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KORERO

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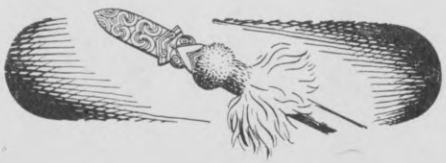
KORERO

IN THIS ISSUE

Contributions to Korero

You are reminded that a maximum sum of £3, payable in canteen orders where there are canteens under New Zealand control and in cash where there are not, will be divided among contributors in each issue. It is necessary, therefore that all contributors should send us number, name, and full address. Remember, too, that articles are not the only contributions we are looking for. We would like to see also short paragraphs, black and white drawings, and verse. There is space, too, for your comments and inquiries, provided you keep them short. The address is: "D.A.E.W.S., Army H.Q., Wellington." Mark your envelopes *Korero* in one corner.



A KORERO Report

ONE of the first things you will notice on entering Tauranga by car is a street sign which reads "Fifth Avenue." It seems a little incongruous, because you immediately think of sky-scrapers and penthouses and overhead railways, and see instead pleasant bungalows with lawns and flower-beds and trees, all very tidy and flat and peaceful, and not at all like New York. It makes you think, though, that Tauranga must be a prosperous place. The homes are modern and sit comfortably on large sections. The streets are wide and tree-lined. The lawns and shrubs, and not only those inside the fences, are well barbered. There is no bustle or hurry; but an air of comfort and security, of prosperous ease. "That's why," said one of the residents, "we say that Tauranga is made up of two classes—the tired and the retired."

The weather has a lot to do with the first division. A sultry sub-tropical summer and a mild winter with few frost is not the sort of climate that encourages excessive activity. You want to laze about and take things easily; to swim in the warm waters below the Mount; to sunbathe on Ocean Beach or to stroll somewhere in the shade.

And it is certainly the climate that attracts the retired people. Just warm sun to sit in and quiet gardens in which to make things grow.

There are other classes however: people who go to Tauranga for their holidays and, in a peacetime summer, make the town one of the brightest spots in New Zealand. And business people who make a good living, and who make it in shorts and shirts for most months of the year.

We went to Tauranga just before the beginning of the summer season—a season now not quite so hectic because of the war. It was peaceful enough then. You could have held a duel in the main street of an evening without danger to any one's life or limb except your own. But when you read the town's history you found that Tauranga, like many of its residents, had earned a rest; earned it as long ago as the Maori Wars.

For Tauranga has a history that contrasts strongly with its present prosperity and peace. Nowhere is that contrast brought home to you more strongly than at "The Elms," a fine old house in wide and well-kept grounds from whose front windows you can look out across the harbour to Mount Maunganui, green against the skyline. Almost one hundred years ago Archdeacon Brown built this house as the central building of his newly established Mission Station, and although the natural beauty of the scene was not impaired in those days by a railway reservoir and a fish-factory, it was apt to be often interrupted by "wars and rumours of wars." This house, which was one of the first wooden homes built in New Zealand and which has been as carefully preserved as the grounds surrounding it, has retained inside as well as out the atmosphere of last century. This is because of the care taken of it by Miss Alice Maxwell, niece-in-law of Archdeacon Brown and present owner of the property.

The town's most impressive landmark.

"Come inside," she said. "Come inside quickly and wipe your feet." The party of a dozen or so sightseers filed through the door careful to obey instructions. We stood in a little room from one corner of which a narrow staircase wound to the other floor. The walls were hung with oil paintings and water-colours, and the furniture and knick-knacks were Victorian, but facing the door, below the painting of a horse's head, hung poi balls and a carved Maori box. Three doors led from the room, but before we had a chance to explore further Miss Maxwell began to tell us of the history of the house.

She told us of how the Station was started in 1838, though Archdeacon Brown had been in the locality off and on from 1834, and how he and his wife lived in rush huts until 1847, when the present house was completed. All the wooden buildings of the Mission—store, library, and chapel—were built from logs brought from as far away as Thames, because there were no forests handy to Tauranga. After being floated round the coast, the kauri trunks had to be manhandled to the site and pit sawn on the spot. "Imagine my uncle's dismay when fire destroyed all the joinery for the new house and all the tools and seasoned timber! Eighteen months to get new tools from Home and all the work of seasoning the new timber and making the doors and windows again! Such a disappointment! It was probably at this time that he asked another station for the loan of three nails to complete an urgent job!"

In spite of this disappointment the house is a tribute to its builders. Ninety-seven years have given it the beauty of age and its timbers are as sound as the day Archdeacon Brown completed it.

"That staircase is a gem of the wood-worker's art. It was the first to be built in New Zealand and its hand-rail is carved in only two pieces. Visitors have scarcely believed it possible." It did seem difficult to imagine any one making this staircase with only the most simple tools. It was slim yet solid; dainty almost and perfectly proportioned.

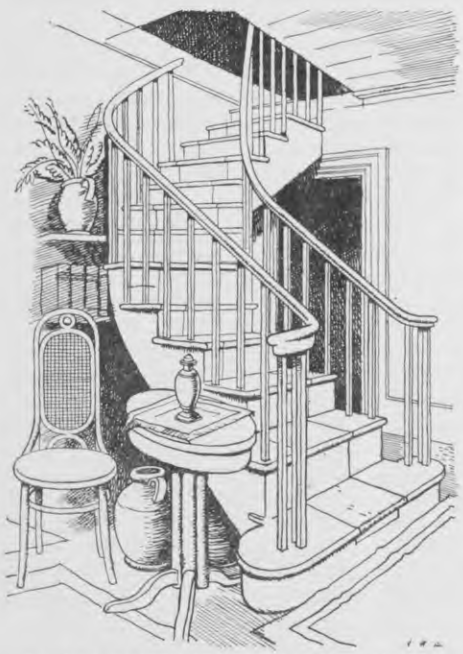
We went from room to room looking at the furniture, antiques, and curios. Waterford crystal, Sheffield plate, Indian shawls, crazy-work quilts, pieces of needle-work, miniatures, china; anything under a hundred years old seemed young. Some of the items were well into their second century, while the family silver was said to be five hundred years old.

In the living-room we saw a table at which, Miss Maxwell told us, some of the officers of the British troops stationed at Tauranga sat down to dinner the night before the Gate Pa fight. "Of those guests," she said, "one alone survived the next day's battle."

Only a mile or two from the centre of the town the road dives through a small cutting, and on the left is a park in the concrete gates of which are embedded old muskets and bayonets. A notice tells you that this was the site of the Gate Pa battle. To the right a little church crowns the crest of the low hill, and in its grounds are trenches filled now with long grass and lilies. From these trenches the Natives repelled the British regulars in 1864.

The Maoris had issued a challenge to the troops to come out and fight, even naming the day ; and when the British refused to be drawn the anxious Natives built eight miles of road up to their encampment so as to lessen the strain on the Queen's soldiers. When this courteous act failed to bring about the battle, the Maoris marched down to within three miles of the Mission Station and threw up trenches on the ridge now known as Gate Pa. This position was stormed by some three hundred troops, but the Maoris held their ground with great courage and the troops retired with heavy casualties. Ten officers were killed or died of wounds, twenty-five other ranks were killed and seventy-three wounded. The Maoris lost about forty-five killed, but there is no record of the number of their wounded.

During the night the Natives retired from the position in spite of the fact that a large party had moved in behind them to cut off their retreat. Several days later, at a battle at Te Ranga, the Maoris were heavily defeated, losing more than a hundred killed. Within a month most of them had surrendered their arms to the British Forces.



The first staircase to be built in New Zealand.

"The Elms"—one of New Zealand's first wooden homes.

Of particular note were the bravery and chivalry of the Maoris in these engagements. The description of the Gate Pa fight in the D.Q.M.G.'s journal says of the Maoris: "The manner in which they defended this position proves them to be an enemy anything but despicable in intelligence and courage. The readiness with with they stood to their posts and met the assault, as well as their endurance during the bombardment, would reflect credit on disciplined troops. As to Te Ranga, the C.O. of the troops engaged says: 'I must not conclude without remarking on the gallant stand made by the Maoris at their rifle pits ; they stood the charge without flinching and did not retire until forced out at the point of the bayonet.' "

Their chivalry is best illustrated by a letter sent to Colonel Greer at the time of their first challenge :—

"Friend, salutations to you. The end of that, friend, do you give heed to our laws for regulating the fight.

"Rule 1 : If wounded or (captured) whole and the butt end of the musket or hilt of the sword be turned to me, (he) will be saved.

"Rule 2 : If any pakeha being a soldier by name shall be unarmed travelling and meet me, he will be captured and handed over to the direction of the law.

"Rule 3 : The soldier who flies, being carried away by his fears and goes to the house of the priest even though

The Mount from the garden of "The Elms."

carrying arms will be saved; I will not go there.

"Rule 4: The unarmed pakehas, women and children, will be spared.

"The end. These are the binding laws for Tauranga."

Throughout the fighting the Natives adhered strictly to these rules.

The Catholic Mission was established in 1840 soon after a visit by Bishop Pompallier to the Bay of Plenty. Father Viard was the first parish priest, and was later appointed first Bishop of Wellington. The first cottage built for the priest at Otumoetai about 1842 was afterwards brought to Tauranga and combined with another building to make a presbytery, which was used until 1935, when it was turned into a parish hall. This building has completed more than a century of usefulness and is still in a fair state of repair.

After the Maori Wars many of the soldiers took up allotments round Tauranga, but title and other difficulties forced many of them to leave the area. However, by 1873 the *Bay of Plenty Times* was able to say:—

"Within the last twelve months Tauranga has emerged from the happy-go-lucky aspect it formerly bore, and now presents the appearance of an orderly and well-regulated country town. New streets and new stores have been and are being erected on all sides . . . On the whole we have great cause for rejoicing and anticipating a great future for this favoured locality."

In that year the Town Board's income was £236 10s. 6d. By 1939 it had risen to £18,472. Rural land in 1873 was offered for about £1 an acre. To-day land suitable for growing citrus fruit is worth many times that price.

Picking Citrus Fruit.

For citrus farming is one of the sources of Tauranga's present prosperity. Not all the land is suitable for citrus growing, but what is not is usually good dairying land. In any case, the orange and lemon groves do not cover hundreds of acres. They are dotted over the areas where the soil is suitable and frosts rare, but the acreage of most of them is below double figures. This is because oranges and lemons are a paying proposition on 2 or 3 acres if you have any luck and are prepared to put the work in. But for large farms battalions of men would be required to do the skilled and intensive work of caring for the trees and handling the fruit.

There are also some splendid dairy farms handy to Tauranga. The rolling countryside that sends out long arms

into the harbour all along the road to Katikati is like the rich land out on the Rotorua road to Te Puke and beyond, some of the best dairying country in New Zealand.

Tauranga's tourist trade is, in peacetime, a source of income for the townspeople. Big-game fishermen who chase the shark and swordfish out in the bay charter their launches here, and thousands of holiday makers come to the beaches that stretch out to the south-east below the Mount.

There is still a large Maori population most of whom are working on Native land - development schemes in the vicinity. Running from the Mount north to the Katikati entrance to the harbour is a long slim island called Matakana, which is wholly settled by Maoris who are either dairying or growing potatoes, kumaras, and maize for the Auckland markets. Normal access is by launch, but at low tide the cream-cans are carried across by dray from the northern tip. On Matakana the Native Department has encouraged and assisted the Maoris to grow crops for which there has been a wartime demand, and it is hoped that they will take to vegetable growing when the war is over.

When milling begins in the *Pinus insignis* forests that cover the seaward side of the island, plenty of labour will be required, but the problem here, as elsewhere, is to find as much useful employment as possible for the Natives on the lands that are left to them.

Miss Alice Maxwell.

Dairying cannot support the growing population of the island. Cropping has already proved profitable, and with a change of emphasis and wise planning may continue to be so.

Perhaps the town's most impressive landmark is a giant aspen in a little park below the Government buildings. According to tradition, it grew from a switch stuck into the ground by a drover some seventy years ago. Though odd limbs have been lopped off, it is a magnificent tree. It was young in 1875 when the town was young; so it has presided over Tauranga's growth from its days of war and poverty to its present security and peace.

Typical Countryside around Tauranga.

PLYWOOD

A KORERO Report

UP IN the air in a plywood plane. Down in the ground in a plywood coffin. Across the sea in a plywood ship, eating from a plywood table, your luggage in a plywood suitcase, your beer from a plywood cask, washing in a plywood bathtub, rescued in a plywood lifeboat. Plywood railway carriages, bus bodies, tram-cars. Stairways, furniture, ceilings, floors, pictures; boxes, barrels, chests, reels, baskets, trays—all plywood. It's a handy sort of product.

But in New Zealand it's not as handy, as widely used, as this list of goods might suggest. Not yet. It's made in New Zealand, has been for some time, but only since the war has production been on anything like a big scale. Now there are three companies very busy in the business; the war increased the demand for the product, and it is for the fighting of the war that millions of square feet of the material have been used. One day, though, production will be switched from a military to a civilian basis, and then the list in the first paragraph will probably be as incomplete for New Zealand as it is now for several countries overseas.

Plywood—timber in its latest, most scientific, most economical form—is one of the strongest and most adaptable of materials made by man; it has the natural strength of wood and does away with most of its weaknesses. To make the product, thin layers of wood are glued to each other with the grain of each layer running at right angles to the grain of the next layer.

An examination of the present-day ply board shows little more than a development of the veneered panel which has been made by craftsmen through the ages. In Egypt of the fifteenth century B.C. veneering was known and highly regarded. Excavations have brought to light furniture built on the plywood principle that has stood the test of centuries; how the wood of those mummy coffins and royal tombs was sawn or cut, how the glue has managed to stick tight

for thousands of years is a mystery that will always confound the modern craftsman.

Through the ages plywood-built furniture has been made. It was fashionable with the Romans. It was fashionable in the eighteenth century—Thomas Chippendale, Thomas Sheraton, and Jean Henry Riesener were three of the world-famous craftsmen to make furniture which has given ample proof of the lasting qualities of this product. But the purpose of their use of the product was chiefly decorative. Few of the old veneer workers realized that thin sheets of wood glued together with the grain at right angles had advantages other than beauty, not the least of which is strength.

In 1884 a small factory built for the manufacture of plywood chair seats was probably the first commercial venture. However, large sheets of plywood did not become available until about 1890 when the rotary-cutter was invented. It was then apparent that by using these sheets and applying this idea of cross-grained construction, material of exceptional size and strength could be built up. Three-ply tea chests were the first result. Commercial three-ply wood on a large scale followed soon afterwards.

The manufacture and use of plywood is a war baby. But not of this war. In the Great War material had to be found for aeroplane manufacture. Plywood was the strongest available for its weight;

in short time aeroplane factories were using it. The development of the plywood industry kept pace with that of the aeroplane. It is questionable if plywood could have been the sound product it is to-day but for the intense research work in the early days of the last war.

Serious difficulties arose that in spite of the merits of the material could not be overcome. Plane construction required that flat pressed plywood be steamed to "compound curvature." A tendency for the material to return to its original pressed condition at the time could not be overcome satisfactorily. With changes in temperature or humidity the plane was liable to alter shape or to wrinkle. An aeroplane that changed shape would not do. Manufacturers turned to aluminium. For fifteen years little was heard of plywood planes. Now they have zoomed and soared into the news again.

New Zealand has three factories. A *Korero* representative went to look at one in Auckland. It can produce 1,000,000 square feet of plywood a month, it has more orders than it can possibly fill. This factory was noisy, steaming hot, at times the smell was rather strong, but there was much to see, all of it interesting.

Cut 'em up, cook 'em up, slice 'em up, dry 'em up, stick 'em up. That's the recipe. But there's more to it than that.

Giant tree-trunks wriggle along a creeper-track from the railway siding to be sliced into the required lengths by a saw which rips through the huge girths. It's as easy as a bread knife cutting through a loaf—and the sawdust makes a lot of crumbs. Rimu and matai trunks from National Park and Rotorua are used mostly; they have been found suitable and they are the most readily available.

Cooking the logs comes next. To soften the wood for the cutter the pieces of tree are swung with a huge winch into pots to be left in water (of 150 degrees temperature) for anything between twelve and twenty hours, depending on the size.

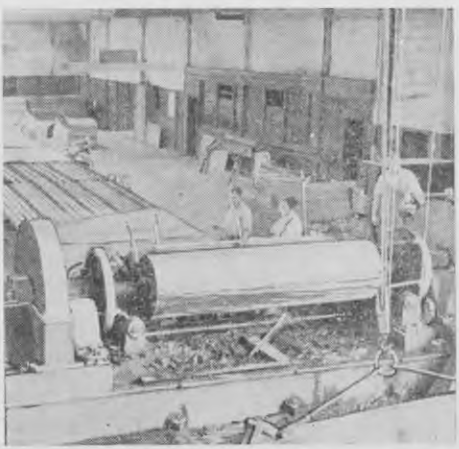
Hot and steaming, cooked to a turn, the logs are now swung over to the rotary cutter; they call it a lathe and it works on the same principle. After the bark has been removed, the log roughly rounded, it is fitted between two shafts in the way a block of wood or metal is fitted into a lathe. A push of a button, the log starts to turn, faster and faster; slowly it edges across the 8 ft. knife, razor-sharp.

It's strange to watch, the lack of effort is hard to understand. A wide ribbon of wood peels through the knife from the turning log along a flat tray. This ribbon is as wide as the log is long, about $\frac{1}{8}$ in. thick; it comes through continuously. With this operation there are none of the flying chips or sawdust usual with woodcutting; for all the effort there is the knife might be cutting cheese. A comparison is the unwinding of a roll of carpet over a smooth floor.

The whole process is as easy as rolling off a log.

The moisture content of the wood is high, sap froths and bubbles from under the cutting knife. The next process is the drying. Large ovens do the job. The long sheets, clipped to the required lengths on the cutter, are stacked singly on trays which move slowly through one of two giant ovens. The time of drying varies from twenty-five minutes to forty-five minutes in a temperature of between 225 degrees and 280 degrees.

One thousand dive bombers all diving and bombing could not cause more noise, more disturbance, more clenching of teeth and blocking of ears than the machine that trims and glues the edges of the smaller sheets. It rips its way through a large compressed stack with

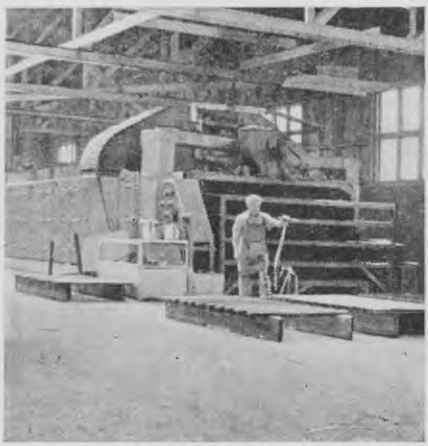


The rotary cutter.

only a flash of that saw. These small sheets are then stuck together until the required size has been obtained. The spreader covers the surface with glue, the sheets are placed on top of each other (the number depending on whether it is three-ply or five-ply that is required), and all is ready for the next process—pressing.

A steam hydraulic press does the work. A 1,300 lb. pressure to the square inch and a high temperature hardens the glue. In eleven minutes there is a solid panel. Except for a further period of drying and the last process of trimming and squaring, the product is now ready for the market—plywood ready for delivering in plywood crates and plywood packing.

Plywood is split proof. It is not hard to split a piece of timber in the direction of the grain ; it takes a lot of cutting and chopping to cut wood across the grain. Plywood profits from that fact ; it is for this reason that when the sheets are laid together the grain of one sheet is at right angles to the grain of the succeeding sheet. It is strong. As you know from the wooden handle of your metal teapot, wood is a good insulator ; plywood, of course, has that advantage over metals, too. It is pliable to work with, easily pressed into rounded forms ; and when it is properly made it is durable and slow to decay.



One of the ovens.

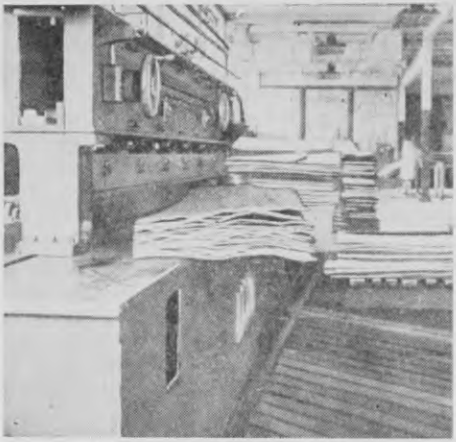
The strength or weakness of any plywood depends on the bond holding the sheets together—the glue. In the last war and many years after when plywood aeroplanes changed their shape and wrinkled in the air, when other products for various reasons were not satisfactory, the main trouble was the glue. There were three principal types—starch glue (made from tapioca), casein glue (made from milk products), and glue made from slaughterhouse waste. Each of them had their limitations : they were not temperature and humidity proof, they were not waterproof, they were susceptible to bacteria, or they simply came unstuck. It was a problem. Progress in the plywood industry could not be made until there was an improvement.

From Germany came the answer in 1930. It was a newly developed plastic glue, a synthetic resin. This glue is the same sort of plastic used to make fountain pen barrels, unbreakable tumblers, and telephones ; it is not only waterproof but bacteria resistant as well. However, the one drawback of this plastic glue is the high cost and complex nature of its production, and although the cost has been reduced in recent years synthetic resin glue is still used only for the manufacture of high-quality products such as planes and boats. At the Auckland factory, for instance, casein glue is found satisfactory for much of the production, with the plastic resin kept only for special orders.

Prefabricated houses which allow for individual design and ideas. Motor-car bodies of molded plywood which are cooler in summer and warmer in winter. Railway carriages and tram-cars. Film scenery. Fuel and water tanks. Boat building (plywood assault boats have been built by the thousand since the beginning of this war). To list fully all the present uses of plywood and the experiments in new fields now being made would be tiresome.

But the most spectacular prospects for plywood are in aeroplane construction. It is not suggested the plywood plane will overnight replace the metal machine, but the wood product (with the bond of plastic glue) has advantages over alumin-

ium that at present are becoming recognized as of great importance ; their wide application in the future is certain. In the plywood plane costly and difficult riveting, which reduces strength, is eliminated. Metal tends to weaken with vibration and to corrode with exposure to weather—this does not take place with plywood. Manufacture is faster, simpler, and less costly. It is claimed that because of the absence of complicated wing braces, and with wings and fuselages hollow and curved, the plywood plane needs 25 per cent. less power. Change of design can be made without trouble. Less labour is necessary and wood-working machinery only is sufficient ; planes can be made in piano and furniture factories which have idle capacity.



The trimming-machine.

Plywood planes are in the air at present. But after the war, with time for further experiment and more rigorous testing, these planes may be the answer to the demand by thousands of pilots for low-priced machines.

YOU CAN'T KEEP A GOOD MAN DOWN

DISABLED SERVICEMEN LEARN TO DO USEFUL WORK

A KORERO Report

IN A quiet backwater of one of Wellington's busiest thoroughfares was a vacant section, and here, a little over a year ago, was an Army vehicle park. The surface was churned into a sea of mud by the spinning, sliding wheels of heavy trucks, and the whole area had a dejected and desolate look. To-day there stands on this spot a modern two-storied building, clean lined, well lit, air conditioned. A considerable piece of ground remains, and workmen are engaged in transforming this into a bowling-green.

This is a training centre of the Disabled Servicemen's Re-establishment League, a body of citizens, mostly returned servicemen, who built up an organization to help those servicemen who were so disabled as to be unable to maintain themselves. Pensions are available, certainly, but no man wants to live out his life "pensioned off" if he feels that he can still do some useful work in the community. The League contacts men who are on economic pensions and offers them the chance of passing through its vocational training school and of taking their place again as producers and wage-earners.

Some of the funds are supplied by the R.S.A., and the Government gives a subsidy. Most of the staff are returned servicemen, many from this war, and trainees soon drop into the easy, familiar atmosphere of the Services. A strong effort is made to make every man feel that, in spite of his disability, he is still a valuable member of the community.

As you walk through the double glass doors you enter a neatly appointed modern office. There is some furniture awaiting disposal: this has been produced by the training centre. The workmanship is excellent, and shows careful and skilled craftsmanship.

Furniture like this is hard to come by these days, and you learn that it is already sold, mostly to returned men setting up homes.

A door on the right leads to an unusual feature in a vocational training centre: this is an artificial-limb factory. The League has become connected with the manufacture and fitting of artificial limbs only recently and has extended this work in its new quarters. Here are dressing cubicles and a "walking race," rather like a small skating-rink, where men may try out artificial legs and get the "feel" of them. There is a plaster room, where accurate plaster

Getting the "feel" of new limbs.

casts are made of stumps: and there is the workshop itself.

This is a large well-lit room fitted with strange shapes in wood, leather, and duralumin—artificial limbs in the process of manufacture. Some are complicated arrangements of springs, hinges, and universal joints designed to do almost everything that a normal limb will do, others are more like the wooden "peg-leg" of ancient story. Each limb is designed to meet the needs and preferences of the man concerned. Some, for instance, prefer wooden "buckets" (the bucket is the part of an artificial limb which fits on the stump), and a man is busy cutting buckets out of willow. Another man is working at a lathe, and it is only on closer inspection that we realize that one hand is a cunning contrivance of metal designed as a tool-holder.

In this shop a man learns a trade which will support him, and at the same time is able to help other disabled men, whose problems he must understand and sympathize with.

You pass on to another room sweet with the resinous smell of timber and varnish. This is the cabinetmakers' shop, where disabled men learn the whole art of joinery and cabinetmaking. There are a dozen or so carpenters' benches and an assortment of power machinery: an elaborate workshop, you would say, but it is pointed out that if a disabled man is to hold his own in the labour market he must not only be as good as the average craftsman, but better than most other men; for this reason his training is thorough, and he learns the intricacies of all the processes and machines used in the trade. The work being turned out here is of a uniform standard of excellence, and to the experienced eye the "finish" of each peice shows clearly the work and care that has gone into it.

In another room we find men making baskets—work for nimble fingers this. Before the war such things were made mostly of cane and sea-grass, but wartime conditions have prevented the importation of these materials. So, nothing daunted, the centre carries on with split supplejack and osier willow. Arrangements are being made whereby ample supplies of willow will be grown for future work, but at present some of the willow is being used in its green state. The baskets made range from small shopping baskets suitable for the housewife up to the familiar Army pannier.

Upstairs (there is a lift for disabled men) you enter first the jewellery shop. Silver comes from New Zealand mines at Waihi, and paua shells from Stewart Island. These provide the materials for the distinctive and ever-popular silver and paua jewellery. A wide variety of articles is made here; on the bench, for example, is a polished set of silver spoons with handles inlaid with paua shell; on another bench

Work for nimble fingers.

a man is making silver tie-clips. At the other end of the room the rough shells are being put through the preliminary cleaning process. The silver comes in in its rough state, and is melted and put through the rolling mill at the centre.

The next room contains the leatherwork shop, where all kinds of plain and fancy leatherwork are taught. Here are hides of various finishes and colours, and a host of manufactured articles, ranging from women's and childrens' slippers to week-end bags, and heavy embossed leather hand-bags.

Next door again is the boot-repair shop, where disabled men may learn the ancient trade of the cobbler. This is possibly the shortest course available—a quick learner can pass through in six months.

In another room three men are at work making strange looking contrivances of coiled rope. These are dust shields which fit into the bearing boxes of railway vehicles. The centre has a contract with New Zealand Railways for their supply.

Yet another room is full of crutches waiting their leather padding. These are made by the joinery department downstairs and are sent up to the leather-workers to be finished.

Two or three more rooms are empty as yet, for this is a growing organization and must have room to expand. It is hoped to start a watch making and repairing school in one room, and a printing class, complete with machinery and equipment, in another. A large sunny room at the end of the building is fitted up as a cafeteria where trainees may have morning and afternoon tea and lunch. Opposite is another room which is to be a library and recreation room.

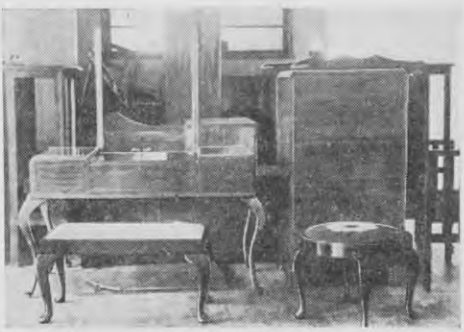
There are *eighty-odd* servicemen at present in training, working from 8 a.m. till 4.30 p.m. Most of these men will, on completion of training, leave to take up their place in industry. Some who are incapable of doing this will be supplied with home workshops where they can at least feel that they have something to do. The shops run by the League are its "show windows" and sell the products of such home workshops as well as those of the training centres.

The League is, as is obvious, a growing concern. It has at present branches in Auckland, Wellington, Christchurch, Dunedin, and Invercargill, and training centres are being proceeded with at Christchurch and Auckland. Other activities are undertaken at other centres such as a horticultural training plan, clog-manufacture, a mop-factory, and so on.

The objects of the League are summarized under two headings:—

First: Every man, however great his disability, shall be given the opportunity of achievement in some form and the satisfaction that comes from such achievement.

Second: To convert to economic usefulness the efforts of the disabled men, by the production of useful and saleable products.



Some of the finished products.

the UPS and DOWNS OF A DAYS FISHING

A KORERO Report

SEVERAL MONTHS ago several fishermen from the fleet at Island Bay, Wellington, put on their best suits, packed cases, and caught the express for Auckland. For weeks they were away from their homes. In Auckland they were paid £9 a week, provided with meals and accommodation, and to the local fishermen they gave lessons in fishing. It wasn't that the Auckland fishermen hadn't been landing good catches, it wasn't that they didn't know their job; but for certain types of fish, groper in particular, it was thought that if a change was made to methods used off Wellington results might be more successful and the market provided with a more plentiful supply. It is agreed the experiment was a success.

Except for butterfish and crayfish, all the fishing on the Cook Strait banks is with lines; with such deep water and a constant rip of current and tide the use of nets is not practicable. And that line fishing has become a highly developed art that can be employed only after sound training and years of practice. To those who weren't qualified there would be risk to boat and to person, but no fish. The "Wild Duck," a forty-footer, and her crew of three men and a boy know all about the game. We spent a day with that boat and its crew. It wasn't an enjoyable day—but it was instructive. Sometimes the fishermen earn big money; the day we spent in Cook Strait shows they do not earn it either easily or pleasantly. Nor is their work without risk.

The boy of the crew had a broken wrist. So the "Wild Duck" was short-handed. Crates of mackerel and a few precious boxes of sardines were on the deck for use as bait. Sharp meat-choppers sliced those fish into 2 in. chunks, the baiting of the lines began as soon as we left our moorings. On each line there are about ninety hooks, and that day we were using nine lines. The skipper, once we were past the breakwater and the threat of rocks, steadied the wheel with his back and helped his two mates with the work. We watched the baiting. And we wondered if that Cook Strait sea was going to be rough.

The crew talked as they baited. In the paper that morning there was a report of a fishing-boat which had been thrown 20 ft. into the air when a whale came up for air beneath it. There had been a flip of a giant tail, a dinghy had been smashed, and the crew were lucky their boat hadn't been wrecked. The men on the "Wild Duck" were sceptical. To them it didn't seem possible that a launch could hit the water after a rise of 20 ft. without breaking its back. There were witnesses, the report continued, but it was too good to believe.

Once off Island Bay two launches had been busily fishing when suddenly one of them lurched violently. A whale was gently rubbing its back against the side. It disappeared. The men sat down to have

a smoke, to recover from their amazement. Suddenly the other boat lurched as violently. One of the crew was thrown into the water. The two boats decided to get steaming. Later it was found the cause of the trouble was a calf whale ; its mother had been harpooned by one of the Picton chasers, and the little fellow (of about 30 ft.) was searching the seas for its parent. A flip of its tail, the crew reckoned, would have smashed the boats to smithereens.

It took more than two hours to the spot in the Middle Straits Bank where we were to try our luck. But it's more than luck. Small areas of water have been found to be the most consistently successful. Landmarks on both Islands give the positions ; when it's foggy or visibility is poor the crews know they may as well stay at home. If the lines aren't dropped in the exact spots there probably won't be a fish caught.

One hundred and twenty fathoms of line and 30 fathoms of hooks weighted with lead sink into the water. One of the crew has a long gaff to keep off the large gulls, which seem to think a baited hook will make a tasty morsel. Attached to the end of the line is an inflated canvas buoy, as coloured and as large as a beach ball ; it is to mark the position of the line which is left while the other lines are set.

Groper was the fish we were hoping for. They are caught during October, November, December, June, and July. Ling, which is found in much deeper water—350 fathom lines are used—is the main catch during winter. The Cook Strait banks were found about eighteen years ago, and ever since they have been fished continually and successfully. So successfully, in fact, that often through the years the fishermen have not been able to market their hauls ; they have had to dump them. These days the position is the opposite : demand exceeds supply.

In an hour all the lines had been cast, nine buoys were bobbing in the swell in a radius of about half a mile. It was noon and we were very hungry. But we had brought no lunch, so we would have nothing to eat until after our return about eight o'clock. I reckoned that by five o'clock I would be about starved to death. I didn't know that by five o'clock I would be nearly dead. But not from hunger.

A wind light from the north. But was it so light ? It was blowing my hair, the deck was slipping, salt spray kept us in the shelter of the dinghy. Occasionally a wave snatched by the wind from the swell broke over the stem of the " Wild Duck." We shared a cheese sandwich given to us by one of the crew. Soon we would be hauling in the first line. I wished the wind would stop, that the deck would be still if only for a minute.

A winch run from the engines is used to haul aboard the heavy weight of line. It used to be done by hand ; it must have been tough work with anything up to 700 yards of line, and perhaps thirty or forty heavy fish. Dangerous work, too, especially in a wallowing sea when the boat could give a lurch to pull the line quickly through the men's hands, the large sharp hooks with it. There have been some serious accidents.

Chugging and whining from the winch brought the line on board. Yards and yards of it, but still no hooks, no fish. Minutes passed. Nearly a quarter of an hour. At last something white dipped through the water : the first of the haul, the first that hadn't got away. We strained our eyes. A beauty, 3 ft. and more. A groper. Hooks followed, the bait gone. Another fish. And another. Soon a pile. Fifteen were lying on the deck when the lead weight was aboard.

Fifteen fish, eight varieties—groper, ling, bass, shark, conger eel, blind eel, barracouta, a large skate. By the time they had been hauled steadily through

fathoms of water and reached the deck they were dead, hardly a flip to their tails.

We chugged forward, circling towards the next buoy, the second line. And then the same performance all over again. To haul in all the lines took hours. By four o'clock waves were breaking over the bow. We crouched in the doorway of the engine-room : the choice was between foul fumes from the engine or spray and waves over the deck. Suddenly I realized I didn't feel hungry any more. I didn't care whether I was wet. I had forgotten about the bite of the wind. I threw away a cigarette. If only the sky, the sea, the deck, the men would stop moving. If only for a minute. If only that pile of fish, those eyes, the blood from their cleaning would stop slithering. Something was upsetting me, something was troubling my system—or what used to be my system. Sea sickness. We jigged and joggled, slapped and banged through the seas. And dived. Then soared into the skies. This couldn't go on. But it did. It went on for hours.

By six o'clock I looked like one of those fish on the deck. By seven I knew how they felt. My hands, knuckles clenched, white, clutched the rail. On the deck the heap of fish grew bigger, still they slithered. A crate of fish heads glared uncaringly at me and my misery, heads kept to be used as bait for the crayfish pots. Beside them was a crate for the fish livers, another was brimful of groper throats. The scene was not calculated to help sea sickness. An offer of a cheese sandwich, the last, I refused. Never again

would I touch food. A moment later I gave up smoking for life. No more hotel bars. Never again. And while I was at it, horse racing, too.

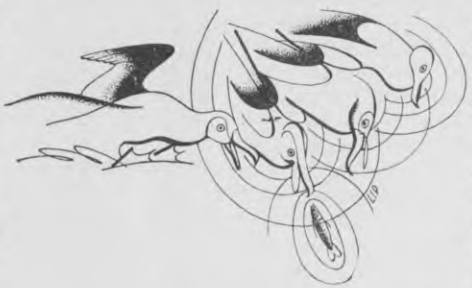
Round me the fishermen worked busily. They looked well enough, even cheerful. The swaying, heaving, slipping deck seemed to mean nothing to them. One of them lit his pipe. It was, I reckoned, sheer bravado. In sou-westers, oilskins, and seaboots they looked more like an advertisement for cod-liver oil than the crew of this thrusting, throbbing buck-jumper of a launch. I considered they earned their money hard ; it would be better to be on relief than this ; one day was bad enough, but imagine every day in these straits. I imagined, clutched the rail again. By seven o'clock I had reached the conclusion that all fishermen, including Izaak Walton, Tom Sawyer, Zane Grey, and the crew of the " Wild Duck," were far from normal human beings. I doubted whether they were either normal or human.

The trip back was spent untangling the hooks, coiling the lines, cleaning the fish. Two hundred groper, dozens of ling and bass ; the sharks and other fish were thrown back minus heads and livers (livers these days provide a profitable sideline : the " Wild Duck " the previous month had sold £40 worth to a factory at Island Bay which processes fish-oil products). Slowly we chugged to the shelter of the coast. The sea was quieter now. Huge gulls heavy from a day's fishing, sleepy from fighting each other for titbits, rested on the water : the crew called them albatrosses, and certainly they were large enough. Heavy birds they were, four or five times the size of the commom seagull ; their heads were without life or expression, giving the impression of strange wood carvings. Curious specimens. Some of them resembled Donald Duck so closely as to be a certain breach of Hollywood copyright.

Thirty minutes away from our moorings we passed the approximate spot where several years before a fishing-boat running for shelter from a southerly gale had broken down. Hoping quickly to adjust the fault in their engines they refused a line from another launch which carried on to port. The rest of the story is not known: a little wreckage was found, but the four men of the crew were never heard of again. It's not the only fishing-boat tragedy there has been in the Island Bay fleet. And most of the trouble is caused by that wind from the south which can whip a calm day and a flat sea to fury in less than two hours. The fishermen are always watchful, but two hours isn't long to gather in the equipment and reach shelter. Sometimes it hasn't been long enough.

The day had been profitable (at least to the fishermen). A good groper catch, the liver boxes full, plenty of bait for the crayfish pots. And also a crate of groper throats, the tastiest, tenderest, most sought after pieces of fish in the sea. You never see them in the shops: according to the crew the reason is if the fishmonger is courting he gives these titbits to his sweetheart; if he's married he eats them himself.

Island Bay twinkled round the coast. Past the heavy hanging rocks, the sea threshing against them, we chugged into the boat harbour, picked up our moorings. Thankfully I stepped from the dinghy to dry, safe land. It was where I intended to stay: the "Wild Duck's" crew, on the other hand, working on the theory that there are more fish in the sea than ever came out of it, would be away again with the dawn. I wished them luck.



"Here's a groper for you — that'll make you happy," said the skipper. I tucked the parcel under my arm.

But it wasn't that that made me happy. It was Mother Earth. I felt for a cigarette. I wondered if it was too late for a beer.

MODERN VERSE: A LETTER TO KORERO

In *Korero*, Volume 2, No. 19, September 25, 1944, p. 10, appears "The Comrades," presumably intended to be verse.

Perusal of this item has caused a good deal of discussion among a section of this mess who are interested in verse, A.E.W.S., and *Korero*.

I may as well say at once that a poor view was taken of it, and human nature, especially that of soldiers, being what it is, some very devastating criticisms were made.

One member was urged to write a letter to *Korero* embodying some of these criticisms. He modestly suggested that no one had a right to criticize so drastically unless he could show that he could himself produce something better.

The enclosed poem represents an effort on the part of one of us to do so.

The theme, presumably an echo of Colonel McCrea's second stanza of "Flanders Fields," is the same, but treated from a different viewpoint and rather cynically.

The chief point it is wished to emphasize, however, is that poetry to-day is being harmed by the idea that if muzzy half-articulate thoughts can be written in irregular lines so that on the printed page, to a casual glance, they appear to be poetry, they, in fact, are poetry.

No one wishes to discourage the poetically inclined from trying and persevering, but it is doing such a person a disservice to praise highly what is really very mediocre. I am assuming that printing in *Korero* is equivalent to very high praise. It would be better for the paper and the writer if the editor were to refuse his contribution, pointing out where it fails, but holding out a hope that after revision it would be accepted.

Poetry to-day is suffering from what singing and music generally are suffering from — namely, from the fact that monetary success can be obtained by evading technical difficulties.

It is a much greater task to express oneself within the limits set by rhyme and metre than simply to jettison them, cut up one's work into lines of odd or even length, and print it so that it looks like what is called " free verse."

The would-be poet, too, suffers and does himself incalculable injury by refusing to make the necessary effort. Unfortunately, to-day so many seem to be content with this object, meretricious success without effort. True poetry, except in very rare cases, does not come forth without prayer and fasting.

As was indicated before, the object of this criticism is not to belittle Corporal Gilbert's effort nor to discourage him, but to give him some sound advice.

Here, then, is the attempt to produce something better on a similar theme, though treated differently.

It, too, is open to criticism, but claims to have achieved a clear expression though subjecting itself to the laws of harmony, rythm, and proportion and to have made some attempt to approach Edgar Allan Poe's definition of poetry, " rhythmical creation of beauty."

THE DEAD

The dead are past ; the quick are here,
Forget, forget.
And wear your dainty black, my dear.
Without regret.

Bring me no roses ; spend no hours,
Beside my grave
On those who live bestow your flowers
And all you have.

I shall sleep well, so make no moan,
No lullaby.
Fed by my mouldering flesh and bone,
Soft grass grows high.

But if on any Autumn eve,
A sunset glow,
Recalls some memory of our leave
Spent long ago——
Brings to your lips that wistful smile
I loved to see
Forget for just a little while
To forget me.

Corporal G. R. Gilbert, R.N.Z.A.F., who wrote " The Comrades," makes this comment on our correspondent's letter :—

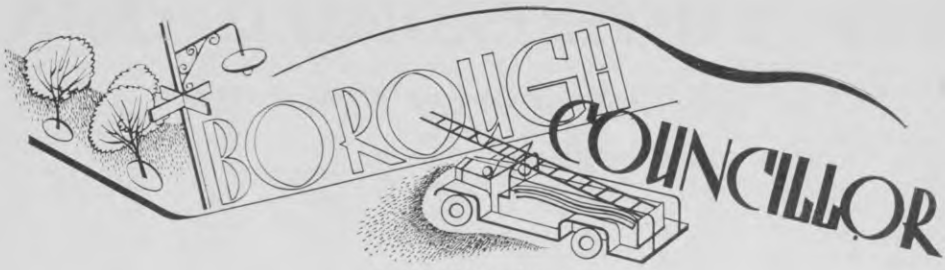
I notice that your correspondent contents himself with general observations, and it appears that his main charge is that the verse is not written in one of the pseudo-traditional forms. I would point out that adopting one of these forms alone will not transform non-poetry into poetry. Conscious self-discipline allied with the natural endowments that make an artist can alone do this. If he is a poet, then he will write poetry—if he is not, he can write rhyming lines that scan until he rots but it still won't add up to much.

For me, anyway, the significance of a poem lies in its content, and it is the content that determines form, imagery, method, and approach. These things, as it were, present the meaning with the sharpest possible impact and greatest significance, and enable the poet to distill into a few terrific words his whole comprehension of the world, or that part with which he deals. To describe the result we often use the strange word *beauty*.

Ever since man has found himself in conflict with the accepted realities of this world, he has interpreted his beliefs in terms of experience. The greatest of the interpreters we call artists, among them poets—and it matters little to me whether the words are printed irregularly across the page, or in neatly arranged metrical lines that rhyme, so long as they are sincere, they say something worthwhile, and they say it in the best possible way so that its impact makes me see for a little while, with the poet's vision.

In conclusion, I will say that the broken lines which appear to your correspondent to be an attempt at disguise are used—as in all verse, including metrical—to assist the reader, who should be reading aloud. Otherwise it could all be written as prose, and in fact often is.

One other thing. I suggest that your correspondent obtain a book entitled—as nearly as I can remember—" A Survey of Modernist Poetry," written by Laura Riding and Robert Graves ; it will answer his criticism of word arrangement more fully and more capably than I could ever do.



A KORERO Report

STRICTLY SPEAKING, a Borough Council is the highest unit of local government in New Zealand and the title of "city" is a courtesy one to those boroughs whose populations exceed 20,000. So inevitably there is a good deal of similarity in the affairs of cities and those boroughs who cannot claim that rank. But there is this difference. A community of under 20,000 is compact, its legislators easily accessible, and because of the smaller area controlled expected to know its every road and street intimately.

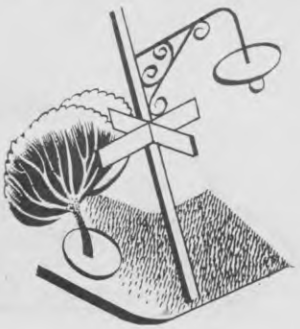
And so let us consider what is ahead of a Borough Councillor on his first election to the Council. He is, of course, a resident and a well-known one, and his conduct, in and out of the Council Chamber, will be the subject of public scrutiny. Probably he will be appointed to at least two Committees, where the spade-work of local government is done. One of these Committees will be an important one, public works or finance, and one of less importance. As he gains experience he may be appointed to additional Committees, and perhaps be elected by its members as Chairman of one of them. Also he may serve on an "outside" Committee—that is, one which deals with a matter of concern for an area larger than the borough. An Electric-power Board is a good example.

As soon as possible after election he must make himself familiar with the local body's standing orders which govern the conduct of meetings and procedure generally. Before a Council meeting he will receive the order paper, which tells him what business is to be transacted at the meeting in two days' time. That must be studied carefully in order that he may know whether to support or oppose the proposals of his fellow-Councillors.

Nor is that the end of his study. Everything from the care and health of babies to the efficiency of a heavy motor pump comes within the purview of a Borough Councillor, and if he is to discuss intelligently and vote with authority on the innumerable matters that occur in the work of local government he must know something about it. Something of everything and everything of something would be a good objective for a Borough Councillor.

At least once a year the whole Council makes a tour of its area and sees what work has been done and what still needs doing. And Coal Committees, milk zoning schemes, Fire Board meetings, street days for various organizations (the Plunket Society is one example) go on all year. Even Sunday brings its quota of work with a civic church service at intervals.

So when next you see your local Councillor at some public function, before you fling a shallow gibe, reflect. He probably earned his meal, and not the way Tommy Tucker earned his, but by hard and diligent work on your behalf.



THE WHITE-FRONTED TERN

By "CAFFE" with wood engravings by MERVYN TAYLOR

TO YACHTSMEN and fishermen, the "kahawai bird," or to give the name by which it is known in books, the White-fronted Tern, is a well-known companion of many a sun-drenched day on sparkling summer seas. Terns are relations of the gulls, of more streamlined build, feeding on surface fish rather than scavenging, and obtaining their food by dipping into the water from the air instead of swimming on the surface of the water.

The commonest New Zealand tern is the subject of this article, and is distinguished from others of his kind in this country by the band of white feathers separating the neat black cap (which most terns wear) from the bill, which is black and not red or brown as in other New Zealand terns. Let us try to follow the tern throughout the months of the year.

In September and October kahawai birds resort to small rocky islets off the coast or, at times, to shingle and sand bars at the mouths of estuaries to nest. Such breeding colonies are found from the Three Kings Islands in the far north to the outlying Chatham and Auckland Islands to the east and south. Deserted coal hulks and barges in the Auckland Harbour are other nesting places, safe from the ravages of cats and rats if sometimes within the range of marauding school-boys.

Little or no nest is built, and the time of preparation for the arrival of eggs is spent in elaborate courtship rites. The newly moulted terns have developed long "streamer" feathers margining the tail, which takes on a most exaggerated swallow-like appearance. The male catches a small fish, pilchard, or sprat, and, with this in his bill, bows at his mate, mockingly offers it to her, and struts around her, interspersing, no doubt, well-chosen words in the somewhat unmelodious vocabulary of the terns.

One, two, or three eggs are laid on the surface of rock or sand with little semblance of a nest. They are brown with a great variety of purplish-black blotches and pencillings and are noticeably pear-shaped.

When nesting is in full swing a visit to a tern colony is an experience never to be forgotten. Sparkling white birds hurl themselves at one with the tactics of a dive bomber; others stand guard by their eggs and cry defiance at the intruder; chicks scuttle like rats over the guano-whitened surface of the rocks, or huddle in a crannie, where their mottled down renders them almost invisible. It is sometimes difficult, in the confusion, not to tread on eggs.

Throughout the summer months when the parents are collecting food for chicks, they may be seen at sea making

purposeful flights to and from the feeding grounds, or assembled in flocks like snowflakes over shoaling fish. It is then that the name " kahawai bird " is appropriate ; fishermen know well that a flock of birds " working " actively over an agitated patch of water is a sign that kahawai or kingfish are likely to be about, attracted by the same shoals of surface fish which are the prey of the birds.

The well-grown young in midsummer, have prettily striped upper plumage, and follow their parents away from the nesting colonies to nearby beaches, where they continue to beg food until February or March, when the moult of the old birds puts a stop to their nursemaid's duties. There are vast casualties throughout the season from storm and accident, and it is seldom that there are even half as many chicks as there are pairs of adults in the summer flocks : in one case 186 parents had produced only 25 young.

In the winter months terns may continue to frequent shores and sandy beaches at the mouths of rivers such as the Waikanae and Ohau in Wellington, or at Manukau and Kaipara Heads in Auckland. Nevertheless, the kahawai bird seems scarcer in winter than at other times, and there are areas where it is reported to be absent altogether. In Australia, where this tern has not been found breeding, numbers have been recorded in the winter, and it seems likely that some of our New Zealand birds wander across the South Tasman to the Bass Strait area in the winter.

POSSIBLE JOBS FOR SERVICEMEN

WATCHMAKING

The normal period of apprenticeship for watchmaking is six years, but a shorter adult apprenticeship is to be introduced to meet the needs of returned servicemen, who will have their wages subsidized during their period of training. The prospects in the trade are good, as there will be a shortage of skilled men for many years. This acute shortage of men is due not only to the war, but also to the fact that very few apprentices have been trained during the last decade. A man with aptitude for this class of work, therefore, seems assured of a living. Besides being interesting, the trade is well suited to disabled men, providing their eyesight is good.

The New Zealand Horological Institute wishes to help the Government to train such men. For further information communicate with Mr. T. Drake, President of the Wellington Branch of the Horological Institute, whose address is Levy Building, Manners Street, Wellington.

Watch-repairers to-day, are receiving £7 to £8 per week.

WICKER-WORK

This work calls for manual dexterity, with the result that, on the average, a man who has been trained from youth is more efficient than one who has learned his trade later in life. While the making of baskets takes only a few months to learn, the art of making more complicated articles, such as prams, requires a much longer period of training. The normal term of apprenticeship is five years.

Provided materials are available, there seems to be a reasonably good chance of employment in this occupation after the war. At present New Zealand is cut off from some regular sources of supply of raw materials—*e.g.*, the Dutch East Indies.

STONEMASONS

In New Zealand the work of skilled stonemasons seems to be on the wane owing to the development of coloured concrete and terrazzo. Many of the tradesmen appear to be engaged on monumental masonry, and turn their hands to other types of stonemasonry

when the opportunity offers with large contracting firms.

Terrazzo Work

At present this type of work is much in demand, and it would seem likely that after the war, when housing schemes develop further, even greater supplies will be required. Various jobs in connection with its manufacture are available — kiln-work, polishing, &c.—for which the pay is in the vicinity of 3s. to 3s. 6d. an hour.

Monumental Masonry

This is becoming mostly work in concrete, but a certain amount of work in stone is still done.

Letter-cutting, tablet-work, and the making of concrete walls both plain and ornamental may be said to be the monumental mason's chief type of employment, for which the minimum wage is about 3s. 2d. an hour.

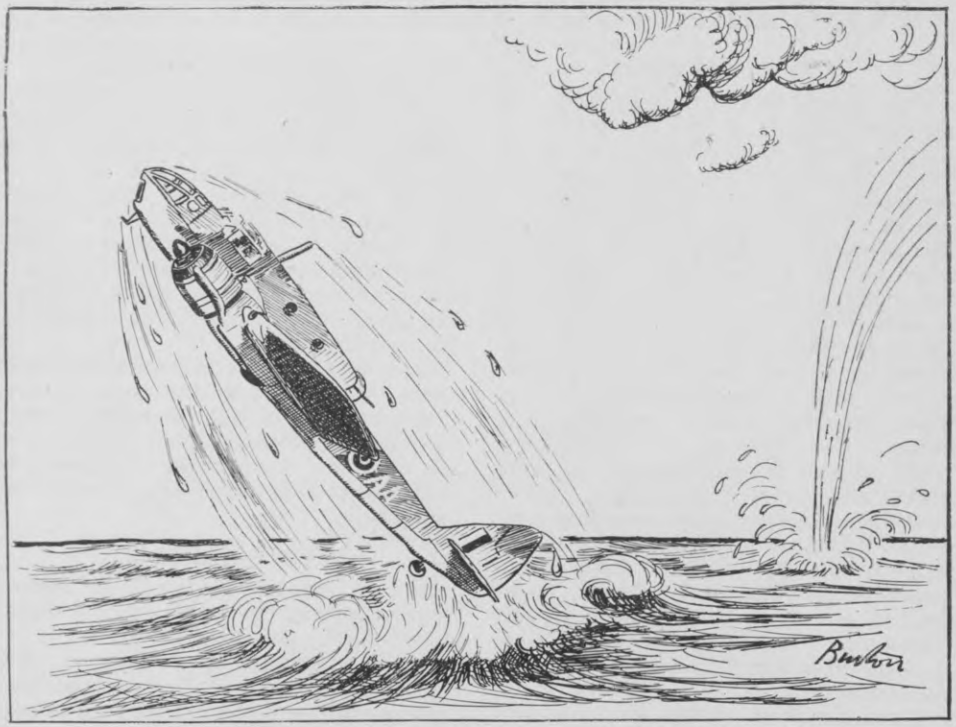
Normally there is an apprenticeship of five years.

BOAT-BUILDING

There is at present no apprenticeship or examination to enter this trade, which is carried on chiefly in Auckland. Usually a man is attached to a boat-building firm, and if he is keen can gain sufficient knowledge in six to twelve months. Some previous experience in carpentry is an advantage, but is not essential.

It is expected that, after the war, many men now employed on boat-building will be transferring to carpentry, thus leaving room for a number of learners in the former trade.

Wages vary, although on the average they seem reasonably good; the award rate for a journeyman is 2s. 10½d. an hour, plus cost-of-living bonus, while leading hands receive an additional 6d. an hour.



"I know it's an anti-submarine patrol, but we don't do it this way!"

fillies, colts, and green grass

FILLY FOALS, colt foals, and green grass. Famous mares and good mares—chestnuts, bays, browns, greys, and blacks. A yearling colt with its tail chewed off by a calf. Hens fussing, and a dog with a litter of pups. A stable window high from the ground shattered that morning by a high-stepping young lady, a yearling filly. Two stallions with pedigrees as long, as impressive, as their racing records. A rush of cat, a squeak of starling. Shady trees, an old country house. A road alongside with hardly a car day or night—which is just as well with all the dust: a road alongside with more hoof marks than signs of tyres, with grass tracks on the edge which couldn't be better for cantering. Two cows; proper and prim as they are, in all that mixed company they like their noses rubbed with the rest of them. Stables and stalls and harness rooms; outbuildings with the rafters bulging with hay and oats and chaff. Youngsters and babies with tender noses sunburnt and white faces freckled.

Everywhere are horses and wide acres.

On the gate is the name—Rosswood Stud.

Here are sired and dammed foals that will bring up to four-figure bids at yearling sales. They will be among the champions of the coming years. Some, like their mothers and fathers before them, will make racecourse history. Some will be hunters, hurdlers, and steeplechasers; some, perhaps, polo ponies, and others hacks. But there is one thing for sure: they will always be thoroughbreds.

With a stud it doesn't matter how long or how green grows the grass, how fine the mares, or how careful the attention if the sires are not of similar high standard. At Rosswood Stud are two sires, Beaulivre and Beau Vite, which are two of the greatest horses ever to have raced in New Zealand. Both are by the Son-in-Law sire, Beau Pere, whose stock created a sensation in the sale ring before any of them had ever raced, and made another sensation when they first began to race. From the start of his career at the stud Beau Pere was a success. From five seasons he has sired the winners of more than £130,000 in stakes; for at least two years he has headed the list of winning sires.

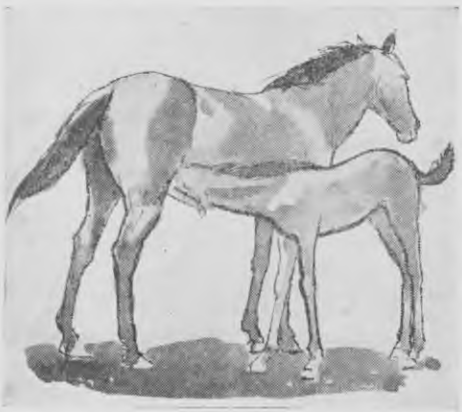
Here are some facts and figures about the two leading offspring of the famous Beau Pere. Beau Vite heads the progeny; during his racing career he started sixty times for thirty-one wins, nine seconds, and five thirds, and earned nearly £30,000 in stakes. He won over all distances from five furlongs to two miles and a quarter. As a stayer he had few equals, while his speed enabled him to beat the best sprinters at their own distances. At different times he beat, weight-for-age or giving away weight, all the champion horses in Australia and New Zealand, including Beaulivre, High Caste, Ajax, Reading, Tranquil Star, Royal Chief, Gold Salute, Old Bill, Lucrative, Mildura, and Dashing Cavalier.

Beaulivre, foaled in the same season as Beau Vite, was never out of the money in his first thirty-one races. As a two-year

old he was sold for 200 guineas. In forty-nine races he won twenty-one firsts, eight seconds, and eight thirds; his stake money amounted to nearly £20,000. Each of the pair earned high racing honours in Australia as well as in New Zealand.

We sat under the walnut tree and listened to stories of the Beaux Vite and Livre. Their pedigrees, on both sides, go back for, it seems, centuries of years and through hundreds of horses—sprinters and stayers, record-breakers and champions: it's not hard to imagine William the Conqueror, Ben Hur, and Richard the Lionheart bouncing the bidding along for these ancestors at the yearling sales of those days. We heard mentioned such famous names as Son-in-Law (founder of one, if not the best, line of stayers in the world), Dominant, Martian, Passbook, Paper Money, and Musket. We heard of their track records, Australian records, and New Zealand records; we heard of races run and won with 2 stone given away to the field; we heard of attempts in the night to kill Beau Vite (in Australia shortly before one Melbourne Cup a horse in the next stall to Beau Vite was shot by mistake for this champion). We heard all the stories. It was time we had a look at these two Beaux.

Beau Vite, undisputed champion of Australia and New Zealand at the time of his retirement from the turf, was having an argument with a black cock pheasant. And such a noise they were making:



rearing, stamping, ears-back snorts from Beau Vite; feathers-ruffled squawking, beak pecking, and wings flapping from the pheasant. The owner of the stud has as one of his hobbies an aviary, the cages of which are beside the stallion's pen. The pheasant and the stallion don't like each other at all, and they make no bones about their feelings. It's just as well from the sound of things there is a 6 ft. fence and wire netting between them.

From the days before he was broken and right through his brilliant racing career, Beau Vite has been working with the owner of the stud. When the owner looked over the high wooden fence round the pen, the champion came trotting over; he knew that voice, he wanted his nose rubbed. Like his half-brother in another pen a chain or two away, Beau Vite is quiet and friendly. But you have to be careful: those nips may be meant as an afternoon greeting, but the teeth are sharp and the jaws strong. We moved back a pace from the fence. Beau Vite and Beaulivre are beautiful horses: models of symmetry and conformation, with magnificent physique. Beau Vite stands at a fee of 75 guineas and Beaulivre at 50 guineas.

The work of the horse breeder is measured by the seasons. The first foals are dropped in August; they continue to come in increasing numbers through September and October, tailing off in November. For racing purposes all horses, regardless of when they were born, have an official birthday on the 1st of August. Breeders try to get them early in the spring—not so early that there will be a chance of having them born in July (it would be disastrous for a horse's racing career to be counted a yearling before it is weaned), but not so late that they will be small for their age group.

Breeding is in the same months as foaling; if mares are not served about nine or ten days after delivering a foal, there is a period of wasted time before there is another chance. It is usual for a mare to have a foal at foot and to be in foal again for the next season. Normal gestation is 315 days, but with different mares this period varies.

After the foaling and breeding is finished, the main work, apart, of course, from caring for the new babies, is preparing the yearlings for the main sales in January—highlight of the breeder's year. It is hard, exacting work: on the day a yearling enters the ring there must not be a hair out of place. After the yearling sales comes the breeder's slack time, with a chance to catch up on property maintenance and other work that has to be neglected through the later months of the year.

For a month or two there's time to talk, and to argue, too. As one authority says: "The opinions of horsemen vary on breeding, feeding, breaking, training, riding, shipping, racing, and betting." The breeder's job is chancy. He knows no more about the foal he hopes to get than the racing record, the conformation and physique, and the pedigrees of the dam and sire. Those factors may be perfect, but they are no guarantee of what the foal will do later on the racecourse. Not all horses with high-class breeding are race successes, but few reach top flight who have not blood credentials.

The foals at this stud are bred to be good. The two sires were undisputed champions; and among the brood mares are such well-known horses as Cuddle (she must be first), Serenata, Haughty Toti, Fido, Sailor's Love, Arctic Queen, Anita Foe, Madame Rachel, Sleeveless, Night Eruption, Doria, Toque, Corinilla, and Wee Bun. Altogether there are fifty mares.

One of the results of careful selective breeding over many years is an increase in speed and stamina; another is that the animals have become more highly strung. Some horses have habits and ideas of living peculiar to themselves: one won't eat bran, another won't look at his meals at the proper time; this young fellow runs round all day and will never grow fat the way he's going; that baby likes to blow bubbles in her drinking water

We walked through one of the paddocks of this 110-acre property; lush green feed tickled our knees: a mixture of white clover, English and Italian ryes, and Timothy grasses. And it has to be good; horses are careful, fastidious feeders, and if the grass isn't the sweetest they would rather grow thin looking over fences than chew a mouthful. Everywhere were mares with foals at foot—a dozen or more mothers with their November babies. In the middle of the paddock we sat down in the afternoon sunshine to talk. Within two minutes there was a warm snuffling at my neck. It was a curious mother; and her foal had a snuffle, too. I stroked his nose and tickled his eyelashes: he didn't move away, his mother took no notice of my attentions. In ten minutes every

horse in the paddock was shuffling and snuffling round us. They pushed our backs, nibbled our arms, and nuzzled our faces and hair. Mothers wandered off in their feeding; after a while the foals scampered after them—for their feeding; and most of the time it's more a game than a meal. Foals are born knowing hunger but not the means of satisfying it: usually it takes about seven minutes to find out. It's their first discovery in a big exciting world.

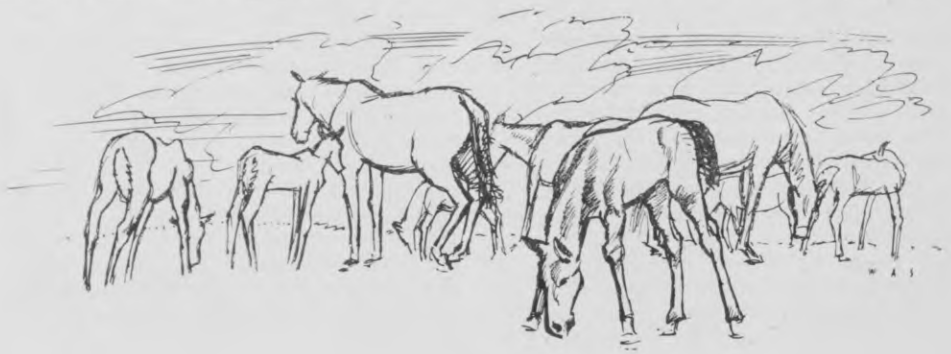
Soon after birth these babies are wobbling to their delicate feet. Four long legs, and mostly nothing else. Nothing much besides two flickering ears on four stilts. Hobby horses. It takes a year for their bodies to catch up on their legs. Grass, dewy and sweet, is good, but to eat it they have to do more than bend; they have to kneel. And if a nuisance of a fly is tickling a hind foot it's such a long way for his head to flick it away. One baby scampers towards us; stops with a slide and a skid; and looks at us with round bold eyes, without fear—unconsciously adopting the pose of a champion, with ears pricked, head held high, neck arched, feet square on the ground, tail out from his quarters. He expresses his disapproval of us with hind feet flying, a buck, perhaps his first. Then he starts to run: it's his latest discovery.

Another filly, feeding on uneven ground with her legs in an extraordinary position, suddenly throws up her head and gallops off as though practising to be a fire horse; flying fast to the nearest fence, then back again for a tug at her mother's tail, and another chew of grass. A second later she's scratching her nose with her off hind foot. Like her friends, she's never still. Her mother is Cuddle, one of the best handicap mares ever to race in New Zealand. Her father is Beaulivre. If breeding counts, this young miss will be a champion.

Rabbits sit and watch us. They don't run away: they know they're safe, that they can't be shot or trapped while foals are about. But as soon as the fillies and colts are moved there's never a sign of Brer Rabbit. He knows a thing or two.

The foals have baby teeth and baby "wool." It's their first coat, and it gives no indication of their permanent colour; the only way to tell that is by the hair round the eyes and on the nose—with that there is no change. They have long legs, tiny feet, and a short tail.

After a few months their lean flanks start to fill, they broaden over the loins and in the quarters. They have learnt to be handled, they don't mind a headstall, they know what it is to be led. Soon they will make a journey to the yearling sales, probably at Trentham in January. They have to be sold; for it is only rarely that a horse is bred and trained on the same property.



Hour Glass ★ 20th CENTURY

A KORERO Report

"IF YOU want to know the time, ask a policeman," says the song. But if you want to know the correct time, ask the Dominion Observatory at Kelburn, Wellington. They keep it there, and have kept it for over three-quarters of a century. For it was in 1868 that Parliament decided to set up a uniform time service for New Zealand and the Observatory was built and started the job it has never stopped, and is still doing, of acting as official timekeeper to the Dominion. Before the days of radio the time was checked solely by observations of the stars. From this to pure astronomy was a short step, and until five years ago, when the Carter Observatory took over the work, considerable research had been done by the Dominion Observatory in this branch of science.

In a plain cool room of this modest brick and stone building, which has incidentally a magnificent view over the city and the whole harbour, stand the clocks: tall clocks, grandfather clocks or, more precisely, pendulum clocks. There is no ornament about them: they have large plain dials, the superimposed seconds dial as big as the top of a circular tobacco tin, and simple wooden cases. But they are remarkably accurate. You or I, if our respective watches kept within one minute of correct time in twenty-four hours, would be satisfied, but not the Observatory. Their idea of accuracy is within a quarter of a second in twenty-four hours.

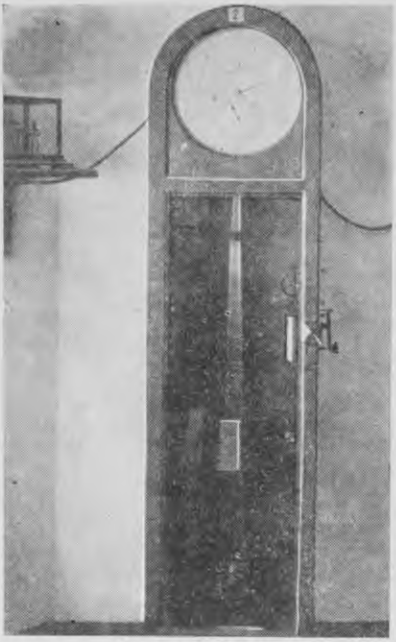
The method by which the accuracy is kept at this high level is elaborate and careful but straightforward. One clock has the job of keeping time. In the pendulum rod is a quantity of mercury to allow for any changes in temperature, though these are not very severe, and more divergence is caused by changes in barometric pressure or air density. On the other side of the room is a control clock. By adjusting small weights on a platform the size of a 5s. piece at the top of the pendulum rod it can be kept to the correct time. It in turn controls a "slave clock" by means of an electric circuit.

The slave clock is responsible for the time signal which is heard over the air from the broadcasting stations. A simple link up with the seconds dial of the slave clock brings the six teeth on the appropriate part of a wheel successively into contact with a small cam which, through a switchboard, transmits the time signal dots automatically to the radio station, where also they are superimposed on the various programmes as the shrill "pips" we are accustomed to.

It is the time signal mechanism which lessens the accuracy of the slave clock and necessitates a control clock, so exact are the requirements of accuracy here.

The Post and Telegraph Department, by the way, prefers a long "dash" to a "pip," and there is a special clock to fulfil this purpose. This clock also transmits time signals to the seismographs, the instruments which record local and distant earthquakes.

Each day the time is checked by wireless from Greenwich and Washington. To do this takes less than an hour. If for some reason it were at any time impossible to carry out the check this way, then recourse would be had to a specially mounted 3 in. telescope called a transit instrument standing nearby, and observations taken of the stars. As this takes from two to three hours, however, normally the checks are by wireless.



Control Clock.

And if all the clocks stopped? As they are well cared for, this is unlikely, but what is possible is that a severe earthquake could upset the adjustments of the pendulums. To anticipate such a happening six chronometers in varnished boxes sit on a special table and tick away smugly. Most of them are marine chronometers set in gimbals and no earthquake is likely to upset them. Each clock, slave or control, has a duplicate, so no need for adjustment ever interrupts the maintenance and transmission of the exact time. So by wireless or the stars, by clocks or chronometers, at the Dominion Observatory time marches on—but with exactitude. The Director, incidentally, would agree with the Mad Hatter about timepieces—butter is *not* good for the works.

Underneath the building, in what used to be the storeroom and ammunition dump of a coastal battery situated here towards the end of the last century, is a small cell with a glass window about a foot square in the door. Inside is the Observatory's most accurate clock. In order that its accuracy may not be disturbed by fluctuations in temperature, only very rarely is the cell entered.

Although founded primarily to provide a uniform time service for the Dominion, and still carrying out that function, nowadays the main task of the Observatory is seismology, the study of earthquakes. The first seismograph was installed in 1916, and four years later the Observatory became the country's official seismological institute.

Since 1932 there have been nearly a dozen stations recording seismic disturbances, with the Dominion Observatory as the central station. In addition, the Observatory acts as a central station for the South-west Pacific area as well as New Zealand. To do this it makes use of data from eastern Australian and island stations in the Pacific, publishing the results in bulletins, which are distributed throughout the world.

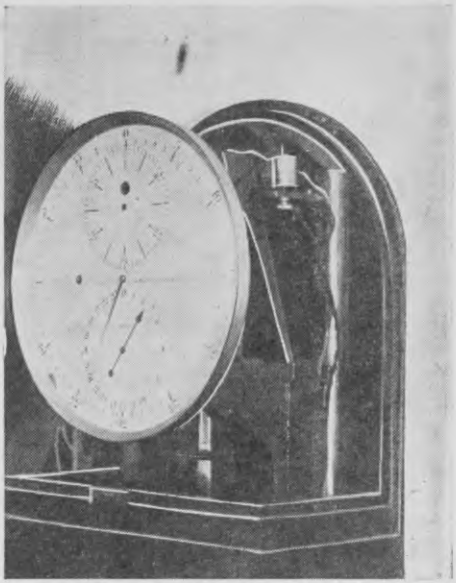
The simplest seismograph, made in New Zealand by the way, is housed in a small building a few yards from the Observatory. Here a sheet of smoked paper is wrapped round a metal cylinder which slowly revolves and moves also longitudinally driven by a small clock. Three steel pens, their points just touching the paper, are connected to three pendulums, two swinging horizontally on the gate principle, and one vertically. The pendulums are delicately balanced, and the whole is securely bolted to a solid concrete block. Any earth tremor locally will set the pendulum swinging and the pens scratching out their story. When the sheet is finished, it is taken off the roller and varnished. In this way the record is made permanent.

This instrument is not sufficiently delicate, however, to measure earthquakes at a great distance. For more distant earthquakes and the smaller local ones there are three seismographs in the underground chamber. Here in a room lit by two bulbs with special filaments giving a weak red light are the seismographs and their respective recording instruments. Two are long-period seismographs and one a short-period instrument. By period the seismologist

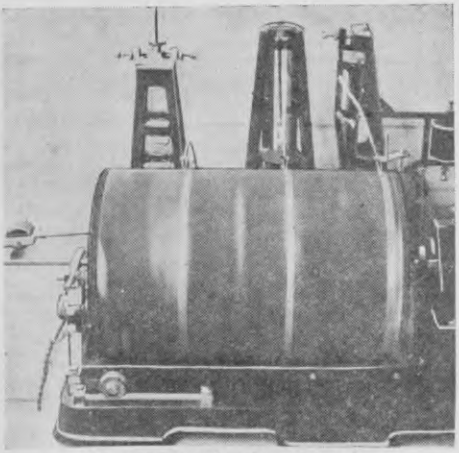
refers to the duration of each oscillation. An earthquake at a great distance has a long period, while the oscillations of a local 'quake will be short and sharp.

Each instrument works in a slightly different way, but to describe one will be sufficient. In this instrument, a short-period instrument by the way, a small copper cylinder carrying a small mirror is suspended by tungsten wires. The reflection of a light in the small mirror throws a beam of light on to a cylindrical lens which transforms the beam to a point. The point of light is thrown on to a large cylinder or drum with a sheet of photographic paper (this explains the dim red light) wrapped round it, slowly revolving. At regular minute intervals, controlled by the special signal clock, the beam of light is interrupted. The resultant record when the sheet is developed is for all the world as though some one had been "doodling" neatly and regularly slantwise across the paper. And when there is a seismic disturbance it is as though the "doodler" had become short-tempered and impatient.

That does not end the extent of the Observatory's work in seismology. Throughout the country, in addition to the regular stations, are scattered recorders, mostly Post Office officials and lighthouse-keepers, who send in to the Observatory reports on any shocks they feel. So that this should be exact and scientific, a special form is sent to these reporters detailing the various facts the central station wants to know. The intensity of an earthquake is now measured by the Mercalli intensity scale, an improvement on the Rossi-Forrel scale of earlier years. Thus intensity I on the scale is described as "Not felt except by a very few under especially favourable circumstances," while at the other end of the scale is XII, "Damage total. Waves seen on ground surfaces. Lines of sight and levels distorted. Objects thrown upward into the air."



Time to "Split Seconds."



One type of seismograph.

The Observatory has also charted tentatively those areas in New Zealand which are more or less affected by earthquakes. Without wishing to offend local loyalties, it really does look as though the North Cape is a good spot.

about those TEETH

By Capt. G. E. Wingfield, N.Z.D.C.

It has been estimated that more than 60 per cent. of sickness in industry is due directly or indirectly to dental origin. Indeed, dental disease is one of civilized man's worst enemies. It causes suffering and ill health, and shortens many lives. Yet it can be conquered or, at least, checked if only the patient plays his part, remembering that "an ounce of care is worth a ton of repair" in maintaining sound healthy teeth.

During our lifetime we produce two sets of teeth—the first or primary dentition, and the second or permanent dentition. These first teeth are also known as baby teeth, milk teeth, or temporary teeth, and begin to appear round about the seventh month after birth. Usually, by the time a child is two and a half years old, a complete set of twenty teeth is present—ten in each jaw. Nature has intended these to remain until the permanent teeth have developed and are about to appear; and these temporary teeth have been aptly described as the "reserved seats" for the permanent teeth.

Great care should be taken to see that temporary teeth are preserved and not lost through decay. Normally, they are shed when the permanent ones, which are lying below them, push upwards to break through—an event which begins to take place about the sixth or seventh year, and continues perhaps until the thirteenth or fourteenth year, when all but the four wisdom teeth will be present. Thus there are usually twenty-four permanent teeth in position at twelve years, and at fourteen years, twenty-eight teeth are present. The remaining four teeth will not appear for some time yet, varying between the eighteenth to twenty-sixth years. Then the permanent set of thirty-two teeth is complete.

The temporary set is therefore intended to remain intact for at least the first six years of a child's life. They are needed not only for mastication, but to maintain sufficient space for the permanent teeth below them to occupy their normal positions. While the permanent teeth are developing beneath them, the roots of the temporary teeth are slowly being absorbed, enabling them to be shed at the correct time. Should even one of the primary teeth be lost too early, the distribution and arrangement of the permanent teeth might be affected, resulting in mal-occlusion and overcrowding of the arches.

So great is the need for keeping these first teeth sound and healthy until the second teeth are ready to appear that the Government has provided a School Dental Service free of cost. School clinics undertake this work, and in addition they keep a watchful eye upon the oncoming permanent teeth. When these show the least tendency towards decay, they, too, are filled before the cavities become larger. Unfortunately, this treatment by the School Dental Service is limited on account of staffing and other difficulties, but the time may not be far distant when all primary- and secondary-school children will receive complete dental treatment.

The military authorities also realize the necessity for maintaining healthy mouths in all Service personnel, where physical fitness is of the greatest importance. Treatment is compulsory, but it is free and pays good dividends in sound health and physical fitness.

In industry, too, many of the large industrial plants in Britain and America maintain their own dental services free of charge to employees. Production is thereby maintained and less time is lost on account of general sickness. Employers

know that unhygienic and ill-kept mouths decrease efficiency and pave the way for other sicknesses, thereby decreasing industrial output. Dental infection can cause various diseases of the heart, lungs, kidneys, and other organs, resulting in long absences from work.

In New Zealand, in spite of the excellence of the School Dental Service, the dental health of the population is a matter for serious concern. Children's first teeth are lost too early, producing irregularities in the permanent teeth. Among adults very few really healthy mouths are found, and sound teeth sometimes are found in mouths which have to be condemned because of diseases affecting the gums and soft tissues.

Good teeth and good health are the birthright of every citizen, but are denied to many. Bad health is occasionally responsible for bad teeth: more often, however, it is bad teeth which produce bad health. The problem is obviously a complex one, involving living and social conditions, suitable diet, adequate sunshine and fresh air, frequent checking of teeth and gums, and regular cleaning habits.

Here are a few simple points to remember which will help towards keeping a healthy mouth.

(1) Visit your dentist regularly for a thorough check up, without waiting for teeth to ache. A small hole is just as important as a big one. If it is left it will only grow larger, and small fillings are far more satisfactory. They wear longer, hurt less, and are less expensive.

(2) Listen to what your dentist says, and follow his advice. Ask him questions if you wish, for he should be pleased to answer them.

(3) Eat the correct foods, and be sure to include those containing calcium, phosphorus, and vitamins—milk, green vegetables, sea foods, lean meat, liver, eggs, whole-grain cereals, citrus fruits, and tomatoes.

(4) Rough, coarse foods provide exercise which stimulates and develops the jaws.

(5) Clean the teeth regularly and intelligently. The tooth-brush is designed for removing food particles from all surfaces of the teeth, including the spaces between. You may use a tooth paste if desired, but remember it is the brush which does the lion's share of the cleaning. Tooth pastes are very much like soaps, they merely assist the brush to clean the teeth in much the same way as nail brush and soap are used to clean the finger-nails. Clean the teeth at least twice daily, preferably after meals.

(6) Keep in mind the fact that a healthy mouth helps to keep you fit, and that an unhealthy mouth will in all probability lead to other diseases later on. Good sound teeth are an asset to you and to the community. If you keep your part of the contract, Nature will fulfil hers.

NECAL NOSTALGIA

A KORERO Report

INTERMINABLE GAUNT GREY trees, mosquitoes that savagely attacked day and night, heat that left you limp, and at first dysentry that made you weakly indifferent to it all; hard work and monotony and black widow spiders; insufficient water, and ants that could make the nights a drab torture; isolation; and rations that, until you became accustomed to them, seemed slop. Weary stand-tos at dawn and dusk. Yes, that was Necal.

The picture is true, but there was another side to it. Because the days were so empty of incident and full of routine boredom, they shrink and fade to small measure in the memory. To remember only the bright patches, to speak as though life was a golden chain of halcyon days, is dishonest and unreal. So it is to hold in the mind's eye only grim and drab things of that time.

Because the drab days were so drab, the gay ones gained in brightness by

contrast. Viewed from the peacetime sophistication of city life, even the halcyon days were nothing to wonder at. But life in the field brought with it a compensation. Complex desires and needs were sloughed away, and one rediscovered the joys of simple things. A day on the beach, a swim in a river, the chance encounter with a friend long unseen; these things and others like them brought a sparkle to one's day.

And so, as I shiver a little in battle-dress, I sometimes wish, a trifle guiltily perhaps, for some of that heat I once cursed. I can't really remember so vividly the sting of the mosquito and the bite of the ant, though such things were very real and it was an enormous relief to leave them behind. If the "tactical situation," that all-enveloping, all-excusing military phrase, demanded that we camp in a patch of scrub infested with mosquitoes, it is hardly fair to judge the country on that. A stranger dumped from a ship at Napier, whirled by truck to Taupo's side, and there left to live in a tent could be forgiven for considering New Zealand a bleak, desolate waste. A sense of proportion is valuable.

Here are my memories of bygone scenes. The flamboyants in bloom in Noumea's main square, the natives sleeping on benches or leaning against the trunks of the trees and only alien traffic shattered the hush of siesta hour; evening service at the Protestant church, and a French choir singing Gounod's "Ave Maria." The view across the harbour at midday from the steps of the Roman Catholic cathedral. Sunday afternoon at Anse Vata with French paterfamilias and his brood in gay swimsuits, enjoying the warm tropic water, there clear and deep. My mind's eye roves and I see myself, with my fluent but erratic, and I fear sometimes inaccurate, French, trying to buy in Noumea's largest store the ingredients for home-brewed beer. Finally two customers who had overheard my request joined in, trying to help, and so three Frenchmen and a lone Kiwi discussed the topic of beer from all angles, and finally, with sad shakes of the head, as though in our opinion the world had taken a turn for the worse, agreed that the ingredients did not exist. Perhaps I am wrong, and they were deploring my barbaric quest for beer when there was wine to hand, strictly unofficially, of course.

After the glare and dust of day, the cool of evening and a group of farm buildings on a ridge, black against the sunset.

On the top of Bourail Pass in the early hours of the morning with mist filling all the valleys and making the tops of the hills dark green islands under a full moon; and the pass by day as you came round the bend travelling southwards and saw before you the rolling tree-clad hills and valleys, the green of the sea close to shore, the coral reef with a lacy white foam frothing its seaward side, and beyond the deep blue of the broad Pacific; that will live till memory itself fails. To stand in the New Zealand cemetery at Bourail and look over wide plains to the distant hills standing jaggedly under a yellow tropic moon and think of the men at your feet who had looked their last at beauty; such will not fade.

And last a homely memory of comradely evenings. Two in a tent, the mosquitoes defied, and supper of French bread, moist and yeasty, tinned Australian butter, and herrings, a bottle of red wine, by a flickering candle: talk that got to essentials and made a link between two men that will last: final cigarettes and, with a sigh, clothes doffed and a dive under the mosquito net.

These are the memories I shall treasure. These are the things that will take me back.

E. V. Paul, Government Printer, Wellington