arrowhead

The magazine of the Fletcher Group

WINTER 1979

Concrete Progress

The launching of H.M.S. Bounty, *1978 version, by Mrs Thea Muldoon was a big day for Whangarei, which turned on a Maori concert party, a brass band and a truly festive atmosphere. It was a big day for the Whangarei Engineering and Construction Company, which built the vessel for the Dino de Laurentiis Film Corporation of America. It was also a day of satisfaction for two Fletcher Group companies. Fletcher Steel supplied the shipbuilders with 123 tonnes of steel plate for the hull and Fletcher Mechanical designed and built 14 air conditioning units for the comfort of those involved in the proposed remake of the classic mutiny story. Subsequently, the producers changed their plans and the future of the new Bounty is now uncertain.*

Why "Arrowhead"?

The first issue of the magazine that bears this title, away back in October 1954, made the editorial comment: '' 'Arrowhead' is a clean symbol of speed and defined objective — a target with a bullseye. We think that Fletchers' swift progress and steady aim deserve such a title.''

Such connotations apart, the name ''Arrowhead'' may seem to have but a tenuous connection with the Fletcher Group of Companies, unless one is a student of linguistics and medieval England. For the word ''fletcher'' is derived from the Old French *flechier* or *flecher,* a maker or seller of arrows, and turned up in Anglo-Saxon English in the spelling which survives today.

The Worshipful Company of Fletchers was established in the City of London in 1371 as a guild to safeguard the interests of the arrow-makers, who until then had been allied with bow-makers.

The introduction of the gun put a virtual end to the craft, but not to the Company of Fletchers, for the guilds remained powerful civic institutions which continued to influence the business of the City for centuries afterwards.

The accompanying illustration is the coat of arms of the Worshipful Company of Fletchers.

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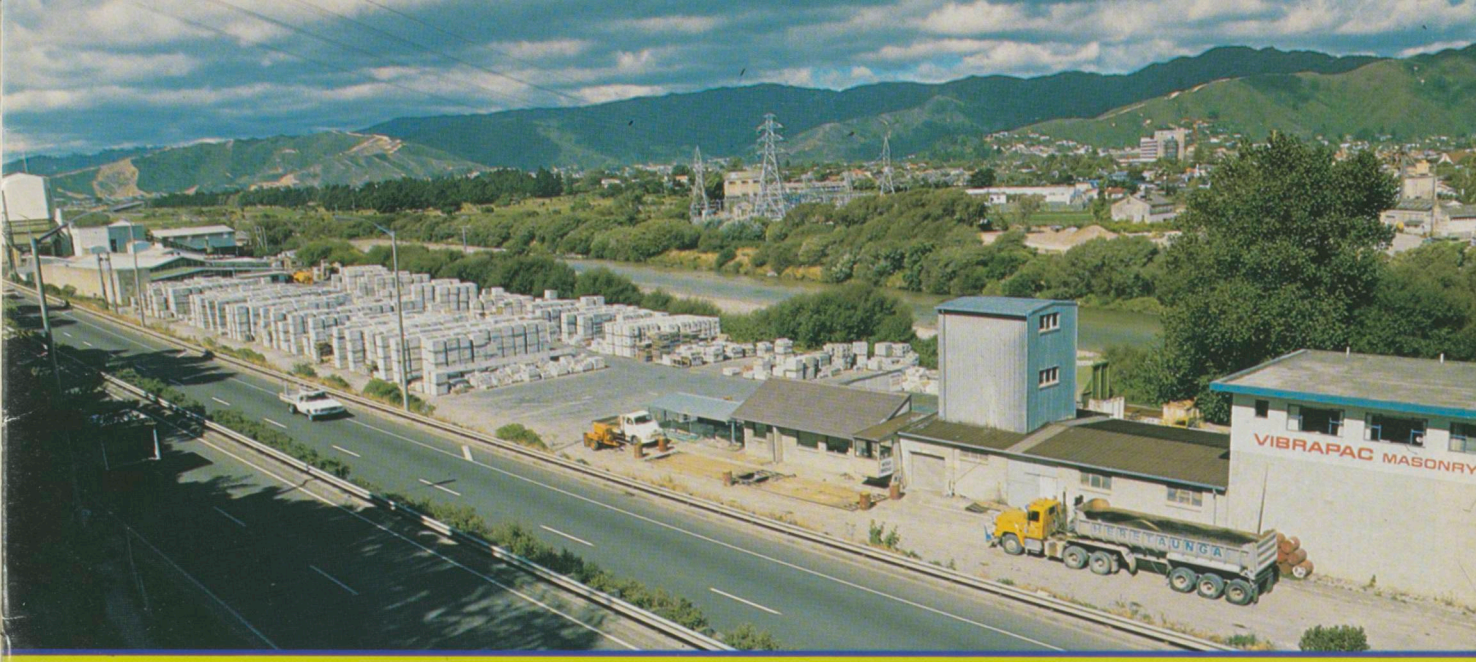


Concrete and aggregates new business area

The concrete and aggregates group is a new major business area for the Fletcher Group. It was formed following the acceptance in March by practically 100 per cent of the shareholders of Firth Industries Ltd of the Fletcher bid for the balance of shares in that company.

Earlier, in December 1978, Fletchers had purchased the building products and quarry interests of the Wellington-based Aurora Group, chief of which were Vibrapac Masonry (Wellington) Ltd and River Shingle and Sand (1935) Ltd. These have now been consolidated under the name of Firth Industries, Wellington area.

The grouping provides a strong base for entry into the concrete and aggregates market and is complementary to Fletchers' existing building materials and construction operations. Arrowhead *looks at the new grouping and its role within the Fletcher Group's activities overall.*

Backyard beginnings

The name of Firth has been virtually synonymous with concrete and concrete products since the 1930s. Vibrabloc masonry, precast products, concrete tanks and readymix concrete are some of the products for which the Hamilton-based company is best known.

Firth is also involved in mining Hinuera stone and three quarries are a source of metal chips and lime.

The company's interest in roading, representing a sizeable percentage of its turnover, is manifested by majority holdings in Waikato Bitumen Co. Ltd and Reliable Roads Ltd.

The association between Fletchers and Firth dates back to 1973, when the latter purchased Decrapac, the Fletcher blockmaking facility in Auckland, with the Fletcher Group taking a 15 per cent holding in Firth as consideration.

Following steady buying of Firth shares by Fletchers over the intervening years, the Examiner of Trade Practices approved in September 1977 an application by the Fletcher Group to increase its shareholding to 45 per cent.

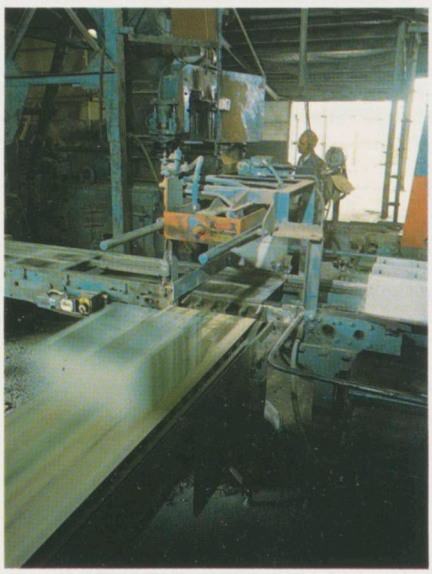
More recently, shareholders of Firth Industries accepted the Fletcher offer to take up all their shares.

In 1977-78 the company had sales of nearly $17 million, returning a net profit after tax of $1,222,000. Firth has a staff of 566, of whom 126 are shareholders in the company.

The company from which Firth Industries was to evolve was formed at Rangiriri, north of Hamilton, in May 1925.

The Ironclad Products Company was formed by brothers E.B. (Ted) and G.M. (Tony) Firth to manufacture the Firth Ironclad Pumice Washing Boiler. It had been developed by their father in the backyard of the family's Auckland home.

After the first six months in business the brothers began to broaden the range to include concrete troughs and other agricultural products. Growth was inevitably slow during the depression, but



TOP: The Hutt River bank site of Firth's Wellington headquarters.

LEFT: A concrete block making machine at Firth's Te Rapa plant.

FRONT COVER: One of Firth's distinctive "yellow trucks of concrete" takes on a load of readymix at Firth Industries Ltd's Hamilton depot.

in 1932, seven years after the company was founded, it hired its first employee.

By the late 1930s the country's public works programme was in full swing, bringing new opportunities for the company, which by now had changed its name to the Firth Concrete Company.

Consolidation at home and expansion in other provinces were the hallmarks of the thirties for the Firth Concrete Company. The decade saw markets opening in Taranaki and Hawke's Bay, and in 1939 the first machine-made concrete blocks ever manufactured in New Zealand were cast on a Rockcrete machine.

The post-war housing boom saw the company enjoy real growth. In 1946 a new branch opened at Hastings and a new tile factory at New Plymouth.

Throughout the fifties more factories were opened in the central North Island and in 1952 the Company began to make pipes. In 1959 the company appointed its first sales representative, Mr Peter Blomkamp, now managing director of the new concrete and aggregates group.

During the sixties the company recorded a seven hundred per cent turnover increase. A large readymix concrete batch plant was established at Rotorua and the company's first Columbia blockmaking machine was purchased in 1960.

By 1963 it had become clear that Firth would have to "go public" to obtain the injections of capital needed to finance continued expansion. The one million $2 share issue was quickly taken up.

Concrete is adaptable

Concrete is one of the oldest building materials known to man.

Egyptians used it five thousand years before the birth of Christ. Since then, each age has adapted its uses and composition to suit its needs and resources.

Firth's development since the heady days of the twenties and thirties has relied on the adaptability of that base product, concrete.

The company's **readymix division,** a barometer for all its building materials sales, has branches in Rotorua, Tokoroa, Taupo, Stratford and New Plymouth as well as at the Hamilton headquarters.

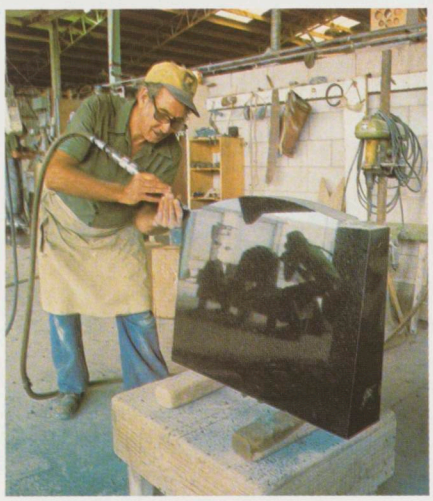
Top-class service and delivery is demanded by the trade of the readymix division and Firth has built up a strong and enviable reputation in this field.

The company entered the readymix market during the early 1960s under the guiding hand of the assistant general manager, Mr Peter Humphrey.

"Most concrete is the same," says Mr Humphrey, "so what we're really selling is service.

"We've concentrated on our image in the industry with quick efficient service, clean trucks and helpful staff. We are one of the leaders in the industry in supplying specialty mixes for special jobs and one of our major strengths is in our fleet of 50 trucks. We are able to shuttle trucks from area to area depending on the demand," he told *Arrowhead.*

Stone men they are, but rolling stones they're decidedly not. These members of the natural stone division at Drury, all previously with Parkinsons Building Stone Co. Ltd (now a wholly owned subsidiary), have between them a total of 170 years' service. In front are Messrs Doug McIsac (38 years' service) letter cutter and Bill Benzie (40 yrs) production foreman. At rear, from left: Messrs Pat McVinnie (18 yrs) stonemason, Doug Honeycombe (25 yrs) foreman mason, Crandall Parkinson (24 yrs) manager and Fer Jole (25 yrs) stonemason.

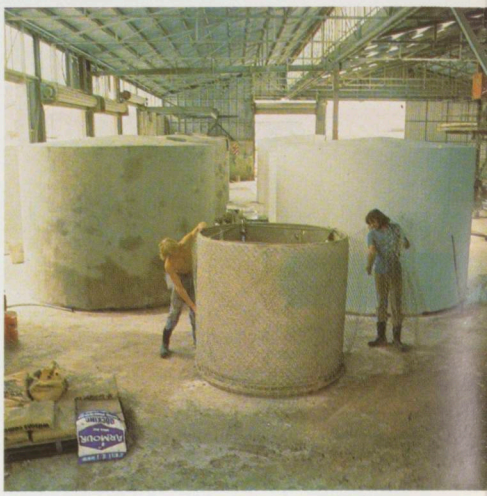


Mr Fer Jole hand chisels a granite headstone at the natural stone division, Drury.

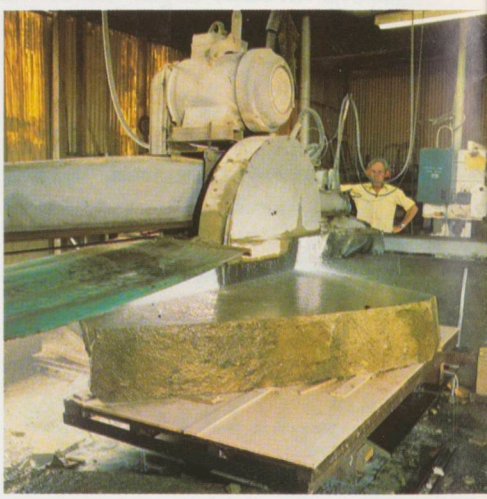
The company's **concrete masonry division,** faced with reduced demand for concrete blocks during 1977-78, diversified into the manufacture of concrete bricks and paving stones.

Mr Frank Dadley, branch manager at Hamilton, says Firth intends enlarging its market for that type of product. "We have already supplied interlocking paving slabs for the roading of a large subdivision in Hamilton.

"Concrete masonry still has an important part to play in the New Zealand building scene. For the future we are looking at further ways of reducing our dependence on masonry."



Pre-cast and tank division employees Messrs Phil Gerritsen and Greg Blank place reinforcing wire netting around a septic tank mould. In the background are some finished water tanks.



Mr Malcolm Moore operates a 48-inch diamond saw to shape a slab of Hinuera stone.

The division's range of products is immense. The company produces more than 80 different sizes and types of concrete blocks, for example.

It has 17 block making machines at Hamilton, Auckland, Rotorua, Tauranga, Napier, Christchurch, Hastings, Wellington and New Plymouth and carries stocks of blocks at 11 North Island branches and at Christchurch.

Recent dry summers have proved a

boon to Firth's **pre-cast and tank division.** Weather has a marked affect on the sales of concrete tanks for farms in particular and two long summers have contributed to record sales.

The division manufactures a full range of water tanks, from 1820 litres capacity to 22,750 litres. Other farm products include septic tanks, rotopress pipes, sludge tanks, well liners and a comprehensive range of concrete troughs.

Mr Blomkamp said the division is also building up the resale side of the business.

"Home improvements are taking a much larger slice of the building market and we are attempting to diversify our product range in this category."

Two metal quarries at New Plymouth and Karamu, near Hamilton, and the lime quarry at Hastings make up the Firth **quarry division,** which supplies the aggregate used in concrete making.

Hinuera stone, famous throughout New Zealand and in various export markets as a natural and beautiful building material, is marketed by the Firth **natural stone division.**

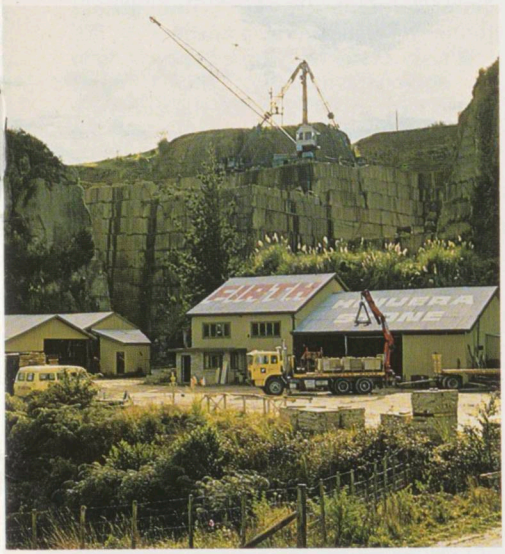
Available in soft pastel shades of cream and gold, Hinuera stone is mined by the company on a property near Matamata.

Last year the natural stone division completed a move from premises in central Auckland to a large property at Drury overlooking the southern motorway.

Mr Crandall Parkinson, general manager at Drury, reports steady demand for the company's full range of marble and slate products.

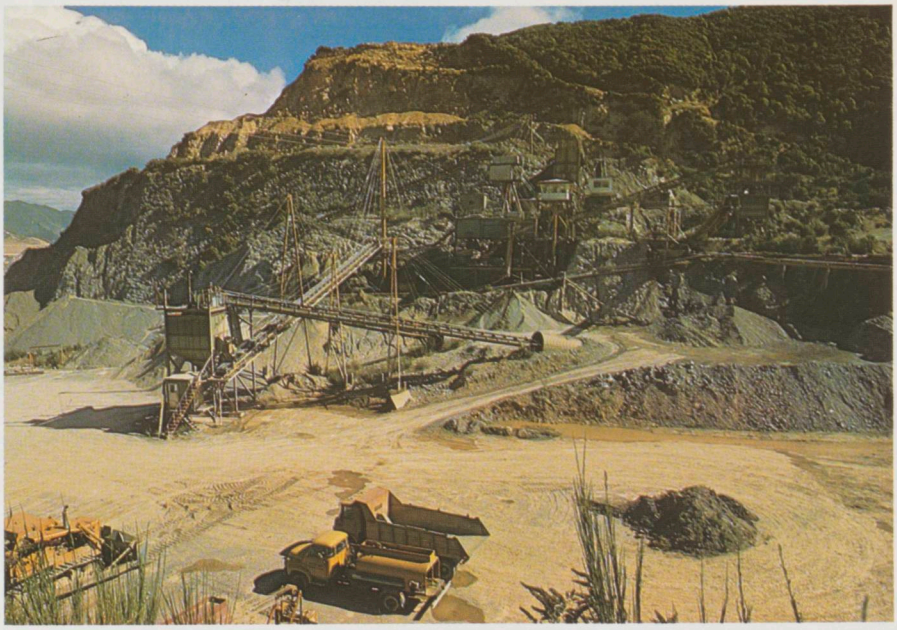
Operating subsidiaries of Firth are W.T. Trethewey & Sons Ltd, the Christchurch stone-processing firm, Waikato Bitumen Co. Limited (60 per cent owned) and Reliable Roads Ltd (60 per cent owned).

Firth also has holdings, on an associated company basis, in Firth Stresscrete Ltd, Firth Precision Blocks Ltd and Brian Perry Aggregates Ltd.



The Hinuera stone quarry, near Matamata.

Riverside base serves wide area



A ribbon-like five-hectare Hutt River bank site is the Wellington regional headquarters of Fletcher's new concrete and aggregates group.

Former Aurora Group Limited members River Shingle and Sand (1935) Limited, Heretaunga Transport Limited and the Vibrapac Masonry (Wellington) Ltd organisation became full-fledged members of Fletchers late last year.

They now make up the Wellington branch of Firth Industries Limited under area manager Mr Lance Lamport.

The operations have been restructured into six divisions. Two key ones are the aggregate division, which carries on the quarrying and crushing activities of River Shingle and Sand, and the Vibrapac division, which sells that company's traditional concrete building products.

They are augmented by group transport, sales, accounting, and quality control and development divisions.

Vibrapac, with its associate companies Vibrapac Masonry (Manawatu) Limited and Vibrapac Masonry (Nelson) Limited, has made a big contribution to building activities in the central region of New Zealand.

Its concrete blocks, cribwalling and split masonry residential stone are extremely popular materials. Mr Lamport estimates the company makes more than 10 groups of products, each with up to 20 different variations.

Its attractive display area on the Hutt site is a landmark for motorists using the busy Hutt motorway.

A modern American blockmaking plant at Lower Hutt, another at Upper Hutt and a Waikanae factory which makes specialist products, including high-strength pacing flagstones, produce the range of Vibrapac products.

The company markets a mortar weatherproofing agent — Onoda NN — which is used extensively by blocklayers in the Wellington area.

Diversification to a range of retail products such as retaining wall units, paving blocks, barbecues, incinerators and planter boxes has enabled it to weather the downturn in new housing construction.

Firth's new Wellington **aggregate division** also enjoys a high reputation among its many customers, including Vibrapac, because of its wide range of concrete aggregates and roading materials. Out of 40 different products it manufactures, 30 are produced to either New Zealand Standard Association specifications or National Roads Board standards.

Its 24-hectare quarry, at the base of the Belmont Hills which crowd in on the Hutt motorway, will provide it with concrete aggregates well into next century.

The group's **transport division,** formerly Heretaunga Transport Limited, uses its own fleet of heavy vehicles as well as those of owner-drivers for the cartage of aggregate and for other work.

Mr Bob Smith, manager of Firth's Wellington **quality control and research division,** is the son of one of the founders of River Shingle and Sand.

He can look back on a period when there were no fewer than 13 aggregate plants working in the Hutt River area. Firth's is the largest of the three remaining operators on the river.

Aggregate division manager Mr Ben Davis, with the company more than 10 years, has been responsible with his team for the installation of all the quarry plant and many other structures.

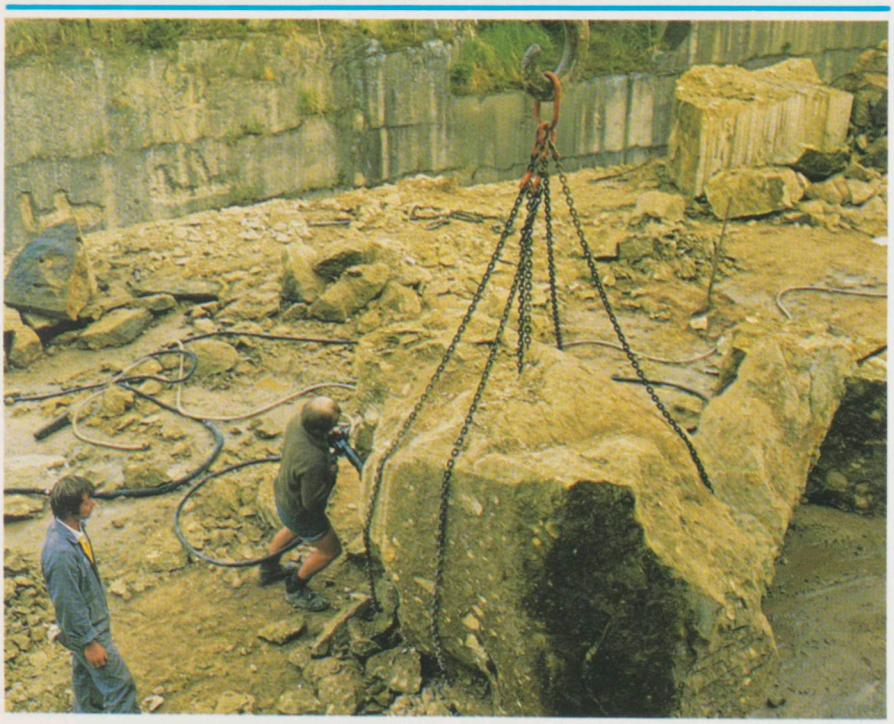
He and two other members of his staff are all Mines Department-certified A and B grade quarry members.

Other members of the new senior management team in Wellington are Messrs Hank Wortman, transport division manager, Ewan Love, sales division manager, and Peter Rooney, accounting division manager.

Skilled staff and management

Firth's top management team. From left: Messrs Peter Blomkamp, managing director; Roy Carlyon, general manager; Peter Humphrey, assistant general manager; Lance Lamport, Wellington general manager.

Firth's Wellington area senior management. Area branch manager Mr Lance Lamport (seated) is flanked from left by aggregates manager Mr Ben Davis, transport manager Mr Hank Wortman, quality control and development manager Mr Bob Smith, Vibrapac manager Mr Graham Higgs and sales manager Mr Ewen Love. Absent is area accountant Mr Peter Rooney.



The Firth acquisition has resulted in more than just the accountable assets of the company passing over to the Fletcher Group.

The skills and expertise of more than 500 Firth employees represent a valuable asset that cannot be quantified in a balance sheet.

Arrowhead profiles the Firth management team.

Peter Blomkamp, 47, managing director of the concrete and aggregates group and chief executive of Firth Industries.

Born and educated in Cape Town, South Africa, Peter Blomkamp in his early years travelled the world before settling in New Zealand.

He joined Firth Industries in 1959 as the company's first sales representative. In 1964 he became Hamilton branch manager, in 1965 company sales manager and the following year was given a seat on the board.

He was appointed general manager of Firth Industries in 1968 and managing director after the retirements of Ted and Tony Firth in 1977.

Roy Carlyon, 47, M.I.C.E., M.N.Z.I.E., B.E. (Civil), M.I.Q., general manager, Firth Industries.

New Zealand-born and a qualified engineer, Mr Carlyon is an acknowledged expert on quarrying, aggregate handling and concrete quality control. He joined Firth in 1972 after many years as a civil engineer in New Zealand and overseas.

Peter Humphrey, 55, assistant general manager, Firth Industries.

Mr Humphrey joined the company as Rotorua branch manager in 1947. He became assistant general manager in 1968. Recognised as a driving force behind the development of readymix concrete in New Zealand, he has been known to sleep with a walkie-talkie beside his bed when the company has been involved in an overnight pour of concrete.

Lance Lamport, 46, now Wellington general manager, Firth Industries, formerly Taranaki area manager.

A New Zealander with a background in the aggregate industry, Lance Lamport joined Firth in 1972 when the company acquired Conroc. A born organiser, he was responsible in New Plymouth for Firth's biggest and most profitable area.

LEFT: Workers at the face of the Hinuera stone quarry

'... a model industry'

The solanum processing plant opened by the Prime Minister in March is now fully operational. Its first production shipment of material is about to be sent to Holland for use in the manufacture of pharmaceutical drugs.

Solanum Extraction Industries Ltd, the company operating the plant, is a joint venture between Fletcher Holdings Ltd and the Dutch firm Akzo Pharma BV.

The operation (''Solexin'' for short) was in many respects a model industry, Mr Muldoon said when opening the installation at Waitara, North Taranaki.

It brought to a New Zealand agricultural enterprise injections of capital, technology and a market that would not have been available without the Netherlands partner.

It also made a promising contribution to regional development, and could pave the way for other resource-based partnership projects using New Zealand plants and other raw materials.

Mr Muldoon paid a tribute to Fletchers for its willingness to participate in the creation of new industry. He mentioned, for example, Tasman Pulp and Paper and Pacific Steel — adding: ''there is a lesson in this for other industrialists.''

''You cannot look to an ever-growing domestic market in whatever sphere you are. Many manufacturers have been slow to wake up to this reality and others will have it brought home to them.

''The era of producing solely for domestic consumption and passing on increased costs to the consumer is nearing an end. Competition should see to that.''

Mr Muldoon referred to the Fletcher Group's commitment to export and said: ''There is another lesson here for many companies — to direct their energies for expansion and profitability into well planned export activities.

''The Government is bound to look on export industries as deserving priority . . . the facts of New Zealand's economic life decree that many domestically oriented enterprises, desirable though they may be, have to be farther back in the queue for Government assistance.''

Mr Muldoon said he was advised that production from the Solexin plant was estimated to yield $1.5 million earnings in the first year, rising to $5 million annually in succeeding years. ►

ABOVE: The Prime Minister is escorted into the Solexin premises by Mr J.C. Fletcher. At Mr Muldoon's right is a specimen plant of Solanum aviculare (poroporo).

TOP OF PAGE: The Dutch and New Zealand flags, symbolising the two-nation partnership, fly over Solanum Extraction Industries' premises at Waitara. The administration building is at left, part of the processing plant at the right, and the tops of the storage silos are just visible. The complex was built by Fletcher Development and Construction Ltd.

More than 400 hectares of land in the Waitara district are now planted in Solanum (or poroporo, a shrub long recognised by the Maoris for its medicinal properties). Solexin expects the plantings to expand to 1000 hectares by 1980.

Local farmers who have leased land to the company for cropping were well represented at the opening function. Overseas visitors were Mr J. Veldman, chairman of Akzo Pharma BV., and Mr F.L. Vekemans, chairman of Solexin and managing director of Diosynth International, the Akzo subsidiary which manufactures the steroid drugs.

Mr J.C. Fletcher, representing Fletcher Holdings, told the guests that the venture was in the forefront of a new initiative in the horticultural and pastoral industries which could have a great impact on New Zealand's traditional land-use concepts.

The project was surely an outstanding example of in-depth processing of a primary product.

BELOW: The directors of Solanum Extraction Industries Ltd. From left: Messrs E.D. Andrews and J.C. Fletcher of Fletcher Holdings, J. Kloosterman, managing director, F.L. Vekemans, chairman, J. Revell, secretary, D.A. Watkins and W. Wilson.

Solexin's managing director, Mr Jan Kloosterman, leads the offical party on a tour of the installation. He is showing Mr Muldoon a load of harvested material ready to be taken by conveyor into the plant for processing . The Minister of State and M.P. for Taranaki, Mr David Thomson, is at the right and Mr Veldman is immediately behind Mr Kloosterman.

Built to sustain big loads

More than 200 tonnes of Fletcher CSP's Multi-Plate will be used to pipe creeks under a New Zealand Railways goods yard being built in Smart Road, New Plymouth.

The pipes were fabricated by Corrugated Steel Products and hot dip galvanised by Fletcher Galvanising. They were specified because they have the strength and durability to withstand high volumes of heavy traffic.

The order is one of the largest obtained by Fletcher CSP, which, like Fletcher Galvanising, is a division of Fletcher Industries Ltd.

The Smart Road culverts will be covered and unseen. In other applications, however, CSP Multi-Plate is becoming a feature of the New Zealand landscape. Its uses range from carrying large water races to creating main road underpasses for trains and farm stock.

Auckland's Ellerslie racecourse now has a driveway under the track, by means of a CSP culvert installed last year.

Mr Gavin Browne, general manager of Fletcher CSP, attributes the growing demand for Multi-Plate to its versatility, economy and ease of transportation and erection on site.

The accompanying photograph shows part of the New Plymouth order ready to be loaded on to rail wagons at Penrose.

Service centres cut steel — and costs

Steel supermarkets? Well, it is one way to describe the service centres Fletcher Steel has opened in recent months in Auckland, Hamilton, Wellington and Christchurch.

Fletcher Steel has long been one of New Zealand's leading suppliers of steel. As industry's needs have grown so has Fletcher Steel's ability to meet them.

The service centres reflect Fletcher Steel's determination to stay ahead. The operating policy is quite clear.

Says Mr Ross Chapman, general manager of Fletcher Steel: "We want to make steel available in exactly the form and dimensions that our customers want. Promptly. That's what the service centres are all about."

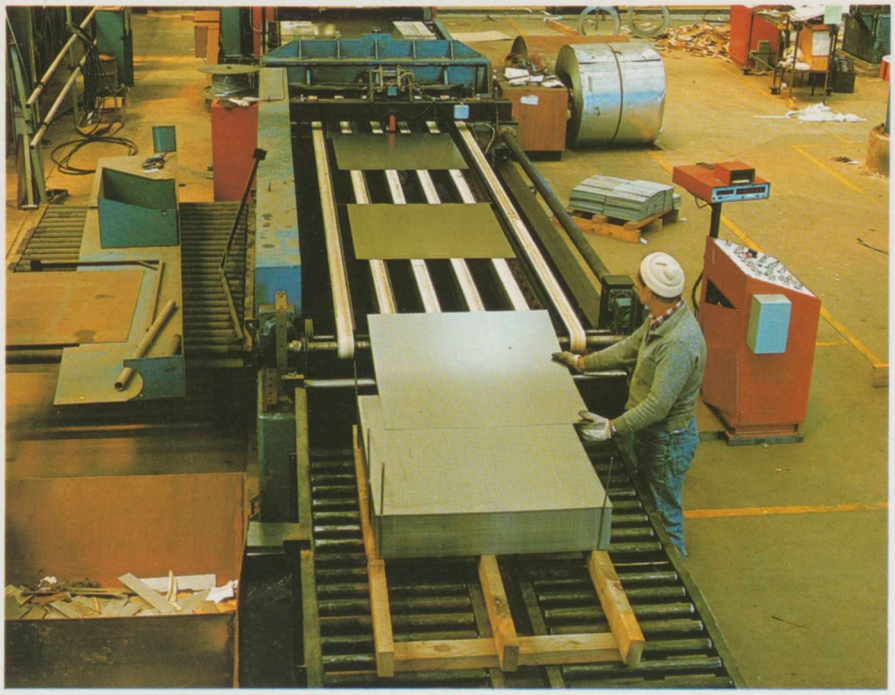
Formerly many New Zealand companies had to carry their own stocks of steel, and the equipment to cut it. The aim, says Mr Chapman, is to co-operate with manufacturers in seeking better and more profitable ways to utilise steel.

Steel purchased and stored in bulk by companies is "static" in that it is sometimes weeks or even months before it can be put to the profit-making use for which it was bought. For manufacturers, Fletchers' service centres virtually eliminate this hidden cost. With them, steel needs to be bought only when it is required.

And so, the Fletcher Steel concept — "action steel". Adds Mr Chapman: "Our steel is not sitting around in company warehouse costing companies money. It is on the move — from us, to them, and out again as manufactured products. It is working all the time."

The slitting line in action.

Fletcher Steel recently did an analysis of the hidden costs when companies carry their own stocks. It considered 16 variables based on a company with an annual steel inventory of $1 million. Included were the direct and indirect costs of buying and housing the steel, labour, handling and cutting equipment, and waste. The cost to such a company was calculated at $370,000. ►



The precision blanking line produces sheets to exact sizes from six-tonne coils.

Fletcher Steel's service centres absorb many of these costs.

The cutting services offered by the centres are comprehensive.

Six-tonne steel coils as supplied by overseas mills in thicknesses from 0.40 mm to 2 mm can be slit to any width between 25 mm and 1524 mm.

The same coils, on precision sheeting and blanking lines, can be made into uniform flat sheets.

And where the need is for steel plate in a limitless range of profiles, these can be cut in thicknesses of up to 200 mm. Guillotines are also available for cutting steel plate up to 12 mm thick.

Without these facilities, many "special cuts" would have to be imported already cut, with individual companies having to place sizeable orders overseas to meet the minimums imposed by suppliers. Fletcher Steel now will process as little as one tonne.

The cutting facilities at the four service centres are of course available to Fletcher Steel's 15 branches throughout New Zealand, so that a fast, efficient supply of "tailor-made" steel is at the disposal of steel users in every part of the country.

Network of experts

Conscious of the high cost, variety and complexity of alloy and tool steels, Fletcher Steel has appointed a team of seven specialist representatives to advise industry on the most efficient use of these metals.

Based in Auckland, Hamilton, Wellington, Christchurch and Dunedin, this network of experienced specialists is headed by a Sheffield-trained metallurgist, Mr Michael Courtnall, products manager of the alloy and tool steel division.

Fletcher Steel is New Zealand agent for Atlas Steels of Canada, one of the world's leading manufacturers of special steels. Atlas is a division of Rio Algom Ltd and a member of the worldwide Rio Tinto Zinc Group.

Steel supplied by Fletchers is, quite literally, all over the place. Indeed, it is likely that New Zealanders are in contact with it, directly or indirectly, every day.

Seamless line pipe has recently been brought into the company's product range. It is used to reticulate materials under medium to high pressures and temperatures, notably in the oil and natural gas industries, geothermal areas and freezing works.

Fletcher Steel has naturally felt the effect of the downturn in the construction industry, where it has supplied vast quantities of reinforcing steel. In other areas, however, the outlook is good, due partly to the development of wider ranging services to industry, as exemplified by the service centres.

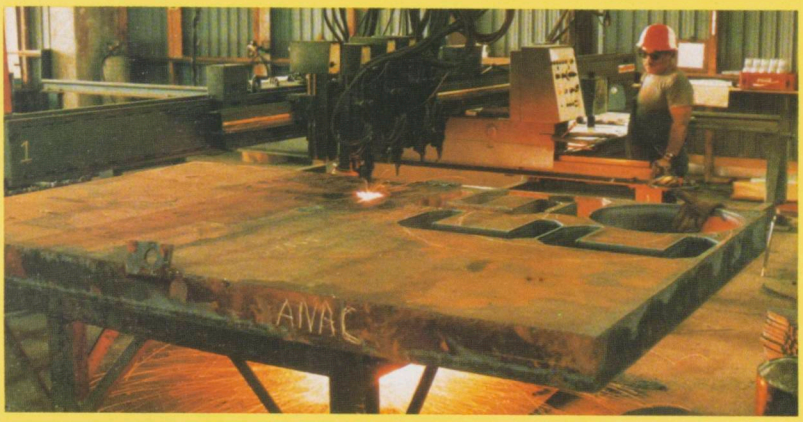
Exports, too, are playing a part. They have increased significantly since the company set up its own export division last year.

Nuclear research link

From Mount Wellington, Auckland, to some of the top nuclear and atomic research laboratories in America is a big step for a piece of profile cut steel.

But it happens to a good many of those produced at Fletcher Steel's profile cutting centre in Gabador Place.

Fletcher Steel's client, Anac Ltd, a Mount Albert-based manufacturer of scientific and industrial instrumentation, uses the profiles to make precision electro-magnets.



Mr I.J. Walker, of Anac, told *Arrowhead* his company had sold the electromagnets to some 20 U.S. Government and university research laboratories. They use them to create precise magnetic fields for the control of high-speed electrically charged particles. This is an important requirement in several areas of atomic and nuclear research physics.

Similar magnets are used by U.S. and European companies in the product of semi-conductors for transistors and integrated circuits. Semi-conductors are made from a pure silicon base which, later in the manufacturing process, requires modification. This is carried out by "injecting" the silicon with high speed atoms of other materials such as boron. Anac's electro-magnets are used in this process, which is known as ion implanting.

Fletcher Steel's Hanco Mark gas profile cutting machine in Auckland, operated by Mr Inoke Tongiatose, does an effortless and precise job of cutting intricate shapes out of a piece of 160 mm steel plate.

'J.C.' to hand over reins

Mr J.C. Fletcher has announced his intention to retire at the end of the year after 37 years as managing director of Fletcher Holdings Limited. He will continue as chairman of the board.

The directors have named the present deputy managing director, Mr Hugh Fletcher, aged 32, to succeed him as chief executive.

"J.C.", who will be 65 on his retirement, became managing director in 1942 when his father, Sir James Fletcher, was appointed commissioner of defence construction. Fletchers had floated in 1940 as a public company with total assets of 309,751 pounds.

Since then Mr Fletcher has been instrumental in building the Group into what it is today — a thriving industrial organisation with extensive home and overseas interests and total assets exceeding $300 million.

Throughout his time as chief executive, Mr Fletcher has demonstrated a dynamism and quiet determination that have seen Fletchers through many crises and many achievements. He remains an energetic and enthusiastic advocate of participation by Fletchers in any commercial industrial initiative which furthers national development.

He was largely responsible for the vast Tasman Pulp and Paper enterprise becoming an operational investment for Fletchers, and not simply a construction project. The existence and success of Tasman today, like the achievements of New Zealand's steel industry since 1962, are due in no small measure to the foresight and drive of James Muir Cameron Fletcher.

He has been chairman of Pacific Steel Ltd since 1962. He is also chairman of Marac, New Zealand's largest finance company, and of South British Insurance and B.P. New Zealand Limited.

Thoroughbred horses have pride of place among his range of leisure interests. He has had success as a breeder and owner and as an amateur rider who until two years ago rode regularly with the Pakuranga Hunt.

He has always placed great emphasis on family life and the support of his wife, Vaughan, throughout the years is well known.

In this special section of *Arrowhead* we reproduce some photographs highlighting aspects of Mr Fletcher's career. We also reprint, by courtesy of Wilson & Horton Limited, excerpts from an article which appeared recently in the *New Zealand Herald.* ►

Mr Fletcher in his office at Penrose.

Four James Fletchers. The late Sir James photographed with his son "J.C.", grandson "J.R." and "J.R."'s eldest son, James.

Rewards have been m

By M.A. McPHEE
Business News Editor, NZ Herald

Thirty-seven years as chief executive of the Fletcher group have left Mr J.C. Fletcher with plenty of satisfactions to set against what he readily describes as a share of disappointments.

They have been years of "creating" in the tradition of his builder father, Sir James Fletcher, and grandfather. He has, he says, not been interested in making money as such. He derives pleasure from the feeling of bringing worthwhile industries into being.

"I am certainly not a wealthy man." And that comes from a man whose family interests in the company carrying its name do not appear in the listing of its 15 largest shareholders. Indeed, they amount to less than 1 per cent of the $32.3 million capital.

Yet it is in building this enterprise that James Muir Cameron Fletcher has spent over half his 64 years, to earn a tax-paid profit of over $15 million in the last reported year.

But "J.C.", as intimates, and not-so-intimates, know him, strikes one as a modest man. Yet he has an evident pride, for instance in his role in launching the Tasman Pulp and Paper Co. and, in a vastly different field, in his recent chairmanship of South British Insurance, the company that gave him his first job before he joined what was then the Fletcher family building business.

In this interview he talked freely of past and future:

Why are you stepping aside from the managing directorship?

I became managing director in 1942. Ron Trotter (head of the Challenge Corporation) claims that 10 years or something of the sort is enough for a chief executive so I seem to have overrun that span.

I will be 65, too. We have had a nominal retiring age of 60. If the company and the individual wanted, we have run up to 65; I did not want to breach that.

What does your wife think about this move?

She is a bit apprehensive, I think. Family life has to an extent been subordinate to business, so she has been accustomed to my not being about much.

I took over recently as chairman of South British, for instance, and it really requires more time than I am able to give to it at the moment. With it and other boards, I feel I could make a greater contribution if I had more time.

What made you enter the Fletcher business?

I started in South British — from 1931 to 1937. I went then on a trip overseas with my father and mother. During that time I decided I would like to get into the family business.

Father had talked business to us from the time when we were very young. So we had become absorbed into the firm.

It had just reached a stage, too, where father and his brothers were having to think of the next generation. And the possibility was just beginning to be discussed of becoming a public company.

As it was going to develop, it seemed a good time to join the company.

What do you regard as your greatest success during your time as managing director?

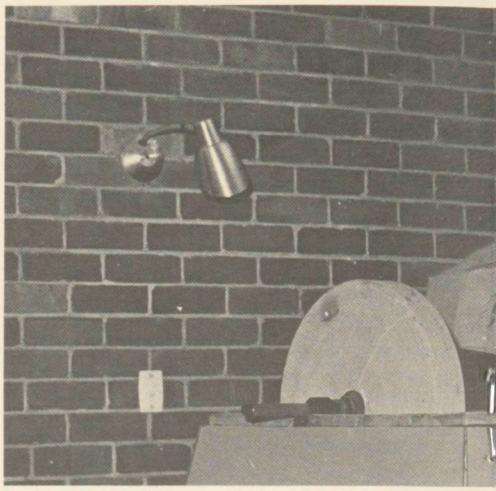
I suppose the sponsorship of Tasman Pulp and Paper would have been the single most important thing. There was a rather natural progression about it. It stemmed from our development of the joint-venture principle immediately after the Second World War.

Admiral Cotter of the United States Navy, who was down here during the war, retired from the service and became president of one of the oldest and most highly regarded construction companies in America, Merritt Chapman and Scott. He wrote to father, who was still commissioner of defence construction, suggesting that they had services to offer in major port development. Father sent the letter to me.

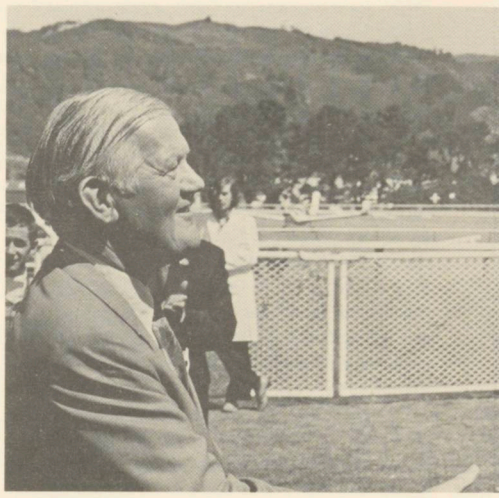
I called to see Admiral Cotter a few months later and, stemming from that, we formed the joint venture that tendered for the Import Wharf in Auckland.

I found that Merritt Chapman and Scott had pioneeered the development of kraft pulp mills in the southern states of America, using softwoods. By coincidence, they had built the Lufkin mill for Southland Paper in Texas, to which the Forest Service had sent New Zealand pine to be tested for its qualities for newsprint. Tasman is very much modelled on the Southland Paper Company's mill.

The most significant thing I did was making that original tie with the Americans. It widened our scope as contractors, enabling us to take on much more complex jobs, particularly in an industrial sense. It enlarged our ideas and aspirations so that we were sponsoring things ourselves, rather than carrying out projects that were designed or initiated by someone else.



Coats off! Mr Fletcher exemplifies the spirit of a mencement of another working year.



Receiving the Wellington Cup, won by his ho

What has been your greatest disappointment?

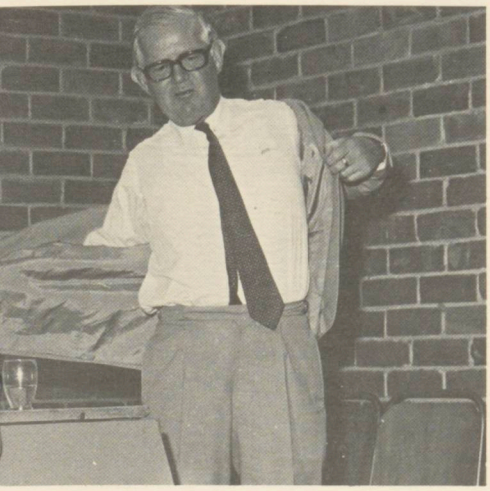
It was probably in the steel area. We worked first with Krupp and then with Kaiser doing what was the most definitive study of the ironsands that had been attempted up to that time in the mid-fifties. From that we decided that there was scope for the establishment of a steel industry in New Zealand.

I tried very hard to get BHP to join us in establishing it. They had been the most prominent supplier to this market and were the obvious, logical technical partner to take.

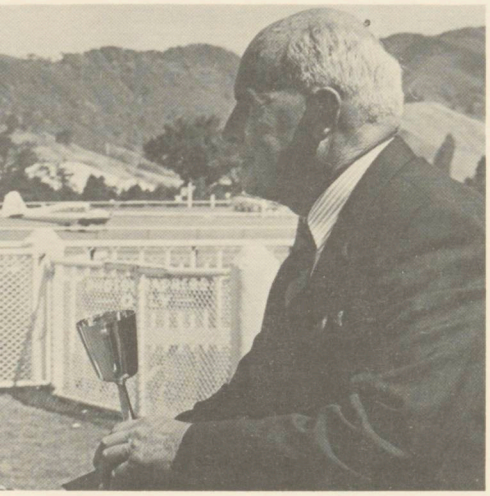
But for some reasons — they gave reasons but none of them seemed to us to be totally convincing — they did not join us. We joined with three British partners to develop the project.

Because both coal and power were then in short supply, we decided initially to base the scheme on scrap. Also the direct reduction processes were still not fully proved for us to go ahead with them.

ore than money alone



"back to the grindstone" party marking the com-



rse Rustler, from Sir Denis Blundell in 1974.

We committed ourselves to continuing the research into the development and use of the ironsands and deliberately planned the Pacific Steel operation to be part of a much larger, integrated works.

Bill Sutch was at the height of his powers and influence at that time. We believe he decided that Fletcher was trying to control too many things and was determined we would be excluded from a larger development in the steel field.

We thought at the time, and we still think, it was illogical for the steel industry to be fragmented and that there should not have been a New Zealand Steel — it should have been an extension of Pacific Steel. I would think that from a commercial point of view this had been the biggest disappointment — that to an extent, we were excluded from the larger development. Ironically, with the Government now having sold down its share, we are, through Fletcher Trust and Investment, the largest equity shareholder in NZ Steel with 10 per cent.

(New Zealand Steel's articles of association say that no shareholder other than the Government may hold more than 10 per cent of voting capital.)

What would be the main lesson from your 37 years as managing director from which other folk might profit?

It is just that history repeats itself. You see the same situations cropping up in every generation. I do not believe succeeding generations do, in fact, learn too much from their predecessors.

People talk of companies which are a couple of hundred or 300 years old and say they must be terribly good because of their expertise. They are only as good as the people who are running them at that particular time.

You have to be vigilant in monitoring your own activities. Over the years, every one of our major units has at one time or another gone sour, quite commonly through changes in management and, perhaps, less efficient management and control. I think our people have learned you cannot take anything for granted.

Tomorrow's bonanza can be today's sour one. You have just got to work at them, and keep at it.

Where do you see business heading in the years ahead?

I think, hopefully, that there is some reappraisal going on. The problem has been that over the last 20 or 30 years whenever business has got into trouble it has run to the Government to bail it out.

As a consequence, it has abdicated a great deal of the responsibility and authority of the private enterprise system to the bureaucracy.

So the bureaucracy becomes all-powerful. It has built up a whole system of regulation and controls that makes it very, very difficult to get new enterprises off the ground.

I think this has resulted in a call for a return to the private enterprise system, to give private enterprise more opportunity to prove itself and to take the consequences if it fails.

Business should not be bailed out if it makes too many mistakes. There should be an acceptance that business is hard.

If you want a truly efficient, competitive society, there are going to be casualties. On the other hand there have to be rewards. There is too great a tendency to say we are not going to let a company reap a bonanza from any situation.

The civil servants have developed a philosophy that they are the guardians of the public resources and they are sure they are not going to let the greedy capitalists make a bob out of it — that they will tax them or change the rules.

As a result, they tend to destroy business confidence and the incentive. You have to get back to providing real incentives.

In the energy field, the present policy is wrong. What we need is cheap and abundant power. That would be one of the things to encourage modern industry — which tends to be power-intensive — whether it involves overseas or domestic investments.

The Government should be content with the fact that if a business is successful and it is collecting its 45 per cent (in taxes) it is getting a damned good return on a nil investment. The Government should not be investing in areas where private capital is available.

What do you think is the greatest challenge facing New Zealanders?

It is the need for a change in attitudes. It applies to employer and employee.

The productivity of the country is away below its potential. Until we restore and create the atmosphere that wage increases came primarily from productivity and not from increased prices and an insulated artificial protection the better.

We need a more competitive spirit in every sense of the word.

Do you see Fletcher Holdings becoming something more of a New Zealand multinational?

We are still very active right through the Pacific area, particularly in the construction sense. In fact, we are looking beyond the Pacific.

I think we do feel there will be some constraint — companies becoming too big in New Zealand — and that may impose some limitations on the extent to which we could grow in New Zealand.

The notable thing about the company is that we have not grown through acquisition; our growth has come rather from our own initiative in developing new products and processes and so on.

What do you think about money?

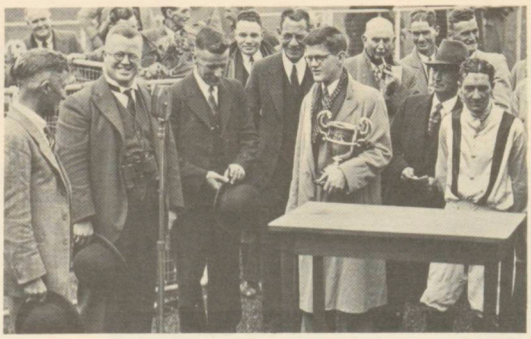
It has never worried me. I've probably been a poor manager of my own finances. It was my father's own attitude.

I looked after his affairs almost from the time I came into the company. Neither of us has been interested in making money as such.

We have got a great satisfaction out of what I suppose is the builder attitude. Father and grandfather were both in the building trade. One is seeing things for one's efforts — building structures, and plants. We have derived a lot of pleasure from the feeling we have created some worthwhile industries.

I am certainly not a wealthy man in terms of many of my contemporaries who have made a great deal more money than I have.

Governor-General Sir Bernard Fergusson checks that there is no serious damage after Mr Fletcher had taken a tumble during a Pakuranga Hunt Club meeting in 1965.

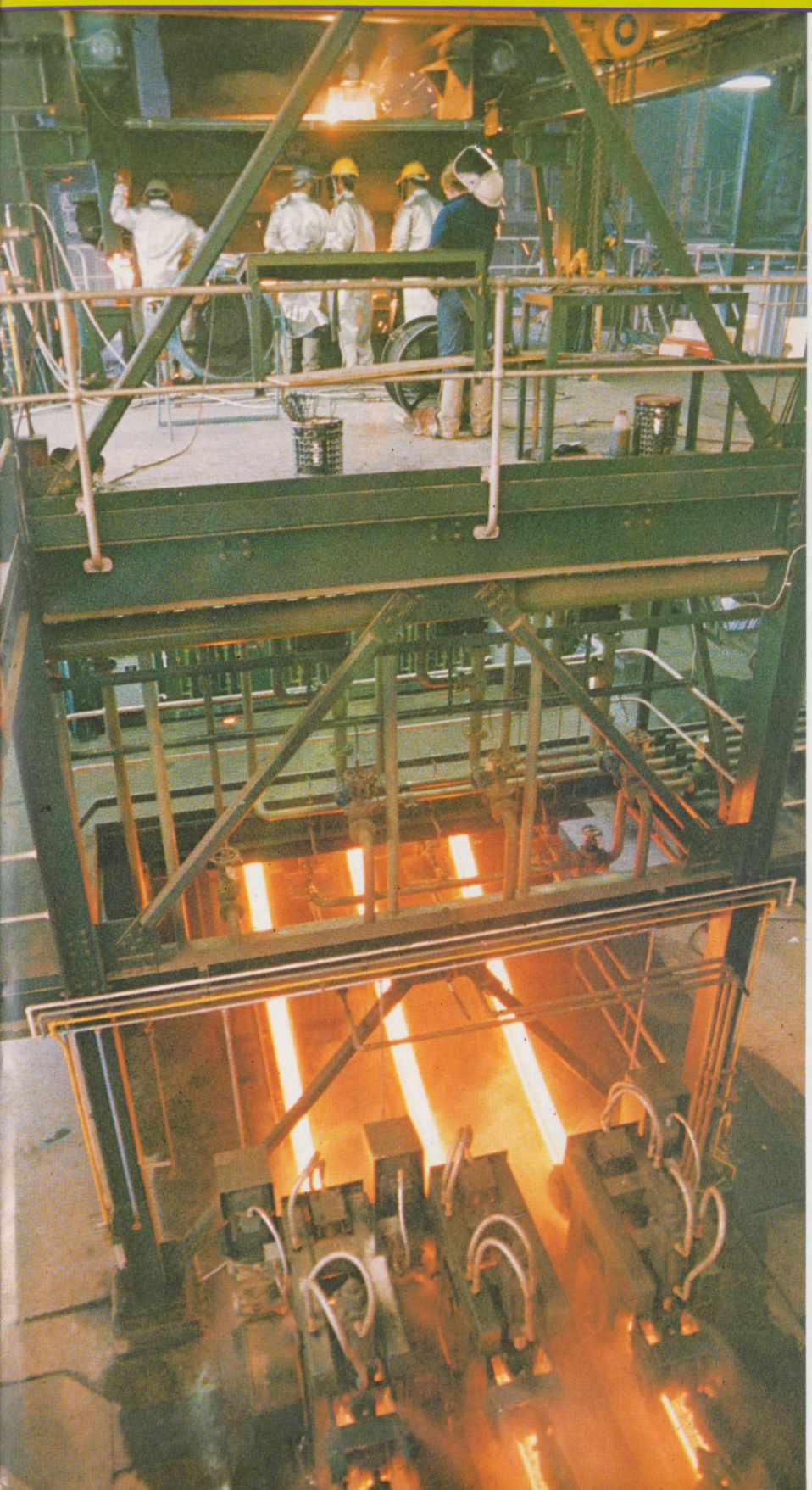


Winner of the Waikato Hunt Cup in 1936.

A visit to Fletcher House by a former Governor-General, Sir Arthur Porritt.

The board of Tasman Pulp and Paper photographed at Kawerau in 1960, shortly after Bowaters had taken a substantial shareholding.

Steel now cast in continuous strands



Cleaner working conditions, improved quality control and reduced downtime. These are some of the benefits expected to follow the commissioning of a three-strand continuous casting machine at Pacific Steel Limited's Otahuhu plant.

The American-made Rokop machine replaces the old-fashioned method of casting steel into ingots. The new system went into full 24-hour production earlier this year.

A continuous run of 150 mm square steel is extruded from each of three moulds in the machine for the manufacture of building reinforcing bar in the company's bar mill.

The machine is capable of cutting the bars into billet lengths ranging from 3 to 7.2 metres. Previously, using the ingot method, all billets were two metres long.

Planning for the $3.25 million installation began more than 18 months ago with the decision to buy a continuous caster. Work on the foundations was started in July 1978.

Said Mr John Williams, Pacific Steel's development manager: ''An estimate of man-hours required to bring the casting line to full production capacity was prepared for us by the manufacturer of the machine. Local consultants suggested we would have to allow an extra 25 per cent for New Zealand conditions.

''However, at commissioning date we were 25 per cent under the original Rokop estimate. The job has gone very smoothly, with all contractors playing a major part in meeting our deadline.

''In fact, according to our American engineering advisers, it is one of the best and smoothest installation operations they have seen,'' he said.

The Fletcher Group has been closely associated with Pacific Steel since its formation in 1960, and has a 28.3 per cent shareholding. Fletcher Development and Construction Ltd, one of the sub-contractors in the continuous casting machine installation, was responsible for the foundation work and the water treatment plant.

Pacific Steel is now in the planning stages of a detinning plant. It is expected to cost more than $23 million, but will be capable of saving the country more than $4 million each year.

Full construction servi

These extensions to Union Carbide's polyethylene plant are being built under Fletchers' guaranteed price scheme. The requirement of high loading (450lbs per sq. ft) on a suspended concrete floor was the main design consideration.

Office extensions for Glass Containers Ltd, Penrith, N.S.W.

Despite sluggishness in the building industry in Australia, the Fletcher Organisation Pty Ltd continues to gain its share of available construction work in the eastern States.

Some of its current Queensland and New South Wales projects, totalling $A5.6 million in value, are illustrated on these pages.

Like its New Zealand counterpart, Fletchers' Australian construction company offers a comprehensive service in the highly competitive commercial building field.

Though some of its work is secured by competitive tendering, negotiated contracts are becoming more popular as clients come to recognise the advantages of Fletchers' expertise in cost analysis and project management.

The company's guaranteed price system has proved particularly successful because it gives effective control over quality, time and cost.

Under this method, a project development manager checks all subcontractors' claims before passing them on to the client for direct payment. Variable and fixed overheads, together with wages, equipment rentals, preliminary items and a construction management fee are paid to Fletchers.

TOP: The Sharecap Building, with its ocean liner-like lines, is a striking addition to the Gold Coast skyline.

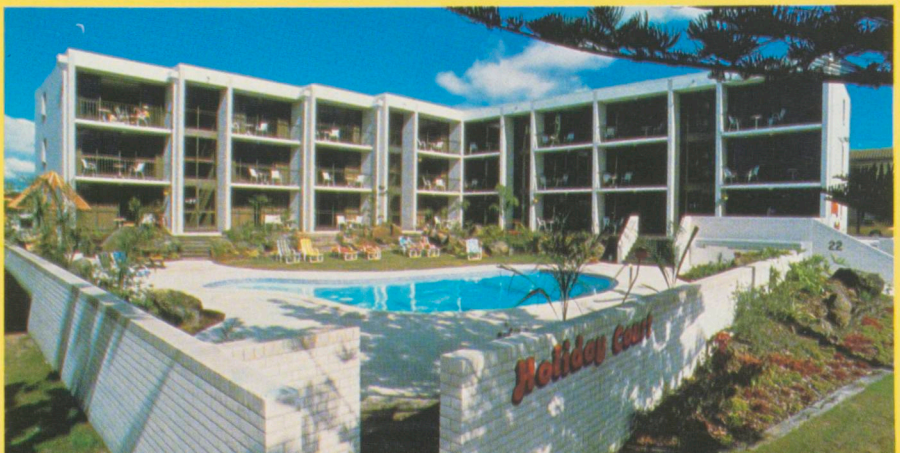
ce offered in Australia

Budget estimates are compared with actual costs on a monthly report basis, thus ensuring effective control throughout the period of the contract.

Office extensions for Glass Containers Ltd of Penrith, N.S.W., and extensions to Union Carbide Australia Ltd's polyethylene plant at Rhodes, N.S.W., *(see photos)* are two current projects being built under the guaranteed price system, with design documentation by Fletchers.

The recently completed extensions to the N.S.W. State Archives, at Kingswood.

BELOW: Holiday Court, where residents can choose between the landscape swimming pool and the beach just 50 metres away.



Another N.S.W. contract, recently completed, was the extensions to the State Archives at Kingswood, near Sydney. The contract called for completion in 30 weeks at a cost of $A800,000. The extensions were designed by Fletchers expressly for short-term storage and they incorporate air conditioning and automatic fire sprinklers, together with $100,000 worth of "compactus" storage facilities.

In Queensland, the spectacular $A1.2 million Sharecap Building on the Gold Coast is a flag-carrier for the Fletcher Organisation's construction know-how.

The building contains seven floors of luxury office and residential accommodation. Each stepped-back level has terraces on three sides to take full advantage of sweeping views over the Broadwater at Southport.

Another project designed to capture the relaxed atmosphere of the Gold Coast is a $A750,000 apartment block, Holiday Court. It contains 24 one-bedroom apartments and six with two bedrooms.

The Fletcher Organisation is well equipped to handle design-and-construct projects. Late last year it entered into such a contract with Phillips Industrial Holdings Ltd for new offices at West End, Brisbane. The $A1.1 million contract is due for completion in August 1979.

TOP: A 405-vehicle car park built by the Fletcher Organisation for the Woollahra Municipal Council.

$38.5 million project

The new Dunedin Hospital. The 500-bed ward block is to the left, fronting on to Frederick Street, and the 11-storey block in the centre contains laboratories, office and seminar accommodation for academic staff.

Completion next year of one of the country's biggest construction jobs will introduce a new era in the provision of hospital facilities in Dunedin. It will provide many major benefits to the Otago Hospital Board, its staff and, "most importantly", the patients who will be treated there.

That is how the board's chairman, Mrs Dorothy Fraser, views the $38.5 million project on which Fletcher Development and Construction Limited has been engaged since 1975. The new ward block and academic accommodation contract is heading on schedule for completion and occupation early in 1980.

Mrs Fraser told *Arrowhead* that the availability of the new ward block would bring practically all acute medical care in Dunedin to the one site. This would eliminate the present need for travel between the Dunedin and Wakari hospitals.

With wards containing four-bed rooms and ample numbers of single rooms, each with its own toilet and shower, and with double-glazed windows and carpet, the new hospital would provide a greater degree of privacy and comfort than had previously been possible, said Mrs Fraser.

It would become a truly integrated teaching hospital, with laboratories, offices and seminar accommodation for academic staff located alongside the wards for each particular speciality. This would be more efficient both for hospital staff and for the medical school staff, who would have teaching and research areas right alongside the clinical areas.

Medical students would benefit, too, in that travelling between hospitals would be eliminated and there would be more opportunities for students to get experience of clinical emergencies.

So while the Hospital Board eagerly awaits the official opening and occupation of the massive buildings which have grown to dominate the locality, the site is a-buzz with specialists and tradesmen of various kinds supervising or carrying out the finishing work.

is nearing completion

With a total of 500 beds, it will be unique among teaching hospitals in this country in having the academic units located close to their respective wards. So everything must be carried out to precise specifications.

Solutions

Final decor and fitting out of the wards and laboratories were decided only after hospital staff and technical consultants had spent many hours studying specially built prototypes to find the ideal solutions to the many problems involved.

Fletcher Development and Construction's project manager, Mr Doug Coombes, said 16 supplier companies were represented full-time on the site and, in all, 48 suppliers and subcontractors were involved in the project.

That doesn't include the team of eight representatives of the architects and building services engineers, Stephenson and Turner, headed by the managing partner, Mr Hamish Campbell, and administrative associate, Mr Roy Walker.

Structural engineers for the project are Brickell, Moss, Rankine and Hill and the quantity surveyors are Hallam, Eames and Partners.

Doug Coombes estimates that on any one working day up to 270 people could be working on the site — 100 of them from Fletchers and the rest suppliers or sub-contractors and their employees.

The building is in two wings. The 500-bed ward wing rises nine storeys from Frederick Street while an eleven-storey block containing scores of medical school laboratories fills the rest of the site between Great King and Cumberland Streets.

Bridges connect both wings to the existing clinical block and a tunnel is to be built under Cumberland Street to the Queen Mary Hospital.

Brownbuilt

Beige-coloured Brownbuilt 44 was chosen for the roofing. Some 2600 sq. m. was supplied from Fletcher Brownbuilt's Dunedin factory and fixed by Fletcher Mechanical.

By 1980 the project will have taken 42,000 tonnes of concrete; that's half a million barrow loads. To mix the concrete, 750,000 gallons of water will have been used — enough to last an average household about 17 years.

Other statistics are just as impressive — figures like 3500 tonnes of reinforcing steel; metal studs in the internal partitions which, end-to-end, would extend 241 kilometres; 1.6 hectares of windows, three hectares of laid vinyl and close to a hectare of carpet; 16 kilometres of fluorescent tubing, 160 kilometres of piping and no less than 711 kilometres of electric wiring.

The directors of Fletcher Holdings recently paid a visit to the Dunedin Hospital ward block construction site, accompanied by the Hospital Board chairman, Mrs Dorothy Fraser. In this photograph are, from left, Sir John Marshall, Mrs Fraser, Mr M.G. King, project manager Mr Doug Coombes and Mr Hugh Fletcher, deputy managing director.

Changing face of Dunedin

The giant Ward Block is by far the biggest but by no means the only project making F.D. & C.'s distinctive red, white and purple signs a familiar sight in and around Dunedin.

A random sampling of some of the clients for whom the company has major constructions under way begins to read like a community who's who.

The $8.5 million 10-storey Otago University arts building and library is a three-year project due for completion in May.

A $3.1 million water sedimentation tank near Tahuna Park for the Dunedin Drainage and Sewerage Board is the second stage of a $10.5 million water pollution control plant for the city. It will be completed next year.

A $2 million woolstore has just been handed over to its owners, the New Zealand Wool Board.

Nearby are the $2.5 million offices and warehouse for Foodstuffs (Otago and Southland) Ltd, to be completed in July.

A $1 million boilerhouse at Dunedin Hospital is due for completion in July.

And the Sacred Heart Home for the Little Sisters of the Poor has recently moved into its $2.3 million premises offering 6,100 sq. metres of accommodation and service facilities.

Most of these contracts are being carried out under the supervision of the clients' architects. In addition, the company has been retained on a design-and-build basis for a variety of commercial projects throughout Otago and Southland.

Eager world market for New Zealand deer

Deer farming in New Zealand is roaring ahead.

On today's market a young stag is worth $500 more alive than as a venison carcass. Fence-trained hinds and stags are changing hands at prices inconceivable only 12 months ago.

The swing in relative values of live animals as against those shot for venison has been dramatic.

Against this bullish background the Fletcher Group has begun a trial deer farming programme on land at Taupo.

Grasslands at Fletcher Forests' land at Wainui, 45 kilometres south-east of Taupo, are being fenced off. The 23 hectares of land available have the potential to carry more than 3,000 head of deer.

Operations manager Len Crofskey, who heads the programme, expects that at least 100 deer a year will be captured. Share farming and natural increase will provide the balance of stock.

Initial capture of live deer by helicopter is concentrating on red deer on currently owned or managed forest areas.

To supplement helicopter capture, traps will be built at suitable locations. Fletcher Forests staff, who have for many years enjoyed deer hunting rights in the company's 10,000 hectare Tauhara Forest, east of Taupo, have also been offered a $500 a head bounty for every live deer captured for the company.

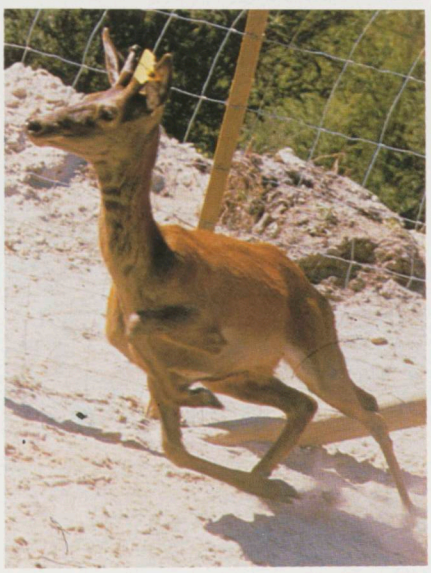
Fletcher Forests has been farming sheep and cattle in some of its forest areas since the early 1970s and is interested in deer farming as a means of maximising efficient land use. The company has holdings of more than 8,000 hectares in both the South and North Islands suitable for capture by helicopter, and a further 8,000 hectares near Taupo where deer can be caught in traps.

Deer farming is not a new idea for Fletchers, as chairman and managing director Mr J.C. Fletcher points out.

"We first looked at deer farming ten years ago and then as now we had to decide where such an enterprise fitted in to the Fletcher scheme of things," he told *Arrowhead.*

"This present operation was initiated on a trial basis when it became clear that Fletcher Forests could combine the trapping of deer as a control measure with the grazing of animals on open pasture at its Wainui block.

"I would like to emphasise that this is still very much a trial operation while we assess the suitability of the farm property at Wainui and decide whether the activity can be successfully integrated into Fletcher Forests' total operations."



For this spiker a week in captivity has not lessened his sensitivity to man.

Stories by
DAVID PAINE

Photos by
KEITH WALDEGRAVE

Quarry is Respected

Says Peter Elworthy, president of the New Zealand Deer Farmers' Association: "We farm a most efficient and beautiful animal."

Len Crofskey echoes these sentiments.

"Most people involved in hunting deer have come to respect the animal for its intelligence as well as its grace," he told *Arrowhead.*

"I've been a deer stalker for over 20 years. I've now turned my attention to catching them alive."

Len Crofskey has a background in farming, and as one of Fletcher Forests' two Taupo-based operations managers he has a thorough knowledge of forestry and forest conditions. He is a member of the Farm Forestry Association.

The overall responsibility for implementing the decision concerning deer farming is his.

It is a promising industry.

Reference the Deer Farming Annual for 1978-79:". . . prices today put the going rate for good mature hinds at $1900 and whether this is the limit is debatable."

NZDFA executive officer Robyn Hunn puts the high prices down to two factors — the strong demand for stock and the flourishing velvet market.

Prized in Asia for its medicinal qualities, velvet is a strong export earner for New Zealand. Buyers in New Zealand were paying farmers $200 a kilogram for red deer velvet last season. With a yield

averaging 2.5 kilograms from each stag, it is a very profitable by-product.

Velvet is a honeycomb-like substance that grows early each year after the stag has shed his previous year's antlers.

The velvet is taken before it has time to harden into antlers by placing a tourniquet round the coronet on the skull, administering a local anaesthetic, and sawing off the velvet.

The tourniquet is left on for at least an hour after the cutting to allow blood to congeal.

"The deer is as good as new," said Mr Crofskey, "except he's minus his antlers."

Deer are currently grazing in what were sheep and cattle pastures with some scrub cover available. Ultimately they will graze under the growing pines.

"They normally won't eat the trees — we give them too much of a good diet for that to happen — but stags can sometimes damage trees with their antlers," Mr Crofskey said. "The removal of these will eliminate that risk.

"Diet is mainly grass supplemented by lucerne hay, which we grow in our Tauhara Forest fire breaks. It is high in vitamin B12, and makes excellent use of normally barren land assets."

Len Crofskey and his team have experimented with different methods of capture — net, dart, or dart and beeper — and have opted for the dart and beeper.

Two darts are fired from a double barrelled gun into the rump of the deer. One dart contains the drug and the other a battery-operated radio transmitter beeper which is activated on impact.

After the darts have hit their target, the helicopter leaves the animal to quieten down and to give it time for the drug to take effect. Approximately 30 minutes later the helicopter returns to the area and tunes in its radio to one of 10 frequencies and tracks down the drugged animal.

Altitude: four metres

Taupo Airport, 5.30 am, Tuesday. It's warm — 20 degrees according to the Radio New Zealand all-night show — but shivers of apprehension chill my skin.

Keith, a seasoned helicopter passenger, casually loads film into his three Nikons, seemingly unconcerned.

Ten minutes later, crammed into the aft cargo area of a Hughes 500 helicopter, we're buzzing the tree tops east of Taupo heading for the Kaimanawa Range at nearly 200 kilometres an hour.

We're taking two helicopters to go deer catching at Ngatapa Station.

Pilot Peter Masters signals that we will be trying to dodge increasing cloud and

ABOVE: Blindfolded and straitjacketed, a spiker stag is flown in to Ngatapa Station after capture in the surrounding hills.

LEFT: The scrub-clad hills surrounding Ngatapa Station provide an ideal haven for deer. These two Hughes 500 helicopters leaving on a deer catching expedition will have to flush their quarry from the scrub.

mist cover over the ranges. Words are drowned out by the whine of the Hughes' jet engine and its four-blade rotor.

Keith nudges me — trees skim away to the left and right, above our lateral line of vision. We're in a ravine, skirting first round a grassy knoll, then plunging ahead through a valley past towering pines, trying to keep low under the cloud cover.

Half an hour after takeoff we're swooping in through a shallow ravine, past a steep rock face and landing at Ngatapa Station homestead, inland from the Mohaka River.

Mike Pearse, station manager, greets the team. He has sighted a hind in scrub on the hills behind the homestead.

Like excess baggage, Keith and I are off-loaded to watch the action from the ground.

Each of the helicopters has its doors removed and loads an extra hand. Gear is checked and the hunt begins.

Working the scrub line, often less than three or four metres above ground, the hunters try to flush the deer out of the scrub.

Hopes for a quick capture turn to disappointment as the chopper disappears over a low ridge and is lost to sight.

Minutes later the approaching thump of rotor blades heralds its return. They've got one!

Peter Masters guides his charge skilfully down past the steep rock face, the deer hanging in a green canvas straitjacket from the undercarriage.

Then gloom as we realise the plump hind is dead. She has burst her heart, trying to outrun the hunters.

They'll try again. There are a number of good signs, and Peter says he's seen a mature stag further up the valley.

While they're away we inspect the deer run, home at present for just one stag and a hind.

The shy occupants are hiding in scrub at one end of the 100-metre long run. At the other end is the 'dark room', where the newly captured and frightened deer are given a couple of days to settle down after the trauma of the chase.

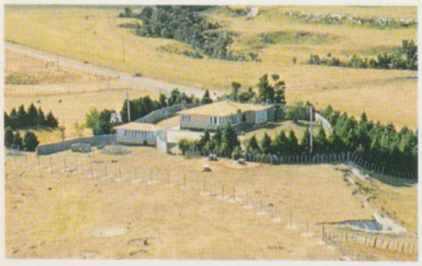
A two-metre high lattice wire fence surrounds the run.

A good-sized stag could easily leap it. But he won't. Deer quickly adopt to the security of the run.

Back comes the helicopter, a proud stand of horns protruding from the underslung canvas straitjacket.

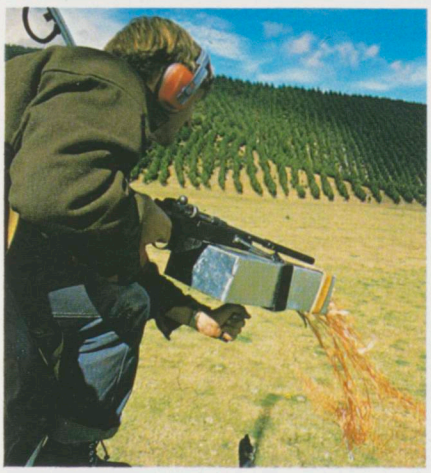
The blindfolded stag is dropped neatly into the run.

He's an eight-pointer and a prize indeed — worth more than $1800 as a sire for the expanding herd.



LEFT: Part of the Wainui block where Fletcher Forests conducts its deer farming operations. The farm is capable of holding eventually more than 3,000 head of deer.

Profitable pastime



Experimental use of a net for catching deer. The pressure of a blank fired from a Y-barrelled .303 rifle throws the net over a fleeing deer.

Jean Mato with a relic of his deer stalking days. This 12-pointer was shot in the Tauhara Forest, where Fletcher staff have long enjoyed hunting rights.

Jean Mato was a deer stalker. Now, he and his partner trap them.

As training officer with Fletcher Forests in Taupo, Jean often took advantage of the free shooting rights in the company's Tauhara Forest.

The deer he shot were worth about $150 as venison. Now, like other staff members, he is chasing the $500 bonus for every one taken alive.

Jean has located a suitable area for a trap in the 1500-hectare forest.

"We've found a natural deer run," he told *Arrowhead*. "We fenced off the area and built natural-looking ramps for the deer to jump down into the run.

"We check the run every week."

The company is also offering to repay staff for their expenses in setting up traps. Len Crofskey is hoping many Fletcher Forests hunters will turn to trapping.

"It's a profitable pastime for the men and, with the advent of deer farming, a boon for the company."

Bisonboard plane does everything but fly

There is no knowing what use Bisonboard will be put to next.

Last year Rodger Thomas, of Rotorua, set out to build a three-quarter scale model of a pre-war Tiger Moth as a float for the city's summer parade.

He was going to make it of papier mache, like most of the other floats. Why not, he thought, use something more permanent? Then the Tiger Moth, which he was to build for the Rotorua Aero Club, of which he is a member, could be put to greater use. It would make an ideal vehicle for promoting the aero club and its commercial division, Wunderflites Scenic Air Services.

Mr Thomas considered several materials, among them Bisonboard. Owner and operator of Rotorua's Putt-Putt Golf Course, he had used the material on other projects. It would do the job, he decided.

Even so, its capabilities would be stretched. It would need to curve through a radius of 180 degrees in just 50cm in three areas on the fuselage alone. It was asking a lot of a wood-based product.

"But it worked," Mr Thomas told *Arrowhead*. "It gave no problems at all. It was easy to size, to shape, and to handle, and the surface finishing was simple. Short of using an expensive sheet metal, there really was no alternative."

Altogether, Mr Thomas used twelve 1800mm by 900mm sheets of Bisonboard, attaching them to pine framing ribs.

The Tiger Moth does everything but fly. A Honda G200 motor allows it to taxi at 7.4 kilometres an hour — flashing wing-tip lights and a whirling propeller add to its authenticity.

The propeller is powered by a 12-volt windscreen-wiper motor, another example of Mr Thomas's ingenuity. "If a child walked into it, the propeller would merely stop," he said.

New bank building for prime city site

Construction of Auckland's newest office building began in January.

The new eight-storey Bank of New Zealand building is rising on a prime site bordered by Queen, Shortland and Fort Streets, where the historic Victoria Arcade once stood.

The bank invited four firms to participate in a design-build competition for the project and the contract was won by Fletcher Development and Construction with a design *(illustrated on the back cover)* prepared by its own Auckland design division.

The building will have a total floor area of 8,380 sq. m. (90,200 sq. ft).

A basement will contain the usual vault, bank service facilities and some parking space. Above ground, the first three floors form a podium occupying virtually all of the 1,300 sq. m. site.

Tower block

Floors three to seven rise as a tower, set back from the margins of the site to allow the maximum amount of light into the interior spaces and the surrounding streets.

The building is not the largest that town planning would have allowed on the site. The bank felt its Auckland headquarters should complement and enhance its surroundings rather than dominate them.

Because the building is located in one of the most favourable retail areas in Queen Street, the ground floor is to contain shops on all three street frontages. Consequently, the main banking hall is at first floor level, reached by escalators from the main entrance in Queen Street.

Off-street goods delivery to all retail premises is provided by a "drive-through" at the rear of the building.

Another unusual feature is the provision of an attractive sunny deck on the podium roof, opening from the staff cafeteria at third floor level.

The separation of the bank's basement facilities from the first floor banking hall, and the need to cater for the differing opening hours for banking, shopping and general offices, posed intricate planning problems which the Fletcher architects have solved in their design. Not least of these problems was the need to cater for the disabled and infirm.

Downtown sites on the old Auckland waterfront are notorious for their foundation problems. Fletcher engineers have overcome these by setting the external walls of the basement within the existing stone foundation walls of the old Victoria Arcade, which have been left intact to support the surrounding footpaths.

New retaining walls have been formed against the old stone to provide for the increased depth of the basement. Foundations, consisting of large-diameter piles drilled up to 12 metres deep to underlying rock, support the structure's reinforced concrete frame.

Design feature

Outside, the columns have been made a prominent feature of the design. The column lines sweep out over the footpath to form cantilevered supports to the verandah.

Energy saving was an important consideration in the whole concept. This is reflected externally in the relatively large precast concrete panels between columns and the relatively small areas of glare-reducing glass in the vertical window strips.

Close liaison between architects, engineers, construction experts and the client has been a feature of the project since its inception. The building will be completed in just over two years from the start of working drawings at a cost considerably below that of other recent, comparable buildings. ►

The Fletcher Design Group's conception of the new Auckland branch building for the Bank of New Zealand on the corners of Queen, Shortland and Fort Streets. Foundation work is now under way for the new building, which is being erected by Fletcher Development and Construction Ltd.