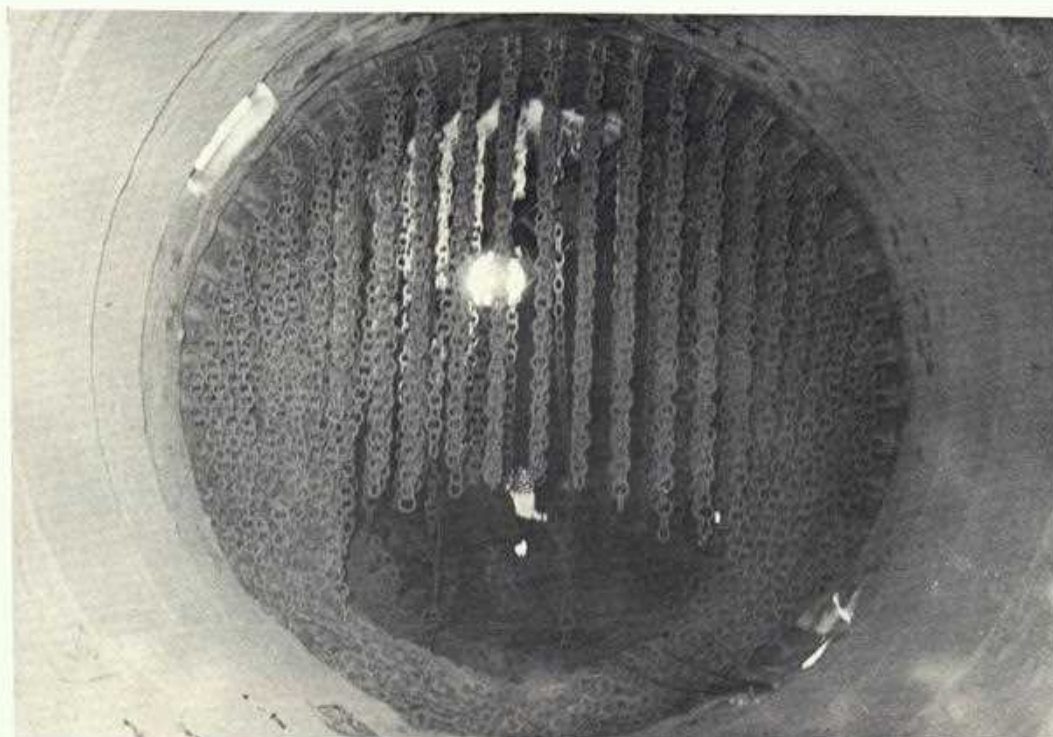
"We all eat it at some time or another. It is apparently an inoffensive food. We think nothing of it, but it is the worst thing in the world for us. What is it?"

Said the sad-looking little man in the back row: "It's wedding cake!"

—oOo—

"Of course I spend more than you earn, dear. I have such confidence in you."

BELOW: Another view of the chains inside No. 5 Kiln.



## CORRECT ANSWERS FOR RYTEWORDS No. 8

1. Malt; 2. Pines; 3. Fish; 4. Trees; 5. Peat;
6. Song; 7. Gales; 8. Gape; 9. Rates; 10. Cook;
11. Man or Van; 12. Nip; 13. Lice; 14. Sand.

### REASONS FOR CHOICE OF WORDS

1. MALT is used as a flavouring, salt is a seasoning and assists in bringing out flavour in the food.
2. PINES always have a pleasant aroma, this could perhaps not be said of all wines.
3. FISH not every person fishes, many do. All wish at sometime or another.
4. TREES a treat would always give pleasure, otherwise it would not be a treat.
5. PEAT is used both for warmth and cooking in some countries. Heat is synonymous with warmth.
6. SONG a song in the night may cause alarm, the sound of a gong would.
7. GALES these reports frequently make the front page, Tales are usually inside.
8. GAPE the best answer.
9. RATES do cause concern, gates may occasionally to some.
10. COOK a book may impart a good feeling.
11. MAN or VAN — equally good answers.
12. NIP — a sip is not a drink.
13. LICE — many clean homes have pet mice.
14. SAND is usually needed in some way, Land would be needed.



## RYTEWORDS No. 9

(Copyright — J. LEWIS)

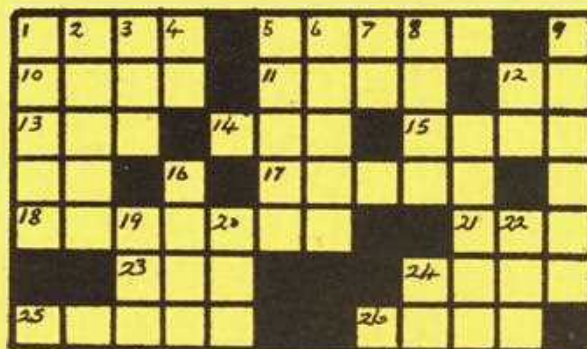
FIRST PRIZE: \$12; SECOND PRIZE: \$4.

Consolation Prizes of \$1 each.

1. Often gives pleasure.
5. Digging tool.
10. Adverb.
11. Not wild.
12. Physical training.
13. Unhappy.
14. Getting trapped by this can cause trouble.
15. Same as No 10 across.
17. Type of meat.
18. Countries' territorial possessions.
21. Female rabbit.
23. Single.
24. Used for protection in some sports.
25. Bitterly disliked.
26. May attract world wide attention.

### CLUES DOWN

1. Important in assessing a job.
2. Used to alert.
3. Dangerous drug.
4. Knock out.
5. Used for cooking.
6. A book consists of.
7. Morning.
8. An agreement.
9. Needs to be attractive to sell.
12. Has pleasant aroma.
19. Cooking utensil.
20. Post Box colour.
21. Used in water conservation.
22. Type of poem.
24. Per annum.



## RESULTS OF RYTEWORDS No. 8

No correct entry was received. The first prize of \$10 will therefore Jackpot to competition No. 9.

Two entries had two mistakes each — the second prize of \$5 will therefore be shared between Stephen Sutton, Berrima, and Eva Knowlson, Moss Vale.

The following with three mistakes will each receive \$1. Nance Carter, Sydney; D. Hoy, Sydney; Roy Taylor, Berrima, and Mrs. A. J. Shepherd, Marulan.

### Result of Junior Crossword

Two correct entries received, Douglas Eirth and Grahame Dickson each receive 50 cents.

## JUNIOR CROSSWORD

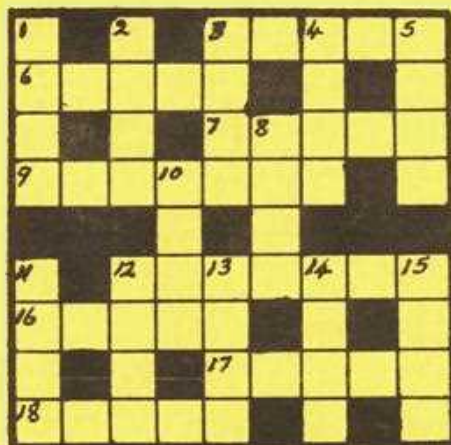
### ACROSS —

3. Mother horses.
6. Full of vitality.
7. A chain of mountains.
9. Stop from happening.
12. Blooms growing in garden.
16. Employed for wages.
17. He's bottom of class.
18. The leaves of a book.

### DOWN —

1. Flying insect that attacks fruit.
2. Used by carpenter to hold wood.
3. Another word for lake.
4. Payment to landlord.
5. Small garden building.
8. Freshly done.
10. Small animal that grows.
11. Ocean going boat.
12. Was once a tadpole.
13. The chances of success.
14. Girl's name.
15. Appear to be.

Fifty cents for first four correct entries opened.





PS

AUSTRALIAN PORTLAND CEMENT LTD. and SOUTHERN PORTLAND CEMENT LTD.

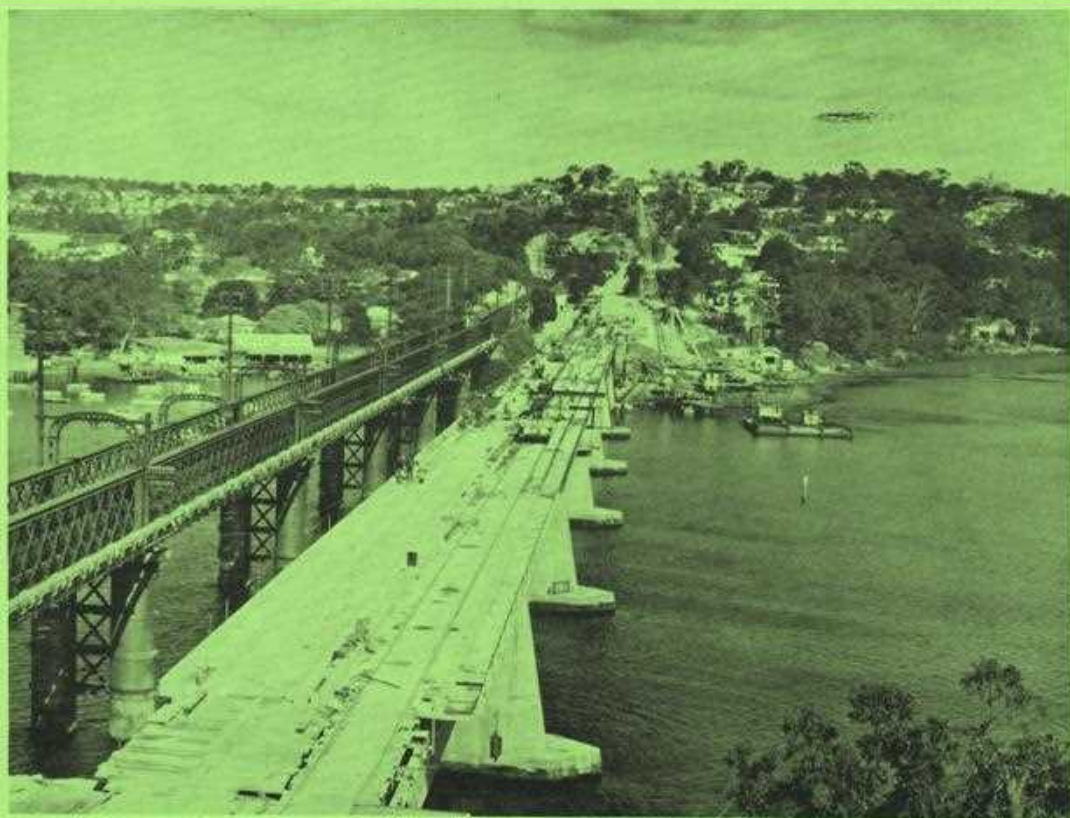


BERRIMA MARULAN MEDWAY SYDNEY



# NEWS

VOL. 1 — No. 12  
MAY, 1972



The Como-Oatley Rail Bridge at present under construction. Southern Cement is being used and the concrete is supplied by R.M.C.I. construction by John Holland.



# A.P.C.L. and S.P.C. NEWS

MAY, 1972

VOL. 1 — No. 12

## CONTENTS

- |     |   |    |   |
|-----|---|----|---|
| 1   | A Message from the General Manager N.S.W. Operations.<br>Editorial.   | 10 | Bill Brooks at the Opal Fields.               |
| 2-3 | Mr. E. Radnidge Retires.  | 11 | The Glebe Island Wheat Terminal.              |
| 4-5 | Heard on the Grapevine.   | 12 | Percy Aitkens Farewell.                       |
| 5   | David Boyd re-visits Berrima.   | 13 | Junior Page.<br>Meet the Metre.               |
| 6   | The Value of Apprentice Training.<br>Geelong Safety Officer visits Berrima.<br>Suggestion Committee Awards. | 14 | Overweight?                                   |
| 7   | Road Safety.<br>Obituary.   | 15 | Another Fishing Expedition.<br>Bits & Pieces. |
| 8   | The New Air Compressor.   | 16 | Gardening Notes.<br>Wanted a Caption.         |
| 9   | Fishy Tales.  | 17 | Junior Crossword.<br>Safety Limerick Result.  |
- Back  
Cover Rytewords No. 10.

### REGULAR CONTRIBUTORS

#### BERRIMA . . .

R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

#### SYDNEY OFFICE:

Miss Lorraine Lucas.

#### MARULAN . . .

W. McCallum.  
E. Cooper.

#### COLLIERY . . .

M. Thorpe.

#### PHOTOGRAPHY . . .

C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:  
Australian Portland Cement Limited  
and  
Southern Portland Cement Ltd.

### PRINTERS . . .

"Berrima District Post", Moss Vale.

All-correspondence and enquiries to:—

THE EDITOR,

A.P.C.L. and S.P.C. NEWS,

P.B.S. No. 4, Moss Vale, N.S.W. 2577.

### COPY DEADLINE:

28th of the month prior to the month  
of issue.



## A MESSAGE FROM THE GENERAL MANAGER N.S.W. OPERATIONS

All Employees of Australian Portland Cement Limited and Southern Portland Cement Limited are now aware that the rationalised manufacturing and marketing commenced by the two partners on 1st June, 1971 will end on 31st day of this month, whereafter the parties will trade independently.

During the period benefits arising from rationalisation were being achieved and there was close co-operation between the Management and operating staffs of the group. This was of undoubted benefit to all concerned and it is sincerely hoped that the friendships so made will continue.

J. F. McNicol

## EDITORIAL

With the recent announcement that cigarette packets are to be marked in order to warn the public of the dangers of smoking, and that all radio and t.v. advertisements would also have to give adequate warning, the matter is once again to the fore.

Just recently the President of the National Heart Foundation pointed out that deaths directly traceable to smoking were greater than the number of deaths from road accidents.

These facts prompt us to take another look at smoking.

Why do people smoke?

In most cases smoking starts in the teen years, and the reasons mostly given by children and young people are as follows:-

To feel big, to copy adults, to show off, to appear grown up, because friends do, to copy parents.

It seems very clear that the desire to feel big, by doing what parents and the majority of adults do, is one of the main reasons why young people start smoking, and after a while they find they can't stop.

Why is this?

Many smokers believe that smoking helps them to relax, relieving anxiety and tension. But does it? Medical evidence shows that on the contrary, smoking is really a vicious cycle, it adds to anxiety and increases tension. It does not calm the nerves but increases nervous tension. Gradually smokers become slaves to the cigarette.

Is it really harmful?

Dr. W. H. Stewart, Surgeon-General of the Public Health Service in 1967 (U.S.A.) said the health hazard from smoking "is flat, scientific fact, establishing it and demonstrating it, is no longer our goal."

Lung Cancer:- Overall deaths are eleven times higher among smokers than nonsmokers.

Heart Disease:- Cigarette smoking increases a man's chance of dying from coronary attack by 50 percent.

Peptic Ulcer:- Smokers show a 116 percent higher death rate from ulcers of the duodenum.

Other diseases:- In every case a much higher death rate among smokers.

According to the U.S. Public Health Service, cigarette smoking can shorten life expectancy by eight years.

In ten years smoking has killed 3 million Americans, in contrast only about 638,000 were killed in battle in all of America's wars from 1812 to Vietnam.

Cigarettes have the same results wherever they are smoked.

Surely, it's necessary to make the facts known. If you are a smoker, it's a good idea to stop now. Give your lungs a chance to repair themselves, enjoy life more, help young people by your example, indirectly you could lengthen many lives.



## BERRIMA RETIREMENT

Mr. E. Radnidge, Apprentice Training Foreman.

Ernie retired on the 26th of this month. He started work as a Fitter with SPC on the 15th September, 1937. The Chief Engineer at the time offered the job as only temporary, for two weeks. Apparently Ernie proved satisfactory for that was thirty-five years ago.

In 1939 Ernie took over the main turning and machining work. A short time later he spent some weeks studying new machining methods at the A.I.S. workshops, Port Kembla. On his return he was appointed Leading Hand, and took charge of a shift of machinists on war work. Another Leading Hand took the opposite shift, and he and Ernie worked at this for 12 hours each day, seven days a week. After a while they reverted to three eight hour shifts, and this continued until the end of the war. Ernie then went back to his old job of turning. Soon after he became shift Fitter. Following this he served as Leading Hand on general plant maintenance until about 1948. At this time he was transferred to the Power House, carrying out major overhauls on all equipment. It was during this period that the company acquired numbers 4 and 5 boilers. Ernie spent three months at the defunct National Oil Pty. at Glen Davis, from where the boilers were purchased, looking after the interests of the company, and familiarising himself with the boilers prior to installation at Berrima.



Ernie tries his hand at production.

In 1955 Ernie was appointed first Power House Foreman, and he continued in this capacity until his appointment as Mechanical Maintenance Foreman in 1961. He remained in this position until 1967 when, for health reasons, he relinquished the post, and was given the job of Maintenance Planning Officer. This he held until 1968 when he became Apprentice Training Foreman. The following is a message in Mr. E. Radnidge's words:-

*"I have enjoyed all the years working for S.P.C. and latterly A.P.C., and have always endeavoured to put my best into all jobs I have done. Retiring early was a big decision to make, and I will be very sorry to leave, but I feel it is in my best interests.*

*To all those I know at S.P.C., many thanks for being my friends, this includes of course all apprentices, and all who are in course training, and I hope you will all realise your ambitions."*



On holiday his main recreation is fishing.

A duty Ernie enjoyed. Presenting indentures on completion of apprenticeship. In this case Gerard Rowley.





Mr. Radnidge at his desk.



Practical Instruction to a first year apprentice.



## HEARD ON THE GRAPEVINE

### MARULAN

Mrs. Pamela Cooper, Quarry Typist, has taken two weeks annual leave during the school holidays.

Miss Anne Delderfield, switch operator at the Quarry recently took a week's holiday and flew to Melbourne.

Storeman Brian Fletcher has taken annual leave and gone on a motoring holiday to Adelaide.

We are sorry to hear that Mr. Cec Cluney has been taken to hospital again after suffering another heart attack. From all your work mates we wish you a quick recovery Cec.

Marulan Soccer Club who have been successful with their two senior teams in local competitions now have four junior teams which are proving a very strong opposition for the Goulburn teams. These junior teams are being coached by Allan Fiedler, Barry Kellar and Tom Bailey.

TRACEY READ, elder daughter of Mr. and Mrs. E. Read received a credit pass in ballet examinations held in Goulburn . . . . Congratulations Tracey.

GREGORY, eldest son of Mr. and Mrs. Cliff Shepherd recently took his 1st year violin examinations and is still awaiting results. Best of luck Gregory.

### RETIREMENTS:

Mr. Jack Marsh will retire 25.5.72. Jack started at S.P.C. as a fettler in August 1955 after previously being employed on the railways. He was promoted to leading hand fettler in 1960 and has held this position up to his retirement. We would like to wish Jack a long and happy retirement.

Mr. Tom Shepherd will retire 1.6.72. Tom started in April 1934 and was one of the pioneers of the Quarry. He was first employed as a Quarry man and powder monkey. Later he transferred to the steam Loco as a Loco driver. After spending some years on the Loco he transferred to the gardens and grounds as a gardener in 1961 and has held this position ever since. To Tom from all his workmates a long and happy retirement.

Bill McCallum bought himself a Statesman which he regards as the ultimate in motoring. Another new car owner is John Viss who purchased a Toyota Sports.

At the recent Springfield sports (held at Bungonia,) Marulan South School won by a good margin, Senior champions were Trevor Chaplin and Colleen Newman and Junior champion (Boys) went to Phillip Cosgrove. Practically all those who competed in the sports won or ran a place. "Congratulations Kids".

New starters at the Quarry are Verner Lacey and Bob Scott, we wish them both a long and happy stay.

Those on annual leave and long service leave are Max Koschenow, Geoff Bell, Garry Dickinson, F. Norman, D. Taylor, and L. Weston.

To the chaps on compensation we wish a quick recovery. I believe Bob Hogan has been moved from Canberra Hospital back to the Goulburn Base, well its a start Bob, Les (Tex) Cooper has been walking about with the aid of walking stick. Keep up the good work Tex. Stan Croker is on the mend after an operation.

Gordon Bryant is still suffering from a back injury. Although the treatment he has received has given him some relief.

### COLLIERY

Congratulations to Mr. and Mrs. Arthur McConnell on the birth of a baby son, Craig, a brother for Carol and Yvonne.

Andrew Roseby, who is studying for his mining engineering certificate, has recently purchased a house in Oxley Street, Berrima. He and his wife moved in recently. We wish them many happy years in their new home.

Early this month Jack and Mrs. Hebblewhite left on a trip to England, where they will visit relatives. Jack is taking long service leave.

Bill Stinson recently returned from long service leave.



## BERRIMA

A new face in the General Office — Mrs. Helen Staubner. Helen is replacing Jan Williams as Lindsay Lansdown's secretary. She is an immigrant recently arrived from New Jersey in the U.S.A., having talked her husband and family into coming to Australia. All her working life she has been a solicitor's secretary but says she enjoys the change of work (even cost sheets). The Staubners arrived in Australia last August and moved into their home in Exeter last November. The family have settled in very nicely, Charlie Staubner being employed at Vale Engineering and attending Goulburn Tech. to learn welding; 16 year old Karen doing Nurses Aide work at Bowral Hospital, and 8 year old Christine enjoying life at Exeter Primary School, especially playing cricket. Their 20 year old twin sons, Mike and Joe, are living in America.

Two more starters at the General Office this year, who have not yet been mentioned in the "News" are Roy Bramford and Don Cato.

Roy is looking after Capital Expenditure and Services. Previously he was manager of the Berrima District Co-Op Hardware Department.

Don is working in Costs, and likes his job. He previously worked with his father, an accountant in Nowra. He boards with his brother in Mittagong.

Congratulations to Michael Eirth and his wife on the birth of a Son, Rodney Michael at Bowral Hospital on the 11th May.

## SYDNEY OFFICE

This month Sydney office has been the centre of great activity with the announcement of the APCL and SPC de-merger. The office is full to overflowing at the moment with constant visitors, David King from Berrima and also visits from Peter Harley now of Geelong. Mr. Seddon (Finance Manager A and K Cement) who has visited Sydney office from time to time

is now permanent for some months to organise the APCL side of the de-merger. Assistance to Mr. Seddon is given by Mr. J. Godfrey who will be in future, APCL Manager for NSW.

Mr. Max Barnett had part of his annual leave recently, which he spent sailing on his yacht — much to the envy of us desk-bound ones.

David Hoy and Audrie Goderie took advantage of the Anzac Day holiday to have a short break from work. David for a quiet stay at home, Audrie to attend a wedding in Adelaide. Audrie has also written a short item about her experiences at "Weight Watchers" which is included in this issue of the news. All the girls in the office were shamed by her determination to "stick to the diet" which has paid off admirably. My only problem now is the huge guilt complex I get when Audrie sees me eating biscuits at morning tea!

During the month of May we are proud to boast two "father of the brides", from Sydney Sales section, Mr. May and Mr. Jack Peerman..

Congratulations to your daughters and best wishes to you also, on this proud day for a father.



David Boyd, son of Mr. E. Boyd of the Transport Section Berrima. David served his apprenticeship at S.P.C. He is now Maintenance Supervisor at Queensland Alumina, Gladstone. He recently re-visited the Berrima Works.



## THE VALUE OF APPRENTICE TRAINING

SPC and APC Berrima, have proved the value of apprentice training over the years. Many have stayed on with the company concerned, working as tradesmen. Others have attained supervisory positions.

The following list surely speaks for itself:-

Keith Graham, Maintenance Foreman.  
J. Long, Assistant Maintenance Foreman.  
R. Mulready, Maintenance Planning.  
A. Parker, Stores Control Officer.  
Z. Mackey, Design Draughtsman.  
W. Poland, Assistant Maintenance Foreman.  
R. McGinnes, Detail Draughtsman.  
B. Armit, Marulan Quarry Technical Assistant.  
E. Read, Assistant Maintenance Foreman, Marulan.  
E. H. Cooper, Maintenance Office, Marulan.  
P. Knowles, Detail Draughtsman, Marulan.  
J. Grilz, Electrical Foreman.  
R. Strode, Assistant Electrical Foreman.  
D. King, E.D.P. Superintendent.  
F. Ritchie, Electrical Draughtsman.  
J. Baumann, Electrical Draughtsman.  
R. King, Electrical Instruments.  
J. Galloway, Electrical Foreman, Marulan.

The following are serving as Mechanical Fitters:-

O. Fairbairn, K. Coates, A. Donaldson, G. Rowley, R. McAndrew, M. Barcicki, R. Knapman, I. Gilby, G. Morris, G. Drewe, H. Chapman, G. R. Limond, G. Knapman, L. King, J. Ewart, T. Rebbeck, R. Vincent, G. Thompson, D. McCallum, S. Kopec, G. Bell, G. R. Bryant, C. Riley, I. Beaton.

The following serve as Electrical Fitter-Mechanics:-

A. Canova, N. North, J. Hackett, G. Turczynski, J. Kopec, N. Steffenson, R. Thompson, C. Newstead, A. Foreman, P. Galloway, C. Bromfield, H. Newman.

Boilermakers:- M. Fraser, E. Peszko.

—An efficient Training Programme pays.—



TOP — Mr. Neil Kitchen, Safety Officer for A.P.C.L., Geelong. On a recent visit to Berrima, Mr. Kitchen was very favourably impressed with our Safety programme, and asked for a photograph of the above sign, depicting the record of our injury free days.

### SUGGESTION COMMITTEE AWARDS:

The following Suggestion Awards were granted at meetings of the Suggestions Committee on the 5th and 8th of May, 1972:-

No. 433, R. Betts, \$5; No. 435, W. Townsend, \$15; No. 440, J. Bizjak, \$6; No. 438, P. J. Hremeviuc, \$6; No. 444, C. Moule, \$6; No. 456, P. King, \$6; No. 457, T. Waide, \$5; No. 463, W. Hoffman, \$10.

The Committee thank all those who submitted suggestions. If you were not successful this time, still keep on trying, you could come up with a winner.



## ROAD SAFETY

If everyone who drives a car could lie  
a month in bed,

With broken bones and stitched up  
wounds or fractures of the head,

And there endure the agonies that  
many people do,

They'd never preach safety any more  
to me or you.

If everyone could stand beside the  
bed of a close friend,

And hear the doctor say "no hope"  
before that fatal end,

And see him there unconscious never  
knowing what took place,

The laws and rules of traffic I am sure  
we'd soon embrace.

If everyone could meet the wife and  
child he left behind,

And step into the darkened home  
where once the sunlight shined,

And look upon the vacant chair where  
Daddy used to sit,

I'm sure each reckless driver would be  
forced to think a bit.

If everyone would realise that pedest-  
rians are on the street,

Have just as much the right-of-way as  
those upon the seat,

And train their eyes for children who  
run recklessly at play,

This steady toll of human lives would  
drop from day to day.

If everyone who drives a car would  
heed the danger signs,

Placed by highway engineers who also  
marked the lines,

To keep the traffic in the lane and give  
it proper space,

The accidents we read about could  
not have taken place.

If he who takes the wheel would say  
a little prayer,

And keep in mind those in the car  
dependent on his care,

And make a vow and pledge himself  
to never take a chance,

The great crusade of Safety then would  
suddenly advance.

*from KEMBLA NEWS.*

## OBITUARY

### CECIL EDWARD WARNER

*It is with sadness that we have to  
record the death of Cec Warner on  
Monday, 8th May, 1972.*

*Cec commenced with S.P.C. in  
August, 1950, as a construction lab-  
ourer. Later he became Fitters lab-  
ourer, and then shift Fitter. In 1956  
he transferred to Fitting on day work.  
It was soon after this that he met  
with his unfortunate accident. A long  
illness and operations followed. As a  
result he was later employed as clerk  
in the Machine Shop.*

*In his younger days he was a  
great sportsman, an excellent golfer,  
he also excelled in Soccer and Rugby.*

*In the Forces, he was originally  
in the Light-Horse - transferring to the  
A.I.F. He served in the Islands during  
the Second World War.*

*Cec was very well known, and  
well liked by all his friends and ac-  
quaintances. He will be greatly missed  
in the Machine Shop.*

*To Mrs. Warner, and daughter  
Beverly, Management and all workers  
at the Berrima Plant express their  
deepest sympathy.*

## OBITUARY

### CLYDE SPENCE

*Father of Ron Spence, Assistant  
Stores Supervisor, Clyde retired from  
S.P.C. about five years ago. It is with  
sorrow that we record his death, which  
took place on the 11th May.*

*At the time of his retirement  
Clyde was Stockhouse Foreman. Dur-  
ing his service with S.P.C. Clyde  
worked in varying capacities in all  
parts of the Berrima Plant. He was  
with the company about 25 years and  
retired early owing to ill health.*

*All who knew Clyde at S.P.C.  
Berrima join in extending condolences  
to Mrs. Spence, Ron, and all surviving  
relatives.*



## NEW AIR COMPRESSOR AT BERRIMA WORKS

by  
E. LIU, Planning Engineer.

A new 1000 cubic-foot per minute air compressor was installed at the Power House during April 1972. The Compressor was manufactured by Atlas Copco of Sweden and is a two-stage, water cooled reciprocating machine with the two cylinders arranged in an 'L' form. The low pressure cylinder is vertical and the high pressure horizontal. The compressor is double-acting with compression chambers both above and underneath the pistons.

The air drawn into the compressor is first compressed in the low pressure cylinder, then cooled, whilst passing through the water inter-cooler. It is then compressed in the high pressure cylinder to the final working pressure.

The quality of air delivered is regulated automatically by means of a valve unloading system.

The compressor has an instrument panel with gauges for working pressure, intercooler pressure and oil pressure. Safety devices against overheating and undue oil pressure drop have also been installed.

### *Principal Data:*

#### *Compressor:*

Make: Atlas Copco. Type: ER6  
Max. Working Pressure: 125 psi  
(8.8 Kg/cm<sup>2</sup>)  
Min. Working Pressure: 50 psi  
(e.5 Kg/cm<sup>2</sup>)  
Capacity: 1000 C.F.M.

#### *Motor:*

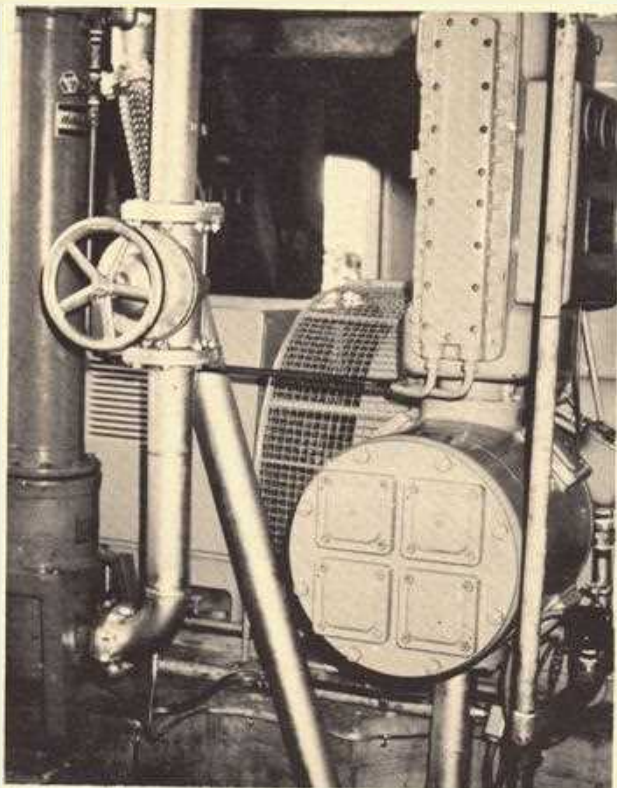
Make: Yaskawa; Type: B.D.K; H.P.: 250; Speed: 490 r.p.m.

### THE NEW COMPRESSOR MOTOR

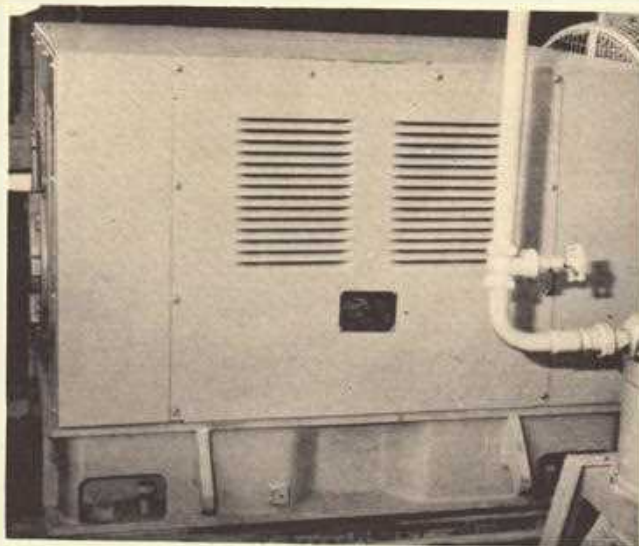
by  
ROGER KING, Electrical Draughtsman.

During April this year a new Atlas Copco Compressor was commissioned. The Compressor incorporates a new type of electric drive motor. It is a 2300 volt, 250 HP, 500 RPM Yaskawa motor from Japan.

The main difference between the Yaskawa motor and other large motors in the plant is its construction. Instead of a solid cast iron casing with endshields sup-



Side view of the Compressor and Motor.



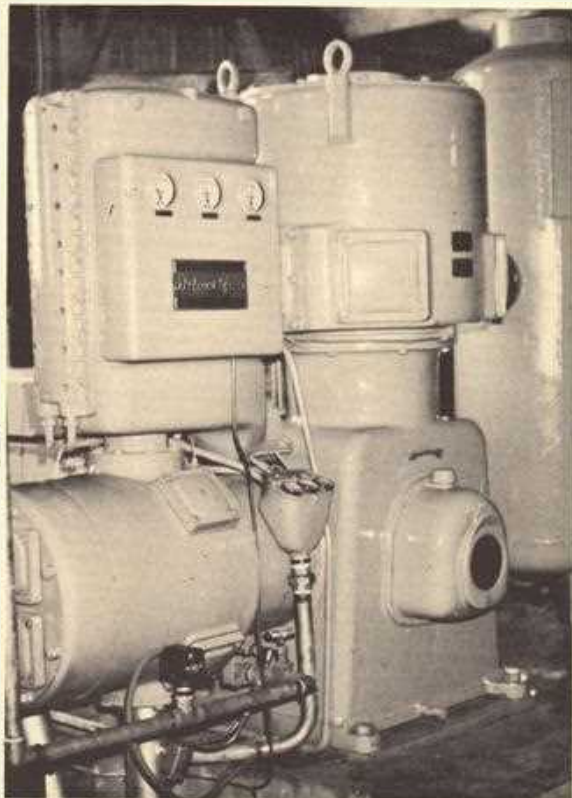
The Motor Cover.



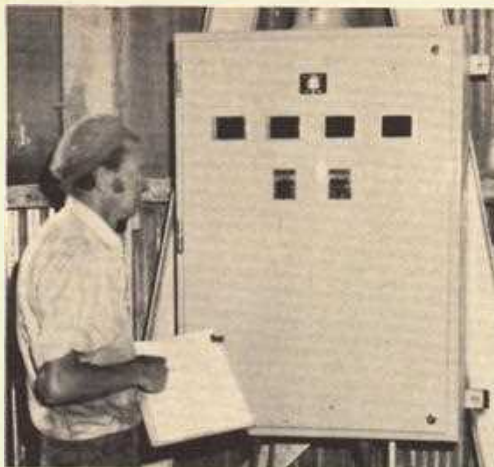
porting the rotor bearings, the Yaskawa motor stator sits on a fabricated steel box section base. The rotor is supported by two large pedestal bearings. The complete motor is then covered by a sheet steel box which is assembled in sections. This same base can be used for a great variety of motors of different speeds, voltages and horse powers.

The main advantages of this new type of construction are: Reduction in cost, ease of accessibility, large pedestal bearings, excellent cooling, a better looking motor.

The Compressor has a Supervisory Control Panel which monitors air outlet temperature, cooling water flow and oil pressure. If any of these fail, the compressor stops automatically and sounds an alarm. The item which caused the failure is displayed on an engraved illuminated window. When the fault is rectified the compressor can be restarted from the panel.



Front view of the Compressor.



Colin Martin at the Supervisory Control Panel.

## FISHY TALES

Rus Greaves is at present taking part of his long service leave. He sends his regards to all readers. I will pass on part of his letter that may interest readers, in his own words.

The Crescent Head day temperature has been 70 to 80 degrees and at night 55 to 60 degrees, so the rig of the day has been shorts and hat. Fishing has been off to some extent, due to the fresh drain off from the cyclonic rain. However, I have managed to keep the freezer full and that's all one wants. My new Electrolux with deep freeze has proved highly satisfactory. I was going to move further north, but if the weather stays like this, I won't be moving on just for the sake of driving.

A rock hopper was drowned here a few weeks ago. I stick to the beach fishing. I may miss a few fish but I get all I need. Largest bream so far 2½ pounds and flathead 1 pound. Plenty of whiting, ½ to ¾ pounds. As the mullet run is just about starting, the fishing is expected to be very good in May.

Went up to Yanahappine Lookout last week. Purchased a bunch of bananas up there. There were 122 in the bunch for one dollar twenty! Have a banana? A wonderful view from Nambucca Heads to Port Macquarie!

I have not written a word until now. Thought I may have lost the art. However, my wife and I are both well and I trust all my workmates are OK too.



## BILL BROOKS AND FAMILY VISIT THE OPAL FIELDS

On 17th March we left home — destination Callala Bay. The weather was glorious — except for two wet days over Easter. Jack Bloomfield, his wife, daughter and family joined us for the Easter holidays. Weather permitting we went fishing and got some very good bags — mixed Flathead, Bream, Schnapper, Mullet and Whiting. After one day at home we left for our trip to the opal fields. We travelled through the Blue Mountains and had two days at Dubbo. Dubbo is a nice clean city with modern airport, three flights to and from Sydney daily. Saturday the 15th saw us on our way to Grawin and Glen Garry opal mines. The museum at Grawin is to be seen to be believed. It is not a big place — about six nice houses, plus two shops and bush pub, many shanties and shacks.

Glen Garry is six miles north of Grawin and consists of three shops, pub, caravans, tents and the usual humpies. I would say for every one person there, there are four dogs. You name the breed and that's it. The temperature ranged between 80-87

degrees but a nice breeze was blowing and it was very cold at night. Water had to be purchased at 95 c. for 44 gals. We met a man from Moss Vale, Mr. Crowley of Browley Street.

The people there were very friendly and we were made welcome by all. After getting "dug in" we tried our luck on the "noodling" pile and got some very nice pieces. Paul got one piece that was valued at \$70 and Mum struck it lucky with a nice blue piece worth \$25 plus a few worth \$20. Modes of transport range from Jaguar cars to the humble bike.

On Wednesday the 19th we went to Lightning Ridge for a couple of hours. The place is like a rabbit warren, holes, holes and still more holes. The bottle house there is really worth seeing. Prices are rather high on most fresh foods. The bread was a delight to eat, fresh with that 'doughy' taste. After leaving the Ridge we came back to Dubbo and had two nights and a day there. On the 22nd we left for Taree, our route was through Dunedoo, Greta, Maitland and Raymond Terrace. On the whole the roads were not too bad and the dirt roads were mostly in fairly good order. On Wednesday the 26th we left Taree to return home — tired but well pleased with our holiday. In all we travelled 1,800 miles.



The Bottle House, Lightning Ridge.

— Photo Col Glacken.





The Glebe Island Wheat Terminal.

## WHERE OUR CEMENT GOES

No. 3

### THE GLEBE ISLAND WHEAT TERMINAL

For the information in this article, and the photograph, we are indebted to the Maritime Services Board of N.S.W.

No. 7 Glebe Island, Sydney, built at the cost of over \$1 million, was used for the first time in 1968 when the British bulk carrier "Oratava" commenced loading 40,016 tons of wheat for Amsterdam.

Owing to the closing of the Suez Canal many shippers using Southern routes had to re-examine the economics of cargo transport. Research showed that for many bulk items it was far more economical to use much larger ships, these in turn needing larger berths and modern loading equipment.

Most world port authorities today agree that the ideal grain loading facility is a single berth with massive loading facilities.

The construction time of the new berth was greatly reduced by using precast concrete components supported by large concrete piers. In this way costly and time-consuming formwork was eliminated, and the size of the construction gangs reduced.


The foundations of the wharf consist of 4 ft. diameter reinforced concrete piers poured inside cylindrical steel casings embedded into firm sandstone.

Precast reinforced concrete headstocks weighing 25 tons each were set on top of the foundation piers. Headstock with a pair of piers, forming a rigid frame structure.

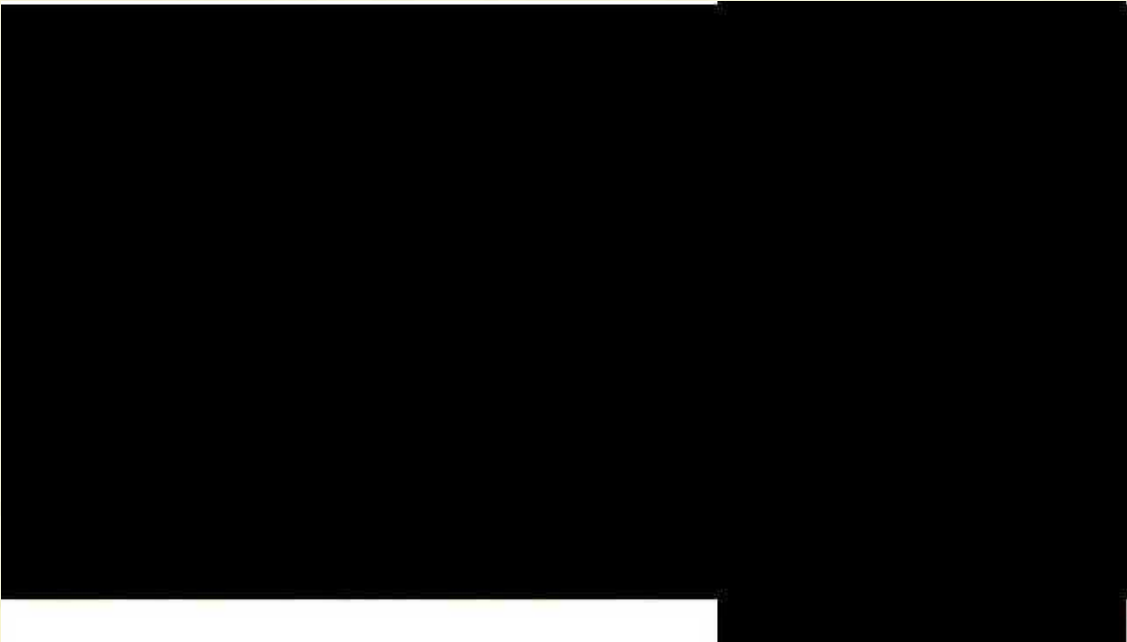
Pairs of precast prestressed concrete beams were provided between adjacent headstocks to carry the wheel loads for the mobile gantries. Precast, prestressed concrete decking units of ribbed design were then used to span the 20 ft. between the headstocks, forming an apron 45 ft. wide.

The decking was completed by pouring a 4½ in thick in situ concrete slab over the top of and between the precast units. This provided continuity for the gantry support beams and tied together all the precast components into a monolithic structure.





Tim Tickner, Stockhouse Foreman, acted as Master of Ceremonies at the Farewell Party in honour of Percy Aitken who retired last month.



Bill Gair, Production Superintendent, making the presentation on behalf of Percy's workmates.

Percy returns thanks.



## JUNIOR PAGE

### THE PLANETS:

Last month you remember how we discussed the discovery of the Planet Neptune by Mathematics. On the radio, early this month, you may have heard that another new planet had been discovered by mathematics. This was done by the aid of a computer, and the discoverer said that the planet was very large, and much further out in space than Pluto, the farthest away of the planets.

Instructions as to where to look in the heavens, were to be issued to astronomers around the world. We shall probably hear that it has been sighted very soon. At present there are nine known planets. As you perhaps already know, they all revolve around the sun, and because of this we call it the solar system. The sun is the central and largest body of this system. The word "solar" means "of the sun".

The names of the planets are, commencing with the one nearest to the sun, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto. Pluto is 3,670,000,000 miles from the sun. So the new planet which astronomers expect to find, is at a tremendous distance from the earth.

How is it that the planets do not fly out into space? Today with the information we have regarding satellites, this is much more easily understood. The combination of the motion and mass of a planet would tend to cause it to travel in a straight line, but the gravity of the sun pulls the planet towards the sun. In this way it is the pull, or gravity of the sun, that keeps the planets from leaving the solar system. Centrifugal force keeps the planets from being pulled into the sun. The two forces keep the planets in their orbits.

### PROTECTIVE COLOURATION

Many animals and plants have colours that blend into the particular ground of their usual surroundings. This is called protective colouration. Green frogs and snakes live in grass or weeds. In deserts many birds and reptiles are sand-coloured. Other animals such as certain rabbits and weasels, are earth-coloured during the warm months, but change to white in winter, in order to blend with the snow. In tropical

regions, brightly coloured feathers of birds blend with the flowers of tropical plants. Tropical fish are often brightly coloured when they live among corals and water plants. Some small fish are almost transparent and, as a result can remain hidden in water from their enemies.

Some insects have a special shape as well as colour, in order to afford protection. For example a green Katydid resembles a leaf both in colour and shape. Stick insects look just like part of the plants, you may have seen them. The long slender body and the angular legs of the Praying Mantis resemble the twigs of trees and shrubs. If you can think of other examples write and tell the editor — the best will be published next month.

### THE RIGHT MAN IN THE RIGHT PLACE

Did you manage to put the right man in the right place last month?

Here are the correct answers:-

1. Alfred B. Nobel, 1833-1896.
2. Louis Pasteur, 1822-1895.
3. Guglielmo Marconi, 1874-1937.
4. Carolus Linnaeus, 1707-1778.
5. William Harvey, 1578-1657.
6. Michael Faraday, 1791-1867.
7. Sir Isaac Newton, 1642-1727.
8. Wilhelm Konrad Roentgen, 1845-1923.
9. Alexander Graham Bell, 1847-1922.
10. Joseph Lister, 1827-1912.

## MEET THE METRE

### FIRST:

Metrics were first mooted in 1671 by Gabriel Mouton, vicar of St. Paul's Church, Lyons, France, who based the metre on the length of an arc of one minute of a great circle of the earth.

No really definite steps towards their adoption were taken until after the French Revolution, when, in 1791, a report was made to the French National Assembly by the Paris Academy of Sciences. In the eight years which followed, they were adopted by 10 nations, but not until 1875 was an international treaty signed in Paris to provide an International Bureau of Weights and Measures located at Sevres, a suburb of Paris.

(continued next page)



#### LATEST:

In 1948 the General Conference of Weights and Measures moved to establish a practical system of units of measurement suitable for adoption by all signatories of the Metric Convention. This led to the adoption by the General Conference in 1960 of the International System of Units, with the abbreviation "SI".

The system comprises a set of seven base units, supplementary units of circular measurement (angle) and derived units.

#### OLDEST:

In ancient times, weights and measures differed far more than they do today. The seven wonders of the ancient world were different from each other, and all built using measuring systems quite probably derived from measurements handed down from ancient tribes in the various regions.

These early tribes had set down their own laws of length, breadth, height and weight, probably based on dimensions of the various parts of the human body, usually of the chief's or king's. This is where we get the "foot" measure from, thought to be one of the earliest measurements still existing.

#### EARLIEST:

The earliest existing measure of weight is the "beqa" from Egypt, a set of cylindrical weights with rounded ends, from the Amration period c. 3800 BC. They are the base of the British troy ounce. In fact the British imperial system is a collection of miscellaneous weights and measures taken from many sources, one of the earliest being the Roman Empire.

The width of the thumb, mixed with a bit of the Anglo-Saxon language defined one-twelfth of a foot as an "inch". The "mile" was 100 Roman paces, or double steps, the pace being equal to five Roman feet. So 5000 Roman feet became 5000 British feet until the 16th century when by statute of Elizabeth I it became 5280 ft.

British monarchs played a large part in establishing some of the measurements we use today, and we have; thankfully, dropped.

The yard was the distance between the tip of the nose and the end of the thumb of Henry I (but originally thought to have been the length of an Anglo-Saxon's girdle).

#### QUAINTEST:

Some of the more quaint measurement standards still existing, but not used, are the Winchester bushel of Henry VII, and the standard hundred-weight of Elizabeth I which are among others deposited in the Jewel Tower at Westminster. The council chambers at Edinburgh and at Linlithgow have the Scottish standards, including the Stirling jug, or Scots pint of 1618, and the choppin, or half-pint of 1555.

At one time there were two different gallons, one for wine, of 231 cubic inches, established by Queen Anne, and one of 283 cubic inches for ale. Both were abandoned for the imperial gallon of 277.42 cubic inches, established by the British Weights and Measures Act of 1878.

The standard yard, which was destroyed in a fire in the Houses of Parliament, Westminster, on October 16, 1834, was replaced in 1845 by two gold studs sunk in a bronze bar at 62° F. as the Number One Standard Yard, and is now at Guildhall, in the City of London.  
by J. D. Cullinane - from M.C.B. Newsletter

## OVERWEIGHT?

Hands up how many people manage to put on extra weight while on holiday. This is what happened to me last year whilst overseas for three months. I came back to find that I just could not fit into my summer clothes, so I made up my mind to do something about it.

Mrs. Hall who is an employee at Onoda (A'Asia) advised me to join Weight Watchers, and I went along to see what it was all about. I was given a special diet programme to follow, and during the first week I lost 4½ lbs., and I have consistently lost a few pounds each week during the 16 week programme.

This week I received my "Life Membership" badge, having not only reached my goal, but was 3½lbs. under the specified weight, altogether I have reduced by 2 stone.

I do thoroughly recommend Weight Watchers International Co. to anyone who knows they are overweight, and have been on numerous diets which somehow never seem to work out right — Good Luck!

A. Slimmer - Audrey Goderie.





John Grilz, Alan Duxbury, Malcolm Berry (now of Moxons) Bert Canova and Alan Betts, went on another fishing trip to Burrinjuck Dam. They are seen above with some of the catch for Saturday and Sunday the 29th and 30th of April. Native fish eluded the party, all catches were Rainbow Trout. Bert Canova who was trout fishing for the first time, topped the catch with a 3 lb. trout. He played it for about ten minutes. The weather was first class and the weekend a huge success. It is hoped to organize another trip next month to Wyangala, or Oberon Dams.

## BITS & PIECES

Such is the prevalence of heart trouble today that sooner or later each of us will know or be in contact with a heart case. Causes of heart disease are varied, some being hereditary, other causes being excessive consumption of animal fats, drinking of spirits, smoking, and over-weight to name a few.

It follows that with the alarming increase in heart disease, and heart attacks, more and more is being done to combat the fatality rate of such occurrences.

### CARDIAC MONITORING AND SUPPORT SYSTEM

The most frequently employed form of instrumental surveillance of human organ

systems in cardiac monitoring. It is used in intensive care units, hospital surgeries, post-operative recovery wards, and coronary units.

It differs from the usual diagnostic electrocardiography in that it continuously registers heart function and is programmed to alert nurse and doctor when any distress occurs.

Monitoring of other vital signs of the critically ill within intensive care units was advanced considerably when the feasibility of computerised line monitoring was demonstrated. The new system provides for continuous graphic displays of the arterial and

(continued page 17, column 1)



# GARDENING NOTES

## FOR MAY

**FLOWERS:** SOW: Antirrhinum, Candytuft, Calendula, Linaria, Lupin, Nemophila, Sweet Pea, Virginian Stock.  
PLANT: Antirrhinum, Bellis perennis, Carnation, Calendula, Dianthus, Iceland Poppy, Pansy, Polyanthus, Stock, Viola, Anemone, and Ranunculus.

**VEGETABLES:** SOW: Broad Beans, Onion, Peas, Parsley, White Turnip  
PLANT: Asparagus, Rhubarb, Onion, Bush Fruits, such as Currants, Gooseberries, Strawberries.

The Autumn colours have been spectacular for some weeks now, although an exceptionally windy week-end towards the end of April robbed the Poplars of much of their beauty. This month the Liquidambers, and Maples will be at their best also the Pistacias, Ornamental Pears, Crab Apples and Flowering Cherries, and the larger species of Crataegus will be resplendent with red and yellow fruits.

Plan your Winter planting now and get the holes ready for deciduous trees and shrubs.

The stems of Dahlias should be cut back to about 12" as soon as the leaves yellow. The tubers can then be lifted and stored in boxes of dry sand to which a sprinkling of fungicide such as Bordeaux powder has been added. This helps prevent rotting and discourages slugs and snails. Cut back the perennial plants a little to tidy them up, and make a further cut back to ground level in June and July.

Canellia sasanqua shrubs are flowering now. These are available in Single and semi-double varieties in pink and white and are a valuable addition to the Autumn garden. Some of the Viburnums are also flowering at present.

Where trees or shrubs have been badly attacked by fungus disease during our very damp, humid Summer, the fallen leaves should be raked up and burned wherever possible. *DO NOT* add diseased leaves or plants to compost heap.



Wanted a caption for this picture. \$1 for the best.



venous blood pressure, cardiac rate, rhythm and output, and the concentrations of oxygen and carbon dioxide in the blood. In addition, programmed alarms alert hospital personnel when safe limits are exceeded. In patients with advanced respiratory rate, lung capacity and all relevant details are instantly computerised and this allows the doctor to make immediate decisions.

### THE MOBILE MONITOR.

Two thirds of heart victims die on the way to hospital. You just cannot get a victim to the hospital too quickly.

To combat ambulance deaths a portable solid state, low cost radio system is now in use. A pocket sized transmitter is attached to the patient's body. Vital information such as electrocardiogram (record of the sequence of electrical waves generated at each heartbeat) blood pressure, temperature, and respiration, are all relayed to a receiver - transmitter at the hospital and a complete picture of the victims condition is ready prior to his arrival. If necessary the doctor can also inform the ambulance attendant of any emergency treatment needed.

More about heart attack control systems in the next issue.

### SAFETY LIMERICK RESULT

First Prize of \$4 to Mrs. E. Cosgrove, Marulan.

To make freedom from mishap your goal,  
Keep each step of your job in control.  
A high price you may pay  
If you let your mind stray  
You may even cause church bells to toll!

Second Prize for the line —

Your body works better when whole.

I. Dickson, Berrima.

Third Prize —

Forever you will pay the high toll.

D. Perry, Berrima.

Consolation Prize, Nance Carter Sydney —

On Last Weekends Beaut Game at the Bowl.

### WINNERS OF APRIL Junior Crossword

Each will receive 50 cents.

Patricia Murchie, Medway, Berrima West.

Gregory Shepherd, Marulan.

Cathy Brooks, Moss Vale.

Grahame Dickson, Berrima.

Graham Cosgrove, Marulan South.

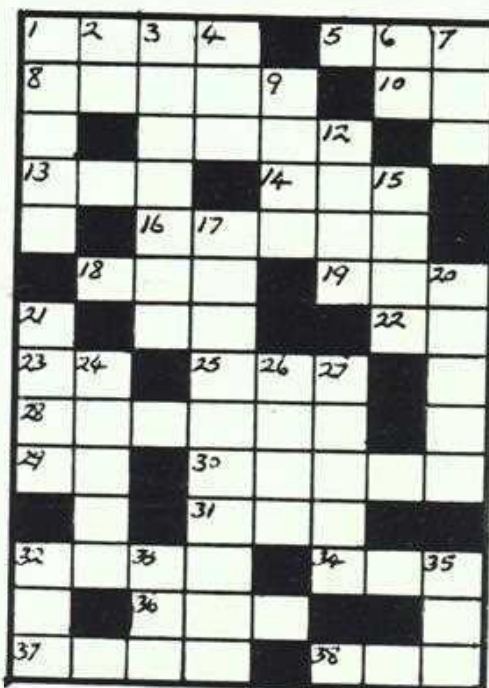
### JUNIOR CROSSWORD

#### CLUES DOWN —

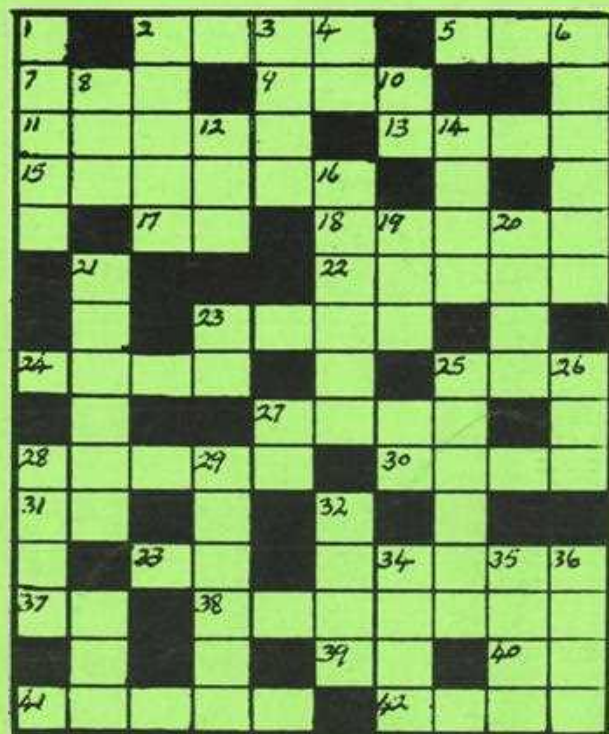
1. American President.
2. Good — gold.
3. Sickness.
4. Tract of open grassland.
6. Not off.
7. A small child.
9. Ripped.
12. Spoken.
17. Worn on face to aid breathing.
20. Often used to light things.
21. Capital of N. Nigeria.
24. To try food.
26. Sports ground.
27. Evil one.
32. A kind of mist.
33. Adam's wife.
35. Twenty Cwt.

#### CLUES ACROSS —

1. Used for joining wood.
5. Past tense of get.
8. Small island.
10. Opposite to yes.
11. Country in S.E. Asia.
13. To possess.
14. Past tense of to run.
16. Boys name.
18. To make use of.
19. Small spot.
22. Northern Australia (Initials).
23. Go — once.
25. Used for fishing.
28. President.
29. Outsize (initials).
30. One who raves.
31. --- Ba Ba.
32. Three make one yard.
34. Plenty.
36. German for.
37. One who goes.
38. Used to hold water.







## RYTEWORDS No. 10

FIRST PRIZE: \$10; SECOND PRIZE: \$4.  
Consolation Prizes of \$1 each.

### CLUES DOWN —

1. This of a baby gives pleasure.
2. Bring.
3. Brand of petrol.
4. Preposition.
5. Works with leather.
6. Emitted from a light or lamp.
7. Not yes.
8. Eastern Overseas Airways (Initials).
9. Writer of Poems.
10. Aggie.
11. Fish Eggs.
12. Used in smelling.
13. This of a diplomat will make headlines.
14. British Empire (abb.).
15. Needed for living.
16. To do this to a person may be unwise.
17. Bachelor of Arts. (abb.).
18. Aplan.
19. Name of a chemical food.
20. A root crop.
21. Fun.
22. Type of fish.
23. Country in S.E. Asia.

## RESULT RYTEWORDS No. 9

No correct entry was received. Four entrants had one mistake. They will receive \$1.50 each. Ian Dickson, EDP Dept.; Mrs. A. J. Shepherd, Marulan; Bill Brooks, Power House Berrima; Mrs. H. Shepherd, Marulan.

Six entrants had two mistakes. They receive \$1 each. Barry Croot, New Berrima; M. Eirth, Machine Shop; Mrs. J. Dickson, Berrima; Miss B. Warner, Moss Vale; Mrs. B. Croot, New Berrima; D. Perry, Berrima.

The following alternative answers were carefully considered.

Numbers 1 down and 1 across were coupled together. The answers could be either "walk" and "waste" or "talk" and "taste." The former were considered the best answers. No. 9 down "stores" was considered the best answer. A store "sells" itself by being attractive. No. 14 across "bog" was considered better than "fog." No. 26 across, a "game" especially in international sport, may attract world-wide attention, fame, or name would. No. 16 down — both "pines" and "wines" considered correct.

### CLUES ACROSS —

2. You stand on these.
5. Used in cooking.
7. Anger.
9. Opposite to daughter.
11. Levied on land.
13. Not closed.
15. Japanese title.
17. Exclamation.
18. Girls name.
22. Drives a car.
23. Very young child.
24. A tasty drink.
25. A call in tennis.
26. A Policeman walks this.
28. Far Eastern Country.
30. Used in washing.
31. Low Tension (abb.).
33. West Australia (initials).
34. Skin of fruit.
37. Post Office (abb.).
38. Famous pensioners.
39. Slang for thanks.
40. Exclamation.
41. Not on a level.
42. Southern N.S.W. Town.



BERRIMA MARULAN



MEDWAY SYDNEY

SOUTHERN PORTLAND CEMENT LTD.

## —≡ NEWSLETTER ≡—

VOL. 1 — No. 1.

JUNE, 1972.



A recent view of Berrima Cement Works from the air (Photo Moss Vale Post)



# S.P.C. NEWSLETTER

JUNE, 1972

VOL. 1. — No. 1

## — CONTENTS —

- |     |  |    |  |
|-----|--|----|--|
| 1   | Editorial.                                       | 12 | Mr. E. Radnidge's Farewell.  |
| 2   | Heard on the Grapevine.                          | 13 | Bits and Pieces.<br>Loch Ness Monster.<br>Neville Parmenter Resigns. |
| 3   | Wally South Retires.                             | 14 | Recent visitors to Berrima Plant.                                    |
| 4   | Nature Notes.                                    | 15 | A Background to Conservation.  |
| 5   | S.P.C. and Eastern Suburbs Railway.              | 16 | Gardening Notes.<br>Apprentice Project.                              |
| 6-7 | Cement Mills.<br>Obituary — John Byfield.        | 17 | The New Coal Dryer Stack.<br>Two of our Painters.                    |
| 8   | Jim Overdyk Retires.                             |    | Back   |
| 9   | A Whale of a Tale.                               |    | Cover Rytewords No. 11.<br>Old Stockhouse Photograph.                |
| 10  | Lions Club Exchange Students visit<br>the Works. |    |  |
| 11  | Junior Page                                      |    |  |

---

### REGULAR CONTRIBUTORS

BERRIMA . . .  
R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

SYDNEY OFFICE:  
Miss Lorraine Lucas.

MARULAN . . .  
W. McCallum.  
E. Cooper.

COLLIERY . . .  
M. Thorpe.

PHOTOGRAPHY . . .  
C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:  
Australian Portland Cement Limited  
and  
Southern Portland Cement Ltd.

PRINTERS . . .  
"Berrima District Post", Moss Vale.

All-correspondence and enquiries to:—  
THE EDITOR.

S.P.C. NEWSLETTER,  
P.B.S. No. 4. Moss Vale, N.S.W. 2577.

COPY DEADLINE:  
28th of the month prior to the month  
of issue.



## Editorial

*I was interested recently in an article published in the national magazine "Alert." It highlighted the tremendous cost of alcohol. Not particularly the cost of purchase, that is only a very small part of the total cost.*

*In a recent report presented to the United States Congress by the Department of Health, Education and Welfare, the cost was estimated at 15,000 million dollars a year. It noted that public drunkenness accounted for one-third of all arrests; and when drunken driving and other drinking offences were added, the percentage rose to a half of all arrests.*

*Recently, at the 1972 University of Melbourne Summer School on alcoholism and drug dependence, Dr. Louise Deakin, Registrar of the Alcoholism Clinic at Melbourne's St. Vincent's Hospital, presented a startling costs report.*

*Doctor Deakin carefully costed one hundred patients over a period of four years. She took into consideration the following items: treatment for physical disease; treatment for tuberculosis; hospitalisation for problems of mental health; social services paid to the patient for benefits and pensions; detention in gaol; and unrealised earnings through illness and early retirement. Where costs were unknown they were omitted. For this reason the following items were not included in the total costs revealed by the survey: the costs of court proceedings on criminal charges, maintenance, divorce and workers' compensation cases; police time in making arrests, questioning suspects and attending court; loss to industry in terms of decreased work efficiency, absenteeism; cost of social services paid to families, such as deserted wife, prisoner's wife and child allowances, and social and support agencies used by the patients family; treatment of physical and social ill health in the family, and loss of income due to premature death. (It has been estimated that the alcoholic dies about twelve years earlier than the average). The cost for an alcoholic worked out at approximately \$811.00 each year, as against the normal patients \$90 per year.*

*Perhaps the question comes to your mind what has all this to do with me, I'm not an alcoholic. But the fact is that anyone who drinks alcohol must regard himself as a potential alcoholic. One of the most frustrating characteristics of alcoholism is the inability of the sufferer to accept or recognise that he is in serious trouble, despite overwhelming evidence that this is the case.*

*Alcoholism, which has its major impact in the third, fourth and fifth decades of life, is now recognised as the fourth major public health problem in our society, surpassed only by heart disease, mental illness and cancer. These facts were disclosed by Dr. J. N. Santamaria also speaking at the 1972 University of Melbourne Summer School on Alcoholism and Drug Dependence. He went on to say regarding the investigations at St. Vincent's Hospital Melbourne, "The overwhelming majority of the alcoholic males were in the age range when their labour and skills should have resulted in maximal productivity and remuneration."*

*As long ago as 1960 it was estimated that, in Australia, absenteeism caused by alcoholism cost industry \$80 million per year. It has been estimated that in Australia in 1970 there were 43,000 women alcoholics and 215,000 men. The majority of these men, it was found, began to drink excessively and exhibit the earliest features of their alcoholic state by the age of thirty.*

*This could be a good guide to those who desire to achieve success in life. In many countries alcoholism is now recognized as a disease. It can be treated, and should be, but surely as in many other cases, prevention is better than a cure.*



## HEARD ON THE GRAPEVINE

### BERRIMA

Paul Relic left Australia on June 6th by air on a European tour, along with his wife and daughter. Paul has worked with the painters at SPC and APC for the last 2½ years.

On arrival in Europe, the tour will commence in his home country of Yugoslavia. He will visit Austria, Germany, Switzerland, Luxembourg, Sweden, France, Holland, Italy and Spain. Paul has enjoyed his work here and hopes to return.

Barbara Brooks, daughter of Bill and Mrs. Brooks gained seven awards in her second year. They are as follows:—

Surgical, Anatomy & Physiology, General Nursing 2nd year, General Nursing 3rd year, Communicable diseases, General Nursing (surgical block), Private Wards.

Barbara is now in her final year of nursing at Bowral Hospital.

### MARULAN

We wish to congratulate Barry Armit and Emily Brewer who recently announced their engagement. Barry is technical assistant to the Quarry Superintendent and Emily is training as a nurse at the Goulburn Base Hospital.

We offer our congratulations to Nardia Koschenow and Frank Johnston on their recent marriage. Nardia is the elder daughter of Max and Mrs. Koschenow of Goulburn.

Bad luck haunted Trevor Pearson when he hit an electric wire during the 'C' grade golf championships at Tully Park. He was disqualified. I believe he held a good lead over his opponents before his misfortune.

The photograph shows Doug Taylor holding up two lovely Schnapper, a part of one of his recent catches off Bateman's Bay. Doug is a plantman at the Marulan Quarry.

Anton Brok recently underwent surgery. He is at present in a Sydney hospital.

Barry Armit received injuries in a motor accident on the long weekend. He spent a short time in Goulburn Base Hospital.

Stan W. Bell and Joe Kopec were both in Goulburn Base Hospital at the time of writing. We wish all the above a speedy recovery.

A son was born to Christine and Terry Bell on the 21st June. Congratulations!



### PHOTO CAPTION CONTEST RESULT

Many captions were received, the best have been printed. Those receiving most marks from the judges were:—

1. "I don't think I need this bag today." Owen Fairbairn, Machine Shop, Berrima.
2. "Lost Days — Short Pays." Mrs. A. Shepherd, Marulan.
3. "This looks like a slip to me." Ian Dickson, Berrima.

Each of the above will receive \$1.

Here are the rest:—

- "What will my Mary say?"
- "Oh well, no golf this weekend."
- "Please Sir, can I have some more?"
- "They don't need their computer to work this one out."
- "The biggest thing about the pay is the docket."
- "Women want equal pay, they haven't seen this."
- "So that's why they went back to S.P.C."
- "I thought they paid tech. on Mondays."
- "I'm the only one on the plant receiving weekly pay."
- "How much have they docked me this pay?"





## RETIREMENT

"Wally" South started with S.P.C. in May, 1955. Previously he had worked at his trade in Mittagong, and during the war years on construction work at the small arms factories at Lithgow and Bathurst. Wally has noticed many changes both in construction and employees during his 17 years with the company.

In 1955 there were only the three original kilns. Wally remembers the first bricking of No. 4 Kiln, three weeks on night shift; when his two weeks leave came, he slept for the first week!

Summing up Wally says "S.P.C. has been a good place to be in, and there has been very little discontent during my stay." He retired on Friday, June 9th. To Wally and his wife, we all wish a long and happy retirement.



Above and left:— Mr. W. South was presented with a wallet of notes from his mates, Mr. Vern Avent made the presentation.



Mr. F. L. Veal, Works Manager, far left, presented Wally with his retirement cheque.



Below, left:— Wally packs up his tools.

LLANFAIRPWLLGWYNGYLLGOGE-  
RYCHWYRNDROBWL LANTYSI-  
LIOGOGOGCH

This is one word, can any reader tell the editor what it is and what it means?

Better still, if any reader can pronounce it, will he or she kindly call in at the office, and give a demonstration? We shall be happy to take a photograph and publish it in the next magazine.

Submitted by D. P.



## NATURE NOTES

Chris Sonter.

Some time ago my wife and I visited the Rock Nature Reserve. It is listed as No. 24 on the National Parks and Wildlife Service's nature reserves.

Those people who have travelled between Wagga and Albury on the Olympic Way will have no doubt noticed a rather large and rocky outcrop near the township that is known as The Rock.

This conglomerate of rock is part of a so called series of "islands" that now jut out of the very rich Riverina Plain.

This group of islands is made up of the Cocapara Nature Reserve, Tabletop Nature Reserve and The Rock Nature Reserve. This string of hills and others like it are known to geologists as hog-backs.

The discovery of The Rock dates back to 1834 when Charles Sturt located it. Prior to this the people of the Waradgery tribe referred to it as "Kengol".

Since then it has received three other names, the "Hanging Rock" (1867), "Yerong Trig Station" (1880), and now "The Rock."

As a point of interest the word "Yerong" in aboriginal means a "place of initiation", and as a memorial to this word the No. 1 nature trail has been named the Yerong trail.

Although the reserve covers a mere 900 acres there is a great deal of interest enclosed within its boundary.

The plant life is remarkably similar to that of the Flinders Range in South Australia.

The Yerong trail takes the walker on a round trip of two miles and to an altitude of 800 feet. Time needed for the trip should be at least half a day.

The trail is clearly marked allowing the walker to understand the area he is in.

Both my wife and myself found the climb very hard, probably because we had become acquainted with walking on the flat country around Mildura. However the view from the top made the climb worthwhile.

I would say that the reserve is of more interest to the botanic minded person as there is a wide variety of plant species to see.

There are many species of eucalyptus such as Forest Red Gum, Box and Mallee.

## SOUTHERN PORTLAND CEMENT

Southern Portland Cement Berrima has supplied large quantities of cement for the Eastern Suburbs Railway. At Alexandria Goods Yard a method called "Cut and Cover" was used, this is clearly illustrated in the accompanying photograph.

The viaduct at Woolloomooloo is another interesting section. It carries two rail tracks. The viaduct spans five streets, work was begun in early 1970.

A great effort is being made to reduce noise. The rails are mounted on special shock absorbing pads, and concrete acoustic shields have been erected on either side of the tracks to the floor level of the carriages.

---

### NATURE NOTES contd.

There are also some nice specimens of Hill Oak and Currawongs growing in the reserves. As one climbs higher up the slope many different types of Lichens will be seen, this being due to the moist air.

Towards the top of the "Trig" the constant buffeting of the winds has caused the plants to become stunted and contorted.

It's on these higher reaches that the Swamp Wallaby and the Spiny Anteater are to be found.

As my main interest in natural history is in birds, I could not help myself making a list of some of the birds in the reserve.

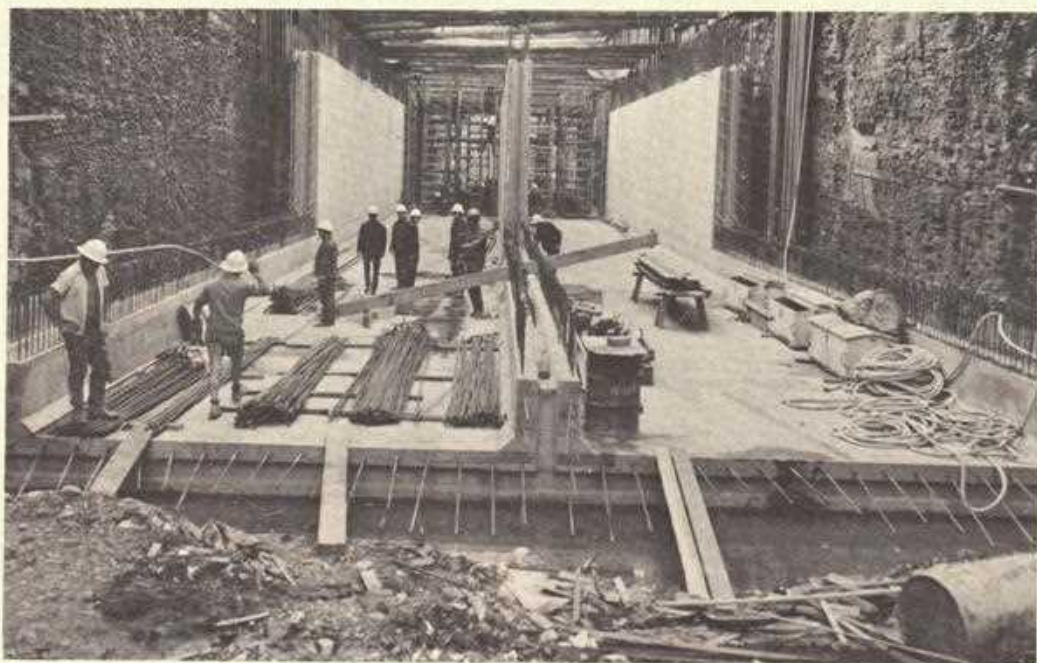
Whilst waiting for the billy to boil I took a short walk of a hundred yards or so up the slope at the foot of the Rock and during this walk I managed to observe no less than 13 different birds.

These range in size from the tiny little Striated Pardalote to the Brown Hawk. One of the most interesting birds being the Speckled Warbler. This bird inhabits the drier forested areas where there is a combination of dead leaves and dry grasses as ground cover, in which it spends a great deal of time.

The Speckled Warbler is a very active bird spending a considerable amount of time on the ground searching for the various types of insects that make up its diet.

Much more can be said of the reserve and its surroundings but for the present I can only urge the traveller to make a point of visiting it.



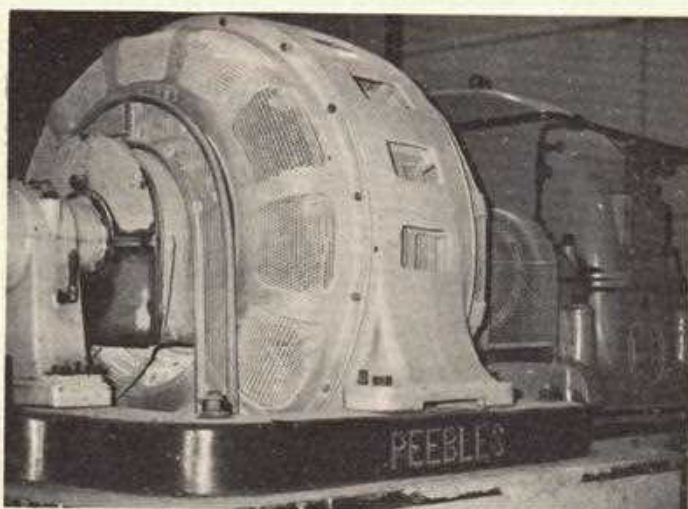


"Cut and Cover" work at Alexandria Goods Yard, Eastern Suburbs Railway.



The Woolloomooloo viaduct which will carry the Eastern Suburbs Railway over five streets.





Above:— One of the 750 hp. motors and the main conveyor belt to the mill.

## CEMENT MILLS 1-4

From our Production Department

Cement Mills provide the final stage in the manufacture of cement. The cement clinker from the kilns has to be reduced from nodule (small pebble size) to a fine dust. This is achieved by passing the cement clinker through a cement mill.

The clinker is mixed with gypsum in the proportion 95% clinker and 5% gypsum (by weight) and then fed into the mill.

Mills 1 and 2 are powered by 600 hp. motors and Mills 3 and 4 by 750 hp. motors. The motors rotate at 750 rpm., turning the mills at 22 rpm.

Inside, the Mill walls are lined with steel plates, and there are steel balls and small cylindrical shaped Cylpebs in compartments. These are separated by a perforated diaphragm. They crush the clinker, performing the "reducing" part of the process. The steel balls and Cylpebs "cascading" inside the rotating mill also create a great deal of friction, with a resulting rise in temperature. The heat is dissipated by cold water spraying onto the shell of the mill.

The cement, in powder form, leaves the mill at approximately 130°C (265°F) and is then passed through the cement cooler and finally into a Fuller Kinyon Pump, from where it is conveyed into any one of the silos behind the Stockhouse.

Below:— Miller Andy Carey holding cylpebs and a steel ball used for crushing. Balls of this size weigh approximately 10 lbs. each.







Above:— Fourth year apprentice Mick Eirth removes one of the many steel liner plates during a recent overhaul. In the background can be seen the perforated diaphragm used for separating the Cylpebs and steel balls.

Left:— The No. 3 and 4 Mill Cement Cooler Tower.

## OBITUARY

### JOHN BYFIELD

*Jack, as he was known to all friends, started with SPC as a production labourer in 1956. Through the years he had experience with the Coal Dryer, also Milling and Burning; for many years he was also relief Crane Driver, finally becoming Crane Driver full time. Jack was a keen sportsman, a keen member of the SPC Cricket Club, cricket being his favourite game. Above all he was a family man, his greatest interest being in his home and family.*

*Our thoughts go out to his wife and children to whom we extend our deepest condolences in this their sad loss.*





## RETIREMENT

JIM OVERDYK retired from SPC this month, after 17 years with the Company. Jim has had a very interesting and varied career.

As a young man he was apprenticed to his uncle who was a plumber. Later he learned the art of making stained glass, used for Churches, Cathedrals, and Wealthy homes.

Then came a complete change, he joined the army and for 6 years was stationed in the Dutch East Indies. At the beginning of the second World War, he was back in Europe and was captured by the Germans. He escaped, but being very sick, lay for about seven days in long grass, and was again re-captured. His sickness continuing, he was sent home. He was back on active service again by 1944. Later he transferred to Government Service in the War Department. In 1952 he was promoted, but came to Australia the same year. His real name is Hubertus Theodorus Overdijk, and an American Serviceman in Europe was the first to call him "Jim."

Arriving in Australia, he was first sent to a hostel in Albury. He and his wife hitchhiked to Bowral. They worked at the O.L.S.H. Boy's Boarding School — his wife

being a cook, and later at the Sutton Forest Hotel.

Jim started at Marulan Quarry as a Driller, and then discovered the Cement Works at Berrima. He was a yardman for a little while, and then had his first taste of shift work as a Raw Miller. He continued in this for a few years.

On completion of No. 5 Cement Mill, he was appointed among the first crew of operators. He remained a No. 5 Cement Mill Operator until his retirement.

Jim wishes to thank all his mates for the presentation of the wallet of notes on his retirement.



Two well known Berrima employees Ernie Boyd and Irvine Ford of the Transport Department.



## A WHALE OF A TALE!

(including a "Greavous" version of the one that got away)

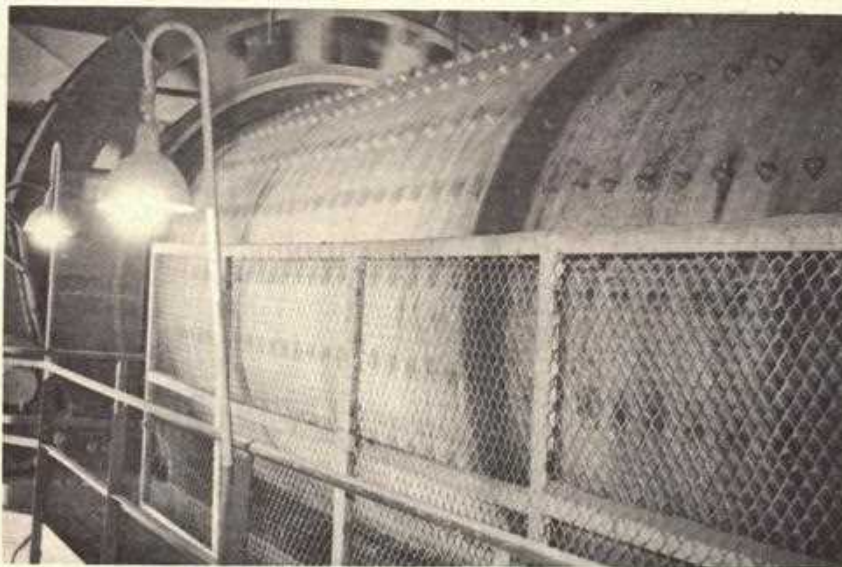
Every fisherman is looking for that "big one." Whilst doing some night fishing during my recent leave, one of my caravaning companions approached and asked how they were biting? After I told him that I had so far landed one Bream, he settled down to fish close by, a little to the south. Some time later I observed that he had disappeared in the darkness. However, about half an hour later he panted up to me to say that he had just landed a big Jewie. Fishing for Bream on a small hook and 18 pound line, he said the fish just picked the bait up and went for its life! However, he loosened the reel drag and swam it half a mile (which was fortunately in the direction of the caravan park) down the beach, where a friend waded in and gaffed it. It was drowned of course. Hooked securely in the top lip it was a classical piece of piscatorial manoeuvring! Good on you Wal Beattie,

this was your day — or night. I produced my extra special bullock weighing scales, and between Wal trying to hold them and Lance Davey trying to balance the slippery fish, we got it to register just on 35 pounds. To add insult to injury, I later hooked into one which I estimate would have been about half this size and then lost him in the wash. (No language barrier here). Same old story, I'll have to put a governor on my reel — too much drag. I know drag should be slackened — so watch it mates — I know it's against the grain, but slacken off that drag with a good fish!

The machine shop boys did all right off Huskisson with the Mittagong R.S.L. and so did the chaps who fished Burrinjuck. As a matter of fact, in the picture I saw, one can't tell Albert Canova from his fish!

George King has just been telling me about a de-hooking device made from a piece of 10 gauge wire! Well, what I'm actually looking for is a *hooking* device!

However, I can't complain. Brought a freezer full of fillets home, and had reasonable weather while up the north coast.



A recent picture of No. 5 Cement Mill.

### ENGAGEMENT

The engagement is announced of Lynette Johnston and Mr. Alan Ruskin. Lynette is the daughter of Eric and Mrs. J. Johnstone. Eric is well-known in the Machine Shop, and around Berrima plant. Both Lynette and Alan are teachers. We offer our congratulations.

---

### THANKS FROM MRS. WARNER

Mrs. Warner wishes to thank all at S.P.C. for their assistance and kindness during her recent bereavement.

---





#### LIONS CLUB EXCHANGE STUDENTS VISIT THE WORKS

Eight Lions Club Exchange Students recently visited Berrima Plant. Mr. E. Radnidge conducted the party on the tour. They are seen in the accompanying photographs.

Sharon Blanch came from Port Moresby. Trish Griffiths from Riverton, South Australia. Lynette Turnbull from Auburn, nine miles from Riverton. Margaret Brockhoff from Onkarparinga in the Adelaide Hills, a place that is noted for rugs and blankets.

Dean Mortimer, from Oakbank, twenty miles east of Adelaide. Robert van der Heuvel from Marion about twelve miles from Adelaide on the coast. Robert has a modern aim in life, he hopes one day to train as an Astronaut. One student came from Tasmania, Lynette Treeby of Devonport. Incidentally, Lynette was the recent Tasmanian Lions Club Festival Queen. Kim Parsons, daughter of Mr. W. H. Parsons, Chief Engineer, accompanied the visitors as also did Jane Moxon, daughter of Mr. Neil Moxon.





## JUNIOR PAGE

### STARS

Recently we have had some starry nights. On a very clear night it is estimated that we can see about 3,000 stars with the unaided eye. Personally I have never tried to count them! With a powerful telescope I am told that millions of stars can be seen. I am sure that this is true; even with a small telescope, or a pair of binoculars, one can see many more stars.

There is one huge star that can be seen in daylight, it is the sun. Most of the stars that we see are suns like our own sun, but some of them are planets, shining with reflected light from the sun. Our sun is the nearest star to this earth on which we live. It is 93 million miles away. The next star to earth is called Proxima Centauri, and astronomers tell us that it is  $4\frac{1}{2}$  light years away. That means that if you could travel at the speed of light (186 thousand miles per second), it would take you  $4\frac{1}{2}$  years to get there. So even the nearest star is a tremendous distance away. Although Proxima Centauri is our nearest star, it is not bright enough to be seen with a telescope.

Stars that are relatively close together are said to be in the same galaxy. Each galaxy contains thousands of millions of stars, and also clouds of stellar dust or gas.

Our sun, earth and planets are called the Solar System, and it is believed to be part of the Milky Way. This has nothing to do with cows or the milkman, by the way. The Milky Way is the bright, broad band of stars that you can see on a clear dark night. It is believed that we are part of this spiral galaxy, our system being located roughly about two thirds of the way from the centre of the spiral.

The sun is really only an average-sized star. It seems large to us because it is so near. Astronomers tell us that some of the distant giant stars are over a million times larger than our sun.

Stars range in colour from orange, to red, to yellow, to white, to blue white and green white. The orange-red stars are coolest, about 3,000° F. The green white stars are hottest, about 50,000° F surface temperature. The interior of any star is always much hotter than its surface.

The brightness of stars is measured in "magnitudes." The brightest stars are "first magnitude." The stars that are  $2\frac{1}{2}$  times less

bright are second magnitude, and so on. Stars down to the sixth magnitude can be seen with the unaided eye.

### WORLD CITIES

A new competition by Mrs. M. Dickson. Juniors get your parents to help. Each of the following clues, if you use your imagination, will suggest the name of a city. The scope is world wide.

1st Prize \$2, 2nd Prize \$1, Consolation prizes of 50c each. For example, take clue number 5 which reads:— "Part of every ship," the answer is HULL, a city in England. Now, make it a family game, and have a GO.

#### CLUES —

1. A Boys name.
2. A type of plaster.
3. A famous naturalist.
4. A famous Duke.
5. Part of every ship.
6. To Char.
7. A relative.
8. To wander
9. A well-known school lunch.
10. A duck which is a fish.
11. A good cigar.
12. The first rock and roll.
13. An ex-actress.
14. Perfume.
15. Taking a sly look.
16. An elf.
17. Was U.S. President for four years.
18. Negro Comedian.
19. When you smash a window you should hear this . . . . .
20. Cleaning with water.

### DOGGIE NOTES

Have you heard of a GERMAN SHORTHAIK POINTER. These magnificent pets are marvelous with children, every home should have one, they are a complete garbage disposal unit, you can take them hunting and bring home the evening dinner, no more lost game, they will find it and retrieve it, all you are left to do is not miss what they have found. If you would like to see and hear more about these wonderful dogs, please do not hesitate to contact Max and Lyn Godfrey at Bundanoon 34, who usually have puppies available at terms that you can afford.

Should anyone require information about any other breed of dog or how to raise puppies, once again please do not hesitate to ask for our help.





Top left:— Ernie receives a present from his Power House friends.

Above left:— Mr. F. L. Veal, Works Manager presents Mr. E. Radnidge with a gold watch, and cheque, at the Farewell Party.

Above:— Ernie examines two of his presents.

Left:— Mr. K. Howard, Executive Officer, Mr. Jim Mitchell, formerly Chief Engineer, and Mr. S. Marshall, Works Chemist, also enjoyed the Farewell.



## BITS & PIECES

### CARDIAC PACEMAKERS

Until this past year standard cardiac pacemakers about the size of a package of cigarettes were inserted under the skin of patients with a heart block and operated by chemical batteries that had to be replaced every one to two years. Extensive studies to insure a greater reliability of pacemakers however, have now made feasible, miniature, long-life, intracardiac instruments that are completely self-contained and about the size of a pencil-tip eraser. Under local anesthetic, these devices can be attached to the inner wall of the right ventricle of the heart by insertion through the jugular vein. An atomic battery that can operate the pacemaker for 5-10 years is also available.

Two major categories of pacemakers are presently in use; fixed-rate pacers, which have low-frequency oscillators designed to deliver pulses at present stimulation rates; and non-competitive pacers, which have, in addition to the oscillator, an electronic circuit designed to sense inherent electrical cardiac activity. The latter is capable of modifying the output of the pacer should a natural heart contraction occur within a preset time interval.

All patients with pacemakers are also subject to internal instrument failure caused by battery exhaustion or by a break or an unstable connection to heart muscles. To forestall such failure, regular checkup stations are being established so that the pacemaker pulse can be checked electronically every six months.

**COUNTERPULSION.** A newly developed method of treating severe shock of heart attack resulting from a withering of a portion of the heart muscle, is intra-aortic balloon counterpulsion. In this method, a tube is inserted in the neck, usually through the left sub-clavian artery. A balloon is then passed through into the main artery leading from the heart, where it lies just above the heart and the openings of those arteries that supply blood to the heart muscle itself (the coronary arteries). When the balloon is inflated and deflated, it not only helps draw blood from the heart during each contraction, thereby decreasing the pressure work of the heart, it also increases the blood flow through the coronary arteries to nourish the heart muscle during relaxation.

In experimental animals counterpulsion is also shown to revitalise the damaged area of the heart muscle by expanding previously dormant coronary collateral blood vessels. Problems with the technique that still have to be overcome include safeguarding the balloon from rupture and the precise synchronizing of its action with that of the heart.



View of Loch Ness Monster. In a recent issue of the "News" the Loch Ness Monster was mentioned. A reader supplied the above photograph which was taken near Dores.

## RESIGNATION

Well known "Stockhouse Identity" Neville Parmenter, resigned this month, after 21 years of unbroken service at Berrima Plant.

Neville is not retiring, as he will now take up full-time duties on his Medway road farm. This, together with his musical activities at the Services Club, assure him of a full schedule in the years to come.

Commencing as a "Bag Boy" at the Stockhouse, "Nev" became a loader soon after, and remained in that position until approximately twelve months ago, when he transferred to the "Painting Gang."

At a farewell party in the Moss Vale Bowling Club a presentation of a wallet (suitably lined) together with a tin of "Cocky's Joy", was made, and friends gathered round to wish him well.

— Bill Strong.



## RECENT VISITORS TO BERRIMA PLANT



Teachers from Wollongong Technical College, left to right:— Mr. M. Court, Head Teacher Electrical Engineering, Mr. J. Fikkers, Electronics and Communications, Mr. E. Whittaker, Electrical Engineering, Frank Ritchie, Electrical Engineering Trainee, conducted the tour.



Above:— Mr. Martin Ruic, newly arrived in the district. He is the assistant Health and Buildings Inspector, Wingecarribee Council.



Mr. Peter Butz and Mrs. Beth Robertson of the D.M.R. Soil Laboratory, Goulburn,

Right:— Mr. Joe Pope left S.P.C. this month. Here he is seen driving the "Dumpy Truck." Joe has been with us for about 6½ years. He has taken a Roadhouse at Breadalbane, about 15 miles south of Goulburn on the Hume Highway.



### THANKS FROM MRS. J. BYFIELD

Mrs. J. Byfield wishes to thank all those who were so kind and helpful during her recent sad loss.



## A BACKGROUND TO CONSERVATION

As stated by Allen A. Strom, in his article, a Background to Conservation circulated by the Gould League of New South Wales. Conservation is concerned with answering the question . . . .

How can man use the resources of nature without destroying the capacity of nature to continue to provide those resources in abundance and in quality?

We must realise that man is a part of a complex, integrated system of living things on this earth. All living things are interdependent amongst themselves, and fundamentally dependent upon the non-living elements of environment; — soil, water and air, and the supply of energy from the sunlight.

The capacity of green plants to manufacture sugars from carbon dioxide and water, in the presence of sunlight, called Photosynthesis, is THE basis of the ultimate building of the plant body. All animals rely upon the food stored and provided by plants. Man himself needs plants and animals, not only for food, but for timber, fibre, fats and oils, skins, medicinal materials, and so on.

Because we are part of all this, we cannot ignore it, and should do all we can to make sure that the order of nature is maintained or rehabilitated where necessary.

### THE RESOURCES OF NATURE

Some resources do not appear to be renewable, among these would be minerals, metal ores, coal, oil, limestone. It would seem that all that can be done regarding these is greater care in handling, accurate estimation of their "life" expectancy, and the finding of substitutes in good time.

Regarding the renewable resources. The soil, the top few inches of the earth's crust is certainly one of these. We can guard against its being washed away. We can also help to put back into it what has been taken out through growth. Conservation is interested in all kinds of soil, rich or poor, and also in keeping some of the native soils covered with associated native vegetation. These latter are interesting and valuable pools of energy and diverse life — forms and serve as a comparison with similar country being used by man.

Water is also a renewable resource and we can do a great deal to help in its conservation.

Australia, seldom receives sufficient rain to supply its rapidly growing water needs. Water storage that will make possible the development of large inland towns and cities with industrial complexes is one of the great problems.

A great deal has been done, and is being done in the development of inland water resources. These resources open up new areas for recreation, boating, water-skiing, fishing. However, care must be taken to ensure that the threat to native fish and waterfowl populations is not excessive. The effect of holding back water supplies in Reservoirs and Weirs has often turned inland waterways into mere gutters. This is detrimental to the propagation of the fish and waterfowl, because they depend on periodic flooding, the maintenance of water temperatures, and periodic fluctuations of water in swamps and marshes.

Next month we hope to continue with the consideration of other renewable resources such as air, scenic beauty, wildlife.

Mr. Barry Armit and Mr. Eddie Cooper, both of Marulan Quarry — evidently enjoyed Ernie Radnidge's Farewell.



# GARDENING NOTES

## FOR JUNE

- FLOWERS:** SOW: Antirrhinum, Calendula, Godetia, Larkspur, Linaria, Lupin, Nemophila, Sweet Pea.  
PLANT: Antirrhinum, Calendula, Canterbury Bells, Bellis perennis, Iceland Poppy, Pansy, Polyanthus, Hollyhock, Stocks, Anemones, Ranunculus.
- VEGETABLES:** SOW: Broad Beans, Parsley, Peas.  
PLANT: Asparagus, Eschalots, Garlic, Horseradish, Jerusalem Artichokes, Rhubarb, Strawberries, Currants, Gooseberries, Raspberries, Boysenberries, etc.

The month of May brought some nice, sunny days, a good many dull ones, about two inches of rain and a few frosts, a month of variety, weather-wise.

Most of the Autumn leaves, with the exception of those in well protected corners of the garden, have now fallen and gardeners are busy raking them up and putting them on garden beds or adding to the compost heap.

Don't forget to burn any diseased leaves or plants or prunings.

This is the commencement of pruning time, except for Roses. Fruit trees can be pruned now, and any deciduous trees or shrubs which flower on new wood. Do not prune Camellias, Viburnums, Lilacs, Rhododendrons, Dogwoods or Flowering Fruit Trees, as these have already set buds for Spring Flowering.

Make sure that pruning tools are sharp and dip in disinfectant solution after cutting any diseased wood.

There are a few Winter flowering shrubs, amongst them being Chimonanthus fragrans, Veronica variabilis, Viburnum tinus and fragrans, Buddleia salvicifolia, Chaenomeles Winter Cheer, and Cornus mas. Most of these have quite a strong perfume. The Autumn flowering Cherry is now blooming and the Flowering Apricot will commence this month.

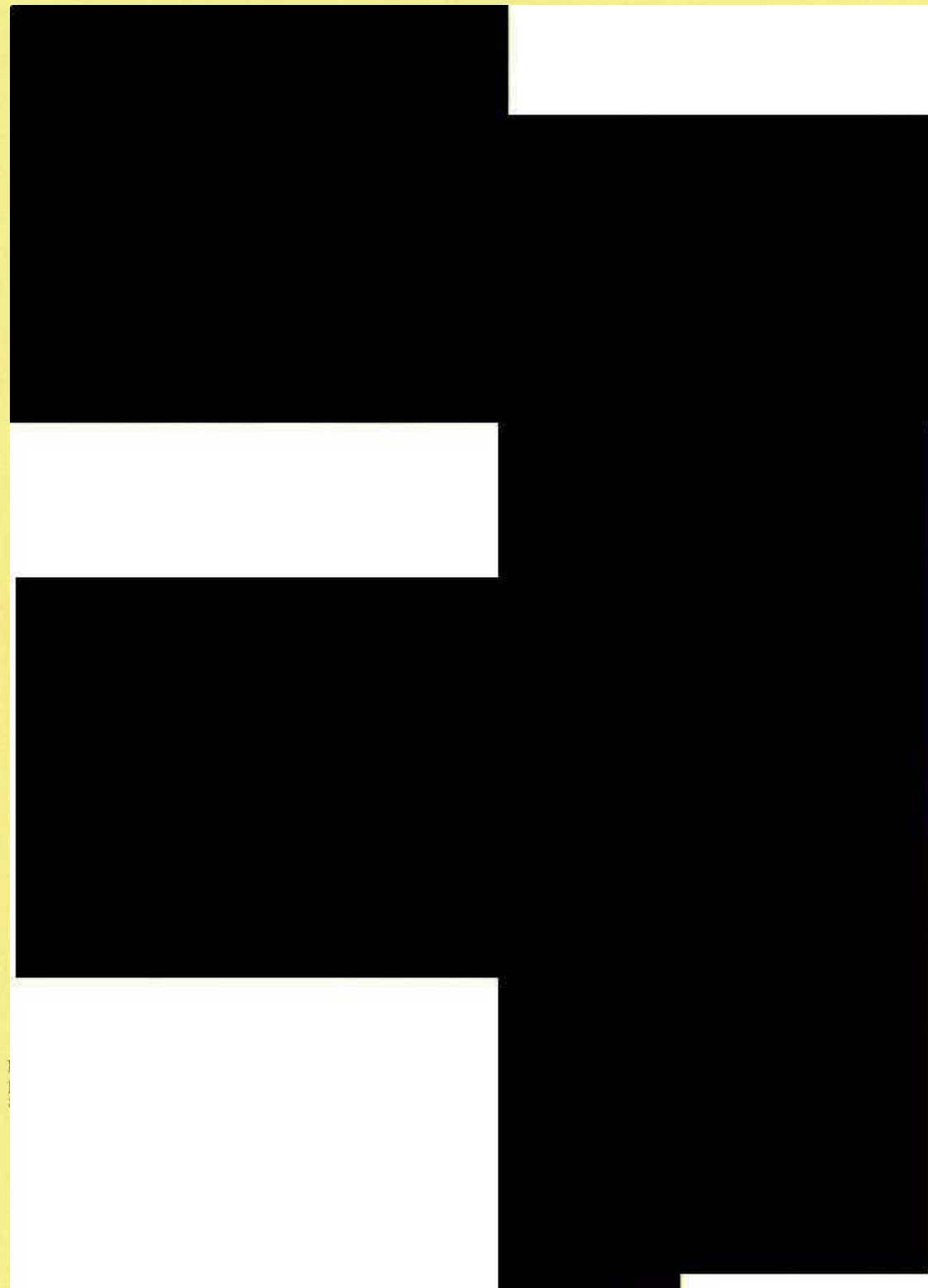
It's time to plant Evergreen and Deciduous Ornamental Trees as well as Fruit Trees and Roses.

Turn over any beds in the vegetable garden which are now empty and leave the soil "in the rough", so that the frosts can help sweeten it. Any persistent weeds should be removed to prevent them running to seed as soon as the temperatures begin to rise.

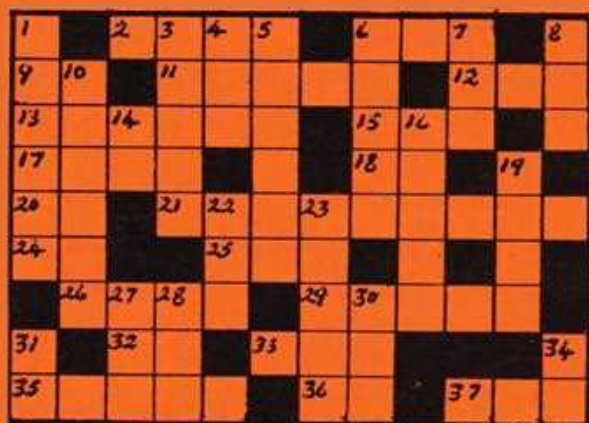


Michael Williams, second year painting apprentice, at work on his project, the latest view of Berrima Plant from the air.









### RYTEWORDS No. 11

FIRST PRIZE: \$10; SECOND PRIZE: \$4;  
Consolation Prizes of \$1 each.

#### CLUES DOWN —

1. Often at beach.
3. A command.
4. Not the truth.
5. Famous English cricketer.
6. Used for holding goods.
7. Fasten.
8. Use sparingly.
10. A wonder.
14. Average (abbr.)
16. Used for sticking.
19. May cause money troubles.
22. Possess.
23. Pastime.
27. Tiny spot.
28. Before.
30. A distance in sport.
31. Adverb (thus).
34. Pronoun (the thing spoken of).

#### CLUES ACROSS —

2. This in the ground could mark a spot.
6. Usually associated with a baby.
9. A film classification.
11. One who rides.
12. Used in writing.
13. One who trades.
15. Human-like animal.
17. To possess.
18. Thanks (slang).
20. Eastern countries (abbr.)
21. English town.
24. Rugby league (abbr.)
25. ? did it ?
26. Biblical garden.
29. To invoke God's blessing.
32. Yes — no.
35. River animal.
36. Young people (abbr.)
37. A dirty - - - is not appreciated in the home.

### RESULT OF RYTEWORDS No. 10

No correct solution was received. Two contestants had one mistake each:— Mrs. H. Staubner, General Office, and Roger Seville, Colliery. They receive \$2 each.

Two entries had two mistakes:— Mr. N. Taylor, Machine Shop, Berrima and Mr. T. Shepherd, Marulan. They receive \$1 each.

The following alternative answers were carefully considered:—

Number 1 DOWN, it was decided that **Mirth** was the best answer. The actual **Birth**, brings pain, pleasure comes later.

Number 21 DOWN, slight is the best answer. If a diplomat is slighted, this would indeed make headlines. Flight may be recorded in the press but not make headlines. Plight could make headlines, but a Slight will certainly.

No. 25 DOWN, both **Stores**, and **Stoves** of equal merit.

No. 26 DOWN, a **Tap** can greatly disturb a person, it depends on what he is doing.

No. 5 ACROSS, **Pot** the best, **Fat** is not always used.

No. 24 ACROSS, **Lime**. Some Wines may not be particularly "tasty."

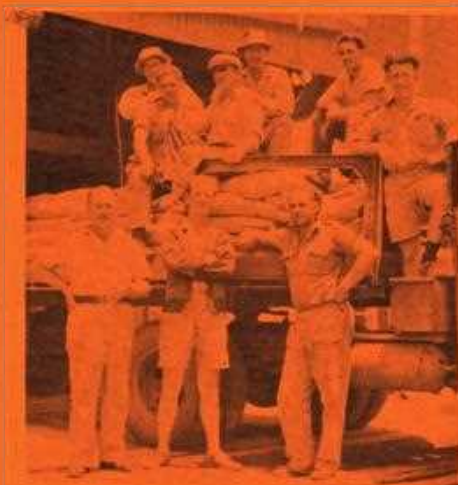
### JUNIOR CROSSWORD WINNERS

50c to each.

Patricia Murchie, Medway West.

Gregory Shepherd, Marulan.

Grahame Dickson, Berrima.



Mr. Reg Fitzgerald brought in this picture of Stockhouse employees, taken about 1948.



BERRIMA MARULAN



MEDWAY SYDNEY

SOUTHERN PORTLAND CEMENT LTD.

## — NEWSLETTER —

VOL. 1 — No. 2.

JULY, 1972.



Petersham Elevated Reservoir — More Southern Cement. It consists of a concrete base with a one million gallon steel tank on top. The concrete pedestal is fifty feet high and just over ninety feet in diameter. The concrete was Ready Mixed.



# S.P.C. NEWSLETTER

JULY, 1972

VOL. 1. — No. 2

## — CONTENTS —

1	Editorial.	10	Grapevine. Fishy Tales.
2-3	Goulburn Technical College Presentation of Prizes and Certificates.	11	Where our Cement Goes — Pictures.
4	Gardening Notes.	12	Junior Page.
5	Nature Notes.	13	SCEGGS Second Form Science Visits the Plant.
6	Apprentices at Work.	14	Bits and Pieces. Obituary — Marcus William Jones.
7	Wollongong Technical College Certificate Prize Presentation.	15	Car Care Hints for the Do-It-Yourself.
8	Shattered Stone Becomes a Bonding Agent.	17	Electrical Tradesmen and Apprentices on the Job.
9	Some Wollongong Technical College Teachers.	18	Competition Notes.

### REGULAR CONTRIBUTORS

#### BERRIMA . . .

R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

#### SYDNEY OFFICE:

Miss Lorraine Lucas.

#### MARULAN . . .

W. McCallum.  
E. Cooper.

#### COLLIERY . . .

M. Thorpe.

#### PHOTOGRAPHY . . .

C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:  
Southern Portland Cement Ltd.

### PRINTERS . . .

"Berrima District Post", Moss Vale.

All-correspondence and enquiries to:—  
THE EDITOR,

S.P.C. NEWSLETTER,  
P.B.S. No. 4. Moss Vale, N.S.W. 2577.

### COPY DEADLINE:

28th of the month prior to the month  
of issue.



## Editorial

*How is it that the majority of families seem to have a continual struggle making ends meet?*

*In Australia we have a fairly high standard of living — true, price increases always seem to be a jump ahead of wage or salary increases, and the average family is faced with payments that are continually in excess of income.*

*Could it be that there is something wrong with our budgeting? Could it be that we have made a wrong start financially when we became wage earners.*

*Maybe at first we see as necessities, things that are really luxuries. It is true that we need new clothes for work and pleasure, but are we in a position to keep up continually with the dictates of fashion?*

*Our friends have new cars. It may be necessary for us to have a car, but could we manage without for the time being until we have substantial savings?*

*This matter of savings is very important and what better way could we have at S.P.C. than to save in the Credit Union. We need to budget our earnings from the very beginning, make sure that everything that we must pay is included, and then arrange to have deducted from our wages and paid into the Credit Union as much as we possibly can. The secret is to leave it there and let it build up. If we start on Hire Purchase, we are going to pay a high interest, and in the end, say for a car, perhaps pay seven hundred dollars more than the cash price!*

*When starting a home, certain things are necessary and it may be that the washer and fridge would have to be paid off a little at a time, but if so, what better way to do it than through the Credit Union? You pay less interest and these payments can also be deducted from your wage. They are taken care of, and you can budget on what you receive.*

*The majority of people today think that it is old fashioned to live within your means, but it has been proved that it can help to bring peace of mind and contribute to happiness. Many divorces have been helped along by families living above their means.*

*On every hand we are urged to buy now and pay later, to get a new model car, the latest washer, or T.V. and so on.*

*We have to discriminate, and learn to be able to say no when necessary.*

*Many young couples expect to have immediately, the standard of living which their parents took years to achieve.*

*But young people are not the only ones in debt and in June, 1970 personal debt in Australia had reached 1,915 million dollars. It had risen from 600 million in 13 years.*

*Living on credit seems to have become a way of life, but to the extent that it has done so in modern society, it is the wrong way. Perhaps we could put it this way, save now — pay cash later, and save the interest.*

*Mr. Tom Richards, manager of S.P.C. Employees Credit Union, adds an excellent thought, we should ask ourselves the question, is it a need, or a want? If it's a need, borrow, but if it's a want, save!*



# GOULBURN TECHNICAL COLLEGE

## PRESENTATION OF PRIZES AND CERTIFICATES

IN THE LILAC TIME HALL ON  
WEDNESDAY, 5th JULY, 1972.

Several of our apprentices were awarded prizes and certificates this year, keeping up our good record. They are listed as follows:—

### *Electrical Fitter/Mechanics.*

Peter R. Shanks First Prize Stage I  
*Fitting and Turning:*

J. Miller First Prize Stage I.

G. Guymer Second Prize Stage II.

G. Hinton First Prize Stage II.

R. Goward Second Prize Stage III.

K. McGuigan, Marulan, received First Prize for Stage I Painting and Decorating.

### CERTIFICATES

Electrical — C. Bromfield.

Fitting & Turning — R. McAndrew and G. Knapman.

The Principal Mr. J. Giri, in his report mentioned that this was the twenty-second year of presentations. Enrolments to the end of 1971 were 1,789, and so far this year 1,443. Extensions were nearing completion and many new courses had been introduced.

He said that all Australians, particularly craftsmen, would soon be involved in changing from the traditional and complicated imperial system of measurement to the simple and internationally accepted metric system.

Mr. Giri recorded his personal appreciation of the Goulburn Technical Education Advisory Committee.

He mentioned the value of the many avenues of public relations, including Youth Welfare, Careers Nights, Tertiary Education Forums, Exhibitions and trade displays, creating an image in the community of which the staff can be justly proud.

Next our minds were turned to the Berrima District. Mr. Giri said "with the population reaching the 20,000 mark it is incongruous to say the least, that a College has not been established for this quick growing area. Numerous man hours are lost and wasted on the road, travelling to and from Goulburn or Wollongong. A

college for Moss Vale appears to be a reality according to the Minister, indicating, that detailed plans and specifications are being prepared, and the building work is listed for Department of Technical Education 1974-75 programme."

The Principal congratulated those receiving certificates and statements. He went on, "Because of your achievements you as individuals, particularly those in the younger groups, will no doubt have to accept a challenge to leadership in your particular field, Commerce, Engineering, Management, Building, or whatever it may be.

To those students not listed on the programme, remember the eminent positions in life are not always awarded to those with outstanding academic possessions.

Mr. Giri said that College was especially grateful to various organisations and business firms for their help and co-operation.

In closing he thanked all Students for their support, good conduct, and understanding of the values of citizenship so necessary in a free society with its duties as well as privileges.

—oOo—

At the Prize Giving Mr. G. Stoker, Assistant Director of Technical Education gave the address. Following are a few points taken from his message.

Mr. Stoker expressed his pleasure at the opportunity he had of contacting the public in gatherings of this kind, commenting on the splendid work of the Technical College, he said that it had been suggested that his department could be called the Department of Technical and Further Education.

Regarding the students he said that through their association with the Technical College, many young people learn to come to grips with the business of living.

Another point was the very careful selection of competent teachers. Teachers who were understanding and could help to prepare students for a useful life.

He went on to congratulate the students, and said that once you get that certificate you achieve a degree of ability and power. This is not only the completion of a course, but the start of a career, and perhaps progress to a further course. There

Over —





Left to right:— Mr. T. A. Williams, Chairman, Technical Education District Committee, Alderman McDermott, Mayor of Goulburn, who gave the welcome, Mr. J. Giri, Principal, Goulburn Technical College, and Mr. G. Stoker, Assistant Director of Technical Education.



Above and centre, below:— Marulan and Berrima apprentices receive awards. Below, left:— Miss Christine Etheridge, daughter of Mr. Harry Etheridge, formerly of the Laboratory, receives Receptionist-Typist Certificate. Below, right:— Miss Heather Knowlson, daughter of the editor, also receives the Receptionist-Typist Certificate.





are four things to remember — knowledge, skill, personality and integrity. Any success you have had is due not only to your own efforts, but to the efforts of a lot of other people; your parents, wives, boy friends, girl friends, and teachers.

He thanked the chairman and Mayor for their welcome. Also the committee that have helped the Principal. It is through the efforts of the Principal and the local people who are prepared to serve on advisory committees that the Department knows what is required. He closed by thanking the Staff of the College, and promised to report to the Director of Technical Education on the good spirit existing in Goulburn College.

Below:— Representing S.P.C. at the Goulburn Prizegiving, Back row—Mr. J. Galloway, Mr. T. Cosgrove, Mr. K. Graham, Mr. K. Howard, Mr. J. Grilz, Mr. K. Delderfield, Mr. S. Marshall. Front row—Mr. R. Shead, Mr. A. Parker, Mr. D. Marsden and Mr. F. L. Veal.



## GARDENING NOTES

### FOR JULY

**FLOWERS:** SOW: Antirrhinum, Calendula, Candytuft, Dianthus, Godetia, Larkspur, Linaria, Lupin, Nemphila.

**PLANT:** Antirrhinum, Canterbury Bells, Calendula, Foxglove, Pansy, Polyanthus, Viola, also Flag Iris, Gladioli, Japanese Iris, Tuberose.

**VEGETABLES:** SOW: Broad Beans, Parsley, Peas, Spinach.

**PLANT:** Asparagus, Eschalots, Garlic, Artichokes, Rhubarb.

The month of June remained fairly dry with constant morning fogs, and some afternoon sunshine, one **VERY** heavy frost and a few lighter ones. Now is the time to plant deciduous trees, shrubs, fruit trees, berry bushes and roses, so hasten with digging the holes for these plants.

Roses should be pruned about the end of this month and all other pruning of deciduous shrubs and trees, including fruit trees, should be finished.

Spray fruit trees and roses, after pruning, with Bordeaux mixture or Lime Sulphur, to control fungous diseases, including Curley Leaf of Peaches and Nectarines.

Clean up any refuse in the vegetable garden from Marrow, Pumpkin, Cucumber and Squash plants and burn. Sweet Potato tubers should be lifted, cleaned and stored.

Early Daffodil bulbs are already showing buds and cream and yellow Jonquils are in bloom, as well as Violets and Christmas Roses, so Spring is only just around the corner !!



## NATURE NOTES

—CHRIS SONTER

In this world where almost everything is taken for granted, it would seem hardly possible for a person to gain a thrill or become excited over the fact that he or she had discovered something that was relatively rare. Fortunately, when a person develops an interest in some form of our natural environment and pursues it to its fullest, then there is always the hope that a forgotten species, may be rediscovered, or the highest goal of all may be reached, the finding of a new species altogether.

Well, I haven't discovered a new species nor more facts of an already "heard-of" species but I did come across a bird that is regarded as being extremely rare — and particularly so in the Berrima District. The bird concerned is a member of the Finch family, and indeed in my opinion is perhaps one of the prettiest and most delicately-marked of all our birds, in fact it is known as the Beautiful Firetail Finch.

Unfortunately I cannot disclose where I saw the bird, this is purely a precautionary measure for the birds sake since they are very much sought after by aviculturists.

Whilst talking of aviculture (the keeping and breeding of birds in captivity), it is interesting to note that the Beautiful Firetail has never been bred in captivity (outside Australia up until 1965, that is). When I further discuss its habits and habitat, then we may have a clearer picture on why it is so difficult to breed.

There is only one other bird in the Finch family that has a more secluded and secretive way of life and that is the Red-eared Firetail Finch. This bird has had its habitat reduced so much that it now occupies only a small portion of the south-west corner of Western Australia. The Red-eared species shares much the same habitat as the Beautiful Firetail with the exception that the first mentioned prefers dense scrub and heavy forest.

Where a damp piece of bushland is found and where the same terrain is found to be clothed in heaths, ferns, rank grasses and dense vegetation then you can expect to find such a bird as the Beautiful Firetail. If you are fortunate enough to see such a bird it will only be for a brief second or

two before it seeks cover in the undergrowth and will remain there until you leave the area.

As with most finches they are terrestrial in habits and at odd times the Beautiful Firetail has been seen to hop over the ground in a "mouse-like" manner. On rising or when flushed, the birds make a whirring noise — similar to that of a Quail. Another interesting point is when the Beautiful Firetail flies it does not possess a flight contact call and along with the other two members of the genus — the Red-eared Firetail and the Diamond Firetail (diamond Sparrow) this is unique among Australian grass-finches.

The nest of this 5½ to 6 inch bird is in keeping with all members of the finch family in shape but not in material. The structure of the nest is bulky and has a long entrance tunnel. Green grasses are used exclusively throughout the entire construction of the nest. A clutch of from 5-8 white eggs are laid and incubation takes from 12-14 days with both birds partaking of nest duties.

An observer, upon seeing a Beautiful Firetail will have very little trouble in identifying it, it's size is rather large for a finch and its plumage in general is a darkish olive-green. It has a red bill, blackish face and crimson rump and tail. The majority of the birds plumage is finely marked with vertical lines giving the bird a "barred" effect.

NOTE: If any person thinks they may have seen a Beautiful Firetail Finch in the district, I would appreciate hearing from them.

A man was in the habit of giving a poor old bootlace seller ten cents without taking the bootlaces. As he did so one day the old man called out to him: "Sir....." "That's all right my good man, I don't want any laces".

"But sir, I think you should know that they have now gone up to fifteen cents".

Children are natural mimics — they are like their parents in spite of every attempt to teach them good manners.





Right:— O. Lucas and D. Moore working on a project.



Above and left:— First year apprentice D. Moore, third year G. Hinton and second year P. Sutton, working on the 12 inch Lathe overhaul, Berrima Machine Shop.



# WOLLONGONG TECHNICAL COLLEGE

## CERTIFICATE AND PRIZE PRESENTATION NIGHT

On Thursday, June 29th, 1972 this annual event was held in the Wollongong Town Hall.

The Principal, Mr. D. S. H. Pearson presented his annual report, and the presentation of Certificates and prizes followed.

Mr. W. M. Robertson, Director of Technical Education was present. S.P.C. was represented by the Works Manager, Mr. F. L. Veal, Mr. W. Parsons, Chief Engineer and Mr. Alan Parker acting Apprentice Training Foreman.

S.P.C. Prizewinners were Mr. Frances Ritchie, 1st Prize Stage III, Electrical Engineering. Mr. Andrew Roseby, 1st Prize Stage IV Mining Certificate.

Mr. Warwick Best received his Electrical Engineering Certificate.

The Company and all friends extend congratulations.



Right:— Commencing at top—Mr. F. Ritchie,  
Mr. A. Roseby and Mr. W. Best.

The retired general obtained a seat on the board of the bank.

Every day the chief cashier brought him a statement of the bank's financial position. The soldier would glance at it, open a draw in his desk, examine a document in the drawer, refer to the statement again, and then dismiss the chief cashier with a brisk nod.

This procedure was repeated daily for ten years. Then the general died. Consumed by curiosity, the chief cashier hurried to the general's desk, opened the drawer and read the document it contained. It was short and to the point, it merely said, "The column nearest the window is the credit one."

When she hangs on every word —  
you're a bridegroom. When they listen to  
you and then do as they please — you're  
a father. When you have to shout to be  
heard — you're a grandfather.

One night at a dinner Woodrow Wilson was cornered by a persistent job-hunter.

"Mr. President", he said "Do you remember the man you appointed to the State Department post last month? He died two days ago. Would it be agreeable to you if I took his place?"

"Of course", said Wilson wearily.

"I'll have it arranged with the undertaker".



## SHATTERED STONE BECOMES A BONDING AGENT

Portland cement is the universal structural bonding material of modern times, a substance which has enabled engineers to construct huge buildings, bridges, and dams in the form now taken for granted in most countries of the world.

Mixed with water, this grey, ultra-fine powder bonds aggregate together to form concrete, one of the world's most widely used and most versatile construction materials.

Very large quantities of raw materials are needed by the cement and concrete industries. Production of cement requires the mining of large quantities of limestone together with smaller amounts of clay shale and gypsum. For Australia's 1970-71 cement production of about 4.6 million tons, manufacturers used more than six million tons of limestone.

The cement story is centuries old, various types having been made and used by ancient civilisations. However, it was not until 1824 that the traditionally credited inventor of the forerunner of today's cement, an English mason named Joseph Aspdin, took out a patent on his product. He called it Portland cement because the colour of mortar produced with it resembled that of building stone on the Isle of Portland.

In Australia, the first commercial Portland cement was produced at Brighton, South Australia, in 1882, followed within a few years by production at plants in New South Wales and Victoria.

Although equipment used to make cement has changed greatly since then, the industry is still geared to the utilisation of natural raw materials - limestone, clay shale, coal, fuel oil or natural gas, gypsum and sand. Today, the industry operates through eight large public companies which have 16 plants in all States and produce more than 4.5 million tons of cement annually. It is soundly based for a future development and its growth in production is expected to continue steadily.

Demand for cement in Australia has fluctuated during the past 10 years but the industry has still enjoyed an average com-

pound growth rate of nearly five per cent a year and it is expected that this rate will continue for the next few years.

The most recent available figures showing the relative amounts of cement used by different sectors of industry point up the rising proportion going to pre-mixed concrete production. In 1960-61, 28.1 per cent of cement manufactured was accounted for in this way, but by 1967-68 this had risen to 46 per cent and in 1970-71 it was estimated that 55 per cent went to pre-mixed concrete production.

New South Wales, with five plants, produces more cement than any other state, 1970-71 production being about 1.4 million tons. Victoria which has three plants, produced 1.1 million tons. Queensland also produced about 530,000 tons from two plants and South Australia, also two produced 500,000 tons. Tasmania, which has one plant, produced 360,000 tons.

Behind these figures is extensive use of limestone, clay shale, gypsum, water, coal fuel oil or natural gas and electricity. To produce 100 tons of cement in a coal-fired, wet process kiln the following quantities are needed:-

Limestone	130 tons
Clay shale	20 tons
Coal	30 tons
Gypsum	4 tons
Water	100 tons
Electricity	15,000 kilowatt hours

The major component of cement, limestone, is a sedimentary rock composed largely of calcium carbonate with clay, silica and iron oxides being the principal impurities. It is found in numerous locations in Australia and is extracted in each State from deposits fairly close to the cement plants.

The proximity of limestone sources to cement plants varies considerably. Crushed limestone is carried by conveyor belts from deposits adjacent to the plants of Goliath Portland Cement Co. Ltd. at Railton, Tasmania, and Commonwealth Cement Co. at Portland, New South Wales.

At the other end of the scale, Metropolitan Portland Cement Ltd. rails limestone 60 miles from quarries at Marulan to a plant at Maldon, New South Wales, S.P.C., Berrima, limestone, also comes by rail from Marulan, a distance of approximately 35 miles.

(Continued on Page 17)





Above:— Some Wollongong Technical College Teachers on a tour of Berrima Plant. Left to right— N. Whitby, M. Pierce, C. Cox, H. Stephenson, L. Carr, M. Hunt, R. Walker, K. Simpson. Left— C. Tickner.



Below:— Another photo showing Mr. K. Graham, J. Grilz, T. Cosgrove and J. Galloway at the Goulburn Prizegiving.





## GRAPEVINE BERRIMA

Two new starters in the General Office are Mrs Yolanda Dodds and Mr. Neil Cawthorne.

Yolanda is an Accounting Machine Operator and has just returned from a six month stay in England and Holland. Her husband, Norm Dodds is a Miller.

Neil is a Clerk in the Cost Department, and before commencing here worked at the Rural Bank in Moss Vale.

Chris Newstead and Alan Foreman of the Electrical Shop are at present enjoying a five week cruise to Japan and the Far East. Their itinerary includes: Rabaul, Yokohama, Kobe, Nagasaki, Hong Kong and Singapore.

Just returned from a fabulous holiday at "Surfers" are June Casta of the General Office and Barbara Teague of E.D.P.

Two stangers (to me) entered the office of the Apprentice Training Foreman.

"Is Alan Parker in?"

"No, shouldn't be very long though"

"When he comes back will you send him up to the scrap heap!"

## 'ALL THE BEST TO EVERYONE AT S.P.C.'

This was the message received from Mr. Tom Roach who retired last year, and who is at present touring with his wife in the U.K. Tom sent a coloured photograph of the Admiralty Arch, London. He said they were having their worst summer since 1916!

Incidentally, the Admiralty Arch, stands at one end of the Mall which is generally recognized as the official drive to Buckingham Palace, situated at the other end. The Mall passes through St James Park.

## ENGAGEMENT

The engagement was announced on 7th July, 1972 of Miss Jo'Anne Webb, daughter of Mr. and Mrs. A. W. Webb, of Moss Vale, to Mr. Ian Dickson of the E.D.P. Department, and eldest son of Mr. and Mrs. J. Dickson of New Berrima.

We extend our congratulations.

## FISHY TALES

Recently a friend asked me so many questions about the wording in one of my articles, that I thought the time opportune to explain some of the more common terms associated with fishing.

For instance, in the first place, one is off for a "throw out" meaning he is going fishing; this reminds me of "burley" to encourage the fish in a certain area, "dope" made by chopping up and mixing together garlic, liver, old prawns, bread and sand, is thrown by the handful in the area before starting. This is more necessary in the case of fishing for darkies (blackfish). In this case one would use chopped up green weed; (a green weed that grows on the rocks or swampy ground) and sand. Boat fishermen like to refer to their poor seasick mates being of some use — they "burled the fish".

In fishing one uses "bait" on the hook. I'm not quite sure whether this is to camouflage the hook or to provide good eating for the fish! However, I think he gets to it by sense of smell, as fish do "bite" in murky and dark water, where seeing the bait would be impossible.

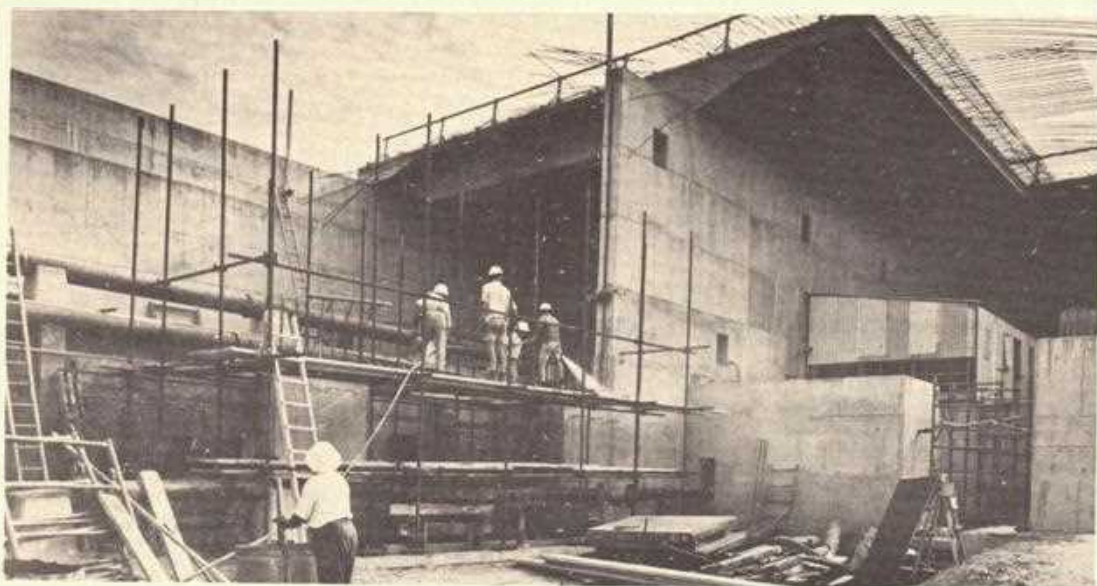
In fishing one can get a "snag". This is not edible, but is when the hook, sinker or line foul the bottom, (of the water) and cannot be easily retrieved if at all. One may catch any of a great variety of fish — hence the fascination. They could be "Lizards" (Flathead), "Mowies" (Mowong), "Old Boots", (large mouth Rock Cod), "Jewies" (Mulloway), "Darkies" (Blackfish), "Leath-cries" (Leatherjacket), "Ocey" (Octopus) Bait.

There are, of course, other names which I have heard fishes called, but I have no room left for writing!

## RETIREMENT

Mrs. Pat Scott retired from S.P.C. on June 7th. She had served for over 13 years as confidential secretary to Mr. J. F. McNicol, and Mr. J. Scott. Most of the time at Berrima, but lately at the Sydney Office. Mrs. Scott was farewelled at the Berrima Office on 18th June, and received a presentation from associates and friends. We wish her health and happiness for many years.





These Treatment Works at Malabar are still under construction, and when completed will cover an area of 1,200 feet by 2,000 feet, and will contain 125,000 cubic yards of concrete. The concrete is being supplied by the M.W.S. and D.B. Plant at Malabar, and the cement is Southern Low Heat. Estimated date of completion is early in 1974 for Stage I.



This shows work being carried out on the Maroubra Reservoir, which is 580 feet by 386 feet, with a capacity of 30 million gallons. A site plant was used for the 50,000 cubic yards of concrete required, and again Low Heat Cement was used.



## JUNIOR PAGE

Recently I was reading a magazine called "This England". In it was an article on the smallest county in England, called Rutland. It's area is only 97,273 acres. Strangely enough, in this smallest of counties was born one of the smallest of men, a real-life "Tom-Thumb". He was Jeffrey Hudson, and was only 18 inches high, but at the age of 30 he began to grow until he measured 3 feet 9 inches.

His father was a humble worker in the employ of the Duke of Buckingham, but this dwarf son was destined to many adventures. He was put in a cold pie and served at dinner to King Charles the first and Queen Henrietta Maria. The King knighted him and sent him to France on Court affairs; he was twice captured by pirates, and was sold as a slave, but he escaped. His battle with a Turkey Cock as big as himself formed the subject of a poem. He fought in the King's cavalry at the battle of Newbury, and when in France fought a duel with a member of the Queen's household for mentioning the affair of the cold pie! Seldom has so small a man packed so much into his life.

—oOo—

The late Sir Winston Churchill when making one of his great speeches in the dark days of the second world war, quoted these words:-

*"When every morning brought a noble change,  
And every chance brought out a noble knight"*

He was paying tribute to the fighter pilots of the R.A.F. in the Battle of Britain.

The words he quoted were from a poem by Alfred Lord Tennyson. Tennyson lived from 1809 to 1892, and was a born poet. He was born at Somerby, in Lincolnshire, England. His first verses were published before he went to Cambridge University. In 1850 he was appointed to succeed Wordsworth as poet laureate. This meant that he would receive a stipend, or salary, and would be expected to record all notable or historic happenings in verse. One example of this was when the beautiful Danish Princess Alexandra was to become Queen of King Edward VII; two of the lines went like this:-

*"Saxon and Norman and Dane are we,  
But all of us Danes in our welcome  
of thee, Alexandra!"*

Tennyson took his appointment as poet Laureat very seriously, with the result that he was one of the greatest poets to hold this position.

Let us look at a few lines taken from some of his poems:-

*"My strength is as the strength of ten,  
Because my heart is pure,"*

*"Theirs not to make reply,  
Theirs not to reason why,  
Theirs but to do and die!"*

*"Kind hearts are more than coronets,  
and simple faith than Norman  
blood."*

*"More things are wrought by prayer  
than this world dreams of."*

*"The old order changeth, yielding place  
to new,"*

We could go on, but these verses are often quoted, we will often hear them used. One of my favourite poems by Lord Tennyson is called "The Brook". Perhaps you have read it, or heard it at school. This is it:-

### THE BROOK

*I come from haunts of coot and hern,  
I make a sudden sally,  
And sparkle out among the fern,  
To bicker down the valley.*

*By thirty hills I hurry down,  
Or slip between the ridges,  
By twenty thorps, a little town,  
And half a hundred bridges.*

*Till last by Philip's farm I flow  
To join the brimming river,  
For men may come and men may go,  
But I go on for ever.*

*I chatter over stony ways,  
In little sharps and trebles,  
I bubble into eddying bays,  
I babble on the pebbles.*

*With many a curve my banks I fret,  
By many a field and fallow,  
And many a fairy foreland set,  
With willow-weed and mallow.*



*I chatter, chatter, as I flow,  
To join the brimming river,  
For men may come and men may go,  
But I go on for ever.*

*I wind about, and in and out,  
With here a blossom sailing,  
And here and there a lusty trout,  
And here and there a grayling.*

*And here and there a foamy flake  
Upon me as I travel,  
With many a silvery waterbreak,  
Above the golden gravel.*

*And draw them all along, and flow,  
To join the brimming river,  
For men may come and men may go,  
But I go on for ever.*

*I steal by lawns and grassy plots,  
I slide by hazel covers;  
I move the sweet forget-me-nots.*

Before marriage, you should keep your eyes wide open. Afterwards keep them half shut.

---

An optimists a fellow who realises right now that some day these will be the good old days.

---

Never explain: Your friends will understand and your enemies will not believe you.

---

Ignorance has something to be said for it. It gives rise to about nine-tenths of the world's conversational output.

---

An inferiority complex could be a blessing if the right people had it.

---

The lowest ebb is the turn of the tide.



## BITS AND PIECES

### IT HAPPENED 12 MONTHS AGO . . .

- 1: United States Military Draft law expired.
- 3: Maltese Chief Justice becomes Governor General for Malta (first Maltese to hold position).
- 4: U.S.S.R. and Egypt announce Suez Canal would reopen if Israel vacated all occupied territory.
- 7: Louis Armstrong died.
- 8: E.E.C. — Japan negotiations re: trade suspended.
- 9: South Vietnamese troops assume responsibility for demilitarised zone.
- 10: Three Moroccan generals and Belgian Ambassador killed in attempting coup attack on King Hassan II.
- 12: President Nixon signed Emergency Employment Act designed to provide 150,000 jobs (government).
- 14: Australian Embassy in Washington reports China willing to co-operate in conference on Indo-China.
- 18: Iraq closes border with Jordan.
- 19: U.K. Chancellor of Exchequer Barber announced sales tax cuts and elimination of consumer credit controls.
- 20: U.S.S.R. announces support for China's admission to U.N.
- 22: Gaafar Nimeiry restored to power in Sudan.  
Libya forces down U.K. airliner carrying Sudanese coup leaders.
- 26: Apollo 15 launched.
- 27: U.S. commerce secretary warns of first balance of trade deficit in 100 years.
- 28: U.K. Labour party vote to oppose Britain's entry into E.C. Market.  
William J. Porter replaces David Bruce at Paris peace talks.
- 29: Yugoslavias President Tito re-elected for new five year term.
- 30: Jap. Air Force fighter collides with jet airliner killing 162 persons (worst air disaster on record).
- 31: Apollo 15 Astronauts make first of three lunar rover excursions on moon.

## OBITUARY

### MARCUS WILLIAM JONES

*Marc retired in March 1967. He had suffered ill health for many years, but on his retirement had completed 41 years service.*

*He latterly lived at Kiama. It is with sorrow that we record his death on the 10th July, 1972 at the age of 71 years.*

*Marcus came to Moss Vale in 1926 as a drover, but stayed on starting work at Southern Blue Metal Quarry. In 1927 he was loaned to S.P.C. for a period as paymaster. He returned to Blue Metal Quarries Office for a short while, and then transferred to S.P.C. Berrima permanently in 1932. Marc served in the General Office as clerk, and despatch clerk until his retirement. He was extremely well liked by all customers he spoke to on the phone and many of them, when visiting the plant wanted to meet the owner of the voice they knew so well. Marc was one of the oldest staff members, being associated with S.P.C. since its inception.*

*Marcus William Jones was laid to rest in the Kiama Cemetery. Management and all friends at S.P.C. extend their deepest sympathy to his wife, daughters, and all surviving relatives.*



## CAR CARE HINTS FROM THE N.R.M.A.

### WET IGNITION — THE USE OF WATER REPELLANT

In the past three weeks N.R.M.A. Car Care Hints have dealt with wet ignition problems and how to avoid those irritating breakdowns. The message is clear: Keep your engine clean — particularly spark plugs, distributor, high-tension leads and battery.

But if you still can't start your car in wet weather, your answer may be a water repellant.

A number of proprietary brands of repellants in spray cans are available from garages and spare parts stores.

Before using the water repellant it's a good idea to dry the spark plugs, distributors and high-tension leads with a clean dry rag. The less water is left the quicker the repellant will do its job.

It would be sprayed all over the plugs, high - tension leads, and inside the distributor and distributor cap.

Wait for 5 or 10 seconds to allow the repellant to dispel the water, then try your starter. Your engine should start. However, don't persist if the engine won't kick over because you risk running your battery flat, and that means added trouble. If after another short wait you find the car won't still start, call the N.R.M.A. (if you're a member) or your garage.

Water repellants have proved effective both in drying out ignition systems and providing some limited protection against further wetting. However, they are not a substitute for regular maintenance, which is the most effective method of preventing wet weather starting problems and breakdowns.

Mr. W. S. Gaffney,  
N.R.M.A. Chief Engineer.

Right:— Mr. L. E. Harriman, of Tallong recently drove the bus bringing Marulan apprentices to the Safety Meeting. He was greatly interested in cement manufacture, and toured the plant.



Above:— Mr. R. McLaughlin who is now in his last year with the Berrima County Council as an Electrical Fitter-Mechanic, is working at S.P.C. for three months to gain general industrial experience.





## FROM SYDNEY OFFICE

per Mr. J. Dibbs, Sydney Area Representative and Lorraine Lucas.

### MIXING MADE EASY FOR THE DO-IT-YOURSELFER — or HOW TO PRODUCE 3,962 CANOE ANCHORS.

Now and then everone has the urge to whip up a batch of concrete. A strong and practical building material, concrete will last for a long time. It has many uses around the home. A concrete path will keep children from wearing out the ground. A concrete patio will keep guests outside where they belong. A ten - foot wall with spikes will control new neighbours.

The standard formula for mixing concrete is one part cement, two parts sand, three parts gravel, and four parts plastic toys if little children are helping you. Concrete can be mixed in anything, but it is better to use a container you don't care about, or hate.

To make concrete walls, sidewalks, planters, hitching posts, footballs - anything with a definite shape, you will need to build a form first. The form is made of wood and form building is governed by a universal law that says: "No matter how strong you make the form it won't be strong enough and wet concrete will ooze out and spread all over everything and you will be helpless no matter how much you yell and run around." The law is hard to believe and hard to memorize, but do both.

The larger the project, the more dramatically the law will be demonstrated. Say you plan to make a concrete swimming pool in your backyard under the shade of the old washline. First you dig a pit with vertical sides. Then you build forms braced and crossbraced, designed to shape the inside walls and contain the concrete mix while it hardens.

For a job that size you need wet mixed concrete brought in by a truck. You order it by phone and after they finish snickering they'll take your address and get a rough idea of how much concrete you'll need.

The ready mix men arrive with tears in their eyes and after looking over your set-up and surviving a coughing fit, they assemble sections of metal trough leading from the truck to the pool. For a while, as

the truck gushes forth the mixture and it flows down between the forms and dirt walls, everything goes smoothly. You poke it down with rakes and the wall rises higher and higher.

But suddenly you hear the sound of bulging plywood. (Have you ever heard plywood bulge? It is a terrifying sound.) Then, with the crack of wood and the pop of nails and the snap of braces, concrete flows out from under the forms with a tired sigh. The delivery men put away the trough, paint another little homeowner on their truck door and drive away.

The concrete, covering the bottom of the pool is their to stay. After it hardens you remove the forms and tell friends that you decided to "pour the bottom first". Soon you'll start dumping garbage in there. Dirt and leaves and dead branches will follow. Eventually the pit will fill up to ground level, rich in minerals. Many a successful back yard garden has started as a homemade swimming pool.

For smaller jobs you mix the concrete yourself. Whether you use the formula method or buy a sack of premixed dry ingredients and add water, you run two major risks:- Mixing too much or mixing too little. Half a Patio is better than two patios when you have room for only one patio, especially if you have a neighbour who doesn't want a patio.

When you've mixed too much concrete, you have about half an hour to figure out what to do with it. After that you know what to do with it. Dress yourself in protective clothing and safety goggles, get out a sledge hammer and go to work.

Breaking up concrete in a wheelbarrow is bad because you'll break up the wheelbarrow too. The same thing goes if you've mixed the concrete in your station wagon. Dump it someplace, quickly. If you are the same lucky fellow whose pool form collapsed, you'll have the whole pit to dump the leftover concrete in. Otherwise, you'll have to look for a spot. One solution is to have on hand a quantity of eyebolts and empty two pound coffee cans. You fill each can with concrete mix, stick in an eyebolt, let it harden and in a twinkling you have handy little canoe anchors.

A word of warning: You may have heard the term "yard of concrete". It is misleading. If you are having ready mix delivered, don't attempt to calculate the



amount needed by measuring your new sidewalk site with a yard stick and then ordering 10 yards of concrete. You will risk a heart attack when the truck arrives. A

yard is actually a cubic yard, a quantity equal to twenty-seven cubic feet.

If that doesn't mean anything to you, think of it as 3,962 canoe anchors.



Tradesmen A. Ducks-bury and C. Bloomfield with apprentices D. Harrold and P. Shanks, removing Slip Rings from No. 2 Cement Mill Motor.

#### SHATTERED STONE BECOMES A BONDING AGENT — Continued from page 8

The two companies which have the next longest distances to transport their calcium feedstock both use ships. Queensland Cement and Lime Co. Ltd. send dead coral dredged from Mud Island, in Moreton Bay, 40 miles up the Brisbane River to its plant at Darra. Adelaide Cement Co. Ltd. ships limestone 40 miles from Klein Point, York Peninsula, across Gulf St. Vincent to the company plant at Birkenhead.

Limestone supplies the required calcium for cement-making, although other materials, for example, coral, sea shells, oyster shells, chalk, alkali waste, and marble can be used.

The dead coral deposit at Mud Island is uniform in character, 18 ft to 20 ft thick, and its physical and chemical properties are most satisfactory as a basic raw material for the manufacture of high-grade Portland cement. A suction dredge is stationed at the island and fills two carrier vessels which operate a shuttle service to Darra.

The other major ingredient of cement is clay shale which is the argillaceous (clayey)

requirement in the manufacture of cement. This contains silica, alumina and iron oxide, all of which are necessary ingredients.

Limestone is quarried by drilling and blasting or by ripping and scraping with bulldozers. In the case of S.P.C. it is the former. The limestone is then put through a primary crusher at the quarry and broken into pieces 2 in. to 3 in. diameter and smaller, then transported to the cement plant.

Cement is formed by thermochemical reaction and there are four steps:

- (a) Preparation of the raw materials by crushing and grinding to make them sufficiently fine so thermochemical reactions can take place.
- (b) Accurate blending of raw materials so required composition and uniformity are obtained.
- (c) Burning the mixture in kilns at very high temperatures to form a cement clinker.
- (d) Grinding this clinker with a 4 to 5 per cent addition of gypsum, resulting in cement.



Two types of processes can be followed to make cement clinker — dry processing and wet processing. The basic difference is in the form in which the raw materials are prepared for further treatment, although there has developed a third process — the semi-dry method.

In the wet process, limestone and clay shale are prepared by grinding with water to produce a thin mud or slurry, while in the dry process the materials are dried first then ground together to form a powder. In the semi-dry method, a small quantity of water is added to the dry process product and the feed for the kiln is prepared as nodules or pellets.

After grinding, the slurry (wet process) or meal (dry process) is pumped to storage tanks or bins. The slurry is stored in concrete silos and is constantly agitated to prevent it setting. The slurry or meal is checked for composition and if necessary is blended with other slurries or meals until the composition is correct.

The raw feed is then fed into the kiln which is the heart of the cement making process for it is here that the raw materials undergo the thermochemical change which transforms them into Portland cement.

The kiln is a long steel shell or cylinder supported on rollers and mounted at a slight inclination to the horizontal. A normal size is 15 ft. diameter and 500-600 ft. long. At the lower end of the kiln, powdered coal or fuel oil is forced in under pressure to feed the flame which roars 30-40 ft. up the kiln to form the burning zone. To prevent the steel shell melting and distorting under intense heat, the kiln is lined with fire bricks over most of its length.

At the higher end of the kiln, the slurry or raw meal is fed in while the slowly revolving kiln moves the feed continuously down towards the burning zone, a process which takes three to four hours. During this time, the feed is first dried out then calcined (carbon dioxide and other gases are driven off and the limestone is converted to quicklime). As the feed approaches the burning zone at the end of the kiln it becomes increasingly hot and begins to fuse or melt.

The revolving action of the kiln causes the partly molten material to roll into round hard pebbles called clinker. This is drawn out of the kiln and cooled with air which absorbs heat and is passed back to the kiln to conserve energy. The clinker is stockpiled.

In the final stage of manufacture the

clinker is ground to the fine powder we know as cement with a small amount (four to five per cent) of gypsum being added to control the rate at which the cement sets. Grinding is carried out in mills similar to those used to grind the raw feed. On leaving the mill the cement is hot, generally too hot to touch because of the heat generated during grinding. It is stored in concrete silos containing more than 1,000 tons and later transported in bags, bulk tankers or bins.

By varying the proportions of limestone and shale and by grinding the clinker more finely or coarsely and by the addition of other materials a range of cements with specific properties for particular uses can be made. For instance, cement can be made to gain strength more rapidly than usual — a high early strength cement where it is necessary to use the structure as soon as possible after pouring — or it can be made resistant to forms of chemical attack.

Most of the above article is reproduced from NAT/DEV., the magazine of the National Development. Last year Mr. Winston McNamara and Mr. Malcolm Lindsay, representatives of NAT/DEV., visited Berima Plant. At the time they were gathering information for this article on the cement and concrete industry in Australia. This will be continued next month.

## NOTE:—

### ANOTHER RYTEWORDS CONTEST NEXT MONTH

—oOo—

WINNERS OF LAST COMPETITION  
WILL BE NOTIFIED.

—oOo—

### JUNIORS

Winners of "World Cities":

Christine Staubner

Bronwyn Seville

Gregory Shepherd

Each one will receive one dollar.

Try writing a verse.

Read the poem on Junior Page, then write one or two verses of your own on any subject — send it to the editor.

50 cents for each one published.



PS

BERRIMA MARULAN



MEDWAY SYDNEY

SOUTHERN PORTLAND CEMENT LTD.

# — NEWSLETTER —

VOL. 1 — No. 3.

AUGUST, 1972.



One of our youngest readers, Susan Jacobson, daughter of our Berrima Accountant.



# S.P.C. NEWSLETTER

AUGUST, 1972.

VOL. 1. — No. 3.

## — CONTENTS —

1	Editorial.	10	Car Care Hints.
2-3	Apprenticeship Week.	11	Marulan Pictures.
4-5	Snowy Mountains, Tumut No. 3 Power Station.	12	Juniors.
6	Nature Notes.	13	Fishy Tales.
7	Production Figures.	14	Pictures of Vaults.
8-9	Metric Pages.	15	Gardening Notes.
		16-17	Rytewords and Junior Crossword.
		18	Commandments for Safer Driving.

---

### REGULAR CONTRIBUTORS

#### BERRIMA . . .

R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

#### SYDNEY OFFICE:

Miss Lorraine Lucas.

#### MARULAN . . .

W. McCallum.  
E. Cooper.

#### COLLIERY . . .

M. Thorpe.

#### PHOTOGRAPHY . . .

C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:  
Southern Portland Cement Ltd.

### PRINTERS . . .

"Berrima District Post", Moss Vale.

All-correspondence and enquiries to:—  
THE EDITOR,

S.P.C. NEWSLETTER,  
P.B.S. No. 4, Moss Vale, N.S.W. 2577.

### COPY DEADLINE:

28th of the month prior to the month  
of issue.



## ANOTHER MESSAGE FROM THE PRODUCTION SUPERINTENDENT

*During August we celebrated the achievement of two new production records. First, the production during July of 49,461 tons of clinker from kilns 2, 4 and 5. This exceeded the previous record of 48,712 tons, set in October, 1969. Second, a new weekly record clinker output from No. 5 kiln, this was 9,403 tons during the last week of July. The previous weekly record for No. 5 was 9,239 tons set in January, 1967.*

*In a New Year message published in the January "News", I made comparisons between the availability of our No. 5 Kiln unit and overseas plants, and pointed out that, at Berrima, No. 5 Kiln was off for approximately 13 weeks each year, compared with, approximately 4 weeks or less for a similar unit overseas. Some of you will be interested in how we are going so far this year. If the kiln was to run without a major overhaul, and no stop between now and the end of the year, the maximum availability would be 92%, our target! However, while it may be possible to avoid a major overhaul, we have been plagued by frequent stops, ranging from a few minutes to a few days. For example, since the major overhaul in March, the kiln has stopped on 46 occasions, and for those who have a flair for statistical records, I have produced a table, setting out the number of stops and reasons for those stops, which can be viewed by anyone who may be interested.*

*With this information you can see why I appreciate the speed with which many employees have attacked the job and got the kiln rolling again. We still have the opportunity to make 92%, or at least, get very close to it, so for those who would like to be associated with a plant of world standing, I look forward to your continued assistance for the rest of the year. If we do achieve this figure, I'm sure that the records we have recently celebrated won't be the last.*

## Editorial

*Recently I read a short story about a young boy who boasted to his older brother that he had hundreds of friends, and made more friends every time he walked along the sidewalk. To prove his point, he took his brother along with him. A stranger was walking towards them, "Hi" said the young lad with a smile and a wave of the hand. "Hello", how are you?" said the stranger with an answering smile. "There's one friend I've made already!" he turned to his brother. This process was repeated several times, each time the friendly attitude of the boy brought a friendly response. To this boy they were friends.*

*There are many people today who habitually go around with a serious look on their faces, and who do not appear to notice those who pass by. This does not even start one on the road to the making of a friend.*

*Others are habitually shy, and do not feel that they can speak to complete strangers, or even acquaintances. But if this apparent indifference or shyness can be overcome, it will be found that the friendly approach will, almost invariably, engender friendliness.*

*In our work we may receive instructions to do a job, the way in which those instructions are given, can go a long way towards bringing the job to a successful conclusion, and keeping a contented work force.*

*The old idea as expressed by Tennyson in "The Charge of the Light Brigade."*

*"Theirs not to reason why,*

*Theirs but to do or die."*

*is definitely out of date. The more a worker knows about the overall operation, the better job he can do, and the more contented he will be.*

*So this matter of the friendly approach in our daily contacts and our work especially includes putting others in the picture. The air of secrecy must be banished. This imparts a sense of belonging to something worthwhile, and the feeling that whatever the job may be it is necessary and important.*





#### MR. J. C. SCOTT TRANSFERS TO A.I.S.

Mr. J. C. Scott, Company Secretary, has been appointed to a senior commercial position at A.I.S., Port Kembla and will take up this appointment late in September.

Mr. Scott came to us at Southern in 1959. He served as Works Secretary at Berrima, and later as Company Secretary, and Commercial Manager N.S.W. during the period of merger with Australian Portland Cement Ltd.

Since the de-merger Mr. Scott remained Company Secretary of Southern Portland Cement, situated in Sydney Office.

During his stay with us at Southern he became well liked by all who came into contact with him. As he leaves us he carries with him our best wishes for the future.

In consequence of Mr. Scott's transfer, Mr. D. E. Green, formerly Senior Accountant Budget and Cost Control B.H.P. Melbourne Office, has been appointed Manager Finance and Administration, and Company Secretary. We welcome Mr. Green to Southern Portland Cement.

#### FOUR NEW COLLIERY RECORDS

The following records were all established during July.

The best unit shift 1,061 tons.

The monthly average unit shift 811 tons.

The highest weekly total output 5,541 tons.

The highest monthly output 20,279 tons.

## GOULBURN AND DISTRICT APPRENTICESHIP WEEK

Once again Southern Portland Cement took part in the exhibition in the Lilac Time Hall. Our exhibit was arranged by Mr. Alan Parker, who has been acting Apprentice Training Foreman, and Mr. Jim Galloway who has now been appointed permanently to this position.

As stated in the official leaflet, the aims of Apprentice Week are as follows: —

1. To encourage greater pride in Craftsmanship.
2. To emphasise the importance of training for skills through Apprenticeship.
3. To urge all school-leaving youths to give serious consideration to the acquiring of Craft Skills.
4. To appeal to employers to ensure continuing expansion of their industries by training the skilled personnel needed in the years ahead.

This latter point has been the policy of S.P.C. for many years. Its value has been proved.



Mr. Bruce Myers, teacher of Mechanical Engineering Trades at Goulburn Technical College is also a photographer and usually takes pictures at the Prize-giving.



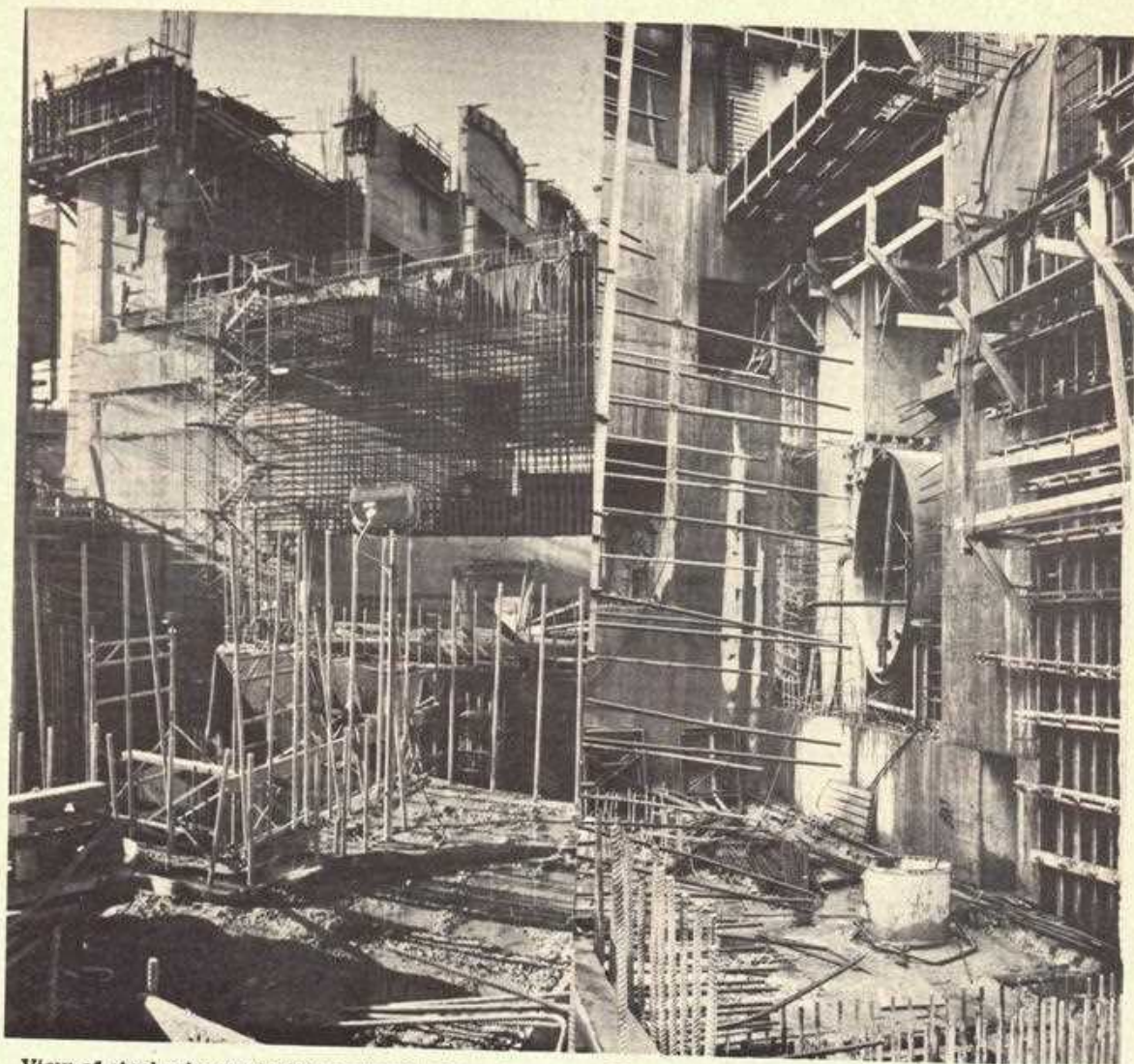


At the Apprentice Week Exhibition:— Left to right — Mr. Hewitt, MLA, Minister for Labour & Industry; Mr. Mills, Apprenticeship Commissioner for N.S.W.; Mr. Miller, Officer in charge Dept. of Labour & Industry, Goulburn, also Chairman of Goulburn Apprenticeship Committee.



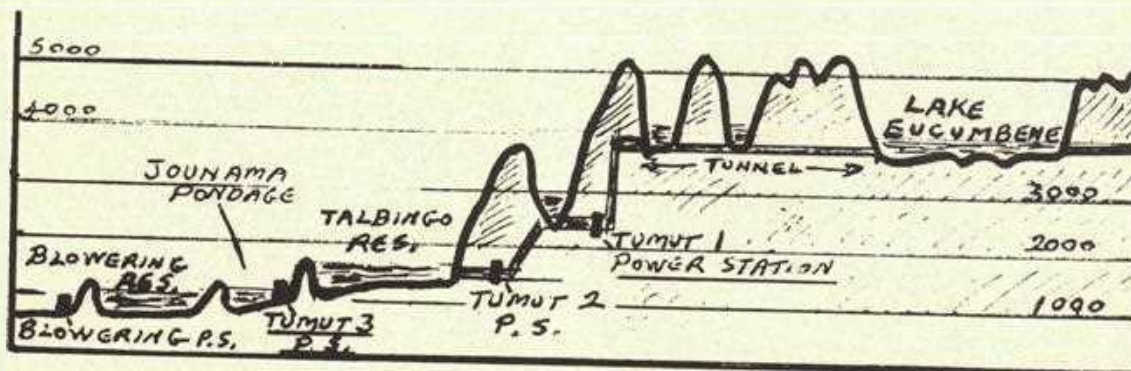
SPC Apprentice Gary Hinton assembling the model of No. 5 Cement Kiln. The actual kiln is situated at Berrima Plant. It is 560 feet long and 15 feet 3 inches in circumference. It has a capacity output of 1,400 tons of cement clinker per day.



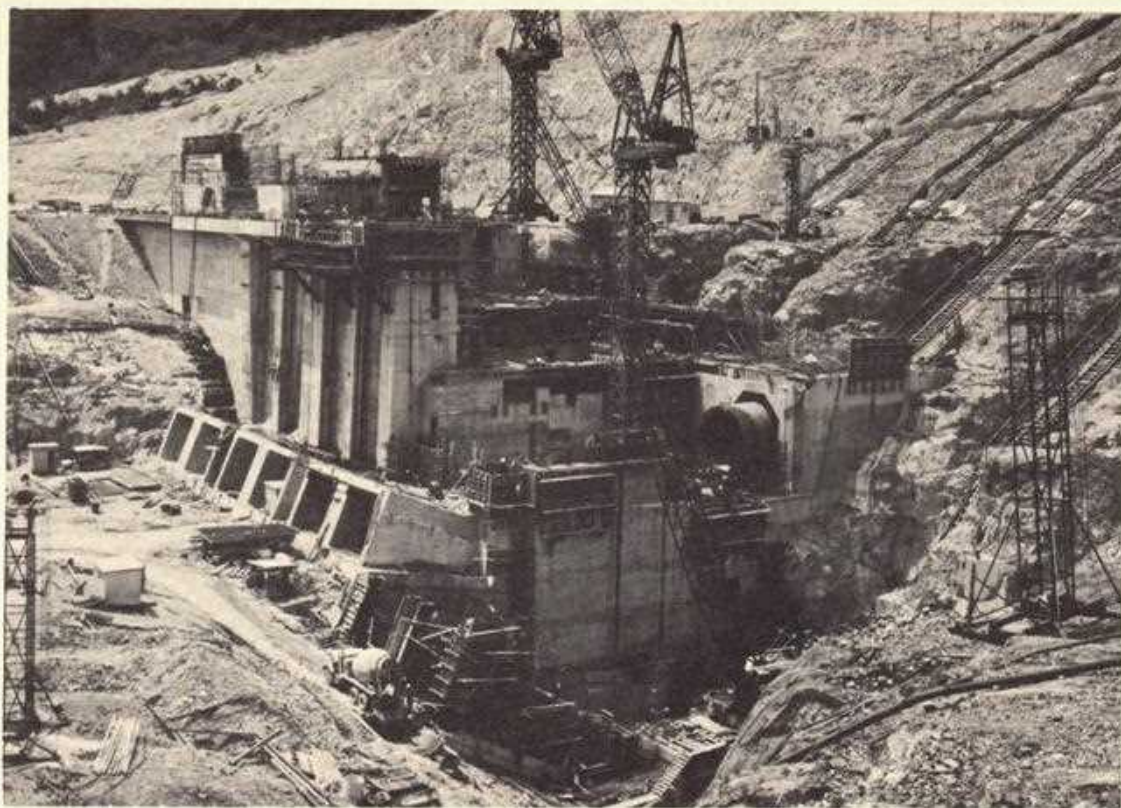


View of steel rebar and placed concrete Tumut 3 Power Station.

Main Valve Block Tumut 3 Power Station.







An exterior view of Tumut 3 Power Station.

## THE SNOWY MOUNTAINS SCHEME TUMUT 3 PROJECT

SOUTHERN CEMENT USED  
EXCLUSIVELY

The Tumut 3 Project makes use of the flow and fall of the Tumut River between the Tumut 2 Power Station tailwater tunnel and Blowering Reservoir. The water impounded by Talbingo Dam will be passed through Tumut 3 Power Station to generate peak — load electric Power. Water discharged from Tumut 3 Power Station during peak load periods can be held in Jounama Pondage and returned to Talbingo Reservoir. The water is returned to Talbingo by the use of three pumping units during off-peak hours. To operate the pumps cheap off-peak electricity is used, which is produced by thermal power stations. In this way, water can be made available for re-use

through the Tumut 3 Power Station during subsequent peak-load hours, providing additional peak-load electricity when required by the States' systems.

When completed the Tumut 3 Project will comprise:-

1. Talbingo Dam - a rockfill structure with an earth core, 530 ft. high containing approximately 19 million cubic yards of material.

2. Tumut 3 Power Station - housing six 250,000 kilowatt generating units three of which have undercoupled pumps, each of 3,500 cusecs capacity. (A cusec is the flow of one cubic foot of water per second.) The Power Station building will be some 500 feet long, 70 feet wide and 200 feet high, from the deepest excavation to roof level. Southern Low Heat Cement is being used, and for the Power Station and Talbingo Dam a total of approximately 124,750 cubic yards of concrete.

(continued next page)



3. Spillway - excavating through a ridge on the left bank of the reservoir up to 250 feet deep, and requiring 4½ million cubic yards of excavation and 3,000 cubic yards of concrete. "Southern" Low Heat cement was used.

4. Jounama Dam - a rockfill structure with an earth core 144 feet high containing 725,000 cubic yards of material. Jounama Dam Spillway and Outlet Works contain about 22,400 cubic yards of concrete, "Southern" Category "B" cement was used.

5. Headrace Channel - approximately 3,100 feet long and up to 300 feet deep, involving 8½ million cubic yards of excavation.

6. Pipeline Inlet Structure - a concrete gravity structure approximately 110 feet high containing some 56,500 cubic yards of concrete, "Southern" Low Heat Cement was again used.

7. Pressure Pipelines - six pipelines each 18 feet 3 ins in diameter (by comparison No. 5 Kiln is 15 feet 3 ins) and 1,600 feet long, located on a bench requiring the excavation of 2 million cubic yards of material. These pipelines will easily take a double-decker bus!

Another article on the Snowy Scheme next month.

## NATURE NOTES

I think that one of the greatest pleasures one can derive from bush-walking is ferns. They come in all shapes and sizes and are found in many diverse types of habitat. However, to the majority of people, ferns mean a place of quietness, peaceful tranquility amid mountain streams of cool clear water meandering between smooth washed boulders. On a hot summers day such places bring welcome relief.

Around the house, ferns make attractive assets - both indoors and out. Grown in pot and hanging baskets they add a touch of freshness to sunrooms and verandahs alike - some species respond dramatically to such conditions.

Not all ferns grow in the soil, some are Epiphytic - that is, growing on trees or rocks, etc. These species are found in rain-forests where the air is continually damp and conditions in general are wet. Within our own district many species of epiphytes can be found and perhaps two of the best

known (and least common) are the Elkhorn (*Platycerium alcicorne*) and the Crow's Nest Fern (or Bird'snest Fern). It's unfortunate that these ferns fall victim to the lust and greed of man's heart and as a result have been totally "wiped out" of large tracts of our forests.

I guess I will always remember those huge 'hanging gardens' of Eungalla National Park in Queensland. These were massive clumps of ferns sometimes up to 10 feet in diameter and weighing several hundred-weights at heights of over 80 feet in the trees. The clumps were or are originally ferns of the Elkhorn, Staghorn or Crow's Nest species. As they grow, their leaves spread out, and being below the leafy canopy they catch a lot of leaves and this forms along with their own Fronds, a deep rich mulch. Over a period of years this "soil" becomes host to other epiphytical species of ferns and orchids and at times eight or so species will be seen growing out of the one clump.

Ferns are unusual in that they do not possess flowers or seeds, but instead they have and produce hundreds of spores. Fertilization is carried out by the cross pollination of other species of ferns. The roots of ferns are known as rhizomes and these too, can send forth fronds to make a new plant. Perhaps in a future issue I will spend a bit more time on ferns.

Chris Sonter.

## THANKS

I would like to thank the many work-mates who wished me well on my retirement from SPC, both for the delightful gifts I received and the kind words expressed.

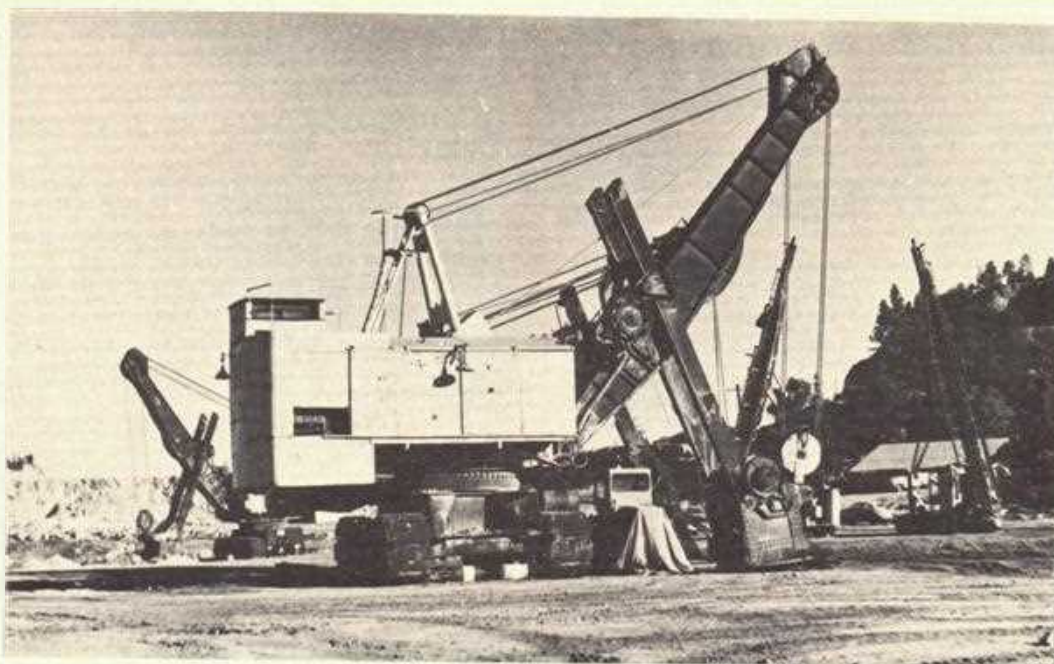
My experience as a "Southerner" was such that I will always have very pleasant memories and the only regret was that it had to end. I met a great number of people of whom I will always be able to remember with pleasure. There were 'ups' and 'downs' but the 'ups' far outweighed the other.

I have seen others depart the work force and many return to see old stalwarts who remain and I hope that I will be able to come around to see you all from time to time.

Again many thanks to you all and apologies to those I did not see to thank personally on my last visit to Berrima.

PAT SCOTT





Menck Shovels and Drilling Rigs at Marulan Quarry. About six years ago the Shovels were superseded by Front-end Loaders.

## INCREASING PORTLAND CEMENT PRODUCTION IN AUSTRALIA

Financial year	Production ('000 tons)	Per cent increase (decrease) over previous year
1960-61	2,860	
1961-62	2,809	(1.8)
1962-63	2,942	4.7
1963-64	3,320	12.8
1964-65	3,746	12.8
1965-66	3,688	(1.5)
1966-67	3,661	(0.7)
1967-68	3,805	3.9
1968-69	4,075	7.1
1969-70	4,439	8.9
1970-71	4,611	3.7

## OBITUARY

James Middleton (father of the well known "Jim" Middleton of Berrima Plant) died on the 1st August, 1972. Although Mr. James Middleton was confined to a wheel chair for the last three years of his life, he was in good health and died of old age. He was 97 years of age. James was a link with the past for he drove a Cobb & Co. Coach between Trangie and Dandelor, two horses on the pole and three leaders. Later he drove a smaller coach and then a motor bus, keeping up with the times. Eventually he bought his own property and settled down. During his time he was known as one of the best horsemen in western N.S.W., both in breaking and driving.

To Mr. Jim Middleton, and his wife, and all surviving relatives we extend our sympathy, realizing at the same time that the deceased lived a very full life, and the time had come for him to rest.



## METRIC PAGE

### ROAD PLANNING WITH THE TIMES

The Housing Commission of N.S.W. has made an early move in the adoption of the metric system.

The Commission will shortly begin construction at Macquarie Fields, Campbelltown, and has designed roadways using metric units.

The decision to switch to metric units followed detailed consideration and with regard to proposed metric conversion time-tables prepared by the Metric Conversion Board.

Changeover for the construction industry has been set for January, 1974. However, conversion of engineering surveys to metric units is expected to begin very shortly. Indications are that sections of the industry primarily engaged on roadworks and the installation of utility services, and therefore, closely allied with land surveys and development activities, will not find it difficult to adapt to metric plans for tendering and construction.

The Macquarie Fields development, comprising 110 hectares, will require the construction of 12 kilometres of roadways and 7.5 kilometres of internal pedestrian pathways and associated drainage works to allow for the construction of 1,000 cottages and 300 medium density housing units.

Road and drainage construction will cost about \$1,000,000.

### MITTAGONG, TOO

Mittagong Shire Council engineering staff has completed its first road construction design in metric measurements.

The design is for Old South Road, from Grange Road to Merrigang Street. Work will be undertaken in 1973.

Some metric instruments are being used by Council staff. The Shire Engineer, Mr. C. Henderson, is to include metric equivalents to imperial values in his reports to Council.

### MAPS GO METRIC

The N.S.W. Department of Lands has changed to metric units in the compilation and production of its topographic mapping at 1:25 000 and 1:50 000 scales.

A recent publication at 1:25 000 shows the grid in units of 1000 metres and a contour interval of 20 metres. Spot heights are shown to the nearest metre, road destinations show distances to nearest towns in kilo-

metres with imperial equivalents in brackets. Mile posts along the roads retain mileages; this policy will continue until metric equivalents appear on the markers.

### AUSTRALIA WILL BE JUST ONE OF 131

A recent publication of the United Kingdom Metrication Board lists 131 countries that are metric or are in process of changing over to the metric system.

In some countries limited use is made of domestic systems of weight and measures or, where there is extensive trading with the United Kingdom or the United States, in the imperial system.

The full list of metric countries, in alphabetical order, begins with Afghanistan, Albania, Algeria, Andorra, Argentina and Austria and concludes with Upper Volta, Uruguay, Venezuela, Vietnam, Western Samoa and Yugoslavia.

Australia heads the list of 28 countries going metric, followed by Bahrain, Botswana and Canada. The final list in alphabetical order, are Swaziland, Tanzania, Trinidad and Tobago, Trucial States, Uganda, the United Kingdom and Zambia.

Only 10 countries are listed which are not metric and have not announced their intention to become so. They are: Barbados, Burma, Gambia, Jamaica, Liberia, Nauru, Sierra Leone, Tonga, the Yemen Arab Republic and the Yemen People's Democratic Republic.

The United States is not metric. However, Bills for the implementation of the report recommending that the United States should change to the metric system are currently before Congress.

The Cement and Concrete Association of Australia has announced its intention to market Portland Cement in 40 kg bags (25 to the tonne) from 1st July, 1973.

---

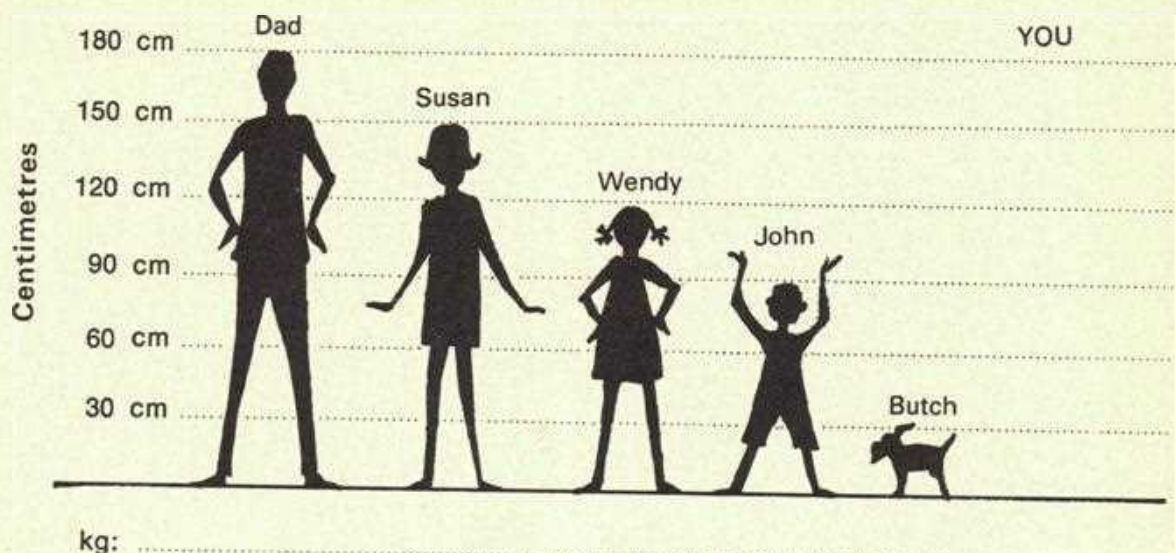
The opposite page is reproduced by permission from an excellent little book entitled "Think Metric" by Owen Martin.

---



## SENSIBLE SIZES

Suggest sensible heights and masses for these friends of ours:—



## A READY RECKONER

Here is part of a handy ready reckoner table. Using approximates, complete it.

Mass			Length						Volume (fluids)		
kg		lb	km		miles	m		yd	litres		gallons
0.11	¼	0.55	0.40	¼	0.15	0.22	¼	0.27	1.14	¼	0.05
0.22	½	1.10	0.80	½	0.31	0.45	½	0.55	2.27	½	0.11
0.45	1	2.20	1.61	1	0.62	0.91	1	1.09	4.55	1	0.22
0.91	2	4.41	3.22	2	1.24	1.83	2	2.19	9.09	2	0.44
1.36	3	6.61	4.83	3	1.86	2.74	3	3.28	13.64	3	0.66
1.82	4	8.82	6.44	4	2.48	3.66	4	4.37	18.18	4	0.88
	5			5			5			5	
	6			6			6			6	
	7			7			7			7	
	8			8			8			8	
	9			9			9			9	
	10			10			10			10	

Suppose you wish to know what 1 kg is in lb. Find the 1 in the centre column of the Mass set of tables.

To its right you find the measure 2.20 lb.

If you wish to know what 3 lb is in kg, you find the centre column, then look to its left.



## CAR CARE HINTS FROM THE N.R.M.A.:

### LEAKS CAN SPELL TROUBLE

Oil leaks in your car can spell trouble, so check your engine frequently, says the N.R.M.A. Most engines will show some oil on the outside, but whether or not this warrants an expensive repair depends on the extent of the oil loss.

To pinpoint accurately the source of any trouble, clean the engine. Many engine cleaning fluids are available from motor accessory houses and service stations. After the engine has dried out, spread some clean newspapers on the floor underneath it. Then start the engine and run it at a fast idle (somewhere between 1000 and 1500 rpm) until it reaches normal operating temperature. This may take up to half an hour. Be sure the engine does not overheat. In an automatic car, make sure the "P" or "N" gear is engaged, and that the hand-brake is firmly applied.

Stop the engine. Stains on the paper should show the general area of oil loss. It is usually possible to follow the oil track from where it drips off the engine to its source.

Many oil leaks come from the overhead valve rocker cover, either because it is loose or because the gasket is damaged. Tighten it or renew the gasket as necessary, making sure you install it correctly. Sometimes oil lost from the rocker cover runs down the back of the engine and appears to come from the sump or crankshaft.

Sometimes the cost of repairing an oil leak can be quite high. If the oil loss is not great, or does not create a nuisance, it may not warrant spending a lot of money on a costly repair job. If in doubt, seek advice from your garage or, if you're an N.R.M.A. member from the N.R.M.A. Technical Department.

—Mr. W. S. Gaffney, Chief Engineer.

### TALL TIMBERS FESTIVAL AT DUNGOG

Dungog in the Hunter Region, is holding a "Back-to-Dungog" Week from Sept. 20th to 24th. The week is to be known as the "Tall Timbers Festival".

Dungog owes its beginning to timber, the district being first settled by cedar cutters in the early 1800's.

The wall panelling and flooring for the Sydney Opera House has come from the forests of Dungog.

### STONY RANGE FLORA RESERVE

The N.R.M.A. suggest a visit to the Stony Range Flora Reserve at Dee Why.

Gently graded tracks wind throughout the nine-acre area, allowing the visitors to see many different wildflowers from all parts of Australia.

Grevilleas, Lakeas, Eriostemons, Boronias, Dilwynias and Waratahs fill the reserve with their beautiful blooms during the Spring, providing a fantasy of colour.

Stony Range Flora Reserve is on Pittwater Road, Dee Why, next to Bonds factory. It is open every day of the year except public holidays.

Inspection Times:-

Aug., - Mid October — 10 a.m. to 4 p.m. (daily).

Mid October - July — 10 a.m. to 4 p.m. (daily).

Sundays, — 1 p.m. to 4 p.m.

Admission is by donation.

### FINGAL LIGHTHOUSE — POPULAR TOURIST ATTRACTION

The Fingal Lighthouse at Fingal Head, near Tweed Heads, is over 100 years old this year. It was built and first operated in 1972.

The lighthouse, 25 feet (8m.) high, is a circular brick structure, with an elevation above high water of 80 feet (24m.). It was the most northerly lighthouse in New South Wales, until the construction of the world's first laser-beam lighthouse at Point Danger, on the New South Wales — Queensland border. Visibility from the tower is more than 12 miles (19 k.m.). The present light has a 1,500 candlepower light. Today the lighthouse's role is not as important as it was before the laser-beam lighthouse was built, but its beam still helps to guide fishermen.

The lighthouse's dominance of the headland on which it stands, however, still makes it a magnet for tourists.

---

### CREDIT UNION ANNUAL MEETING PRELIMINARY NOTICE

To be held on  
FRIDAY, 29th SEPTEMBER  
in the Theatre at the Civic Centre,  
Moss Vale.

---





Two recent photographs of Marulan Limestone Quarry by Col Glacken.





## JUNIORS

What are Nobel Prizes?

The Nobel Prizes are a group of five awards given each year, three are given for important work in the areas of Science, one in Literature and one in achievements towards world peace. The three areas in Science, are Chemistry, Physics and Physiology or Medicine.

Alfred Nobel was Swedish, and the Nobel Prizes are controlled by Swedish institutions, but the awards are open to anyone in the world. They are not given for general achievement over a period of years. Instead, Alfred Nobel stated in his will that the prizes shall be awarded "to those who, during the preceding year, had conferred the greatest benefit on mankind."

The winners for any one year receive a portion of the income from Nobel's great fortune. The amount of income varies each year. The money usually allows the winners to carry on with the work they are doing, they also receive a gold medal. The Nobel Prizes are among the most important international awards for human achievement.

Alfred Bernhard Nobel was born on October 21st, 1833 in Stockholm, Sweden. He had two older brothers, Robert and Ludwig. When he was nine years old he left Sweden with his family, and for the rest of his life lived in various parts of Europe, very little of this time was spent in his native country.

Most of his early training came from tutors, he never attended a university, he worked as a scientifically trained chemist, and was able to read and speak five languages. He was a great reader, and a thinker. He was also interested in the effects of Scientific achievements on health and medical knowledge.

One of his first inventions was a kind of nitroglycerin that was not as dangerous as it had been formerly. Then came dynamite, followed by many other discoveries.

When Nobel died in Italy, in 1896, his fortune amounted to eight million dollars. In his will he stated that most of it was to be invested in securities, and the income used for annual awards.

The following verses are by one of our juniors, Leona Lafferty. She has been awarded one dollar.

W A R !

*War is so terribly wrong,  
Why must we fight so often?  
The Irish use the Lord as their reason,  
They should be jailed for treason.*

*Why should we fight?  
Why should we kill?  
When the Lord made the commandment  
"Thou shalt not kill".*

*We go against the Law,  
We go against the Lord,  
We go against all righteousness  
We just kill more and more.*

The following was contributed by Rick Knapman of the Machine Shop, Berrima.

*"I watched them tearing a building down,  
A gang of men in a busy town  
With a ho heave-ho and a lusty yell  
They swung a beam and the building fell.  
I asked the foreman "Are these men skilled  
As the men you'd hire if you had to build?"  
He gave a laugh and said "No indeed,  
Just common labour is all I need.  
I can easily wreck in a day or two  
What builders have taken a year to do."  
So I thought to myself as I went my way  
Which of these roles have I tried to play?  
Am I a builder who works with care  
Measuring life by rule and square?  
Am I shaping my deeds by a well made plan  
Patiently doing the best I can,  
Or am I a wrecker who walks the town  
Content with the labour of tearing down?"  
'NUFF said*

—from the Amateur Pistol Association Newsletter.

JUDGE: "Now Sir, you may if you wish, challenge any member of the jury".

PRISONER: "Well I'm not in very good shape, but I believe I can lick the little guy on the end seat".



## FISHY TALES

One continues to learn! I have just seen some fresh water Lobsters. They would be in the vicinity of half pound weight. (This would approximate 227 gm and with 454 gms to the pound, would be about a quarter of a kilo.) I've seen Yabies and they are similar. However, these Lobsters were very heavily armoured, spiky and had large nippers. Alan Betts and Ross Waddell have been away on holidays and having worn the snow out skiing at Mt. Kosciuszko decided to spend some time on the Murray River. Fish being very scarce (they only landed two Redfin) they happened on these Lobsters which gave them plenty of fun as well as something to eat. I understand they are boiled and eat the same as the salt water Lobsters, which I should be calling cray-fish!

The fishing front is pretty quiet at the moment, but Ken Coates and gang pulled in a few good ones, fishing wide of Kiama recently.

Nev Gilby is boasting a new hollow fibre glass rod which he has assembled himself. After he told me it was 14 ft. long I don't reckon he will have to use his boat in the future — just stick the rod out over the water.

Incidentally when I say 14 ft. I mean 426.72 cm using 2.54 cm to the inch.

I had a bit of trouble with my Mitchell reel recently, but found parts easy to obtain. The experts on the North Coast however seem to favour the DAM reel in preference to all others now.

## WEDDING BELLS

A well known typist at Berrima General Office was married on the 19th August. She was Miss Patricia Bunter, now the wife of Robert Turner of Moss Vale. The wedding took place at St. Judes Church of England, Bowral, the Rev. Hook officiating.

The happy couple are now enjoying their honeymoon on the Gold Coast, Qld.

On their return they will live in Moss Vale and Trish plans to continue working at S.P.C.

We all join in wishing Trish and Robert Turner every happiness.

## BISHOP HULME-MOIR AND THE REV. G. W. BARRAND VISIT BERRIMA PLANT

During his visit early in August Bishop Hulme-Moir addressed employees in the lunch room. This was part of a special mission in the area.

In his address the Bishop mentioned that he had particularly noticed one of our safety signs, "Think." He went on to tell of his experiences as a young man in the depression years. He trained as a surveyor, but couldn't get a job, ending up in a factory. He was warned by his employers that if he joined a union he would be "out." His experience made him think. He gained an insight that could only be gained by involvement in the lives and trials of others. So for a while he rose at 5 a.m. travelled to work and at night arrived home about 7 p.m. Then he began to think a bit more. Here am I spending all this time earning a living, I'm not doing the job I was trained for, surely there must be more to this life than the daily grind. What am I doing in life? Where am I going? Surely death is not the end!

It was this thinking that caused him to become involved in the Christian faith. He learned that death was not the end, there was something beyond. He learned that GOD cared for man, that man has a value, and that God was revealed through Jesus.

The Bishop told of an old mining town in New Zealand, it became depressed run-down, then a cement works was established there and the whole atmosphere changed. The change came about because the people in that town now had hope for the future. The Bishop concluded by saying "Faith changed my attitude to life. The present has meaning because I had a hope in the future. I believe that God cares and that I have a duty to reveal this to others. If others will put their faith in God, they too will have hope for the future, and will gain the help they need to live in the present."

George Preston has returned to work after 13 weeks sickness, welcome back George.





The last resting place of Andrew Hamilton Hume, Isabella, Hamilton's sister, George Barber, her husband, and Edward Rayworth, their son, were buried in the same vault. Unfortunately as can be seen in the photographs, the vault was almost destroyed about six years ago by some unknown

person or persons removing a swarm of bees. Col Glacken of Marulan sent the photographs and information to the Newsletter.

We hope to have more information in a later issue on Hamilton, after whom the Hume Highway is named.





# GARDENING NOTES

## FOR AUGUST

- FLOWERS:** Alyssum, Antirrhinum, Candytuft, Carnation, Coreopsis, Cornflower, Dianthus, Godetia, Hollyhock, Larkspur, Linum, Mignonette, Nemophila, Phlox, Sweet Sultan, Sweet Pea.  
**PLANT:** Antirrhinum, Carnation, Dianthus, Iceland Poppy, Pansy, Viola, Bulbs of Agapanthus, Calla, Gladioli, Lilium, Tigridia, Tuberose, Lily of the Valley, Flag Iris, Tuberose, Begonia.
- VEGETABLES:** **SOW:** Broad Bean, Silver Beet, Carrot, Onion, Peas, Parsnip, Parsley, White Turnip, Cabbage, Leek, Lettuce.  
**PLANT:** Asparagus, Garlic, Herbs, Horse Radish, Jerusalem Artichoke, Onion, Rhubarb, Potato.

The Winter has not been nearly as severe as last year, but with so much snow on the Alps we are likely to get late frosts, so be careful when planting out tender plants and shrubs.

July was an extremely dry month, with no rain in our area, some fog, frosts and drying winds. Keep watering while the dry weather lasts, particularly newly planted trees and shrubs and any corners where light rain does not penetrate.

It's Wattle month again and along some of the back roads I counted as many as eight varieties of this golden beauty, all blooming at the same time! Flowering Apricots, Plums and Almonds are now blooming, much to the joy of Nectar-loving birds and bees, and the Bower Birds are pleased to decorate their bowers with fragrant violets once again. How fortunate we are to be able to have flowers in blossom all the year!

The Minister for the Environment has adopted the slogan "Greenery improves the Scenery," which the Nurserymen's Association is supporting, so we should all try to plant at least one or two shrubs or trees this year.

So much of our bushland has been, or is being cleared at present, that the whole area is being denuded of food for native animals, birds, bees and other insects. Have you ever paused to think how many of the Australian insects are found only on particular species of trees or how many birds build nests only in the hollows or on the branches of dead trees?

Finish the planting of deciduous trees, shrubs, berry fruits, fruit trees before they come into flower and leaf.

Get busy and dig over the flower and vegetable garden beds where Summer flowering annuals and vegetables are to be planted. Bait now to catch snails and slugs, as I don't think these pests have given up their chewing all the Winter!

### WORKERS' COMPLAINT DEPT.



Two visitors from Mobil Oil, Keith Morris and Harvey Higgins. Mr. Higgins is the Lubrication Engineer. The two visitors presented an interesting film show to the Fitters at Marulan and Berrima.



## RYTEWORD NO. 12

FIRST PRIZE: 10 DOLLARS.

Consolation Prizes of One Dollar each.

### CLUES DOWN —

1. An Appetiser.
2. Top Card.
3. A polite male.
5. Usually found on council property.
7. Usually sought from solicitor.
8. Water surrounding castle.
9. Protectors.
11. To direct a throw.
12. Mirth.
13. Make proud.
19. Speech.
20. To remove beard.
21. To wander.
22. To ridicule.
24. Thorns.
25. An heir.
36. A mate.
37. A beefy drink.
40. A measure for spirits.
43. Scrapped.
50. To journey.
51. Achieve.
53. Dwellings.
54. Not now.
55. The sea.
56. Doctors Surgery (initials).
58. Of high quality.
60. A mail man sometimes gets this.
61. An African river.
65. This may cause trouble on busy roads.
67. Station Master (initials).
70. Western Australia (abbrev.).

### CLUES ACROSS —

1. Part of book.
6. May upset cattle.
10. Keen.

14. Solid water.
15. A lubricant.
16. An entrance.
17. Not well.
18. Small coin.
19. A sports ground.
20. Smudges.
23. Part of foot.
24. English.
26. An English college.
27. Girl's name.
28. Royal Auto Club (abbrev.).
29. A fuel.
30. Always.
31. A lift or raise.
33. A messenger.
34. Snake-like fish.
35. Preposition.
39. Scotch for own.
42. To shine.
44. One usually finds animals in.
45. Used for making cement.
46. Not off.
47. Side step an issue.
49. Examination.
51. A Long Time.
52. French for respond (abb.).
53. A deluge.
57. Transport and General (initials).
58. Healthy.
59. Short of.
60. S. African tribe.
62. One who lays tiles.
63. Past tense of eat.
64. Girl's name.
66. One sheds these.
68. Short for television.
69. Anguish.
70. Us.
71. State Registered Nurse.
72. Girl's name (initials).
72. One would expect to see at dump.

### — SMOKING HABITS CAN KILL —

Not only what you smoke but how you smoke can affect how long you live. Studying 55,000 English workers, two British researchers found that the highest mortality rate from lung cancer was in persons with the drooping cigarette habit — who did not take the cigarette from their mouths between puffs. These smokers had a death rate from cancer fourteen times greater than that of non-smokers and ex-smokers, report Drs. G. Z. Grett and B. Benjamin of London.

The annual lung cancer mortality rate was 1.2 per 1000 in cigarette smokers, only 0.3 per 1000 in those who didn't smoke. Heavy smokers had death rates three times that of light smokers and eight times that of non-smokers.

—Today's Health, Sept. 1969.

### CAPITAL CITY FEATURES — IN METRIC

*Sydney* — Height of Australia Square Tower above plaza, 175m. Length of main span of Harbour Bridge, 500m.

*Melbourne* — Height of B.H.P. Building, 150m. City grid plan: width of main roads 30m. Length of city blocks, 200m.

*Brisbane* — Length of Story Bridge, 450m. Elevation of Mount Coot-tha (top of pillar) 230m.

*Adelaide* — Elevation of Mount Lofty, 730m.

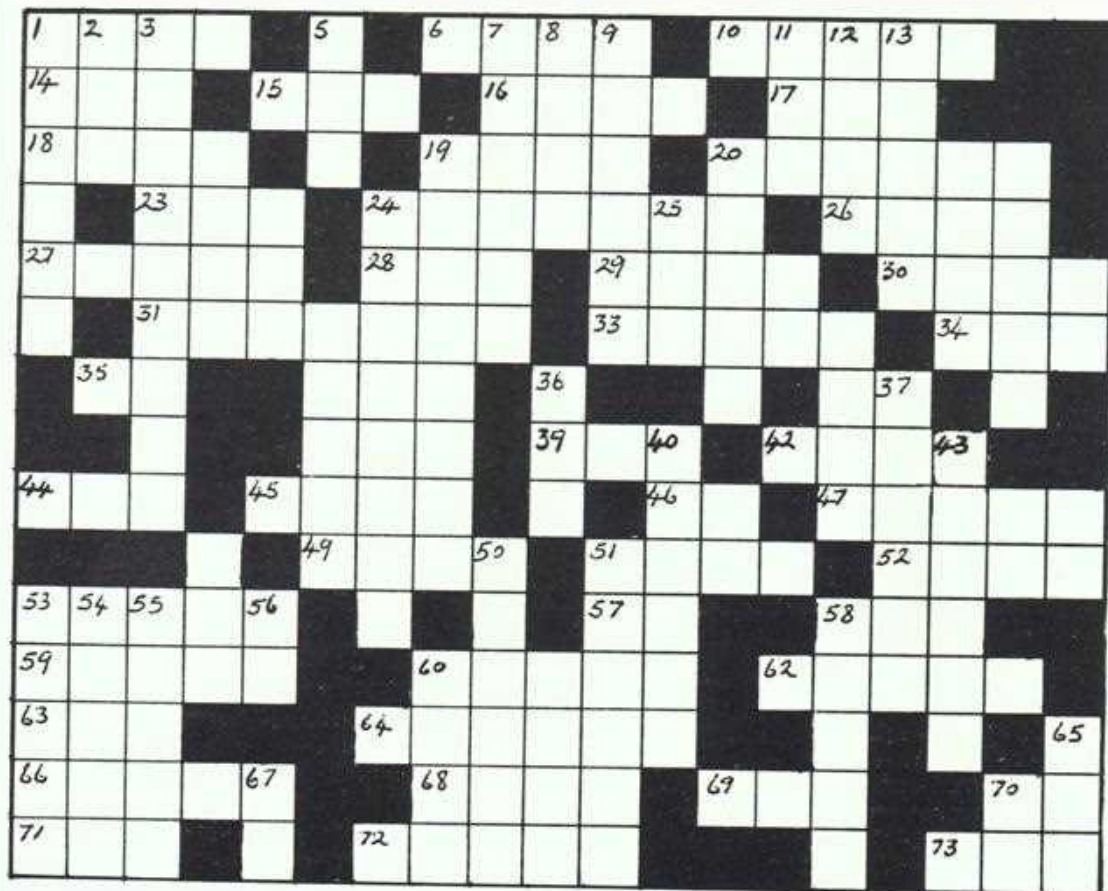
*Perth* — Distance to Fremantle 16km.

*Hobart* — Elevation of Mount Wellington, 1,270m.

*Canberra* — Height of carillon tower, 40m.



# RYTEWORD NO. 12



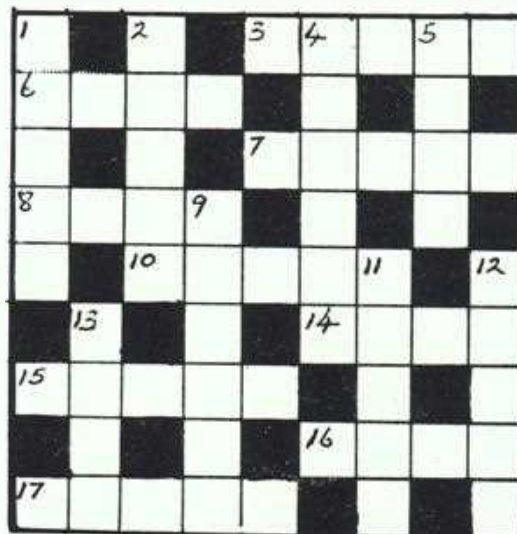
## JUNIOR CROSSWORD

PRIZE OF 50 CENTS FOR EACH CORRECT ENTRY.

1. Large Country of the Far East.
6. A seaman's call.
7. Tread heavily in walking.
8. Supports used by golfers.
10. A Girl's name.
14. Place for a ship to berth.
15. Roughly built wooden cabin.
16. To cut off small pieces.
17. A really great hit!

### CLUES DOWN —

1. Large Mediterranean island.
2. "Fruits" of pine and fir trees.
4. King killed at the Battle of Hastings.
5. Word by which a person is called.
9. These add flavour to our food.
11. In one's early years.
12. Leaps about merrily.
1. A close friend.





# 10 COMMANDMENTS FOR SAFER DRIVING

1. **THOU SHALT HEED THE STOP SIGN.**  
The octagon tablet that calleth on thee to pause and the lamp that turneth to red - hath real meaning to the wise; to wager thy years against a moment truly giveth thee the appearance of an idiot who knoweth not the odds. The lamp of amber doth call upon thee for caution; and heedest thou it not, the charm of luck shall depart from thee and thy days shall be long and miserable.
2. **THOU SHALT NOT EXCEED THE LIMITS OF SPEED.**  
Though the horses under thy foot be many, suffer them not to lead thee to thy destruction. Even though the Angel of Death rideth not on thy shoulder, the radar doth spot thee from afar, and his master shall carry thee before the magistrate.
3. **THOU SHALT NOT PASS WHEN THE WAY IS NOT CLEAR.**  
Thy life is surely thine own, if ye must cast it away, but thy wayfaring brother and the dependants that are his have no defence when thy juggernaut doth roar upon. They perish in the ruins; and thy ignorance shall not wash from thy hands the blood of those innocent people.
4. **THOU SHALT SHOW COURTESY UNTO OTHERS.**  
A journey unto the temple on the sabbath hath small meaning if the screeching wheels of the chariot doth make thy brethren cry out against thee. Thy blaring trumpet causeth not the objects in thy path to crumble; but verily, love doth depart from those who must leap into safety, and they shalt call maledictions upon they head.
5. **THOU SHALT NOT FOLLOW TOO CLOSELY.**  
Tailgating shalt not only put knots upon thy brow; it surely turneth thy grille work into junk. It causeth the insurance to zoom, and the police to looketh upon thee with disfavour.
6. **THOU SHALT STAY IN THY PROPER LANE.**  
The lanes that are marked for thy journey upon the highway are not for thy pleasure, but for thy safety. Weaving is the trade of the cloth maker; it is not that of the charioteer. It sendeth thy roadmates into ditch or pasture; and they loveth thee not.
7. **THOU SHALT DIM THY LIGHTS WHEN NEEDED.**  
The lamps of the chariot are of many candles. Shouldst they blind the eyes of thy roadmates, they shalt charge thee with the fury of a herd of elephants, for though they have eyes, they seeth not.
8. **THOU SHALT NOT DRIVE UNTO EXHAUSTION.**  
Thou shalt rest when thou are needful of it. Let not thy weary orbs deceive thee, nor pep pills be a prop unto thy tired brain; for they leadeth thee into eternity. And sleepeth thou at the wheel, thy earthly moments shalt be fewer than the mourners at the tomb.
9. **THOU SHALT KEEP THY HEAP IN GOOD CONDITION.**  
Thy chariot runneth not without attention. The counsel of him who careth for the crate, if he be worthy, is good; for he is mindful of its needs. Thy life mayhap, could be in the skilled hands that are his; and truly he hath the power to make thy journey carefree.
10. **THOU SHALT NOT DRIVE WHILE PARTAKING OF DRINK.**  
The fruit of the vine may refresh thee after the completion of thy journey, but touch it not while wheeling unto thy destination. It maketh thee a man of distinction only to thine own self; and it aideth greatly in making a widow of thy helpmate. It shalt cause thee to lie in dark dungeons; and thine innocent victims shalt moan, and shalt die upon the roadside.  
The above was submitted by Barry

Aspinall of the Laboratory. We have been unable to find the source of this material, and in the circumstances can only give acknowledgment to the unknown author.



PS

BERRIMA MARULAN



MEDWAY SYDNEY

SOUTHERN PORTLAND CEMENT LTD.

# — NEWSLETTER —

VOL. 1 — No. 4.

SEPTEMBER, 1972.

=====



The Helicopter used in the construction of the Filter Trap at Marulan Quarry.



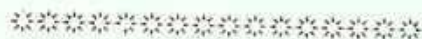
# S.P.C. NEWSLETTER

SEPTEMBER, 1972

VOL. 1 — No. 4

## — CONTENTS —

- |       |  |            |   |
|-------|--|------------|---|
| 1     | Editorial.                                 | 14         | Shattered Stone — The Australian Concrete Industry.         |
| 2-3   | The New Marulan Lime Kiln.                 | 15         | Farewell to Ron Tiyce.                                      |
| 4     | Home Safety Page.<br>Sydney Office News.   | 16         | Gardening<br>Cricket.                                       |
| 5     | New Apprentice Training Foreman.           | 17         | S.P.C. Entertainment Fund Balance Sheet.                    |
| 6     | Nature Notes.                              |            |   |
| 7     | Fishy Tales.                               |            |   |
| 8-9   | Dam Construction at Marulan South.         |            |   |
| 10-11 | Wollongong Apprenticeship Week Exhibition. |            |   |
| 12    | Junior Page.                               | Back Cover | Competition Results.<br>Safety Limericks.<br>Bits & Pieces. |
| 13    | More Exhibition Pictures.                  |            |   |



### REGULAR CONTRIBUTORS

BERRIMA . . .  
R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

SYDNEY OFFICE:  
Miss Lorraine Lucas.

MARULAN . . .  
W. McCallum.  
E. Cooper.

COLLIERY . . .  
M. Thorpe.

PHOTOGRAPHY . . .  
C. W. Knowlson.  
L. Humphries.  
C. Glacken.

EDITOR: C. W. KNOWLSON

Produced monthly by:  
Southern Portland Cement Ltd.

PRINTERS . . .  
"Berrima District Post", Moss Vale.

All-correspondence and enquiries to:—  
THE EDITOR,

S.P.C. NEWSLETTER,  
P.B.S. No. 4, Moss Vale, N.S.W. 2577.

### COPY DEADLINE:

28th of the month prior to the month  
of issue.



## Editorial

*During the Roman occupation of Palestine, a Roman could compel anyone to carry his pack, or some other burden for one mile. They very naturally took advantage of this law whenever possible.*

*I remember reading a poem of a boy who was compelled by a Roman soldier to carry his pack, but when the mile was up, instead of throwing the pack down the boy carried on for another mile. The soldier was very surprised, and could not understand why this native boy would do this, for an enemy. The boy explained, he had been listening to a wandering preacher whom some believed to be the promised Messiah. His preaching was different. He had said that they should love their enemies, and if compelled by anyone to go a mile, go two miles!*

*This attitude of going the extra mile, or giving and doing more than is normally expected, is sometimes looked upon with suspicion. Many people today cannot think that a person would do something for nothing.*

*I well remember a certain lady who worked unselfishly for others. On many occasions she was asked "What are you getting out of this?" Thinking of course of some monetary gain or worldly advantage.*

*The reward from going the extra mile is far greater than dollars and cents. It is a sense of satisfaction. The satisfaction that comes from knowing that the job has not only been done well, but has been carried beyond the bounds of obligation or reward.*

*In these materialistic days, and it must be truthfully said, days that can be very difficult for the ordinary "man in the street". The "get" attitude tends to predominate, but the "give" attitude, that little extra in all our relations with others, is the attitude that in the end is going to produce the true joy of living.*

*In our work, if we can go the extra mile at least once every day, whether we be employee or employer, relations will be smoothed, there will be still more "give" produced on either side, with the corresponding satisfaction and contentment.*



Mr. Ron Israel and Alan D. Smith who were engaged in the making of a film of the Dam Construction at the Quarry. Mr. Smith is the Manager of the Special Products Division of the Macdonald Hamilton Trading Pty. Ltd.



# THE NEW MARULAN LIME KILN

By I. D. Cairns — Project Engineer

The large open space that existed alongside the Calcimatic Kiln at Marulan is rapidly disappearing with the construction of our new F.L. Smidth-Simon Carves Rotary Lime Kiln.

Construction is well under way at the moment and a major stage in the overall project was completed at the end of August with the erection of the Kiln Shell.

In order to get the rigid support necessary for reliable kiln operation three kiln piers were erected. Piles were driven 115 feet into the ground down to the solid rock. At the discharge end of the kiln 16 piles were used, each one capable of being loaded to 100 tons.

The kiln shell, which is 275 feet long and 11 feet in diameter is at present being aligned, this is a "must", prior to the welding together of the five sections. The welding operation will be carefully supervised, and then followed up by a series of x-ray photographs. The X-rays are necessary in order to detect the presence of minor flaws not visible from the finished surface of the weld. Immediately the shell is completed, bricking will commence.

The steel frames of the majority of the Kiln Plant buildings have been erected and are at present being fitted out with individual items of equipment. Major items still to be erected are a 100 ft. high steel chimney stack and a radiant cooling loop. The latter will be used for reducing the temperature of the gas leaving the kiln before it enters the electrostatic precipitator. The cleaning efficiency of the precipitator has been designed to meet the requirements of the clean air act.

Places on the material handling system, which are likely to generate dust have been vented in order to prevent a dust nuisance.

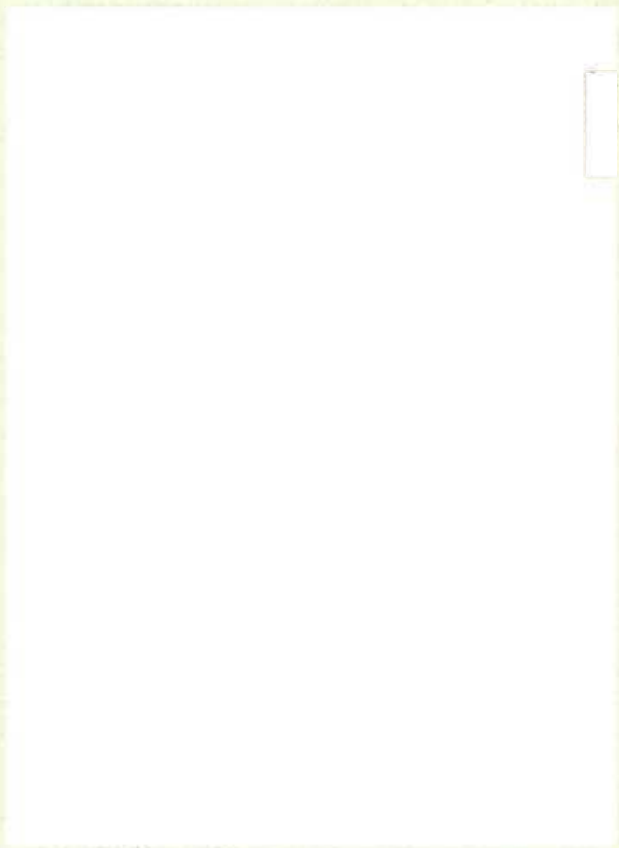
Electrical installation work has already commenced with the construction of a new 33KV switchyard which will supply low tension power to the kiln plant.

Very soon now, a team of electrical personnel will begin to lay some 30 thousand yards of power, control and instrument cables. They will be under the supervision of the S.P.C. Electrical Department.

Great emphasis has been placed on the automatic control of the new kiln. The existing control room will be used. Sophisticated equipment will monitor conditions remote from the control room and give a continuous indication of the lime burning process.

Commissioning and product guarantee testing are expected to take place early in January, 1973.

The pictures on this page and opposite give some idea of the construction work on the New Marulan Lime Kiln.









## HOME SAFETY PAGE

### RIDING A BICYCLE SAFELY

Recently in "Australian Family Safety" an article on riding a bicycle safely, caught my eye. All those who drive cars become acutely conscious of the wobbling cyclist very near to the uneven edge of the sealed road, and accordingly observe great care in passing.

Most bicycle riders in this country seem to be children or young people in their early teens. Unfortunately many of them do not observe the rules for safe cycling. This, of course, could be lack of training or lack of interest on the part of the parents.

Too often there are casualties, often the victim was riding a dark coloured bicycle without lights and wearing dark clothing. A comprehensive study of 400 bicycle fatalities revealed that in four out of every five cases the rider was violating a law or traffic rule. Many parents do not seem to realize that bicycle riders are supposed to obey traffic laws, and consequently many youngsters on bikes innocently break rules, jeopardizing their own safety. In most places, bikes are governed by the same laws as motor vehicles. The rider must obey traffic signs and signals, must signal to indicate turns and stopping, and in Australia, must ride on the left hand side of the road.

Parents can help a great deal in this matter. One father took a casual bike ride with his children, noted the good points, and the mistakes, and then over a glass of lemonade had a talk pointing out the safest ways in cycling, praising good performance, and showing them where they had made mistakes that could cause accidents.

Some children ride along the middle of the road, others on the wrong side, facing the traffic. Many accidents have been caused in this way.

#### *The Size and Condition of the Cycle*

As with a motor cycle or car, the condition of the bike can be a major cause of accident, injury and death. As a boy, the writer remembers being asked to use a delivery bicycle on an emergency errand that he had not previously ridden, on going down a steep hill he discovered that the brakes wouldn't work, and the bicycle ended up under a bus, the rider in this

instance being thrown clear! But it could have been otherwise.

One youngster had the chain on his bicycle snap as he was riding down a hill, out of control he rolled into an intersection and was killed by an oncoming car. His friends reported that he had complained of the chain being loose for several weeks!

Often a boy or girl can be seen trying to ride a bicycle that is too large, this can be extremely dangerous. Another practice that should be discouraged is two or more on a bike made for one person only. Riding a bike that is not the correct size means not having complete control, the same applies when a "passenger" is being carried.

Cyclists from the first should learn how to care for their machine. Every part should be checked regularly, especially, wheels, tyres, chain, brakes, lights, and reflector. The saddle should also be adjusted to suit the rider. Care in this way together with practising the rules of the road, will go a long way towards survival.

## SYDNEY OFFICE NEWS

With the de-merger of S.P.C. and A.P.C.L. we have moved to new offices in Walker Street, North Sydney, which have a marvellous harbour view:— it has been said that the office plan would have been more enjoyable to the greater number had the General Office been located along the side of the building with this view, strangely though the executive offices found their way to this side of the building!

There are many new staff members on the executive side and in office staff:—

Three new executive officers have been appointed from B.H.P., Mr. Williams our Assistant General Manager, Mr. Pirola as Manager Marketing and Mr. Green as Finance Manager. Mr. Green is taking over from Mr. Scott our Company Secretary who has accepted a senior executive position with A.I.S. at Port Kembla.

Office secretarial staff has completely changed in line-up recently having lost Mrs. Pat Scott from the Company. Rosemary Cooper is Mr. Michols and Mr. Williams' secretary and Jan Williams (yes that's the same girl not so long ago from Berrima) is secretary to Mr. Green. Lorraine Lucas is



Marketing Secretary and Dana Savovich is secretary to Mr. Peck our Accountant.

New members of the office staff are Linda Manning, our telephonist (Linda has worked with us on a temporary basis while Nance Carter was on holidays), Rhonda Berecny in the E.D.P. Department (an ex-A.P.C.L.-ite), Michael James our office clerk and Malcolm Channon, the right hand man to Don Millhouse in Despatch.

Carmel Young previously in the Debtors section is now our machine operator and telex machine operator. Les Stimpson has been appointed to the position of Accountant Services.

Mr. Hewitt our Sales Manager has recently become a grandfather, his new granddaughter being named Dana.

Les Stimpson is the proud father of a second son, David. Len Wilson is nervously awaiting the big event that will make him a "dad" for the first time.

With the weather warming up annual leave is again in vogue at Sydney Office.

Gail Fielder of the E.D.P. spent her holidays horse riding again, coming back to work beautifully suntanned — if only from the elbows to finger tips and chin up!!

Mr. Peck our Accountant took two weeks annual leave, bravely leaving our diligent workers in the General Office to carry on alone.

Tom Taylor couldn't match Gail's tan on return from his annual leave, but then he had holidayed in Melbourne. Even so Tom assures us that the Melbourne weather was warm enough to have an enjoyable vacation.

Welcome to Miss Rosemary Cooper, who is Mr. J. McNicol's new secretary. Rosemary started at Sydney Office at the end of June, just three weeks after her arrival from Bristol, England. This "News" is a little belated but the welcome is no less sincere. We hope that you will find your work enjoyable and settle down as a regular "Southerner" Rosemary.

### "SPURWAYS"

by Gail Fielder, Sydney Office

Recently I spent two weeks vacation at "Spurway Stables" which is a riding school at Penrith, about forty miles west of Sydney.

While I was there I assisted in looking after children who attend the school to learn

how to ride horses and get a general knowledge of horsemanship.

The second week, I practised dressage and general show-riding, in preparation for the annual open gymkhana for our district.

However, as we all know work is essential and I am now back at work in the E.D.P. section of Sydney Office.

## NEW APPRENTICE TRAINING FOREMAN

Mr. Jim Galloway was recently appointed to the position vacated by Mr. E. Radnidge earlier this year. In the interim Mr. A. Parker was acting foreman.

Jim Galloway started his Electrical Apprenticeship with Southern Portland Cement in 1944, finishing his time in 1948. He then served as Electrician. At that time both the Colliery and Marulan Quarry were worked from Berrima.

After his marriage in 1950 he moved to Marulan South, occupying a company cottage. At the quarry he was first Electrician, then Leading Hand, followed by the position of Relieving Production Foreman. Later he became Assistant Mechanical Foreman, and then Electrical Foreman for a number of years. He has now returned to Berrima, after 22 years. Soon he will be living in Moss Vale.

Jim's father was one of the original workers at the Colliery in 1927 where he worked for 37 years. He has been retired for some years. Altogether Jim, his father, brother, son and sister have served Southern Portland Cement for a total of 95 years!

Welcome back to Berrima Jim.



Mr. Jim Galloway on the extreme right. Left Mr. Leon Oberg, Goulburn Post photographer. Centre Mr. B. Rowley, 4th year Electrical Apprentice now posted to Marulan.



## NATURE NOTES

—Chris Sontner

### WATERFOWL AND THE HOSKINS RESERVE

On our eastern coast, wetland for waterfowl has rapidly dwindled. In consequence this reserve could be the best thing this district has had for many years. This whole magazine could be filled with facts and figures relating to the destruction of our coastal swamps through bad conservation policies such as mitigation, drainage, reclamation and so on.

Congratulations must surely be extended to the Hoskins family concerned and, considering the generosity, farsightedness and concern for our environment such a memorial as this could not be excelled. Whether or not the new Wingecarribee Dam (now under construction) will produce habitats suitable for water fowl is beyond my knowledge, but one thing is sure and that is the dedication of this section of the Wingecarribee River should prove a safe and worthwhile investment for the waterfowl in what is virtually our only suitable piece of wetland. We have it now so let us study it, use it and not abuse it through lack of interest.

Fortunately, I have, over the past few years become acquainted with the reserve and as a result have spent a considerable time bird watching. On cold winter evenings when the sky became filled with yellow light against clouds of deep grey the Ibis would come wheeling in to roost in the taller trees after a days foraging for food in the surrounding pasture lands. I do not know if any species of Ibis have been recorded as nesting in the Berrima District but both the Strawnecked and White Ibis can be found here most of the year. Ibis are known as farmers friends because they eat grubs and harmful insect larvae and they also help to check the grasshopper plagues. On the ground the Ibis is a grotesque-looking bird with a rather ugly head and a long heavy sickle-shaped bill, however, when the bird takes the air, this ugliness is transformed into one of beauty, especially in the White Ibis as the black-edged white wings against the sunlight become almost transparent.

Of course the Black Swan needs very little introduction but then it shouldnt be overlooked because it is an interesting bird

and has been a significant feature of Australia. The first recorded sighting of a Black Swan was when Antonie Caen, skipper of the Dutch ship 'Banda' sighted two black birds as stately as Swans and over 'a half a yard long'. According to the ship's log it was the 5th July, 1636.

Black Swans were at one time confined to Australia but they were introduced to New Zealand in the early 1860's and as a result became very successful and now on some lakes there are populations exceeding 80,000 birds. People are encouraged to take the eggs for home use and commercial use to help keep the swan population down.

At the Hoskins Reserve Black Swans can be found and there is a regular breeding of birds there, but as with all waterfowl, food is the governing factor controlling the population. The nest can either be found on the land or amongst the vegetation found in the swamp. When dry land is chosen it is usually in the form of islands. A bulky structure of swamp vegetation is made into a nest often 5 ft. in diameter where 4-10 large pale-green (when fresh) eggs of a slightly lustrous coarse-grained texture are laid.

Perhaps in the next issue of the "Newsletter" I could further outline more of the interesting birds that are to be found in this very important part of our district.

## FISHY TALES

I don't doubt that when the Shoalhaven River Scheme has been completed we could be in the same category for trout as in Lake Eucumbene. During the first few years after filling, Lake Eucumbene yielded some very large fish, due mainly to the new lush vegetation that provided their food. The number and quality of catches has now diminished, however it is still much more profitable for fishing than it was in "the good old days". This lake is open all the year round, but the general trout season will open on October 1st, and a licence is required. As a matter of fact an inland fishing licence is required for all inland rivers and lakes. The money received by the Government in fees goes towards fishing research and the production of Fingerlings for stream stocking.

If you have the opportunity it is extremely interesting to see the workings of





Picture taken by Chris Sonter on the Hoskins Nature Reserve.

the trout hatchery at Jindabyne in the Snowy area.

Recently I was attracted by an article on the Port Jackson Shark. The shark's egg is most peculiar from an egg point of view. Most eggs are oval and smooth, however, this particular shark's egg is blackish brown, like bakelite to feel and is spiral like a wood shaving or curl!

This description is about as clear as mud, but if you keep your eyes open when beachcombing, you may spot one of the egg shells. I understand that after the egg has been laid, the shark screws it into a crevice with her mouth to prevent washing away or any interference before hatching. Keep an eye open for these shells about October or November. I have seen many of these on the North Coast.

Get your hooks polished up for the approaching season!

#### INCHWORM

*Inchworm, Inchworm, measures the way,  
Inchworm, Inchworm, measures all day,  
One inch, two inch, three inch, four,  
It's exactly six inches to the open door.  
Inchworm, Inchworm, three inches long,  
I beg your pardon, I think I'm wrong,  
Suddenly a bird, oops! gulp!  
No more inchworm to measure the way.*

—Susan Ducksbury.

#### FERNS AND MOSS

*The dew, it sparkles like crystal  
Upon the feathery lace,  
And each drop falls as a molten tear  
On the moss's velvet face.  
Moss symbolises lowliness  
And is often frowned upon,  
But it soothes the ferns soft feet  
In return for shade from the sun.  
And in such places of quietness  
Where ferns and moss's dwell  
I loiter to hear and see the birds  
And breathe the dampness smell.  
For in these glades of pleasure  
There's no room for, coarse jest,  
And though man will not admit it  
He's taking all the best.  
Oh! Please help us to protect it  
That which we have left,  
So that all the wrens and Yellow Bobs  
Will have a place to nest.  
And high in the trees the birds can fly  
And the Possums freely roam —  
The ferns and moss's still endure  
And call the bush their home.*

Chris Sonter, 1972.



## DAM CONSTRUCTION AT MARULAN SOUTH

By Barry Armitt — Technical Assistant  
to Quarry Superintendent.

During 1969 various quarry development plans were drawn up and studied in great detail by B.H.P. and S.P.C. Officers. Naturally with these plans came follow up details on the proposed future dumping of approximately 40 million tons of mullock. Following these studies an application for an additional mullock dumping lease was made, however, for the first time in the history of S.P.C. the lease was not readily granted. After a long hearing in the Mining Warden's Court, certain conditions were laid down and these were to be met by the Company, prior to the granting of the lease.

One of these conditions was the construction of a filter trap on lease ML29 in accordance with a design proposed by Consulting Engineers, Longworth and McKenzie. The proposed site was approximately 1000 ft. below the working 1840 ft. bench and in a gorge between Barbers Creek and the quarry. After a number of feasibility studies, Company Management decided to use helicopters as a means of transporting men, equipment and materials to and from the dam site. The jet helicopter used during the operation was a Sikorsky S58T and is owned by Helicopter Utilities of Sydney. The whole operation was completed in the five days from August 30th to September 3rd.

The dam was built in two separate sections, each being separated from the other by a sheet of filter cloth placed at right angles to the flow of the creek. Each section was constructed of stone filled wire mesh baskets, technically known as Gabions, which were laced together to form a wall of unit construction. The wire which was used in their manufacture is heavily galvanised so as to give them a life span of 25 to 30 years, and more, depending on atmospheric conditions. In our case the life span should be at least 25 years.

Basically, the dam is 12' thick at the base, reducing to 3' at the top. It is 16' high and varies in width from 21' at the base to 42' at the top. The 350 tons of filling material was screened 8" limestone and it was flown to and deposited in the Gabions in 234 flights, that is, approx-

imately 3350 lbs. per flight. The purpose of the dam is to filter all silt from the water flowing into Barker's Creek, this being achieved by the strategically placed filter cloth. The primary purpose of the wall structure is to enable the complete passage of filtered water through the dam. However, it does serve a second major function which directly aids the filtering operation. This is to reduce or check the flow velocity of the creek water.

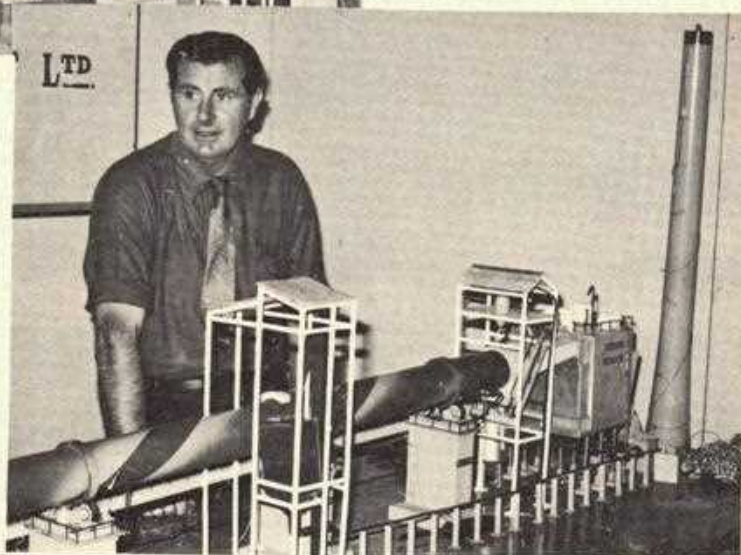
This operation was undoubtedly, potentially very dangerous, and the fact that no injuries were incurred speaks highly of the safety consciousness of S.P.C., especially those men who were directly concerned with the construction.











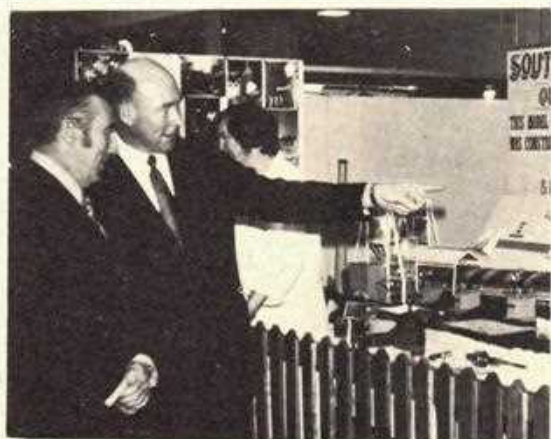


## WOLLONGONG APPRENTICESHIP WEEK EXHIBITION

Once again Southern Portland Cement took an active part in the exhibition. On Monday morning the 11th September Mr. Ernie Boyd left the Berrima Works with a truck load of exhibits and props. He was accompanied by Mr. Tom Aitken, rigger, Mr. T. Lymberry, carpenter, and Adrian Elton, second year apprentice carpenter. The above were joined by Warwick Best, fourth year electrical trainee, R. van Oss, third year electrical apprentice, Marulan, and David Moore, first year mechanical trainee. The new Apprentice Training Foreman, Mr. Jim Galloway, supervised the setting up of our display. Roger Goward who is now taking a post trades course joined R. van Oss and Mr. Galloway in caring for the S.P.C. display until the close of the exhibition on Thursday night, September 14th.

Apprentice Week was officially opened on Tuesday, 12th September, by Alderman J. F. Parker, Lord Mayor of Wollongong.

Representatives from S.P.C. were Mr. W. Parsons, Chief Engineer and Staff Training Committee Chairman, Mr. S. Marshall, Works Chemist, Berrima, and Mr. K. Delderfield, Marulan. The accompanying pictures tell the story.



More Pictures on page 13.



## JUNIOR PAGE

### 14,000 TEETH!!

Maybe you knew, but I didn't until recently, that the ordinary garden snail has over 14,000 teeth! They are not set in the jaw like the teeth of most animals, but arranged on a tongue-like organ called a Radula, in rows, and used like a saw. The snail belongs to the Mollusc family. The word "Mollusc" means soft. Mollusc is the name for one of the large groups of animals without backbones, those animals that are called invertebrates.

Most Molluscs, like the cuttlefish, whelk, octopus, limpet and marine snail, live in the ocean. However, some snails live in fresh water, and some live on land.

Most of these animals have hard shells. Some of the shells have beautiful colours. Some Molluscs grow to be quite large. One giant clam weighs 1,000 pounds, while the squid may grow to 50 feet in length. Molluscs do not have limbs. The snail for instance, moves along by expanding and contracting of the underside of its body. Lewis Carroll wrote about four young oysters who were —

*"All eager for the treat,*

*Their coats were brushed, their faces washed,*

*Their shoes were clean and neat —*

*and this was odd, because, you know,*  
*they hadn't any feet."*

The class of Mollusk to which the snail belongs is called Gastropoda. This name comes from two Greek words meaning stomach and foot. So we could say of the land snail, that its stomach was its foot. Some of the sea snails swim about by using the same kind of motion.

If a snail has to pass over broken glass, or any thing that is very sharp, it has no problem. The slimy trail you sometimes see, where one of these creatures has passed, shows how the snail smoothed its way by exuding a stiffish liquid. If the snail wants to crawl over the razor-like edge of a piece of broken glass, it coats it first with this thick slime, then over it goes without feeling a tickle. The snail is born in its shell, inside an egg no larger than a pin-head, in the case of the ordinary garden snail. In the case of the tropical species that grow to six inches, the egg is about the size of a sparrows' egg.

The snail's eyes are on the end of long horns sticking out from the front of its head, so it has no difficulty in seeing all around. When there is any sign of danger, it can pull in its horns instantly and squeeze its body back into its shell!

### IS YOUR BIKE SAFE?

1. Reflector: Its bright glow should be visible for 300 feet.
2. Steering Head: Check for correct adjustment and lubricate.
3. Tyre Valve: Inspect for leaks (a cap on the valve will retain air pressure).
4. Free Wheel Brake: Does it take hold quickly and brake evenly? If not, have a repairman adjust it.
5. Chain: Clean and oil. Adjust chain so there is  $\frac{1}{4}$  inch slack in lower part. Look for worn links, make sure guard is firmly in place.
6. Tyres: Inflate to pressure indicated, check for imbedded grit and pebbles, also smooth tread.
7. Crank: Clean and lubricate, adjust bearings if necessary.
8. Pedals: Bearings require lubrication and tightening, check to see if pedal treads need replacement.
9. Seat: Put at proper height for rider (legs, thigh and heel should form a straight line when heel is on lower pedal), then tighten.
10. Warning device: Can it be heard at least 100 feet away.
11. Fork Bearings: Lubricate, then adjust to assure easy steering.
12. Handlebars: Set for proper height, (Handlebar grips should be at right angles to handlebar stem and at about the same height as the seat).
13. Light: Must be visible from a distance of 500 feet.
14. Caliper Brake: Lubricate and adjust.
15. Wheels: Oil and tighten bearings and lock nut.
16. Spokes: If one breaks, have it replaced right away.

—From Australian Family Safety.







## SHATTERED STONE BECOMES A BONDING AGENT

(Continuing the article from Nat/Dev,

The Magazine of National Development on the Cement and Concrete Industry in Aust.

More than half the cement produced in Australia goes into the manufacture of concrete, a combination of coarse aggregate (stone) and fine aggregate (sand) bound together by a paste of cement and water.

Much of the concrete used for building and other engineering purposes is supplied in pre-mixed form by companies which specialise in the work. The pre-mixed technique was introduced into Australia in the 1930's and its application has grown enormously with the general expansion of industry and urban development.

The Concrete industry, like the cement manufacturing industry, requires large quantities of raw material, mostly stone and sand.

The most expensive ingredient is cement and a cubic yard of average quality concrete requires about 500 lb of it together with 1,900 lb of crushed stone, 1,320 lb of sand and 340 lb of water. These proportions vary depending on the type of aggregate available in different localities.

In 1967-68 total concrete production in commercial plants was 7,966,000 cubic yards and the cement used in this amounted to 1,756,000 tons.

By 1970-71, the corresponding volume of concrete produced had increased to 11,575,000 cubic yards — 2.6 million tons of cement.

In 1967-68, 5,997,000 tons of sand and stone were used in pre-mixed concrete production and other cement goods, although most of this amount was used by the pre-mixed concrete industry.

By 1970-71, the quantity of sand and stone used in the production of 11.6 million tons of pre-mixed concrete was about 8.5 million tons. Australian governments and local authorities and companies in all forms of industry and construction work have needed increasing quantities of concrete for

various projects and the pre-mixed concrete industry has responded to this need, setting up more than 400 plants in all States.

The National organisation for these companies is the National Ready Mixed Concrete Association of Australasia, whose 30 members have 325 plants distributed through the States as shown:-

New South Wales	128
Victoria	78
Queensland	34
(including Northern Territory)	
Western Australia	36
	<hr/> 325 <hr/>

It is estimated that about 105 plants are operated by companies which are not members of the Association. The 30 members of the Association produce 90 per cent of Australia's pre-mixed concrete.

The rapid increase in the quantities of pre-mixed concrete required by Australian Industrial growth is indicated conclusively by the doubling of concrete production in seven years from the 1964 figure of 5.5 million cubic yards to 11.6 million cubic yards in the 12 months to June 1971.

Cement also finds a growing use in the manufacture of building bricks and roofing tiles. In 1970-71 the number of concrete bricks produced in Australia was 48.2 million but this was relatively small compared to the 1,670 million clay bricks produced that year.

However production of concrete blocks measuring 16" x 8" is even larger than that of concrete bricks with a total of 65.3 million for 1970-71.

In tile production, the concrete type has production figures roughly two-and-a-half those for its terracotta counterpart. In 1970-71 production of concrete tiles reached 127.4 million compared with 50.9 million for the clay product.

Both the cement and concrete industries which are so integral a part of Australia's national development are geared to produce their products for the country's increasing construction needs. Their strong growth will undoubtedly continue as will their employment of more workers and their demand for raw materials.





Re  
Re  
an  
he  
ho  
Re



# GARDENING NOTES

## FOR SEPTEMBER

- FLOWERS:** SOW: Alyssum, Antirrhinum, Candytuft, Carnation, Coreopsis, Cornflower, Dianthus, Godetia, Hollyhock, Larkspur, Linum, Mignonette, Nemophila, Petunia, Phlox, Salpiglossis, Sweet Sultan, Sweet Pea.  
PLANT: Antirrhinum, Carnation, Dianthus, Cornflower, Lupin, Petunia, Phlox, Gladioli, Lilium.
- VEGETABLES:** SOW: Broad Beans, Broccoli, Cabbage, Silver Beet, Carrot, Onion, Peas, Parsnip, Parsley, White Turnip, Leek, Lettuce, Tomato, Herbs.  
PLANT: Cabbage, Herbs, Jerusalem Artichokes, Onion, Rhubarb, Potato, Lettuce, Tomato.

September and Spring!! This is the Golden Month with Wattle, Daffodils and Forsythia in bloom and the air perfumed with Violets and Viburnum flowers. In the mornings we waken to the carolling of Magpies, the singing of Honey-eaters and Thrushes and the twittering of Wrens and Thornbills. Most Summer blooming annuals are planted this month, with the exception of those which are subject to frost and can safely be left for another few weeks. Flowering Peaches, Apricots and Plums should be pruned as soon as the flowers have faded to keep the trees in good shape. The new growths will carry the flower buds for next Spring. Early Cherries and Crab Apples will flower this month, in fact most of the Cherries should be in bloom by early October. Lawns can be top-dressed during September and any bare patches can be sown with seed. Keep an eye out for aphids on the new growths, particularly roses, and deal with these promptly. Keep the weeds down in the vegetable garden and try a few early tomatoes but be sure to cover them on clear, frosty nights, and see that the soil around the young plants does not dry right out. Bait now for snails and slugs.

## CRICKET — SUNDAY 24/9/72

### S.P.C. — BATTING

L. Veal	Bowled	Mann	69
R. Boyd	"	Townsend	38
D. Easter	"	Carol	4
S. Easter	"	Carol	12
W. Hutchings	"	David	0
D. Moore	"	Carol	4
B. Croese	"	Carol	0
R. Shead	"	Mann	0
T. Wade	Not Out		3
Bye's			4
No Balls			9
<b>TOTAL</b>			<b>143</b>

### S.P.C. — BOWLING

David	1 - 8
Mann	2 - 30
Townsend	1 - 36
Carol	4 - 49

### MOSS VALE — BATTING

McGuinness	Bowled	Easter	9
J. Townsend	"	Easter	38
R. Carol	"	Moore	44
P. Mann	"	Moore	31
J. David	Retired		17
R. Moore	Not Out		25
R. Paull	Bowled	Hutchings	4
R. Franklin	"	Hutchings	0
M. Carol	Run Out		4
No Balls			1
Bye's			2
<b>TOTAL</b>			<b>175</b>

### MOSS VALE — BOWLING

Boyd	0 - 27
Easter	2 - 34
Easter	0 - 8
Hutchings	2 - 3
Moore	2 - 32
Wade	0 - 35
Veal	0 - 26



## SOUTHERN PORTLAND CEMENT LIMITED ENTERTAINMENT FUND

## BALANCE SHEET AS AT 30th JUNE, 1972

1971		1972		1971		1972
1,246.54	Accumulated Funds 30-6-71	1,362.70		1,114.96	Cash at Credit Union	1,240.75
116.25	Surplus for year ended 30-6-72	88.04		3.00	Petty Cash	3.00
40.00	Sundry Creditors	6.56		9.73	Sundry Debtors	28.00
				77.97	Stocks — Soft Drinks	49.19
				5.64	Empty Bottles	5.76
				11.60	Crates	10.80
				179.80	Two Trainers	299.80
					Less Prov. For Depreciation	180.00
						119.80
<u>\$1,402.70</u>		<u>\$1,457.30</u>		<u>\$1,402.70</u>		<u>\$1,457.30</u>

In my opinion the accompanying Statement of Income & Expenditure and Balance Sheet give a true and fair view of the state of affairs of the fund, according to the information and explanation given to me and as shown on the books of the fund. Two items that members are asked to consider are:— (1) In view of the expenditure necessary to keep the train running during the past year, it may be necessary to review charges made to outside organisations for its use, and (2) The handing over of all the bookkeeping work to the Credit Union. This would be handled by the Credit Union for an additional 10c per cheque, resulting in a total charge of \$4-\$5 per year.

O. F. Jacobson.

O. F. JACOBSON, HON. AUDITOR.

## INCOME &amp; EXPENDITURE ACCOUNT FOR YEAR ENDED 30th JUNE, 1972

1971		1972		1971		1972
	Income was received from:				Funds were spent on:	
1,210.95	Members' Subscriptions	1,391.20		1,174.93	Presents and Prizes	1,296.72
530.70	Income from Soft Drinks	1,273.73		590.82	Foodstuffs	493.99
	Less: Cost of Sales	819.00			Loss on Locomotive	61.25
				57.90	Sundry Christmas Expenses	83.95
159.60	Proceeds of Raffle	174.90		50.00	Donation to Dinner Dance	50.00
153.00	Donations	100.00		6.80	Bank Charges	1.00
56.12	Profit on Locomotive Hire			60.00	Depreciation on Trainers	60.00
	Interest from Credit Union	57.09		8.71	Sundries	13.80
	Rebate on Cheques	1.66		19.96	Insurance	20.33
					Credit Union Membership Fee & Shares	10.50
				116.25	Surplus to Accumulated Funds	88.04
<u>\$2,110.37</u>		<u>\$2,179.58</u>		<u>\$2,110.37</u>		<u>\$2,179.58</u>



## RESULT OF RYTEWORDS No. 12

The editor apologises for the mistakes, i.e. clues or numbers missed. However, these naturally were not taken into consideration in the checking of the crossword.

No one submitted a correct entry. Mrs. G. Brooks and Mr. N. Taylor had one mistake, and will be awarded a prize of \$2.50 each.

Five other entrants had two mistakes and receive \$1 each. They are: Mrs. B. Seville of Mittagong, Mr. Max Thorpe, Cathy Brooks, Frank Smith, Bill Brooks, Mrs. T. Pearson and Mr. T. Sharkey.

The clues with alternative answers were:

5 Down: Usually found on Council property—  
TIP, BIN.

65 Down: This may cause trouble on busy roads — WET, PET.

6 Across: May upset cattle — RAMP, LAMP, CAMP, DAMP.

44 Across: One usually finds animals in —  
DEN, PEN.

73 Across: One would expect to see at dump—  
RAT, CAT.

The first answer in each case is the one favoured by the judges.

## THIS MONTH WE RETURN ONCE AGAIN TO SAFETY LIMERICKS

To make freedom from mishap your goal,  
Keep each step of your job in control!  
A High price you may pay,  
If you let your mind stray

.....  
Add a last line of nine syllables rhyming  
with "goal".

Send your entry to the Editor not later than  
13th October.

1st Prize \$5; 2nd Prize \$3 and Five Prizes  
of \$1 Each.

## WATER

*Water runs in streams and rivers,  
To trickle down the lush green hills,  
Water also comes from clouds,  
Like little men in milk white shrouds,  
Dripping down from leaf to leaf,  
With a rythm all its own.  
But sometimes from our tear ducts  
Water shows much grief.  
Sometimes water isn't liquid,  
But cold and icy just like snow,  
Water drops on spiderwebs,  
With such a pretty pattern.  
Raindrops patter on the roof,  
So round, so soft and sweet,  
Different from the icy drops that meet our  
faces!*

—Susan Ducksbury.

Susan will receive one dollar.

## THE S.P.C. ENTERTAINMENT FUND

The S.P.S. Entertainment Fund annual picnic will be held on the 17th December, 1972, at the S.P.C. Oval.

Any employee not in the fund should contact Mr. K. Moore at Berrima or Mr. A. Cooper at Marulan as soon as possible, if they wish to become members for this year.

Included in this issue is the Balance Sheet for 1971-72.

More details of the picnic will be published next month.

Owen Fairbairn,  
Hon. Sec.

## JUNIOR CROSSWORD RESULT

Six contestants will receive 50 cents each. They are:— Carlene Seville, Christine Staubner, Mark Thorpe, Wayne May and Paul Staubner, Mark Thorpe, Wayne May, Paul May, and Douglas Eirth. Congratulations!

## COMPETITION FOR THIS MONTH

Write a verse of four lines or more if you wish, about your pet. Prizes of 50 cents each. Send to the editor.

## WEDDING

Apprentice A. Traynor was married to Margaret Shipman of Mittagong on August 22nd.

We wish the newly married couple every happiness.

Mr. and Mrs. Traynor wish to thank all Tony's workmates for the wedding present and good wishes.

## BITS AND PIECES

Andrew McNicol, second son of the General Manager, has received an invitation from the Richmond Football Club to train with them. Richmond is one of the top Victorian Australian Rules Football Clubs.

Andrew attends school in Melbourne where he is in Fifth Form as well as playing Ruck in the school football team. Prior to going to Melbourne, he played in Bowral Under Age rugby league teams and will be remembered by our younger apprentices.



ps

BERRIMA MARULAN



MEDWAY SYDNEY

SOUTHERN PORTLAND CEMENT LTD.

# — NEWSLETTER —

VOL. 1 — No. 5.

OCTOBER, 1972.

---



The new S.P.C. Employee's Credit Union premises in Argyle Street, Moss Vale. Alterations and renovations are now almost completed.



# *S.P.C. NEWSLETTER*

OCTOBER, 1972.

VOL. 1 — No. 5

## — CONTENTS —

- |      |  |    |   |
|------|--|----|---|
| 1    | Editorial.   | 15 | News from Mr. E. Radnidge,<br>Car Hints,<br>Obituary. |
| 2    | Southern Cement and the Snowy Scheme,<br>S.P.C. Hockey Club. | 16 | Junior's Page.  |
| 3    | Cricket Snaps.   | 17 | New National Parks.                                   |
| 4    | At First There Was Gold.                                     | 18 | European Tour.  |
| 5    | Heard on the Grapevine.                                      | 19 | Pithy Sayings.  |
| 5-7  | S.P.C. Employee's Credit Union.                              | 20 | Gardening Notes.                                      |
| 8    | Apprentice Parents' Day at Berrima.                          | 21 | Fishy Tales.  |
| 9-13 | Pictorial Section — Apprentice Day.                          |    |   |
| 14   | Metric Page.   |    | Back Cover Rytewords No. 13.                          |

### REGULAR CONTRIBUTORS

#### BERRIMA . . .

R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

#### SYDNEY OFFICE . . .

Miss Lorraine Lucas.  
Mrs. Dana Savovich.

#### MARULAN . . .

W. McCallum.  
E. Cooper.

#### COLLIERY . . .

M. Thorpe.

#### PHOTOGRAPHY . . .

C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:  
Southern Portland Cement Ltd.

### PRINTERS . . .

"Berrima District Post", Moss Vale.

—oOo—

All correspondence and enquiries to —  
THE EDITOR,  
S.P.C. NEWSLETTER,  
P.B.S. No. 4, Moss Vale, N.S.W. 2577.

### COPY DEADLINE . . .

28th of the month prior to the month  
of issue.



## EDITORIAL . . .

*The word "handy" means something that is exceptionally useful, it is derived from the word hand. We have all had the experience of having to wear a dressing on one of our hands, and if it happens to be on the end of a thumb or forefinger we make a poor show in the performance of our duties. It has been truly said many times that we do not realise the importance of our hands until we are prevented in some way from using them effectively.*

*Some weeks ago our Safety Office, Mr. Les Humphries presented a film at the safety meetings on the subject of "hands". All who saw it came away with the conviction that we should exercise a great deal more care in the preservation of these most useful of all our appendages.*

*I contacted Mr. Jack Douglas our Ambulance Room Attendant. He informed me that lacerations, scratches and other minor injuries to the hands averaged about thirty each week, this just, on the plant. In our homes how many of us go through a week without having to apply one or more dressings! At work gloves, and Barrier Cream are provided, and it is wise to make use of these if the particular job merits it.*

*At home we can check for hazards, the "safety consciousness" we develop at work should be allowed to overflow into our homes, so that our families "catch" it.*

*It has been truly said that "hands are the key to mastery". Our very lives depend on our hands. They are used for work, recreation, dressing, and so on, when the brain, the eye, and the hand work together we can indeed "master" our job, whatever it may be.*

*In consequence we have the masterpieces of art, music, literature, and architecture. The complex and innumerable creations of man, the skilled worker engaged at his daily work.*

*Indeed, our hands are very precious. let us take care of them!*



**Some of the children amuse themselves during the recent cricket match between Marulan Quarry and Berrima Plant.**



## SOUTHERN CEMENT AND THE SNOWY SCHEME

A few years ago the American Society of Civil Engineers named seven Engineering Wonders of the World. They included the Snowy Mountains Scheme of Australia!

It should give a great feeling of satisfaction to every worker at Southern to know that in doing their "bit" they have helped in the creation of this engineering "Wonder". Ninety five per cent of the cement used in this great scheme came from our cement plant at Berrima.

The works extend over an area of about two thousand square miles of mountainous country. When completed, there will be 50 miles of aqueducts, over 90 miles of tunnels, 16 large dams, 2 pumping stations and 7 power stations. Hundreds of miles of transmission lines interconnect the power stations and transmit electricity to the supply systems of New South Wales, Victoria and the A.C.T.

The Snowy River and its tributary, the Eucumbene, have been diverted through two transmountain tunnel systems driven westward under the Great Dividing Range. They feed the two inland rivers, the Murray and Murrumbidgee, enabling greatly increased irrigation expansion in their valleys.

As the waters pass through the Divide, they fall, 2,600 feet through shafts, tunnels, and power stations.

Thus we have the two major aspects of the snowy scheme. First supplementary, peak-load power, available for home and industry. Second, a greatly increased flow of water for irrigation purposes.

The overall benefit to the Murrumbidgee has been assessed as equivalent to 1,120,000 acre feet per annum, and to the Murray, 800,000 acre feet per annum.

From the outset the Snowy Mountains Authority adopted the system of constructing major works by contract, leaving the Authority's staff free to concentrate on investigation, design, preparation and supervision of contracts. The Authority maintained a field-force to carry out site preparation, provision of access to individual projects and construction of townships and camps to house the work force.

The Scheme has attracted world-wide interest from engineering organisations. The acceptance of tenders from overseas groups brought to Australia specialised teams skilled in every aspect of the work, and backed by many years of experience. Even in the face of this competition Australian companies have been able to compete, and have won a large share of the contracts.

Under the Commonwealth states agreement of 1958 the Snowy Mountains Council was constituted as a separate organisation to direct and control the operation and maintenance of the complete permanent works of the Scheme. The council is composed of two representatives of the Commonwealth Government, two of the Authority, and two each of the States of New South Wales and Victoria!

The Works Operations Centre and headquarters of the maintenance personnel is situated in Cooma but many of the employees reside in the regional townships.

The photographs in our August and September issues are reproduced by Courtesy of the Snowy Mountains Hydro-Electric Authority, to whom we are also indebted for information regarding the Scheme.

—oOo—

## SPC HOCKEY CLUB

All persons interested in the formation of a Hockey Club, are requested to notify Mr. E. Johns or Mr. W. Gale as soon as possible.

If sufficient interest is shown, a meeting will be held in the former hostel rooms on a date to be arranged. All employees are eligible, also members of employees families. It is hoped that a team or teams could be entered in the Men's District Competition in 1973.

Boys 15 years and over who are not playing winter sport will also be welcome to join the team.

Coaching will be available so do not let the fact that you have not played before, hold you back. Don't forget contact Mr. E. Johns or Mr. W. Gale as soon as possible.







## AT FIRST THERE WAS GOLD

Although copper is now the most important mineral mined at Tennant Creek it was gold which engendered initial interest. The first recorded discovery of gold in the area was made in 1864 by a South Australian geologist named Brown, who accompanied a gold-seeking expedition from Adelaide.

More promising gold shows near the Adelaide River in the Northern Territory diverted the attention of prospectors and it was not until the 1920's that Tennant Creek's gold again attracted interest. Alert Aborigines in the area are reported to have triggered off the interest when they brought some rock samples to an Overland Telegraph Officer at Tennant Creek.

Assays were good and Tennant Creek became a target for the eager groups of gold prospectors of the era. Rapidly new names appeared on the map — Cat's Whiskers, Golden Chance, Black Eye, Hidden Mystery, Shamrock and Great Western, to name a few.

In 1931 payable gold was discovered. By 1935 140 leases were being worked by gougers but many proved unsuccessful. Two who were lucky were Jack Noble and Billy Weaber. They discovered Noble's Nob, described as the richest goldmine for its size in the world.

Only now does Noble's Nob worked by Australian Development Limited, appear to be close to exhaustion. It must have been intuition because Weaber was blind and Noble had sight in only one eye! Intuition or otherwise, Noble considered his find promising enough to sink a shaft by the laborious hammer and tap method in hard hematite without encountering significant values above 50 ft.

On the failure side was a former R.A.F. pilot, Sam Somerfield, holder of British Pilot's Licence No. 3, who flew the first aircraft into Tennant Creek in 1931. He searched in vain for gold at Mary Lane and tried unsuccessfully to establish Tennant Creek's first air service.

Near Orlando mine the remains stand today of Dolly Pot Inn, believed to have been the smallest licensed premises in Aust-

ralia — 12 ft. by 10 ft. In a shack nearby lives pensioner Ernie Skein, last licensee of Dolly Pot Inn. He still gouges for gold.

In the 1930's there was extensive digging in the Warramunga field which contains Noble's Nob and the Peko mines. The gold won in this era was "secondary" being derived from ironstone lodes by weathering and erosion and redeposited either in the iron stones or the adjacent sedimentary rocks at some lower depth.

Mostly as mining proceeded downwards the ore grade dropped and working became uneconomic. Eldorado, now abandoned, and Noble's Nob were the exceptions. Noble's Nob was a very Deep mine by the standards of the 1930's.

The only outcropping deposit in the Warramunga field was found in 1935 by a Polish prospector Joe Kaczinsky, who named it Peko after his Pekingese dog. It is the mine which since has produced copper, gold, bismuth and silver.

Peko has served as the hub for Tennant Creek mining development and now there are five producing mines — Peko, Orlando, Juno, Noble's Nob and Ivanhoe — and two others almost ready for production — Gecko and Warrego.

(from NATIONAL DEVELOPMENT MAGAZINE.)







### HEARD ON THE GRAPEVINE . . . .

Whilst Doug Taylor, Quarry Plantman, was out fishing in his boat recently, he lost the propellor. He was out all night but was found by a search party 12 miles south of Bateman's Bay on the following morning. Fortunately he had oars and had managed to row himself in.

★

Bill Beaton of the Colliery has taken a month's long service leave in order to show his brother from Scotland something of Australia. Bill's brother, Donald, has worked as under-manager in various collieries in Fifeshire and Lothian, Scotland. He has now retired.

★

Twin sons were born to Bob and Jenny Krahenbuhl on the 8th October. They already had two daughters. The boys will be named Andrew and Stephen, brothers for Susane and Wendy.

★

The first social function was held in the new extensions of the Marulan South Bowling Club on Saturday, 7th October.

★

The editor recently met your former editor of S.P.C. Newsletter in Moss Vale, Mr. B. Creswick. He is still in journalism, and has recently moved to Hurstville. He asked me to convey his best wishes to all friends.

★

Bill Meredith of the Colliery retired on the 20th of October after 24 years service. For many years he was a contract miner. Since mechanization he has worked on the surface. Bills' main interest is the breeding of trotters. S.P.C. and all mates and friends wish him a very happy retirement.

## SOUTHERN PORTLAND CEMENT LIMITED

### EMPLOYEES CREDIT UNION LIMITED

#### NINTH ANNUAL GENERAL MEETING

On behalf of your Directors, I am pleased to present this report on our Credit Union's activities during the year ended 30th June, 1972.

A Balance Sheet and Income and Expenditure Account has been forwarded to each member and we urge you to read fully and examine the information therein so that you may judge for yourself the progress that has been made.

#### MEMBERSHIP

An increase of 79 new members has brought total membership to 657 and applications since that date have added to this figure.

#### SAVINGS

Savings increased by \$46,320 during the year but even this increase was not sufficient to meet Loan Requirements.

#### LOANS

An increase in loans of \$80,406 called for the use of our Credit Union's borrowing capacity. A point worth remembering is that the Credit Union would prefer to borrow from its members rather than seek funds elsewhere. An extra \$2 per week in each member's savings would put us on top of the world.

#### CREDIT COMMITTEE

Decisions made by this committee before it makes recommendations to the Board are based on three fundamental principals:-

1. The character of the applicant.
2. The need expressed in the application.
3. The ability of Applicant to repay.

Perhaps the most difficult to assess deals with the ability of the member to repay the loan.

Overcommitment is prevalent in society and your Credit Committee does not wish to add to this. However, we are often inclined to look for minimums when offering to repay loans and it sometimes becomes necessary for the committee to recommend increases. If this should happen, remember



that it is done to save you money, by cutting interest costs and to help others whose ability to repay may be slightly less than your own.

### **BAD DEBTS**

Written off during the year was an amount of \$845 while the Provision for Bad or Doubtful Debts was increased by \$4,500. Concern for this position is always present and every endeavour is made to safeguard Member's funds and to recover Bad Debts even after writing off. Evidence of this can be found in the amount of \$463 recovered.

### **CREDIT UNION OFFICE**

Highlight of the year was the purchase by the Credit Union of property at 226 Argyle Street, Moss Vale, and the setting up of our Registered Office at that address.

Our Manager and Staff are to be congratulated on their handling of what must at times have been a seemingly impossible task. To move a business of this size and maintain services without a hitch while dodging builders engaged in renovations is truly a "Gold Medal" performance. We thank you Mr. Tom Richards, Mrs. Jenny Martin, and Miss Kathy Cupitt.

### **BOARD OF DIRECTORS**

My personal thanks to my fellow directors for their support and co-operation during this term. Their efforts and concern for the handling of your Credit Union should not go unrecorded.

### **CONCLUSION**

As Neville Daniels, our local Chapter personality says:-

*"Every man on earth is entitled to have enough to eat and drink, and sleep with a roof over his head. Let's not become complacent and self-satisfied with our own tidy little Credit Union. We are among the privileged citizens of the world and we owe it to our brothers to share the Credit Union Movement with them".*

W. STRONG.

**The Credit Union Board of Directors is made up as follows:-**

W. Strong - Chairman, L. Humphries - Secretary, L. Bush, O. Jacobson, J. King, I. Cairns, R. Knapman (who is newly elected) S. Murphy (Marulan), J. Bell (Colliery)

The Annual Meeting was not well attended, the reason for this was, no doubt, partly due to the fact that it was a holiday weekend.

This is not intended to be a complete report of the meeting, but by reading the accompanying report of the Chairman, members will realise that our Credit Union is a healthy and growing concern.

The special resolution placed before the members was adopted. This provides that an employee of an employer located within the area serviced by the Berrima County Council, and who can arrange payroll deductions for savings and loan repayments can become a full member of the Credit Union. This also applies to the family of a Credit Union member i.e. wife, husband, daughter, son, mother, father, sister or brother.

Even if a member of the family does not reside in the family home, providing the above arrangements can be made, he or she can become a full member. If the deductions cannot be arranged through the employer when a person is not residing in the family home, that person can be still a member, but not borrow more than he or she has in the Credit Union including savings and share capital.

The rules provide for members to have continuous membership regardless of where employed, in other words, once a member always a member.

It is recommended that anyone in doubt should contact any one of the directors. They will be pleased to pass on information and help all they can.

The pictures in this issue will give readers a general idea of the new Credit Union Registered Office at 226 Argyle Street, Moss Vale.

One item in the Chairmans Report particularly drew my attention, to quote "A point worth remembering is that the Credit Union would prefer to borrow from its members than seek funds elsewhere. An extra two dollars per week in each member's savings would put us on top of the world".

Mr. Tom Richards the Manager of the Credit Union has far more than a full-time job, even so he will do his best to advise and guide, as will any of the directors. You will also find that Mrs. Jenny Martin and Miss Kathy Cupitt of the Credit Union Office will give the best of service.





Some of the Credit Union Directors left to right — Mr. L. Humphries, Mr. W. Strong, and Mr. J. King. Far right, Mr. R. Knapman.



Left — Credit Union Manager, Mr. T. Richards; above — Mrs. J. Martin and Miss Kathy Cupitt.



## APPRENTICE PARENT'S DAY AT BERRIMA

On Saturday 23rd September, many parents and friends gathered in the Machine Shop and were able to see apprentices at work. Exhibits made by apprentices included the model of No. 5 Kiln, a hydraulic shop crane from Marulan, a painting of the works and many others.

Morning tea was served at 10 a.m. by Mrs. Zaranski and her helpers, who, as usual, did a wonderful job.

The new Apprentice Training Foreman, Mr. Jim Galloway then introduced Mr. F. L. Veal, Works Manager, and former Chairman of the Staff Training Committee. Mr. Veal welcomed all parents and friends. He said it must be a great encouragement for the parents to see where the boys worked and actually see some of them on the job. He then introduced a new-comer to S.P.C. namely Mr. Rex Williams, Assistant General Manager, who came to us from B.H.P.

Mr. Williams mentioned that steel was only one part of B.H.P. now. Oil, Gas and minerals having made tremendous growth in the activities of the Company. Minerals becoming more and more significant. He indicated that with B.H.P., S.P.C. had a good future.

Mr. Williams then referred to the words of Mr. W. Gale printed in the Brochure, particularly in the matter of education and technical training. To his mind they were very appropriate. He went on to say that to some extent we were all conformists but we should not conform to the average. We must set a standard of achievement, and it must be set higher if we want to become better than average. He concluded by passing on Mr. J. McNicols best wishes, and emphasizing that it was hoped to make this plant one of the most efficient in Australia.

Mr. W. Gale, Acting works Superintendent was introduced. He said that being a tradesman, is something that an individual can take great pride in, and a tradesman who takes pride in his work is one in whom the company can have confidence.

In order to achieve steady progress we must work as a team, for the only way we

can compete with others is through increased productivity. Mr. Gale's message to all apprentices was "take your training seriously".

Mr. W. Parsons, Chief Engineer, and recently appointed Chairman of the Staff Training Committee, then introduced the film "Solstice" obtained at very short notice by Mr. Williams from B.H.P.

The film, depicting the wildlife off the coast of Southern Victoria and in the Bass Strait was of outstanding quality and appeal. The use of infra-red film, which is sensitive to heat and light as distinct from normal film, which is light sensitive only, gives the film an eerie quality of colour that is very unusual.

Mr. Parsons congratulated all apprentices, especially the prizewinners, and sincerely thanked all parents and friends for their interest in the apprentices.

Mr. J. Scott who, by the time this is in print will have left S.P.C. to take up a senior commercial position with A.I.S. said that during the years that he was Chairman of the Staff Training Committee, he had gained great respect from the Apprentices who worked and studied hard, and came through successfully. He concluded "I am sorry that I am leaving S.P.C. thank you all, for your co-operation".

Afterwards apprentices, parents and friends toured the plant. Altogether it was a rewarding and successful day. The photographs in this issue will serve as a pictorial reminder.

---

Left to right.

Top row — Mr. R. Williams, Assistant General Manager, Mr. F. L. Veal, Works Manager, Berrima, Mr. W. Gale, Acting Works Superintendent.

Second row — Mr. K. Delderfield, Quarry and Lime Plant Engineer, Mr. K. Howard, Executive Officer, Mr. J. Galloway, Apprentice Training Foreman, Mr. W. Parsons, Chief Engineer and Chairman of the Staff Training Committee.

Third row — Mrs. Zaranski and her helpers, Mr. K. Graham, Maintenance Foreman.

Fourth row — Mr. Tony Cosgrove, Maintenance Planning Officer, Marulan, Mr. R. Greaves, Assistant Works Chemist.

---









On this and the following pages are photographs taken on Apprentice Parents Day. Let us know if you would like a copy of any photograph.



















## METRIC PAGE

Within the framework of the Metric Conversion Board 11 Advisory Committees, and some 90 Sector Committees have so far been established to help plan conversion in particular sectors.

The Sector Committees develop the basic programs while the Advisory Committees co-ordinate their work and refer proposals to the Board for ultimate inclusion in overall plans.

### PRIMARY INDUSTRY

The Grains and Seeds Sector Committee has reviewed progress in coarse grains, seeds, oil seeds, etc. Rice, Wheat, Oats and Barley will be handled in metric quantities from the commencement of the next harvest, in all States, from November onwards. The rice harvest recently concluded was metric and no reaction from farmers was noted.

Maize, Sorghum, Sunflower and similar crops will follow on from the commencement of the next harvest.

The programme for the manufacture of wood pulp and paper for the printing industry has been approved by the Minister as the official programme of the industry. The programme will achieve a complete change-over to metric production and sales of paper products in July 1973. Paper and paper board will be sold in metric thicknesses (grammages) as from 1st July 1973. The printing industry will change throughout 1973 to mid 1974. It is expected advertising will be sold in metric terms after 1st July 1973.

—oOo—

Events in the Retail Industry in the UK indicate once again that continued pressure is necessary if a change programme is not to lose momentum. Once momentum has been lost, it is a slow and expensive business to start again, and this is what is happening in the UK now.

### CELSIUS MADE EASY

The NRMA suggest this simple table for those having difficulty in coping with the change of temperature readings to the Celsius (metric) system:

The Flaming Forties	35°C to 45°C (95°F to 113°F)
The Thirsty Thirties	25°C to 35°C (77°F to 95°F)
The Temperate Twenties	15°C to 25°C (59°F to 77°F)
The Tingling Tens	5°C to 15°C (41°F to 59°F)
The Frosty Fives	Minus 5°C to 5°C (23°F to 41°F)

Celsius thermometers have been distributed to all meteorological observers in Australia in preparation for conversion of temperature advices on 1st September 1972. The remainder of the re-equipment programme is in hand.

### TRANSPORT AND COMMUNICATION

Dual regulatory speed signs will not be used. Metric signs will be in the form of black figures (in km/h) in a red circle. This sign is international, will be distinctive and will be introduced coincident with the changeover.

Agreement was reached at the July meeting of the Australian Transport Advisory Council to recommend the following speed restrictions:

60 km/h (to take place of the present 35mph limit), and 100 km/h (60 mph).

—oOo—

Motorists will have to pay very little to convert the speedometers of their cars to kilometres per hour, claimed a senior project officer of the MCB. The date set for the conversion of mile posts, sign posts and speed signs was July 1974, added Mr. H. K. Gaunt —

Advocate, Burnie, Tas,  
Sept. 9.

—oOo—

Following the Federal Government's decision that Australia should adopt the SI System of Units for weights and measures, BHP has been laying the groundwork for the conversion of Company products. BHP officers are actively engaged on committees formed by the Metric Conversion Board and the Standards Association of Australia and in assisting and advising committees formed by the engineering industry.



A change in industrial sugar packaging from 70 lb to 30 kg bags took effect for deliveries in all states except WA from the beginning of July 1972. Metric packaging in WA will commence at the beginning of October 1972.

Unit prices for each grade of sugar packed in the 30 kg bags were calculated by the Sugar Board from prices per imperial ton which have remained unchanged since June 1967 - MCB Newsletter, August 1972.

## CAR CARE HINTS FROM THE N.R.M.A: WATCH YOUR CAR'S OIL DIET

When you ask your garage man to "check the oil" your request is really not so simple, says the NRMA. If he took you at your word he might, in some cases, check six different oils. The engine requires a special type of oil, as do the transmission, drive axle assembly, steering box, brakes and even the shock absorbers.

Engine oils are graded from SAE 10 to 50 — the lower numbers (thinner oil) for cold weather and the higher numbers (thicker) for warmer weather. Engine condition can also dictate the grade of oil required. Most manufacturers now specify a multi-grade engine oil such as SAE 20 or 20-40 which can be used under all conditions. Although different *brands* of oil may be inter-mixed when topping up, it is preferable to keep to one brand.

Manual transmissions may use SAE 30, 40, 80 or 90; your owner's handbook will tell you the exact grade. But automatic transmissions require a special fluid.

Most drive axle assemblies require an oil which will withstand extreme pressure — usually EP 90.

The braking system uses a special fluid and disk brakes need a fluid with a boiling point of at least 260°C

Steering boxes use a variety of lubricants — again your manual has the details. Power steering units need a special hydraulic oil.

Some shock absorbers require a particular fluid quite different from that used in any other part of the car.

**REMEMBER:** — You are courting danger and expensive repairs if you use the wrong type of oil or fluid anywhere in your car.

## OBITUARY

*It is with great sorrow that we report the death of Karen Michelle Cope, sister of Gary Cope, third year electrical apprentice. Karen passed away on the 11th of September, 1972. Her death at the early age of 17 years was due to a car accident on the 21st July. Karen, the only daughter of Mr. and Mrs. A. K. Cope, was laid to rest in Bowral Cemetery after the service at Bowral Methodist Church on September 13. Karen had been a nurse in training at the Wollongong Hospital. We extend our deepest sympathy to Mr. and Mrs. Cope and Gary.*

## NEWS FROM ERNIE RADNIDGE . . .

The editor received a picture card from Ernie recently. He still thinks of all his friends at the works and asks that we convey his best wishes to all. He wrote from Shute Harbour in Queensland. He is caravanning, and it has taken Ernie and his wife two months to reach their present location. They have visited many coastal resorts on the way. A recent experience was a boat cruise to the Whitsunday Islands calling at Hayman, Daydream and Hook Islands. Ernie says that viewing the coral and fish from the Underwater Observatory and glass bottom boats is an unforgettable experience.

Ernie visited Bill Rutter, and Bill Saker, both former employees of SPC and very well known on Berrima Plant. To all three along with their wives, we convey our regards through these pages.



## JUNIORS . . .

Why does a boy's voice break and not a girl's?

When a boy's voice breaks, it is because his voice-box is suddenly becoming much larger. As a girl grows up to be a woman, her voice-box grows steadily in proportion to the rest of her body. But men have much deeper and louder voices, because of this the larynx or voice-box must be in proportion, and the vocal chords longer in men than in women.

This particular change begins to happen when a boy is about 14 or 15 years of age. It is not really necessary for a boy's voice to break, it is possible for it to get gradually and evenly lower. This, however, does not usually happen.

The muscles get bigger and heavier, the chords longer, and it happens very quickly. Because of this change a new skill has to be acquired, the boy has to learn how to control the larger voice-box. That is why at first he sometimes speaks in a low pitch and then suddenly in a high one.



Why does it not hurt to cut your hair?

We feel pain when we burn our fingers or suffer from any other kind of injury, because almost every part of the body has a great number of small nerves in it which carry to the brain the sensation of pain. So, if there are no nerves, no pain is felt. When a doctor wishes to do anything to a patient which would be very painful, he uses some means to deaden the endings of the nerves in the skin. It happens that our hair has no nerves, and therefore can be cut without pain.



Have things colour in the dark?

No, objects appear to have a certain colour because of light. If there is no light, there is no colour. In the daylight or artificial light grass for example appears to be green. Light is made up of all colours, objects absorb light, but if there is a part of light that they cannot absorb it appears to us to be one of the colours of the rain-

bow, so, when grass or leaves appear to be green, every other part of the "white" light has been absorbed except a combination of blue and yellow, which make green.

Perhaps at school you have seen the experiment of a glass prism breaking up the daylight into all colours of the rainbow.

—oOo—

### MY PET

I have a cat called Sandy  
And I think she's rather dandy  
Her fur is so soft,  
And she thinks she's posh  
She's ginger all over,  
And she comes from Dover  
And that's why I love my Sandy.

Wendy Huld,  
3 Purcell St.,  
Eowral,  
Age 10.

Wendy will receive 50 cents.

—oOo—

### QUIZ

1. What causes a boy's voice to "break"?
2. Why can you cut hair without hurting?
3. Do objects retain colour in the dark?
4. If a 15 year old boy wants to join an SPC hockey team, who does he notify?
5. What do you know about the angler fish?
6. What temperatures in Celsius would be indicated by the Temperate Twenties?
7. In what German city would you find a Television Tower 558 feet high?
8. On what date was Apprentice Parents Day held this year?
9. What film was shown on Parents Day?
10. If your father, mother, sister or brother works at SPC can you join the SPC Employees Credit Union?

All the answers are in this issue of this Magazine. Any junior sending written answers will receive a prize of 50 cents.



## DIVERSION WITH HISTORIC INTEREST:

N.R.M.A. suggests an interesting diversion for travellers going north on the New England Highway.

By turning right off the highway just north of Wallabadah the traveller passes through pleasantly undulating pastoral country to the historic town of Nundle. The town is an old gold-mining centre of last century with many early buildings still standing. During the roaring gold mining days the population of Nundle was 2,067, including 500 Chinese, and miners came from long distances seeking a fortune.

From the records, 85,000 oz. of gold, valued at \$600,000 was estimated to have been mined. Many visitors still fossick for gemstones and pan for gold.

After leaving the highway the road is worn gravel for the 23 miles to Nundle. By travelling north from Nundle the road is bitumen .3m., fair gravel, 6.3m. and bitumen for 26 miles joining the New England Highway 4 miles north of Tamworth.

—oOo—

## SIX NEW NATIONAL PARKS FOR NSW

The N.R.M.A. has been advised of six new national parks in N.S.W.

The new National Parks, announced by the Minister for Tourism, Mr. Lewis are:- Guy Fawkes River - 62,800 acres; Crowdy Bay, 13,200 acres; Willandra, 32,300 acres; Myall Lakes, 38,127 acres; Hat Head 9,200 acres; Mount Imlay, 9,300 acres.

*Guy Fawkes River National Park* is between Armidale and Dorrigo in the New England district.

About 20 miles long in a north-south direction averaging 8 miles wide, the 62,800 acre park comprises the central and lower Guy Fawkes River Valley and adjoining ridges.

*Willandra National Park* is 35 miles west of Hilston. It has a frontage of about 15 miles to Willandra Billabong a branch of the Lachlan River.

*Crowdy Bay National Park* features 8 miles of curving beach along the shores of Crowdy Bay before branching inland from Crowdy Head and Harrington.

*Myall Lakes National Park* west of Seal Rocks down to Mungo Brush is an area of lakes, dunes and coastal heath.

*Hat Head National Park* is a coastal strip of about 12 miles long extending from below Smoky Cape in the north to south of, but not including Hat Head.

The park contains wide sandy beaches backed by an extensive dune system and broad coastal marshes.

*Mount Imlay National Park* is about 9 miles south-west of Eden. It has been named after a notable landmark, 2,903 feet high Mt. Imlay.



Shunter Peter Sutton had a surprise when he found this Black Snake coiled on the seat in this Guards Van. Fortunately it was already dead.



## EUROPEAN TOUR

Painter, Paul Relic, has now returned from his tour of Europe. His wife and daughter accompanied him. I asked for brochures and information about his tour for publication in our magazine, and was rewarded with a stack of information. I started to glance at the brochures, and soon realised that my account of Paul's travels would have to be reduced to a few words about each of the various countries and cities visited, otherwise the whole of the magazine would have become a European Travel Guide.

Naturally Paul's first visit was to his native country of Yugoslavia. Friends and relatives were visited and sightseeing included a trip on the river Danube by hydrofoil, a river of beautiful landscapes and famous old fortresses.

Then over to Austria, where Salzburg and Vienna were visited. Looming 500 ft. above the city of Salzburg is the magnificent Festung Hohensalzburg, a twelfth century fortress, once the seat of the powerful bishops of Salzburg. The city now honours Mozart, who was born here in 1756, but in his lifetime he received no homage from his own city. In Salzburg is also held the most important musical event in Europe, the Salzburg Music Festival.

Vienna is also a city of music, and is of course the capital city. Dotted over the city are houses where Beethoven, Mozart, Mahler, or one of the Strauses lived. The home of Sigmund Freud is here, the Viennese Father of Psychoanalysis. The famous Hofburg palace, where can be seen the crown jewels of the Holy Roman Empire, and of course here is the Vienna Boys Choir and the Spanish Riding School.

Zurich, the largest city in Switzerland is a harmonious blend of old and new. The Cathedral dating from the eleventh century, the Renaissance Town Hall, the massive clock tower of St. Peters, the Art Gallery with its modern masterpieces. Paul and his family also enjoyed a steamer trip on the Lake Zurich.

On to Holland where Amsterdam and Rotterdam were visited, one of the highlights here was a trip on the canals.

Paris, France, where another relative was visited and the wonders of the Eiffel Tower and other world famous landmarks explored. Nice, one of the most ancient cities of Europe, founded by the Greeks; later the Roman City of Camenelum, now the capital of Riviera tourism, resort of thousands of writers, artists, painters, musicians and actors.

In Germany, the Relic family visited Stuttgart, Gertringen and Regens. Stuttgart is a mighty industrial centre, but also a "Garden City" and an architects' picture book. This has arisen from the rubble of World War II. One of the outstanding structures of ultra-modern design is the Television Tower with a restaurant and wonderful view 558 feet above the ground.

In Spain, Madrid, Barcelona and Toledo were visited. Paul attended a Bull Fight at Barcelona. Toledo is described as a city with a history as old as the hills upon which it rests. Many successive races have left their imprint, Phoenicians, Carthaginians, and Greeks traded with the city. Romans, Visigoths, Arabs, Jews and the original people of the peninsula, the Celtiberians, have all left their mark.

In Italy the family visited Florence, Venice, and Rome, where of course is St. Peter's Cathedral, the largest church in the world. Florence, where lived Leonardo de Vinci, Michelangelo, Galileo, to mention only three of the many famous names, Venice with its vast Piazza San Marco, and of course the Grand Canal and the gondolas. The Tour all too quickly drew to a close.

On the return journey, Paul and his family stayed a week in Singapore, no doubt trying to prolong the tour, and delay the return to the day by day routine existence.

For some, this is the trip of a lifetime, many others must be content to read of these far away places, or look at the pictures available. For the select few, these places are commonplace, and perhaps not appreciated to the full.

Whatever our station, there is something we can all do and that is to learn appreciation of our own surroundings, to realise the wonder and beauty of Australia.

—oOo—





Mr. Paul Relic with his wife and daughter on their recent tour.

## PITHY SAYINGS

If there is to be the slightest chance of your ideas being ultimately accepted, you must repeat them over and over again.

★

It's a smart politician who can keep the note of envy out of his voice while accusing his opponent of fooling the public.

★

A businessman is judged by the company he keeps solvent.

★

The quickest way to end an argument between a man and his wife is to take sides.

★

An economist is one who knows how to throw the money he hasn't got after the money he never had.

★

A fanatic is one who can't change his mind and won't change the subject.

There was once a beatnik who starved to death rather than eat a square meal.

★

No wonder there are so many unhappy marriages when the best man never gets the bride.

★

Don't be a yes man. When the boss says no, you say no, too.

★

An absurdity is a statement absolutely inconsistent with any opinion you happen to hold.

★

The time you need your temper most is just after you lose it.

★

Worry is like sand in an oyster: a little produces a pearl, too much kills the animal.



## • GARDENING NOTES FOR OCTOBER •

**FLOWERS:** SOW: Ageratum, Antirrhinum, Aster, Aquilegia, Balsam, Candytuft, Celosia, Cosmos, Dahlia, Delphinium, Dianthus, Giallardia, Godetia, Marigold, Nasturtium, Petunia, Phlox, Portulaca, Salvia, Statice, Sweet Pea, Verbena, Zinnia.

**PLANT:** Antirrhinum, Carnation, Dianthus, Lobelia, Petunia, Marigold, Phlox, Verbena, Gladioli corms.

**VEGETABLES:** SOW: Broad Beans, French Beans, Cabbage, Celery, Cucumber, Lettuce, Melon, Peas, Pumpkin, Marrow, Radish, Beetroot, Silver Beet, Herbs, Kohl Rabi, Parsley Turnip.

**PLANT:** Cabbage, Lettuce, Silver Beet, Tomato, Potato.

September was again a very dry month, with less than an inch of rain in this district. There were quite a number of late frosts, which cut the new growths on Roses and Maples and destroyed some of the early planted Tomatoes and Marigolds.

The flowering Cherries and Crab Apples are in full bloom and are becoming an outstanding feature of this area. Ghent and Mollis Azeleas and Andromedas can also be seen now in many of the larger gardens and some of the Rhododendrons are in full flower. Did you remember to tie up the Daffodil and Jonquil leaves so that planting may be carried out amongst them? Do not cut the foliage off until it has yellowed!

Dahlia Tubers and rooted Chrysanthemums can be set in position this month, making sure that the stakes for Dahlias are put in place when the tubers are planted.

It's a good time to give the Roses a dressing of Rose Fertiliser or Blood and Bone. Keep an eye on these plants as aphids are about and these should be checked as soon as they are noticed. Did you know there is a "pressure pack" aphid spray on the market? Used carefully, as directed, this could be a boon to the busy home-gardener. When planting Beans and Tomatoes, remember that these are frost-tender and should be covered on frosty looking nights.

Give all green, leafy vegetables a good fertilising with weak, soluble fertiliser, each eight to ten days and make sure that weeds are kept under control.

October is our wildflower month, so take a drive around and admire our beautiful native flowers in their own surroundings. The Honeyeaters are having a lovely time among the heaths and grevilleas, flitting from flower to flower, collecting nectar. Most of our migratory birds have now returned and with the warm weather of last month, are already nesting.

—oOo—

South Australia's 300,000 domestic water meters are currently being converted to metric measurement at the rate of about 3000 a month. The conversion, which is expected to take eight to ten years, will cost the government \$744,000.

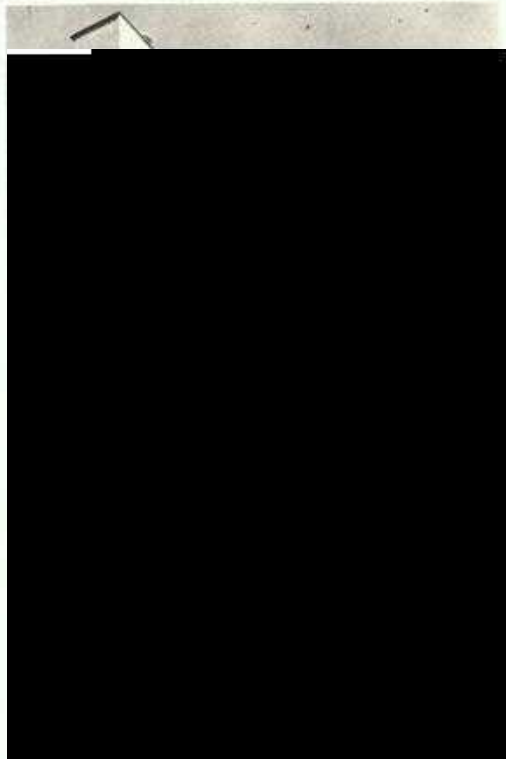
As a meter is converted, it is fitted with a tag advising consumers that although the meter is now reading metric, billing will continue to be in imperial until June 1973. The tag also carries a conversion table —

Sunday Mail, Adelaide, SA Sept. 9

—oOo—







A recent picture of the 2,000 ton silos at Berrima. The 100 days Safety Flag is proudly flying above the lift. At the time of going to press Berrima had reached 118 days without a lost time accident. Congratulations to all on the safety run. Lets keep it up.

The executive had been experiencing difficulty in getting to sleep at nights, but he was allergic to sleeping pills. During a routine visit to his doctor he explained his trouble and asked about 'Twilight Sleep' he'd been reading about.

"That's just for labour," his doctor told him.

"But don't you have anything for Liberals?" he enquired anxiously.

★

More than a little puzzled, the workman approached his foreman.

"Tell me, Fred," he asked, "what's a cubic foot?"

The foreman scratched his head. "Haven't a clue, chum, ask the shop steward he'll know."

But the shop steward didn't know. "Sorry, mate," he said, "can't help you, I'm afraid. Tell you what, though: you find out and I'll make darn sure you get proper compensation."

## FISHY TALES . . .

There seems to be quite a number of folk who go for smoked fish these days. Of course you know the old joke about smoking fish! Anyhow one can purchase a smoking outfit. The gear comes complete with a box-like container, sawdust and methylated spirit! It is recommended that should you have more fish than you can cope with, just put the smoker into operation — and bingo! fish to keep for later — no freezing necessary. I've tasted smoked salmon, not too bad, and smoked tailor, the latter was delicious. I understand that smoked squid is good too; next time you have a few squid, smoke them! Whilst on the subject, a five pound catfish (approx. 2½ kilos) that I was about to throw away, was placed, on the advice of a friend, in my griller and put on the open fire. It was delicious, better than the best flat-head.

I've just seen a picture of a lobster, it weighed 35 pounds (15.9 Kilos)! I reckon a nip from him would sever an arm.

Well this takes the bun! Just read about the angler fish. It has an enormous mouth (most fish that live far down in the depths have big mouths) and just above its forehead dangles a little fishing rod and baited line! Needless to say when a small unsuspecting fish investigates the bait, the large mouth closes on him! If he only kept his mouth shut, all would be well!

Another odd thing about this fish is that the female, which grows to about 39 inches (about 1 metre) carries her husband permanently attached! Poor fish, he's only about 4 inches (10 centimetres) long.

Did you see the T.V. documentary on Penguin Island. Wonderful acting by the Penguins — all in their tuxedos!

In truth, whatever is worth doing at all, is worth doing well, and nothing can be done well without attention.

Lord Chesterfield.





# RYTEWORDS No. 13

FIRST PRIZE \$6; SECOND PRIZE \$3;  
CONSOLATION PRIZES OF. \$1

## CLUES:

1. A person is more easily remembered by this.
  2. Not Straight.
  3. An attractive one usually appeals to the ladies.
  4. Worn by ladies.
  5. Used in baking.
  6. One may get pleasure from this at the coast.
  7. A beverage.
  8. A meat meal.
  9. A good one aids cooking.
  10. Often seen in the country.
- There are alternative answers to five of the above clues.

—oOo—

RESULTS OF CONTESTS WILL BE  
PUBLISHED NEXT MONTH.

WINNERS HAVE BEEN NOTIFIED.

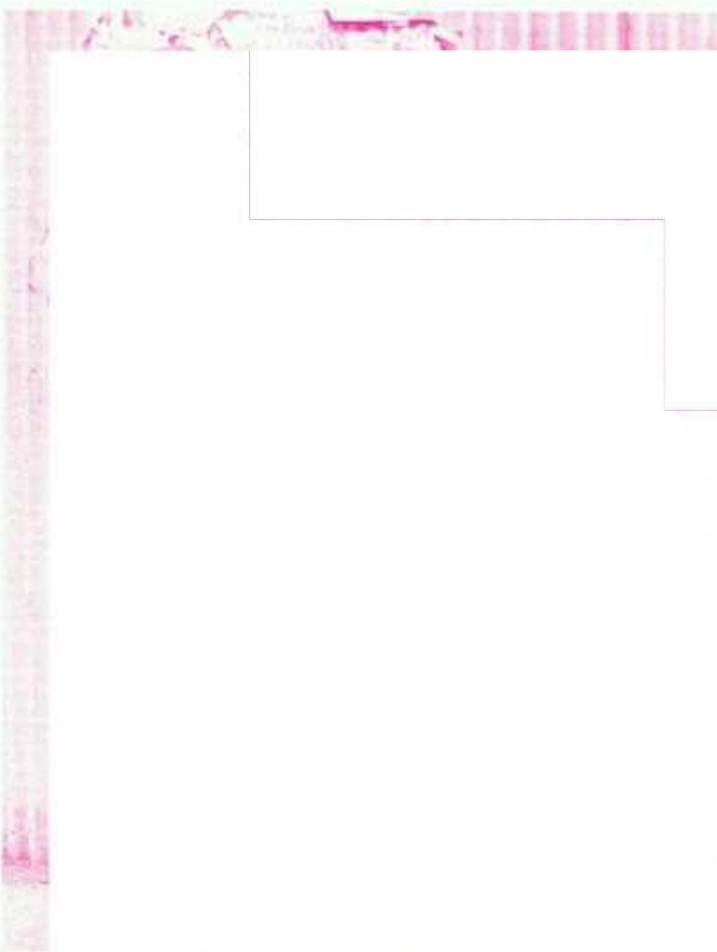


Loading Clay Shale at Berrima No. 5 Precipitator and Kiln in the background.





# NEWS LETTER



Kevin Moore, Sec. S.P.C. Employee's Entertainment Fund, admires the kind of Christmas stocking every boy and girl dreams about. It could be yours.

MERRY CHRISTMAS



# S.P.C. NEWSLETTER

NOV.-DEC., 1972

VOL. 1 — Nos. 6-7

## — CONTENTS —

- 1 Christmas Greetings.
- 2 Editorial.
- 3-5 Progress on the New Marulan Lime Kiln.
- 6 Grapevine.  
A Frightening Experience.
- 7 Obituary — Mr. Cee Cluncy.
- 8 Replacement of No. 1 Cement Mill Shell.
- 9 Car Care Hints.
- 10-11 Metric Pages.
- 12 Norm Taylor Retires.
- 13 From Village Green to Lords.
- 14-15 Our Loco-men and their Work. Part 1.
- 16 Don't Panic — And Live. Part 1.

- 17 Farewell to Frank O'Neill.
- 18-19 Trip to Singapore.
- 20 Visits of High-School Students to  
Berrima Plant.
- 21 Fishy Tales.
- 22-23 Juniors — The Three Wise Men.
- 24-25 Nature Notes.  
Bits and Pieces from the Drug Scene.
- 26 Demonstration of Transformer Oil Tester  
to Apprentices.
- 27 David Parker Marries.
- 28-29 Gardening Notes.  
Rytewords No. 13, Result.
- 30 Christmas Rytewords Competition.



### REGULAR CONTRIBUTORS

#### BERRIMA . . .

R. Greaves — Fishing.  
Mrs. C. C. Crowe — Gardening.  
C. Sonter — Nature Notes.  
J. Lewis — Bits and Pieces.

#### SYDNEY OFFICE:

Miss Lorraine Lucas.

#### MARULAN . . .

W. McCallum.  
E. Cooper.

#### COLLIERY . . .

M. Thorpe.

#### PHOTOGRAPHY . . .

C. W. Knowlson.  
L. Humphries.  
C. Glacken.

### EDITOR: C. W. KNOWLSON

Produced monthly by:  
Southern Portland Cement Ltd.

### PRINTERS . . .

"Berrima District Post", Moss Vale.

All-correspondence and enquiries to:—  
THE EDITOR.

S.P.C. NEWSLETTER.  
P.B.S. No. 4: Moss Vale, N.S.W. 2577.

### COPY DEADLINE:

14th of the month prior to the month  
of issue.



## CHRISTMAS GREETINGS

1972 has been another year of change in the corporate structure of the Company; however, it was made without noticeable effect on our operations. Many production and sales records were made during the year, which is very encouraging, and I have great pleasure in thanking all employees for their earnest co-operation in making these achievements possible.

On behalf of our Directors, I would like to extend to all employees and their families very best wishes for Christmas and the New Year.

J. F. McNICOL, General Manager.



After a very encouraging performance during 1972, all of us can look forward to an interesting and challenging 1973 for S.P.C.

May you all have an enjoyable Christmas plus a successful and happy New Year.

REX WILLIAMS.

Assistant General Manager.



As Christmas approaches, those of us with a religious bent look forward to celebrating one of the happiest events of the Christmas Calendar. May your celebrations be shared by all your family.

Among our workmates we have many whose thoughts will turn to relatives and friends on the other side of the world. For them I trust that this Christmas will truly be a time of happiness and that Australia will really become "home" to them.

To everyone at Berrima I hope this season will be a time of real joy — MERRY CHRISTMAS.

BILL GALE,

Acting Works Superintendent.



## EDITORIAL . . .

*Uppermost in everyone's thoughts is Christmas. It has been so for weeks now. Decorations re-appeared, gifts of every description attractively displayed began to beckon and beguile. We began to think of presents. Parents thought of children, children of parents, husbands thought of wives, wives of husbands. For most people the spirit of giving and not getting took control, and so it is today with Christmas very near.*

*It's strange how at this time everyone seems kinder and more understanding, more forgiving, thinking of how we can make someone else happy, we find happiness ourselves.*

*And this spirit is world-wide. It surely brings a peace of mind, and goodwill.*

*There are many today who knock Christmas, because commercialism, self-indulgence and drunkenness are rampant, but in spite of their ramifications, the true spirit of Christmas persists.*

*Why is this?*

*Could it be that there is a Higher Power at work, combating the evil? A Power that is persisting still from 2,000 years ago, that prophesied Peace and Goodwill to men!*

*But why is this peace and goodwill isolated by most people for most of the year?*

*This need not be, the Author of Christmas can use a Power that is above and beyond the power of our wills, if we let Him. Let's give it a go and so retain the Spirit of Christmas not only through the season, but through the coming year.*



## EDITOR'S NOTE

*It was decided this year to combine the November and December issues of the Newsletter. This will enable us to publish the magazine the first week in each month, commencing with the January issue.*

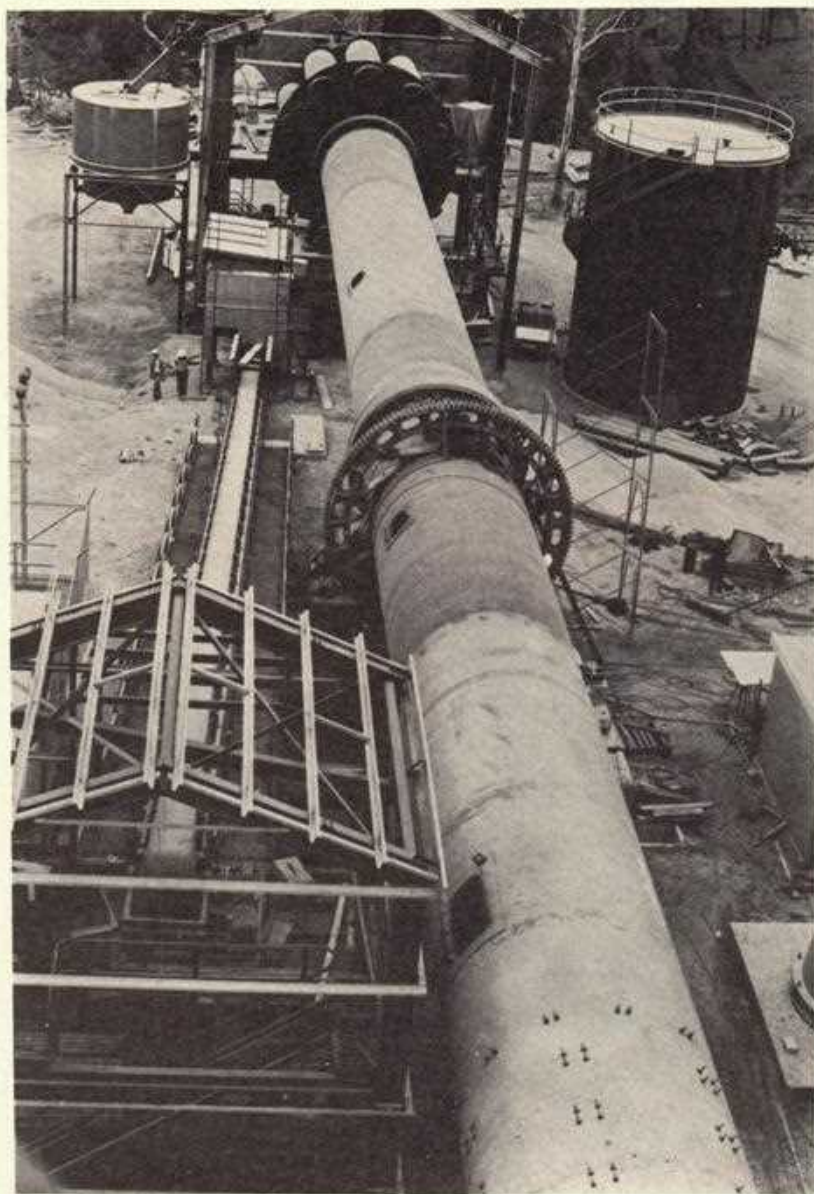
*The last date for receiving copy will be the 14th of the previous month. Therefore, copy for publication in February must be received by the editor on or before the 14th January. Photographs and captions will be accepted up to the 20th of the month.*

*Thank you all for your co-operation. Wishing all readers and contributors a peaceful and happy time this Christmas and in the coming year.*

*C. W. KNOWLSON, Editor.*



## PROGRESS ON THE NEW MARULAN LIME KILN

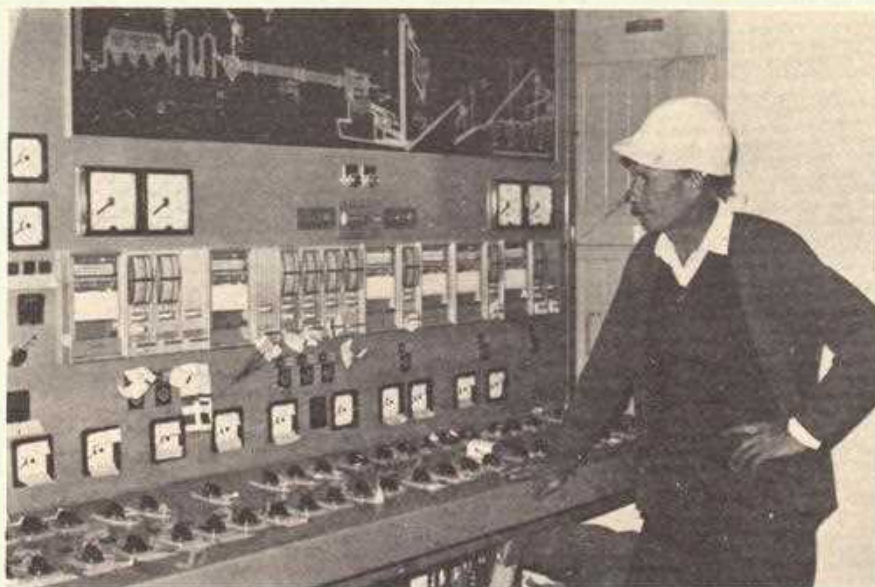


View of the Kiln from the Feed Conveyor. The Satellite Coolers can be clearly seen at the far end. The Kiln is 275 feet long and 11 feet in diameter. See over for more progress pictures.



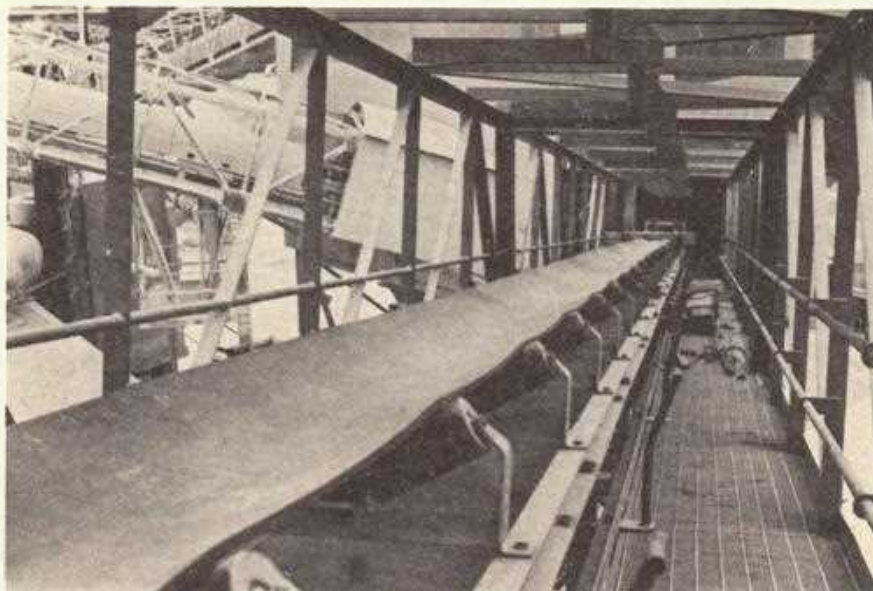






Bob Magnus, Construction Supervisor, examines the kiln Control Panel and Flow Chart.

Below: A view of the Feed Conveyor from near the top.





## GRAPEVINE

### MARULAN

Congratulations to Drago and Lorraine Lorkovic on the birth of their second son on October 30th. Drago is an electrical labourer at the Quarry.

\* \* \* \*

Robert Delderfield, son of Keith Delderfield—Quarry Engineer, was selected to represent N.S.W. in the Australian School Canoe Championship to be held in Melbourne in December. He will represent the 14 years and under age group. We wish him every success.

\* \* \* \*

The official opening of the extension to the Marulan South and District Bowling Club was held on Sunday, 5th November. All who attended thoroughly enjoyed the day.

\* \* \* \*

A fishing trip held recently at Red Head proved most successful with an excellent haul of fish. Although one crew member became sea sick twice, the third time he became worthy of the mariners award. The crew comprised Vince Medesic, Bruce Murphy, Angus Murphy and Jack Seahill.

### MARULAN RETIREMENT

#### MR. FRED GOLOWENKO

Fred served at the Quarry as a Fitter for 10 years.

On his retirement early in November he was presented with a watch and wallet from his workmates. All join in wishing Fred a long and happy retirement.

### S.P.C. PICNIC

You have already seen the picture of the Giant Christmas Stocking. You can see the actual stocking in the Berrima Store. Tickets for this raffle are 10c each and they will be available at the Picnic on 17th December.

This is in addition to the usual raffle of the Dressed Pig, Christmas Cake and a Dozen 'Refreshments'!

## A FRIGHTENING EXPERIENCE

From Eddie Cooper at Marulan comes more details of Doug Taylor's experience mentioned in the last issue of the S.P.C. Newsletter.

Whilst fishing about 20 miles off Bate-man's Bay in his 12 foot boat, Doug lost the propeller. His boat drifted all day. Late in the afternoon he had "company," a large shark swimming around the boat. Eventually the shark was frightened away by Doug banging on the boat. As darkness was falling, the seas became rough and the only chance Doug had to prevent the boat being swamped, was to keep the boat headed straight for the waves. This could only be done by rowing.

Visability grew worse, occasionally he saw vague shapes and heard ships passing, some of them evidently quite large and about 1,000 yards distant. Doug rowed all night. Early next morning he sighted land. Needless to say he was greatly relieved. A couple of hours later he was on the beach where he lay exhausted, thirsty and hungry.

Regaining a little strength he managed to attract someone's attention and was taken to hospital for observation. He was allowed to leave after about 2 hours.

He arrived home feeling tired and sore and went to sleep with a feeling of security sadly lacking the previous night.

This story is told to impress on all those going out on the open sea the great importance of taking all necessary precautions and being prepared for any emergency.

### JUNIORS' COMPETITION

Write a few lines telling us in your own words:—

1. How Christmas began

or

2. Why I like Christmas.

Don't forget to tell us your age.

\$2 will be paid for the best entry, also \$1 for each entry published.





Above: Stan Bell, Leading Hand Welder, makes the presentation to Cec Cluney on his recent retirement.

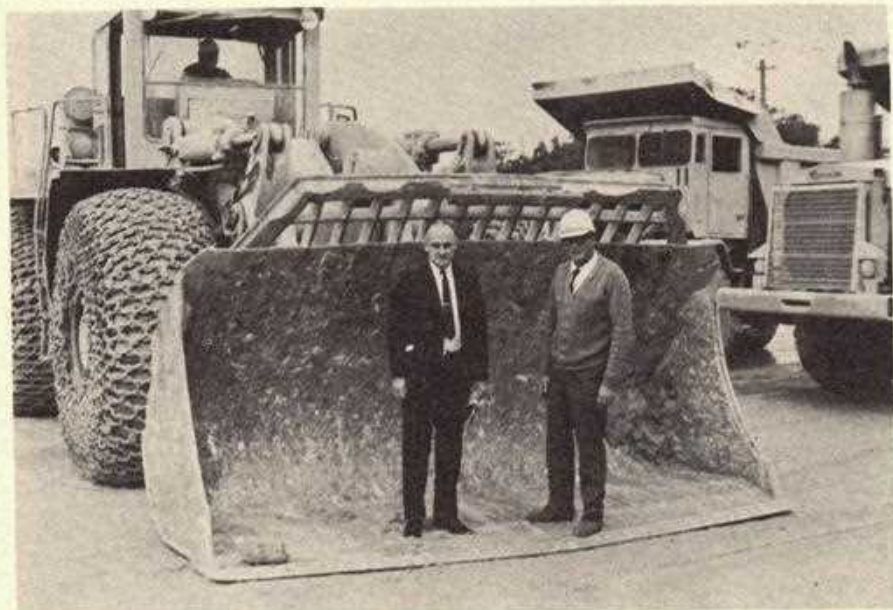
## OBITUARY

### MR. C. CLUNEY

It is with regret that we announce the death of Cec. Cluney.

Only recently Cec. retired from S.P.C. because of ill health after nearly 36 years with the Company. Cec. started at the Quarry on drilling machines and general work. In 1948 he was promoted to General Quarry Foreman and transferred to the staff. He held this position until two years ago, when he became ill. The management of S.P.C. and all friends and workmates join in expressing deepest sympathy to Mrs. Cluney, her daughter, and son.

Below: Trevor Pearson, General Quarry Foreman, chats with Cec on his retirement in a rather unusual setting, the bucket of the Terex 10 yard Loader.





FROM OUR PRODUCTION DEPT. . . .

## REPLACEMENT OF THE NO. 1 CEMENT MILL SHELL

During the month of September the No. 1 Cement Mill shell was replaced. This work was carried out by the contracting firm, Alco Steel Erectors of Newcastle.

Eugene Liu of the Berrima Works was Project Manager for this job.

The method of removing the old shell and installing the new shell was as follows:

The old shell was cut into pieces weighing approximately two tons. Part of the roofing above the mill was removed and by using a crane outside the building the pieces of shell were lifted through the roof onto trucks and then taken away.

In order to instal the new shell the 600 h.p. electric motor and associated gearbox were first removed. A platform was erected at the end of the mill on which were skids for the shell to slide along and finally into its operating position.

After this was finished all the associated equipment was replaced.

During the time the shell was being replaced the electrical department overhauled the 600 h.p. electric motor that drives the mill.

Two other jobs were also carried out at the same time. These were to recondition the feed table and to replace the cross conveyor screw that takes the cement away from both 1 and 2 cement mills. This work was caried out by our mechanical maintenance department.

The shell, which if 36ft. long by 7ft. diameter, weighs approximately two tons.

An original schedule of 28 working days — each of 12 hours — was laid down to complete this work, but it took only 23 days to complete the work.

This is part of the work prepared for this area of the numbers one and two cement mills. Other work to be carried out is the replacement of the cement cooler tower shell and the overhaul of the cement screen.



Miller Phil King gets to work loading the new Cement Mill.



## CONGRATULATIONS! !

Mrs. Jenny Martin of the Credit Union Office, gave birth to a baby girl on November 6th, 1972 . . . weight 6 lb. 8 ozs. The happy parents have decided to call the baby Rachel Nicole. All friends join in extending congratulations to Mr. & Mrs. Martin.

## CAR CARE HINT

### IS OUR CAR A GLUTTON ON FUEL?

If you find your car is travelling fewer miles between petrol stops, it may be time to give some thought to the condition and "tune" of the engine, says the N.R.M.A.

If an engine is not running efficiently it won't give good economy. The main factor in engine efficiency is satisfactory cylinder compression. If you're not satisfied with your fuel consumption ask your garage to check the cylinder compression. If this is low repairs may be needed.

Next check the spark plugs and distributor points. They may only require cleaning, but for best results they should be replaced at intervals of not more than 10,000 miles.

Ignition timing should be set with a timing light. Timing which is only slightly out can have a major effect on fuel consumption. Ask your garage to do this job.

Carburettor overhauls are also best left to your garage man. But you can check the operation of the choke, whether it is manual or automatic. When the engine is at normal operating temperature remove the air cleaner; the choke valve or butterfly (the circular disc at the top of the carburettor) should be in the vertical (open) position. If it is not, simple adjustment of the choke cable may be all that is necessary. This is also a good time to check the condition of the air cleaner element.

Damage to the exhaust pipe and muffler can reduce engine performance and increase fuel consumption.

Another aid to fuel consumption: Don't forget to keep the tyres at the correct pressure and the brakes adjusted so that the car rolls along freely.



Jim Middleton drew the attention of the editor to this plover's nest on the spare ground near the Power House.

## METRIC QUOTES

A languid young woman lapping up the spring sunshine yesterday stretched out a lazy arm to telephone us and explain why Celsius temperatures have been so good. "It is quite simple," she breathed. "It gets so much easier for the thermometer to climb to 20 degrees Celsius than 68 degrees Fahrenheit."

The very human fact of the matter is that the average person has an inborn resistance to change of any sort. Eric Hoffer, the American philosopher, in his book, "The Ordeal of Change", recalls how, as a young man, he went pea picking in California. One day he was switched to string beans instead, and he was half paralysed with fright that he wouldn't be able to handle them.

. . . The metric system is hardly a new language, but it is a key to one — and the full virtue of it is that behind its unfamiliar names and symbols lies a beautiful simplicity.

All forms of efficiency should be banned. For instance, medical men should travel by oxcart with square wheels and cure illness by toads' livers and incantations. — Extract from a letter to the Adelaide Advertiser in reply to a correspondent who questioned Australia's conversion.



## METRIC PAGE

### HOW MUCH DO WE KNOW?

Are you game to tackle a brief quiz? Excellent! Take your ball-point, find a scrap of paper — the margin of your newspaper will do — and answer the following:

- How many fluid ounces equals 1 pint?
- How many gallons equals 1 barrel?
- How many cubic feet equals 1 cubic yard?
- How many yards equals 1 chain?
- How many chains equals 1 furlong?
- How many square yards equals 1 rood?
- How many roods equals 1 acre?
- How many acres equals 1 square mile?
- How many drams — equals 1 ounce?
- How many pounds equals 1 ton?

Difficult? It should not be. After all, we are dealing with the familiar imperial system. However, if you did not do too well — and it is doubtful if one in 100 would — you may accept as fair a proposition that, at worst, adoption of the metric system amounts to exchanging a system we know little about for another equally incomprehensible.

The fact is that most of us retain our mathematics as far as the examination room only. We spend years learning enough to pass (or, alas, fail) examinations and then, our accomplishment duly recorded, forget all except that which we need to know — which is very little in the vast majority of cases.

Few dispute that Australia's conversion is necessary if the country is to compete effectively in a metric world. But there is the argument: "All right, then. So business has to go metric (as though this does not affect the man-in-the-street), but why should Mr. Average have to be bothered by conversion? What about The Housewife?"

The question is based on the false presumption that Mr. Average and his mate are conversant with one system, and are being compelled to learn another. This is untrue. How much does Mr. Average and The Housewife know? They know there are 12 inches in a foot, there are three feet in a yard, maybe that there are 1760 yards in a mile; they know there are 16 ounces in a pound and, perhaps, that there are 14 pounds in a stone. What else? They may know there are two pints in a quart and

four quarts in a gallon. They may not. But, of course, it does not matter. So complex is the imperial system, unless one has to use it, it is quickly forgotten.

Metric products are common-place. A man may drive a Japanese motor-car, strap a Swiss watch to his wrist, take photographs with a German camera, slip his feet into Italian shoes. Providing he has reasonable trouble-free motoring, the correct time, flattering photographs and his feet do not hurt, it matters not that his car, watch, camera and shoes were assembled by craftsmen using metric gauges. Nor will it matter — to Mr. Average, that is — when his breakfast cereal is packed in grams instead of ounces and his furniture is built by craftsmen using metric rules.

It will not matter to Mr. Average — immediately; it will matter to Mr. Businessman, who is perhaps competing against overseas competition.

Manufacturers overseas have been able to achieve phenomenal reductions in the variety of sizes of their products, and this has resulted in considerable savings, efficiency and reduction of overstocking. The range of sizes and variety of threads for threaded fasteners alone was completely out of proportion to the demand. Screws were available which differed only fractionally in size and thread, yet were not interchangeable. With conversion, these practically equivalent imperial sizes were replaced by a single metric size. Two examples are worth quoting: Ford Motor Company (UK) estimates that it already saves more than \$A5,000,000 a year on fasteners. Conversion has led to a 75 per cent reduction of the range, and the company estimates that by 1980 savings will amount to more than \$A10,000,000 a year.

Some time before conversion Marconi Instruments' inventory of screwed fasteners exceeded 3,000. By carrying out a trial variety reduction exercise, this figure was reduced by 1,500. Subsequently, after many difficulties and objections, an irreducible minimum of 950 was achieved. Two years later, at the advent of metric designing, the total had crept up to 1,250. Today, after three years of metric designing, the total variety of metric screws is 65; it is unlikely ever to reach 200.



It is not overstating the case to say that Australia was faced with virtual isolation if it did not join the world-wide surge towards a common system of weights and measures. Japan, for instance, has already made metric measurements compulsory for some imports.

But let us get back to Mr. Average and the The Housewife. In the end, they must benefit. The world of business is a sternly competitive one. If Mr. Businessman is able to make savings, he must pass them on to his customers because, if Mr. Businessman doesn't, his business rival will, and Mr. Businessman will have priced himself out of the market.

Mr. Average will not be disadvantaged. Neither will The Housewife. And, most assuredly, neither will Master and little Miss Average, who will be spared the futility of a full year's study of mathematics.

NOTE: 20 fluid ounces equals 1 pint; 35 gallons equals 1 barrel; 27 cubic feet equals 1 cubic yard; 22 yards equals 1 chain; 10 chains equals 1 furlong; 1210 square yard equals 1 rood; 4 roods equals 1 acre; 640 acres equals 1 square mile; 16 drams equals 1 ounce; 2240 pounds equals 1 ton (2000 pounds equals 1 short ton).

\* \* \* \*

Sticking to the English system of weights and measures, when most of the world has gone metric, places the United States at an enormous disadvantage when it comes to selling overseas, and has contributed materially both to our lag in exports and to the subsequent rise in unemployment in the U.S. It's true that over a period of time we will have to change our entire industrial plant — but that is a continuing process anyway. In short, sticking to our present system actually helps reduce the US' export powers — US machinery and spare parts are often incompatible with machinery purchased elsewhere — and will eventually contribute to the eclipse of the US as the world's leading industrial nation.—Playboy.



Recently the Editor accompanied S.P.C. Apprentice Foreman on a visit to the Vale Engineering Apprentice Training Department. Above we see Mr. Gary Faulkner who is the Apprentice Training Foreman at Vale Engineering.

Below: Mr. Aubrey Braithewaite Leading Hand Instructor gives a few tips to an Apprentice.







Above & right: Norm Looks on whilst Owen displays the present.



### BERRIMA RETIREMENT

Norm Taylor of the Machine Shop retired in October. He commenced with S.P.C. Berrima in February, 1965. He worked as gardener, labourer, lorry driver, and then was transferred to the Maintenance Section as fitter's labourer. Recently he relieved in the tool store. The pictures record a presentation made by his mates.

Keith Graham, Maintenance Foreman, spoke a few words of farewell and Owen Fairbairn made the presentation. We wish Norm health, happiness and longevity.





# FROM THE VILLAGE GREEN TO LORDS

by John Fogg

This summer for the first time in the long history of cricket, that most English of games, the village teams of Britain are competing in their own National Championship. To the victorious club will go the superb Haig trophy £250 for the club funds, and the satisfaction of knowing that, of the 800 village clubs that entered the competition, they have proved themselves the champions over all.

And they will have done so at no less venue than Lord's Cricket Ground in London, the acknowledged "headquarters" of world cricket. To play at Lord's is an honour that village teams have hitherto merely dreamt about but for two village teams from somewhere in rural Britain the dream will become a reality.

The National Village Cricket Championship now in progress, can truly be said to have written a new chapter in cricket history. It is sponsored by the well-known whisky firm of John Haig and Company and organised by the National Cricket Association and "The Cricketer" magazine; and when Michael Henderson, managing director of Haig, announced his company's sponsorship, he said that their aim was to encourage the sport "at its grass roots". The villages responded by enrolling in their hundreds.

For the purposes of the Championship a village was defined as "a rural community with a population of not more than 2,500 people." Grass roots indeed — and, to ensure an even more level test, anyone who has played the game at first-class standard (international, county, university, etc.) is barred from the contest . . . unless he has passed the age of 60 and plays regularly for his village.

Down among the grass roots — the village clubs — cricket is still the carefree affair it was always intended to be. This is not surprising for it is a village game. That is where it all started, in the villages of Hampshire, 200 years ago; and village cricket still provides the countrywide foundation for the game.

Great Bently, in Essex, claims to have the largest village cricket ground in the country — last year the local club played bicentenary match to celebrate 200 years of cricket in the village. The second largest green is claimed by Barrington in neighbouring Cambridgeshire. The most northerly of the participating clubs is at Fochabers, Morayshire, where the river Spey flows close to the ground; while the secretary of the club at Rockfield, Monmouthshire, boldly risks controversy by describing the ground there as having "probably the most attractive setting in Britain."

In Buckinghamshire, the green at Brill has a 'grandstand' provided by earthworks dating back to the Civil War of the 17th century; and the club at Hawarden, Flintshire, play in a private park once owned by the great Victorian statesman, W. E. Gladstone. Stanway, Gloucestershire, has a thatch roofed cricket pavilion presented to the club by the playwright, Sir James Barrie. The cricket ground at Blagdon, Somerset, which overlooks a medieval church and famous trout fishing lake, produces good grass for hay — so the team plays only 'away' matches until after hay-making. Every ground has its own features and peculiarities, so the list could be prolonged indefinitely.

After entering the competition, the hundreds of village clubs are arranged into 32 country groupings. Then the championship really gets under way. The 32 champion teams then battle for the honour of being one of the two clubs to travel to Lords for the National Final. Whatever the outcome, all of them receive a commemorative plaque for display in their clubhouse or local pub, as well as a Haig tie which is awarded to the "Man of the Match" of each team.

—reprinted from "Britain."

\* \* \* \*

Again, we are told, metrics will sweep away all those obsolete measurements such as chains, rods, gills and perches and replace them with new and simpler terms. No doubt they will. But in fact these arcane measurements are hardly ever used anyway. They survive on the backs of school exercise books as picturesque reminders of our past and as a useful form of mental discipline for children.



## OUR LOCOMOTIVES AND THEIR WORK

### PART I

So much depends on our transport. The supply of limestone, coal, iron-ore, gypsum, the despatch of cement in bags and bulk. In this, our loco men play a large part. The drivers and shunters, and the fettlers who keep the permanent way safe. In order to find out something of this work, I made a couple of trips on the loco, and met the workers.



James L. Thorpe is our oldest driver. He started working at S.P.C. on Anzac Day 1937. He pointed out that there were no public holidays in Australia at that time. Jim started work on the Clinker Gantry extension, then on to fettling and limestone unloading.

His start with the loco was as shunter-fireman in 1939. At that time the company owned an E class and I class locomotive. They pulled all the Colliery coal, all the limestone and all the cement.

In 1941 Jim left the locos for the cranes, and stayed with them until 1948. When he returned the company was hiring engines from the Railways. They comprised C.P. and K.T. classes. This enabled loads to be increased.





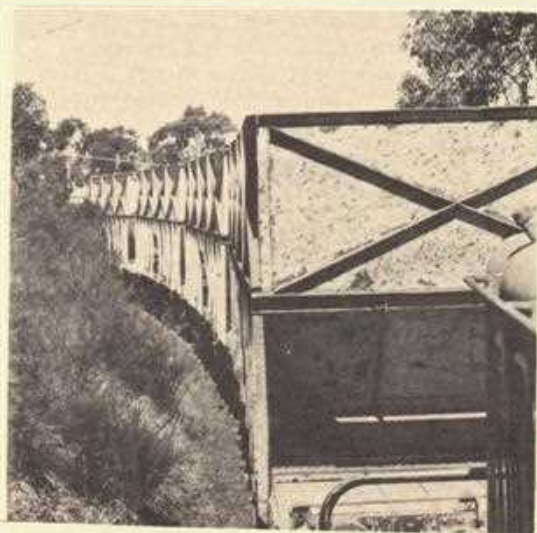


The engines were used on occasion to perform rather unorthodox jobs. On one occasion a lorry, bogged near the line, was pulled out. On another, the old electric light poles were pulled out, and often when the kilns were under repair, they were turned with the aid of blocks and wire ropes. In 1967 we changed from steam to diesel.

Jim passed along a few interesting facts. When he started only numbers 1 and 2 cement kilns were in existence. There was only one cement mill. No. 2 was the coal mill at that time. There were two Raw Mills and 12 cement silos. During Jim's time both crane gantries have been extended, also the fitting shop and power house. Before the war only bagged cement was loaded.

In 1937 the hours were 44 per week. The pay was seven pounds eleven shillings for 88 hours.

Jim mentioned the visit of the Railway Historical Society in May, 1964. He and his mate brought the two trains through the Berima Works and on to the Colliery using the S.P.C. loco. This was believed to be the first time that a passenger train had used a private line, in New South Wales at least. In June 1967 the same society paid another visit. Jim brought along the picture of the first visit, also the changing of the engines at Berrima Junction. During my Colliery trip I was with Jim and his mate, David Easter. David and his wife came out from England by air in 1967 from Wakefield, Yorkshire. The photographs show Jim and his shunter and give an idea of the Colliery line.





# DON'T PANIC — AND LIVE

## PART I

Due to a general increase in mobility of the population and a trend for more city people to live in "bushland" suburbs on the fringes of metropolitan areas, more and more inexperienced persons are likely to encounter high intensity bushfires.

Over several years, studies in and around Canberra by officers of the Forestry and Timber Bureau (a division of the Department of National Development) have produced much positive information to aid human survival in bushfires. This article is based on their findings.

A number of popular misconceptions — such as death from lack of oxygen if trapped in a fire or that a car petrol tank will explode if exposed to naked flame — cause many persons to panic and sometimes flee a safe refuge.

In grass or forest fires, the main cause of death is heat stroke in an extreme form as a result of excessive heat radiation. Even severe burns to the body are not an immediate cause of death unless accompanied by heat stroke.

Most of the heat felt from a bushfire is radiant heat and though it can reach high intensity it lasts only a relatively short time.

Radiant heat, like light, travels in straight lines, does not penetrate solid substances and is easily reflected — physical principles basic to survival procedures.

Even in a severe fire the temperature near the ground remains cool as hot combustion gasses are rapidly carried away by convection. Measurements have shown that air temperatures within a few feet of the ground and within a few feet of flames up to 35 ft. high are less than 120 degrees Fahrenheit. While air at this temperature may be unpleasant it can be breathed for long periods. Bushfires in the open do not deplete the oxygen concentration in the air outside the actual zone where combustion is taking place.

In very high intensity fires there may be very rapid distillation of combustible gasses, producing a mixture of hydrocarbons which burns or explodes high in the convection column. This phenomenon results in the extremely high flame flashes and ex-

plosions characteristic of high intensity fires. However, these occur very briefly and always within the convection column. In any case flaming combustion can only continue when the oxygen content of the air exceeds 12% and life can be supported at this level.

Carbon dioxide, although produced in large quantities, never approaches a hazardous concentration even in the most severe fire situation. Most bushfires produce minute quantities of carbon monoxide, a highly poisonous gas, but never enough to cause even characteristic headache resulting from mild carbon monoxide poisoning.

Thus, if a person can survive the flaming period of a forest fire (which rarely exceeds three to four minutes at a given point), there is no risk of succumbing later. Most fire fighters have long realised that the cabin of a motor vehicle provides good protection from radiation.

At Lara, Victoria, in 1969, 17 people were killed when a grassfire cut a four lane highway. They abandoned their cars and tried to out-run the fire while at least six other people at the same place remained in their cars and survived, even though one car burnt out after the fire had passed.

Research has shown that the standard petrol tank is quite difficult to explode. When a tank contains petrol the space above the liquid always contains a mixture that is too rich in petrol vapour for an explosion to occur. During experiments with a large number of petrol tanks, an explosive mixture could only be obtained after first flushing out the tank with water to remove all residual vapour, allowing to dry and then injecting precise quantities of petrol. Even then the explosion was not strong enough to rupture the tank but only distort its shape.

When tanks were strongly heated on piles of burning timber the petrol boiled and the vapour burnt strongly at the filler cap or breathing tube. When the heat source was removed from the tank the flames went out, often leaving liquid petrol remaining in the tank.

If a container is not vented, say as in a sealed 44 gallon drum, the vapour inside can build up high pressures and rupture the drum or, in an extreme situation, explode spontaneously.

To study the performance of a car as a shield against radiation, cars were subjected to intense radiant heat from windrows of



burning pine slash 50 ft. long, 15 ft. wide and 4-5 ft. high. The cars were placed between two windrows 25 ft. apart and the windrows were ignited simultaneously.

Instruments were placed to measure:

- (1) Radiant heat outside the cars and inside behind the closed windows.
- (2) Temperature of the air near the floor under the dashboard where a person could breathe if sheltering from the fire.
- (3) Temperature of various parts of the bodywork and interior linings.

The most severe test simulated the peak radiation of an intense forest fire and in fact the test would have been more severe than generally encountered because flames from the piled timber persisted around the car for a much longer period than would be expected from a fire burning in a natural fuel bed (usually three to four minutes).

The car windows cut down the radiation inside the cabin to around half of that received outside at the peak of the fire but a person inside would have suffered severe burns to any bare skin.

At four minutes from ignition the temperature of various parts of the test body exceeded 390 degrees Fahrenheit and the roof lining and rubber seals around the doors began to burn, filling the car with dense black smoke.

The air temperature in the car in this test rose slowly from 84 degrees Fahrenheit to 104 degrees Fahrenheit at four minutes. When the interior linings began to smoulder, the air temperature rose slowly to 158 degrees Fahrenheit and remained around this for the rest of the test.

Although air temperature inside the car did not rise to a hazardous level, smoke from smouldering plastic and rubber materials used in interior linings caused severe discomfort. However, as already mentioned, the period of intense heat in the tests exceeded that which would be experienced in most forest situations and was far greater than would be experienced in grass fires.

Test cars burnt out in a similar manner. First the tyres caught alight by severe heating (radiation). Some eight to ten minutes after peak radiation the engine compartment caught alight and burnt strongly. The fire slowly spread into the interior

and the petrol tank was last to burn, more than 30 minutes after the peak radiation from the bushfire.

REPRODUCED from the Magazine of NATIONAL DEVELOPMENT.



#### FAREWELL

Frank O'Neill left the company early in November. He started as a day fitter in February 1960, then on to shift work for over 10 years. He was transferred to clerical work, owing to a back injury, about two years ago.

Frank served in the Royal Navy as a Commissioned Engineer Officer for 5½ years. Later he became a civil servant in the Sudan in the employ of the Sudanese Government. This was followed by a period of about six years as a Forestry Contractor before he came to Australia with his family.

All join in wishing Frank every success in the future.





## TRIP TO SINGAPORE

AS TOLD BY MR. & MRS. WRIGHTSON

Pop, as he is known, retired two years ago after 43 years service with S.P.C. Recently he took his wife and son, Darrell on a trip to Singapore. The journey commenced on a cold June day. Travelling by air from Sydney to Perth via Adelaide they arrived in about six hours. It was the hottest June day for 53 years 85°F.

For four days, sightseeing in Perth included a visit to Kings Park. Hundreds of gum trees lined both sides of the through roads. Many of the trees have a plaque at the base bearing the name of a prominent personage of the year in which they were planted, 1929. The park was formally opened in 1873. A thousand acres of beautiful parkland. It contains the War Memorial and statues of many famous personages who have visited Perth. The Park is bordered on three sides by the River Swan. One of the sights of the park is a huge Karrie log weighing 120 tons, and which took many weeks to transport to its present position. Mrs. Wrightson was particularly impressed by the illuminations in the park as night fell.

One incident in the Motel Restaurant called the "Hairy Spaniard" deserves mention. Every table had a bowl of peanuts, there were also containers standing on the floor, each about two feet high, filled with peanuts. There was a notice on every table "Please do not litter the table with peanut shells, just throw them on the floor!" Being rather tidy, our travellers whilst awaiting attention, carefully piled the shells in the ashtray. The waitress walked up to their table, took the ashtray and tipped the contents onto the floor!

On the 15th June the party left Perth for Fremantle, boarding the ship which was to take them to Singapore. There were numerous delays and instead of sailing at 5 p.m. that day it was about mid-day on the day following, the ship being forced to return to port with a sick sailor. One week later they arrived in Singapore. It is the third largest port in the world, ships and boats of all sizes crowded the harbour.

The island is 27½ miles long by 15 miles wide with a causeway joining it to the mainland, Malaysia.

Prime Minister Lee the leader of the government in Singapore is a very firm

leader. The streets of the city are exceptionally clean, for throwing down a cigarette bumper (butt) or littering in any way, there are fines from \$50 to \$300. There are no blowflies and very few houseflies, all side streets are bitumen. To make a rough comparison a place the size of Bowral would have about ten women cleaning the side streets every day. Most of the local people seem to work six days a week. It is, however, compulsory to have one day a week off.

Although the island has a population of 2½ million, there are plenty of national parks, and still some spare land. The government is getting rid of the Kampongs (small native slum dwellings) by building multi-storey flats.

The newspapers devote a full page each day on the subject of birth control and family planning. Child endowment is available for the first three children only.

Although there are Australian and English communities, according to Pop one does not see very much Australian produce, apart from bananas, oranges and apples on the open air stalls.

Hotels are plentiful, beer and petrol are about double the price that they are in Australia.

Taxis (Teski in Malaya and Singapore) use diesel oil.

The small shopkeepers expect you to barter, but Pop was convinced that in some cases it was cheaper to buy in the large department stores. Women were seen doing all kinds of heavy work mixing concrete, carrying earth in baskets, digging trenches with hoes and so on.

Reminders of home were near by, in the form of Berrima Road and Narooma Road just back of where Mr. and Mrs. Wrightson stayed with one of their sons — John.

Visiting Kranji cemetery where over 5,000 allied soldiers were buried during World War Two, there was another reminder of home. The grave of Jimmy R. King, who enlisted whilst working at S.P.C. Mrs. Wrightson took a photograph of the grave and presented it to Jimmy's son Ross on their return home.

In the Chinese Cemetery all the headstones were coloured, and had on them a photograph of the deceased person. There was also paper money secured on each





Mr. and Mrs. Pop Wrightson, Darrel, John and granddaughter Sandy in the Snake Temple.

grave by stones. According to the amount of money on the grave so would be the wealth of the departed person in his next life.

The Chinese coffin is large and is carried in the back of a heavily draped

truck with the mourners sitting on the coffin. Of course a hearse is used for Christian funerals.

\* \* \* \*

This account will be continued in our next issue.



At the famous Balm Garden.



Darrel stands beside a laughing Buddha.





The group from Goulburn High School.



The girls from the Convent of The Sacred Heart, Rose Bay.



## PLANT VISITS — BERRIMA

Recent visitors to the Berrima Plant. Mr. K. Bush and Mr. & Mrs. M. G. Blacklock with third form students from Goulburn High School.

\* \* \* \*

Third form Geography and History class from Bushby High School, Liverpool. Teachers, Mr. Colvin, Mr. Callacher, Mr. Clyne and Mrs. Todd accompanied the party of about 75 in two coaches. They were on a three day tour to Canberra.

\* \* \* \*

A coach load of fifth form students from Tallangatta High School Victoria on the way to Marulan Quarry.

\* \* \* \*

Fifth form girls from the Convent of the Sacred Heart, Rose Bay, were accompanied by Mr. Crimmins, Geography teacher and administrator, and two teaching sisters, as you will perhaps notice, the girls were saying "Cheese" when the photograph was taken.

## FISHY TALES

I've seen pictures of some unusual fish, but a few I read of today really make me stare! I notice the SEA RAVEN or SCULPIN. Lying in seaweed this fellow looks just like the weed and can change colour to match the various weeds. An awful looking fellow is the CALIFORNIAN MORAY EEL. He looks (from front on) like an old gent with a large nose and his teeth out! However, he does have teeth and they are located well back in the mouth. The tiny WRASSE or CLEANER FISH usually lives on groper and is bright blue and about as big as a large groper's eye. His job is to eat the parasites that have a tendency to live on the groper's head. Another fish that uses a larger fish as a host is the REMORA or SUCKER FISH. He has a suction cup on the top of his head, with which he attaches himself to the fish, off which he lives.

The SNIPE EEL looks like a crane's head attached to two yards of 4" rubber tube! His needle-like beak or jaws is deadly and he can swallow most things whole. The flying fish or GURNARD when attacked

dives upwards and out of the water. Once just out of the water he can keep himself propelled along by using his tail as a propeller! The PORCUPINE FISH when attacked may take in air and expand to such a size as to make all his spikes stand up in a very nasty manner! Just like a sea porcupine! A blind fish, the CAVE CHARACIN, although it cannot see, finds its prey and avoids obstacles by means of a sense which detects vibrations in the water. Those rays are objectionable looking things. The Sting Ray, that fellow who is flat and round, has a nasty sting on his tail, but the MANTA RAY, which looks as frightening as a bulldog, is just as gentle as the poor old bulldog is! I've seen movies of these Manta Rays swimming and they are most graceful, just like swans spreading their wings. The poor old CATFISH is a nasty looking bit of work with his "cats whiskers" which are used as sensors. However, these are not dangerous, but the nasty spike at the back of the head is!

The PIRANHA does not exist in Australia, thank goodness. He grows about 2ft. long and is round and like a chunky bream. He has a sort of disgusted look on his face! You would too if he got to you in the water! A school of these fish can make a hundred-weight of meat disappear in a few minutes! How much did you say you weighed? The PADDLEFISH is a relative of the STURGEON and has a beak like a platypus. He stirs up the mud with his beak to get small bits of edible material from the bottom. Haven't seen any stirrers round here with beaks have you? The ELECTRIC MORMYRID looks a bit like a seal with an antenna out front. There is a generating station in his tail that he uses to advantage like the Electric Eel. The AFRICAN CATFISH is smaller than an ordinary catfish but he swims upside down. This is so that he can collect bits to eat off the surface of the water.

The MOUTH BROODER holds its eggs in its mouth until hatched. I would say this is one female that has to keep her mouth shut!

What's wrong with a PIKE? It's fast in action but those rows and rows of sharp teeth. Never stick your finger in a Pike's mouth, mate! It's preferable to be a MUD STIRRER and retain the digit for other uses!



## THREE WISE MEN

Gaspar, Balthasar and Melchior had been reading and studying the ancient scrolls. Although they were not of the Hebrew race, they were known as wise men; in other words they were looked upon as members of the educated classes. They had found the words of an ancient prophet called Balaam.

"I wonder what this means?" said Gaspar, "Listen and I'll read it to you." There shall come a star out of Jacob." He paused. "Let me see" said Melchior, "It's found in a scroll called Numbers. Look it goes on to say that a Sceptre shall rise out of Israel."

"That sounds like a King." said Balthasar. "And according to the scroll of Daniel the coming of that ruler must be very near." added Gaspar.

"We must look for a new star, and when we find it, I am sure it will lead us to the new King." said Melchior.

Each night after that they searched the heavens. One night they were looking towards the west, and suddenly the whole sky seemed to glow.

"Look, what's that?" It was Gaspar.

As they looked the glow faded and then appeared a bright star.

"There shall come a star out of Jacob." He quoted reverently.

"This must be the star." Melchior and Balthasar spoke almost together.

"We must prepare for our journey and prepare our gifts."

Gaspar was really excited now.

The following night after a busy day of preparation they were ready. Once again it was clear and dark, and they looked eagerly for the new star.

It was not hard to find — "There it is." said Melchior. They mounted their camels. It was a journey of three to four weeks to the land of Israel. They would have to travel by night so that the star could be followed closely.

Night after night they saw the star, it moved before them, a bright guiding light in the heavens.

As they travelled they talked of the ancient prophecies, that foretold of the birth

of this King. They wished they knew more. "It can't be much further now." Balthasar sounded rather weary. "It's been a long journey, but it will be worth it." added Gaspar.

It was almost dawn, the star faded once again, they struggled to the crest of the Mount of Olives. As they looked the glistening marble dome and the walls of the sacred temple of Jerusalem reflected the light of a new day. The three weary travellers looked at each other. Their eyes spoke their thoughts surely, this was the place at last, soon they would see the new King.

The wise men entered the city through one of the eastern gates. It was a beautiful morning. Many of the people stared at the richly dressed strangers. Melchior spoke to a group of priests who had just come out of the Temple.

"Greetings, I and my friends would be grateful if you can direct us to the birthplace of the new King."

The priests looked unbelievably at one another. An older man spoke, "Greetings, we have not heard of a new King."

"Perhaps you could get information from the palace of Herod; continue straight through the city, beyond the Temple wall and you will see the palace."

As they resumed their journey Gaspar looked at his companions. "Surely they would know of the birth of a new King!" "We'll soon find out," said Balthasar.

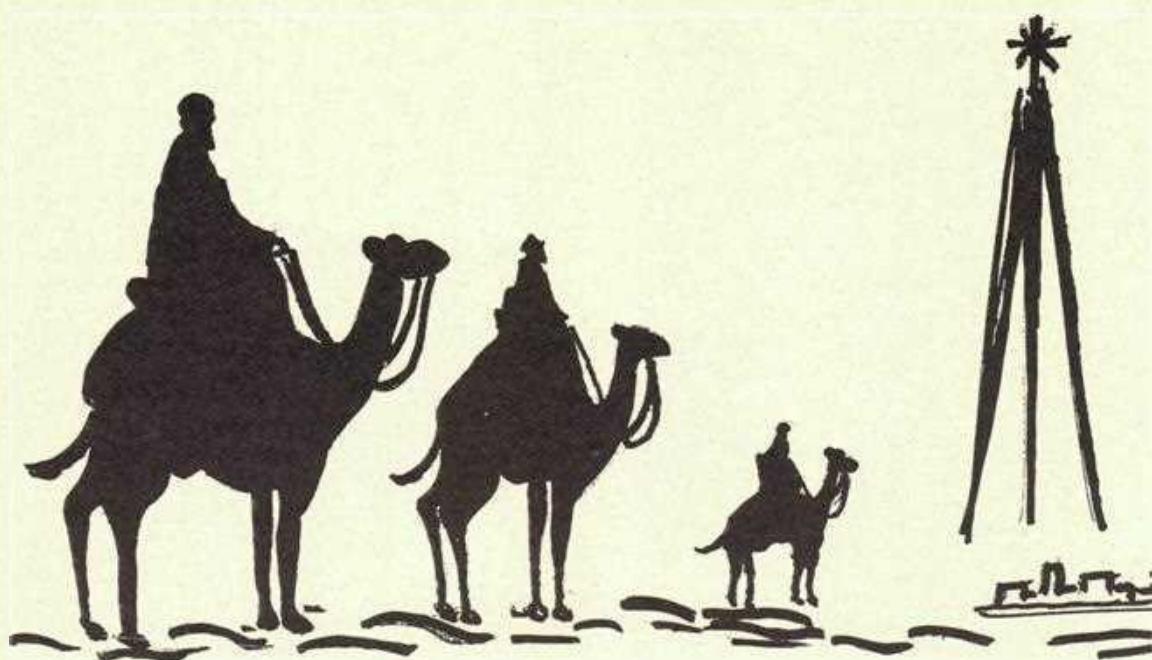
They were admitted to the palace, and after refreshment granted an audience with the King Herod.

After the formalities, Gaspar came straight to the point. "Where is he that is born King of the Jews? We have seen his star in the east and have come to worship him."

Herod questioned the three strangers, and was very attentive to their answers. All the time he was thinking: Is someone going to take my throne? I must find out all I can and get rid of this usurper. However, Herod said to the wise men, being careful not to betray his thoughts; "Retire and rest. I will find out from the chief priests and scribes, and call you again."

With all the chief priests before him and the scribes of the people Herod made his enquiries. After some time of searching of the scrolls, and talking among themselves, one of the chief priests made an answer





"The new King, according to the prophet, will be born in Bethlehem of Judea."

Herod then privately called the wise men, and gave them instruction, he added: "When you have found the young child, please come and tell me, so that I too can see him and worship him."

It was dusk as the wise men left the Temple. The star was there, and began to move before them. It stopped over a humble dwelling. It was about a month since the baby Jesus had been born, the crowds of people had left Bethlehem and Joseph and Mary had moved from the stable to a small house where they had obtained lodging.

The three wise men eagerly dismounted, took their gifts, and reverently approached the house. Joseph opened the door. Surely there must be some mistake he thought. Three richly-dressed strangers.

Gaspar spoke. "We have come to worship the new born King." They advanced. Joseph stood back in a kind of daze. Mary looked up — wonder written in her face. Baby Jesus was there in a cot now, for Joseph was a carpenter.

The wise men knelt and bowed themselves to the ground. Solemnly presenting their gifts, gold, frankincense and Myrrh.

That night they were warned by God in a dream not to return to Herod. They went home another way, happy in the knowledge that they had successfully accomplished what they had set out to do.

After they had gone an angel of the Lord appeared to Joseph in a dream. The angel said, "You must go to Egypt. Take the young child and stay there until you are told to return. Herod will try to destroy him."

They had the gift of gold, and were provided for, so they packed up and left Bethlehem. In this way the baby Jesus was saved from King Herod.

NOTE: Gaspar, Balthasar and Melchior are legendary names. The Bible does not reveal their names, nor does it say that there were three wise men. However, this may be so as three gifts are mentioned. There is no doubt that the visit of the wise men actually happened.



## NATURE NOTES

### WATERFOWL AND THE HOSKINS RESERVE (Part 2)

Although the Crested Grebe is totally absent from the district and the Hoary-headed Grebe is rare, the Little Grebe is relatively abundant. These quaint little water-frequenting birds are found throughout the district on both large and small farm dams and indeed at the Hoskins Reserve. They need very little introduction to the reader as most people have had at some time or another watched these smallish dark brown birds diving repeatedly below the surface and reappearing always in an unexpected spot. The nest is constructed of water-plants and is a floating platform that is usually anchored to a clump of reeds, lilies, a protruding log or branch or even a stump, some distance in from the edge. The sitting bird, upon leaving the nest, will immediately cover the eggs with weed as a precautionary measure.

Any visit to the reserve will be rewarded with views of at least two species of Egret, either the large or little species. I cannot recall seeing a Plumed Egret in the district at all. These birds are unmistakable in their all white plumage, snake-like neck, long legs and dagger-like bill. Egrets can be found stealthily stalking along the edges of reed beds in search of prey which would consist of small fish, frogs and aquatic insects.

Two species of Herons can be found at the reserve, namely the White-faced and White-necked Herons. Herons can be found in very much the same habitat as that of the Egrets and can be recognised by their sombre grey plumage. Social habits are very similar in both species as well as are the feeding habits. However, when it comes to body structure there is very little difference except that the neck would possibly be longer and more slender in the Egrets than the Herons. White-necked Herons are considerably larger than the white-faced birds and are relatively rarer.

One cannot overlook that family of birds that are commonly known as Waterhens. Just about any piece of wetland that has a good cover of reeds, open water and some nearby grassland will support quite a few pairs of these birds. Within the Hoskins

Reserve one can find three species of Waterhen, namely, Eastern Swamphen, Dusky Moorhen and the Coot. Again, all these species share the same habits, habitat and indeed the same territory. The Coot is probably the most aquatic and the Dusky Moorhens seem to prefer the reeds while the Eastern Swamphen favours areas where it can forage on open pastureland. Food for these birds consists mainly of water plants and insects. The nest is usually an open cup-shaped structure of water weeds, reeds and grasses and placed in vegetation growing near or in the water. The breeding season usually lasts from August to January in this district.

I guess it would really be unfair if I were not to mention some of the true waterfowl — the ducks. Out of the 16 species of duck found in Australia only six are to be found in the district or have been recorded by me. Wood Ducks are unusual in that they possess the long legs, bill and grazing habits of the true geese, hence their other name of Maned Goose. There are a few pairs of Musk Duck in the Hoskins Reserve and they are unmistakable with their lobes hanging from below the lower mandible, the familiar splashing and high jetting of water, but above all their low profile in the water. They are inhabitants of the deep waters and are usually found out in mid-stream.

The Hardhead is yet another species of duck that has been seen in the district on rare occasions. The outstanding feature of this bird is the prominent white eye and the conspicuous shape of the head. This duck along with the Musk Duck are expert divers and favour deep waters.

Chestnut Teal and Grey Teal are also to be found on the reserve and both breed freely there. Relatively small in size they are nevertheless favourites of sportsmen. Difficulty can arise when attempting to identify these two species as both sit relatively high in the water and both are surprisingly dark in appearance. The best guide is in the facial markings — Greys are much lighter.

The most common duck to be found throughout the district would undoubtedly be the Black Duck. This is the familiar duck in parks and gardens and zoos where they become very tame and will readily breed. Identification is simple, the birds possessing



a pale face with a prominent black line running from base of bill through and beyond the eye. In this district Black Ducks along with Chestnut and Grey Teal nest mainly in the hollows of trees and even the abandoned nests of Ravens and Magpies in the topmost branches of tall trees.

This has only been a brief summary of

a few birds that will be found when the reserve is opened to the public. Of course the dedicated bird-watcher will see many more species such as Bitterns, Rails, Crakes, Cisticolas and the many species of free-flying birds that abound in and about reed-beds.

CHRIS SONTER.



A recent picture of our Nature Notes writer, Mr. Chris Sonter, with his wife Maureen and Kylie Robyn, who at the time this photo was taken would be nearly 11 months old. Chris has now been contributing for two years. He is a member of The Royal Australian Ornithologists Union, and also The N.S.W. Field Ornithologists Club.

## BITS AND PIECES FROM THE DRUG SCENE

### UNSOLICITED SAMPLES

Now that TV cigarette advertising is banned in the United States, the tobacco companies are trying new channels. A flood of unsolicited cigarette samples mailed by the American Tobacco Co., to residents in Washington and several urban areas has triggered numerous complaints and a Congressional attempt to stop similar direct mailings in the future. William D. Ford introduced legislation last month that would outlaw all unsolicited mailings of cigarettes.

— from The Washington Post.

### DRUGS

Friends and associates far outweigh pushers as the means of introducing young people to hard drugs, a new study of more than 6,500 narcotics addicts suggests.

Of every one hundred addicts in the study, eighty-four got started on hard drugs

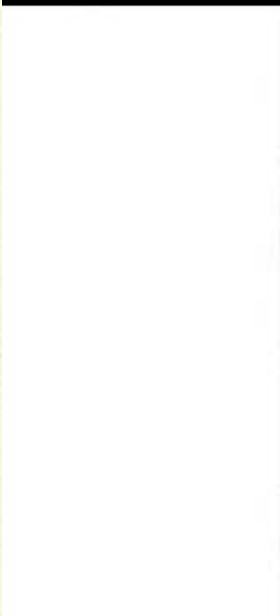
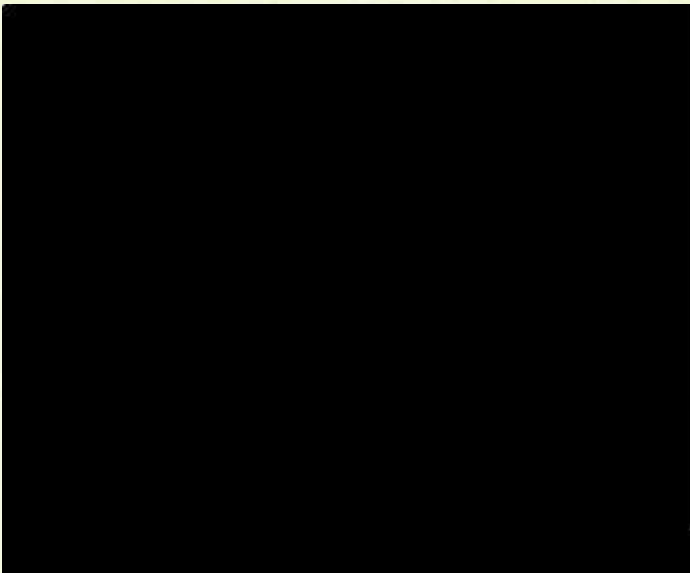
through friends, and only two because of pushers. Moreover, the Federally-financed study found that 25 per cent of the addicts studied followed an invariable four-step sequence toward addiction. They began with marijuana and advanced to amphetamines, or "speed". Then they began using barbiturates, and finally they became heroine addicts. The other 75 per cent skipped one or two of the steps, the study found, but none went directly to heroin without first using one of the other drugs.

Results of the study were released by Friends of Psychiatric Research, Inc., a Baltimore non-profit research group.

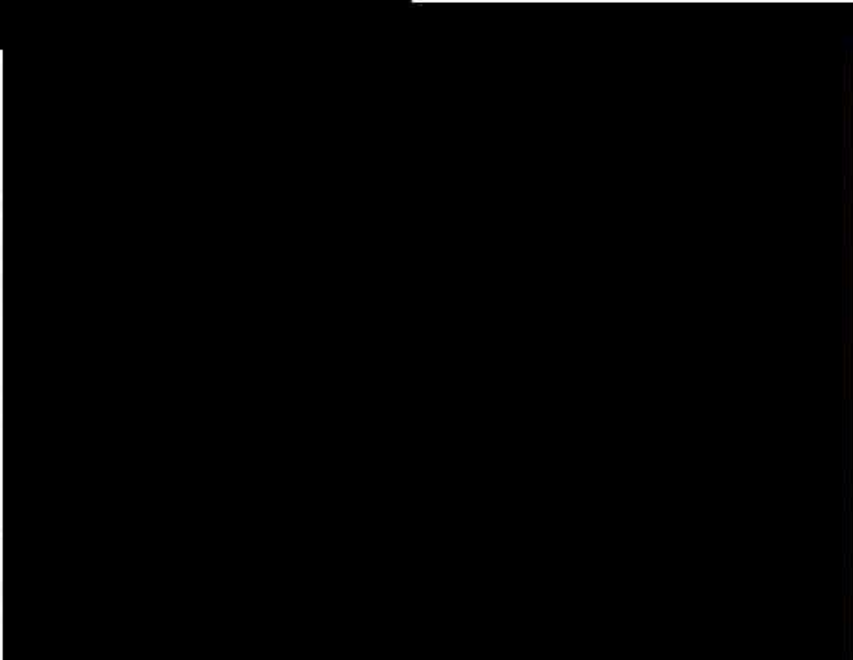

### BRAIN DAMAGE IN DRUG ABUSE

Physicians at the University of Southern California Medical Centre in Los Angeles have examined a number of drug abusers diagnosed as victims of strokes. The stroke often resulted in paralysis, inability to speak, or death. Calvin Rumbaugh, Thomas Bergerson, Harry Fang and Ruth McCormick report on their work in the November issue 'Radiology'.





The most common finding, after cerebral angiography (visualizing the blood vessels of the brain by x-ray), was that portions of small arteries had closed. The researchers say they are reasonably sure that there is a relationship between the cerebral vascular changes and drug abuse, but they are not sure which drug or combination of drugs may be responsible.  
— taken from Science News, Vol. 100, November 1971.



The Airport Pharmacy, Newark, New Jersey, posts this message: "No cigars or cigarettes. Any drug, device or other item that bears a 'caution' label is available on prescription. If it is absolutely necessary for you to smoke, have your doctor give you a prescription. A chemist is a health centre. Please do not ask where to obtain cigarettes.

— Medical World News.



The wedding of David Parker and Alison Cayford took place on 28th October, 1972 at St. Jude's Church, Bowral.

David is Stocks Supervisor for S.P.C. which covers Berrima, Marulan and the Colliery.

Alison runs a hairdressing salon in Bowral. We extend our congratulations and our wish that the newly-weds will enjoy every happiness both now and in the future.



**ON DRUGS:** (This article from Perth Legacy "Bulletin" has already been reprinted by Melbourne and Sydney).

In Florida, U.S.A., Judge Alfonsa Sepe had the miserable duty of sentencing a 17 year old youth to a years jail for possessing hallucinogenic drugs and assaulting a police officer. The judge's words, in handing down the sentence, have been widely circulated in the States and should be worth thinking about even here.

Speaking directly to the youth, he said: "Do you know who is going to serve that year? Not you; your mother and father will serve that year. Your body is in the stockade for a year, but their souls are tormented for a lifetime.

I have not spent five cents raising you. I didn't know you from Adam. But your mother and father have put their lives, their hearts, their sweat, their money and everything else they had, into bringing you up. And now they have to sit in this court room and listen to a total stranger who had nothing to do with your upbringing, scold you and put you in goal.

This is a time when phoney kids your age are yelling — "You adults have your alcohol, we want our drugs; you have

polluted our water and air, you have polluted this and that, and all the rest of the garbage that comes out of your mouths. I want you to think of this for one year, and the reason why I say it: If you are sick, a doctor will treat you, and he won't be high on drugs. The lawyer that represents you won't be high on drugs and the people in whose custody you will be, won't be high on drugs.

Your astronauts are not on drugs, your President is not and your legislators are not. And your engineers who built the bridges you drive across and the tunnels you drive through, are not on drugs, and those who built the planes that you fly in, and the cars you drive, are not.

But in the world of the future the same may not be true.

Teachers, doctors, lawyers, legislators — products of the new drug — oriented generation, may well be high as kites. You won't know whom to send your child to, or whom to trust your life to.

Lets see what kind of a world you leave your children before you talk about the world that we left ours."

Reprinted from the Sydney Legacy Bulletin submitted by Mr. L. Shaw, General Office, Berrima.



## GARDENING NOTES FOR NOVEMBER

- FLOWERS:** SOW: Antirrhinum, Aster, Amaranthus, Balsam, Celosia, Coreopsis, Cosmos, Comphrena, Helianthus, Marigold, Nasturtium, Portulaca, Phlox, primula malacoides, Scabiosa, Salpiglossis, Sweet William, Verbena, Zinnia.  
PLANT: Ageratum, Antirrhinum, Aster, Carnation, Dianthus, Delphinium, Lobelia, Petunia, Phlox, Salvia, Verbena, Zinnia, Dahlia and Chrysanthemums.
- VEGETABLES:** SOW: Beet, Beans (French, Butter and Climbing), Carrot, Cress, Lettuce, Onion, Parsnip, Sweet Corn, White Turnip, Celery, Capsicum, Cape Gooseberry, Tomato, Cucumber, Melons, Pumpkin, Squash, Vegetable Marrow, Radish.  
PLANT: Lettuce, Tomato, Potato, Sweet Potato and Herbs.

October's rainfall of over five inches has changed the appearance of the whole countryside and where a few weeks ago the area was brown, and grass scarce, the district is now a lush, green carpet. Plant the flower and vegetable gardens this month, and replace any plants which have disappeared owing to the ravages of slugs and snails, or which have been blown out during windy weather. The snails have been eating as high as ten feet up, during the recent wet weather.

Water the garden in the late afternoons during the warmer weather so that the water soaks into the ground during the cooler evening hours.

Remove any dead flowers from the rose bushes and annuals to keep them blooming.

Give the flowering blooms a light trimming over as soon as they have finished flowering to keep them compact, and prune any other Spring flowering shrubs which need it, as soon as they have finished blooming.

Stake the tomato plants as they grow, snipping off some of the side growths, to keep the plants to a manageable size. Cultivate between rows in the vegetable garden to prevent weeds seeding.

There are already caterpillars on the cypress hedges, so get busy controlling these by spraying with "Bug Geta" or any similar spray used for "chewing" insects.



If you have been on the plant at Berrima, you are almost sure to have seen Walter Napper tending the gardens and lawns around the Works Office, Machine Shop or No. 5 Kiln. Wally has been with S.P.C. for 15 years, previously he worked on private gardens in the vicinity of Moss Vale. For two years he looked after the gardens at the Governor's former country residence, Sutton Forest. When Wally works on a garden it becomes his garden, not just another job of work.



## GARDENING NOTES FOR DECEMBER

- FLOWERS:** SOW: Antirrhinum, Aquilegia, Aster, Balsam, Carnation, Delphinium, Dianthus, Eschscholtzia, Gaillardia, Hollyhock, Mignonette, Nasturtium, Pansy, Iceland Poppy, Primula, Stock, Sweet Pea, Viola, Wallflower.  
PLANT: Ageratum, Antirrhinum, Aster, Carnation, Dianthus, Delphinium, Lobelia, Petunia, Phlox, Salvia, Verbena, Zinnia.
- VEGETABLES:** SOW: Beet, Beans, Brussels Sprouts, Cabbage, Cauliflower, Carrot, Parsnip, Peas, Sweet Corn, Swede, Turnip, White Turnip, Beetroot, Lettuce, Tomato, Cucumber, Marrow, Pumpkin, Squash, Water Melon, Rock Melon.  
PLANT: Capsicum, Celery, Lettuce, Potato, Tomato.

December is the month when most Summer annuals are coming into full bloom and it should only be necessary to replant any which have "missed". Some annuals such as Balsams and Nasturtiums are better planted where they are to grow.

It's a good idea to get all the weeds destroyed this month and then have a few weeks' rest from weeding over the Christmas-New Year period, when there seems to be so many other things to do. If you going away for holidays, mulch the garden beds well, to conserve water and prevent the growth of weeds. Lift Hyacinth and Tulip bulbs at the end of this month, storing them in dry sand, to which a small amount of powdered fungicide such as Bordeaux powder has been added. Inspect from time to time to prevent them being eaten by slugs or other "wogs." Cut back the Spring flowering herbaceous plants lightly and give them a good dressing of blood and bone. Spray fruit trees with "Roger 40" to control the fruit fly.

A VERY HAPPY CHRISTMAS TO ALL.

### RYTEWORDS No. 13 — RESULT

NO CORRECT ANSWER WAS RECEIVED. THE FIRST PRIZE HAS BEEN DIVIDED AMONGST THE FOLLOWING FOUR ENTRANTS WITH TWO MISTAKES EACH:

Mrs. Barbara Seville, Mittagong;  
Mr. T. Sharkey, Marulan;  
Mr. R. Boyd, General Office, Berrima;  
Mrs. H. Shepherd, Marulan.

Reasons for the choice of answers are as follows:—

1. The majority of people do not have any fame to be remembered by. A great deal can be remembered about a person when a name is mentioned.
2. An attractive SALE appeals to most ladies.
3. Most people go to the coast because of the attraction of the coastline and SAND. One may get pleasure from a BAND if it is playing there.
4. A good COOK would be an aid to cooking. There are millions of good BOOKS that have nothing to do with cooking.
5. CATTLE is more often seen in the country. WATTLE in bloom is restricted to season and location.

Gregory Shepherd, Marulan will receive \$1 for his correct answers to the quiz.

### SOUTHERN PORTLAND CEMENT

### EMPLOYEE'S DINNER DANCE

On Thursday, 21st December, 1972

7.00 p.m. to 1.00 a.m.

at Moss Vale Services Club

ESCORTS BAND

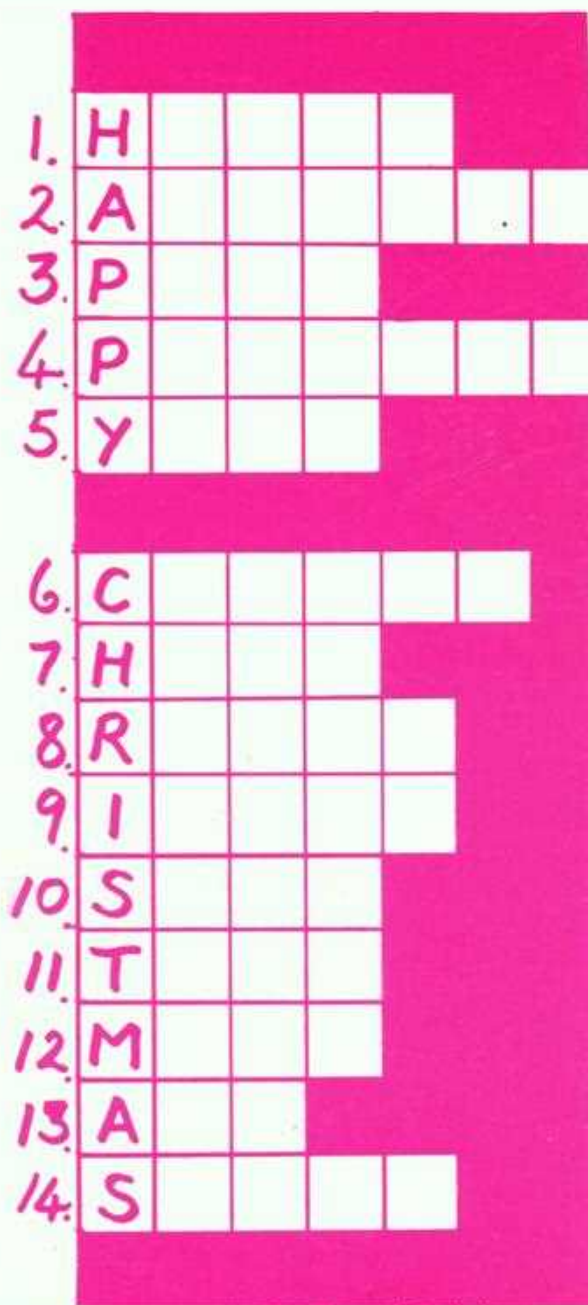
*If you are not already paying into the Fund  
the cost will be \$5 Double.*

ALL WELCOME

Book Now

T. WAIDE,  
Secretary.





## CHRISTMAS RYTEWORDS

First Prize \$12. Second Prize \$8.

If no correct entry is received, first prize will be divided amongst entrants with one mistake. Closing date: January 3rd, 1973.

### C L U E S

1. Children are usually this at Christmas.
2. Nuts used in Christmas cakes.
3. A fruit that reminds one of a Christmas Pudding.
4. Follows Christmas dinner.
5. A type of log.
6. Christmas celebrates the birth of . . . . .
7. Folks usually like to be here at Christmas.
8. At Christmas ladies like to be in their best . . . . .
9. Used to decorate cakes.
10. Led the three wise men.
11. Kiddies look for new ones at Christmas.
12. Connected with some Church services.
13. Needs to be good to enhance show.
14. Usually made more attractive at Christmas.

**NOTE:** There are five sets of alternative answers.

Would all competitors kindly use plain paper for entry. Write numbers 1 to 14 with appropriate answer against each number.  
Thank you, Editor.

## SAFETY LIMERICK WINNERS

1st Prize \$5 goes to Roy Taylor, Printing Office. For the last line:—

"To make freedom from mishap your goal,  
Keep each step of your job in control!  
A high price you may pay,  
If you let your mind stray,  
FAR AWAY FROM YOUR WORK AND  
YOUR SOUL."

2nd Prize \$3 to Max Thorpe, Colliery:  
"It could be you for whom the bells toll"

Consolation prizes of \$1 each:—  
Alan King, General Office:  
"Otherwise you may never grow old".

Roger Seville, Colliery:  
"Because unsafe practice takes its toll".

Mrs. E. Cosgrove, Marulan South:  
"So always keep Safety on patrol."

Harry King, Penrose:  
"Otherwise you may end on the dole."