

"SEA LAND and AIR"

THE AUSTRALIAN NATIONAL MONTHLY

— OF —

TOPICAL INTEREST

Edited by M. DIXON.

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SEA LAND AND AIR

AUSTRALIA'S
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Month by Month

DESTRUCTION THAT MUST CEASE.

THESE months of balmy spring fetch to the folk penned in the city the glory of the wild flowers. At busy street corners the unromantic vendors of these fragrant jewels of the bush loiter in shabby disarray amidst the fabulous wealth of Nature's fairest blossoms that beautify their dingy stalls. The tired city man, entranced by seductive perfumes, thinks of a boyhood spent in the open forest spaces, buys a garland of native roses, and renews his youth. The bright-eyed girl, tripping cheerfully homeward, finds happy memories of pleasant bush wanderings stirred by a frail contour of exquisite boronia scent wafted by the breeze, and pins a posy of the flowers to her girdle. And the nature lover, halting reluctantly on the flower-decked footpath, ponders with sorrow on a picture that his recollections conjure up. He sees a horde of questing flower-gatherers roving a forest that glows with all the colours of the world and pulses with intoxicating, exquisite odours. He sees them hack at the blossom-starred trees, wrench limb and branch in wanton carelessness, destroying irreparably the beauteous perfection that Nature has striven to achieve in many seasons. To those that know, the price of desolation and destruction that is paid for a single bunch of bush blossoms is ghastly in its iniquity. Year by year the forests are being ruthlessly stripped by vandal hands of their most radiant riches, the flowers. And the time has come for those in high places to end this tragic destruc-

tion. There are yet countless citizens of our State who wish to know that the bush and its painted glory of flowers will go on unchanged with the dawns and the sunsets and the wheeling stars and the changing seasons and the perpetual years.

—G.B.

WELCOME, CHILDREN!

"Where are the children to live?"

Some married couples have had recourse to the unnatural system of boarding out their babies when flats and boarding-houses have refused to take children. Nowadays people with young children are almost as unpopular in these places as T.B. cases. The same answer is advanced for the solving of the problem "Take a house of your own." But segregation of this sort is not as easy as it sounds. First, find your house, then ask yourself if you can afford to pay for it. Meantime, we want babies—the natural immigrants of any young country.

An enterprising body of men in London, known as the Islington Housing Committee, have taken the first step in the right direction. For the purpose of encouraging family life they have erected a colony of flats, covering thirteen blocks of land, and divided into one hundred and four separate dwellings, with sheds attached to accommodate the perambulators of the tenants. The total cost of the "Welcome Children" scheme is £139,318, and 430 people have found house-room for themselves and their children.

—M.M.

UNDERPAID RESEARCH.

Bunchy top is a disease that has practically ruined the banana industry in the tropical regions of New South Wales, and up to date no remedy has been discovered to combat it. The writer does not intend to proffer a dissertation on obscure plant diseases, but desires to point out the circumstance in its relation to the scientists employed by the Department of Agriculture. Bunchy top has destroyed an industry; blow-fly in sheep does damage to the extent of millions of pounds per year. These two troubles can only be coped with by scientific methods, and must be handled on immense and comprehensive lines. But the Department gives little encouragement to its scientists, and has lost many during the past few years. The three men whose work it is to discover means to combat these insect and fungus pests are Mr. W. W. Froggatt (Government Entomologist), Mr. Gurney (Assistant Entomologist), and Dr. Darnell-Smith (Government Biologist), and they are the leading scientists in their particular branches in Australia. Yet they are shamefully under-paid. Dr. Darnell-Smith, with the highest scientific degrees of the best university of the world, receives £683 per annum; Mr. Froggatt, £575, and Mr. Gurney, £421. On the other hand, men in other departments doing mere clerical work of no economic value to the State receive up to £1,500 per annum, and managers of costly, bankrupt State enterprises are all on the £1,000-a-year mark. But the scientists are not only badly treated in the matter of salaries. The funds at their disposal for experimental and research work are insignificant. It was usual to allocate £300 per year for blow-fly experiments, an entirely inadequate sum, but even this has been withdrawn. When industries depend on the work of scientists it is time the country realized and rewarded the work these men are striving to perform under the most discouraging handicaps.

—G.B.

SUCH IS FAME.

George Lambert has a working studio in the old Darlinghurst Gaol. During his recent labours with the "Persian Garden" tableaux he was explaining his ideas of stage decoration to a friend as they

walked from the studio towards King's Cross. Outside the gaol there is a cab rank, and the cabbies, unaware of the identity of the artist, were aroused from their noonday lethargy to a brief interest by seeing the stranger suddenly pull up, and, producing some crayons from his pocket, draw pictures on the old brown wall. Lambert was illustrating his stage settings to his friend. Eventually the two passed on, leaving the frescoes of fame behind, but not too late to hear the heartily expressed opinion of the oldest cabby on the rank:

"'Struth! Ain't 'e a rotten pavement artist! I could draw pitchers better'n that meself."

—M.M.

REAL MUNIFICENCE.

Australia has a number of wealthy men; a few of them are millionaires. But everywhere throughout the land charities languish lamentably while precariously existing on the doubtful revenues of lotteries and entertainments. Political economists have ventured, from time to time, a solution of the problem, but a work-a-day world has paid scant heed to their often nebulous projects. The stern reality remains that charity is of the heart, spontaneous, unselfish; it cannot be cajoled or coerced. The rarest and most beautiful example of Christian charity Australia has ever known was the act of Charles Kolling, a retired Sydney commercial man, who gave £100,000 to equip and endow the Masonic College opened at Moss Vale on October 8. And that immense sum represented practically the whole of a fortune amassed through more than half a century's heroic striving and self-sacrificing care. To-day, though Charles Kolling may be poor in coin, he possesses riches incomparable, the wealth of a heart stored full of charity. And as the evening of his life draws to its close the hours will be brightened by a contemplation of the good he did, and blushed to find it known. Australia has many wealthy men; a few are millionaires. There has only been one Charles Kolling.

—G.B.

ARE WOMEN SELFISH?

The criticism levelled by a recent visitor to Australia against what she terms the

"cruelty and selfishness of Australian women" is certainly a harsh one. If it is meant to apply to Australian women as a whole, the writer joins issue with the fair defamer from overseas. A certain proportion of our womenfolk may be selfish, and in pursuit of a "good time" it is quite possible that many of them disregard the rights and feelings of even those within their own family circle, but fortunately they are in a minority. The fact cannot be overlooked that vanity plays a big part in the "make up" of every woman. Unlike the artificial embellishments in the shape of powder and paint, which are, after all, only skin deep, and have to be renewed many times a day, this vanity is something that cannot easily be rooted out. It thrives on the homage which mere man is ever ready to bestow upon what are termed "smart women," and it is little wonder that nowadays the fair sex feel that life should hold something more for them than the cares and worries of the kitchen or nursery.

It is up to the male sex now to take up the cudgels on behalf of those for whose shortcomings they are to a great extent morally responsible. Of course, to accept this point of view one has to believe that if man put his foot down and objected to "make up" in every shape and form, and declared for a return to home life and customs that woman's perversity would allow her to follow his lead. The question is, Would it?

—M.D.

DOGS OF GALLIPOLI.

"Rags," a mongrel sheep dog with a distinguished army career, who saw war service on the Peninsular, is giving up the service and retiring into private life—it is rumoured, in a boneyard in Liverpool. He went to Gallipoli in 1915 as the mascot of the Lancashire Fusiliers, afterwards transferring his allegiance to Midshipman Forbes, of the H.M.S. *Cornwallis*. He was on the *River Clyde* at the time of the famous landing, and, later, when on the sloop *Aster* was blown up by a mine off Malta. On being rescued, he became a dockyard dog at Invergordon, but after two years as a longshoreman he got bored, and one day walked on board the H.M.S. *Nintine*, and went off to Bermuda.

After a few voyages, taking the opportunity to see more of the world, he finally abandoned the navy and crossed to Liverpool in the *Orcona* mail boat. He had many decorations, official and otherwise, but none of them ever turned his head. He will be a democrat to the death.

In a slum alley of Surry Hills, in Sydney, there is another canine war hero. "Anzac" (breed uncertain, courage unquestionable), who was also on the Peninsular as the pet of his regiment, and afterwards in France. He is a thespian by profession, and earns his living by giving exhibitions by doggy wisdom and intensive doggy training on the music halls with his master (late of the A.I.F.). "Anzac" also has his decorations. He possesses a gold-mounted collar, presented to him by the Queen on an occasion when he was performing at a soldiers' concert in London, which she attended. Another of his decorations is a solid gold eye-tooth, replacing one which he lost while on active service.

—M.M.

PERSONALITIES THAT INSPIRE.

The extent to which the character and personality of one person may influence those with whom he or she comes into contact is almost incalculable. The man or woman who is able to create an environment of inspiration, trust and confidence simply by the uplifting atmosphere which their presence and actions formulate plays a great part in moulding characters that are strong and effective. In this way they wield a far greater influence than those who depend on precept backed up by a determination to produce in others the qualities which they themselves lack.

Miss Isabel Fidler, B.A., the beloved President of the Sydney University Women's Union, has been an institution at the University for a number of years.

Very small and thin, she has preserved her girlish outlines so well that only the beautiful silvery hair gives a clue as to how kindly fleeting Time has dealt with her. There is an air of repose about her, a calmness, a gentleness, that is infinitely soothing to the jaded and tired nerves of the brain clogged with sleepless nights of study.

Miss Fidler belongs to the old school, when the hoyden was an unknown quan-

tity. Herself the essence of refinement, she exercises such a beneficial influence over her flock that the mere memory of her sweet purity, her kind smile, and her radiant presence remains a lifelong example.

After a talk with Miss Fidler in her beautiful, luxurious study you come away feeling uplifted. Words like Dresden China, Lavender and Old Lace, Pot Pourri, An Old World Garden, suddenly occur to you in a speechless effort to describe her. She is all these, combined with a clever brain underneath. There is a quiet force in her personality that is none the less quiet for being effective.

* * *

Professor J. Le Gay Breton, Assistant Professor in English Literature at the Sydney University, was for a number of years Librarian of the Fisher Library.

As a dramatic critic, he has a happy knack of picking out the amusing bits to comment on, and, while strictly just, he is never too hard on amateurs. He takes a great interest in the Sydney University Dramatic Society, and is himself a poet and playwright of no mean ability.

In statue he is long and lean as a lath, with a high, receding forehead and sparse grey locks.

Professor Breton was one of the first volunteers in the now rapidly swelling ranks of the "Hatless Brigade," and many a sweltering afternoon may be seen swinging vigorously up the long avenue, head and shoulders above his fellows (all immaculately hatted) with no other covering on his head than his skin.

He is a kindly, sympathetic man, full of dry humour, ready to go to no end of trouble to assist a willing, eager student, but he has no time for dolts.

A couple of years ago the curriculum of the English Literature Class for Arts I. included the study of William Blake, the "mad" poet, painter, songster and universal genius. His work and ideas were generations ahead of his time, and everything he did was miles above his fellows, therefore, he was regarded by a majority of his contemporaries as mad. In fact, his depths were so great that a person of average intelligence has difficulty in sounding him today.

A girl undergrad., unaware that Blake

was a favourite of the Professor, waylaid him after a lecture and said:

"Professor, I'm dreadfully worried over the essay we have to do on Blake; I just can't make head or tail of him somehow."

"Have you read the prescribed books," inquired the Professor.

"I've read a couple of them, but the deeper I go the more I'm bewildered, for he never seems to come to the point, but wanders round it in aimless circles. I think he must really have been mad as is suggested."

"Blake was such a supreme genius, and so *overwitted*, that the average intelligence is much too *underwitted* to appreciate him," answered the Professor curtly, turning on his heel.

* * *

Professor Algernon Lawson, Chief of the Botany School, has recently returned from a trip abroad, where he went accompanied by Professor Fawcett, of the Inorganic Chemical School.

Professor Lawson is known all over the 'Varsity as "Algae," having been thus affectionately dubbed by the students after the name of the water flora; it is also a abbreviation of his own. Algae is a keen enthusiastic lecturer; he is so absorbingly interested in what he is talking about, so vitally in earnest about it, so dramatic in his looks and gestures, that by the sheer compelling force of his personality he enchains the ever-wandering interest of the student, and holds it triumphantly throughout the lecture. He insists autocratically on absolute silence, and if a pin is heard to drop glares ferociously at the offender. Should an unfortunate student unthinkingly chance to yawn, and is observed by the hawk eyes of Algae he is foredoomed, and goes down on Algae's black book.

Algae is Scotch, and speaks in a rich, full-throated voice, with just the suspicion of an accent. He is extremely kind and courteous to the ladies, but throws no love away on-recalcitrant men who shuffle their feet when a girl comes in late, as is the custom with "freshers."

There is a deadly ominousness about his—"Will the gentleman seated in No. — see me at the close of the lecture" that bespeaks ill for the hapless youth. At any rate, no offender ever offends again.—*B.L.*



EVERY evening two powerful, fast turbine steamers leave their respective ports and plough on the night ferry run that links Lyttelton in the South with Wellington in the North island of New Zealand. Their track lies across Cook's Strait. And every evening two smaller ferries push off from their berths and, storm or calm, make their best time on the run between Wellington and Nelson. These powerful, seaworthy little boats have tall white funnels, and they traverse the length of the strait on an east to west track, and *vice versa*. No storm stops them, any more than it ever stops the big south ferries; and because of their uncanny punctuality, their tall white funnels, and the fact that they haunt the Strait every night, these smart packets are called the Cook's Strait 'Ghosts'. But there are other ghosts in the Strait o' nights.

The turbine steamers jump into their high speed as soon as the lines are cast off; they sweep in a grand curve from their berths with turbines thundering and howling in the strain of making the speed quickly. Smoke rolls from the twin funnels, white water boils in a rushing river from their screws, and they lean over a little as they turn and lay their courses for the fast night run. Shore folk go down to see them sail; it is one of the sights for evening strollers to see the night ferry push off.

Half-way on the 175-mile run they meet and pass three miles apart. It is like two brightly-jewelled caskets skimming past each other on a sea of ultramarine. If it is moonlight the dim seaward Kaikouras

will look like ethereal mountains high in the skies. The track of the night ferry is often very beautiful; but it is haunted, too.

On the all-night runs in the narrow seas that are girt by high lands strange things are seen, strange lights, strange ships. On each of the tracks of the night ferries there is a lonely ghost—or so say the men who travel them. By the Nelson boats the ghost that is seen is a paddle steamer. There are so few paddle-steamers hereabouts that the beat of the thrashing wheels would awaken the drowsiest lookout. When this spectre first loomed out of the mists of a stagnant night into the seamen's sight and foamed away with the mists again the men of the ferry swore it was the *Terranora*, a little paddle-and-screw cable steamer that was kept at Wellington twenty years ago to repair the Cook's Strait cables. It was a comforting thought to have the *Terranora* to fall back upon; but the whispering men knew it wasn't her. They knew it was no real ship that skimmed past; it was the ghost of the *City of Dunedin*.

Nearly sixty years ago—on May 13, 1865—the *City of Dunedin* (327 tons register) left Wellington for Hokitika, with a full complement, nearly all of her passengers being gold diggers. She cleared the heads when a dirty sou'-easter was blowing, and steered away for Cape Farewell. But she was never reported by Cape Farewell. Somewhere in Cook Strait she went down with all hands. From the sheep station at Terawhiti, which overlooks the Rip, a vessel was seen steaming in a circle. The watchers ran to bring others

in the hope of rendering aid. In the few minutes which elapsed the steamer had disappeared. No one saw her go. Was it the *City of Dunedin*? Nobody knows. Nobody will ever know what horror overtook this stout little vessel; what calamity wiped her off the face of the great waters, leaving not a sign of how or when or where she went. But her ghost haunts Cook's Strait, and those who doubt have but to watch often enough from the little night ferries, the lonely little ghosts of the narrows, to see her sooner or later. When the Strait shimmers dark and glassy under the stars, when the lofty coasts of the two islands of New Zealand frown across twenty miles of water at one another, when the little waves trill crystal music on the beaches, you will see her. She carries no lights, makes no sound, save a weird, ghostly throbbing of paddles. And before you have time to examine her she is gone. So the men say who have seen her; and they say she will never rest in her grave as a good ship should until her fate is known to men.

The track that is ploughed by the big turbine ferries seems to be the last place where one would expect to see ghosts. Racing along in a blaze of light, with the big, graceful hull waltzing over the long southerly swell, who would think of ghosts?

Between midnight and dawn it is very quiet on the north-bound racing ferry. Passengers have gone to bed, to forget, in sleep, the trains that they must catch in the morning. In comfortable bunks, with every luxury about them, they rest. And so they never see the ghost of the *Ohau* plunge past them, fighting head to sea. Black and silent looms the *Ohau*, as she loomed in the storm on the night of May 13, 1899. The ferry ports her helm with a clatter of gear to give the ghost sea room. There were no ships to give her sea room on that terrible night. There were none to witness her fate.

She had come round from the Grey with a load of coal and timber for Christ-

church, deep laden below, and with timber stacked on her well-decks. She passed eastward through Cook's Strait, reporting to Wellington Heads, and set her course south for Godley Head—set a course into the heart of a black, southerly tempest that was racing up, with whirling clouds as a warning to ships. It has been asked since why the *Ohau*, a steamer of 650 tons, did not take shelter in Wellington. Who knows? The *Ohau* drove on through a baleful afternoon into a pitch-black night. The only visible sign of God's or man's concern in them was the bright light on Cape Campbell, on the starboard bow, and the unbelievable life and lift in that deeply-laden hull. When Shackleton wrote of the invisible "fourth man" who accompanied him and his mates on their boat journey to Elephant Island he voiced what many a seaman has often thought. Still, the "fourth man" did not save the *Ohau*. No one knows what happened to her. No identifiable sign was ever found. She went under in what must have been one of the bravest fights ever put up by a staggering steamer against a hurricane of wind and a tremendous sea. The light-keeper on Cape Campbell watched the tiny star of the *Ohau's* masthead light for hours. It fascinated him, for it scarcely moved. He reported afterwards that "he picked up a steamer's light at a certain time and watched it until a certain time," and then a squall howled across the intervening darkness—and when he looked again the light wasn't there. The *Ohau's* lights went out—that is all we know about her.

There are ghosts in Cook's Strait, as there are in many seas and narrow waters—the ghosts of ships that cannot rest. If on the night ferry after you have heard the look-out's sing-song cry "Lights are bright, all's well," if then you hear the steam gear whirring to pull the helm hard over, tumble out—and maybe you will see the *Ohau* go past, black and silent, and fighting head to sea.

Blessed is he who has found his work: let him ask no other blessedness. He has a work, a life-purpose; he has found it and will follow it!—*Thomas Carlyle*.

* * *

Thank God every morning that you have

something to do that day which must be done, whether you like it or not. Being forced to work and to do your best will breed you a hundred virtues which the idle will never know.—*Charles Kingsley*.

GUNYAH TREASURES

INGENUITY OF THE NORTH COAST BLACKS

HOW FIGHTING WEAPONS WERE MADE

By E. S. SORENSON

IN so far as his needs went, the aborigine was a good artisan, and cunning in devising ways and means of getting what he wanted. His non-discovery of the bow and arrow was often quoted as a sign that he is not as brainy as the blacks of other lands. When I mentioned this to Bolem he replied that foreign brains did not discover the boomerang and woomera.

erang, nulla and woomera spear is to be credited with making the most formidable wooden weapons known to the history of mankind. With him the wooden weapon had reached the maximum development, and there was no further stage of evolution. The woomera spear, when properly made and efficiently thrown, is a much deadlier weapon than the bow and arrow.



Weeping willows on the Patterson River, N.S.W.

His people did not want the bow and arrow; they never used it after it was introduced.

The ingenuity displayed in the construction of the comeback boomerang and of the woomera, or spear thrower, made the bow and arrow look a mere toy weapon. Archibald Meston has written that "the Australian aborigine with the boom-

The return boomerang will either make frightful gashes and ricochet, or go clean through a man."

The comeback had a greater curve than ordinary boomerangs. Two very slight twists were put in it, and the end was slightly turned. It required more skill and workmanship than any other weapon. Bolem's gunyah contained a great variety

of boomerangs, from heavy wooden swords, used for fighting, and the small cross boomerang to the common crescent-shaped weapon, carried by most of the Richmond, Clarence and Manning river blacks. It was made of white myrtle or dark ironbark.

Many of the white settlers had boomerangs, the boys using them as toys. Some of the bush blacks did a good trade in this line. Sandy used to hang about the hotels at Casino on the lookout for curio collectors when the coach came in. He always had two boomerangs, one new, the other old-looking. I saw him offer the new one to a visitor from Sydney for 2s. "How much for the other one?" he was asked. Sandy shook his head. "Baal me sell him," he said. "That one belonga my grandfather, then belonga my father, now belonga me." "I'll give you three bob," said the visitor. Sandy only grinned. "Four bob." Sandy looked at it lovingly. "That boomerang been kill em plenty long time ago," he said, and after a moment's hesitation, he added: "You gibbit five shilling I sell him." The money was paid, and Sandy departed with a radiant face. That evening I saw him squatting at a fire, carefully greasing and fire-blackening a newly-made boomerang. "Why not blacken the other one?" I asked him. "Oh, this one belonga my grandfather," he chuckled.

I often noticed two spears stuck in the ground in front of Bolem's gunyah. I think they meant that the door was shut, there being no door, and that he was not at home to visitors. They were heavy hunting spears, sharp at both ends, and blackened and toughened with fire. Among his collection were some that were simply whipsticks from the scrubs, shaved smooth with broken glass, and sharpened at one end. Some of them were straight, and some as wavy as a wriggling snake. Others were made in two parts. The shaft was either a thin reed, a lawyer cane, or grass-tree stick, with an ironbark head, bound on with kurrajong string and grass-tree gum. The heads of fishing spears were well barbed.

Fighting spears were tipped with glass or hardwood, either barbed or plain. The other end of a spear of this kind, and also

of the hunting spear, was cupped for throwing with the woomera in other tribes, but the woomera was not used in the Yoo-cumbilla country, except an odd one that was introduced by whites from Bellinger and Manning rivers. When going into action the plain points of fighting spears were smeared with grass-tree gum, which caused a nasty wound wherever the point pierced the skin. The barbed spears made ugly wounds without the use of gum when they struck home. The barbs were cut with devilish ingenuity, the shaft behind the barb being made so thin that it would break off with the weight of the spear after striking fast. The glass spear-head shattered on striking bone. Flaky stones, bone and shell were also used for spear points. Broken glass was always prized by bush blacks, who used it as plane and spokeshave for finishing woodwork. I have seen it preferred to white men's smoothing tools by squattage blacks.

Another fighting weapon was the nulla-nulla, which was made of heavy hardwood. Greatly prized by wielders of this deadly club were hobnails, which the men extracted from discarded blucher boots. The ironmongery was used for studding the nulla's knobby end to make it more effective. Neat patterns were formed by the curving rows of nail heads, giving the nulla an artistic, jewelled appearance. The best I ever saw was Bolem's. He kept it beautifully polished, and often picked it up as if regretting vanished times when there were heads to crack. It was a valued heirloom, and had marks cut on it by his father representing vanquished enemies.

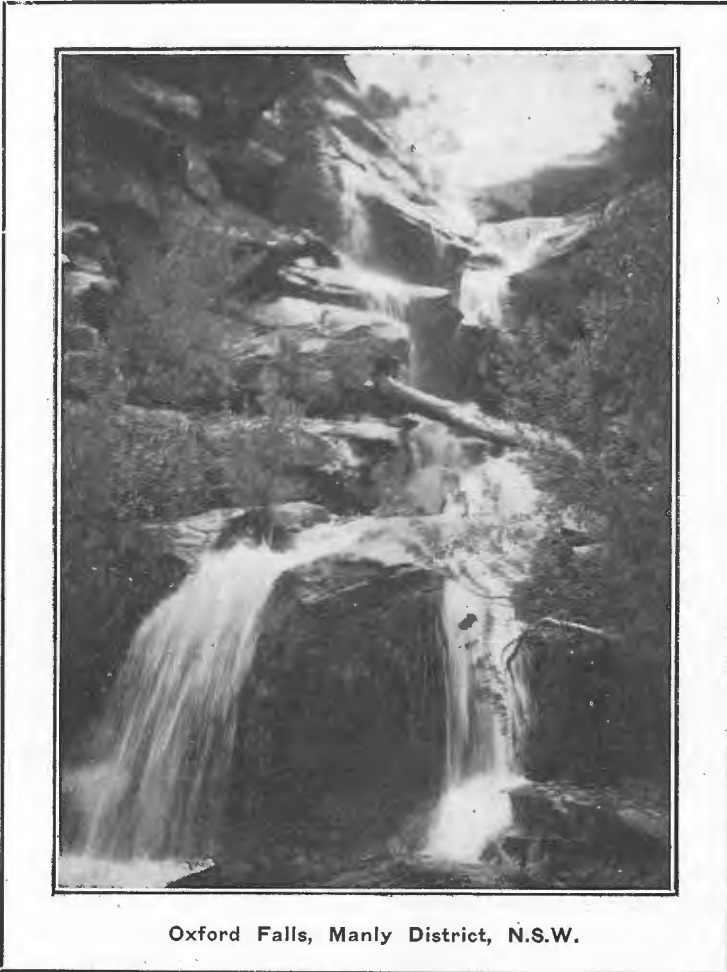
An important item in his fighting kit was the heilamon, or shield. It was cut from the trunk of a fig tree or cork tree, and was a little under two feet long, about nine inches wide, and four inches thick in the middle. The back part was flat, with a hand-hold chiselled in the centre; the front part rounded and tapered at both ends. Its use was to deflect a spear. I have watched young fellows practising near camp. One had to guard himself against the spears of two or three opponents standing thirty yards away. The straight-shot, swiftly-gliding weapons, following in quick succession, were turned

upwards, downwards, or aside with ease, and apparently as the defender liked.

Gunyah treasures included many other things besides the always necessary weapons, 'possum rugs, lines, nets and baskets. Conspicuous articles were water-carriers, which ranged from the small biggi to the large coolamon and hollow log. The biggi was a small palm-leaf bucket, with a

sinews. Then the skins were tanned with coomabah or wattle bark.

The coolamon was a common, widely-distributed utensil. It was a hollow knob or hump off a gum tree chipped out. This was a clean and durable holder. The bark off the knob was used for the same purpose, also as bowls and dishes for holding grain and mixing native flour. Bark



stick handle. It was also useful for holding fruit and grain. Other buckets were made of bark and skins. The skins were taken off unbroken from below the ears. To accomplish this the carcase was cut up inside the skin and drawn out through the neck. Paws, feet and tail were cut off, and the severed parts sewn up or tied with

troughs, made of ti-tree bark, and wooden troughs were larger vessels of the same utility. A common plate and drinking vessel was the carapace, or top part of a tortoise shell.

The most curious water-carrier was a human skull, cleaned out, with twisted cord or vine for handle. This came from

the far interior. A blackfellow was met on a thirsty track with one of these, which he set down as if he were afraid of hurting it. He said the relic had belonged to Tumbling Tommy, a clever aborigine, who had "tumbled down long time ago." The bearer would not let a white man handle it. "Him been a very good pfeller," he remarked, his fingers touching the polished pate in a caressing manner. "Is that why you carry it about?" he was asked.

"No," he answered. "Tommy water-bag now."

A big bamboo was a convenient vessel, both for drinking out of and for transport. The hollow log was handy for long-distance carrying. Filled with water, and plugged at both ends, it could be carried on the shoulders, dragged by human team, or rolled along. When fairly big it stood beside the gunyah like a cask.

Water conservation was occasionally necessary in dry towris. After rain the aborigines crossed the desert, and in claypans dug small holes, in each of which they placed a sheet of bark, dished in the centre to hold water. This was covered with another sheet, and buried to prevent evaporation. There was good cool water there long after the claypans had dried, and this enabled them to cross again with safety. Another good device was the log well, copied by the miners. It was made by blocking one end of a hollow log and sinking it a foot or two in the ground so that it would stand up. The top was covered with green bushes or a sheet of bark.

Bolem's hunting ground, like all the Richmond River country, was well watered. Besides the winding river there were many running creeks and gullies, springs and swamps, lagoons and small, deep holes. The natives never needed waterbags when travelling. If drought occurred, and sandy creeks were low, a section of a hollow log was sunk where they dipped water, forming a clean well.

Tapping a creek soakage was a quick and simple operation. The surface sand was scraped away, and a spear worked down as far as necessary. Then in the tiny bore thus made the blackman put a hollow reed, through which he got a good cool drink with ease and comfort. Where

thirsty denizens had often to depend on soakage water, in less favoured towris than where Bolem lived, the hollow reed was added to the gunyah treasures.

Of all Bolem's implements and weapons the most valued was the modern tomahawk. The old stone axes, which were split from flint stone quarries and chipped into shape, or picked up in the beds of running streams, with a cane handle fastened to the head with gum and string, were sometimes seen in settlers' homes. But the only stone implement still treasured in the gunyah was a chisel—a sharp piece of flint stone with a wooden handle, used for chipping the inner sides of coolamons and buckets.

The modern tomahawk always had a flat gum handle, tapered towards the end. I saw Bolem take an ordinary, factory-made handle out of a new tomahawk and put in one of his own make. While finishing it in the dusk he saw a black streak moving like a snake against a bush, and made a vicious chop at it. To his surprise, his best dog bounded from behind the bush and fled with frantic howls. The streak, now bleeding on the ground, was the dog's tail.

Nothing made greater changes in black brother's life than the introduction of steel tomahawks, steel knives and billycans. They made him comparatively rich. In all his years among white men he did not get much, if anything, beyond them, and though he would part with nearly anything he owned he stuck to those three articles. In his grandfather's day the common meat boiler was a bark trough, which had to be replaced pretty often. The every-day oven was a hole in the ground, in which stones were placed upon a bed of coals. Meat was also cooked in the same way as a damper. The hole was heated, then the meat, protected with damp grass or leaves, was put in and covered up. Little mounds marked the places of those blackfellows' ovens on numerous old camping grounds. Steak and chops were grilled on sticks, or fried on a flat stone. The stick grid rarely served him more than once, wherefore the advent of wire and hoop-iron was hailed with joy. A zig-zagged piece of hoop-iron made a first-rate grid, much used by bush workers.

THE MARSHALL ISLANDS

POSSIBLE STORM CENTRE OF THE PACIFIC

NATIVE LIFE AND CUSTOMS

By "V.M.B."

THERE are many people who believe that the next great war will be fought in the Pacific, and, if that should be the case, the Marshall Islands may play an important part. It has several times been asserted, but always denied, that strong fortifications have been constructed there by the Japanese. What is a fact is that the Japanese put every obstacle in the way of foreigners who may desire to go sight-seeing in the Marshalls. Europeans have not seen much of the Marshalls since the Japanese have been there,

and were, together with the Pelew, Caroline and Mariana (or Ladrone) groups, occupied by Japan toward the end of 1914, two months after the outbreak of the war, and are now administered by that nation under mandate. The group consists of 46 atoll-lagoons, arranged in two parallel chains, running in a north-west and south-west direction, that to the east being known as Ratak (meaning "sunrise"), and that to the west as the Ralik ("sunset"). The average distance between the chains is about 100 miles. The



The Beach Parade at Jaluit, Marshall Islands.

and those who have arrived from the Gilbert and other islands uninvited have been glad enough to get away as soon as possible from the inhospitable atmosphere.

Hawaii's Next-Door Neighbour.

Lying just above the Equator, the nearest of all the groups to Hawaii, the Marshalls have an aggregate area of about 150 square miles and a population estimated at about 10,000 natives, with an ever-increasing Japanese population. They came into possession of Germany in 1885,

islands are among the best examples in the Pacific of the atoll formation, some of the lagoons being quite circular, having no passages in the reefs, the tide rising and falling through the coral. Kwatelene, the most considerable in the group, is one of the largest atoll-lagoons in the world, stretching for nearly one hundred miles. The highest parts of the land do not exceed eight feet. The southern islands are the most fertile, and produce, besides coconuts in abundance, pandanus and breadfruit of several kinds, bananas, paw-

paws and taro. In the northern islands breadfruit cannot be grown, but in its place arrowroot flourishes. Fish of many varieties abound, but some species in the lagoons are poisonous, though, as is the case in other parts of the Pacific, the same fish caught outside might be quite wholesome.

The Marshalls, particularly Ebon, were in the early days a great rendezvous for European whaling ships. Ebon and Ponape, in the Carolines, were the half-way houses between the whaling grounds of the China Sea and New Zealand, where the ships refitted and obtained wood, water and provisions, and tales are still told by the old men in the long, hot, moonlit nights as they sit under the dark caves of the pandanus thatch, of the orgies that

cisco. The American company were bought out, and the Auckland firm sold their interests in the trade to the Pacific Islands Company, of Sydney, who soon found that it could not compete with the subsidised German firms.

Native Inhabitants.

The natives are, in common with nearly all the island races, decreasing in numbers. They are good looking, distinctly slit-eyed, like Chinese, of a light copper colour, and of a kind disposition, with a natural bias toward hospitality and peace. Visitations of epidemics, such as dengue fever and influenza, have claimed many victims. They are an intelligent and ingenious people, and remarkably good sailors. Long voyages are made in their



A typical native hut in the Marshall Islands.

went on in those wild times. Rightly or wrongly, the whalers are blamed for the introduction of a certain disease common among the natives. The first trading vessels to visit the Marshalls were those of Messrs. R. Towns & Co., of Sydney, and American ships, with headquarters at San Francisco. In January, 1888, the Jaluit Company, a share company registered in Hamburg, with a capital of £75,000, took over the administration of the group under an agreement with the German Government, with power to impose rates and taxes. The trade of the group was by this time largely in the hands of three firms—Messrs. Hershheim & Co., of Hamburg, whose interests the Jaluit Company absorbed; Henderson & Macfarlane, of Auckland; Crawford & Co., of San Fran-

well-built outrigger canoes with large mat sails. It is recorded that about 50 years ago a flotilla of canoes filled with warriors set out for the Carolines, and reached Pingelap, conquered that island, and returned safely to their homes. At times these expeditions were overtaken by heavy weather and destroyed, whole fleets being lost. About 1857 the *Morning Star*, the vessel of the American Board of Missions, entered Ebon Lagoon and established the first mission station in the group. The missionaries taught the people to read and write, and all are now nominally Christians. Several curious customs prevail. The line of succession comes through the female. The chiefs in the past had many wives, but unless the son was by a woman of one of the chief families paternity

would confer no rights, and the son would remain an ordinary native. The chief families are the owners of all the land, the ordinary natives being merely tenants, who pay as rent the copra produced during six months of the year, keeping the balance for themselves and to pay the Government taxes. In the old days, when deaths took place the bodies of ordinary natives were thrown into the sea, only those of chief birth having the privilege of burial ashore.

The Jaluit Lagoon, on an islet on which are the Government offices, is a very fine one, about 40 miles long and 12 miles broad. There are four wide and easy passages, through which vessels of any size

can pass, and the anchorage is abundant and safe. Majuro Lagoon, deep and secure, was chosen as the especial rendezvous for German stores, and for the repairs, etc., of warships had a naval engagement taken place in the Pacific during the late war. Maybe it is still so designed in the event of a future war.

Very large numbers of Japanese have settled in the group, particularly at Jaluit, and many schools have been established by them. Several parties of chiefs and other important personages in the group have been taken on sight-seeing tours to Japan. In acquiring the Marshalls Japan has moved considerably south, and has in Jaluit established a new Japan.

VERSE

BALLADE OF THE UNATTAINABLE.

As down life's winding paths we stray,
And sometimes halt, with loitering feet,
Perchance a maiden, fair as day,
Will flash a glance with love replete.
Some hurry by, and some retreat,
Some boldly for the prize aspire—
But I, though seeing, may not meet
The golden girl of my desire.

The Gods in sportive moments play
Oft carelessly with hearts that beat,
Enticing to their tragic fray
Some maid, delectably sweet.
And such is Merle, the lovely cheat.
Did she not with the Fates conspire
To let me love but never greet
The golden girl of my desire?

A radiant thief, this maiden gay,
For from the noontide's mellow heat
Its slumbrous warmth she filched away
To drug my heart to its defeat.
The magic sheen of ripened wheat
She stole for tress of glowing fire;
The stars were plundered to complete
The golden girl of my desire.

----- ENVOI.

Ah, Merle! The wings of Time are fleet;
The hours of Youth too soon expire.
One Kiss? Dare I that boon entreat
The golden girl of my desire.

GORDON BENNETT.

VISITATION

The long, blue evening brings the golden
moon
From out the reaches of old nameless
lands,
To minds in need of a beauty for a boon,
And hearts in need of healing at her
hands.

Wearing as any queen her shadowy gown,
She comes in quiet to the grateful street,
A grave and thoughtful presence through
the town—
And peace is with the passing of oher
feet.

Into the grieved and fretful hearts of men
The long-robed evening strays, a wan-
derer;
And there is rest and quietness again,
And the cool, scented loveliness of her,
Come lately, now, from old and weary
lands,
Bearing this boon in beautiful, still
hands.

DAVID MORTON.

LIFE

Life is mostly froth and bubble,
Two things stand like stone,
Kindness in another's trouble,
Courage in your own.

ADAM LINDSAY GORDON.



The Smuggling Days of Old

by Alec Jeffrey

SMUGGLING! Which of us who have done any travelling at all have not been guilty of just a little smuggling? There is to the average human a very great temptation to evade the Customs dues if it is only to the extent of a handful of cigars, a bottle of perfume, or a yard or two of lace. One never tells oneself when glibly lying to the Customs officer that you are "defrauding your country to benefit yourself"; yet, in plain words, a smuggler is no better than a thief. He is merely robbing the National Exchequer instead of somebody's pocket.

Years ago the writer remembers a certain lady, the wife of an officer in the P. & O. Company, residing at Gravesend, who, on the ship's arrival at that port, usually boarded the vessel with the pilot. After the ship was docked she would leave the vessel, accompanied by her husband, generally rather late in the evening, and every time she left she carried several hundred yards of lace wrapped around her person. When eventually caught she was carrying no less than 375 yards of Maltese lace. The officer in question is no longer in the P. & O. Company. Although the present day has many hundreds of examples of ingenious smuggling to offer in one way or another, it is when we come to the "good old days," when the practice was indulged in by a matter at one time of 20,000 people of both high and low degree, that the romance of this particular form of robbery appeals to us most.

Probably no country in the world has suffered more from smuggling, both import and export, than the British Isles. The words "export" smuggling are used advisedly, for one of the chief sources of loss of revenue to the English Crown during the thirteenth century and later was

the smuggling to the Continent of our home-grown fleece. There was a heavy tax on all wool exported out of the country, which tempted thousands of folk in the south-eastern counties—principally Sussex and Essex—to smuggle this commodity over to France and the Low Countries, where there was an ever-ready market.

Roughly speaking, the art of smuggling had its inception in those days of the thirteenth century, for it was not until then that any filed form of duties on the importation and exportation of merchandise came into force, although there had always been some form of dues paid to the Crown.

At this date the Customs dues were the perquisites of the Crown, and were known as "tonnage and poundage," the former being 1s. 6d. to 3s. on every ton of wine and liquor imported or exported, the latter 6d. to 1s. on every pound of dry goods.

It was not, however, until the eighteenth or nineteenth century that smuggling rose to such heights as to become a national danger, and it is impossible to estimate the enormous loss to the country in revenue, to say nothing of the many lives lost in the ceaseless fights between the smugglers and the men of the Preventive Service which occurred during that period.

The two principal items which occupied the smugglers' attentions most and showed the greatest profit were tea and brandy, although many other articles, such as tobacco, lace, pictures, wine, etc., were frequently included among their cargoes. Tea in those days cost from 5s. 9d. to 6s. 10d. per bonded pound, the duty was 4s. per pound; while brandy, which cost from 4s. to 5s. a gallon in France, fetched

as much as 36s. a gallon, duty paid in England. Thus it will be seen that the smuggler had a good margin for profit; in fact, one of that fraternity has placed on record that "if you could save one cargo out of three the business paid."

During the period 1785 to 1835 smuggling was carried on in the most barefaced manner. The smugglers not only defied the law, but on many occasions were aided and abetted by it, and so it is not surprising to learn "that never was a more hopeless enterprise undertaken in ordinary circumstances than that of convicting a smuggler unless captured in the very act." Further the same chronicle informs us that "the magistrates and officers of seaport towns were in general so deeply implicated in the trade themselves that smugglers had a fairer chance than the law in any case that come before them."

Wherever the smugglers landed their cargoes the people of the countryside were hand-in-glove with them. A good picture is drawn by one who lived in those days. He starts off by telling us that "of all counties, however, the most favoured by nature and by art for the very pleasant and exciting sport of smuggling" was the County of Kent. There was not a wood, park or barn that did not at some time afford the smugglers a refuge when pursued, or become a depository for their commodities.

"The churchyards," he tells us, "at night were frequently crowded with other spirits than those of the dead, and not even the church was exempted from such violations. The clerk and sexton willingly aided and abetted, opened the doors of vault, vestry or church for the reception of the passing goods; the clergyman shut his eyes if he saw tubs or stone jars in his way, and it was surprising what good brandy was generally to be found in the house of the village pastor. During the wars with France and Spain England had little time and less money and men to deal effectively with smuggling, and it was not until 1816, when the country found itself enjoying the piping times of peace, that the authorities really bestirred themselves to wipe out this evil, which was not nibbling but taking vast mouthfuls out of the national exchequer.

At the close of the eighteenth century there were less than forty Customs cruisers (revenue cutters we call them nowadays) in the Preventive Service; thirty years later the number had been increased by over one hundred. The wages and emoluments of the officers and crews employed in this service were substantially increased, while the Government, as a further inducement to the zeal of the officers commanding these cruisers, offered a prize of £500 to the officer who should capture the most smugglers in one year, £300 to the officer who came second on the list, and £200 to the one who came third.

The Customs cruisers referred to were very fine craft, well built of good English oak. They ranged in size from a 20-ton smack, carrying two guns and a crew of six, to a 200-ton cutter, or sloop, with 50 men and sixteen guns. The commanders of these craft were specially admonished by the Customs Board to keep the sea at all times and in all weathers; in fact, much the same as our destroyer patrols during the late war. They were only to enter port when necessity or accident drove them there, and once in were to get out again as soon as was humanly possible.

Broadly speaking, there were two distinct eras of smuggling round the British Isles, the era of force or open smuggling, and, secondly, the era of cunning or ingenuity. The former reached its zenith in the years 1825-1835, the latter came into being as the former declined.

In the first case the smugglers built, armed, manned and equipped their vessels quite obviously for the purpose of smuggling. These vessels were built with an eye to speed, and provided some very fine models for the future small craft of England. They were mostly cutter-rigged, many of them carrying a yard which was only hoisted when the wind was well aft, something after the style of a spinnaker. Some of these craft would carry as many as 100 men and 25 guns—almost a miniature frigate, in fact, for they could fight as well as run.

Apart from the sailing craft, quite a number of open rowing boats, pulling as many as ten oars, were built by the smugglers. Cornwall especially favoured

this type of craft, as, lying low in the water and comparatively swift, they were less liable to capture than their more pretentious fellows with masts and sails. The smugglers of Cornwall thought nothing of pulling the eighty or one hundred miles which separated them from France. As their trade was mostly carried on in the winter months it could have been no pastime. Many of these open boats were lost, and many more had to "ditch" their cargo to save themselves from foundering, but yet the business paid.

Naturally there occurred many fierce encounters both at sea and on land between the smugglers and the Preventive officers, the latter by no means always coming off best. The collector of Customs at Penzance admits his impotence when writing thus on February 2, 1748: "The insolence of some of the smugglers and wreckers in this neighbourhood is run to such a height that although our officers have from time to time secured several hogsheads it has been by force taken from them again, and the officers forced to flee to save their lives." A pretty admission for an officer of the law to make!

Again, on another occasion when a Customs cruiser chanced upon a smuggler at sea the latter fired with such effect that the cruiser was induced to put her helm up and run for it, with the smuggler in hot pursuit.

One of the most notorious and successful among the smuggling craft was the *Kent*, commanded by a gentleman answering to the name of "Stony." After a highly profitable career "Stony" and *Kent* eventually succumbed to the concentrated attention of two of the cruisers. In the engagement the master of the *Kent* and four men were killed. On being examined she was found to be about 200 tons burthen, carried sixteen 4-pounders and twenty switch guns, and also a "large stock of gunpowder, blunderbusses and muskets." Her cargo consisted of 1,974 half ankers of brandy and 554 packets of tea done up in oilskin bags.

Toward the middle of the nineteenth century open smuggling had practically ceased to exist, and the era of cunning and ingenuity took its place. The Preventive men, having made it too hot for

the smugglers, force and defiance gave way to artifice, and some of the methods employed were worthy of a better cause.

Some boats would take out a shrimping licence. They would then provide themselves with hollowed-out handles to their nets, and these, being of considerable length, would hold as much as 14½ gallons of brandy, and no one bothered about them as they walked ashore with their nets and handle on their shoulders.

One bright and intelligent master mariner went to the trouble of boring out all his ballast stones. He must have been a man of infinite patience. The recesses thus obtained were filled with tea, etc.

A favourite method employed by many smuggling craft was to make a chain of their half-ankers, so weighted as to float a foot or two beneath the surface. These could be dropped overboard on approaching port, or in the proximity of a Customs cruiser, and towed by a concealed line passing through the bottom of the vessel.

False bottoms, keels, stem and stern posts, ceilings and bulkheads were frequently reverted to in the efforts to cheat the Customs, but the palm must be given to the gentleman who conceived the idea of weaving tobacco into long, thin strands and then laying up a hempen hawser around it. This method was found to be so highly successful that the merchants in Flanders obligingly sold the tobacco made up in this fashion. How many Customs officers of to-day would think of cutting, say, a six-inch hawser, in half to see if it contained any opium? Well, all good things come to an end, and it doesn't pay to smuggle in these days.

The pig-tailed quidding "smugglers" and the pretty pranks they played all have since been put a stop to by the Board of Trade, and smuggling as a profession is dead, but if it cost the country a million or two in specie and a few hundreds of lives yet it has bequeathed to the nation a love and knowledge of the sea, gained by bitter hazard with the elements, unsurpassed by any country in the world. In the men who flocked to the mine-sweeping trawlers and drifters from the coastal motor launches and coastal patrols during the late war we have eloquent testimony of that fact.

TASMANIA

AUSTRALIA'S COOLEST SUMMER RESORT

By E. T. EMMETT

(Director Tasmanian Government Tourist Bureau)

THERMOMETER and rain gauge readings would appear to indicate that as regards climate Tasmania just about fills the bill for the "happy medium." The island State may aptly be described as a warmer England. The winter is considerably less rigorous than that of England, and the summer is many degrees cooler than experienced on the Australian mainland. Tasmania is almost immune from droughts, floods or duststorms. As to rainfall, this is very regular; it varies very little from year to year, but varies to an extraordinary degree when the different districts are compared, especially when one remembers that the island is only about 150 miles across and about a couple of hundred from north to south. The average annual rainfall at Hobart is 23.66 inches, Launceston 25.96, and Queenstown (West Coast) 98.43. In the agricultural area of the north-west the rainfall is about 38 inches.

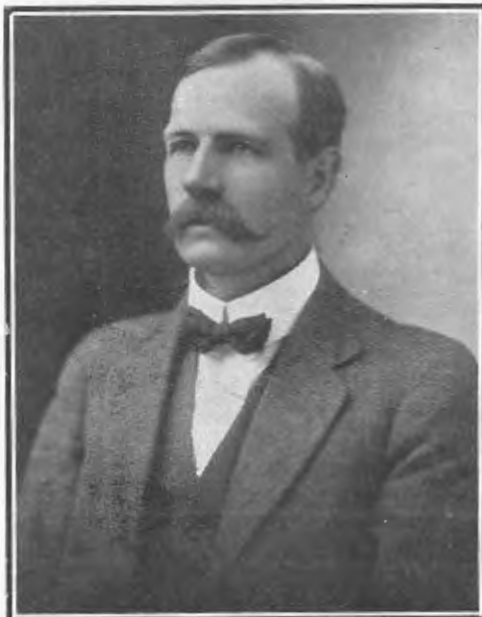
As regards temperatures, the climate may be termed equable, there being comparatively little variation from lowest to highest. Statistics show that there is less than 17 degrees between the average coldest month and the average hottest month (45.7 to 62.2). In Adelaide the range is from 51.5 to 74.2, whilst London has 38.7 for the average coldest month and 62.8 for the hottest, showing that Hobart's summer is similar

to London's, whilst the winter is seven degrees warmer.

Although the island is enormously rich in metals, agriculture is the backbone of the country. For the year 1920 the agricultural and pastoral industries in value gave nearly 50 per cent. of the whole, the other figures showing 12.71 per cent. to mining, 9.39 to forestry, 2.90 other primary industries, and 25.97 manufacturing industries. Hay, oats, potatoes, wheat, peas, apples and hops loom largest in the acreage under cultivation.

The principal agricultural area is in the north-west, where the soil is a highly productive decomposed basalt. An excellent idea of the fertility of the country may be obtained by a railway journey along the western line, for the rich farming lands begin at the first station (Western Junction) and continue, with but few blank patches, right away to the terminus at Stanley. A feature easily observable is the number of well-watered farms, for

there are an uncountable number of small rivers or large creeks, having their sources in the high hill country which exists a few miles from the coast. Every eight or ten miles right away from Longford to Stanley and Smithton (about 160 miles) there is a solid little town, the centre of a farming community. Several of these have their own municipal electric light system, and are sewered. The best of the hotels



E. T. Emmett,
Director Tasmanian Government Tourist
Bureau.

(remembering that they are country hotels) will be found by strangers to compare favourably with similar establishments of the kind in any part of Australasia. Most of the country through which the train passes has been cleared and cropped, but one has not to go very far into the back country to realise the hardships of the pioneers who had to contend with what is amongst the heaviest timbered lands in the world. Timber-getting

Everyone knows that Tasmania is famous for apples, these being exported in large quantities. The 1922 fruit season has provided a record in fruit shipments, nearly a million and a half cases being sent away to the United Kingdom. The largest quantity on one boat was 120,000 cases. The principal fruit areas are the Huon and the Derwent Valley and Bagdad districts, though many other centres are advancing rapidly as fruit producers. A

train or motor excursion through the Derwent Valley, summer or autumn, is a delight. The route is through orchards and hop grounds, which slope down to the river banks for the whole journey of fifty miles. The train crosses and re-crosses the Derwent many times, and the scenery, every inch of it, is superb. Just about Macquarie Plains may be seen an example of intense cultivation, every square foot of the soil yielding crop. On most of the estates the homesteads have been planted in exquisite situations, with foreground of orchard and river, and background of sloping hills or mountains.

As a tourist and holiday resort Tasmania is pre-eminent in the Australian Commonwealth. Nature has given her the two essentials—climate and scenery. In the summer time the people of the mainland States flock across to the island in thousands, and at the height of the season (Christmas) accommodation is difficult to obtain. The

Tasmanian Tourist Department, however, facilitates travel, and through its branches in the capital cities of Australia rooms are secured in advance.

In setting out to describe Tasmania's scenic charms you may start where you will, for the island is just one big beauty spot. Every prospect pleases. There are no blank spaces. You cannot get out of sight of the mountains; there is one for every background. Thus one has not to



Russell Falls.

is an important and profitable industry, with about 130 sawmills in operation.

The same rich basalt soil is met with in considerable areas of the north-east, round Scottsdale, where farming and timber milling are the principal avocations. Dairying is a profitable industry, and there are about thirty butter and cheese factories in operation. The climate and pastures are especially suitable for dairying, and this industry is advancing steadily.



Derwent River at New Norfolk.

travel long, weary miles to some noted resort, with only the anticipation of the pleasure of arrival; but in Tasmania everywhere there is scenic charm, and it is a moot point which gives the more pleasure, travel or sojourn. Take as an example the much-advertised National Park, which is situate fifty miles from Hobart. The principal attraction at National Park for day trippers is the beautiful Russell Falls in their surroundings of fern and forest. But every yard of the journey to this famous spot has interest, whether the route be rail or road.

The way is by the banks of the noble Derwent River, which is not lost sight of until within a few miles of National Park. There are miles of hawthorn hedges, avenues of poplars, pines, splendid gums and blackwoods; the golden wattle adds its charm in spring, whilst in the autumn the landscape is bright with rosy apple orchards, scarlet 'hips and haws,' or the varied hues of the falling leaves from blackberry, poplar, oak and other deci-

duous flora. The orchards in an average season are a revelation. Heavily-laden apple trees almost thrust their red arms into the carriage windows as the train passes; and the trim cottages or spacious mansions of the owners attest that there is, or has been, substantial profit in fruit and hops. The end of this journey, as has been said, is National Park. To visit the highlands occupies a couple of days, for six miles has to be accomplished per foot or packhorse to the camping huts at Lake Fenton.

Hobart as a centre for sight-seeing is unrivalled. The city itself, with Mt. Wellington in the near background, the deep, landlocked harbour, and suburbs stretching away to the mountain foothills, is acknowledged the most picturesque of Australia's capitals. Every day the Tourist Bureau despatches motors to historic Port Arthur, to the Huon apple country, to the various seaside and mountain resorts, packs the excursion trains to Russell Falls, and sends steamer loads away to lovely



New Norfolk, to Port Arthur, or to the sheltered ports of D'Entrecasteaux Channel, Bruny Island, or the Huon.

The second city, Launceston, is, too, a most popular centre. Steamers ply between Melbourne and Launceston thrice weekly. The "lion" of Launceston is the famous Cataract Gorge, which is ten minutes' walk from the city centre; and the Tourist Bureau issues a bewildering list of half-day and day trips to surrounding resorts. The run to the sweet farming districts of Evandale, Perth and Longford may be mentioned as a typical outing with perfect motor roads threading rich farms or skirting river banks, and quaint old towns looking just like pieces out of England.

In its limestone caves Tasmania has a big asset. There is a belt of limestone running through the island, and caves exist at many points.

The East Coast, with its excellent motor roads, has some superb scenery. The myrtle forests of the north-east, the fishing resorts at Scamander, St. Helens, Swansea and other towns, the seascapes presented at frequent intervals, and the mildness of the climate all tend to draw visitors, and this route is chosen by thousands of tourists as an alternative to the main road journey between the two cities. Another popular variation of the Hobart-Launceston journey is a motor trip to the Hydro Electric Department's

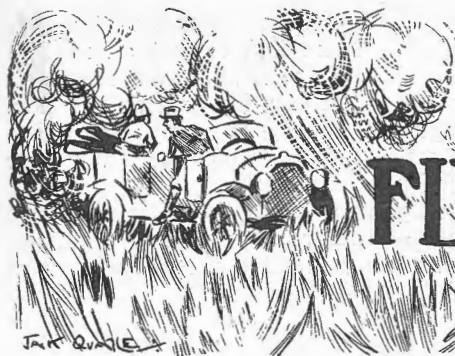
Power Station and the Great Lake, joining the main road again via Interlaken.

But Tasmania's greatest glory is her mountains, especially those of the central and western areas. The West Coast is a broken jumble of high mountains, with gorges thousands of feet deep, through which rush mighty rivers. A journey by the Mt. Lyell Company's railway from Strahan to Queenstown may be relied upon to excite the admiration of the most blasé traveller. And in rivers the glorious Gordon, of the West Coast, stands alone for natural grandeur. Impenetrable forests clothe the mountain sides from the river banks to the skyline, whilst on a still day the reflections in the mirror-like waters are a revelation. One cannot overextol the beauties of Tasmania's champion scenic stream.

Recently there has been added to the island's gazetted reserves an area of some 300 square miles, embracing the mountainous country between Cradle Mt. (5,069 feet) and Lake St. Clair. For magnificence of scenery this big national reserve will rank with the world's best, and when the road approaches have been improved and easier access is ensured it will attract sight-seers and scientists in thousands.

Of Tasmania, as of New Zealand, it may be truly said that her scenery is her "national asset."

For three of the photographs which illustrate this article we are indebted to Mr. S. H. Donnelly, the officer-in-charge of the Tasmanian Government Bureau in Sydney. Mr. Donnelly was sent over to open these offices some seven years ago, and has had charge of them ever since. Born at Kempton (Tas.), and educated in Hobart, he has spent most of his time in Tasmania, and knows that part of Australia so intimately that probably no one in Sydney is better equipped to give information on the holiday and industrial possibilities of Australia's smallest State.



THROUGH A FIERY FURNACE

by Francis Birtles

WE had pack-horsed it across from Tennant's Creek. The tide of prosperity had ebbed away from this mining field, prices having dropped to zero. Open cuts, holes in the ground, and the heaps of wolfram quartz in hundreds of tons gave evidence of "suspended animation." Scattered bough shed huts now clung to rocky hillsides, or were perched along the steep banks of a small creek. Stray parties of niggers cooked their iguana meals under the galvanized iron shelter of the once prosperous overland miners' store. Scattered over an area of scores of square miles, isolated miners still stood by their claims waiting for better times. Of spare food supplies there were none. Hundreds of miles away a camel team was supposed to be battling along through flood waters and bog, coming from the far-distant Queensland border. To this desolate outback spot we had ridden our horses to obtain rations and a few drums of benzine. Owing to being left on the bare ground, the bottoms of these were frail and rusty. Our car was two hundred miles away, and to stow the drums safely on lively pack-horses was a work of art. Our supply of flour was reduced to about three pounds—three pounds of weevily dust to feed two white men and one large blackfellow for a week's heavy travelling over boulder-strewn mountains and scrubby, boggy plains! On the outskirts of this field we camped for the night. Feed and water for the horses was plentiful. In the morning the blackboy went out to track them up. Biting and kicking at each other, they came racing into camp. Gingerly we packed the precious drums. Clad in bathing costumes we mounted our hacks and meekly and quietly they and the

pack-horses started away on the trail. Our personal luggage carrier and pack-horse leader, always in front along the cattle track, suddenly snorted, pig-rooted, and then, in a bucking gallop, streaked out for the skyline. My own noble steed, true to his overlanding cattle breed, broke into instant pursuit. The pack-saddle and swag on the leader was soon dangling under his heels, and pieces of my clothing I saw hanging to prickly bushes. Back came the steed, galloping madly to the now quietly grazing horses. He cannoned into a fully-loaded benzine pack-horse, and was brought to a full stop, but luckily no damage was done. One morning a benzine pack-horse backed into a position close to the hot ashes of our night camp fire. This is a favourite means of getting away from the attacks of flies, but I saw visions of "fiery steeds," and quickly made him shift himself and his explosive cargo.

At Frew River we camped in a beautiful, well-grassed valley. The series of forty-foot deep lake water-holes were surrounded by high mountains. Fish, ducks and waterfowl were plentiful. The splendid grasses soon made the pack-horses into a mob of concentrated devils, squealing, biting and kicking.

Our next move was to the high rocks and auriferous mountains, and over these we drove for days, not daring to traverse the low-lying flood country. Our food supply was exhausted, but rabbits, turkeys and wallabies supplied us with odd meals. It was interesting to note that here in northern Central Australia the rabbit was at home. A little further north and the invasion ceases, as the tick line is there. Ticks will solve the rabbit menace. One behind a bunny's ear will kill it in a few

days. Then, again, the southern limit of the tick is sharply drawn. A large red species of ant will attack and devour them. These red ants would be worth while studying and perhaps cultivating.

Fire.

Beyond Warlocks Ponds, Old Elsey Station, Northern Territory, now deserted, lays a "hoodoo sand." Here it seems that all overlanders have had their times of tribulation. We had finished our motor journey across Australia from Melbourne to the Darwin railhead, and now, fully loaded, were rejoicing that we were homeward bound, most of our work completed. We carried samples of earths and of various grasses, specimen glass stoppered bottles of water from under and above the surface ready for testing for chemicals, which may make same useless for locomotive purposes, reports re landing grounds, gradients, obstacles (natural and artificial), etc. We also boasted a valuable cargo, including photographs, cinematographs, films and cameras. Through grass ten feet long I steadily drove the car, well knowing that danger lurked along the way. The radiator was stuffed full of grass seeds, cemented in with the dust and fragments of antbeds broken down by the bumper which I had rigged up in front. The exhaust pipe I had taken off, as when on low gear it became red hot and set fire to the dry grass underneath the car. This was exceedingly dangerous whenever we had to halt when hunting for a crossing over a river or creek.

Suddenly, as we were creeping along, there was a slight bump, followed by a jolting jar, and before we could realise what had happened we were enveloped in a blinding orange-coloured torrent of fierce flame. With a grim effort I threw out the gear lever, and jammed on the brakes. My clothing was blazing fiercely as I sprawled out on to the burning grass. My first thought was of Roy. Even as I jumped to his assistance a huddled up figure fell out of the car and staggered to his feet. His arms were stiffened out helplessly, and strips of flesh six inches long dangled from his finger tips. Bang! went a cartridge, followed instantly by a louder bang from a bursting tyre. Flames were roaring to a height

of forty feet, due to the fact that eighty gallons of benzine had caught on fire. I rushed to the weather side of the car and grabbed a water-bag, hanging on the side. A tongue of flame seared my face. The awful truth dawned upon me. We were stranded without clothing, food or water, and badly burnt as well. Everything we possessed—cameras, clothing, photos, cinema films and all our money in notes—had been swallowed up by the flames. The mental anguish was worse than the physical pain. There was but a cupful of water in the water-bag. My companion's feet were badly burned, and he was in a bad way. The dog was also badly scorched, and was rolling on the grass in pain. Bootless, we set off on a tramp to an aboriginal camp some five miles back just as darkness was setting in. Roy was half fainting, and in order to keep him going I gave him a mouthful of water every few minutes. The sharp-pointed shafts of spear grass stuck into our burnt flesh, and sharp stones cut Roy's feet. It was pitch dark, and in the distance, amongst a clump of pandanus palms, we sighted the fires of an aboriginal's camp. Through a knee-deep boggy swamp we stumbled, and then collapsed alongside a camp fire. A blackfellow immediately went away for help to Mataranka Cattle Station, while uncouth but gentle lubras lifted up our heads and gave us strong tea to drink. Then followed a night of terrible agony. A half-caste drover came to our aid. He had been camped down the creek. On the hard ground we lay in bitterly cold wind. Our searing wounds could not endure the weight of clothing, and crawling black ants kept attacking us; the smell of burnt human flesh having aroused all their latent blood-lust.

In the deadly stillness of night, which seemed as if it would never end, native dogs and dingoes howled, while overhead the stars gleamed brilliantly. It seemed aeons of time since the aboriginal had gone for assistance, and, considering our plight, it can scarcely be wondered that we longed for his return.

Shivering, I crept over to the camp fire, but the sensitive nerves and flesh could not endure the warmth.

Soon there was a jabbering of voices, and the blackfellow came into the circle,

a salad oil bottle in his hand. It was the medical aid from the Chinese cook at the station. This blackfellow had travelled 34 miles during the night, and now told us that the station hands were a long way out on the "run," mustering cattle, and that they would be here by the middle of the day. Tearing his calico tent fly, our drover friend gently wrapped up our unprotected arms, and in silence we lay down in the hope of getting a little rest. Soon I was in the grip of a hideous nightmare, at the height of which one of our first-aid friends came up with a tin of benzine in his hands. This he threw over the tormenting insects on my body, and was in the act of taking a firestick out of the camp fire when, with a yell, I squirmed over and over amongst the leaves and grass. The pain caused by the movement woke me out of the delirium. Two ever-watchful gins held me, and anxiously jabbered to each other. Roy was silent, apparently unconscious, and a gin sat fanning the flies away from him. Parched, I asked for water, and drank slowly but greedily out of the cool water-bag. My tongue was swollen, and my nostrils and throat badly scorched. We had breathed in the burning gases. Both of us by now had big baggy blisters on our faces, while our eyebrows and eyelashes were gone.

At noon, Albie Nye, a Territory bush character, arrived with a five-horse buggy, the bottom of which the aboriginals filled up with leaves and grass. On to this we were lifted and laid down. Over all a tarpaulin was stretched to help keep off the dust and heat. One hundred miles away was the railhead, and it was a further two hundred to the Darwin Hospital!

Jolting, rattling and bumping, the buggy went along through the never-ending scrubby forests, the horses sometimes trotting, but more often toiling through heavy sand patches. Dumb insensibility gradually crept over us, killing the awful aching and stabbing pains. Dimly I remember a fresh relay of horses waiting on the road. Amidst rolling masses of red dust, I watched the sun setting and the everlasting whirl of a buggy wheel a foot away. The heat of the day gave way to a chilly night. Throughout the long hours of darkness the dull thud of the horses' hoofs pounding in the sand continued with

monotonous regularity, while at intervals the buggy jolted heavily as it came into contact with an antbed. Towards midnight a halt was made for a drink of water, and in the eerie stillness the screaming of a night-hawk, coupled with an occasional groan from Roy, were the only sounds audible. Soon we were off again, and for hour after hour our journey continued. Then, all at once, lights flashed, the horses stopped, and women's voices sounded pleasantly in our ears. Kindly hands lifted us out. We had arrived at an Australian Inland Mission Hospital. Soon we were put to bed on soft mattresses, and morphia was injected to quieten the agonizing pain. At daybreak the first-aid bandages had to be cut and peeled off. Of this trial of agony I cannot find words to describe. Throughout the day we had a number of visitors, but we were too deep in the grip of the drug in which our only chance of freedom from pain lay to pay attention to anyone.

Of the agony we endured during the days that followed it is best to draw a veil. Oftentimes in our moments of comparative sensibility we prayed the sisters to shoot us. Sleeping draughts and morphia were our stand-by for many weary days, and thrice daily when the bandages were peeled off and replaced by scalding hot fomentations we suffered agony beyond words. Dimly I remember a sister asking me on several occasions to try and not groan, as my companion, Roy, was near to death. Twice he lingered on the edge. Freely we acknowledge that to the sisters of the Australian Inland Mission we owe our lives. It stands as a tribute to their skill that we came out without a scar on our scorched faces. Skin grafting on hands and arms was just avoided.

Penniless, and without clothing except trousers and pyjama coats we both eventually arrived at Darwin, from where, after some difficulty, passages to Melbourne were arranged for both of us.

That we were physical wrecks for the time being is not difficult to realise when the exact nature of our hardships and sufferings is considered. Fortunately we were built of tough fibre, and after a rest I was able to proceed to Central Australia by aeroplane to complete the work I had undertaken.



THE SECRET WORTH HALF A MILLION

By WILLIAM LE QUEUX

AN interesting secret, unknown to the public, concerns the Casino at Monte Carlo.

Fortunes have been, and are still lost and won upon the green-covered tables of those gorgeously-gilded salons where Vice rubs shoulders with Avarice. But the world has remained in ignorance of a series of exciting circumstances which I think the reader will agree to be quite remarkable.

One day, while making some observations for the purpose of writing a novel with a background of Monte Carlo life, I sat in the office of Monsieur Henri Jacquin, the bald-headed, affable director of the Casino, and asked him to relate to me any secret concerning the greatest gambling concern in the world.

The story he related to me I give in his own way, for I shall transcribe it from the notes I took at the time.

The great secret of Monte Carlo was discovered about three years ago by an old Italian woman named Laura Bertelli. This woman, a widow, who was an habituée, and, indeed, earned her living in the Rooms, was a native of Bologna. You will, he said, wonder how she earned her living. Well, briefly, each day when the roulette tables opened she secured one of the best seats, pretended to play with pieces of cent sous, and then, when the crowd came in the afternoon she sold her seat for twenty francs to one of the visitors.

Old Signora Bertelli had done this for a number of years, and had become one of

the best known characters in the Rooms, seated each day at the same table, noting the winning numbers upon her card, and though she risked out little she was nevertheless an adept player at roulette.

She had sometimes with her a niece, a very handsome dark-eyed young Italian girl named Anita Marchetti, whose beauty was much remarked by the visitors, but the only friend she appeared to have, save her aunt, was a tall, well-set-up Englishman, whose name was Archibald Grant. I noticed the pair in the Rooms on one or two occasions, sometimes eagerly watching the table at which Signora Bertelli played—the first table on the right as you enter the Rooms.

Suddenly, all three were missed from their usual spot. After a week the head croupier of the table in question inquired of a friend of the Signora, an old French woman named Pierret, and learned that the widow had been taken very unwell and had gone back to Bologna with her niece, and that Archie Grant had returned to London.

Nearly three months went by, when there reappeared at the table the pretty Anita, with her English admirer, together with an elderly, bald-headed Spaniard, whose name we learned was Jose Vasquez, a man plainly dressed, who had the air of a deputy.

For several days they were merely on-lookers, the old man seated opposite the girl, carefully registering the numbers from one to thirty-six as they came up at each coup.

The girl lived expensively at the Hotel de Paris, while the elderly man had taken up his quarters at the Metropole with young Grant. At first they attracted no attention. Our department of surveillance is usually very alert, but there was nothing unusual about them, save the girl's extraordinary beauty.

One afternoon, however, as the pair were seated as usual confronting each other the man—just as the croupier turned the wheel—gave a signal to the girl behind whose chair young Grant was standing, whereupon she produced a bundle of banknotes from a capacious purse and placed the maximum of six thousand francs upon number twenty-eight.

About two hundred people were around the table, and instantly everyone was filled with excitement. It is not often that the maximum is staked upon a single number without anything to guard against loss.

The croupier gave the little ivory ball a flick with finger and thumb, and sent it flying round the outer edge of the bowl in the opposite direction to which the wheel revolved.

The girl held her breath until, of a sudden, the ball fell with a sharp click into one of the little compartments in the wheel.

For a second there was an eager hush. Then the croupier's strident voice cried in French:

"Twenty-eight! Vingt-huit! Noir!—Pair et passe!"

The stake the young woman had placed was en plein on number twenty-eight, but other players had staked a cheval on the numbers twenty-five and twenty-eight, and on twenty-eight and thirty-one, and twenty-eight and twenty-nine, as well as transversales on twenty-eight, twenty-nine and thirty.

Those crowding around the table stood as the croupier, rapidly reckoning the winnings, counted out a great bundle of five-hundred-franc notes, and in four handfuls pushed them towards the lucky winner upon the end of his wooden rake.

Then, without the slightest emotion, and quite unconcerned, he glanced up and down the table and cried again:

"*Messieurs, faites vos jeux!*"

In an instant the crowd, among whom were many wealthy Americans and Rus-

sians—those people who haunt Monte Carlo year in and year out—began to follow the lucky young woman. On all sides five-franc bank notes were being placed around the number twenty-eight.

But the handsome Italian girl, having screwed up her big bundle of notes into her purse, did not make a further stake. She simply sat there amused.

She smiled across to the old man, and just before the next throw of the ball upon the revolving wheel, young Grant, who was dressed in light grey, bent and whispered some words into her ear.

She smiled and nodded assent.

Then the wheel was turned, the ball fell, and all who had staked on twenty-eight and its surrounding numbers lost entirely—for zero turned up!

On the day following the coup of the handsome Italian girl she made, about seven o'clock in the evening—when nearly everyone had gone to dinner—another coup which brought her nearly two thousand eight hundred pounds.

And she had not lost one sou

Disregarding dinner, she sat in the same seat, the old man in front of her, the young Englishman standing behind her.

Few people were around the table at that hour, for from six-thirty to eight-thirty the rooms are always practically deserted. At nine o'clock the eager crowds surge in again through those gilded salons in which the degenerates of the world assemble.

Just before eight Anita played again suddenly upon number twelve, placing the maximum upon the number, and upon all the numbers around, namely, the numbers from seven to twelve, on twelve and fifteen, twelve and nine, and twelve and eleven, as well as upon the red.

The wheel was spun. Again she won! It was the curious fact that she had not staked a single sou since her last win that first aroused the curiosity of the automatic officials at the table.

Having won again, she took her winnings, and, laughing merrily, went out with the young Englishman.

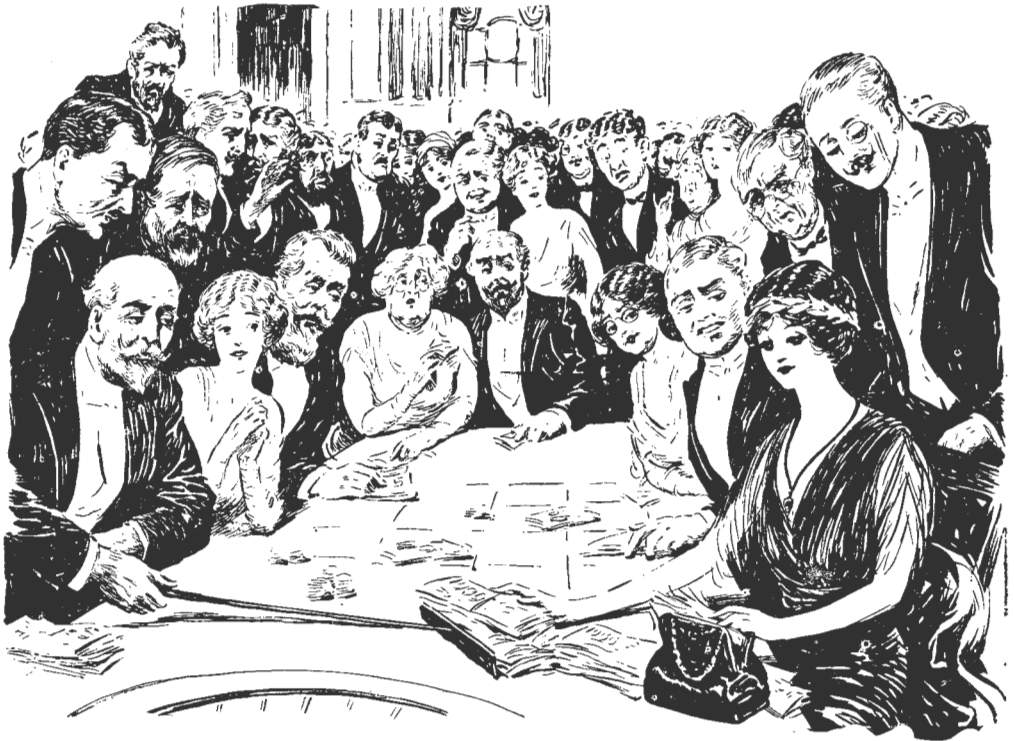
Later on at a quarter to ten that night—she won still another fourteen thousand francs, and smiled calmly as though she had only won a couple of louis.

After the close of play the matter was reported to me by Paul Camolet, chief of our surveillance department, which looks after those who are lucky, and also those who are so unlucky as to apply for the viatique or take their lives, the big fools—for fools commit suicide.

Camolet came to my room at midnight and related to me what I have just disclosed.

I dismissed it, saying:

"Oh, they'll lose it all, my dear Paul. Have we not often seen others win big sums, but they always lose it again in the long run."



"Yes," he replied, rather hesitatingly, "but in this case the girl and her friends are so entirely confident. I have discovered to-day that old Signora Bertelli, whom we have all known for years, died two months ago in Bologna. Why should her niece and her lover return here with this Spaniard?"

"Strange that she should win each time she decides to play," I said. Then, laughing, I added: "Well, let them continue. They will come to ruin sooner or later. To win always is, as you know, quite impos-

sible. Those who break the bank return again and give us back all they have taken—with one or two exceptions."

"Darnborough took ninety thousand pounds from us not long ago," he remarked.

"True. A lucky chance. But this young woman will soon pay us back all she has taken—and more. Never fear!"

I went home that night quite confident that the trio were doomed in the long run to utter ruin.

My disillusion, however, came quickly.

Next day, at the same table and never losing a sou, they won sixteen thousand

pounds sterling, all of which, before banking hours, they placed in the Comptoir d'Escompte to the credit of Grant's account.

Before doing so they smiled at the Chief of the Play and at the croupiers, and went forth.

As they passed through the atrium on their way out the pretty Anita, spying me, crossed and exclaimed in French:

"Well, m'sieur, you know that we can win always now. What will the Administration give us for the secret of our sys-

tem, eh?" and her dark eyes danced mischievously.

"Mademoiselle," I replied flippantly, "we give nothing. No system will ever be able to break the bank entirely."

"Except ours," she laughed. "I will call at your office to-morrow morning and give you an opportunity to place my offer before the Administration."

"I fear your time would be thrown away, mademoiselle," I laughed. "You may, perhaps, employ it to better advantage at the table."

"Then you refuse to negotiate in a friendly spirit, eh?" she asked in her quick Italian way.

"Yes. I am sorry to be impolite, but I do," and I bowed.

"Very well," she replied, rather piqued. "Soon you will regret that you did not negotiate, I assure you. We win when we wish, and we shall continue to do so. Watch us and see!" And she laughed merrily, and rejoined her lover.

One point was certain. The trio were absolutely confident that their system—if it were a system—was infallible.

However, I put down the conquest of the pretty Anita to a system, one to which her purse must, sooner or later, succumb.

Day after day she sat in the same chair, the third from the end nearest the door, playing just as she decided, perhaps only half-a-dozen times or less in twelve hours, yet whenever she placed a stake on the table the young Englishman and the old Spaniard followed her example, and they would win thousands of pounds.

I watched and saw that it was no wild attempt to break the bank. The trio played with most exquisite caution, and were plainly out with confidence to win big money.

I confess I regretted my words to her in the atrium when she had offered to negotiate. That they had a perfect system was apparent, but its nature both Camolet and myself, indeed, all the staff of the Administration, failed utterly to establish.

Anita Marchetti, young Grant and the old Spaniard continued their operations day after day, always at the same table. For four days, though they sat there patiently, they refrained from playing. Such was the report which Camolet presented to me.

On the fifth day, about three o'clock in the afternoon, they won sixty thousand francs on the first twelve numbers, and again before dinner a second sixty thousand francs upon the last dozen.

That night Guilbert, the chief of the staff at the table in question, came into my room in a state of great excitement, declaring:

"That Italian girl has a system! She has discovered a means of winning always. She and her friends have never lost—not one single coup!"

"But how?" I asked. "Have you watched?"

"Watched!" he echoed. "I have watched day after day—but it is a complete mystery. They win coup upon coup. They wait for hours—whole days, and never play. Yet when they do play they never fail to win!"

"But this system?" I asked of the official, a reliable man, who had grown grey in our service. "What is it?"

"M'sieur, I can not tell! All I can say is that they have discovered an infallible mode of winning at roulette such as we have never yet seen. It is none of the ordinary systems of numbers and series of numbers—all of which must in the end go to the wall.

"And the pretty Italian girl will go to the wall ere long, Guilbert, depend upon it," I laughed. "No one has ever successfully stood against our bank. There is an evil fortune which always equalizes a player's good fortune. They will experience it very soon, never fear!"

And I dismissed him.

Next evening it was reported to me that Anita Marchetti had won a further twenty-one thousand four hundred francs that afternoon, and yet another thirty thousand at eight o'clock. After that she gave a dinner to her friends at the Restaurant de Paris to celebrate her victory.

On the following afternoon I entered the crowded room, and, unobserved, watched the girl sitting opposite the old Spaniard, with the young Englishman as usual standing near.

Around that particular table the excited crowd stood six deep. News of the extraordinary luck of the pretty girl had spread through the Rooms, and everyone was now watching upon what number she would

play next, in order to follow her.

Suddenly, as I stood there, I saw the old man and the girl exchange signs, whereupon the latter placed the maximum upon number thirty-three.

In an instant dozens of hands of both sexes placed money upon the table, on the the transversale, the odd number, the "column," and the noir.

I confess that I awaited the game with interest. All eyes were fixed upon the table. A young English revue actress, whose name I do not recall, flung a billet of one thousand francs upon the number, with a gay laugh to a man behind her.

"Rien ne va plus!" cried the croupier sharply, after he had spun the red-and-black wheel and the little ivory ball was clicking upon its way.

For a few seconds, as usual, all were breathless in the tension of the game.

"Trente-trois! Noir!" cried the croupier in his harsh tone, which echoed through the great salon, and the gay, dark-haired Anita had won once more, while her following crowd of players had also gained.

As she left the table she passed me, and, halting, exclaimed in a low but tantalizing whisper:

"Ah, M'sieur Jacquin! Do you not regret that you did not come to an arrangement rather than allow us to ruin the Administration?"

"Mademoiselle, I regret nothing," was my rather stiff reply.

"Not to-night. But you will be full of regret soon, for whatever you offer us we will not now accept."

"Suppose I give orders that neither you nor your friends be admitted?" I asked.

"Then we would sell our secret to others. Believe me, there would be many eager to buy at a huge figure!"

And, laughing gaily, she followed young Grant and the old Spaniard out.

Next day, and yet the next, the trio continued to win big coups of the maximum. Then in the evening all three left and went across to dine at *Ciro's*.

By this time the fame of the "Bella Anita," as she was called, had spread through all Monte Carlo, Nice, Cannes, and Mentone, and each time she entered the Rooms the table was instantly crowded by those eager to follow her play.

When a person plays a game of chance and never fails to win, one's suspicions must be at once aroused. Mine were. I held a meeting with my associates of the Administration, and before us we had a table of their winnings. They were staggering.

The girl and her associates had already banked one hundred and twenty-six thousand pounds! We saw that it was now high time that we bestirred ourselves.

Fobar, one of our directors, jeered at the whole affair, and declared that the combination would in the end ruin itself. I replied that all systems ended in ruin, but the present one could not, if, as had been proved, the players had never once lost.

We resolved to watch still another day—a day which proved disastrous, for the little dark-eyed girl, with her English lover behind her, broke the bank soon after two o'clock in the afternoon.

I grew anxious. As the person responsible for the well-being of the Casino Company, I felt it my duty to report to the President of the company, Monsieur Destruge, in Paris.

I did so by telegraph, and the same night from my own flat talked to him over the telephone.

"Let them go on," he laughed. "They certainly can never win in the long run."

With this view I ventured to differ, but he was so emphatic that I was forced to accept his opinion. My own idea, however, was that Monte Carlo was on the verge of ruin.

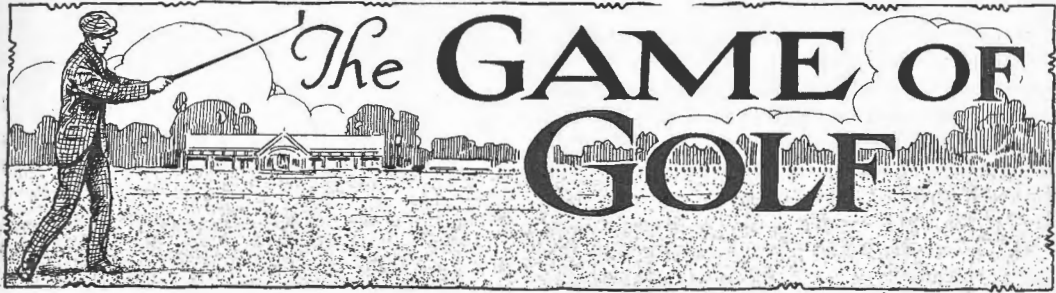
On the following day the trio won a further twenty thousand pounds, while the winnings of those following the girl's play were prodigious. Instead of our bank making any profit, it was losing heavily daily.

In desperation I spoke that night with Monsieur Destruge in Paris, begging him to come to Monte Carlo at once and personally witness the play of the weird trio.

At first he demurred, as he had booked his passage from Havre to New York that week, but at last, after a long argument and a declaration that I refused to accept any further responsibility, he reluctantly consented to travel by the train-de-luxe next day.

On his arrival we had a long and very serious consultation in my room. Indeed,

(Continued on Page 604.)



By D. G. SOUTAR

Rules of Golf.

THE Rules of Golf is an interesting subject to discuss, and it need hardly be stated that that fact has been fully availed of by golfers. When the first set of rules was drawn up many years ago the game was played by comparatively few players, and the framers were guided by one principle—the spirit of the game. The golf courses of those days were mostly laid out on waste land adjoining the sea shore. The ground, being mostly unfit for cultivation, was invariably used for the grazing of sheep. The “hazards” were mostly sand bunkers, with an occasional ditch or water on low-lying ground. Sand blown on to the course from the sand bunkers, or sprinkled on the course for its preservation, bare patches or sheep tracks were not recognized as hazards for obvious reasons, and that definition of a “hazard” holds good at the present time. With the rapid spread of the game, however, other than seaside ground was necessary to cope with the demand for courses, and the definition of a “hazard” had to be widened to embrace the altered conditions. The Rules of Golf Committee has framed the definition of a “hazard” to cover the “hazards” to be met with on most seaside courses, but they have recommended that local rules be made to cover local conditions. The special obstructions mentioned are “rushes, trees, hedges, fixed seats, fences, gates, railways and walls, for such difficulties as rabbit scrapes, hoof marks, and other damage caused to the course by animals; for such local conditions as the existence of mud, which may be held to interfere with the proper playing of the game, and for the penalty to be imposed in the case of a ball which lies out of

bounds.” The spirit of the game of golf is “that the ball shall be played from wherever it lies, and that nothing shall be done to improve the lie of the ball.” Keep that guiding principle always in mind, and little difficulty will be found in interpreting the rules of the game. It is not necessary to be able to quote every rule of the game, but every player should make himself familiar with them all. It is highly essential that every player who has been selected to represent his club in interclub matches should be conversant with the rules. Only in very rare instances will he find that advantage is taken of his ignorance on points provided for in the rules, but it is rather unfair to place one’s opponent in the position of having to point out an innocent breach of golf practice. Besides this the young player will play with more confidence if he knows what he is entitled to do, and what must be avoided in a serious trial of strength in which one’s own club is involved; for one cannot expect an opponent when the game is trembling in the balance to volunteer assistance in cases of emergency. I have known instances in which a game has been practically thrown away because the player did not know exactly what he was entitled to do under certain adverse circumstances, and rather than appeal to his opponent or do anything which might be open to question, he did himself a distinct injustice. Besides, in rare instances, when an opponent is inclined to take “points” it is often very useful, and very disconcerting to such an opponent, to be able to turn round and quote the rules at him.

What is a Hazard?

“What is a hazard?” is perhaps the most controversial question that has ever

been raised in connection with the game of golf. To the initiated this fact is easily understood. Rule 12, par. (1) reads: "Any loose impediments lying within a club length of the ball, and not being in or touching a hazard may be removed without penalty." Rule 25 reads: "When a ball lies in or touches a hazard nothing shall be done which can in any way improve its lie; the club shall not touch the ground, nor shall anything be touched or moved before the player strikes at the ball, subject to the following exceptions: (1) The player may place his feet firmly on the ground for the purpose of taking his stance; (2) in addressing the ball, or in the backward or forward swing, any grass, bank, bush or other growing substance on the side of a bunker, wall, paling or other immovable obstacle may be touched; (3) steps or planks placed in a hazard by the Green Committee for access or egress from such hazard, or any obstruction mentioned in Rule 11 may be removed, and if a ball be moved in so doing it shall be replaced without penalty; (4) any loose impediments may be lifted from the putting green; (5) the player shall be entitled to find his ball as provided for by Rule 21. The penalty for a breach of this rule shall be the loss of the hole." Rule 11 deals with "Removal of Obstructions," and reads: "Any playstick, guide-flag, movable guide post, wheelbarrow, tool, roller, grass-cutter, box, vehicle or similar obstruction may be removed. A ball moved in removing such an obstruction shall be replaced without penalty. A ball lying on or touching such an obstruction, or lying on or touching clothes, nets, or ground under repair or covered up or opened for the purpose of the upkeep of the course, or lying in one of the holes, or in a guide-flag hole, or in a hole made by the greenkeeper, may be lifted and dropped without penalty as near as possible to the place where it lay, but not nearer to the hole. A ball lifted in a hazard under such circumstances shall be dropped in the hazard." Hazards are of two kinds, natural and artificial, and they are utilized in the laying out of golf courses to make the game more interesting. A bad shot should be penalized, whereas a good shot should have as good a lie for the next stroke as the circumstances

will permit. Provided the ball is on the "course," or, as we understand the term in this part of the world, on the "fairway," nothing should be placed in the way of the player following up the good stroke he has previously made. On the other hand, a faulty shot which has been trapped in a hazard should demand that the player either make up for his mistake by a good recovery, be penalized by loss of distance, or, in the case of being bunkered near the green, be compelled to play a difficult shot instead of a comparatively easy one. Were a player allowed to move any loose impediment in a hazard a loophole would be created, of which an unscrupulous player could take advantage.

A Game of Honour.

Golf is a game of honour, and a dishonourable player has plenty of opportunities to benefit thereby. A golf course covers a wide area of ground, and frequently the players are out of sight of each other, but it is indeed a rare occurrence for a player to take advantage of that fact. Players new to the game frequently make breaches of the rules, but invariably through ignorance, and when the breach has been explained to them the offence is rarely repeated. Differences of opinion occasionally arise as to what constitutes a hazard, and players have been guilty of committing a breach of the rules in consequence. That is pardonable, and no reflection could be cast upon the player's honesty under such circumstances. Another point in connection with this subject is "Is a track a hazard"? Many of our courses have been laid out in scrubby country, most of which has had to be cleared before play could be possible. In numerous instances patches of rough have been left in front of the tees to penalize a topped or otherwise inferior drive. The patches in question are not defined as hazards, but in course of time tracks have been worn by the players in walking from the tee to the fairway. In almost every instance there are three tracks, one to the right, one to the left, and one down the centre. In sandy country all the growth has perhaps been worn away, and the surface is more or less loose sand. If the ball is lying on that loose sandy track is it in a hazard? "Can the



Eric Apperly,

Amateur champion of N.S.W. and ex-amateur champion of Australia, playing off the 13th tee on the Manly Golf Links.

player remove any loose impediments"? "Can he ground his club in addressing the ball"? Everything would depend upon the umpire's point of view. Definition 22 reads: "An 'umpire' decides questions of fact; a 'referee' questions of golfing law. In the case under review it is a question of fact. The Rules of Golf Committee has declared that "sheeps tracks" are not hazards, and in a case submitted for its decision ruled that the term embraced cattle tracks, therefore, we are safe in assuming that the tracks in question would not be a hazard. Assuming that to be correct the "player could remove any loose impediment, but his conception of the spirit of the game would have to guide him in deciding as to whether he could ground his club or not. Grounding the club in loose sand, especially with an iron club, must to some extent improve the lie of the ball; therefore, the player if not actually breaking the letter of the law would be infringing the spirit of the game. He would do the correct thing if he allowed the club to touch but not rest upon the loose sand. By doing so he would not gain an advantage, neither would he have

been penalized. While on the subject of the rules there is a point which might be touched upon with advantage, namely, the question of priority. In these days of crowded courses the question is continually being raised. Rule 1 states: "If a match fail to keep its place on the green and lose in distance more than one clear hole on the players in front it may be passed on request being made." Paragraph 3, "Etiquette of Golf," reads: "No player should play from the tee until the party in front have played their second shots and are out of range, nor play up to the putting green until the party in front have holed out and moved away." Paragraph 5 also touches upon the question, and reads: "Players looking¹ for a lost ball should allow other matches coming up to pass them; they should signal to the players following them to pass, and, having given such a signal, they should not continue their play until these players have passed and are out of reach." These instructions are quite clear, and should not be the cause of any difference of opinion amongst players.



Ivo Whitton,

Amateur champion of Australia, photographed in action at Rose Bay (Sydney).

GOLF ON THE BLUE MOUNTAINS

LEURA CLUB'S PHENOMENAL GROWTH

IT was certainly a happy inspiration on the part of a number of golf enthusiasts who, twenty-five years ago, decided that the pretty township of Leura, 67 miles from Sydney, and with an altitude of 3,231 feet above sea level, should have a playing course all its own. That these men were optimists there can be little doubt, but that they were also far-seeing is apparent to-day from the fine club which has sprung from the modest foundation they laid a quarter of a century ago.

One instinctively associates the Leura Golf Links with all that is picturesque and pleasing in the field of outdoor sport. To visit the mountains in order to inhale the beautifully crisp air, as tens of thousands do each year, is a pleasing prospect, but when at the same time it is possible to indulge in a game of what is probably the most fascinating of all sports, the very essence of enjoyment may be confidently looked forward to.

To-day the Leura Golf Links stand high in the estimation of golfers throughout Australia. Indeed, so phenomenal has been the progress in the recent years, both from a financial and popularity point of view, that the task of converting a huge area of virgin forest into a course accommodating an additional nine holes is now well under way. The cost of this is enormous, but it is being undertaken in the confident anticipation that it is both a wise and necessary move. Under the able secretaryship of Mr. John Portus the club will unquestionably win out, no matter how great a project it may undertake. Mr. Portus is courtesy itself to visitors and members alike, and to the welfare of his own club and the game in general he devotes his great energy and undoubted ability.

The following brief review of the Club's past history and present activities will no

ROYAL SYDNEY GOLF CLUB.

A profusely illustrated article, dealing with the history of the Royal Sydney Golf Club from the time of its inception up to the present day will appear in the December issue of "Sea, Land & Air."

doubt prove of interest to all followers of the game.

Many thousands of people have enjoyed the healthful air of the Blue Mountains of N.S.W. and had a game of golf on the magnificent Leura Links since they were first established 25

year ago. Many syndicates strove hard to make the course playable and popular, but permanent results were not achieved until the present company was formed and incorporated on December 9, 1908, since when the Club has progressed by leaps and bounds.

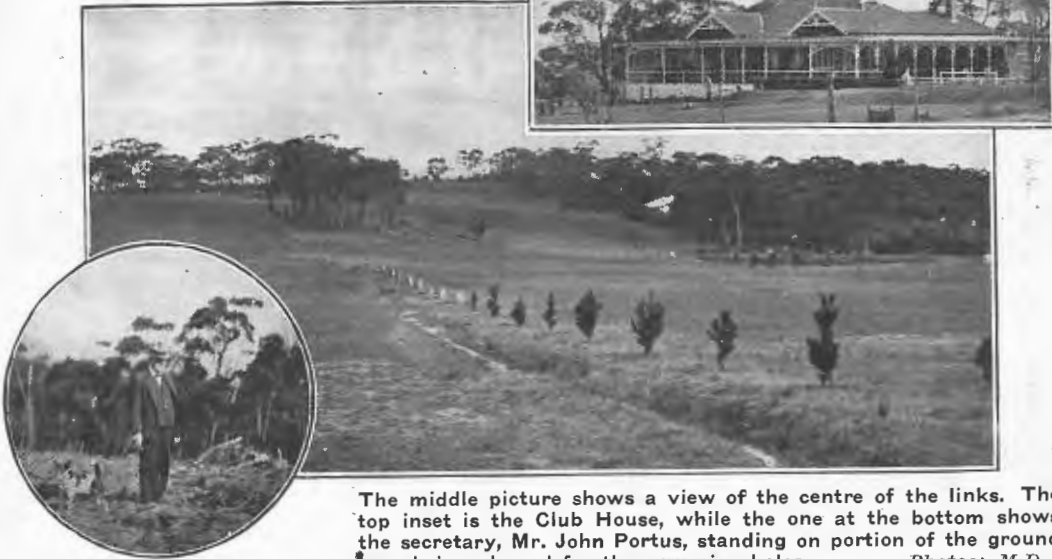
In the early part of 1916 the Board decided to advance the growing demand for golf still further by having all the fairways ploughed and fertilized. To-day the existing nine holes are in a splendid condition, and the putting greens rank with the best suburban courses of Sydney. Progress, however, did not end there. In January, 1922, it was decided to make the course an eighteen-hole one, and available land to the eastward of the club house was purchased. This has been cleared and ploughed, and the soil is now in course of treatment for establishing grass. When this has reached maturity it will make the new holes as effective as the existing ones.

Naturally time must elapse before the extension can be completed and is ready to play upon, but it is confidently expected that in two years from Christmas, 1922, providing the seasons are favourable, the whole of the links (18 holes) will be available for the members and visitors.

The club house is ideally situated, and as the membership has increased it has been enlarged and equipped to meet all modern requirements.

Water, that needful commodity, will assuredly be laid on to the urban area of Leura, where the golf house is situated by the time the new holes are ready for play, and the links will then from every point of view be equal to the best country links in

ON LEURA LINKS



The middle picture shows a view of the centre of the links. The top inset is the Club House, while the one at the bottom shows the secretary, Mr. John Portus, standing on portion of the ground now being cleared for the new nine holes. *Photos: M.D.*

Australia. A conservative estimate of the cost of purchasing and preparing the land for the new nine holes is set down at £5,000, but there is little doubt that the company will be well rewarded for its enterprise. The increased revenue from both golf and tennis, which has been a feature of the club's operations during the past few years, absolutely dispels any doubt as to its ability to maintain the links in the best possible order.

There are now three clubs catering for the golf-loving community on the Blue Mountains, but in spite of this keen competition Leura Club has progressed in six years beyond the most sanguine hopes of the management. To-day the membership exceeds 425, and the revenue from this source, coupled with that contributed by

sundry subscribers, will for 1922 exceed £2,700—the highest figure in the Club's history. In 1915 the total revenue from golf and tennis was less than £600. When compared with the 1922 figures a striking indication is provided of the progress achieved during the past seven years. In addition to the golf links there are six tennis courts and a croquet lawn adjoining, which are all largely availed of by members and visitors.

The growth of settlement around the links is enormous, and when the 18-hole course is available and water mains have been laid doubtless the vacant blocks for residential purposes will all be built upon. Prosperity to this part of Leura will then follow in a phenomenal manner.

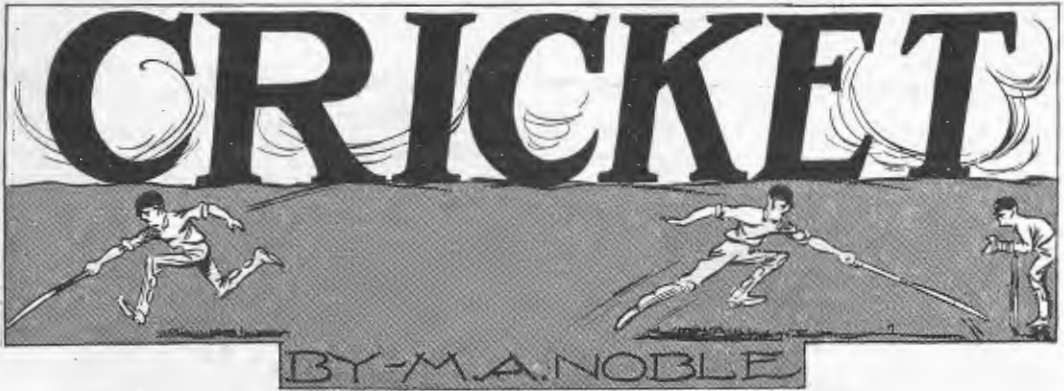
THE FLAME-TREES.

For I have reached a fairer place
 Than I had dreamed to find,
 With all the life that I had known
 A scroll cast-off behind;
 And changed into a slighter thing
 The torrent of old grief

Than heavy waves that break in spray,
 White on the outer reef.

And love so sure and joy so strong
 That pain and sorrow are thinned
 To a little mist that cannot blur
 The flame-trees in the wind!

MUNA LEE.



TO anyone who remembers the nationwide interest and enthusiasm the last English team created in Australia and the tens of thousands of spectators who thronged the grounds where games were played the coming of Archie McLaren and his team of amateur cricketers, assisted by two professionals is of very great interest.

When "Archie MacLaren" first signified his intention of touring New Zealand with a team of amateur cricketers it was foreseen that he would have great difficulty in obtaining the services of a sufficient number of amateurs with the ability to make up the very essential all-round excellence that is vital to a touring combination. This difficulty existed owing to the ranks of cricketers generally—amateur and professional alike—having been seriously depleted during the great war. The amateur element, so essential to a thoroughly representative eleven in England, has never had its proportionate quota in English teams playing here. Men like the Hon. F. S. Jackson, C. B. Fry and Lionel Paldiret could never be prevailed upon to make the trip, even though the most important of all cricket fixtures, *viz.*, test matches, were to be played. The fact is that most amateurs cannot afford to devote eight months of the year to cricket and allow their business obligations to remain in abeyance. McLaren does not anticipate being able to successfully cope with the strong Australian State Elevens, but is desirous that his team should play against our own men for the experience they will gain and the practice they will have in first-class company, and

thus ensure a thorough preparation for their New Zealand tour.

And it is an excellent opportunity for our own players, particularly the young ones, to add to their store of cricket knowledge and become familiar with the atmosphere of representative cricket. I do not think the English team will be equal to the task of defeating New South Wales in either match, but am convinced that they will give a much better account of themselves in the return match to be played in February. It is wonderful how an extended tour improves the calibre of some, at least, of the players. Many of the weaknesses that are apparent in the early stages are eliminated; the bowler improves in accuracy and begets stamina, the batsman improves his strokes and gains confidence, and the team work, or combination, makes them more formidable. The tour will be invaluable from an educational point of view, and some of them will return to the homeland so vastly improved that they will have to be seriously considered as worthy to represent England in the more important international matches to come.

According to the cables, the team is as follows: A. C. McLaren (Captain), P. D. Lowry (Essex), W. C. Titchmarsh (Hertfordshire), Hon. F. S. C. Calthorpe (Warwickshire), W. W. Hill Wood, A. P. F. Chapman (Cambridge), C. H. Gibson (Cambridge), J. R. Freeman (Essex), Geoffrey Wilson (Yorkshire), E. Tyldsley (Lancashire), Hon. J. Brand, W. H. C. Wilkinson (Army and Navy), Colonel Hartley (Lancashire), R. W. L. Fowler (Derbyshire), McLean (Worcestershire).

The captain, "Archie McLaren," is one of, if not, the very finest leader England has ever had, and though a man may as he gets older, lose that conspicuous ability which he once possessed, his genius for leadership remains, I believe, unimpaired. It is not given to everyone to command the respect and confidence of his comrades through the sheer excellence of his strategy and his sportsmanlike and able tactics combined with a charming personality. All these valuable attributes Archie McLaren undoubtedly possesses, and whoever the opposing captain may be he will need to have his cricket mentality in a very healthy condition to cope with his astute generalship. He is a past master in placing the field, and does not make the common mistake of most captains of working his best leaders to a standstill. On the contrary, he is a believer in quick changes when two good batsmen are well set, and will place the field so skilfully that a batsman, finding his main scoring strokes blocked, is forced to employ others which he is not so proficient in making in order to score, with the attendant greater risk of getting out in so doing. He is a great judge of wickets, and knows exactly its absolute condition and what to do in his side's best interests. It is a very great asset to a team having a captain who can correctly estimate the many and varied changes a wicket undergoes, and can be relied upon to do the correct thing when a decision is forced upon him.

What a great sportsman he is! He and I, as captains of England and Australia in the first test match in 1909, inspected the wicket at Birmingham after rain, and although it was for England's undoubted benefit to bat on the wet wicket as soon as possible he did not wait for my views but stated at once his opinion, which coincided with my own that the wicket was unfit, and the game was held up until we were both certain of its fitness. I have never forgotten that incident. Just one other instance of his sportsmanship! In a match against N.S.W. on the Sydney Cricket Ground he was fielding on the boundary when the cycling track was in existence. He had to run round the ring to save a four, and as he picked up the ball it just, and only just, touched the asphalt. No one on the ground but himself knew that

the ball had touched it, and was, of course, four runs. He did not, as one might be tempted to do, throw the ball in hard and straight to the wicket in order to cover up what had really occurred. No, he slowly recovered himself and threw the ball underhand very slowly along the ground back to the bowler, thereby signalling four runs. I never forgot that incident either, and I do hope that whoever reads this short article will likewise not forget, and will show their appreciation of him in no unmistakable manner by giving him a great and generous welcome when he once more leads an English team on any playing arena in New Zealand or Australia.

The following brief reference to the individual members of the team may prove of interest:—

P. D. Lowry (wicket-keeper), Cambridge, was born in New Zealand. His father owns Desert Gold, the famous race mare. He is a hard-hitting batsman, and last season played for Worcestershire.

W. C. Titchmarsh belongs to Hertfordshire, a second-class county. He cannot play for a first-class county because of the rules governing county qualification, but he has represented the M.C.C.

Hon. F. S. C. Calthorpe (captain of Warwickshire) is a good, useful player, and a very good batsman. He is a right-hand bowler, with an off-break. He was recently married, and the present tour is really a honeymoon trip.

W. W. Hill-Wood (Cambridge) is a left-hand batsman.

A. P. F. Chapman (Cambridge) is a really good player. He is a left-hander, who goes at the bowling and hits very hard. He has a tendency to nibble at a good length ball just outside the off stumps, and is liable to be caught in the slips early in his innings. He is a very fine field, and can field anywhere. Made 100 for Cambridge against Oxford University, 162 for Gents and Players at Lords, and also 100 at Scarborough.

C. H. Gibson (Cambridge) is a right-hand bowler of medium pace, who swings the ball away a little and breaks from the off.

J. R. Freeman (Essex) is a fine batsman and a slow googlie bowler.

Geoffrey Wilson (captain Yorkshire) made 100 for Eton against Harrow. He

is a good batsman and a fine field. This player must not be confused with E. R. Wilson, who came to Australia with the last English team.

E. Tyldesley (Lancashire) is a brother of the famous J. T. Tyldesley. He made 70 against the last Australian XI. in a test match at Manchester. Tyldesley is probably the best batsman in the team.

Hon. J. Brand is a son of Lord Hampden, formerly Governor-General of Australia. He is a right-handed batsman.

These eleven players, together with four others, of whom I have no record, *viz.*, W. H. C. Wilkinson (Army and Navy, Colonel Hartley (Lancashire), R. W. L. Fowler), and McLean (Warwickshire) complete the team.

“WITH THE 15TH AUSTRALIAN XI.”

If anyone doubts that representative Australian (and other) cricketers have a right royal time on tour let him buy forthwith a copy of this book and be convinced. The author (Sydney Smith, jr.) modestly owns up to aspirations to international honours as a cricketer, and as frankly admits he was not nearly good enough for fame in that department of the game. He has certainly achieved some considerable kudos by the splendid record he made as manager of the most successful Australian XI. that has yet left these shores. And he further enhances his claim to more than passing recognition by his highly interesting record of the tour and most of the things that happened by the way.

In the preface the author refers to his unliterary effort—well! let it be so, as probably on this score it makes all the more

enjoyable reading. The true raconteur tells his story as he thinks it will appeal to his audience, so with all his “homeland” as readers Sydney Smith let a most readable narrative fall from his pen.

To our recollection most accounts of previous cricket tours have been rather on the statistical angle, to the exclusion of the more interesting personal anecdote. This story of a tour which embraced test matches in England, Scotland, France and South Africa, is well told, for of every playing centre in which a game was staged a vivid pen-picture is given, supplemented by an intimate description of every side incursion, scenic, social or historical, of which there were many.

Interspersed throughout the book are many always interesting and often highly amusing experiences of the team collectively and individually, to which is added a wealth of anecdote on cricket, past and present, heard and noted en route.

Between covers are some 288 pages, of which even the statistical ones are interesting from the fact that considerable trouble has been taken to give a series of carefully compiled analytical data of this and former tours.

“With the 15th Australian XI.” should find a place in every cricketer’s library, which cannot under any circumstance claim to be complete without it. Even quite apart from the cricket angle the book contains a wealth of matter of interest to the general reader. It is illustrated by over 100 photographic illustrations, and we are not surprised to learn that the first edition will probably be sold out before the end of the year.

IN THESE MAD DAYS.

In these mad days of fret and fight
We toil and moil through day and night.

Inspired some are by high intent;

But most are slaves 'neath burdens bent
Of avarice or helpless plight.

What do we gain? The power of Might
Prevails on every hand, despite

The Gospel. Are its precepts meant
In these mad days?

I oft-times doubt. Yet, in the sight
Of woodland ways and wild flowers bright
My faith revives. For Sentiment

In Nature's pattern still is blent.

In these mad days.

GORDON BENNETT.

THE WOMAN'S CORNER



THE SUNSHINE CLUB.

IT was an English nurse who earned for herself the title of "The Angel on Earth" through her sympathy with the maimed and the broken, and her generous understanding of the aftermath of the horrors of war. But in our own city of Sydney to-day we have our very own "Angel on Earth" in the bright and prac-



tical person of Nurse Hughes, the secretary and chief woman organizer of "The Sunshine Club."

"It has been my custom to go into the homes of the poor for many years past," she explained to the writer last week, "and

the sight of those little waxen flowers—those poor, pale-faced babies struggling under great odds to grow into our future citizens—always went straight to my heart. I have three children of my own; perhaps that's why. It was a habit of mine long before the club was formed to take batches of children from the poorer quarters to the sea or the country for the day. Until you have done it you can't understand the amount of joy and satisfaction it gives you. How it warms one's heart to listen to those babies singing from sheer joy! And they do sing—like birds escaped from captivity—from the time we start off till they are dropping with sleep at the end of a joy-day.

"Some people are disposed to think of the poor as living on one side of a barrier, while those who are better off, either from unearned increment or equipped with good brains and the opportunity to commercialize them, on the other. Doctor Arthur, who is the leading spirit in our 'Sunshine Club,' puts it aptly when he says that in bringing the two sections together we are building the bridge across the barrier. It is really amazing to see how people change their minds after a little first-hand knowledge of the poor."

The "Sunshine Club," officially opened by Dame Margaret Davidson in October, has been in existence only since July 25 of this year. Its headquarters are at Post Office Chambers, 333 George Street, and every week day, from 11 a.m. till 4.30 somebody is on duty to receive subscriptions (membership ranging from 5s. to £5 5s.) or offers of help. Those who wish to give practical help or devote some of their spare time to the cause will be wel-

come, whether they can afford the membership fee or not. Great things have been done already, showing that the hearts of our women and our young girls are thoroughly sound. Nurse Hughes's eyes light up with enthusiasm as she tells some of the results.

"In Miss Freda Shand, a University girl, I have an excellent assistant secretary, and of the unselfish devotion of Miss Dorothea Roberts I cannot speak highly enough. Both these girls are working hard during the week; yet they give up their week-ends to work for the 'Sunshiners.' We have already taken 70 children from the Hugo Street district, Waterloo, to Central Park; from other districts we have taken groups of 60, 70 and 100 to Bondi; the Cheltenham Boy Scouts entertained 54, and 30 others were entertained privately. I have seen women and girls who would once have looked upon children in their homes as little nuisances absolutely won over by the winningness and the trust of these little slum kiddies. I have seen Mavis, of Miller's Point, asleep in the arms of a woman, who began by declaring that she didn't understand children, and couldn't manage them. Mavis managed her. Cross the barrier, and you will find them irresistible—every one of you."

FASHION RUMOURS.

Advance fashion rumours predict that the long, wide sleeves are already on the wane (just as we have got used to keeping them out of the gravy), and they will be caught up into long puffs—some from the wrists and some above the elbows. Mitten sleeves are going to have their season, but the lashings will be a feature higher up the arm. For evening frocks those of us who are blessed with beautiful arms may banish sleeves altogether; it is quite the thing to make one shoulder strap do the work of two. A lady of "costume courage" has already set this fashion in smart city restaurants, and often she may be seen with one jetted halliard across her back keeping the front rigging in order.

Double skirts are coming back, lifted in front and dipping behind in a truly Elizabethan style. Though capes are still wide they must be close at the wrists to be up-to-date.

Bordered materials, with the border the same colour but in different shades to the foundation, are gaining in popularity. The longer skirt—it is creeping upon us in spite of our protestations—threatens a modification of colours and a greater dignity of outline. Mediavalism is distinctly noticeable in the cut of feminine cloths to-day, and though mediavalism may not be as comfortable as the hoydenish garments young and old have been wearing for the past two years, it has the advantage of being decidedly more picturesque.

MADAM, WILL YOU WALK?

It is presaged that ballroom dancing is to become more circumspect. The freak steps, the bizarre dips and lurches, the ubiquitous fox trot, and the cheek-by-jowl glide are being banned by the Imperial Society of Dance Teachers. Grandiloquent name! How many of us knew they existed? "We are to aim at the smooth, the graceful and the simple in future," said the big-wig of this institute, Major Cecil Taylor, in London last month. "There is a widespread movement to introduce the melodion into orchestras for the tango, and a new form of tango is being launched. It is so simple that any average dancer can learn it in an hour."

PROVERBS ABOUT WOMEN.

Scotch: Fair maidens carry no purses.

Irish: Live in my heart and pay no rent.

Russian: Love your wife with your soul, and shake her like a pear tree.

French: A woman's lips have cured many ills.

Austrian: It is better for a woman to marry the man who loves her than to mate with the man she loves.

Serbian: It is a lesser sin to burn down a church than to speak evil of a girl.

Spanish: Woman is like your shadow; follow her, she flies; fly from her, she follows.

Persian: Heaven is at the feet of mothers.

WOMAN, THE INVENTOR.

Woman flatters herself that she is a creature of ingenuity and a near relation of that fabulous lady Necessity, who is the mother of Invention, but the officials at the Patent Office in London have recently

struck a hard blow at her self-satisfaction. They state that they do not remember a single instance of a woman patenting a striking invention. Out of the 35,132 inventors who made application for patents last year only 297 were women. Maybe we are too busy doctoring up man's faulty inventions to put our best efforts on record. After all, there is always the proverbial hairpin! And if we fail in mechanics there are some feminine inventions that surpass the finest ingenuity of the mere man. Shakespeare knew this when he said of women: "You will never take her without her answer unless you take her without her tongue."

CLEOPATRA'S UNDERSTUDY.

Dulcie Deamer, now in England, has been sitting for her portrait (life size) to Miss Donald Smith, who exhibits in the Academy. Miss Deamer met her at a reception, and of this chance acquaintance, which ripened into friendship, she writes to a Sydney woman: "She absolutely insisted on painting me. I think it is awfully good. She has posed me in a sort of Egyptian attitude, because, she says, that I must be the reincarnation of an Egyptian priestess, or something of that kind; though Heaven knows why." The Australian authoress, having launched her novel, "The Street of the Gazelle," is at work on a new book. She looks forward to returning to Sydney before the end of the year, having booked her passage with her husband (Albert Goldie) on the *Omar*, due to reach here in November.

THE BROAD HIGHWAY.

"The buoyancy of the Australians is their greatest asset abroad when they set off to conquer the artistic world. The bare fact that they do not in the least realize the competition they are up against means that they have already half vanquished it."

Mr. George Baker, who is a professor of singing on the staff of the London Guildhall School of Music, and who is at present a prominent member of the imported 'Peep Show' Theatrical Company, in a recent chat gave some good advice to ambitious Australians anxious to try their wings abroad.



Photo., Ashby.

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MISS EVE GRAY

AUSTRALIA'S MOST BEAUTIFUL
GIRL,

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Obtainable at all reliable Chemists.

Do not accept substitutes or imitations.

The Genuine Products have on them the name of

**DEARBORN (Australia), LTD.,
SYDNEY.**

“There is no doubt that if you do not recognize a thing it does not exist for you, and, while many students are abruptly brought face to face with the grim struggle on the other side if they have not real grit and the gift of true musicianship at the back of them, I believe that in the great fight the Australian is better equipped than our own people. He (or she) starts without that overpowering sense of fear that he may not rise above the thousands of mediocre singers and musicians who are ploughing the same road.

“There are what is known as ‘close scholarships’ for Australians only at the three big schools of music—the Guildhall, the Royal College of Music, and the Royal Academy of Music. But apart from these scholarships the ordinary fees at any of these colleges range from twelve to fourteen guineas a term. For this the student receives two lessons a week in the principal subject (chosen by him, according to what he wishes to become expert in) and one lesson in a second subject. Besides these he will attend the music class, the harmony class, and lectures on musical subjects. He will have the chance of hearing, and, later on, if he is an instrumentalist, of playing with, the orchestra attached to the school. He will, should his abilities be sufficient, have opportunities of singing with the orchestra, and there is no more valuable experience for a singer than this.

“My advice to the student who is still a musical fledgling is to join one of these schools. On the other hand, if the student has already acquired a sound musical knowledge and can no longer be classed as an amateur, this method would probably be waste of valuable time. The honest work-a-day singer, for example, with a sound production and a sense of artistic musical interpretation will probably be ready for public appearance when he leaves these shores. To such a student I would recommend the services of a good agent. All artists abroad use agents, and, while the best ones will not handle you unless they consider you up to a certain standard, it is possible to obtain auditions on certain days at their offices. Lionel Powell is one of the biggest agents in London, and many of our singers leave their

musical affairs entirely in his hands, but for the artist with his way to make I should recommend Ibbs and Tillett, 19 Hanover Square.

QUAINT VICTORIAN WEDDING CUSTOM.

In the dear old days of the hoop and bustle—and Romance—it was the fashion for the bridegroom to have his bridal waistcoat made from a piece of the bride’s wedding gown.

There is something sweetly intimate and oddly touching in this quaint custom, and it makes us sigh again for the days of chivalry, when men, utterly unselfconscious, dared to wear anything in honour of the loved one.

The following anecdote bearing on the subject was related to me by a lady friend:—

Sixty odd years ago a Mr. M., according to the fashion of the day, blithely ordered Farmer & Co., of Sydney, to make him a bridal waistcoat of cream satin silver brocade, which he had obtained from his bride about-to-be.

The waistcoat, duly finished, “a thing of beauty and a joy forever,” was carefully preserved by his loving and capable wife.

According to the time-honoured custom of his family, the grandson of this gentleman always ordered his suits at Farmer’s. On one occasion he happened to be with his mother, and in the course of conversation she mentioned the famous waistcoat. The fitter was immediately interested, and begged the lady to be kind enough to bring it in to show to the head cutter. The lady agreed, and in due time brought it in, without telling the old gentleman. On the next day the latter, still hale and hearty, altho’ close to his diamond wedding, was strolling round the block enjoying the beautiful morning when he noticed a crowd of people round one of Farmer’s windows. His curiosity naturally aroused, he courteously awaited his turn, and was soon rewarded by a sight which caused him much astonishment. Adjusting his monocle, he peered intently into the window, unable to believe the evidence of his perception. He shook his head sadly; yes, his eyesight must be getting bad; he knew very well.

that his own cherished waistcoat reposed snugly at home, carefully preserved with mothballs.

One of the managers was viewing the window interestedly. "Fine old relic, that," he remarked, entering into conversation with our hero, "made by the firm in the year 18—for a gentleman by name Mr. M.

The old gentleman started, stared, and swelled visibly. A proud, complacent smile played about his lips.

"Yes, yes, a beautiful piece of work. It's mine!"

TEMPERAMENTS.

"The fittest study of mankind is man."

One of the most fascinating and instructive of all pastimes is studying faces and conjecturing characteristics. One does not need to be a physiogomist either—to the initiated nature lays down her cards and reveals her hand in the colour of the hair and eyes, and in the shape of the head and statue of the individual.

It is like a wonderful and exciting game—you see a tall, thin man, fair-haired and blue-eyed, and you say to yourself—there goes a man of the "nervous" temperament. His head will be rather big in comparison with his relatively small chest, the neck small, and the chin narrow and pointed. He walks quickly and speaks quickly, he is nervous and irritable in manner.

The Sanguine Temperament.—These people have chestnut or brown hair, ruddy complexion, and blue or brown eyes, rounded and fully open. They walk quickly, with springy, elastic movements. People of this temperament keep on humming in the very face of trouble; they are bright and cheerful, and are of the kind that never lose hope. They are emotional, energetic, impulsive, changeable, frank and outspoken, and never secretive or spiteful. They are as much pleased over trifles as over big things. Girls! never depend on the sanguine man to do little things. He means well, but he cannot resist pleasure, and is apt to forget promises.

The Bilious or Fibrous Temperament.—Black eyes and hair, broad and thickset, and mentally serious and slow in thought

and action. The outline of feature is generally strong and well marked, with a good development of muscular and fibrous parts of the body. The head is small and round, with a thickset neck and square jaws. The face is large, with heavy features, low forehead, and hair growing down into the eyebrows. Often they are careless of the "niceties" of this life, and do not mind on whose corns they tread. They are blustering and ruthless. Although morose and unforgiving, they become very domesticated, and make very good parents. Being disposed to selfishness, they often accumulate wealth.

The Lymphatic Temperament.—These people are characterized by their heavy build. They are fair, fleshy and lethargic, with skin pale and generally free from hair, and eyes dull and inexpressive. Mentally slow, they are careful in thinking, and being indolent by nature are ready to forgive, being too lazy to bear malice or cherish unkind feeling. They are never brilliant or energetic, but they are plodding, and have great powers of endurance. The lymphatic man eats largely and indiscriminately, and loves to linger over a glass of wine and smoke away the rest of the evening.

THE ANCHOR OF HOPE.

Hope is the basic instinct that governs our lives. It is the most deep-rooted sentiment within us—it is our *raison d'être*.

The Maha Mudgar proverb says: "Day and night, evening and morning, winter and spring come and go; Time sports with our passing age—still the wind of Hope ceases not. The body dissolves; the head gets grey—the mouth becomes toothless. the handsome stick trembles in the hand, yet Hope ceases not to jest with us."

The Arabs call a watermelon Hope, because its tendrils cling to a prop.

Hope is as essential to an individual as his life's breath—without it guiding his desires, his ambitions, his life (for Hope is the foundation of life) man would fade like a leaf; for life is like a leaf—light and unsubstantial. It is an undisputed truth that the more one hopes the more one suffers—for worldly hope is like a mirage in the desert, deceiving him that sees it and hopes from it.

(Continued from Page 590.)

it lasted all the afternoon.

That night, with one of his co-directors, the Baron Despujol, we strolled into the Rooms and watched the gay crowd at play. At the same table sat the young girl and the old Spaniard, with the good-looking young Englishman still an observer.

The trio did not notice us, so intent were they upon the game. They had sat there nearly six hours without hazarding a franc upon the game. They simply watched.

As I was whispering into the ear of Monsieur Destruge the bald-headed old Spaniard suddenly nodded to the girl before him.

Already the red-and-black disc had been set in motion, the croupier had declared the game to be made, and the ivory ball had been sent upon its fateful journey with a sharp rattle.

The pretty Anita, who had a bundle of thousand-franc notes ready, stretched out her arm and placed them en plein on number twenty-eight.

"Vingt-huit" cried the croupier sharply, and again the young woman had won a maximum.

She received her winnings quite carelessly, without troubling to count them, and stuffed the four handfuls of notes into her capacious purse, while all at the table gasped at her good fortune.

At the next coup the number twenty-eight was well covered, but Anita Marchetti did not play. She knew that the plungers would lose—and they did.

Half an hour later, at a signal from old Vasquez, she took out a handful of notes which she had previously counted, and gave them to the croupier to place on Zero.

A dozen other players, watching closely, followed her with more modest stakes.

"Zero!" cried the croupier, with that peculiar roll of the "r" which the habitue of Monte Carlo knows so well, and while most of the players saw their stakes swept into the bank the cashier began to count out a quantity of thousand-franc notes as the girl's winnings, as well as paying those who followed her.

"You are right," whispered the President of the company as we strolled away together to further discuss the situation. "We have never seen such sensational

play in the whole history of the Casino. They never lose!"

"That's just the point," I said. "They have at last discovered some infallible system. That is why I propose to make terms with them."

Back in my office we sat and discussed the matter very seriously, for we all saw that if such play continued all our profits would disappear and the company must eventually be ruined. At last I was deputed to approach the young lady after they had finished playing that night.

Just before eleven o'clock word came to me that the trio had risen from the table. I instantly sent them a message inviting them up to see me.

I was alone in my room when they were ushered in, all three radiant and happy.

"Well, Signorina and gentlemen," I said, offering them seats, "I must first congratulate you upon your extraordinary good fortune. But, truth to tell, the object I have in asking you to come and see me is to suggest that we compromise."

"Ah!" laughed the girl saucily. "You are ready to purchase our secret, Monsieur Jacquin—eh? Did I not tell you that you would regret your refusal a few weeks ago?"

"The Administration are ready to consider your terms, mademoiselle," I said, with dignity.

To my surprise, however, she said:

"We have no terms to offer. You refused, so we shall continue to play. Therefore, the matter does not admit of further discussion."

"But surely you and your friends are open to reason?" I cried. "We are prepared to pay a big sum for your secret."

"And we have a syndicate formed in London which is equally ready to purchase our secret and set themselves out to ruin the company altogether," Grant replied.

I confess that, not being prepared for this, I was entirely nonplussed.

They went out, and a few minutes later I saw Destruge, who said:

"At all hazards we must buy their secret, Jacquin. This cannot go further. If we forbade their entrance they would only give the secret to others. We don't want that! Therefore, we must exercise the most delicate diplomacy, and we must

pay whatever exorbitant price they ask. I leave it entirely to you."

The position now became a most anxious one. If I failed then it might mean the closing of the establishment.

Next day it was reported to me that they had made three coups, and had banked a further seventeen thousand five hundred pounds between them!

I met Anita in the Rooms about four o'clock. She was dressed modestly in black, with one single ornament—a piece of Chinese jade, suspended from her neck by a black moire ribbon. Her appearance was so entirely different from the overdressed women of both worlds who frequented the table that she, in herself, had become a curious and mysterious personality. She smiled at me triumphantly as, side by side, she strolled with her English lover idly into the trente-et-quarante room at the end of the great salon.

An hour later I had a private chat with Grant, and told him in guarded language that we were prepared to pay as high a price for the secret as his London syndicate would do, and, further, I put it to him that if he intended to marry Anita—as I presumed he did—then the sale of the secret would make them both rich beyond the dreams of avarice.

In an instant I saw that the young fellow's ambition was to marry the pretty Italian. Therefore, we had a long and confidential chat.

The result was that next day at noon Grant brought his two companions into my office, but, to my chagrin, the pretty Anita was still defiant, utterly refusing to give away the secret which it now appeared had been imparted to her by old Signora Bertelli just prior to her death.

For a full hour I tried to prevail upon her to make us an offer, but she only laughed, repeating that we having refused on a previous occasion, she and her friends had no intention of considering the matter further.

From the outset I had seen that she was a very hard-headed little woman, and, further, that the old Spaniard was advising her not to entertain any offer.

"We have discovered the secret of winning at Monte Carlo, Monsieur Jacquin," the old fellow said calmly. "Why should we not continue to win?"

"Because we are prepared to buy your secret," was my reply. "If you know a certain mode of winning others may get to know it, and then the Administration would be compelled to close its doors."

"It probably will!" laughed Anita triumphantly. A further three weeks passed. Grant had gone to London, probably to consult the syndicate who were preparing for operations against us on a very big scale. Meanwhile, Anita and old Vasquez remained, but they only played on four occasions, yet each time they did not fail to win. Monsieur Destruge and his co-directors existed in a state of eager apprehension as to what was to be the outcome of it all.

To us money was no object so long as we obtained the secret by which the bank could be beaten at will.

At last Archie Grant returned. His radiant appearance at once filled me with grave fears.

That evening, about nine o'clock, one of the croupiers came to inform me that Mr. Grant desired to speak with me in private. Instantly I went to my room, and a few moments later the trio were shown in.

Grant was the first to speak.

"I have at last prevailed upon the Signorina Anita to reconsider her decision, Monsieur Jacquin. But if we sell I warn you that the price must be a very high one, for we have also to settle with our London syndicate."

My heart gave a bound.

"Your syndicate has no knowledge of the secret?" I asked anxiously.

"None whatever. We have entered into an agreement to sell in case you forbid us to play further, that is all."

I called Monsieur Destruge and his co-directors, and for an hour or more we all sat discussing the price, and bargaining in sums of hundreds of thousands of pounds.

At last, after much shrewd dealing, a price was fixed, a cheque was drawn—the largest ever drawn by the Administration—and handed over to the young lady, who signed a receipt.

It was then agreed that when the Rooms were closed at midnight, and the public excluded, she was to give us a private exhibition and reveal to us the secret.

So when the game was over and the great crowd of visitors had departed the

table was reopened with a fresh supply of money, while Anita and the Spaniard took seats opposite each other.

Though the wheel was spun ten times they made no attempt to play.

At the eleventh coup the Spaniard nodded just after the croupier had spun the disc, whereupon the girl placed the maximum upon twelve, which won.

"Amazing!" cried Destruge. "How is it done?"

But she only laughed, and after six more coups again staked, and again won.

"Now," she said, "here is the simple truth, which my aunt learned after sitting and watching daily at this table for years. When the number eleven upon the wheel is exactly opposite the croupier as he spins it then the ball will fall into twenty-eight. When thirty-six is opposite

twenty-nine will win! And there are other numbers, too!"

"Ah!" I cried instantly. "Then there is a slight inequality in the die as it revolves!"

"Exactly, m'sieur," replied the girl. "My aunt discovered it, and disclosed the secret to Senor Vasquez and myself. It is only at this table, for all the other discs run true."

The disc was that night destroyed, and from that moment all discs have been tested each night after play, and are never used upon the same table twice in succession.

Grant, who married Anita Marchetti, now lives in London, but they have built themselves a beautiful villa among the trees at Cap Martin, in full view of the Casino, which they so nearly brought to ruin.

Sir Walter Davidson and Newfoundland.

The *Daily News* published at St. Johns (Newfoundland) in its issue of August 30, 1922, pays a glowing tribute to His Excellency Sir Walter Davidson, Governor of N.S.W. It will be remembered that the July issue of *Sea, Land & Air* contained an article describing the remarkable exploits of an Australian airman, Major F. Sydney Cotton, in Newfoundland. The whole of the information for that article was supplied by Sir Walter Davidson, who was Governor of Newfoundland during the war period.

After expressing appreciation of *Sea, Land & Air*, and the enterprise displayed in securing the article and photographs, the *Daily News* continues:—

"It is gratifying but not surprising to note that Sir Walter retains his interest in this country. Our war Governor's work will never be forgotten in Newfoundland. He held the helm in critical times, but steered the old ship skilfully. Whilst with us he again and again proved himself a true friend of Newfoundland, a constitutional Governor, but no mere figure-head; a man of opinions and a will, but also one of tact and poise. Sir

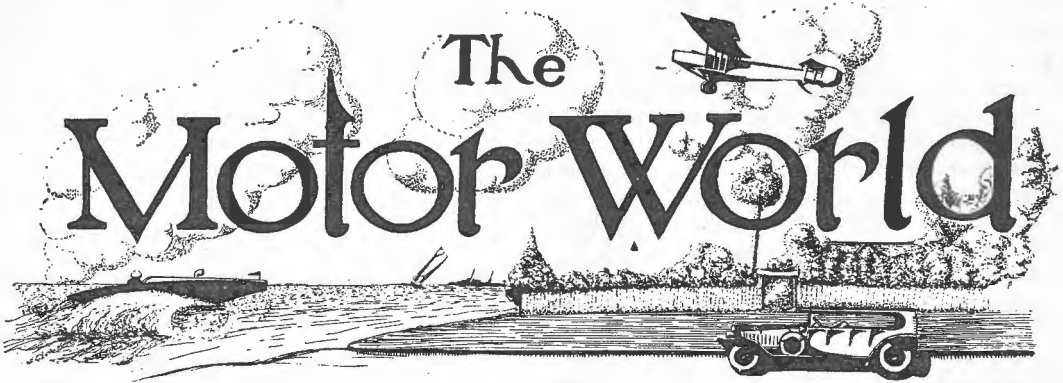
Walter and Lady Davidson's presidency at Government House synchronized with the severest testing-time for this Old Colony, and it was well for us that in both Viceroy and Vicerine we had leaders who combined powers of executive with those of initiative. The article under discussion comes as a connecting link between the Anzacs of the antipodes and those of the Old Colony, who may surely claim to be included under the letter 'N.'"

Dangerous!

Sandy and Donald were paying their first visit to London. They discovered that the ways of the big hotel were not their ways.

In the morning they prepared to go out, but were unable to find the staircase. Sandy discovered the lift shaft open and promptly stepped in and tumbled to the bottom. Leaning over, Donald called to his friend: "Dit ye get down all right, Sandy,"

"That I did," replied Sandy. "But, mon, be careful of that first step; 'tis a brute."



By "SPARKING PLUG"

Hasten Slowly With New Cars.

PEOPLE don't as a rule subject new articles or anything which is new to the severe treatment accorded the same articles, say, twelve months later. There is a general disposition to let things "find their feet," so to speak, before taking liberties with them.

But how different with the eager possessor of a new car!

Having acquired a new car, the owner frequently takes the first opportunity of "trying out" its speed. But such a practice is most prejudicial to the longevity of the vehicle.

The first 500 miles which a car travels is perhaps the most critical stage of its life, and during that time it should be slightly over-lubricated and driven at moderate speeds, certainly not exceeding 25 miles an hour. Very long non-stop runs are to be deprecated, and likewise anything in the nature of the negotiation of freak hills.

Initial Lubrication.

On taking delivery of a car ascertain that there is sufficiency of oil in the sump, and make sure that the gear box (if separately lubricated), back axle and every grease cup and lubricator have received attention.

The fundamental purpose of all lubricating systems is to reduce the frictional losses of the bearings to a minimum. Metallic surfaces, however well polished, are microscopically rough. When two such surfaces are rubbed together the tiny projections tend to interlock. This can only be overcome by a tearing away of the pro-

jections or by the separation of the sliding surfaces by a lubricant sufficient to allow the projections to pass each other.

When oil is between two surfaces they will not, under ordinary circumstances, be forced into as close contact as if the surfaces were dry, even if a considerable time is allowed for the action to take place. Although oil will work out from between two surfaces under pressure its resistance to flow or viscosity considerably hinders the action.

Splendid Tour for Wandering Motorists.

A fine descriptive account of a motor trip through the Blue Mountains and across the Great Dividing Range to Wombeyan Caves was recently published by a contemporary, and, as "Sparking Plug" accomplished the same journey last year on Shanks' pany—travelling 160 miles in six days—I can recommend the trip to any wandering motorists who are desirous of combining an excellent holiday with a mental tonic of the finest quality.

The story of the motor run is necessarily an abridged one, and can only at best give glimpses of what may be expected.

It was not desirable to make a Sydney to Brisbane road trial of the trip, accordingly a staid old *Renault*, heavy of wind and limb, was selected and a start made after lunch. The owner brought us safely as far as Blackheath from Sydney, rattling (very rattling) over the 70 miles in rather good form. We all offered our heartfelt thanks to "Paddy" Allen for the joy and comfort he gave us as far as the vicinity of Lawson. The riding from Lawson right

to Mt. Victoria in fact is still a painful operation, over which a veil may be drawn.

Next morning we breakfasted at daylight and embarked on our old heavy-weight *Renault*. "Never judge a car by the want of paint on a panel." I had a tremendous respect for that old *Renault* at the end of the day. All hands were surprised by the way she climbed the Oberon Hill.

On the top of Porcupine Ridge, five miles from the Caves, at an altitude of 4,365 feet, which is 1,825 feet higher than Caves House, we all voiced our respect for the ancient bird, which had flown over more than 20,000 road miles. At the Caves we had picked up Caretaker Wiburd, who promised us a sight worth seeing, and in the vicinity of Gingkin commanded a detour to the left for some miles.

We battled on till at last huge fallen timber brought us to a stop. Out we clambered, and followed Wiburd as fast as our unpractised feet would carry us. He brought us out on the Thurat Plateau of the Kanangra Walls, where dizzy precipices, graced by many fern-clad cascades and waterfalls, indeed presented a panorama wonderful and mighty.

By the time we had walked to the car we were quite an appreciative audience for the billy of tea and sandwiches the driver had ready, and, being better ballasted, probably did not notice the trackless route back to Gingkin. After passing this place the road resolved itself into a bush track with heavy grades, but we passed through Shooters' Hill, 14 miles from the Caves, and Porter's Retreat, 22½ miles.

Our driver just dodged in and out of the timber, and when the car started to skid off the range down into the valley of the Abercrombie River most of the passengers left. Jerrong is the name of the top of this descent, and the crossing at the river is called Bumaroo (43 miles from Jenolan). I saw the car backed four times on one hairpin turn, and thought she would eventually take the river broadside on. The pull out of the Abercrombie up to Curraweela is almost as severe as the descent, but as we progressed along the 12 miles the track became more defined, until at last a properly defined road brought us out near Richlands, on the Goulburn-Wombeyan Road. Turning sharp to the left,

Wombeyan was reached in another 13 miles; 68 miles in all being traversed for the day.

We spent a pleasant evening in the Wombeyan Caves listening to Mick Chalker, and forming an estimate of the cost to make the route passed over that day at least passable for ordinary drivers. Old Chalker played a funeral dirge on his bagpipes as we left at magpie next day. Ten miles to the Wollondilly tested even our driver, and all hands stripped off at the crossing to walk across. Much to our delight, the river was lower than the oldest inhabitant had ever remembered, and some of the local people had lately rolled the bigger stones out of the crossing. The old *Renault* took it like a seaplane, flung furrows from her front wheels and bonnet like a destroyer with two bones in her teeth.

From this beautiful spot, called Barralier or Tarwoola, according as you believe one settler or another, a perilous climb of nine miles to the top of the ridge along O'Sullivan's Road brings one finally through Bull's tunnel out on to the spine of a ridge, from which a view of the peaks, Barrengarry Valley, Wentworth Falls may be obtained. This view is one of the most stupendous in our State, and is worth the risk and gruelling from Wombeyan to Bowral. We shot an old red fox, and almost filled the body of the car up to the seats with rabbits, lunched at Bowral, and finished up in Phillip Street without turning the headlights full on, the run for the day showing 126 miles. The experience was novel and unique.

A Small Model.

A North Lincolnshire man has made an amazingly accurate model of a well-known touring car. Being somewhat diffident about asking particulars of the car from its makers, he worked out all the dimensions and made his own drawings from catalogues and specifications. Every detail, from the engine down to the buttons on the upholstery, is said to be included, in spite of the fact that the model is built on the small scale of ½ in. to a foot.

WHY TOM UGLY'S?

The average person is no doubt at a loss to understand why the name "Tom Ugly's Point" was bestowed upon the

crossing which is so largely availed of by motorists travelling to the beautiful South Coast district of N.S.W. Even motorists themselves may not be able to enlighten the enquirer on this point, but the decidedly "ugly" impression they form after having had to wait there up to an hour and a half on a Sunday evening when returning after a day's outing is sufficient guarantee that it will be Tom's "Ugly" Point to them for many moons.

At the moment of writing the crush of vehicles that occurred there between 6 p.m.

To make matters worse, a heavy thunderstorm had passed over about 7 o'clock, and the occupants of many vehicles were drenched to the skin. Need it be said that the long wait did not improve their tempers. One driver in particular, who had cursed heartily at about ten minutes delay earlier in the evening while he changed a wheel, had the bitter experience, after 75 minutes wait, of being the last to be cut off when his chance of running on the punt looked particularly bright. There was only one vacancy, and because his car



Photos: M. Dixon.

Portion of the line of cars (stretching half a mile back) waiting at Tom Ugly's Point on Sunday, October 15. Inset, The punt, fully laden, ready to start.

and 9 p.m. on Sunday, October 15, is burning in the writer's mind, as it doubtless is in the minds of hundreds of other motorists. The morning crush was bad enough, but it *only* entailed about three-quarters of an hour's wait. It remained for those who lined up there between 7 p.m. and 8 p.m. on the return journey to experience to the full the fruits of a long, wearisome wait. There were two punts in service, one of which could accommodate about 27 vehicles and the other only four.

was a double-seater a sulky got the call over him.

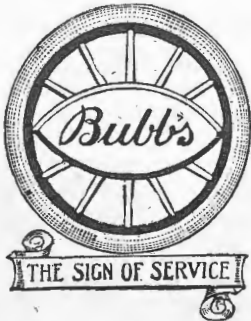
A Bridge Wanted.

In all seriousness it can be said that to motor anywhere around Sydney where one's time-table is governed by an inadequate punt service leaves such a bad impression that one is apt to vow—and keep the vow—that he will never undertake it again.

The motoring community is growing by leaps and bounds, and just as the over-

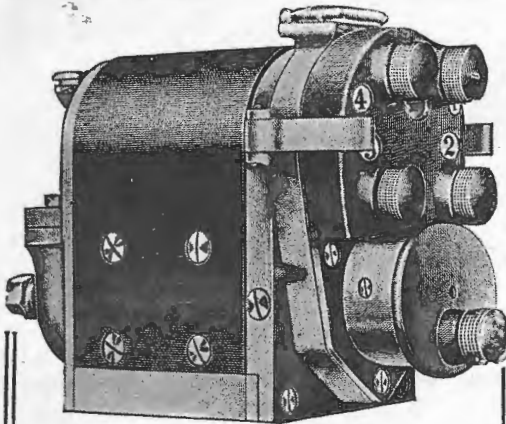
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crowded condition of Sydney streets demands action to relieve the congestion so is a bridge required at Tom Ugly's Point. The cost of operating the present punt service must be considerable, added to which it is stated the last punt to be put in commission there cost about £18,000 to build. And the best it can do when working at high pressure is to transport cars across in batches of 27 after many of them have waited for well over an hour. It is safe to say that the number of cars which patronize this route at week-ends would be double what it is now if a bridge existed. There is no doubt, too, that every owner would be prepared to pay a substantial toll for the privilege of having an unbroken run to his destination. It is not one isolated instance in which the traffic piles up and waits—it is repeated every Sunday during the Summer months. Is it any wonder that motorists sometimes do a little "scorching"? The long, heart-breaking hold-ups they experience render it necessary that the lost time should be made up on the road. Unfortunately, however, if an accident should happen in the process of speeding-up the poor motorist has to shoulder the consequences, whether it be his own car or someone else's person that is damaged.

Is Stealing a Crime?

The result of the recent prosecution of a man who was charged with stealing a motor car has once more demonstrated the urgent necessity for an amendment of the Crimes Act. In the case in question a car was taken by the accused without the owner's knowledge or consent, and after being driven about for a considerable time was finally abandoned. The accused, who pleaded that he had not stolen the car but had merely taken it for the purpose of a joy-ride, was acquitted.

Section 131 of the Crimes Act provides that whosoever takes and works or otherwise uses . . . any cattle . . . without the consent of the owner . . . shall be liable to imprisonment for three years. Cattle includes horse, so that anyone who indulges in a joy-ride on or behind another person's horse is liable to imprisonment for three years, but if he is wise he will take somebody's car for a joy-ride, and he will not risk going to gaol.

Remembering that the car may be worth a thousand pounds and the horse not worth a thousand pence, the anomaly is apparent.

Of course, the Crimes Act was enacted at a time when motor cars were unknown, but surely our legislators have had sufficient time in which to bring the Act into conformity with modern requirements, and they should not need to be told that an immediate amendment of the Crimes Act is necessary for the protection of a large section of the public.

A consideration of the actual and possible results of the actions of these joy-riding thieves who are not legally guilty of stealing shows the absolute necessity of immediate action. They, without the slightest warrant or excuse take possession of a very valuable piece of property; they deprive the rightful owner of the use of his property; they wear the tyres; they use the petrol; they probably damage the mechanism by careless manipulation; they often wreck the car by collision; and they sometimes inflict injury upon, and even cause the death of, innocent pedestrians.

The legislators are not playing fair with the motorists of the State, who must demand from Parliament the rectification of a gross anomaly by the immediate amendment of the Crimes Act, giving them equal protection to that enjoyed by the owners of horses, cattle, sheep and goats.

Fine Entry Victorian Alpine Contest.

Nominations for the Royal Automobile Club of Victoria's 1,000 miles motor car trial, which is to be held this month, closed with 84 entries—a particularly fine response by private owners and the trade. It's an astounding entry when one considers the severity of this mountainous test, but evidently the great success achieved by last year's event has whetted the appetite of motorists for more. Undoubtedly the scenic attractions of the route selected plus the sporting nature of the competition have added considerably to the nominations.

A striking feature is the fact that 45 different makes of cars figure in the entrants, amongst which are several makes

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This does not include any added charge to cover so-called "free replacements," or "free service," or any other item for which every purchaser would necessarily pay in advance but which would benefit only a few at some indefinite future time.

It is their belief that car owners prefer paying for these items as and when needed, rather than in a lump sum in advance whether or not needed.

OVER 700,000 OWNERS WILL ATTEST THESE FACTS.

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November, 1922.

new to Australia. Owner-drivers have responded well, 28 having nominated for that section of the contest. Last year there were 35 entrants for the trial and 31 starters, but it is hardly anticipated that such a big percentage will face the starter this time; in fact, if 60 cars compete it will be more than ample to tax accommodation along the route. It is now certain that camp equipment will be essential at many of the night stops to supply the necessary sleeping accommodation.

“Essex” Scores Fastest Time in Run to Brisbane.

The third Interstate reliability touring contest promoted jointly by the Royal Automobile Clubs of Australia, New South Wales and Queensland has been held, and the results have been published. Of twenty-seven cars which were entered twenty-five started, and twenty-two completed the contest. Two withdrawals occurred on the first day, and of the twenty-two cars whose results were calculated seven secured the full 500 points for reliability; three lost only two points; and one only four points. Mr. W. J. Stuart (*Essex*) obtained fastest time in each hill-climb, Mr. Boyd Edkins (*Vauxhall*) coming next in each case. Mr. W. G. Webb (Q.) secured the best petrol consumption result with 58.581 miles per gallon, followed closely by Mr. A. G. Barnard, *Fiat* (N.S.W.), with 58.356 miles per gallon; but Mr. A. J. Soden, *Fiat* (Q.), whose mileage was 54.066 per gallon, won the petrol consumption section on formula.

The actual winner of the contest was Mr. A. G. Barnard (N.S.W.), who scored 696.9 points out of a possible 700, a very excellent performance indeed. Mr. W. J. Stuart (N.S.W.), who came second with 679.4 points, and Mr. A. J. Soden (Q.), who secured third place with 673 points, also did very well.

Improving the Road to Kurrajong.

The Royal Automobile Club was represented by Messrs. D. M. Cooper (chairman of the Roads and Tours Committee) and H. E. Morgan (secretary) at a deputation which waited upon the Minister for Local Government recently to present a petition, signed by a large number of settlers in the Kurrajong and Mount

Tomah district, urging that Bell's Line be placed in trafficable condition.

This road runs from Kurrajong Heights to Mount Victoria, and it provides a connecting link between the Western and Northern Roads; but at present it is negotiable only in dry weather, and even then parts of it are very indifferent. For this reason comparatively few motorists have ventured to make the trip, and the settlers are terribly handicapped, being unable at times to get the produce of their labour to market or to rely upon the delivery to their holdings of necessary life-sustaining supplies. So difficult has the position become that the settlers recently were compelled to throw aside their farming implements and form a road-making working bee in order to save themselves from absolute isolation.

Mr. Thos. Savage, president of the Blue Mountain Shire Council, who attended the deputation, stated that his council would be pleased to confer with the other Shire councils concerned with a view to preparing a concrete proposal for submission to the Minister, and the Minister, in reply to the representations of the deputation, approved of this course, and undertook to give sympathetic consideration to any proposal thus submitted. The deputation was introduced by Mr. Fitzsimons, M.L.A., and Messrs. Hungerford, Masterman, Woodhill and Evans represented the settlers.

PERSONALITIES.

Mr. E. W. Holden, managing director of Holden's Motor Body Builders, Limited, Adelaide, intends paying a visit to Victoria and N.S.W. before embarking on a world tour early next year.

Messrs. Percy and W. C. Arnott undertook a round trip from Brisbane when returning after the Interstate contest. They came down by the Queensland coast and through the Northern Rivers timber and dairying districts.

Mr. Norman Smith, demonstrator at Dalgety & Co., Ltd., in Sydney, will be in charge of an *Essex* car in the Victorian 1,000-miles test. His achievements in this State with *Essex* cars have been splendid, and his progress in the forthcoming event will be looked forward to with interest.

Mr. W. M. Pearson has offered the Victorian Automobile Club a gift of 500 direc-

tion boards. The offer, which was much appreciated, has been accepted. The Club has already erected a similar number at its own cost.

Mr. A. Kent has been elected President of the Victorian Automobile Chamber of Commerce. At the annual meeting of the Chamber the balance-sheet presented showed finances to be in a satisfactory state, there being a credit balance of £5,714. The membership numbers over 600, and eleven sections of the trade are represented.

Mr. F. R. Cults, of the City Motor Company, 246 Pitt Street, Sydney, has secured the N.S.W. agency for the *Wilton* car, a light-type English production.

The membership of the R.A.C.A., Sydney, totals 1,050, that of South Australia 2,479, whilst Victoria heads the list with 3,250. Queensland, West Australian and South Australian figures show that good progress has been made this year.

Competitors for Victorian Alpine Trial.

Seventy acceptances for the Victorian 1,000 miles alpine climb is an eloquent tes-

timony of the growing popularity of that event. The contest will be held from November 16 to 25, and altogether 40 different makes of cars will take part.

MOTOR CYCLING.

Carnival at Victoria Park.

A motor cycling carnival will be held on November 11 at Victoria Park, the proceeds of which will be handed over to the authorities administering the Tubercular Soldiers and Sailors' Funds.

The programme includes championships over five miles for machines over and under 600 c.c. capacity, and handicaps for machines under and over 600 c.c., and a consolation handicap over three laps for machines under 600 c.c.

FORCING A RIM ON AN AUTOMOBILE WHEEL.

Oftentimes it happens that when a rim with a tyre is mounted on the wheel the rim cannot be moved into place and it remains partly on and partly off. This difficulty may be easily overcome by a



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slight springing of the wheel. This can be done by placing the base of a jack on the protruding portion of the rim and the head of the jack against the hub of the wheel. By springing the rim a little in this manner, a slight blow with a hammer will slide the rim over the edge of the wheel.

Motor Yachting Fixtures.

The Motor Yacht Club of New South Wales has drawn up its programme for the season, provision being made for races both inside the harbour and over ocean courses. For the highest speed boats there are the Eastway Shield Championship of New South Wales and the Laurel Cup, while there are two ocean handicaps, from Sydney to Pittwater and from Newport to Sydney. The events arranged are as follows:—

November 11.—Stelling Shield Handicap, all boats, 9 miles.

November 18.—Sealed Handicap, class A and B, 9 miles.

December 2.—Commodore's Cup Handicaps: Class A, 13½ miles; Class B, 9½ miles.

December 16.—Class A Handicap, 9 miles; Class B handicap, 4 miles.

December 30.—Ocean Handicap, all eligible club boats, Clubhouse to Pittwater.

January 1, 1923.—Ocean Handicap, Newport to Clubhouse, Rose Bay.

January 13.—Laurel Cup, boats over 25-m.p.h. This race is subject to special conditions, and is for a duration of 70 minutes.

January 26.—Anniversary Regatta.

January 27.—Eastway Shield Championship of New South Wales, open to any boat in the State, 12 miles. Vice-Commodore's Cup Handicap: Class A, 12 miles; Class B Handicap, 9 miles.

March 10.—Rear-Commodore's Club Handicap: Class B, 4 miles; Class A Handicap, 9 miles.

March 17.—Class B Handicap, 8 miles; Class A Handicap, 13½ miles.

April 14.—Class B Handicap, 4 miles; Class A Handicap, 9 miles.

April 28.—Consolation Races: Class B, 4 miles; Class A, 9 miles.

Class A boats are defined as those of a speed of over 10 miles an hour; class B those not exceeding that speed.

OVERSIZE TYRES.

A motorist can easily settle for himself the question whether he should equip his car with oversize pneumatic tyres. Only two considerations are involved, and the problem is by no means a difficult one. One of the elements for consideration is the weight the tyres are called on to carry, and the other relates to the degree of inflation at which the motorist prefers to use his tyres.

Car manufacturers usually apply as original equipment tyres of a size sufficiently large to meet the car weights when equipped with standard accessories and carrying a full complement of passengers. To support this load, however it is necessary to maintain the full inflation pressure as recommended for the size of tyre used.

With respect to the weight of the load, it is surprising how rapidly extra car equipment such as spare tyres, bumpers, and other accessories run up the load the tyre is called on to carry.

With this added weight and the addition of an extra passenger or two occasionally the tyres are soon carrying a load that is much in excess of the load the car manufacturer originally figured on when he determined the original tyre size to be used.

On the subject of inflation, it has been found that car owners in their desire for greater riding comfort are prone to reduce the air pressure in their tyre, running them much below the pressure recommended by the tyre manufacturers, a practice which leads to early tyre failure.

If a car is subject to frequent overloading oversize tyres should be used, according to the Technical Service Department of the United States Tyre Co. Moreover, to do away with the operation of under-inflated tyres and to enable the car user to gain the maximum comfort possible consistent with good tyre mileage, it is necessary to use oversize tyres that are capable of carrying the car load at a lower proportionate pressure.

It is clear that if it were not possible for the car owners to obtain a larger size tyre to fit the size of rim with which his car is equipped his problem of tyre mileage would be a serious one. The tyre manufacturer has recognized this problem, and

has produced an oversize one for each size of rim, thus enabling him to equip his car with oversize tyres for the extra loads.

Cases exist where the single-oversizing of tyres is not sufficient to meet the owner's needs. In that case it is necessary that he either reduce his loads or change his wheels and rims to make possible the double-oversizing of his tyres. It is not considered good practice to double-oversize tyres without changing the rim equipment.

Road Etiquette.

A correspondent, writing in a South African exchange, has the following to say against those who, he declares, are deserving of the title of "road hogs":—

Sir,—It is remarkable how many motor drivers verge upon being road hogs without being in the least aware of it. One day I was driving a car up a long grade, one of those you can only do on top gear with a clear run, and I met another car coming down coasting, the good surface of

the road being rather narrow. The kindly procedure in such a case is for the coasting car to take to the rough; if he does not do so the climbing car is compelled to change gear, and will probably have to complete the ascent on the lower gear. How few think of this. In the case mentioned my coasting friend stuck to more even than his half of the good surface, compelled me to change down, and finish on low gear.

On another occasion I met a car coasting at night. Having no dimmer, I switched off my lights, leaving my two paraffin lamps burning. The coasting car stuck to the middle of the good surface and kept on full lights, although he had a dimmer. I was compelled to stop altogether on account of the glare, and again to finish on low gear. The driver of the coasting car was an experienced motorist, but has still a lot to learn in road manners.

May I suggest to motorists to consider the climbing car?—I am, etc.,

ETIQUETTE.

THE CALL TO AMBITION.

'Tis said that opportunity knocks at least once at every man's door, and in these days of keen competition the sensible man equips himself early in life with all the specialized knowledge available so that opportunity may be crystallized into achievement.

To-day is the day of the single-purpose man—the jack-of-all-trades (and master of none) is at a heavy discount. There are in these up-to-date times many institutions which provide facilities for acquiring knowledge on almost every sphere of business activity.

Prominent among these is the La Salle Extension Institute of Sydney, a branch of the La Salle Extension University of

Chicago, U.S.A., which offers specialized practical instruction on a great variety of subjects such as business administration—(accountancy salesmanship, management, law and custom), industrial management—(costing, efficiency, raw products, man power), and public speaking.

For the employee, old, middle-aged or young, in the office, shop or factory, the La Salle specialized instructions (with its big variety of actual problems) offers a means to rapid and justified promotion. Employers are quick to note and appreciate the effort of any employee to make his services more valuable to the concern for which he labours.

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Lighting N.Z. Coast.

AT a reunion of officers of combined shipping companies at Wellington recently Mr. G. J. Anderson, Minister of Marine, said that the New Zealand Government hoped in a very short time to erect more lights along the East Coast, and also to make some provision at the Three Kings Islands to assist in making navigation safe in those waters. He was advised by experts that a lighthouse was not the only provision required; that what was necessary—even more than a lighthouse—was radio apparatus, which would help shipping in times of fog, or when the visibility was low. Fogs were frequent, he added, in the vicinity of the Three Kings. Therefore, radio apparatus would be needed, and he was informed that it would be just as suitable as a lighthouse. The Department and the Government were going into that question very carefully.

New Interstate Service.

In conjunction with Interstate Steamships, Ltd., the Patrick Steamship Company, Ltd., is extending its activities to trade with Western Australia, and a new cargo service from Sydney to Western Australian ports, via Melbourne and Adelaide, is soon to be commenced. The inaugural steamer is the *Omana*, a vessel of 2,523 tons gross register, which left Melbourne on October 10.

Shipping Losses in 1921.

The reduction in the effective mercantile marine of the world from vessels totally lost, broken up, and condemned last year was the greatest since the war,

according to statistics published by Lloyd's Register.

The most prolific cause of disaster in shipping was strandings and kindred casualties, comprised under the general heading of wrecks, and this accounted for no less than 45.16 per cent. of the losses of steam and motor vessels and 38.8 per cent. of losses of sailers. Other circumstances of loss, such as vessels abandoned and missing, accounted for about 30 per cent. of losses of steamers and 35½ per cent. of the sailing vessels removed from the mercantile marine.

The total gross reduction in the world's mercantile marine amounted to 559 vessels, of 674,257 tons, excluding all vessels of under 100 tons, and of that total 244 vessels, of 536,537 tons, were steamers and motor vessels, and 215, of 137,720 tons, were sailing vessels. The greatest year of loss was during the war, in 1917, when 2,596 vessels, representing 6,602,478 tons, were removed from the effective mercantile marine of the world; but in 1919 the total had fallen to 415 vessels, representing 514,234 tons.

Old Incident Recalled.

One of the most sensational episodes connected with Australian shipping is recalled by the return to Sydney on the steamer *Ayrshire* of Captain J. Wallace.

It occurred in 1899, when Captain Wallace commanded the *Perthshire*. The vessel was on a voyage from Sydney to the Bluff (N.Z.), when the accident occurred. Wireless had not come into general use then, and fears were entertained for the missing vessel and those aboard her. Sev-

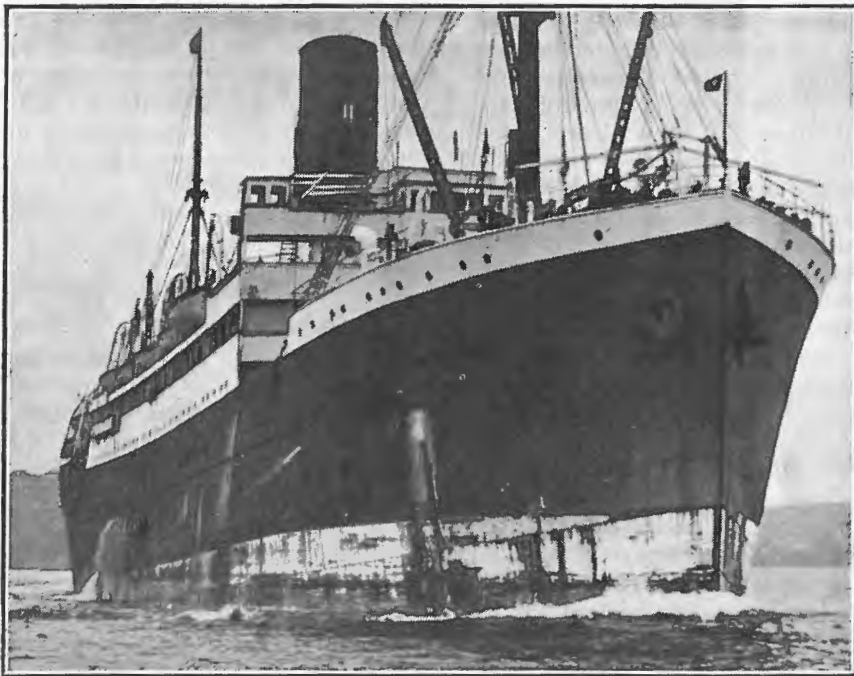
eral search ships were sent out.

By ingenious methods the engineers of the disabled steamer managed to patch up the shaft sufficiently to enable the propeller to revolve, but the power thus given was not enough to drive her through the heavy gales encountered. She drifted 3,000 miles.

The *Perthshire* was found eventually by the Union Company's steamer *Talune*, and towed into Sydney.

For the skilful handling of his vessel under such trying conditions Captain Wallace was awarded Lloyd's medal.

steel steamer of 12,341 tons, with a sea speed of 14.15 knots. Her dimensions are: Length, 500 feet; beam, 63 feet; and depth, 35 feet 3 inches. First-class accommodation is provided for 132 passengers, and 422 can be taken in the third-class. With a cruiser stern and large covered and open deck spaces the vessel has a graceful appearance, implying comfort, which an inspection of the vessel reveals has been studied at every point. Special attention has been given to her qualities as a carrier of Australian produce. She is equipped with six holds, with electrically-driven



New Aberdeen liner "Diogenes."

"Diogenes" Arrives.

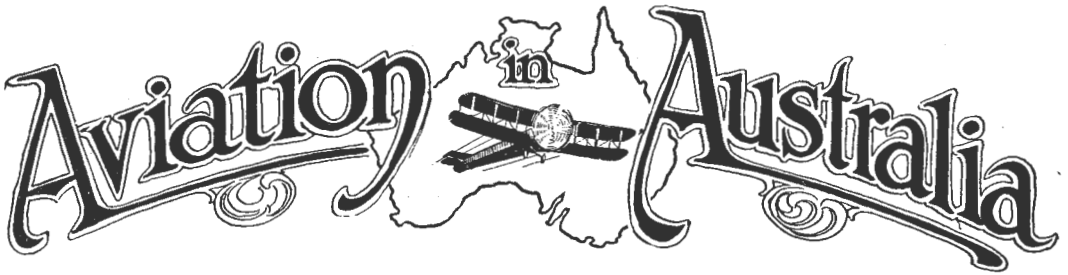
The new passenger liner *Diogenes* is the latest addition to the fleet of the Aberdeen Line, which was founded as far back as 1825, and is the oldest shipping company trading between London and Australia. Together with her sister ship, the *Sophocles*, she has brought the fleet of the Aberdeen Line to that stage where it will not need to build more new vessels for some time. Her cost was in the region of £900,000.

Built by Harland & Wolff, Ltd., at the Belfast yards, the *Diogenes* is a twin-screw

cargo handling gear of the latest type, and refrigerated space amounts to 305,184 cubic feet.

Wollongbar Launched.

The *Wollongbar*, which was recently launched, is to replace the steamer of the same name which went ashore at Byron Bay last year, and became a total wreck. She is a single screw steel steamer, with one funnel, and her dimensions are: Length, 284ft.; beam, 42ft.; depth, 26ft., and loaded draft 14ft.



All-Australian Aeroplane.

ONE of the most interesting exhibits at the display of Australian manufactures at present on view at the Sydney Showground is the body of an all-Australian six-passenger commercial aeroplane exhibited by the Australian Aircraft and Engineering Company, Ltd. Turned out entirely at their Mascot works, the machine is the first of a number of commercial machines to be used on Australian mail routes. It is 11ft. 6in. high, and contains a comfortable cabin to accommodate passengers and pilot. All Australian timbers are used, most of them coming from Queensland. The same firm also shows how an aeroplane propeller is built up from specially selected wood, and what it looks like when finished.

Air Force Development.

The Federal Public Works Committee, after considering evidence relating to the erection of additional quarters at Point Cook for the staff of the Royal Australian Air Force, has recommended that the proposed works be proceeded with. In the committee's report the estimated cost of the work is set down at £21,5000. The proposed buildings include a block of quarters for single mechanics and six houses for married non-commissioned officers.

The present policy, the report states, is the development of the air force to provide for headquarters staff, a flying training school, and an aircraft depot, the personnel of which will form portion of the permanent forces. In addition there will be one mixed land 'plane squadron, which will have a permanent nucleus, the remainder consisting of citizen forces. The present strength of permanent units at Point Cook is 31 officers and 216 other

ranks, and these numbers will be increased to 38 and 271 respectively.

Melbourne to Sydney in 5¼ Hours.

Captain Mathews and Captain Roy King, flying one of the 'planes which has been specially fitted for the Adelaide-Brisbane service, recently did the journey from Melbourne to Sydney in 5¼ hours. The average speed was 110 miles an hour, and the 'plane was kept at an elevation of between 4,000 and 5,000 feet. The flight was organized by the *Sun-Pictorial* newspaper of Melbourne.

Aviators' Successful Tour.

The first result from the Geelong School of Aviation, established as part of the activities of the Gordon Technical College, is expected shortly, when Mr. R. Mawson will qualify for his pilot's certificate.

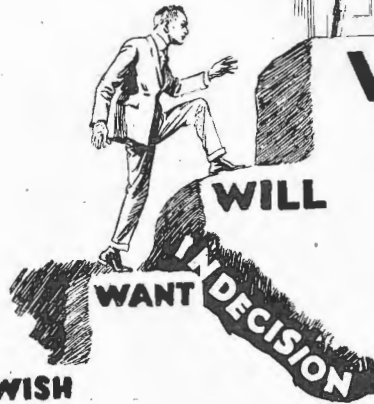
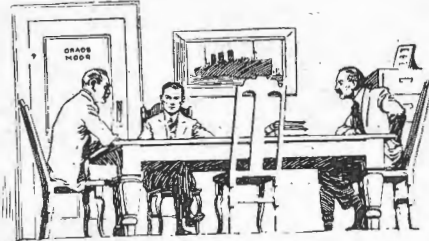
Lieut. C. D. Pratt and Mr. Mawson recently returned from a five-months' tour of New South Wales in a *De Haviland* aeroplane. They made 600 flights without a mishap. Lieutenant Pratt is more than ever satisfied with the possibilities of commercial aviation, but deplores the fact that the Federal Government is leaving all the pioneering work to be undertaken by private individuals or companies.

Cheap Air Travelling.

The Australian Airways, Ltd., which secured the contract for a weekly aerial mail service between Adelaide and Brisbane, via the Riverina and East Coast, anticipate commencing the service about the first week in this month.

The four machines which are to be used will be despatched from England in October, and will comprise three *Handasyde* monoplanes and one *Antelope* aeroplane. Each will be equipped with a 400-h.p.

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Rolls-Royce engine. The monoplanes will accommodate six passengers and the aeroplane three. At present there are two machines ready for service in Melbourne. Three relays of two machines will be employed along the route.

The fares will be 6d. a mile over the longer and 9d. a mile over the shorter distances. The fare from Adelaide to Brisbane will be £35. Freight will be charged for at the rate of 2s. a pound.

SAN FRANCISCO TO SYDNEY.

MAJOR MORGAN'S FLIGHT.

Major Morgan, who has planned to leave San Francisco about the end of October on his flight to Australia, proposes to fly from that centre to Honolulu, thence Samoa (via Pago Pago or Apia), Fiji and Sydney. He expects to leave Samoa about 7 p.m., and will fly over New Caledonia to the Australian coast, and thence along the coast to Sydney, arriving at the latter place about 1 p.m. His longest flight will be 2,500 miles from Honolulu to Samoa. He will fly in a *Barker Boulton* machine,

and anticipates that the Marconi Company will supply him a direction finder and a skilled operator for the flight. His manager, Captain Rosborough, will precede him to Honolulu, Samoa, Fiji and Sydney in order to make arrangements for landing in Australia.

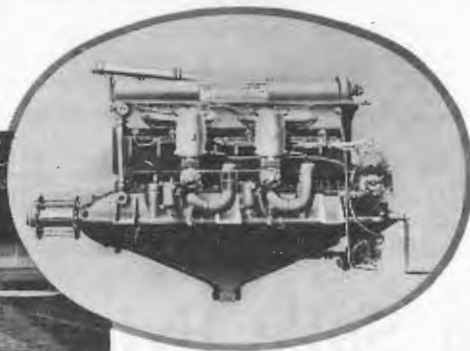
To guard against any possible sickness or accident on the journey, it has been arranged to leave one mechanic at each of the above centres. It is also on the cards that Major Morgan will make arrangements with the American authorities for the co-operation of their wireless stations in California, Hawaii and Samoa, with the New Zealand authorities for Apia and Awanui, with Fiji and California for Suva, Alabasa and Tavanui, and with the French Colonial authorities for New Caledonia.

So far as the Australian stations are concerned, Amalgamated Wireless, Ltd., will co-operate to the best of its ability in giving Major Morgan the radio service which will unquestionably prove of very material assistance to him in his hazardous undertaking.

SUNBEAM - COATALEN

6-Cyl. "DYAK" 100 h.p.

Aircraft Engine



This type of engine has been extensively used in Australia on Avro Biplanes manufactured by the Australian Aircraft & Engineering Co., Ltd., of Sydney, and for reliability of running, combined with extreme efficiency in operation, they have proved remarkably satisfactory.

Catalogues, Installation Diagrams, and full particulars on application.

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YOU CAN remember the contents of every book you read, or every speech you hear.

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is a simple, quick, practical correspondence course, and it enables you to make a swift and complete mastery of anything that you need to remember. Students who have to memorise technical works, diagrams, and so on, find that the sheer mental work is cut down by fully three-quarters.

We make what seem to many people impossible claims for our System. Knowing how very difficult it is to memorise absolutely everything when one has an untrained mind, the average man thinks that nothing, or at best very little, can be done to improve matters. But our work has demonstrated in absolutely every case how false this idea is. What we do in short is show you how to

Discover the Memory you did not know you had.

What is more, we have such faith in our ability to do everything we maintain that we adopt a method of doing business that is, as far as we know, unique in the world. We absolutely guarantee your success in making a complete mastery of your memory—and we back this up with a legally-binding signed undertaking, if you do not succeed, to

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WIRELESS INSTITUTE OF AUSTRALIA

NEW SOUTH WALES DIVISION

SECRETARY'S ANNUAL REPORT.

At the annual meeting of the Institute, on September 19 last, the Secretary, Mr. Phil Renshaw, read a comprehensive report dealing with the activities of the Division between April, 1921, and September, 1922, from which the following extracts are taken.

After referring to the absence of the President, Mr. E. T. Fisk, who is on a business mission to England, the report proceeds:—

It must be mentioned that in April, 1921, the Institute was faced with a very difficult proposition in the selection of gentlemen capable and willing to undertake the onerous duties which the holding of office involves. The membership then was only one-third of what it is at present, but at that time fully 33 per cent. of the members lived in the country. I have mentioned that the membership during the last 17 months has trebled itself, and, while this is a matter for much congratulation, still the circumstances bearing on this increase must be kept in mind, as it is quite likely that the new regime about to be initiated with the present election of officers will see fit to amend certain matters and methods at present in vogue.

The policy adopted by the N.S.W. Division over the last period has been inspired by the desire to increase the membership as much as possible; in fact, it was genuinely hoped that the Institute would have been made sufficiently attractive to induce all experimenters to join up, and at the same time attract those who were interested in the science commercially and also those in the service of the Commonwealth Government. Elaborate arrangements were in hand for the formation of suburban and country sections of the Institute, with suitable means of conducting their own local affairs, assisted by the central body of the Institute in Sydney, which would then have become the Metropolitan Section. It so happened that, quickly though the Institute acted, events beyond our control moved much faster. The result has

been the formation of quite a number of radio clubs, principally in Sydney and suburbs, there being only one country club formed to date, and that is at Goulburn. Now all these clubs are acting quite independently of each other. Feeling that this did not meet with general approval, I placed the matter before the Institute with the result that the idea of holding a mass meeting of all interested in Wireless was decided upon. It was hoped by this means to secure the publicity so necessary to ensure progress. Accordingly, all clubs were invited to each send two representatives to confer with two members of the Institute's Council regarding the matter. This conference decided that a mass meeting was unnecessary, and the delegates unofficially resolved themselves into a committee to consider the co-ordination of the activities of the several clubs under the general control of a central body. This unofficial committee was later confirmed by all the clubs participating, with the exception of the Military Radio Association, who withdrew their delegates, and the deliberations are still in progress.

The following is the inference I have drawn from this desire for co-ordination, *viz.*:—

That it is analogous of the position which the Institute proposed to create by dividing the N.S.W. Division into a series of sections, country, suburban and metropolitan, and that the metropolitan section would really act as a central body comprising the best wireless and commercial brains of Sydney, with delegates from all suburban and country sections, and that its meetings would be always open to members of all sections.

In my humble opinion it is not yet too late for all the clubs to seriously consider this aspect of the case, which would immediately co-ordinate all interests and afford the clubs the advantages of the registration already effected by the Institute without interfering with local control. I feel assured a basis of arrange-

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ment satisfactory to all could be arrived at. Should such a scheme eventuate it would possibly be advisable to alter the Institute's title to that of "Wireless Society of Australia," and no doubt the divisions in the other States would fall into line.

When the Institute first conceived its scheme it was recognized that to encourage all interested to join its ranks some provision had to be made for their entertainment. It was decided to rent a club room, furnish same, equip it with a complete demonstration apparatus to include a working transmitting and receiving set, and, lastly, to improve the syllabus of lectures, etc., by increasing the number of advanced lectures and between same to hold regular elementary lectures. These arrangements were at once entered upon, but the negotiations for completely furnishing and equipping the clubroom remained undecided. So much has been heard *sotto voce* about these negotiations that I feel impelled to mention that the Council was not unanimous on the subject principally as regards method, as all recognized the necessity for finalizing the matter. For financial reasons the clubroom has been temporarily abandoned, and the syllabus has in consequence been cut down. The matter now remains to be taken up seriously by the new Council, and one of their first actions, to my mind, should be the raising of the annual subscription to at least double the present amount, and the imposition of an equitable entrance fee, and, also, applications for membership received subsequent to tonight (September 19, 1922) should be made to conform to the new conditions as laid down in the Articles of Association.

Regarding the use of our permit for transmitting and receiving, it is intended to work experimentally and for demonstration purposes, but this cannot be inaugurated immediately, as there is a large amount of preliminary work to be done in connection with the establishment of our country and suburban sections. In the near future we hoped to acquire a small

room in the city, where a set and a library may be accommodated and work carried out with certain individual stations in terms of conditions approved by Mr. Geo. Weston (Radio Department) at the interview I had with him in Melbourne just before last Easter.

One of the most important events that has occurred during the period covered by this report is the repeated extraordinary success achieved by one of our leading members and councillors, Mr. Charles MacLurcan, who has obtained such astounding results in the transmission of signals over long ranges, using minimum power. Members feel proud at having Mr. MacLurcan amongst them, and it must be recorded to his credit that his success seems only to have made him more genial towards his fellow-members than ever before. I must add my personal appreciation of Mr. MacLurcan's assistance in his capacity as Technical Officer of this Division of the Institute.

Several country members have achieved excellent results in receiving, notably, Mr. H. A. Warden, of Mungindi; Mr. Lionel Todd, of Tamworth, and Mr. P. Shaw, of Goondiwindi, whilst nearer home we have to record the good work of Messrs. Cooke, Stowe, Gorman, Best and others.

I must also express thanks to the many members and associate members who have stood by their Institute so well in the giving of most instructive and entertaining lectures at our meetings.

On behalf of our President, I have to thank all the officers of this Division for their conscientious performance of sometimes quite arduous tasks, and also the members for their consistent attendance at all our lectures.

During my illness I had to abandon the Institute's affairs entirely, and my cordial thanks are extended to Messrs. Charlesworth, Gregory, Perry, Cooke and Stowe for having stepped in with much-needed assistance, and to Messrs. Bartholomew and Frank Leverrier, K.C., for the advice and help they have so willingly extended.

SOUTH AUSTRALIAN DIVISION

THE monthly general meeting of the South Australian Division was held at the Y.M.C.A. Buildings, Gawler

Place, Adelaide, on Wednesday, October 4, the President (Mr. Hambly Clark) presiding over a large attendance.

MISS ROSIE PARKES,

of Parkes and Edwards, who recently appeared at the Tivoli Theatre, under engagement to Mr. Harry Musgrove, returned to Australia after a world's tour, including extended seasons in England and America.

One of her biggest hits was as a movie actress in the second edition of "Potash and Perlmutter," when her wonderful showing of presents and gorgeous dressing created quite a sensation.

Miss Parkes' profession is one that subjects its devotees to many chills, colds, and throat affections, for the countering of which they must needs use the very best remedies known. In this regard Heenzo has proved its superiority. Of it Miss Parkes writes:—

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After the minutes of the previous meeting had been read and confirmed a ballot was taken to fill the position of Assistant-Secretary, vacated by Mr. F. L. Williamson. Mr. R. T. Edgar was elected to fill the vacancy.

The Secretary of the Western Australian Division wrote introducing Mr. J. Cowan, who has come to reside in this State, and who wished to become a member of this Division.

A letter was received from the Prime Minister's Department stating that new regulations controlling wireless would be issued shortly. These regulations will be favourable to amateurs and experimenters, and it is hoped they will not abuse the privileges to be conferred on them.

A further communication was received from the organizer of the Broken Hill Division, now in formation. The contents were referred to Council for consideration. An offer of a block of land upon which to erect a station was received from Mr. R. M. Dunstone, Hon. Treasurer, and this was also referred to the Council.

An offer from Professor Kerr Grant for the use of a room at the University and the

apparatus contained therein for a small fee was conveyed by Mr. K. M. Milne. This offer was accepted with thanks, and Messrs. J. M. Honner and H. Hawke were appointed a deputation to wait upon Professor Grant to finalize arrangements for holding meetings there. They were also deputed to convey the thanks of the members to the Professor.

The Treasurer presented the report and balance-sheet for the past year, which was adopted on the motion of Mr. Hawke.

In appreciation of his sterling services, on behalf of the Division, the Secretary was presented with a cheque.

At the conclusion of the business an interesting lecture on "Wireless Reception" was delivered by Mr. W. J. Bland, who has just been through his P.M.G. examination. Mr. Bland described the crystal set for the benefit of beginners, and then worked on to the Fleming valve, and later to the three electrode valve, giving many different circuits on the blackboard. He also gave curves, showing the difference between the working of detectors and amplifiers. At the conclusion of his lecture a hearty vote of thanks was accorded Mr. Bland.

WIRELESS NOTES

Association of Radio Clubs.

Since the beginning of August last there have been several meetings of delegates from the different local radio clubs who met at the invitation of the N.S.W. Institute with the object of forming a central organization: (a) To be representative of all clubs; (b) to control the general policy of experimental wireless in N.S.W.; and (c) to handle all communications with the authorities.

These negotiations culminated on September 29, when the Institute's full Council met all the delegates and placed before them a scheme which virtually amounted to the Institute (N.S.W. Division) handing over its registered constitution amended as might be required.

In order to safeguard the interests of the interstate Divisions it was desirable that no unregistered body should be able to exercise control. Furthermore, the ex-

istence of registration obviated the necessity of incurring additional expense in effecting a new one.

The Institute was quite prepared for the delegates of all clubs to be immediately nominated and balloted for in order to constitute the central executive council—thus indicating its desire to achieve a satisfactory result. The offer was turned down by the delegates, leaving the Institute no alternative but to withdraw from the negotiations. This course was regretfully taken.

General.

The Institute's activities in country centres are receiving considerable attention at the present time, and it is expected that much good will be the outcome of the extensive negotiations now in progress.

Any enthusiasts in country centres who desire to form local clubs are invited to communicate with Mr. P. Renshaw, Hon.



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Secretary, Box 3120, G.P.O., Sydney, who will give them all the assistance possible.

Regarding the Trans-Pacific tests being undertaken by the Victorian Division, it is the intention of the N.S.W. Division to assist as much as possible in the matter in order that success may attend the enterprise.

The new Council is at present considering many matters of importance, and will be careful to preserve the interests of the Interstate Divisions in connection therewith.

It is unlikely that there will be another general meeting before December, notice of which will be forwarded to all members.

RADIO STATION AT COWRA.

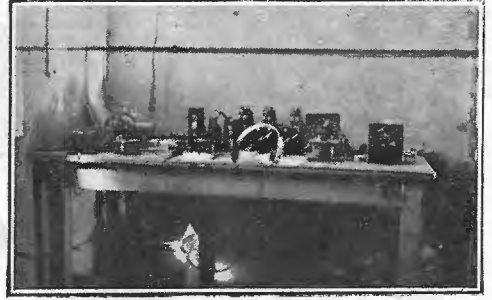
DR. E. W. BONVILL'S SUCCESSFUL EXPERIMENTS.

There are few more enthusiastic radio experimenters to-day than Dr. E. W. Bon-



Dr. E. W. Bonvill.

vill, of Cowra, N.S.W., who has an efficient station of his own, and has conducted experiments of a highly successful nature during the past two and a half years. Dr.



View of Dr. Bonvill's radio station.

Bonvill is exceedingly modest about his work, but, as one who is doing his part towards popularizing amateur radio telegraphy, his activities are worth chronicling.

Using Brown's telephones, an "Expanse B" valve, and a V24 for amplification (both of which have been in use every night for 2½ years), Dr. Bonvill has heard on a 180-foot single wire aerial ship stations at good readable strength on natural note, two days before their arrival in Fremantle from overseas, and has also copied the Oceanic steamers just after leaving Pearl Harbour, and ships on the New Zealand coast. Amongst many other shore stations, splendid results have been obtained by this keen amateur from Singapore, Amboina (Dutch E. I.), Suva, Chatham Islands, Awanui, Perth and Port Darwin.

Dr. Bonvill issues a cordial invitation to any radio experimenters who may be in his district at any time to call in and spend an evening with him. He promises a very interesting time.

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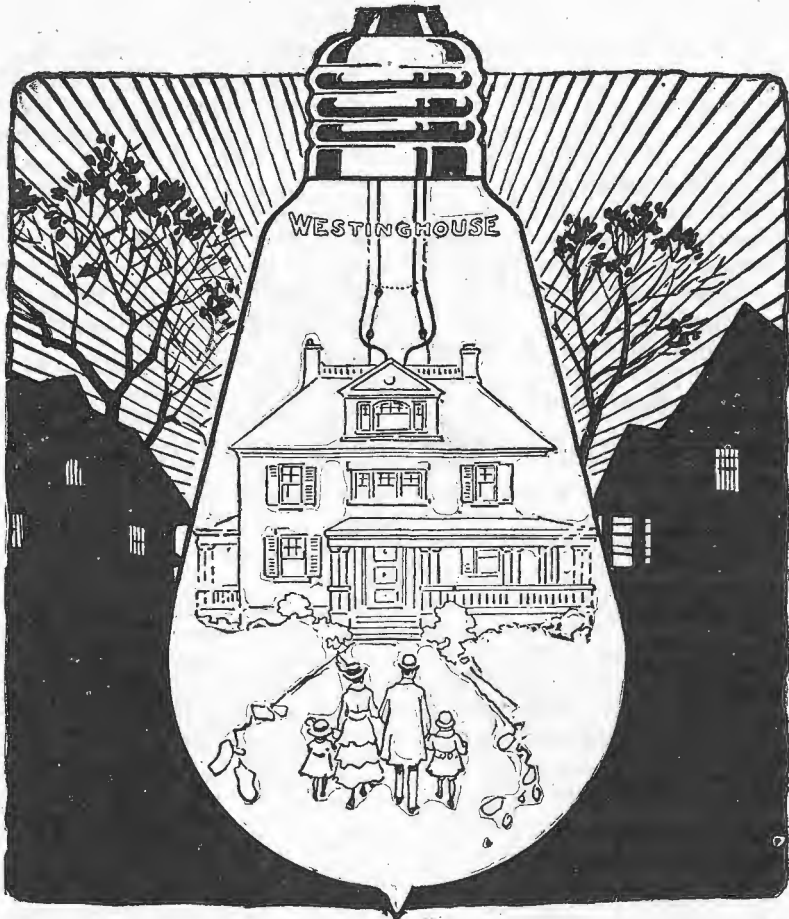
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A VARIOCOUPLER RECEIVER

By JOSEPH G. REED

Radio Engineer

UP to a short time ago it was the usual practice for experimenters to employ the old-fashioned loose coupler with a sliding secondary for an inductively coupled receiver. The modern tendency is to use rotary movements wherever possible. This greatly facilitates the construction of neat cabinet sets, where all controls consist of knobs and switches on the front panel. In addition to being used as an inductively coupled receiver, the variocoupler described in the following text can be used as a variometer, or, by connecting one winding in the aerial and the other in the plate circuit, a simple regenerative receiver is formed.

The materials and methods employed should offer no difficulties for the beginner. For the stator winding a cardboard tube four inches in diameter, four inches long and one-eighth inch thick is required, while for the rotor a piece of similar gauge tubing three inches diameter and two inches long must be used. If the experimenter experiences any difficulty in obtaining either of these sizes of tubing there is no need to despair; just make a raid on the kitchen and appropriate one of those cardboard containers used for "Snow Glow" cleanser. These containers make ideal three-inch tubes. For the four-inch tube—if none is available ready made—another raid on the kitchen will have to be made. Obtain either a "Clever Mary" or a thirty-ounce canned fruit tin. The former is $3\frac{3}{4}$ in. diameter, and the latter exactly 4 in. Use preferably the smaller size, because closer coupling can be obtained with the inner coil.

Proceed as follows to construct the cardboard cylinder. Between the two slight flanges at the end of the tin wind a close layer of thick string, and seal down with paraffin wax. This is to enable the cardboard cylinder to be slipped off easily when completed. From a sheet of thin cardboard about 1-32 in. thick cut a strip $4\frac{1}{2}$ in. wide and about four feet long. If a four-foot sheet is unobtainable two pieces two feet long can be used just as well. Around the string wrap a layer of

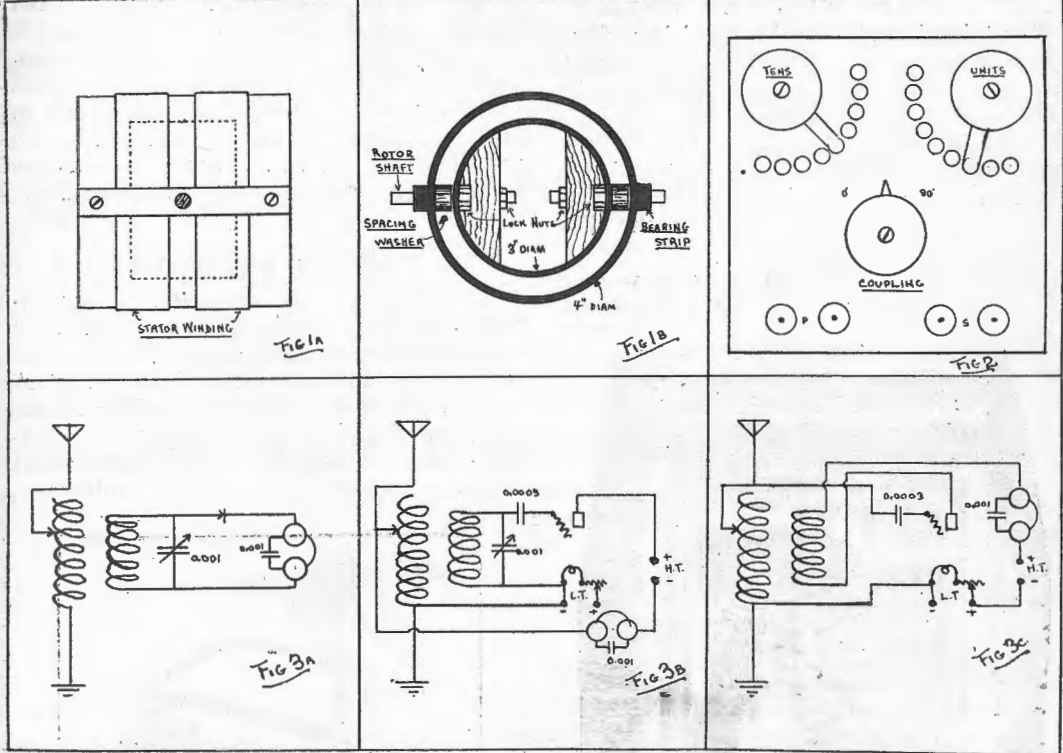
newspaper to prevent the excess glue from sticking the cardboard to the string, and proceed to wind on the cardboard. Between each layer a liberal coating of glue should be given, and then the whole outfit bound tightly with string and allowed to dry. When thoroughly dry pull the string from under the tube and slip it off the can. It should then be trimmed to four inches long with a fret saw or safety razor blade. Now take both the rotor and stator tubes and dip them into paraffin wax to make them waterproof.

For the stator winding, which will be the primary, put on a winding of 100 turns of No. 26 d.s.c. wire, divided into two sections, with a half-inch space between them. This winding is provided with taps to enable a close variation by single turns from 1 to 100 to be obtained. Every ten turns twist a little "pig tail" in the wire and bare the end. For the last ten turns tap each turn. Solder connecting leads about six inches long to each of these taps, slip over the bared portion short pieces of valve rubber for insulation and connect up to two ten-point switches.

The rotor winding consists of 100 turns of No. 34 or 36 d.s.c. wire, with a centre space of $\frac{1}{4}$ in. to allow the bearing rod to pass. Do not shellac these wires, because this increases the distributed capacity nearly four times. To hold the wires in place at the ends drill two small holes in the cardboard and thread them around a couple of times. Dip both in hot water again for a few seconds to firmly set the wires to the tube. Paraffin wax possesses a lower dielectric constant than varnish, and, in addition, the high frequency losses are lower. Now turn out or cut from a piece of close-grained wood a disc $\frac{1}{4}$ in. thick just large enough to fit tightly inside the three-inch tube. From this cut two pieces as shown inside the rotor in Fig. 1, taking care that they are cut along the grain to prevent splitting later on when they are screwed to the tube. Details of the mounting are also shown in Fig. 1. Two hard rubber or fibre strips $\frac{1}{4}$ in. by $\frac{1}{4}$ in. diametrically opposite are at-

VARIOCOUPLER RECEIVER

— JOSEPH G. REED —



tached to the stator with machine screws, nuts and washers to provide bearings for the rotor shaft. Solder the rotor wires to the inside sections of this shaft, and on the outside short leads of flexible wire for connection to terminals. Two small screws should be placed in the shaft and fibre strip, so arranged that they prevent the rotor from making more than one complete revolution. A suggestion for mounting is given in Fig. 2, which is suitable for use as an isolated instrument.

In Fig. 3 several circuits in which this coupler can be employed are shown. Fig. 3a is for crystal reception, and uses a tuned secondary. A valve can be connected to this tuner in the usual fashion for detecting, and if regeneration is required the negative leg of the plate circuit should be led through the primary winding before connecting to the filament. This enables the stator winding to be used as a combined primary and tickler coil. A much simpler method is to connect the valve direct to the primary winding and use the rotor as a regenerative coil in the plate circuit. By this means very fine control over the regeneration of the valve is secured.

With a single wire aerial 40 feet high and 80 feet long the effective wave length range of the primary is between 400 and 900 metres, while with a condenser of 0.001 microfarads in parallel it is extended to cover 600 metre spark work, and the radiotelephony on longer waves.

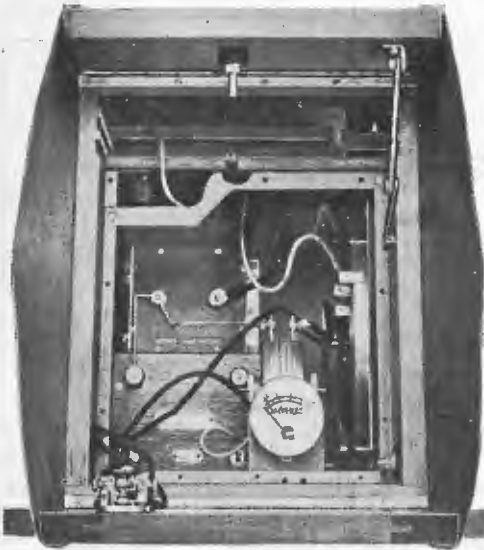
For those whose finances at present cannot stand the cost of a rotary vane variable condenser the following suggestion will be found very useful as a temporary measure. Obtain a glass chemical beaker of about 250 c.c. capacity, and coat half the outside with tinfoil, making connection thereto with some fine wire bound around it. Inside is placed a cardboard cylinder, which must be a very close fit. This is also coated with tinfoil half the way round, and when rotated a very compact variable condenser is the result. The thinner the glass the higher the capacity.

In a later issue the writer will outline the construction of variocouplers and variometers specially suitable for use in regenerative receivers, which will be all the go when the new short-wave experimental transmission licenses are granted.

CAPTAIN HURLEY IN PAPUA.

Captain Frank Hurley, writing from Port Moresby, states that he is highly satisfied with the results achieved by the radio set supplied by Amalgamated Wireless (A'asia), Ltd. This has been installed in the 30-ton ketch *Eureka* which, at the time Captain Hurley wrote, was on an expedition to the Fly River.

From Port Moresby the *Eureka* worked direct to Thursday Island, 600 miles, Cook-



Captain Hurley's radio set.

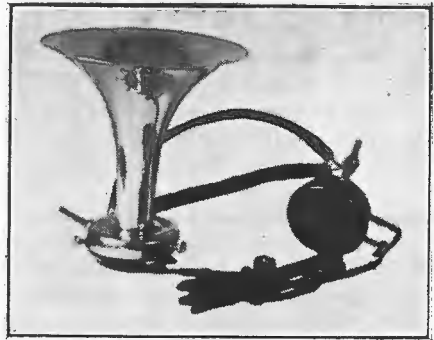
town and Townsville, these three stations giving strength of signals 7.

Using a P1 receiver, Captain Hurley received good signals at Noumea, from all Australian stations and as far as Yokohama.

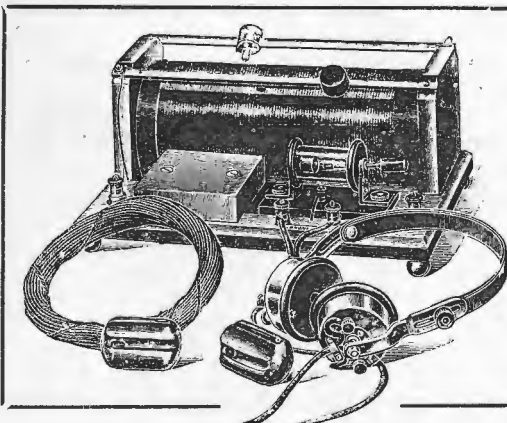
In order to get maximum efficiency from the aerial, the jibboom was lengthened 6 feet, the main mast 10 feet, the mizzen mast 10 feet, and a gaff 12 feet long was erected which carries the aerial well aft to balance. The radiation is remarkable; with both shunts in the hot wire ammeter the radiation goes beyond the calibration.

A New Amplifier.

The radio sets for reception of "broadcast wireless" are as a rule fitted only with headphones, and thus but one member of the household can "listen in" at a time. Realising this, the Colville Moore Wireless Supplies, of Rowe Street, Sydney, have designed a most novel sound amplifier (which they call the Amplihorn),



The appliance, which is here illustrated, is made from spun brass, heavily electroplated, and is free from all metallic vibration through the fitting of a short rubber bushing, which acts as a buffer between the surface of the receiver and the base of the amplihorn.



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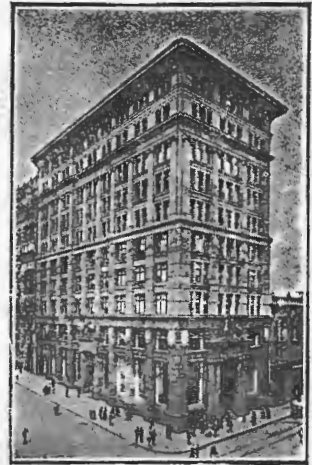
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By SHORT WAVE.

"QRD, my pretty maid?" "QRD home," she said.

"May I QRX, for the night is dark," I whispered, "QRZ."

"QRU! QRT! QSD too late," I heard her softly say.

But as I stopped she QSK'd and murmured "QRA?"

So we swopped Tr's and told CQ to note that QSV;

And she gave me K, with QRL, "you're far too QRB!"

"QRK now; but QRP, for I think I'm QSQ,

And dad's QSA if he QRM's it's all SK with you!"

Melbourne Radio Men at Dinner.

The officers of the Melbourne Branch of Amalgamated Wireless (Aust.), Ltd., and the Coastal Radio Service recently met in the congenial atmosphere of a social evening in the Victorian capital. The gathering was fully representative of the radio community of Melbourne, and in the course of a breezy after-dinner speech Mr. Hooke (Melbourne manager of Amalgamated Wireless, Ltd.) referred in the most optimistic terms to the future prospects of radio in Australia. He was supported by Mr. Weston, late deputy-engineer for radio-telegraphy and now superintendent of the Coastal Radio Service.

As a finale to the evening's entertainment the whole gathering visited the King's Theatre, where the "Sentimental Bloke" provided plenty of amusement.

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Fleming made the pioneer invention upon which practically all recent advances in radio depended, and this book covers all the ground up to the most recent types of apparatus.

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4. *The Maintenance of Wireless Telegraph Apparatus* (Harris).

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5. *Magnetism and Electricity* (Penrose).

If you are interested in electricity you can get a thorough grasp of the elementary principles through this book—515 pages—224 illustrations—and a set of test questions following each lesson.

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ITEMS OF INTEREST.

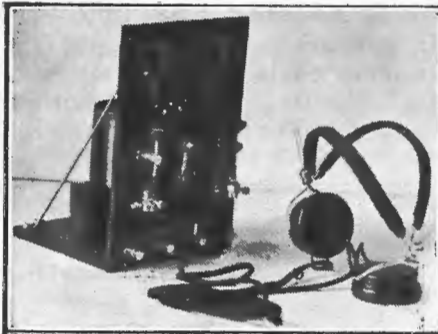
The following distress signals were intercepted by Australian coast stations:—

On the night of August 17 Darwin Radio picked up an S.O.S. call from the Japanese vessel *Ryokai Maru*, ashore on the Penagatan Reef. The S.O.S. signal was broadcasted by both Darwin and Broome radio stations. The vessel later got into touch with Olongapo (N.P.T.) and Kavite (N.P.O.).

On the night of September 9 Adelaide

Radio received a distress message from the Japanese vessel *Kiso Maru*, about 300 miles N.E. of Singapore, stating that she had broken her propeller shaft. The *Atsuta Maru* went to the former vessel's assistance.

Thursday Island Radio Station reported that the s.s. *Tilthorn* was in distress, 6 a.m., September 24, position San Nicholas Shoals. The *Empress of Russia* intercepted signals and offered assistance.



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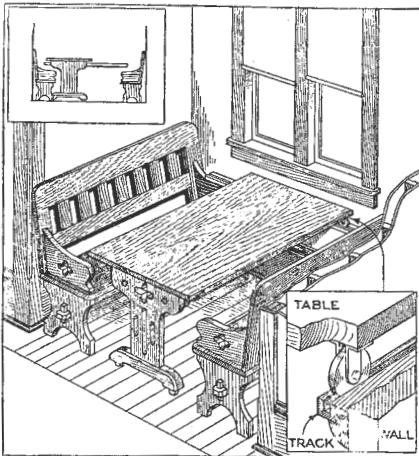
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JUNIOR MECHANICS SECTION

In order to keep this section as bright and up-to-date as possible we seek the co-operation of our readers. By contributing simple constructional and experimental items—written in non-technical language that will occupy space varying from a small paragraph to a full page or more—accompanied by diagrams and illustrations, readers will materially assist. All contributions will receive our most careful consideration and, if accepted, will be paid for on publication.—Ed.

IMPROVED BREAKFAST-NOOK TABLE.

A SERIOUS objection to built-in dining or breakfast alcove is that it is generally necessary for the diners to slide or squeeze into the limited space between the table and the benches. This objection, in one instance, was successfully overcome in the manner shown in the drawing. The end of the table next the



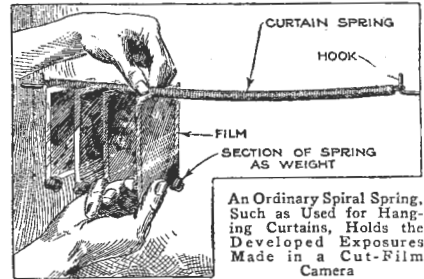
Supporting One End of the Breakfast-Nook Table on Wheels, That Travel in a Track Fastened to the Wall, Makes It Easy for the Users to Seat Themselves

wall was supported on small wheels, running on a grooved track attached to the wall. Set up in this manner, the table is pushed to one side until the occupants of one of the seats are in place, when the table is pulled back so that others can be seated on the opposite bench. A table made in this manner will require only one pedestal, which, of course, is fitted with castors.

—J.H.K.

SIMPLE HANGER FOR CUT FILMS.

An ordinary coil spring, such as used for holding window curtains, can be made into a holder for developed exposures from a film pack. The spring is suspended between two hooks, as shown. The films are

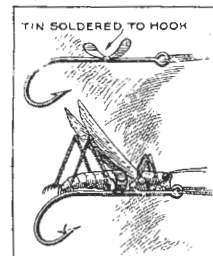


inserted between the coils, the compression of the spring preventing them from slipping out. To prevent the cut films from curling $\frac{1}{2}$ -in. sections of a larger and heavier spring may be slipped over the bottom to serve as weights.

—W.W.B.

NOVEL ATTACHMENT FOR FISH-HOOK.

When fishing with flies or grasshoppers for bait I tried out the idea of fastening



the insect to the shank of the hook with a strip of adhesive plaster. This plan

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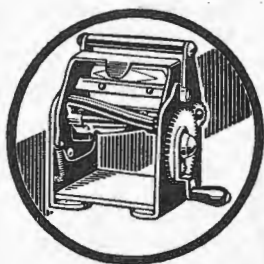
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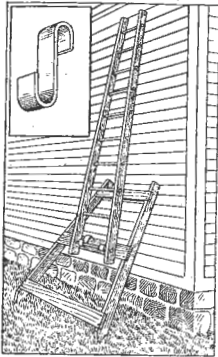
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worked well, but, owing to the moisture, the tape soon loosened, and the improvement shown in the drawing was then made. A small strip of thin sheet metal was soldered to the shank of the hook in such a manner that by bending the ends around the body of the insect the latter was held in a lifelike position, floating on the surface of the water, with the barb of the hook underneath.

—G.E.H.

A SAFE LADDER EXTENSION.

When painting or working on the side of a building, if the only ladder available is too short, an extension that will provide a solid base can be easily and quickly made from heavy lumber, as shown in the

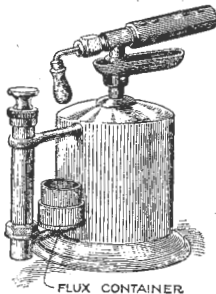


drawing. The upper end of the extension rests against the side of the building and the ladder rests on substantial flat-iron hooks fastened to one of the crosspieces of the frame.

—Popular Mechanics.

KEEPING THE SOLDERING FLUX HANDY.

When using the blowtorch for heating the soldering iron, or for soldering elec-

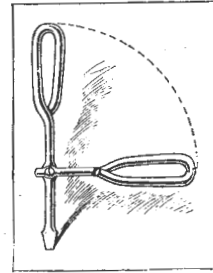


trical connections, the worker often mislays the soldering flux, so that just when

it is needed it cannot be found, and time must be spent in hunting for it at the risk of "burning" the copper bit. This can all be avoided by attaching a small container between the handle supports of the torch. The flux container can easily be made removable, but the best plan is to make it a permanent part of the torch, as it is never in the way and is very convenient.

SCREWDRIVER HAS EXTRA LEVER-AGE.

A screwdriver, provided with an extra handle to be used as a lever when an obstinate screw is encountered, may be made of $\frac{5}{16}$ in. rod. The two handles are formed alike, and the screwdriver bit is forged on the end of one. Both are then flattened

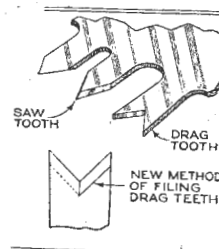


slightly at the centre, the end of the extra handle cut off, and the handles drilled and connected by a small screw or rivet. Normally the two handles are parallel, but for driving screws into hardwood, or starting a tight screw, the short handle is brought down as shown and used as a lever.

—Popular Mechanics.

FILING THE CROSSCUT SAW.

The drawing shows a new method of filing a crosscut saw in such a manner as



to make a bevel on each side of the drag tooth, similar to that of the cutting tooth. When filed in this manner the drag quality is not impaired, while the cutting

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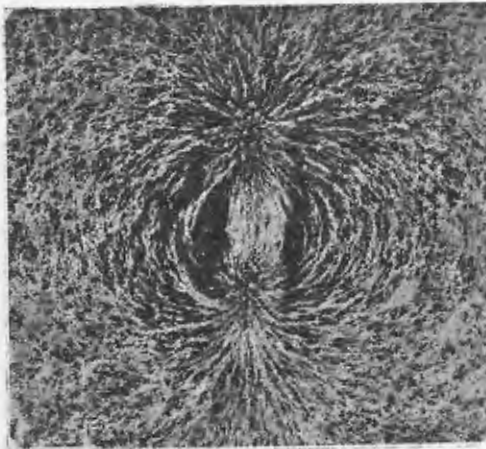
212 Clarence Street, Sydney.

speed is considerably increased. When filing the teeth in this manner the drag should be almost as long as the cutting tooth, but never set as the cutting teeth are.

—E.H.

PHOTOGRAPHING MAGNETIC FIELDS.

This is an easy and very interesting experiment, and can be carried out as follows: After making one of the rooms in the house dark light the small red lamp, as used in the everyday developing room. Take a piece of gaslight printing paper, and sprinkle fine iron filings on its surface; now place a horseshoe magnet under the paper, just touching, and gently shake or tap the paper. At once all the filings will



arrange themselves into lines of force due to the magnet.

Now lift the top off your red lamp to allow the white light to shine down on the surface of paper and filings. Let the white light shine for about ten seconds, then at once re-cover with red shade or glass. Shake all the filings off the printing paper, develop, and fix in hypo, as any ordinary film, and you will get the very interesting result as shown. From a technical point of view this is very good, and gives a boy an excellent idea of the action of different magnetic poles.

—H.G.

MENDING BROKEN HACK-SAW BLADES.

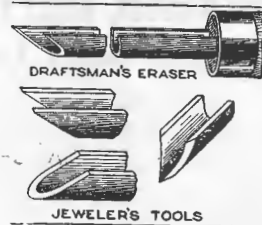
Hack-saw blades when broken at or near the end need not be thrown away. If the

break is, say, within an inch or two of either end the saw may be drilled again and used in an adjustable frame by shortening the frame up to suit the length of saw. Before the saw can be drilled it must first be heated over a candle, or other small flame, in order to take the temper out, and thus render it soft enough to drill. Care should be taken not to expose the main part of saw to the flame, but only the portion to be drilled. The two parts of a blade may be joined by holding them firmly together and sweating a piece of very thin tin over the break on both sides, or bending a piece right over the back of the blade. Of course, this only applies when the break is not far from the end of the saw.

—A.C.J.

TOOLS FROM UMBRELLA RIBS.

The ribs of an umbrella frame are generally made of a good grade of steel, to give them elasticity and the ability to keep the covering tightly stretched. Excellent small tools for special purposes



can be made from pieces of the ribs, and, as they can be hardened and tempered, may be made into small tools for the jeweller and engraver. A very good eraser for the draftsman can also be made from one of the ribs.

—Popular Mechanics.

REMOVING RUSTED SCREWS.

One of the simplest methods of loosening rusted screws is to get a small bar or rod of iron, flat at the end. This is held in the fire till red and then applied to the head of the screw for two or three minutes. The latter may then be withdrawn quite easily with a screwdriver. This method is worth a trial on any obstinate screw.

—C.C.B.