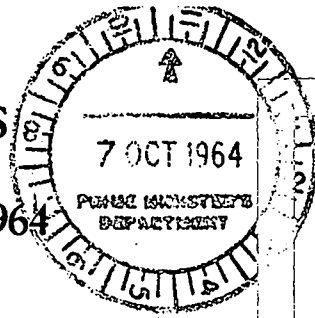


# DIRECTOR REPORTS

No. 147, OCTOBER, 1964



## Australian Industries



## Development Association

### A.I.D.A. OFFICE BEARERS

The election of office bearers from A.I.D.A.'s Council Members, elected at the Annual General Meeting held on 26th May, 1964, was conducted at the August Council Meeting. The following is the complete list of Council Members and office bearers.

#### President:

\*Mr. F. M. Wiltshire.

#### Immediate Past President:

\*Mr. B. G. Ross.

#### Senior Vice-Presidents:

\*Dr. E. Barraclough (Victoria).

\*Mr. W. W. Pettingell, O.B.E., (N.S.W.)

#### Vice-Presidents:

\*Mr. E. R. Beattie.

\*Mr. G. G. Foletta, C.M.G.

Mr. S. G. Herron.

\*Mr. C. G. McGrath, O.B.E.

\*Mr. H. P. Weber.

#### Council Members:

\*Mr. W. H. Anderson, C.B.E.

Mr. E. P. Breheny.

Mr. R. W. Burge.

Mr. T. R. Davey.

Mr. E. P. Draffin.

Mr. E. E. Dunshea.

Sir Alexander Fitzgerald, O.B.E.

Mr. G. Haile.

Mr. L. J. Hartnett, C.B.E.

\*Mr. A. C. Hatrick.

Mr. J. V. Inglis.

Mr. F. G. James.

Sir John Jensen, O.B.E.

Mr. H. Kinnear.

Mr. P. H. Morton, M.L.A.

Mr. P. S. Moss.

Mr. H. M. Sleight.

Mr. R. N. Stokes, M.L.A.

Mr. Keith Storey.

Sir Fred Thorpe.

Hon. Sir Arthur Warner.

#### Chairman of Committees:

Mr. W. H. Anderson, C.B.E.

#### Director:

\*Mr. C. P. Puzey.

#### Manager, New South Wales:

Mr. J. E. Logan.

\*Executive members.



Mr. F. M. Wiltshire, President, A.I.D.A.

### DINNER IN HONOUR OF PRIME MINISTER

A.I.D.A. were hosts at a dinner which was held in Sydney on 7th September, 1964, at which the guest of honour was the Prime Minister of Australia, the Rt. Hon. Sir Robert Menzies. Some 240 of Australia's business leaders in secondary industry, banking and commerce attended to hear the Prime Minister's address. The major purpose of this dinner was to further the exchange of opinions, and to promote closer understanding of mutual problems, between private enterprise and government.

Sir Robert Menzies was welcomed and introduced by the President of A.I.D.A., Mr. F. M. Wiltshire, whose remarks are summarised as follows.

"It is my privilege to welcome our guest of honour, the Prime Minister of Australia, the Rt. Hon. Sir Robert Menzies. The Prime Minister has done great honour to this Association in finding time in his significantly busy life to address us tonight. We are proud of the distinction he has conferred upon us, and we thank him for it. I am glad to say that there are representatives from every State in the Commonwealth here tonight.

"In being with us, Sir Robert follows something of a family tradition, because, in consulting our

records, we find that a Mr. James Menzies joined this Association in 1937, and Senator J. W. Leckie in 1929. The late James Menzies was the father of the Prime Minister, and a great fighter for Australian industry. The late Senator Leckie was the Prime Minister's father-in-law, and acted in this Association's affairs for a number of years.

"As to the Prime Minister himself, we have never had any doubt about where he stands on industrial development in Australia. From time to time we have agreed to differ in detail but we have always known where he stands in principle.

"What can one say on an occasion like this about the Prime Minister. I have before me a condensed record of the Prime Minister's achievements which covers five pages. It would take an hour or longer to read it to you, and elaborate upon it. Nevertheless I cannot let this opportunity pass without making some reference to this magnificent record — a record vast in its scope, a record of a great talent applied in a field which has been described as the most worthy profession a man can follow — that of Legislator. It is an inspiring record, a record of which Australia must justly be proud, a record known round the world, where Sir Robert is regarded as one of the great figures of our time."

The Prime Minister opened his address in inimitably witty fashion, with an exchange of pleasant personalities, but he did refer, in passing, to a subject of some significance to the textile industry\*. Major extracts from his address are given below.

"Mr. Wiltshire, your reference to my father and my father-in-law has touched me very much. My father was not only possessed of strong views, but was very vocal about them and, in those days, it took a certain amount of courage for a man to be a protectionist in a free trade area. My father was a violent protectionist, and the first arguments I ever heard were those of my father explaining what nonsense free trade was and how important it was to have a protective tariff. Those were the days when great arguments went on about protection or free trade. At the turn of the century, this was the great free trade State, and Victoria was the great protectionist State — and that was one of the reasons why they inserted (to the great profit of the legal profession) Section 92 in the Constitution. For a long time after that, the party position in Australia tended to be on the issue of free trade or protection. I am happy to say that those days are as dead as the Dodo. Now there is nobody who is a free trader — because smugglers have almost disappeared — and the only argument now is not whether there ought to be protection, but what the degree of protection ought to be. I have lived long enough to find that all sorts of people are high protectionists who were once regarded as low tariff men. In other words, we have got to the

\*Sir Robert spoke of a conversation with Dame Pattle Menzies, in which she referred to her inability to obtain Australian made fine woollen textiles in retail emporiums. (This is not the fault of Australian manufacturers.)

point where most people believe in a protective tariff and in the development of Australian industry.

"But at the same time, we still have arguments — the longer we live the more sophisticated we become politically, the more we find things to disagree about. I thought, tonight, I would like to talk to you about three or four of what I regard as the fallacies so popular to economic thinking. Before I do that, I ought to say at once that my own views are not destructive ones on this matter, they are entirely constructive. I believe in the growth of this country. I believe in the secondary industries of this country, because they can do things in relation to immigration and in relation to national development that perhaps nobody else can. I believe in those things, but I also believe that in the long run the national balance of Australian development will depend upon two or three things. One is that there should be a constant expansion of secondary industry. One is that there should be a constant consideration for the provision of primary industry, which still produces the overwhelming bulk of our export income and is therefore primarily responsible for our international solvency. A third thing is that I believe in growth — it would be a strange thing for a man who has had the great fortune to be Prime Minister of this country so long not to realise that it is the growth of this country which determines the future of this country. That is growth in all fields. But also I happen to believe that one of the great enemies of growth is instability — instability in the monetary world — an inflationary boom, followed by burst, and acute counter-inflationary action. A lot of people seem to think that this is due to the mischievous, wrong view of the politicians. It is not — it is primarily due to the fact that, in a young country which is expanding enormously, we may have these ups and downs. Whenever there is an "up" somebody is delighted, and whenever this is a "down" somebody is a bit peeved. It is the humble, necessary, task of the politician to try to reduce the ups and downs by producing a climate which will enable us to have stability to an adequate extent and growth to an adequate extent. This is the great task of economic policy. Having all these things in my mind, I thought to offer you a view or two on some of the current fallacies.

"Every year I read (and quite recently I read it again) that there is something wrong with the Commonwealth Government paying for its works programme out of revenue. Somebody will say, with all the air of a new discovery: 'Why don't you take it out of loan money?' This, I believe, is absurd. I have lived long enough to know that facts are more formidable than theory. One must always have a theory. One must always have a set of principles in his mind, but one must never allow them to overwhelm the facts, because facts have something indomitable about them. Why does the Commonwealth pay, to our works programme, a couple of hundred million pounds out of revenue and ask the taxpayer to produce the money? The answer is quite simple. The whole of the loan raisings in Australia, (though theoretically

the Commonwealth is entitled to a fifth of them under the financial agreement) go to the States for their works programmes. It would be well worth remembering that, when the financial agreement was made back in the twenties, the whole theory was that the Loan Council would have one simple task: how much money can be borrowed on reasonable terms and conditions. I can remember attending a Loan Council meeting (not as a Principal but as an assistant) many years ago, and at that time the whole loan works programme for Australia was about £20m. Mr. Lyons was Prime Minister at that time, and I was his Deputy in his own party and Attorney-General. Now, of course, it is two or three hundred million pounds, and everybody is accustomed to these figures. But one of the things that has never been properly understood is that, whereas the Loan Council under the financial agreement began by determining how much could be borrowed on reasonable terms and conditions, that question no longer arises. When we meet there is a great argument with each State putting its plan, and ultimately we end up by saying: the States Works Programme is to be £335m. (or whatever it might turn out to be). If the Commonwealth agrees to this, then the Commonwealth does its best to borrow that amount of money. But if it does not, it finds the short fall. In my own time as Prime Minister, we have, over a period of years, found hundreds of millions out of revenue to make up the short fall, because at a time when there was a powerful inflationary movement and the loan market was obviously very sick, we might borrow £80m. one year and find ourselves involved in £200m. by a form of underwriting of the States works programme. Thanks to stability in costs and prices (and we have had a good deal of that in the last five years) the loan market has been very healthy, and still remains firm; but the whole of the proceeds of the loan market go to the States works programme and the Commonwealth does not get anything. I am not complaining about that. The only time I want to complain is when somebody comes along and says that on the proper basis of accountability you ought to be spending on your works programme only the proceeds of loans. But if we did, then I do not know what would happen to the State works programme. This is not a matter of theory — this is just a matter of simple, practical hard facts. The truth is that today and, as far as I know, for years to come, the Commonwealth, if it wants the States to have the necessary financial provision to do their works programmes, accepts the responsibility (always an unpopular one) of carrying its own works programme on the Budget. Nothing would suit me better than to be able to transfer the £200m. of Commonwealth works onto some mysterious Loan account, so that I could reduce taxes with not very much trouble, but the facts are to the contrary. That is one thing I described as a fallacy — the fallacy of carrying the Commonwealth works on revenue when they ought to be carried on loans.

“There is a second fallacy, and that is that in 1963-4, the financial year just ended, all that happened in

Australia was that some or all of the ground lost in 1961-62 was recovered. This is not true. The fact is that between 1960, the boom year, and the year just closed the change in Australia has been phenomenal. I do not like to hear people crying down their own country or saying that we have not developed, or saying that we have not improved our productivity. Between what was a boom year in 1960 and the last financial year, the improvement in Australian conditions has been, I think, quite phenomenal. To me this is a proof that you can have stability, as we have had over that period in the consumer price index, and still have the most astonishing growth. Between these periods it is idle to say that there has been no improvement in productivity. Public employment — employment by government — between 1959-60 and 1963-64 rose by 85 thousands. In case somebody says: ‘There you are — this is the preference given to the public sector!’, I hasten to add that private employment rose by 249,000. I think that it is not bad to have an increase in that period of time of about 335 thousand people in employment in Australia. Wage and salary earnings rose by 27% in that time, and the total increase in the consumer price index over the whole of this period was only about 5%. Wage and salary earnings rose by 27%, average male earnings rose by 16%, farm income (for reasons partly attributable to the yield of farmers and scientific improvement, and partly due to seasons and partly due to the recovery of overseas markets) rose by 46%. Gross national product rose by 27%, all this was between 1959-60 and 1963-4. These I think are very stimulating figures. In terms of quantity, steel production rose by 25%, electricity by 38%, cement by 28%, and so on. As for motor vehicles — I very well remember that after the “little budget” something happened to motor car production. About 18 months ago we had one of our conferences with the Chamber of Automotive Industries, and the estimates that were given of the optimum that was being looked for was 358,000 vehicles each year. Well in 1960, in this boom period, there were 295,000 vehicles and this year 400,000. My young colleague, Leslie Bury, Minister for Housing, would be able to recall that in 1959-60 (the then record year) the number of houses and flats commenced was 91,000 and in 1963-4 they were 107,000. Is this the year of gloom — does this make people feel that there is some pessimism — does this make anybody feel that all that has happened is that we have somewhat recovered the ground that was lost in 1961-62? With great respect, that is just absurd. This country is going forward in the most remarkable fashion. Savings bank deposits in Australia since 1960 have increased by £715m., on average for each man, woman and child from £148 to £200. Another point I want to make is this: nothing will matter so much in the next five years as a feeling of pride and confidence and enthusiasm among our own people. If people are going around crying poor mouth, that is the surest way I have ever heard to bring about some recession.

“There is another fallacy, which is: that expenditure

always goes up in the public sector, but what about the private sector. I am no great lover of economists — I read them but I don't love them. They have a certain jargon — no people have done more harm to the purity of English than the economists. One of these things is that they divide all expenditure on the capital side into the public sector and the private sector. Does this mean that the public sector is going to do what the stupid politicians want to do to please their constituents, and that the private sector is the health giving investment for private business? Nobody is a greater believer than I am in the fact that private enterprise, and the spirit of adventure, and the spirit of youth, are the driving forces in this country (or in any other). But as I look over the field of expenditure in the public sector I venture to say that, for the most part, there would have been no private development at all but for the expenditure in the public sector.

“Let me give you an example or two. Take the Snowy Mountains Scheme. There expenditure would be getting near £200m. (and it is all out of revenue except for a little loan from the World Bank) and by the time it is finished, on the present plans, it will be about £400m. What is it for? Quite true, it will produce some electric power and light for the capital territory; quite true it will produce some for governmental services in N.S.W. and Victoria, but overwhelmingly on the power side it will provide power for industry in N.S.W. and Victoria — and not provide it at extortionate rates, because the whole object is to produce power at cost, not to make a profit. The Commonwealth will never make a shilling profit out of the Snowy, and as time goes on the cost of power will be, of course, a diminishing factor. This means that there will be hundreds and hundreds of industries in Australia which will be assured of electric power and light who might not have been able to get it but for the operation of the Snowy. In short, this is primarily a powerful contribution to private enterprise. There is the other aspect of it. The storage of water in the Snowy Scheme is going to produce irrigation right down the Valley of the Murrumbidgee and the Murray which will put thousands of people on to irrigated farms — and those are private people, who want to develop their own production. Therefore I think I might be as right as a politician is expected to be if I say that 90% of the expenditure on the Snowy, and the dams, and the later reticulation, will be in aid of private enterprise in Australia. If that is so what is the use of saying less in the public sector and more in the private sector. Let us, on the contrary, try to think of it as something that comes in aid of both, and in particular in aid of private industry. I believe that it is in the encouragement of private enterprise, in putting at the elbow of the private enterprise the kind of resources that it needs, that the whole future of this country depends.

“I have mentioned the Snowy, I could equally mention, for example, the standardisation of the railway between Kalgoorlie and Perth and Kwinana. This

goes into the item expenditure in the public sector, and yet what is it? There they have great deposits of iron ore, and a great steel company has said: if we can have that iron ore hauled along this long route in up-to-date rolling stock on an up-to-date railway line we can establish an iron and steel industry at Kwinana in Western Australia. This is a magnificent conception, and this is a conception of private enterprise. So the Commonwealth has undertaken great financial responsibility; it is all put down to the public sector in this rather artificial division, but only to a tiny possible fraction does it have some effect on the Commonwealth's own interest in a railway line. Primarily it will open up a new world for private enterprise in Western Australia. The moment they have an iron and steel industry, all the ancillary industries will begin to expand. It is quite likely that in Kwinana and Perth and Fremantle you will have the kind of development that you see here in Newcastle and Wollongong. This is, I think, tremendous and imaginative.

“We will be spending an enormous amount of money this year on beef roads in the North, so that there may be an encouragement to people who are growing cattle there, and to enable them to bring them to market in good condition and at the right time.

“I could go on for a long while, with all sorts of examples of that kind. I must confess that if I were in charge of some great business enterprise I would want nothing more than to know if I expanded my business I would see the housing, the roads, the transport, the light and power, and so on, provided.

All this adds up to this: just as, when I was a boy, there was a power of energy and enthusiasm wasted on whether you were a free trader, or a protectionist, so there may be too much wastage today on some alleged conflict between business and government. I do hope that we will not fall into that error too much. Business and government are in the same cause. We will occasionally disagree, but above all things we must at all times seek to understand each other and to co-operate with each other. I know of no single economic factor in the country which produces an irresolvable difference between the man who is doing the work in the market place, and in the factory, and the man looking after the broad principles of government in Canberra (or wherever it may be). This is a co-operative Government. We have done a little — perhaps not enough — in the way of having consultations with people in industry. I venture, as years go on, we will have more and more of this. As years go on, we will have more and more people in politics struggling to understand the problems of the businessman and, what is equally important, we will have more and more businessmen struggling to understand the problems of politics. But it is not enough to say what is the use of going to the politicians because they do not understand our problems. The politicians are strangely human people. Frequently you do not know the problems that come to the government, with not only its responsibility to individuals, but responsibility

for the great movements of international scale, which can never be solved on a sectional basis, responsibility for international financial movements, which always involve domestic budgeting policy in this country itself:

"We do not know enough about each other. I have never assumed to tell any man of business how he ought to run his business because I have had a sneaking idea that, nine times out of ten, he knows more about it than I do. Let us get over this rather childish differentiation. Let us understand that we are all adult people and we are all patriots, and want to do the best thing for our country, which quite permits doing the best thing for our company or for our own selves. Let us be patriots, and the right way to be a patriot is to get to understand what the other man is doing, and to see how far, in co-operation, we can achieve the greatest degree of growth with the greatest ever achievable degree of stability in our monetary system — that form of stability which means so much."

The vote of thanks to the Prime Minister was proposed by Mr. W. W. Pettingell, Vice-President of A.I.D.A., who spoke as follows.

"Tonight I feel that we have been reminded that this relationship, which we have at some time entered into, is as yet hand-in-hand and possibly has not been consummated by that more respectable relationship of marriage. But you and I, as practicing marriages in various aspects of industry, do not achieve the eminence of many economists who have a more vocal approach to the problem. I am sure you will agree with me that the Prime Minister has pointed to that hand-in-hand relationship, which implies at least some medium of understanding, and an effort to understand the problems of the other, at least to bring about a more happy state in the future. I think you and I have indicated the fact that this country has an enormous potential.

"Tonight, we have here a group of the elder statesmen of industry in New South Wales, and, I think, in Australia, and some of the younger men who in the course of time will take over the task and leave their imprint on the future history of this country. They look to the future as one of wonderful challenge. We have under our feet a country rich in resources, as yet largely unscratched; one which lends itself to an extensive application of knowledge, of capital, and of endeavour, with the richness of reward which will follow the application of, at least, those three resources. Undoubtedly we who practise management of our business concerns should, in the interests of this wonderful country of ours and the people who will follow on, apply ourselves more to the understanding of the problems which lie ahead of us. We know that we are a country wide open to exploitation, in the full sense, by the resources of knowledge and capital that exist in different parts of the world. We know that there are tremendous problems of policy and principle and practice which derive from this overall task. But this tremendous challenge, I feel, in the course of time, we can hand on to those that follow us with a great deal of confidence and

pride in what they might achieve. Tonight I think you have given us a very great stimulus in thinking, and one which we will take with us and pass on to those who share the responsibilities with us."

The vote of thanks was seconded by Mr. R. G. C. Parry-Okeden, whose remarks are summarised as follow.

"Apart from thanking you for talking to us, and all of us enjoy listening to you, I want to say just one thing. You are, to my knowledge, the first Prime Minister who has recognised that industry exists to the extent of making a Ministry of Industry. We are grateful to you for that. We have suggested for some time, both this Association and other special groups, that there should be such an establishment created in Canberra. We only pray to you that you appoint to it the very best of your permanent staff that you can find. You do not need me to tell you that you have a wealth of talent in your public service at Canberra to draw from. Thank you very much indeed, Sir, for yet another of your wonderful speeches."

## TOURISM & INVESTMENT

A.I.D.A.'s Director recently returned from a holiday tour of Central Australia, Arnhem Land, and the Kimberley and Pilbara Districts of Western Australia. Some aspects of the vast economic development potential of the area will be discussed in later issues of "Director Reports."

Apart from those aspects, however, these areas contain some of the most fascinating, colourful, impressive and distinctive scenic attractions to be found anywhere in the world.

Alice Springs and its surrounding districts are probably the best known, (both in Australia and overseas) and understandably so — Ayers Rock is not only unique geologically but its particular connection with aboriginal legends and beliefs are a source of absorbing interest. The beautiful Stanley Chasm (45 miles from Alice Springs) is no less rewarding to the tourist although less widely known.

There is the remarkable Gorge area around Wittenoom (where blue asbestos is mined) — Dale Gorge, Yampire Gorge, Wittenoom Gorge, Joffre Falls, etc., to name a few — where climate and scenery combine to provide ideal conditions for tourism.

The Kimberley/Pilbara districts of Western Australia contain some of the oldest known land areas in the world, where centuries of erosion by wind and water have reshaped the surface contours and left only the bare bones of a stony country, compensated by the beautiful colourings of deep mauves and purples, sun-bright yellows, heliotrope and vivid reds and ochres.

All these and many other areas provide attractions which could form the basis of a valuable tourist trade,

both Australian and overseas. At present, however, this is only an unexploited potential. Facilities in most areas are primitive — if any exist at all. Accommodation at Alice Springs and Darwin is available in reasonable quality and quantity, and Wittenoom has a modern comfortable hotel. Apart from these, however, the standards of service and accommodation are poor, and certainly not adequate to attract visitors even if they were prepared for some lack of amenities.

It is important to these areas that adequate tourist facilities be provided. Unless people can be induced to visit and see for themselves the great potential which exists, then development will be retarded and opportunities lost.

New hotels, motels and other tourist facilities must be provided before tourism can be actively promoted. One of the major problems, which emerged from the Director's discussions with the W.A. Tourist Department and the Licensing Court, is an acute shortage of long-term finance. It is suggested that a special fund, along the lines of the Development Fund, should be established to make long-term loans (say 15 to 20 years) to people willing to develop tourist facilities in these remote areas. Unless Australia makes a positive effort to develop these resources, overseas interests will step in.

The National Travel Association has estimated that overseas tourists will spend nearly £30m. in Australia during the current financial year. The exploitation of the unique attractions of the north and north-west of Australia could attract more overseas travellers, as well as tourists and business men from within Australia, and could help quicken the pace of development in these areas.

## OPPORTUNITIES

### BELL BAY/GEORGETOWN, TASMANIA

This is the first of a series of brief articles A.I.D.A. intends to publish to draw attention to the need for a better balance between light and heavy industry, and male and female employing industry, in specific areas around Australia. Such areas offer an opportunity to lighter industries, particularly those employing a predominantly female workforce, to establish themselves where all necessary facilities — power, water, transport, etc. — are readily available and, as well, a stable, but at present idle, supply of labour.

Bell Bay and its "dormitory" town Georgetown are situated approximately 40 miles north of Launceston on the estuary of the Tamar River.

The total resident population of the Bell Bay/Georgetown area is approximately 4,000 persons. The

number of males and females in the working-age groups are —

#### Population by Age Group and Sex

	Males Females	
	No.	No.
15-19 years	160	150
20-29 years	270	270
30-39 years	400	320
40-49 years	290	230
50-65 years	295	128
Total 15-65 years	1,415	1,098

This means there is a total potential workforce of 2,513 persons.

Industries already operating in the area employ a total of 1,155 persons, mostly males. The major enterprise is the aluminium smelting plant of Comalco Industries Pty. Ltd. at Bell Bay. Approximate employment in each of the existing establishments, and their activities, are —

Firm	Activity	Employment
Comalco	Aluminum	960
Temco (a subsidiary of B.H.P.)	Ferro-manganese	80
Phoenix Foundry	Steel fabricators	30
Hydro Electric Commission	Electricity Supply	25
Georgetown Council	Local authority activities	25
H. T. Bernhardt	Painting Contractor	35
	Total	1,155

Other local activities — retail shops and other services — would employ a further small number of the available workforce, but there still remains a large potential, particularly to employ female labour.

Bell Bay has good deep-water harbour facilities, and is one of the terminals for the "Bass Trader," the "roll-on, roll-off" vessel operated by the Australian National Line, which carries cargo and loaded commercial vehicles between Melbourne and Tasmania, going direct to and from Bell Bay one day each week. Other freight ships also use this harbour, of course. There is a fine bitumen highway between Bell Bay/Georgetown and Launceston (and from there to the rest of Tasmania's cities).

There is plenty of good, flat industrial land available in the area, in a pleasant natural rural setting.

Tasmania is the only State in Australia where power comes from hydro-electric generation exclusively. It offers the cheapest cost for industrial uses of electricity in any State, which, in itself, provides a major attraction to many industries. The most recent of many new hydro-electric stations completed in recent

years is the Poatina Scheme which is located not far from Launceston.

In the Bell Bay area two of Australia's largest companies — Conzinc Rio-Tinto (through Comalco) and B.H.P. (through Temco) — and particularly the former — provide employment opportunities, in a variety of occupations, for a large proportion of the local male population. Their workers have the opportunity to make a permanent career with a major Australia company, which is conducive to a stable, good standard type of family population.

However, the lack of lighter industries capable of employing the female population of the area is a sad waste of one of Australia's most valuable resources — people.

The Bell Bay/Georgetown area, therefore, offers labour, land, a good deep water harbour, cheap electricity, reasonable proximity to one of the major mainland markets (Melbourne), good transport facilities and, for a suitable user industry, primary aluminium (ingot, billet and rolling block) in the immediate vicinity as a raw material.

## RESEARCH

At the invitation of the Minister for Supply, the Hon. Allen Fairhall, a party of A.I.D.A.'s Council members visited the Woomera Rocket Range and Tracking Station and the Weapons Research Establishment at Salisbury, South Australia, in September.

The Woomera Range is being used as an international testing station by European Launcher Development Association (E.L.D.O.) — in which seven countries, including England, France and Germany are combining their research and development work in the field of guided missiles. The use of Woomera, manned entirely by Australian technicians, also brings Australia into this combined operation. There is no cost to Australia involved in this aspect of Woomera's activities and in addition Australia will share in the benefits of any experiments. Currently a "Blue Streak" Rocket is being assembled for firing. The American "Black Knight" has also been tested at Woomera. Of course, Australia's own equipment, which is of the highest technical quality, is also tested here.

The tracking station at Woomera is one of three which have been set up in Australia in co-operation with the government of the United States of America. Of the other two tracking stations one is located near Canberra and one in the North West of Western Australia. All are manned by Australians, but the cost of building and maintaining them is borne by the U.S.A.

The Weapons Research Establishment at Salisbury is the working organisation behind Woomera, where the actual research and experimental and development work is carried out. Discussions were held in both places with the administrative and technical

leaders, including aspects in which industry could participate, particularly in the field of applied research. Both industry and defence in Australia could benefit from the application in industry of the productive techniques and knowledge developed at Salisbury and Woomera.

Australian defence establishments under the control of the Department of Supply have been responsible for the export of equipment and know-how to a value of £14m. over the past six years. The Minister for Supply recently announced the following highlights of his Department's recent export activities:

- The sale of the Jindivik pilotless target aircraft to Britain, Sweden and U.S.A.
- The sale of the Malkara ground-to-ground guided weapon to Britain.
- A wide range of engineering products, technical processes and developments.

The expenditure being undertaken by the Government for research into defence problems in certainly paying dividends. Similar profits could be expected from the promotion of research in industry.

## A.I.D.A. SCIENCE TEACHERS' AWARD

The A.I.D.A. Award for 1964 in Queensland was recently presented to the Rev. Bro. R. M. Slattery, B.Sc., A.S.T.C., F.C.H., A.R.A.C.I., Senior Science and Mathematics Master, St. Joseph's College, Brisbane. Extracts from Bro. Slattery's citation are given below.

"As in previous years the Referees found the task of comparing the contributions to science teaching by the nominees a very difficult one indeed. It was pleasing to find that the number of nominations had grown considerably this year and that the standard of the nominees was uniformly high.

"Although the task of selection was a difficult one, the Referees were completely confident with their final decision. It was clear that Reverend Brother Slattery possessed the qualifications sought after to a pre-eminent degree.

"Brother Slattery received primary education from the Sisters of St. Joseph at St. Therese's School, Lakemba, a suburb of Sydney, and his secondary education from the Christian Brothers at St. Patrick's College, Strathfield. On completion of his schooling he worked as a chemist for Lever Brothers in their research laboratory and while there studied for a chemical Engineering Diploma at the Sydney Technical College.

"Joining the Religious Order of the Christian Brothers, Brother Slattery was enabled to complete a Science Degree at the University of Sydney. Majoring in Inorganic Chemistry, he obtained, in 1954, two High Distinctions in final year chemistry and First Place in the University. Brother Slattery was awarded the Walter Burfitt Memorial Bursary, but decided not to continue studies for a higher degree, although

the path was left open to him to do so by his superiors in the Order.

"Shortly after completing his degree, Brother Slattery was admitted as an Associate of the Royal Australian Chemical Institute and he also became a member of the New South Wales Science Teachers' Association. In 1955, he was posted to St. Joseph's College, Rockhampton, where he taught Chemistry, Physics and Mathematics at all levels up to and including Senior. During the two years at Rockhampton he joined the Queensland Science Teachers' Association and the Catholic Colleges Science Teachers' Association.

"Early in 1957, Brother Slattery was transferred to St. Edmund's College, Canberra, A.C.T., and there filled the triple post of Senior Science Master, Senior Mathematics Master, and Sports Master. Brother Slattery helped to establish a branch of the New South Wales Science Teachers' Association in the Australian Capital Territory. This soon became the A.C.T.S.T.A. and Brother Slattery was its first Vice-President. In 1959 he represented the Association at the A.N.Z.A.A.S. conference in Perth and presented a paper in a Symposium on the teaching of Physics. With the financial support of C.S.I.R.O., lectures were also given at Melbourne, Adelaide, Kalgoorlie and Albury.

"In 1960, Brother Slattery was posted to St. Joseph's College, Gregory Terrace. Rejoining the Science Teachers' Association of Queensland he became a member of the Executive in 1961 and 1962, whilst he has also been President of the Catholic Colleges Science Teachers' Association since 1962. A member of the Chemistry Sub-committee of the Board of Post Primary Studies for the last two years he helped assess Junior Physics papers in 1961 and 1962, Senior Chemistry and Senior Mathematics II papers in 1963, and is this year one of the three people associated with the setting of Junior Chemistry papers.

"Ever since arriving in Queensland, Brother Slattery has been very active indeed in all of those time-consuming but important tasks that require interest and energy of a high order, on behalf of science teaching. As President of the Catholic Colleges' Science Teachers' Association, the recipient of this year's Award assumed his greatest responsibility in organis-

ing the in-service training of Science teachers in the Catholic schools of this State.

"It was the nature and scope of this in-service training work that perhaps impressed the Referees most of all, for it was clear that Brother Slattery not only bore the brunt of much of the organisation it required but that he was also responsible for a good deal of the initiative in establishing the Seminars in the first place. He has surely set an excellent example of devotion to the cause of Science teaching in one of the most valuable of all ways; i.e., by helping to improve standards of teaching throughout a great many schools in this State.

"Reports of Brother Slattery's classroom teaching that had come to the attention of members of the Committee indicate that he is first-rate in every way. He played an important role in the design of the new Senior laboratories recently opened at St. Joseph's College and they reflect his obvious enthusiasms for individual practical work, his knowledge of good laboratory facilities, and his skill as a constructor of apparatus.

"Modest as he is, anyone who knows Brother Slattery must soon be aware that his thoughts are never far away from science teaching and its cause, not only on behalf of his own pupils, nor even those of the Catholic schools, but for all learning science in schools throughout the State and the Country. Basic to this is an obvious dedication to the welfare of school pupils whose interest in science he works hard to achieve with efforts well beyond the call of duty."

## LABOUR SHORTAGE

The Consulate of Switzerland in Melbourne records in its "Economic News" a method of overcoming the labour shortage in Switzerland. "Three large firms in Basel appear to have found a solution worthy of notice: they have formed a pool which ensures their customers prompt and careful service for relatively small orders. At present this pool makes available to its clientele a painter, two electricians, a carpenter, two sanitary installation fitters and an experienced all-round worker. Fast service is ensured thanks to five telephone lines and five cars carrying fully equipped workshops on wheels. In operation since last spring, this is a service which might profitably be imitated in other towns in Switzerland, especially as, it may be added, no patent has yet been taken out on it . . ."


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