Cockle Creek News

SULPHIDE CORPORATION PTY. LIMITED AND GREENLEAF FERTILIZERS LIMITED

MEMBER COMPANIES OF C.R.A. LIMITED

No. 191. MAY/JUNE, 1967.

STORY BEHIND THE COVER:

WELL-KNOWN SULPHIDER NOW A MEMBER OF THE "TURTLE CLUB"

That well-known—we might even say famous—local identity, Mr. Charles ("Shay") Mann, Chargehand in the Transport Department, was welcomed as a member of the "Turtle Club" in April.

A word of explanation is necessary—the "Turtle Club" is an international association founded in 1948 by C. R. Rustemeyer, Safety Director of Canadian Forest Products Ltd., Vancouver, British Columbia. The purposes of the Association are:—

(1) To promote more widespread acceptance and use of safety head protection through contact with men and/or women whose lives have been saved or who have been protected from serious injury because they were wearing safety head protection.

(2) To dramatically demonstrate the importance of wearing safety head protection and wearing it properly.

(3) To assist the safety movement, through industry, Safety Councils or other approved groups or agencies by the publishing of information about accidents of new members.

Charlie Mann qualifies for membership because his safety helmet saved him from serious injury back in 1963 when he was involved in an accident which occurred during the stacking of bales of jute bags in No. 1 Super Shed.

Despite the breakage of several bones in the lower part of a leg and extensive bruises all over his body from the neck down and especially around the chest, "Shay's" head was uninjured. This was attributable directly to the safety helmet he was wearing. Iron man that he is "Shay" was back at work in quick time, after making a remarkable recovery worthy of a separate story all of its own.

One further point—Charlie tells us that he was so impressed with the effectiveness of the hard hat that he immediately purchased a safety helmet to wear whilst riding his motor-bike.

The "Turtle Club" is, naturally enough, so named because the turtle is clearly one of the earliest users of hard shell for protection!

The Club's slogan is:

"Shell on head—we're not dead."

Australian sponsor of the Club is the Victorian Division of the National Safety Council of Australia to whom application for membership was made on behalf of "Shay" by our Personnel Department. "Shay" himself was actually responsible for turning up the fact that the "Turtle Club" sought members

(Continued on Page 3)

DEATH of Mr. C. H. ERRATT

AUSTRALIA'S "LONGEST SERVING EXECUTIVE" DIES AT WALCHA.

The Walcha district lost one of its most outstanding citizens when the death occurred in Walcha District Hospital on Sunday, April 30, of Mr. Charles Henry Erratt.

Mr. Erratt was in his 97th year and was popularly believed to be Australia's longest working executive. He had worked in the firm of Erratt's for 84½ years.

His father started the store 116 years ago and Mr. Erratt commenced his career there at the age of 12 years as a "handy boy".

He never took a holiday in his record long-working career and his long service leave owing to him totalled nearly three years . . . . He always insisted he was too busy to take a holiday.

MR. C. H. ERRATT.

LEGEND.

Mr. Erratt was a legendary character in the district . . . Indeed, when a teacher once asked a class who discovered Walcha, the answer was "Charlie Erratt".

Mr. Erratt attributed his long life to daily morning exercises (he was passionately fond of using dumb bells) and high protein meals.

He was a chain smoker and used three pipes one he was smoking, one cooling off and the other filled ready for use. He also liked a drink of spirits before supper at night. A keen lover of horses, Mr. Erratt was, up to several years ago, a familiar figure on horseback each week-end, riding around the town.

He never allowed his interests to lag in this modern world and kept himself fully conversant with all phases of living.

SHIRE PRESIDENT'S TRIBUTE.

The President of Walcha Shire (Cr. N. R. Turton) said that Mr. Erratt had done an enormous amount for Walcha. He had been a banker and an adviser to graziers and citizens of the town. In addition to being an astute businessman he played a big part in the development of the district.

"He was loved by the young and old," said Cr. Turton.

Mr. Erratt is survived by two sons, Mr. N. H. (Pat) Erratt and Mr. Col Erratt, both of Walcha, and three sisters, Miss L. Erratt, Mrs. M. Laffan and Mrs. E. Alcorn, of Edgecliff, Sydney. His wife predeceased him 12 years ago, and a son, Mr. Earle Erratt, was killed in World War II in Malaya.

(Erratt's Pty. Ltd. have long been associated with Sulphide Corporation and Greenleaf Fertilizers as our fertilizer agent at Walcha, and we are indebted to the "Walcha News" for providing us with the information for the story and the block of the late Mr. C. H. Erratt.)

★ Continued from Page 2.

outside North America, having sighted a reference in a safety magazine.

Those who qualify to become members of the "Turtle Club" receive a citation from the head body of the association admitting them to membership, a special safety helmet bearing on the front the club's symbol (a turtle) and the words "Member Turtle Club" (see cover) and a lapel pin of the symbol also . . . **Our heading photograph (p. 3) shows these items being presented to Charlie Mann by Superintendent Transport and Despatch, Jack Kavanagh, at a ceremony outside the Transport Offices on Wednesday, May 24.**

SMALL CRAFT SAILING . . .

Situated as we are near the shores of Lake Macquarie our interests at the week-end turn to the water sports — fishing, swimming and small craft sailing. Of the three sailing would be the one with the most appeal as far as the employees of Sulphide Corporation are concerned.

Interest in this sport is **very** high both from an administrative and participant view point. We have amongst us men who have followed the sport for 30 years or more and are still as keen as the first day they sailed. Names that come to mind in this regard are **Ray James** and **Ian Telfer** of the Carpenters' Shop—good administrators, first class sailors and good club men who pass on their knowledge to the younger generation.

In earlier times sailing was strictly for the tough men in the 16 footers, but about 35 years ago a small craft called the V.J. dinghy hit the headlines. This boat was the turning point in sailing insofar as family participation was concerned. It enabled father and son to sail together and since that time we have seen boys, girls, mothers and fathers having the time of their lives in these boats.

Since the advent of the V.J. into the sailing world many more classes of boats have been designed and now every week-end on the lake races are held to cater for the ever-growing number of people interested in this sport.

Sailing clubs are situated all around the lake—Speers Point, Marmong Point, Teralba, Toronto, South Lakes, Marks Point and Belmont. These clubs cater for the young and not so young and always welcome the beginner. Competition in races is very keen and large crowds of spectators assemble whenever a Zone or Lake Macquarie Championship is being contested.

Over the last few years a new approach to sailing has sprung up, namely, "catch them young". A boat called the Sabot has been designed to teach the young people the art of sailing. These boats, 8 feet long with a blunt bow are designed for a mainsail only and are growing in popularity. Clubs at Speers Point, Marmong Point and Teralba have a great following in this class. This craft is particularly safe and as the courses are not long, parents have no need to worry about the safety of their children. Races for Sabots are not held if conditions are too boisterous, but if a sudden squall comes up, safety is provided

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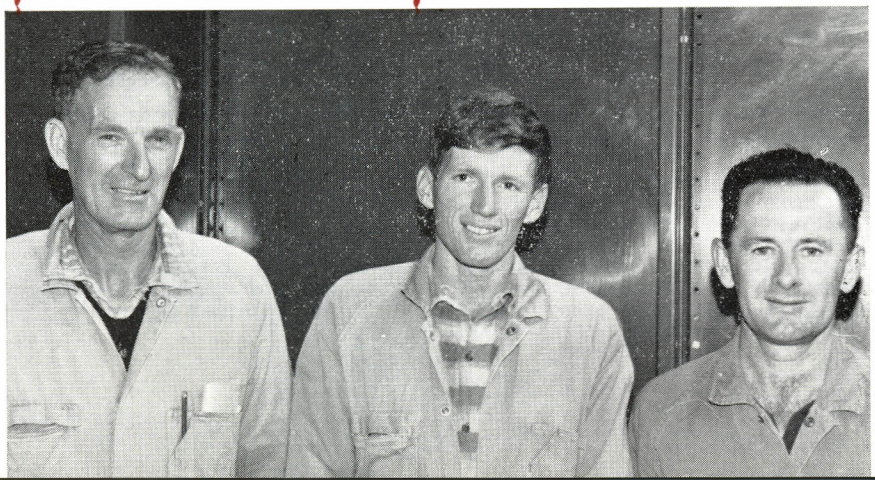
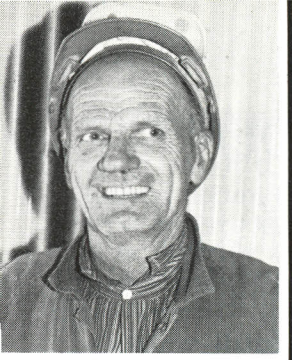
A TRIO OF CHAMPIONS

Few industries could boast of having in one of their departments three men with as much prowess in a particular sport as the trio below, all of whom work in our Store and have excelled at V.J. sailing.

From left we have Tom Adamson (State, Lake, Zone Champion), Richard Mann (Commonwealth, State, Zone, Champion of Champions) and Alby Roberts (Lake, Brisbane Waters Champion).





RAY JAMES

NORM DICK

ADRIAN WILLIAMS

Some Sulphide Sailors

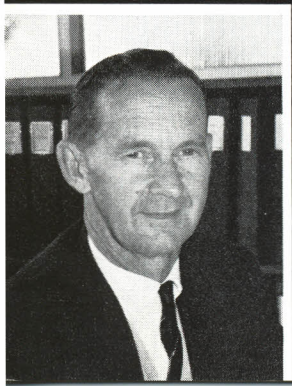
CHARLIE MANN
Former N.S.W. V.J. Champion

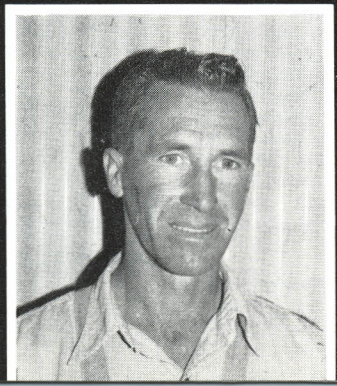
LEFT: Clef, when sailed by Grahame Carlier (son of Project Engineer, Ted Carlier), shows the form which in 1964 gained them the N.S.W. Junior V.J. Championship . . . An interesting point about Clef is that the whole craft (including the sails) was built by the Carlier family . . . Another, is that Grahame's for'ard hand was Philip Crawford, son of Safety Officer, Dave Crawford.

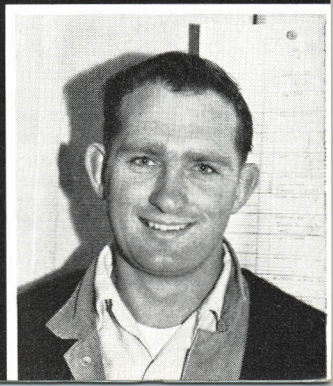
EDGAR HAMONET

IAN TELFER

Above: GORDON BLOMFIELD
Below: KEITH BLOMFIELD







COMPUTER STUDY GROUP

A Computer Study Group is investigating the application of computers in the Commercial, Production and Technical areas of both Sulphide Corporation and Greenleaf Fertilizers. The objective is to provide management with a firm indication as to the feasibility of a computer installation at Cockle Creek.

Because of the wide range of activities currently being investigated, the Study Group members have been drawn from a variety of departments. The Group comprises Geoff. Firkin (Senior Metallurgist), Phil. Happ (Research Metallurgist), David Karpin (Economics—Development) and Trevor Kassulke (Systems Control Officer).

During the course of the Study, a number of educational activities have been organised for the Study Group members and other Company employees. The most recent of these was a Management Appreciation Seminar conducted by I.C.T. Australia Pty. Ltd. This seminar covered such topics as:—

* What is a computer? How does it work?
* How are large industrial organisations utilising computers?
* Who manages the computer and where does it fit in the company structure?

The I.C.T. representatives at this seminar were Mark Blunt, Phil Larsen, Sue Robertson and Neal Mann.

These education courses are aimed at increasing the awareness of our staff to the potential advantages of using computers in an industrial organisation.

Miss Robertson demonstrated that computing can be very much a woman's world as she deftly led the Sulphide groups through the intricacies of market and operations research and the part computers can play in these fields. . . Quite an interesting sight to see a couple of groups of hard-boiled plant, commercial and engineering males listen respectfully to a member of the opposite sex pointing out a few home truths about maintenance planning and related topics . . . It sure is a changing world!

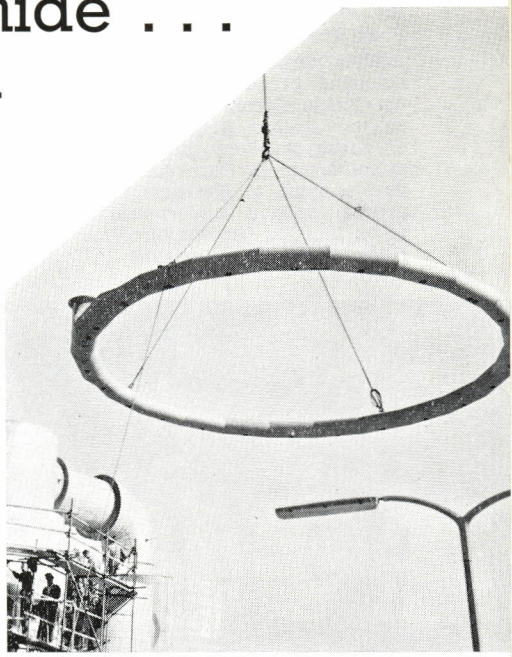
I.C.T.

LECTURERS

The three I.C.T. lecturers and discussion group leaders photographed during a pause in the Management Appreciation Seminar proceedings at Cockle Creek. From left, Miss Sue Robertson and Messrs. Mark Blunt and Phil Larsen.

UFO at Sulphide . . .
NOT REALLY . . .

The airborne object at right is a new ring main being lifted into position for affixing to D Acid Plant primary converter.



The new main was a replacement for an existing one which, because of its general condition following a number of years of operation, was taken out of service.

Its purpose is to cool hot gases from the first catalyst pass of the converter to the desired temperature for entry into the second pass. This is achieved in the ring main by the injection of cold SO_2 gas, bled from the blowers, into the hot gas leaving the first pass

The new ring main was designed and fabricated on the Works and installed by Sulphide personnel. It differs from the old in that it is made of smaller diameter pipework and is unlagged. The outside diameter of the ring is over 40 feet.

Special credit is due to the engineering trades-people concerned for the efficient and time saving manner in which the changeover and some other pipe-work modifications were effected during a plant shutdown.

The WORCRA Copper Process . . .

In view of the considerable interest shown in recent articles in the press and technical journals, both in this country and overseas, centred on research work that has been carried out at Cockle Creek, it seems appropriate that a review be published in the "News" of the WORCRA Copper Process, the most advanced of the WORCRA Processes under development on our site at this time.

The following article is a summary of part of the paper "Continuous Smelting and Refining by the WORCRA Processes" delivered by Dr. H. K. Worner to the Institute of Mining and Metallurgy Symposium on "Advances in Extractive Metallurgy" in London during April of this year. This paper outlined the principles governing new approaches to smelting and refining of metals.

The processes, invented by Dr. Howard Worner, Director of New Process Development Conzinc Riotinto of Australia, represent technological breakthroughs of world-wide significance to the mineral industries.

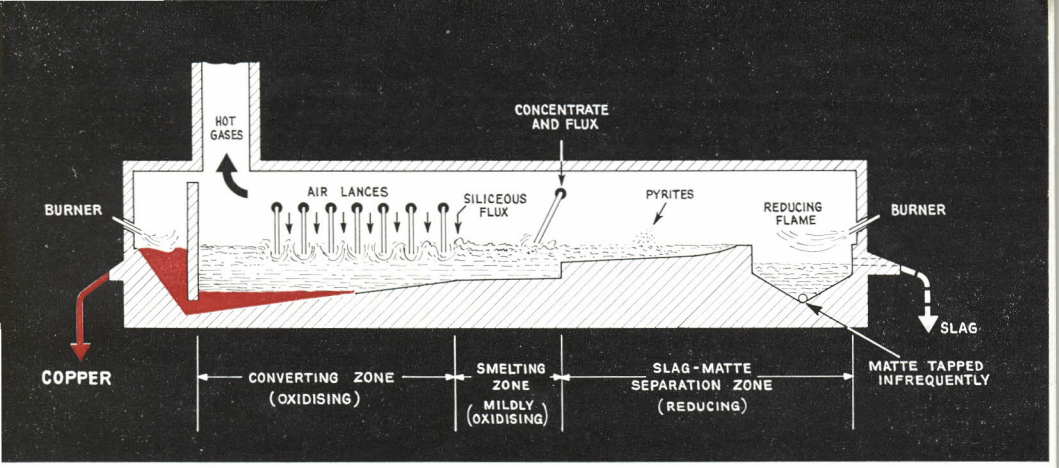
Four Years Work on WORCA Copper.

Pilot plant work on the new copper smelting process has been proceeding at Cockle Creek for a period of four years. It is a tribute to the energies of those involved that this work has culminated in the recent news that development of the new process is to proceed with a semi-commercial plant to be built at the works of Electrolytic Refining and Smelting Co., Port Kembla.

The importance of copper and its metallurgy to the C.R.A. Group was highlighted on 17th May last with the announcement by the Minister for Territories that a draft agreement was being negotiated for the development of the Bougainville Island deposits. The deposits are of very considerable extent — over 90 million tons of ore averaging 0.63 per cent. copper and 0.58 dwt per ton gold have already been indicated and it is envisaged that a total investment in excess of $100 million would be involved in an operation requiring the provision of roads, a port, dams, a power station and township, as well as a mine and mill, and treating as much as 10 million tons of ore per annum.

Incentive to develop Continuous Processes.

In the field of extractive metallurgy —pyrometallurgy particularly—a batch-wise approach to processing has been the tradition. Notable exceptions familiar to many people on this site include modern sintering and pellet hardening practice and also such oper-



A diagrammatic vertical section through one form of WORCRA copper smelting furnace . . . It possesses: (a) a smelting zone — with functions similar to the reverberatory or blast furnace; (b) a converting zone — with functions similar to the conventional converter but operating continuously and with a horizontal as well as vertical composition gradient maintained; (c) a slag-matte separation zone.

ations as the Williams (BHAS, Pt. Pirie) method of refining lead bullion and the Imperial Smelting Process (ISP) for production of zinc (and lead) in a blast-furnace.

It is worth emphasising that blast-furnaces in general are "continuous reactors" but, insofar as their liquid products are tapped intermittently into ladles, they are treated as if they operated batchwise.

Reverberatory smelting furnaces and open hearth (steelmaking) operations are notoriously inefficient thermally and, like blast furnaces, succeed in "giving away" a great deal of heat to the vast tonnages of nitrogen pumped in with the oxygen of the air.

Progressive chemical engineers can hardly be blamed if, observing so many of the cherished practices in pyrometallurgy, they conclude that we are inveterate "bucket lifters" and "nitrogen pumpers". With regard to the question of batch versus continuous operation it must be conceded that production levels do not always justify continuous processing. However, with the trend towards ever larger and larger throughputs, greater interest in continuous processes is justified. There are other incentives leading to the evolution of highly integrated continuous unit operations for smelting and refining of metals.

These include:—

(a) the steeply rising costs of the larger batch furnaces

(b) the high cost of large cranes, railway systems, ladles, ladle repair shops, etc., necessary for batch handling of liquid furnace products—often between widely separated units.

(c) the desire to economize in site requirements, foundations and buildings.

(d) the necessity to reduce heat losses and to achieve maximum economy in fuel utilization and electric power consumption

(e) the greater amenability of integrated continuous unit operations to automation and on-line computer controls.

World-wide Interest.

The interest shown on this site in development of continuous smelting

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WORCRA PROJECT APPOINTMENTS.

The following WORCRA Project appointments were announced at the beginning of May:—

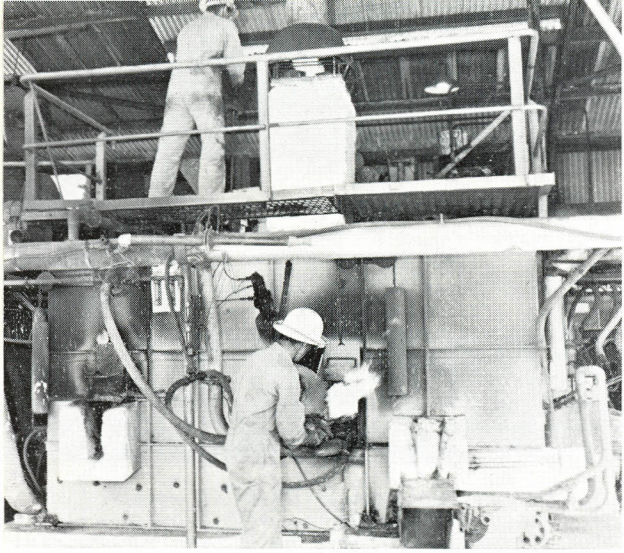
B. S. ANDREWS—WORCRA Project Superintendent; **D. E. FITZGERALD**—Plant Superintendent; **P. WAND**—Assistant to Smelter Superintendent, E.R. & S. Co., Port Kembla, has been seconded to Sulphide Corporation and will act as Assistant Plant Superintendent during his secondment; **K. J. PHILLIPS**—Development Metallurgist; **J. D. SCARCE**—Assessment Metallurgist; **A. COLLIER**—Research Metallurgist; **D. A. CAIN**—Senior Chemist.

Shift Metallurgists: **P. McK. KEDDIE, J. M. GUEST.**

Trainee Metallurgist: **I. ROSS.**

Process Foremen: **G. R. CHOICE, J. C. ROBINSON, N. F. COPPINS, F. A. GOODWIN.**

Our photograph, at left, shows some of the WORCRA Project personnel: L. to R.: B. R. Andrews, A. Collier, P. McK. Keddie, F. A. Goodwin, N. F. Coppins, J. M. Guest, I. Ross, J. D. Scarce, D. E. Fitzgerald, K. J. Phillips.



COCKLE CREEK PILOT PLANT—at top, an operator is engaged in dipping the furnace and lower, the slag weir is being cleaned out.

THE WORCRA COPPER PROCESS (Continued)

and refining processes is by no means isolated. In recent years several other groups around the world have been active in this field of work. These include the Outokumpu "flash" smelting plants in Finland and Japan, Copper Cliff in Canada, cyclone matte smelting in East Germany and work in Czechoslovakia and U.S.S.R. ranging from cyclone and suspension smelting of concentrate through to continuous converting of matte to copper.

Recent comprehensive technical reviews by eminent overseas metallurgists have pointed up the potential for continuous processing in non-ferrous extraction metallurgy, particularly in copper production.

It is appropriate to mention that the WORCRA processes are protected by patents in all the industrially important countries in the world.

Principles of WORCRA Bath Smelting —Converting.

In their more fully developed form the WORCRA concepts seek to combine in one furnace, but in separate and connected zones or branches, (a) a smelting stage, (b) a continuous converting or refining stage and (c) slag conditioning and settling.

Particularly as applied to copper metallurgy, the WORCRA operation is to be distinguished from established "jet" or "suspension" smelting processes in that (1) it produces metal, rather than matte, directly from concentrates; (2) most of the reactions are generated and continued within the liquid bath—hence the description "bath smelting"; (3) the bath in the smelting and converting zones is turbulent and continually flowing; and (4) slag is caused to move generally countercurrent to matte for at least a part of the converting zone and right through the smelting zone to emerge finally into a separate relatively quiescent slag conditioning and settling zone.

Unlike conventional reverberatory smelting, where reactions between slag and matte or slag and metal have to take place predominantly at a single (horizontal) interface, the WORCRA process seeks by the method of interjecting particulate solids and gases into the bath to maintain within the smelting and converting zones the maximum area of surfaces for reactions in the liquid phases. The converting (or refining) zone particularly is maintained in a state of vigorous turbulence, with the gas jets thoroughly stirring and dispersing slag and matte.

In the separate but connected slag conditioning and settling zone or branch, appropriate conditions may be maintained or additions made to achieve both optimal separation and settling of entrained or dissolved metal values and their continuous return to the smelting zone via a backward sloping hearth. It is also possible to alter the composition of the slag, free of any risk of upsetting the metallurgical balance in the smelting and converting zone, in order to fit it better for easier disposal or possibly for some profitable end use such as, for example, glass or porcelain production, the making of abrasion re-

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sistant tiles and bricks, cement manufacture, etc.

Additional to the main body of the furnace there is an auxiliary chamber at the end of the converting branch—into which metallic copper, with about 1 per cent sulphur, flows through a bottom passage from the copper "well". If desired, further refining with respect to sulphur and some other elements can be effected in this chamber before the metal flows on to be cast into anodes or other shapes.

Contrary to classical theory and batchwise converting practice, the production of copper takes place (continuously) under a slag, albeit relatively thin, which itself is charged with a mixture of prills of matte, white metal and copper. Near the copper taphole end the slag is naturally highly oxidized, but as it moves back countercurrent to the matte stream its magnetite and copper contents are progressively lowered. Further chemical reduction and "stripping" of copper occurs as the hot slag enters the circulatory smelting zone and comes into contact with (as well as transferring some of its heat to) freshly melting matte with much lower copper content and a high sulphur activity.

The denudation with respect to copper continues as the slag flows slowly through the slag-matte separation branch. Here reducing additives, such as pyrite, coal or other carbonaceous materials, can be gently stirred into the slag to effect a lowering of copper values to figures comparable to or better than reverberatory practice.

The pilot-plant work has indicated a considerable potential for savings in both capital and operating costs by, for example:—

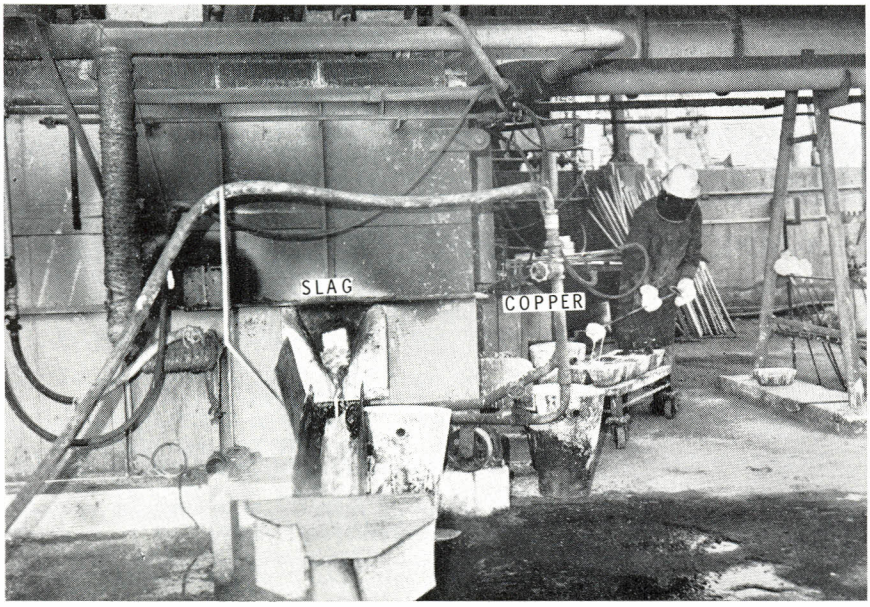
(a) reduction in site requirements, foundations and buildings for the smelter.

(b) the elimination of the necessity for roasting or sintering ahead of smelting (drying is, however, desirable)

(c) the elimination of the handling of revert slags

(Continued on Page 12)

COCKLE CREEK PILOT PLANT—At front, low copper content slag is flowing steadily in a thin stream into a granulating launder. The rate of copper production is barely sufficient to permit truly continuous tapping so it has to be spooned out at frequent intervals and cast into conveniently shaped "bricks", as at right.



(d) reduction in fuel consumption

(e) reduction in manpower requirements as a result of (c)

(f) Increased use of automation

(g) a slight lowering of copper losses in slag and dust.

In areas where it is desired to make acid, a high recovery of sulphur is possible as the furnace gases are emitted continuously at a relatively high SO_2 tenor (9-12 per cent, depending on concentrate type and grade, amount of auxiliary fuel used, etc.).

The power requirements may be slightly higher than for conventional batch smelters because a little more compressed air is required for blowing, but at similar low pressures to those employed in conventional converting.

Acknowledgement.

In his paper, Dr. Worner expresses his thanks to the Chairman and Directors of Conzinc Riotinto of Australia, Ltd., for their active support in this comprehensive new development programme and for their permission to publish the present paper.

Thanks are also expressed to colleagues in the R.T.Z. Group and the Research Staff at Cockle Creek engaged on the WORCRA projects.

AMMONIUM NITRATE STORAGE . . .

Charlie Mann, who features in an earlier story in this issue, is pictured above placing a warning sign near a stock of ammonium nitrate fertilizer material which Greenleaf Fertilizers has imported recently.

The material is stored at the north end of No. 2 superphosphate storage shed and the stockpile contains 800 tons.

Containing 33.5 per cent nitrogen the material—NITRAM—came in two consignments from Geelong, Victoria, where it was unloaded from an overseas vessel and then transported to Cockle Creek by the Victorian Railways.

The material is in polythene-lined hessian bags and, as our photograph shows, is covered by weatherproof sheeting.

I.S.P. CONFERENCE

Our General Manager, Mr. J. H. Standish, accompanied by the Production Manager, Mr. A. T. Thomson, and Chief Metallurgist, Mr. P. R. Mead, recently returned to Cockle Creek after having attended the second conference of I.S.P. licensees at Bristol, England.

The I.S.P. metallurgical process is now well established as one of the major metallurgical advances of modern times and the list of people using the process continues to grow year by year. One of the principles requested of new licensees is that of co-operation and interchange of ideas, and operating licensees are informally referred to as the "I.S.P. family".

The I.S.P. conference is one manifestation of this spirit of co-operation and almost all present and future operators were at Bristol to consider papers presented on various aspects of I.S.P. metallurgy and operation.

Our representatives reported that the sessions were interesting and informative and that many interesting contacts were made with other licensees.

Although the proceedings were conducted in English the conference had a distinct international flavour, representatives being present from Japan, France, Germany, Poland, Yugoslavia, Zambia, England, Australia and Italy.

The conference ended on an informal note with a final break-up dinner at which the various representatives sang typical National songs set with appropriate verses composed by Doc Woods of I.S.P. Although small in numbers the Cockle Creek team struggled manfully with the following verse which was sung to the tune of "Waltzing Matilda".

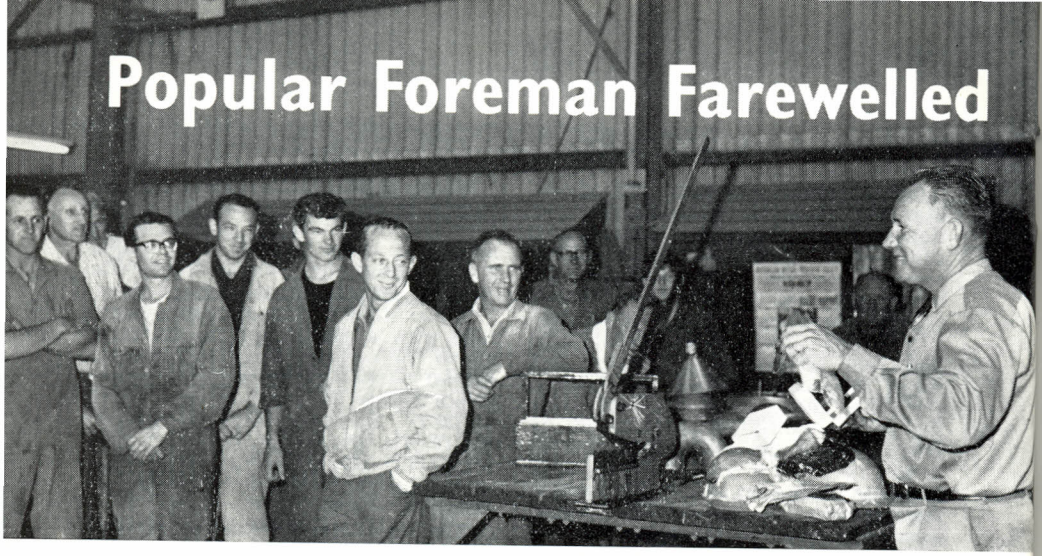
Came an Aussie smelter all the way
from Boolaroo—
"I'll have an I.S.F." said he.
"One thing I insist upon, never could
divide by two;
Only a single condenser for me."
Single condenser, single condenser,
Only a single condenser for me.
One thing I insist upon, never could
divide by two—
Only a single condenser for me.

Mr. P. R. Mead (centre) talks with an old friend, Mr. W. M. Robertson (right) and Mr. C. P. Bevington, Works Manager of I.S.C. (left).

STAFF APPOINTMENT

It is appropriate, with one of our main feature stories in this issue centred on metals research, that we make mention of the appointment of Darrell Garfoot (right) as Mechanical Foreman at the Research Department. Darrell was previously with the Fertilizer mechanical section and featured in "News" No. 188 earlier this year.

Popular Foreman Farewelled



Kevin Jones, popular Acid Department engineering maintenance foreman, was guest of honour at a number of farewell functions in April when he resigned to take up a position with the Electricity Commission.

One of these occasions was a "send-off" arranged by members of the Acid Engineering Department and held in the Plumbing Shop on Wednesday, April 28 . . . Our pictures taken at that "do" show Kev (in heading pic.) responding after being presented with a gold wrist-watch by leading hand, Barry Sinclair,, and (below) surrounded by well-wishers and members of the Acid Engineering Department.

At another presentation ceremony on the following day in the Production Office, Kevin received a briefcase from the Staff Social Club. The presentation was made by Acid-Sinter Department Superintendent, John Jolly.

Kevin is a third-generation Sulphider. His grandfather worked here back in the old smelting days and his father, Mel, had been with us for many years before he retired in February, 1964. Kevin served his apprenticeship here as a fitter and turner, commencing his indentures in 1944. He left us to go to sea as a junior engineer in 1950 but returned to Sulphide again just over a year later. Always keen on "steam work", it was this leaning which prompted him to accept his new position where he will have much scope in this field. We wish him well.

SMALL CRAFT SAILING — Continued from Page 4.

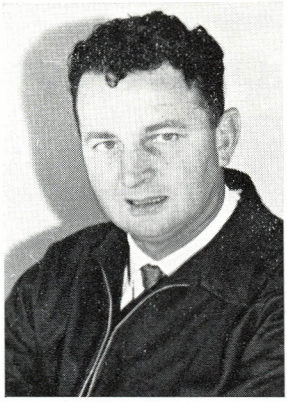
by a Rescue Boat manned by competent personnel, who immediately take to the water and see that all the boats are returned to their headquarters as quickly as possible.

As the crews of these craft become older they look around for something faster to sail and generally step up to a V.J. There is plenty of thrills and spills in this class and competition in races is high. To give some idea of the class they will have to compete against, they will meet **Richard Mann** (Commonwealth, State, Zone, Champion of Champions), **Alby Roberts** (Lake and Brisbane Water Champion), and a few years ago would have met **Tom Adamson** (State, Lake and Zone Champion). **These three champs all work together in the General Store and usually conversation on Monday morning centres around boating deeds of the week-end.**

As a change from V.J.'s the next move is up to Moths, Skates or Northbridge Seniors and in these classes we are well represented by **Adrian Williams** and **Norman Dick.** After a few years in small boats some very keen sailors decide to try their skill with the 16 footers—the fastest open boat on the Lake. Clubs to cater for these craft are at Belmont and Toronto and large crowds watch every Saturday and Sunday.

Many and varied are tales told of these sailors. One about a well known administrator who spent a few weeks building a V.J. of hardboard (it lasted two races and fell to pieces); another about a well respected member of our staff who built a V.J. in a bedroom and had to pull the house to pieces to get it out for launching.

As you approach a group of sailors discussing their activities be sure you understand their language — "one up" does not mean golf, or "two up" does not mean something to do with shiny pennies — both are terms to denote that a Sabot is carrying one or two crewmen.



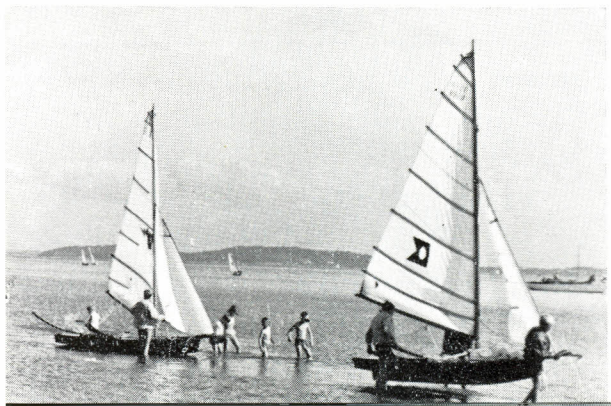
DAVE CRAWFORD.

On the administrative side of the sport we are well represented by **Edgar Hamonet,** whose son Michael is Junior Sabot Champion of Teralba Club, **Gordon Blomfield** (a real live Commodore and a first class boat builder) and son **Keith Blomfield, Dave Crawford** and his two sons who are V.J. champions of Speers Point Club.

If you have children who would like to be sailors, get plenty of advice regarding boats, etc., from any of the members of the local clubs and I'm sure that the children will really enjoy sailing small craft. Don't be scared for their safety, they couldn't be in better hands than the crews of the Rescue Craft provided by the clubs.

An instance of the appeal of sailing to youngsters was the staging of the first high schools State sailing championship contested over four days on Belmont Bay, Lake Macquarie, during the mid-May school holidays.

A total of 198 entries from many parts of N.S.W. is ample testimony of just how popular sailing is amongst school children and far outstripped the expectations of the sponsors, who had thought that a fleet of about 40, with most of them coming from the Lake Macquarie area, would be the maximum. The Belmont 16ft Skiff Sailing Club was the host club for the regatta.



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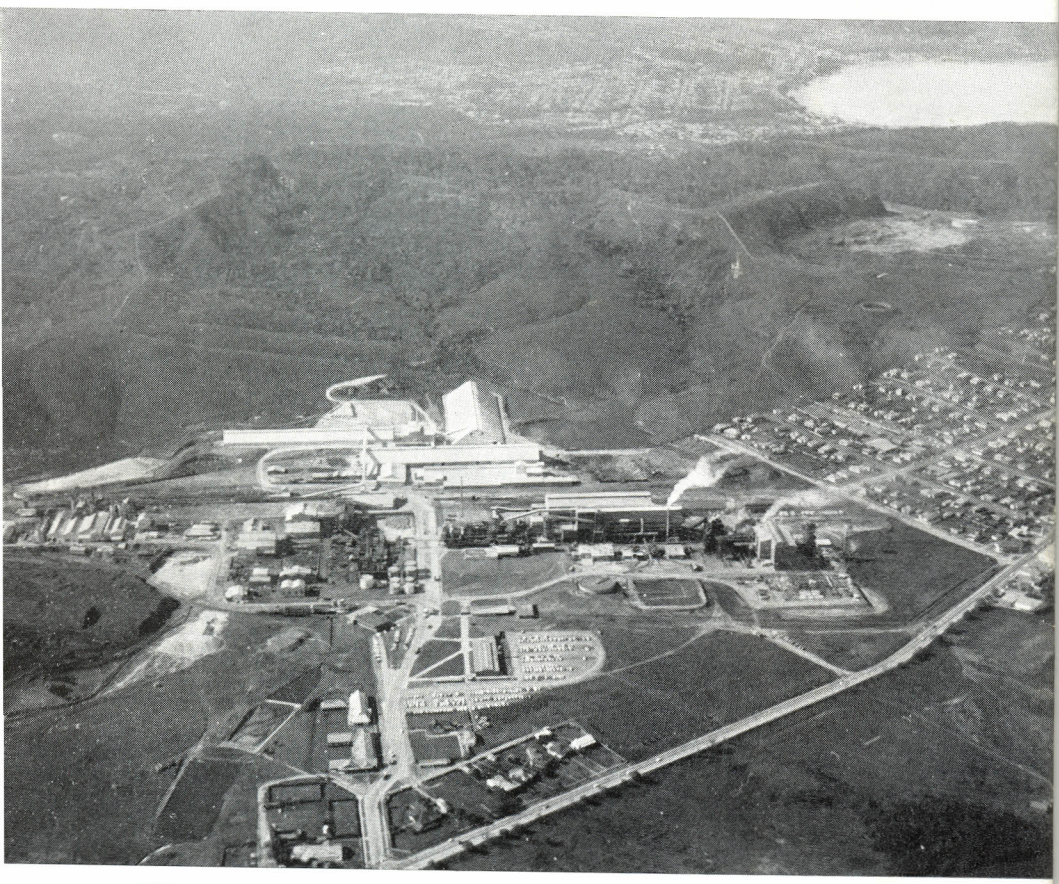

This aerial photograph of Cockle Creek Works was taken in April by Mal Leyland while on a Leyland Brothers' movie making assignment for I.S.P. of Sulphide operations. In addition to the Works (in foreground), the townships of Boolaroo (right centre) and Warners Bay (top centre), can be seen.

GREENLEAF FERTILIZERS LIMITED

Davies & Cannington Pty. Ltd., Printers, King St., Newcastle.