

THEIR FIRST HOMES



EARLY COLONISTS' ROOM, CANTERBURY MUSEUM

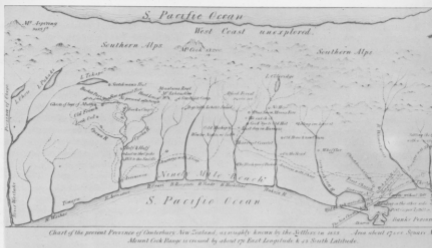


Below ● The settlers prosper, and in this scene of pasture land in Hawke's Bay we see the ambition of the emigrants realised.

GOVERNMENT TOURIST



Large Holdings



Below ● A "Bird's Eye View of the Town of Napier," an early sketch from the art collection of the Alexander Turnbull Library, Wellington. In a province of large land holdings, Napier grew with the development of sheepfarming.



Early Living Conditions



Above • The Mount Algidus homestead between the Wilberforce and Mathias Rivers. Many back-country homesteads were built by the early settlers in beautiful surroundings, whose charm is increased by groups of European trees and orchards. Shelter, wood and water abound.

J. D. FASCOE

EVEN if the homestead were a little better than Samuel Butler's sod hut, it was seldom very luxurious. (The name 'station' was used in the early days to mean what we to-day call 'homestead,' denoting the place where the farmer lived, and not the whole area of the run.) Lady Barker was lucky enough to have a neat wooden house, cut out and pre-built in Christchurch, before it was carried out to the station on slow-moving bullock waggons to be put up on the chosen site—a good distance from the woolshed and men's quarters.

If the station were anything better than a bachelor's comfortless cob or slab hut, it would be an untidy-looking, straggling series of houses, added to the first hut as the station grew. The material used would be wood or sun-dried bricks. The roof would be grass thatch, or slab tiles. There

were often bunks instead of beds, calico instead of glass in the windows, and, for light, tallow candles made on the homestead. On Guthrie-Smith's Tutira, in the North Island, young men lived in a reed hut on bread, mutton, wild pork, and potatoes, and the station itself was a wilderness of bracken, bush, and flax. To-day there are cob huts used as chicken houses which the first owners were glad to consider their homes.

Some squatters built large country houses. When wool prices were high, they were able to keep up a polished social life. Ladies rode twenty miles to pay an afternoon call. They had plenty of amusements in the open air—pig-stalking, eel-fishing picnics in the bush, and skating in winter. But the wives of many squatters did not have the leisure to leave their remote homesteads frequently.



Above ● Erosion at Te Pohue, Hawke's Bay.



EROSION

Right ● Slips and flood damage in Hawke's Bay due to erosion.



High and Low Country

WE have already seen how climate, soil, and moisture determine the character of grasses, and the nature of our farming. The most striking illustration of this is provided by sheepfarming in its three main forms—wool growing, breeding, and fat stock farming. None of these divisions is absolutely distinct, for they merge into one another.

The farms, or runs, where sheep are raised for wool only are situated mostly in the high country of the South Island, though there are similar runs in the centre of the North Island and wherever the country is exceptionally hilly. The feed supply consists mostly of native grasses and the hardier English grasses which are comparatively low in food value, and the holdings are sparsely stocked. In the South Island much of this country is affected by snow storms in the winter and autumn months, and then losses of stock are common. Thus one of the main difficulties in this type of farming is maintaining the flock. Because of the climate the breeding ewes are kept down to a minimum. Stock has to be specially acclimatised to live on these high country runs. When losses occur, they sometimes outnumber the new lambs, and it is often impossible to buy acclimatised stock elsewhere.

The second type of sheep farm is found on what has been called the breeding country, and covers much the largest area of the three methods of sheepfarming. It includes most of the North Island sheep country and large areas of the South.

Practically the whole of it has been developed out of hill country that has been cleared of bush or fern and sown down in English grasses. Here the main problem of pasture management is to prevent the encroachment of secondary growth, such as manuka or fern, or the intrusion of such noxious weeds as blackberry or gorse. In many instances cattle as well as sheep are run on these farms, as cattle play a valuable part in pasture management, and with the development of the chilled beef trade they give the sheepfarmer a second string to his bow.

The deterioration of hill country has become a serious problem, as these areas are really the backbone of the sheep industry. The ewes bred on the hills later become the mothers of lambs, now numbering nearly ten million, which are exported overseas, and it is on the hills that the bulk of the wool crop is grown.

The third type of sheep farm is that devoted to raising fat lambs. On some of the better hill country, where the grasses and clovers are superior strains, improved by cultivation and top-dressing, fat stock are raised, but the chief fat lamb areas are the fertile plains and valleys, where the climate encourages quick seasonal growth. After lambing the ewes are run on specially prepared pastures, and practically the whole of the lamb crop is fattened on the milk of the mothers. This type of farming demands an intimate knowledge of the response of pastures to top-dressing and of pasture recovery after grazing.

GOVERNMENT TOURIST



Left ● A sheep station in the East Valley, Hawke's Bay, where one of the problems facing the settler is the growth of manuka, blackberry, and gorse on country that previously carried fern or bush.

REFRIGERATION OPENED NEW



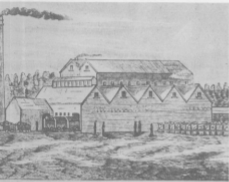
WHEN the New Zealand Company was first settling Wellington, New Plymouth, Wanganui, the Manawatu, and Nelson, stock was scarce, and conditions of life were hard. In 1840 and for years afterwards cows in milk were a rarity, even a luxury. The needs of the local population made dairying a profitable enterprise. Butter would sell for as much as 3/- a lb. The same conditions kept recurring wherever groups of poor settlers set out to make farms for themselves in heavily forested country. Stock, when they had the capital to buy it, could not be fed until they had made a clearance and sown grass. The Scandinavian settlers who made their homes at Norsewood and Dannevirke in the seventies, on land under heavy bush, did not have a single cow amongst them for many months, a condition that bore hard upon the mothers of young children.

In most districts of New Zealand, however, there was by the seventies a comparatively limited

market for dairy produce. Many small farmers lived, as Swiss peasants do even to-day, principally on milk, butter, and cheese of their own production. But the small amount of salted butter exported in barrels, chiefly to Australia, where dairying was backward, did little to increase the income of farmers who did not live within easy distance of a port. In those days too butter was home-made

EVERY DISTRICT SOON BUIL

WHILE the methods of taking frozen produce to England were still on trial, the cargoes were usually frozen on board the ships that would carry them away. But even before 1882 freezing works had been set up in different parts of the country, the large station-owners playing a prominent part in pioneering this development. The New Zealand Refrigerating Company, formed in 1881, set up at Burnside, near Dunedin, the first freezing works in this country.



Above ● Early New Zealand freezing works. A comparison of the bottom picture with one showing the layout of a modern works will illustrate how far the industry has progressed.

Late in 1881 the Canterbury Frozen Meat Company was formed, but it was not till early in 1883 that the Belfast works of the company was handling carcasses. In six years this works slaughtered and froze more than a million sheep. The Gear Meat Preserving and Freezing Company began business in 1883, placing its freezing works at first on an anchored hulk in Wellington Harbour. In Hawke's Bay Nelson brothers in 1882 installed a refrigerating plant at their Tomoana meat works. Later this firm built four other freezing works in different parts of the country. For some years it used a barque fitted with refrigerating machinery at Plymouth as a distributing centre for the West of England.

During the ten years after 1882, it became a definite ambition of each locality to set up its own freezing works. Probably rather too many were erected, although New Zealand is a notably decentralised country. It took some years for the handling of frozen meat to be reduced to a recognised routine. To-day the carcasses are frozen in the works where the sheep or cattle are slaughtered. They are then conveyed to the ship's side in specially insulated railway vans, from which they are loaded into the refrigerated chamber on board ship.

When the trade was still on trial, there were a number of disappointing shipments. Care and patience proved that these had been due to preventable causes. To-day the percentage of failures is negligible.

Right ● Loading frozen meat at the Wellington waterfront. The chute conveys the carcasses from the insulated vans to a canvas sling in which they are hoisted into the ship's hold.





NEW ZEALAND RAILWAYS

Above ● The Napier express in the Manawatu Gorge.



Right ● A water-colour painting of the Manawatu Gorge in 1872 by C. D. Barraud. The original of this picture is in Alexander Turnbull Library, Wellington.

when in 1886 the Government decided that it would not undertake the line connecting Canterbury with the West Coast and Nelson. A local syndicate raised capital in England and undertook to construct the 235 miles of line required. But the company found the work much harder and more costly than it had anticipated. At the end of the contract period it had built only seventy-five miles, in spite of the encouragement of a premium of 10/- worth of land for every £1 spent on the track. Finally, in 1895, its work was taken over by the Government amid mutual recriminations and litigation.

The only successful private company in the history of the New Zealand railways was the Wellington-Manawatu Company which built and operated the eighty-four miles between Welling-

ton and Longburn Junction, etc. This provided the most direct line between Wellington and the middle of the North Island and played a vital part in bringing the Manawatu and surrounding districts under the land-grant company, its careful management of properties and preserved the difference between paying shareholders a satisfactory return and charging fares and freights which the Government would tolerate. The Government took over the line on 7th December 1908 for a cost of over £900,000.

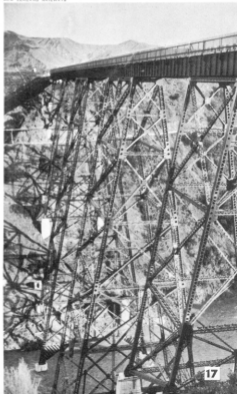
Since that date private ownership of the railways in New Zealand has been negligible. The Government has administered the system with a keen interest in view rather than contentment with the ordinary book-keeping no-



Above ● A tunnel portal on the Wairoa-Gisborne section of the new East Coast railway.

Below ● The Mohaka Viaduct on the East Coast line towers 312 feet above the level of the stream.

NEW ZEALAND RAILWAYS



July 1939. If there is no repetition of the floods and wash-outs of the past few years, the line from Waikopu to Gisborne should be opened toward the end of 1941.

Since New Zealand's railway system is now within sight of completion it is possible to undertake improvements to the existing lines. New and quicker access to the city of Wellington had already been made by the Tawa Flat deviation, and the reconstruction (along a tunnel route) of the line over the Rimutakas to the Wairarapa is promised for the near future.

Good progress is being made with the construction of a new line from Paeroa to Pokeno (40 miles) across the fertile Hauraki plains, and in completing the North Auckland connection between Dargaville and Kirikopuni. There are now 53 miles of duplicated track on the busy Auckland-Frankton Junction railway route of 85 miles, and work is proceeding on the remaining stretch of 32 miles. Duplication works are also in hand in the Palmerston North (Manawatu) area. Grade easements and line deviations are well advanced on several North Island sections, and extensive yard-remodelling works at New Plymouth have been begun.

In The Early Days Mails



Left • Sheep country in the East Coast district. New Zealand presented many natural barriers to communications.

BEFORE 1840 the carriage of letters between the different New Zealand settlements appears to have been almost totally dependent upon chance ships. Following Governor Hobson's arrival in 1840, mails were conveyed for a short period by mounted trooper between Russell and Hokianga, but the first overland mail service of importance was established in 1841 between Wellington and Wanganui and was performed fortnightly by Maoris on foot. In 1843 a similar service was inaugurated between Auckland and New Plymouth via Kawhia, and in 1844 the two services were linked monthly, when letters averaged about three weeks in transit between the two terminals. Occasionally a Government brig visited other settlements from Auckland, but sometimes months elapsed between visits, and letters between New Zealand towns were frequently exchanged via Sydney. A regular overland service between Auckland and Napier, using natives on foot, was arranged in 1857, with branches a little later to Tauranga via Tarawera and Maketu, and to Poverty Bay from Napier.

The Auckland - New Plymouth service now followed the inland route through the Waikato, with the New Plymouth and Napier services branching at Otawhao (now Te Awamutu). Here resided the Rev. John Morgan, a missionary whose influence with the Maoris was invaluable in arranging the services.

The first overland service of consequence in Otago began in 1854 between Dunedin and the Clutha and was later extended to Invercargill. By 1859 a Canterbury - Otago overland mail service

was operating with connections in the next year as far as Picton to the north and Riverton in the south.

In the North Island, more heavily forested than the South, the condition of overland routes at this time is indicated by a statement that the Wellington - Greytown mail service was to be extended to Masterton, with a further extension to Napier as soon as a bridle path was cut through the Forty-mile Bush (between Masterton and Woodville).

Below • An early New Zealand postman.





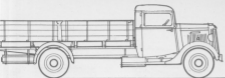
Left ● A Napier street, reconstructed after the disastrous earthquake of 1931.

The Development of Shops

THE first shops were simple. A counter to separate the shop-keeper and his wares from the public seemed to be the minimum requirement. Even when there was a display window, it was often boarded in behind and was not allowed to

give its ample light to the interior. Many shops were dwellings converted by the addition of a display window and a projecting veranda to the rooms in which the family still lived. Sometimes only the fronts were well furnished and the sides and rear were of cheaper materials. A visitor to Wellington in the sixties remarked: 'You cannot think how odd it was to turn a corner and see that the building was only one board in thickness, and scarcely more substantial than the scenes of a theatre.'

In succeeding periods the current styles were in vogue, and many shops showed Gothic, Romanesque, or Renaissance influence. Perhaps to shield goods in the windows from the fading effects of sunlight, most New Zealand shops now conform



Buildings for the Needs of Transport and Industry



F. G. BARRETT



E. A. WILLIAMS

THE first railway line in New Zealand, between Christchurch and Ferrymead, was opened in 1863. The early station buildings were primitive, and many country stations have remained so ever since. To-day, however, the larger towns have impressive stations. The Dunedin station, completed in 1904, derives its architecture from Jacobean England. The more recent buildings opened at Auckland in 1930 and at Wellington in 1937 have strongly classical features. Attention has been paid at both town and country stations to improving the surroundings by the use of gardens and lawns.

Factories and freezing works of all periods have been designed for utility rather than for effect. Some factories are unduly ugly, because expanding business has led to an untidy agglomeration of buildings. Others are ugly through the badly designed advertising signs or posters that cover them. Others acquire a dingy appearance, often in spite of good design, through the clots of soot continuously falling from the chimneys. But a building designed for utility may very well be beautiful, as a few modern New Zealand factories clearly demonstrate. These have been made congenial both within and without, while increasing attention has been paid to the grounds and setting. Christchurch, with its annual competition for factory gardens, has set a fine example.

Below ● A recent garage in Napier in the modern style. Architects: E. A. and L. G. Williams.



Deep Colours on Floors and Walls



Above • The lounge of a Napier hotel, showing floral upholstery with a more modern carpet. Architect: E. A. Williams.

most striking feature of the Victorian have been not so much the crowded use of bold, rich, sombre colours. must refer to scientific industrialism on. The new results of chemistry—arsenic, magenta and maroons from ve to the Victorians a choice of colour what is more important, cheaper than ever known before. So in thinking of wall-papers, and fabrics of the time, so in terms of lobster red, chocolate green, prussian blue, gamboge, puce,

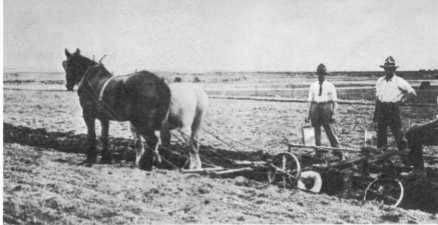
anything else in the early years of carpets were difficult to get, as this a letter of 1851 explains: 'The Maori is just now finishing our new carpet, quite a grand affair for us, being real d quite a pretty carpet if it had not a is twice too big for our room. . . We pounce on the only bit in Wellington, as a piece in short remnants and had at Sydney for cutting up into rugs.' limited but comfort came before 'We have just got a carpet,' says a Kerminster and frightful at 4/- a yard.' this period carpets were boldly patly in floral designs. Poorer people used thin pile-less floor-covering) and later coco-nut matting.

designs long retained their popularity Zealand householders. A Mr. Tompkin-

son of Kidderminster, owner of 'the fourth largest carpet-making firm in England' visited New Zealand in 1938. 'He was astonished,' he said, 'at the figures for the imports of carpets into this country. No other country in the world used so many a head of population. A curious feature was that the styles did not change. Floral patterns were still in demand, whereas in England for some time they had been displaced by simple modern designs and open grounds.'

Rivalling carpets in their profusion of design were the wall-papers. The background was often a dark maroon or chocolate colour. Upon it a repeating trellis motif supported honeysuckle, sweet-peas, or cabbage roses. Filling in any blank spaces were bright coloured birds or insects. Sometimes, within a gilt festoon, appeared an 'open-air' landscape complete with church spire and water-mill. If the multiplication of the design became too monotonous, variety was obtained by a four-foot dado of olive green tin, embossed to resemble tooled leather.

But the focal point of the room was the fireplace. There was usually a cast-iron register grate. The mantelpiece casing was of ebonised wood or else painted to imitate marble; in some homes it was painted with trails of flowers by the daughter of the house. More often than not, above the mantelpiece itself reared an over-mantel, elaborate with carving and gilding, mirrors, shelves, and miniature cupboards. Doors, skirtings, picture rails were heavily moulded.



HEALTH DEPARTMENT

of the New Zealand troops at Gallipoli, in Flanders and in Palestine, a reputation not least acknowledged by the German High Command which considered the New Zealand troops 'a particularly good assault division.'

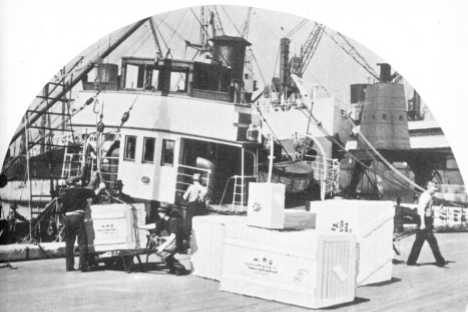
After the War the Government handled the problems of repatriation of the Returned Soldier with considerable vigour, spending or lending a total of £30,000,000 on the various forms of this enterprise. The most comprehensive scheme for the re-absorption of the soldier into the economic life of the country was that for settling

returned soldiers on the land. But in the depression of later years it became plain that the high capital value placed on the land allotted to these men was in many cases an obstacle to success, and considerable sums have since been written off in reduction of their obligations. Disabled soldiers and the dependents of soldiers killed in the War have been awarded pensions. The high standing in the community of the Returned Soldiers organisations is the measure of the esteem and gratitude of the New Zealand people for those who defended them in this world struggle.

Below ● Pastoral country in Hawke's Bay. The photograph shows a soldier's farm under the land settlement scheme.

LANDS AND SURVEY DEPARTMENT





NEW ZEALAND LISTENER

Below ● The first federation council of the Women's Institutes Movement in New Zealand. This meeting was held at Rissington, Hawke's Bay, in 1926. Women's Institutes and the Women's Division of the Farmers' Union do much to provide recreational activities for country women, while similar work is done in the towns by the Townswomen's Guild.



Erosion Below the Surface

SURFACE slipping has been considered. It is open and obvious. There is another method of soil removal more obscure. It may be termed subcutaneous erosion. Speaking generally, it may be asserted that during each phenomenal deluge the skin surface of the East Coast lifts—that between it and the subsoil clays and loams a running layer of wet seeps downwards. Rain passing off between a top spit of rooty grit and a stiffer sub-stratum forms a sort of water sandwich. Particle by particle the sands and grits are carried off between the floor of marl and the ceiling of porous, dusty, worthless humus. In process of time the sharp pumice grit scratches out an irregular chiselling that deepens into a hidden rillet. Still later the channel is gouged out. The overhead ceiling of humus somewhat sags. What was an almost unnoted fold of the hills becomes in time an appreciable lap. This lap or sag stretches with the removal of material beneath until it tears. The trickle bed deepens. More and more does the turf

fall in. At last the 'under runner' becomes in storm a rivulet still mainly subterranean, but marked at intervals by gaps and rents, out of which show themselves handfuls of wind-blown greenery. The angle of the incline sharpens, the U becomes a V. The surface on either side is eroded by water force and carried off.

While still incompletely developed, curious subsidiary phenomena of this alternating flotation and subsidence of the turf skin are the appearance of oozes or well heads of yellow flood water, chains distant from the nearest noticeable sag. Earth bubbles too arise. They can be tapped to relieve this strange geological dropsy. These minor forms of evolution are accelerated when in the semi-subterranean streamlet occurs blockage by turf or stone. A major elevation of the humus skin then occurs; yards—almost roods on occasion—are raised. Great naked holes and gaps disfigure the hill-slopes. This general elevation of the crust cannot have taken place in pre-European days when in place of a dense network of short rootlets, floor and ceiling were pinned together by tap roots or bound, as it were, by reinforced concrete of sinuous fern rhizomes. This change has been, like that of the direct strike of rain, in favour of a modern acceleration of top-soil removal.

Below ● A scar showing advanced erosion at Tullira.





Above ● An aerial view of Wilding Park, Christchurch, during the progress of championship games.

their conduct, and subject to the most astonishing cuts and slices, so that often they were literally egg-shaped when they crossed the net, were replaced about 1881 by a felt-covered ball, and then in 1885 came the forerunner of the modern ball, which led at once to a higher standard of play.

Many of the original lawn tennis clubs in New Zealand were also devoted to kindred sports such as croquet, bowls, and archery. As an instance, the formation of the Auckland Lawn Tennis Association in 1885 was the outcome of a meeting convened by the Government House Lawn Tennis and Archery Club. In the previous year the first tournament played in New Zealand had been conducted by the Hawke's Bay Lawn Tennis Club of Napier. It was restricted to members of the club, but was so successful that the following year an open tournament was held.

They must have been great enthusiasts in Napier in those days, for no flat land was available, and they had to lay out their courts at Farn-

don, five or six miles distant. In 1886, when a third tournament was held at Farnndon, the assembled players, representing the Thorndon, Hawke's Bay, and Auckland clubs, agreed to call it the 'Championships of New Zealand.' At the same time, through the enterprise of J. F. Jardine, secretary of the Hawke's Bay club, the New Zealand Lawn Tennis Association was formed. The following year the tournament was held at Christchurch. By that time the game was developing rapidly in technique, and the volley, though still considered unsporting in the more conservative circles, was beginning to exert its revolutionary influence.

Below ● The photograph on the left forms a contrast with this scene of a handicap singles croquet match in the New Zealand championships held at Wellington in 1940.

Below ● Croquet in Canterbury during the sixties.



THE EVENING POST

FEATS OF NEW-ZEALAND ROWERS



Left ● The 'Boss Rooster,' unofficial trophy of the champion fours, and coveted by all New Zealand oarsmen. Cut from a sheet of tin at Picton Regatta in 1887, it was presented as a joke to the winning crew and painted in their club colours. The custom continues. Whenever the trophy is won by a different club, the colour of the plumage is altered accordingly.



Right ● Grosbie and Samuels (Union Rowing Club, Christchurch), winners of the champion pairs and the doubles in 1885, 1894, and 1896.

HARBOUR rowing in the early days was confined to whale-boats, with crews of five. In these boats, propelled by long sweeps, feats of Homeric endurance were performed. A Waitemata crew, for instance, rowed thirty miles through open water to compete at a regatta at Mahurangi Heads, and rowed back again after the race.

During the Dunedin Exhibition of 1890 a championship for four-oared in-rigged gigs aroused wide interest. The winning crew, stroked by N. Matterson, a famous Australian oarsman, included two amateur sculling champions—C. Stephenson and J. McGrath. But this versatility is not rare. Bridson, stroke of Wellington's renowned four, was also sculling champion of New Zealand and Victoria, and Tom Sullivan, one of his crew, challenged Stanbury for the professional championship of the world. Sullivan, born near Auckland, eventually became a rowing instructor in Berlin.

F. M. SPURDLE COLLECTION



Rowing has been practised on nearly every New Zealand river and tideway, and some clubs, such as Napier, first established on the Tutaekuri in 1875, have had chequered careers. The original Napier course no longer exists, as the river has been diverted, while the Inner Harbour course, on which the 1908 New Zealand championships were held, was ruined by the 1931 earthquake; but in recent years the sport has been revived on the Ngaruroro River.

Among the many excellent performances to the credit of New Zealand oarsmen in competition with overseas crews, those of the Army eight in England and France in 1919 are of particular interest. The crew was stroked by C. A. Healey, of Wanganui Union, and subsequently its boat was sent out to New Zealand and handed over to the Union Club's keeping. D. C. Hadfield, of Waitemata, who was a member of the crew on occasions, distinguished himself by winning the Kingswood Sculls at Henley, and later became world's professional sculling champion.

W. Webb (Wanganui Union) and Dick Arnst, also a champion cyclist, are two other New Zealand scullers who held the world's professional championship. Webb, a sculler of classic style, brought such fame to the Wanganui River that it became known as one of the great sculling courses of the world.

Left ● The winners of the first inter-provincial eight race in 1828; this Canterbury crew is shown on a plaoid reach of the Avon.

there was a growing agitation against 'speculative teams,' and a desire for more effective control led to the formation in 1891 of the New Zealand Rugby Union, which was largely a monument to the initiative of E. D. Hoben, of Hawke's Bay. It adopted black jersey, white pants, and black stockings as the uniform of New Zealand international teams, but this was subsequently changed in favour of the all black outfit which acquired for New Zealand international teams their distinctive name.

Southland, Canterbury, and Otago refused to affiliate at first, but Canterbury capitulated in 1894, and Southland and Otago players, realising that they were being excluded from consideration for New Zealand teams and debarred from play-

ing representative matches against affiliated unions, set up an agitation which resulted in the affiliation of those districts in 1895.

New Zealand teams in Australia in 1893, 1897, and 1903 had unbroken triumphs. New South Wales and Queensland, sending teams to New Zealand, had little else but mortifying defeats as their lot. In 1905-6, when David Gallaher's 'original All Blacks' had brilliant victories in the United Kingdom, losing only to Wales, New Zealand football stood on a pinnacle. Yet already rival influences were at work. Hockey, golf, and soccer were competing with rugby for the public's interest and support, and League was just around the corner. Rugby is still pre-eminent, but it no longer has a monopoly.



Above ● The 1924 All Blacks team which won all of its thirty matches played in Great Britain and France.



Above ● The All Blacks in a line-out against the Midland Counties in 1905.



Right ● Spirited play in the third Test, South Africa against New Zealand in 1937, which the former won by 17 to 6.

EARLY RACE-MEETINGS



Above • The Nelson race-course in the sixties. This photograph illustrates details mentioned in Hodder's description on this page. Note, for example, the bullock-drays.

1. FAIRB COLLECTION

BURNHAM WATER RACES,

THE 22nd & 23rd JANUARY, 1857.

FIRST DAY
FRIDAY, 22nd JANUARY, 1857
 To start at half-past 11 o'clock.

THE 100-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 15.10; Mr. W. G. Hillyard's Bay Horse, 1 year old, 15.10; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 15.10; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 15.10; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 15.10.

THE 200-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 30.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 30.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 30.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 30.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 30.0.

THE 400-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 55.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 55.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 55.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 55.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 55.0.

THE 800-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 1.10.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 1.10.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 1.10.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 1.10.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 1.10.0.

THE 1600-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 2.20.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 2.20.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 2.20.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 2.20.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 2.20.0.

THE 3200-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 4.40.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 4.40.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 4.40.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 4.40.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 4.40.0.

THE 6400-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 9.20.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 9.20.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 9.20.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 9.20.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 9.20.0.

THE 12800-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 18.00.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 18.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 18.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 18.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 18.00.0.

THE 25600-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 36.00.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 36.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 36.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 36.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 36.00.0.

THE 51200-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 72.00.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 72.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 72.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 72.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 72.00.0.

THE 102400-YARD RACE
 Mr. B. Pomeroy's Black & White, 1 year old, 144.00.0; Mr. W. G. Hillyard's Bay Horse, 1 year old, 144.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 144.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 144.00.0; Mr. J. E. W. Hillyard's Bay Horse, 1 year old, 144.00.0.

Above • Part of a programme for Wellington races in 1857. Burnham Water was in the present Miramar district.



MORRINSVILLE.

Piako Annual Race Meeting.

THIS DAY (MONDAY) MARCH 18, 1875.

Programme:

- HAES HORSES RACE, of 70000;** 1, 2 miles; over 6 flights of hurdles (2 feet high); for horses that have never run in an advertised race; weight not less than 10 stone; second horse to save his stake.—Entrance, 10s.
1. Mr. Knox's own Imagination; white jacket, red cap
 2. Mr. C. Hinsham's Lady; 5 years; white jacket, blue sash, white cap
 3. Mr. J. Hyde's Fame; 4 years; white jacket, black sash
 4. Mr. Neill's Bob; 5 years; red jacket, black cap
 5. Mr. Tuhakereua's own Bob, aged
- MONEY RACE, of 20000;** 1, 2 miles; weight for age; second horse to save stake; for all horses that have never run in an advertised race exceeding 20000.—Entrance, 10s.
1. Mr. T. Knox's own Imagination; white jacket, red cap
 2. Mr. Kelly's Cuckoo; aged; white jacket, black cap
 3. Mr. Neill's Fame; 5 years; red jacket, black cap
 4. Mr. T. Hinsham's Bob; 6 years; red jacket, black cap
 5. Mr. W. G. Hillyard's own Battledie; 5 years; scarlet jacket, black cap
 6. Mr. Winhall-Hill's Patti Patti, aged; all black
 7. Mr. C. Hinsham's Lady, 5 years; white jacket, blue sash, white cap
 8. Mr. Hinsham's Pappa; 6 years; red jacket, black cap

THE early settlers were like ourselves in treating races as an important social event. Actual betting, in the days when wagers were laid only between individuals, was unimportant. Though racing of a high standard developed surprisingly quickly in the young community, the meetings themselves were still rather homely. Edwin Hodder wrote in 1862 describing the Nelson meetings: 'There is a Grand Stand, it is true, and there are generally one or two hundred of the élite upon it. . . . From an early hour in the morning the roads are all alive, not with gay tandems and fours-in-hand, but with good old heavy bullock-drays and substantial cart-horses. . . . And merry parties there are in these bullock-drays, notwithstanding the rate of travelling rarely exceeds from three to four miles an hour on good roads; lighter hearts and more joyous smiles, perhaps, are there than in many a gay equipage on the Epsom roads. During the races, the drays line each side of the course, instead of carriages . . . and when the day's sport is over, the merriment of the journey home is always looked forward to as an important part of the day's amusement.'

Another interesting feature of early racing was the great interest it excited in the Maori people, who have always shown enthusiasm for this as for most other sports. It is said that the famous Te Rauparaha, when on his death-bed in 1849, asked a white visitor what luck he had had with his horse at the Wellington races. Racing began in Hawke's Bay in the fifties at Waipureku (Clive). An old settler has described one of the earliest of these meetings: 'the stake money was the accumulated entrance fees and the start was at a walk (and sometimes twenty yards behind the line), my father's horse was the winner. The Maoris were so enraged that their chief had been beaten that they rode away with the white men's horses.' It is also recorded that, in a predominantly Maori district in the Waikato some forty years ago, the natives held their own races with newly broken-in wild horses to celebrate the New Year. The clerk of the course wore a brilliant scarlet British sergeant-major's coat, and the events included a wahines' race. This spontaneous type of meeting no doubt closely resembled those improvised by the first white settlers, attempting to enjoy again what had been their favourite sport in England in spite of the lack of leisure and highly bred horses.

Left • This programme of a Morrinsville meeting in 1875 was headed by an engraving of a race. It later became the fashion for racing advertisements to be headed by similar devices.

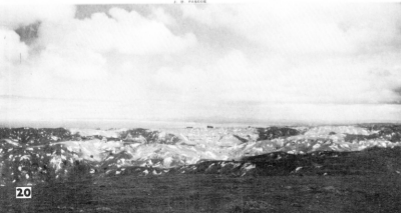
Erosion

THERE exists a widespread belief that the modern slipping of the countryside is due to the displacement of fern and forest by grass. Super-saturated soils, however, must needs slip, whatever vegetation they carry. No surface can withstand intact falls of feet of rain on successive days. The change from indigenous plant-covering to turf has merely accelerated an inevitable, uncontrollable process. Not only have slips occurred in by-gone times but their actual dates can be read in the growth that has since hidden them—those most recent clothed with tu-tu and koromiko, those more distant in time with vast hollow mahoe, most remote of all those clothed with beech that grasp the ridgescaps and spines of spurs. So perpetually recurrent have been the descent of earth avalanches, great and small, that they have in many regions relegated forest growth to strictly stabilised areas of lesser incline. On the other hand, it is undeniable that slips, though not prevented by any sort of growth, are sooner arrested and retarded by stiff and tangled vegetation, such as bracken or scrub or woods, than by grass.

Another factor in judging the rate of erosion during past and present periods is perhaps the actual drive of water drops hitting the surface like a blow. Not as of old is this force mitigated by frond or leaf or intricacy of branch and bough. It is an instant strike on nakedness—a punch with the gloves off. The actual impact of water at a



Above ● Gully erosion above Lake Tutira, Hawke's Bay.



Left ● Part of the country between Napier and Gisborne. Erosion scars peck the landscape.

given moment may, then, be an erosive agent of considerable importance. A certain type of slip may be pointed out as illustrative of this—the long, parallel, shallow earthburst almost on the very crest of a smooth slope. Moreover, rain never falls evenly. Thick swathes of wet in a great deluge must greatly exceed the average precipitation. While, therefore, denudation has always been at work, the process has been hastened by direct rainfall action and by removal of fern and bush.

Nowhere perhaps are sudden bouts of erosion more definitely marked than on the hundred mile stretch between Napier and Gisborne. The process is not a perpetual crumbling, as on the scree of mountain ranges; it is sudden, violent, and immediately succeeded by reconstruction and restoration. A countryside scabbed with naked surfaces and scarred with weeping mud does not present an alluring aspect. It must not, however, be considered a calamity. The East Coast is but casting off its primordial skin of barren, water-laid pumice sands, its worthless, wind-borne ashes and grits.

Although over vast areas the good material is beneath, the bad above, an enormous sloughing has already taken place and still proceeds. Its tools of progress are rains, earthquake displacements of surface soil, gales, and frost, but of these the greatest is water scour. Nature is, in fact, undoing with one hand the evil she has accomplished with the other. The original infertility of the great coastal bands is being ameliorated century after century, flood after flood. Hence it is that on this coastal section of the North Island all flat and down land is poor, all steep land fertile. On the one the original skin persists, from the other it has slipped away.



J. D. FALCON

Above ● The author of this survey on the edge of an eroded gully on his run at Tutira.



E. P. CHRISTENSEN



Above ● A view of the scarred ranges to the east of Lake Tutira.



Right ● A typical 'under runner' or subterranean stream, referred to on the opposite page. The roof of this under runner has given way here and there. Presently the erosion will be more pronounced. The sketch is from H. Guthrie-Smith's 'Tutira.'

The Vanished Woodland

THE change over the past sixty years in two scenes—one in each Island—will illustrate the unhappy story of native New Zealand. Within the boundaries of Hawke's Bay there once existed a fine fragment of woodland, typical of the so-called light bush of New Zealand. It contained no single forest tree but was lovely in its ngaio, kowhai, ribbon-wood, mahoe, whau, and rangiora. Within its depths twined and coiled thickets of supplejack. Conspicuously arose tall groups of tree-fern and nikau. From a thousand minute green blossoms each springtime its fragrance was renewed. Its uneven borders furnished shrubs that love fuller light—ramblers and bush-edge plants. This little woodland faced south and east, an island of bright green in sombre seas of bracken. Within its shade two streamlets bubbled over limestone falls and runs, and rested in clear pools. The airs that emanated from its green depths were moist; its damps were the exquisite breathing of the forest. In arid summer heats to lie within its noontide twilight was to realise, with the travellers in desert sands, the shadow of a great rock in a weary land. Sixty years have seen the decline and ruin of this oasis. Another generation will see its absolute disappearance, its entire transformation into turf.

In the beginning decay was slow. Here and there summer firings during gales drove black wedges into its leafy flanks. During winter, when grass was scarce, and during storms cattle penetrated its edges. For forty years, however, there was no very great external change for the worse. Its continuity indeed seemed assured. It was gazetted a reserve. If paper could protect, it was safe. In the meantime the blackberry, its bushes at one time to be counted on the fingers, had overrun the district. A palliation for one evil was found in another—the wholesale introduction of goats. Then indeed all was lost. Re-afforestation by seeds ended, saplings were broken down, shrub-growth nibbled, boles barked bare. Simultaneously the bush floor hardened, its loose debris disappeared in rains that ran, not soaked. With

scantier leafage dampness exhaled. The exuberance of tree-fern fronds lessened year by year. Grasses intruded, their invasion increasing the perils of fire. Cattle and sheep have followed in the track of goats. Slips have increased. Without one blow of the axe or the sowing of one grain of alien grass the reserve is doomed.

The second scene is placed on the eastern aspect of the Canterbury ranges. Their foothills support—or did support—patches of low-growing woods, specially attractive owing to the manner in which they seem to be cunningly moulded and fashioned into the damper contour of the hills. This quite narrow sylvan belt clings to the gravels of the foothills and owes its green leaf growth to seepage from the higher slopes. Then comes a band of stiffish clay of no great breadth which merges into the normal cobble-stone uniformity of the great plain. Fed thus by percolation, by springs and well heads, by rillets from scores of foldings in the hills, and gathering substance in every furlong, sixty years ago a considerable stream used to meander through leafy woods and yellow tussock lands. Full at all seasons of the year, cold as ice and clear as glass, deeply overhung with kowhai and broadleaf, its banks matted with binding entanglement of ferns, lawyers, and bushvine, it passed into the open plain. Even there its channel for long showed up in groupings or single plants of toe-toe and cabbage tree.

This stream now, as a stream, is altogether gone. Its broken banks are bare, the erstwhile tussock-covered clays are shingle strewn, the channel is choked, the pools are evenly filled, a dozen courses gouge and chisel the torn plough lands on either side. In winter a raging spate runs for a few hours, in summer the sun shines on a grey nakedness of baking stones. Where of a morning the angler had obtained a dozen goodly trout, no drop of water remains. Desolation has replaced the achievement of the past. Dry back-washes are fouled with broken glass and china ware. On the flooded flats is deposited the rubbish of humanity, derelict machinery, and rusty wire.

All good New Zealanders can but deplore such unnecessary spoliation of what might be a lovely world. With some degree of foresight and forbearance a delightful landscape picture might have been saved. Conservation of fair nature, moreover, need entail no pecuniary loss; on the contrary, this snatching at immediate gain spells harm to one and all. New Zealand deteriorates not only economically but as a pleasant abiding place.



Above ● In the centre of the right-hand slope is a section of Tutira land fenced off to enable plants and shrubs to grow undisturbed.



Nature Retaliates



Above ● The island on Lake Tutira, known to Maori historians as 'Tauranga-koau.'



ANOTHER tale of injury to New Zealand can be told of a flax swamp formerly resting on Tutira Lake. Its surface was smooth. As from a blanket, surplus moisture ran off in ooze and percolation. Throughout the massed rhizomes of the flax no sign of a water-course was visible. It was an expanse everywhere capable of supporting the weight of man and horse had its pristine growth of tall flax made penetration possible. In order after rain more quickly to dry this marsh, a drain was cut along one edge and another across the narrow apex. A subsequent step was the lowering of Tutira Lake by fully two feet. It is necessary here to pause and consider the bearings of such an act, the more so as it is but a sample outrage of the kind that has been and is still the bane of New Zealand. Here was a brace of lads—the writer one of the villains of the piece—barely beyond their teens, new to the country they were pleased to honour with their presence, taking it upon themselves to tamper with a notable feature of the landscape.

Later the flax was burnt and the ground surface sown. For several seasons rainfall was normal. Apparently for all time had an extra spread of rye-grass and several hundred sheep been added to the assets of the Dominion. Then, however, happened one of our Hawke's Bay floods, a couple of feet falling in two days. The drainages that had heretofore appeared so innocuous and proper then took another aspect owing to the lowering of the lake and consequently more violent scour. The streamlet, formerly losing itself in the apex cut, now gutted out its bed to a depth of twenty feet. Exhumed trees and huge root stubs blocked the passage of the main drain. Over the grassed areas not five acres of turf remained; the balance was submerged in mud but in this first great flood fertile mud, drawn from banks of alluvium immediately beneath the hills. A second great deluge into the deepened streamlet's course drew down great slices of worthless slope. In 1938, when nearly three feet fell in four days, a third of the swamp was covered with poor sand from one to six feet in depth.

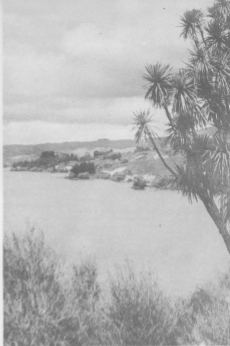
Left ● The waterfall outlet of Lake Tutira, which is rapidly receding towards the lake.



K. C. BROWN

Right ● A view of Lake Tutira from the north-eastern shore.

Below ● Lakes Waikopiro and Tutira. Groups of willow-trees have been planted on the tongue of land between the two lakes.



H. D. PARCE



Sanctuaries and Highways



Above • A tame pigeon feeding from Mr. Guthrie-Smith's mouth.

OF the Paradise offered to European man in New Zealand he has, we have seen, too often made an ashpit. The more credit therefore accrues to those who set apart our earliest reservations. They have of late been largely increased. As far indeed as acreage is concerned, New Zealand has not been neglectful of its duties. We have furthermore dignified these lands withdrawn from sale as sanctuaries, and now, with that belief in the efficacy of words which permeates humanity accept the security of their inhabitants as doubly ensured. Alas, however, for the fatal vanity of *homo sapiens* that he should regard himself a predominant even in his misdeeds! Unit for unit the havoc wrought by cat, weasel, or rat exceeds a thousandfold that of man. He at least does not destroy breeding birds and nestlings. He does not kill by night as by day.

Nowhere is horse sense—the hardest of hard common sense—more necessary than in our dealings with native birds. In regard to life in the woods we must combine a burning enthusiasm to save with cold-blooded, practical wisdom. The few hundred or few thousand specimens taken in past years from New Zealand have been in truth an incalculably minute percentage of those slaughtered from lack of efficient ranging. The policy of withholding the freedom of our woods from foreign collectors is therefore to be commended not because of the infinitesimal saving of bird life, but on principle. There is no reason why with skill, care, and time live birds should not be measured, weighed, their colouring registered, their feather tracts explored, then themselves liberated.

