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WIRELESS LEGISLATION

Readers of this journal who are acquainted with the technicalities of wireless, will derive considerable amusement from the *Hansard* report of a recent debate in the House of Representatives. Nothing could show more clearly how readily some of our legislators will talk at random about things which they do not understand.

Wireless amateurs will be pleased to learn that they had two champions for their cause in Messrs. Tudor and Fenton.

WIRELESS TELEGRAPHY BILL.
Second Reading.

AUGUST 20, 1919.

Mr. Webster (Postmaster-General): I move that this Bill be now read a second time.

It does not require very much argument to convince honourable members of the soundness of the principles underlying this brief measure. The proposition is merely to bestow upon the Commonwealth the same power and right to control wireless telephony as it has in connection with wireless telegraphy. When the principal Act was passed, wireless telephony was not in vogue. It has since become a reality, and the Commonwealth Government now seeks to acquire the right to control that particular facility in the interests of Australia as a whole.

Mr. Tudor (Yarra): I am anxious to safeguard the Government in every possible way, and have no objection to the Bill going through. It is right that control should be exercised over wireless telephones as well as over wireless telegraphs, but I should like to know whether the litigation with the Australian Wireless Limited has been settled, and what is the exact position of those persons in the community whose little experimental plants were necessarily dismantled on the outbreak of war. I understand that these small plants can receive messages, but cannot send them, but many young Australians are interested in them and have been experimenting in wireless telegraphy in order to discover improvements if it is possible to do so. I think it well to allow the youth of the community to conduct experiments in this connection if they could be permitted to do so with perfect safety to the community.

Mr. Laird Smith (Denison): Small wireless stations, although they may not have the power to make themselves felt in the big commercial stations, are in a position to pick up every message sent out from the latter. In my opinion, wireless telegraphy will be more and more used in place of metallic lines, and, consequently, these small stations, if they are permitted, will learn everything that is taking place in business matters. The utmost secrecy is observed on land lines.

Mr. Tudor: But are not most business messages sent in code?

Mr. Laird Smith: Many messages are not sent in code. A report from the Northern Territory was handed into the wireless station in the Territory, and, in my opinion, the Gerquent events seemed to indicate that they knew as much about it as the man who had sent it. If small wireless stations are licensed all over Australia, there will be nothing to prevent the people who establish them deriving considerable advantage from learning of commercial transactions about which they should know nothing. The Postmaster-General (Mr. Webster) should have explained clearly to what extent he proposed to go in this direction.

Mr. Tudor: Is it not a fact that in addition to the Commonwealth stations in Victoria, and New South Wales, Western Australia, and Northern Territory, there are big wireless stations controlled by Australian Wireless Limited?

Mr. Laird Smith: Such may be the case, and I want to learn the extent to which these private stations will be allowed to receive messages, and whether there will be periodical inspections by a Commonwealth officer.

Mr. Tudor: There is far more danger of these big stations picking up messages.

Mr. Laird Smith: Yes; and it shows how far-reaching this business is. When I was connected with the Post and Telegraph Department a young official was seriously dealt with for divulging the contents of a message. I may be beating the air now, because of the limited information given by the Postmaster-General. Had I known that this Bill was coming forward to-night I would have been better prepared, but I think it was Senator Gardiner, who said that Mr. Swinburne, the expert who was brought out from England to report on the Australian wireless system, reported that it was a Telefunken-Marconi combination, and that the Australian Shaw wireless was 30 per cent. more efficient. We know that the Telefunken system is the German one, and that the Germans will still have their power stations. The Postmaster-General should have told us how far these people would be permitted to equip wireless plants all over Australia, because, if permission to operate plants is given to one school, it must be given to another. It is quite an easy matter to fit up a local system within a building for the training of operators; in fact, complete wireless plants are offered for sale in the windows of various establishments, and wireless operators are being trained everywhere. It is quite a fascinating occupation. One has the ear to pick up sound reading and can very quickly and easily hear what messages are being received or despatched. It is simply a question of becoming accustomed to sound reading as against sight reading. Operators are required all over Australia; in fact, all over the world. There will be a great demand for them on vessels, and my opinion is that the Government should exercise some control over their training. The man who is wrongly trained is nothing but a nuisance to a carefully trained operator. One can easily make a mistake in sound reading. Many so-called sound readers are simply guessers. Some men who were brought from Great Britain to Western Australia in the gold boom claimed to twenty words a minute very soon stuck them up, whereas Australian-trained operators were quite capable of taking messages sent at forty words a minute. A poor operator on a quadruplex line is a great nuisance to good operators, because he is constantly breaking in, and asking the man at the other end to repeat something he has already sent over the line. At sea the lives of people are dependent on the wireless operator; and it is the Government's duty to see that no poorly trained man is appointed on any vessel. The Postmaster-General who introduced this important Bill with half-a-dozen words is a man who usually goes into details, and claims to have a thorough grasp of the work of every section of the Department under his control. I am very disappointed that he did not give us a complete statement as to the control the Government will exercise under the Bill.

Mr. Fenton (Maribyrnong): I presume that the Postmaster-General (Mr. Webster) takes it for granted that honourable members are as conversant with this subject as he is. No doubt he is the repository of a considerable amount of information upon this matter, but I would like to have had some more information from him in reference to the position of those persons who were conducting private experimental stations prior to the war. These gentlemen have rendered splendid service on transports and other vessels. I have in mind one man who was engaged as a wireless operator on transports during practically the whole of the four and a half years of war. He sailed on all seas, and rendered excellent service, and I am glad that the Government have decided to include these wireless operators amongst those who deserve recognition for having done their little bit in connection with the war. I expected the Postmaster-General to inform the House of the latest developments in wireless telephony, which, I believe, will be of great advantage to Australia. If the equipment does not cost more than that required in connection with the present system of telephony, the wireless system should mean much to this country of great distances. I should like the Minister to inform the House of what measure of success has attended wireless telephony in other countries, and the possibility of its general adoption throughout Australia.

Mr. Webster: I am surprised that honourable members should expect wireless telephony to be discussed on this Bill, which merely extends to wireless telephony a control that is already vested in the Commonwealth in respect of wireless telegraphy.

Mr. Boyd: How much does the Postmaster-General expect to save by the Bill?

Mr. Webster: No question of saving is involved. As a matter of fact this Bill emanates from the Navy Department, which controls wireless telephony. Section 4 of the principal Act provides—

> The Minister for the time being administering the Act shall have the exclusive privilege of establishing, erecting, maintaining, and using stations and appliances for the purpose of:

(a) transmitting messages by wireless telegraphy within Australia, and receiving messages so transmitted; and
(b) transmitting messages by wireless telegraphy from Australia to any place or ship outside Australia; and
(c) receiving in Australia messages transmitted by wireless telegraphy from any place or ship outside Australia.

That section gives the Commonwealth complete power over wireless telegraphy, and the Bill will extend the power to wireless telephony. Then section 5, dealing with licenses, says:—

Licenses to establish, erect, maintain, or use stations and appliances for the purpose of transmitting or receiving messages by means of wireless telegraphy may be granted by the Minister for the time being administering the Act for such term and on such conditions and on payment of such fees as are prescribed.

Therefore, honourable members will see that the points they have raised in regard to licenses are already provided for by existing legislation.

Mr. Fenton: Is the Postmaster-General considering the introduction of wireless telephony in his own Department?

Mr. Webster: No. Unless the control of wireless telegraphy is restored to the Postmaster-General, wireless telephony will not come under my control.

Mr. Laird Smith: Does the Postal Department receive any revenue from radio messages that compete with the telegraph lines? If, for instance, the overland line from Western Australia is overcrowded, and the message is sent by wireless, which Department receives the revenue?

Mr. Webster: There is an arrangement between the Navy Department and the Postal Department for an equitable division of such revenue.

Mr. Boyd: Does not the Postmaster-General think that wireless telegraphy and telephony should be controlled by his Department?

Mr. Webster: Parliament decided otherwise, and *I am not anxious to recover control of those activities.* Before wireless telegraphy was transferred to the Navy Department the business was still in its infancy, and involved the Department in a loss of between £3,000 and £4,000 per annum. *If the traffic grows as we expect it to grow, and the loss increases correspondingly, I shall be loth to resume control of such an unprofitable service.*

Mr. Tudor: Will the Minister state the position of persons whose licenses were revoked and their stations dismantled soon after the war broke out?

Mr. Webster: The Naval Board is now considering the conditions under which licenses may be issued in future. Probably, later on the Acting Minister for the Navy (Mr. Poynton) will be able to intimate to the House the decision of the Naval Board on that point.

Question resolved in the affirmative.

Bill read a second time.

In Committee:

Clause 1 agreed to.

Clause 2—

Section 2 of the Wireless Telegraphy Act 1905-15 is amended by inserting in the definition of "wireless telegraphy" after the word "telegraphic," the words "or telephonic,"

Section proposed to be amended—

In this Act . . . .

"Wireless telegraphy" includes all systems of transmitting and receiving telegraphic messages by means of electricity without a continuous metallic connection between the transmitter and the receiver.

Mr. Tudor: The Postmaster-General referred honourable members to the Minister for the Navy (Mr. Poynton) for a statement of the position of persons whose licenses were revoked at the beginning of the war. Section 6, sub-section 2, of the Act deals with wireless appliances on ships, and the Navigation Act requires that certain passenger ships shall be equipped with wireless telegraphy. That is quite right; I would go farther, and make wireless equipment compulsory on the smaller boats, in connection with which the danger is greater than in the connection with the up-to-date passenger boats. I agree with the honourable member for Denison (Mr. Laird Smith) that the control of wireless telegraphy should never have been removed from the Postmaster-General's Department, into which it naturally fits. It may have been necessary, while the war was in progress, to place wireless telegraphy under the control of the Navy Department as a Defence measure, but now that we are at peace the control should revert to the Postal Department.

Mr. Webster: I thought the honourable member was a friend of mine.

Mr. Tudor: It will be quite easy to restore wireless telegraphy to the control of the Postal Department, because the amending Act of 1915 struck out the words "Postmaster-General" from the original Act, and substituted "the Minister for the time being administering the Act." That means the Minister to whom the Prime Minister gives the administration of the Wireless Telegraphy Act. Therefore that administration can be restored to the Postmaster-General by the Prime Minister. Sometimes the land lines are congested, and some of the work must be done by wireless. At the present time there is a good deal of wireless communication between the land stations and transports. The Applecross Station, Perth, is being kept busy with messages from relatives to returning soldiers on transports. If we were to restore the control of this service to the Postal Department we should save the trouble of adjusting the revenue from this source between that Department and the Navy Department. In regard to the objection of the Postmaster-General to the restoration of this service to his Department, I have never considered that the Postal Department was established for profit earning. It is meant to be a convenience to the people of Australia. I am glad to hear that the Naval Board is considering what shall be done in regard to the issue of licenses.

The Commonwealth Government and its advisers apparently are not aware that the amending Bill is quite superfluous, because as long as 40 years ago the telephone, in law, was judged to be a telegraph instrument, consequently the power to control wireless telephony already existed under the Wireless Telegraphy Act.

Mr. Tudor went wide of the mark in his references to Australian Wireless Limited; the Company in question passed out of existence six years ago, and the Government has not been involved in any wireless legislation since the settlement of the Marconi case in 1914.

To our knowledge, Mr. Laird Smith was inaccurate in referring to a Telefunken-Marconi combination. The fact that the Marconi Company fought the Telefunken people in America in 1915 and gained a verdict against the Germans for infringement of a Marconi patent speaks for itself. The reason why the Germans had such a great advantage in the matter of wireless stations and equipment on the outbreak of the war was that the German Government supported the Telefunken Company and system in every way, while the British Governments hampered their own people who were developing the Marconi system. The existence of large German stations owned and operated by the Commonwealth Government at Sydney and Fremantle is a permanent advertisement of German penetration and British nearsightedness. But for the action of the Federal Government the German system could never have secured a foothold in this country.

The statement that the Australian Shaw Wireless was 30 per cent. more efficient than others will be recognised as an absurdity.

The system was merely a copy of a French method patented several years earlier, and the patents should never have been granted. That it is practically obsolete to-day is a matter of common knowledge, and the fact that the patents have been allowed to lapse renders further comment unnecessary.

Mr. Laird Smith was quite right when he said: "I may be beating the air"; the truth of that statement appears in his amusing attempts to discuss operators' qualifications and sound-reading. He will probably be pleased to know that for seven years past no operator has been permitted to go aboard ship until he has passed a Government examination, and obtained a certificate of proficiency issued by the Naval Department.

Had Mr. Fenton read his daily newspaper with closer attention he would not have asked Mr. Webster "What measure of success has attended wireless telephony in other countries and the possibility of its general adoption throughout Australia?"

In applauding the hon. member's plea for the amateur, we would remind him that wireless telephony has already been practically demonstrated in Australia, and the possibility of its general adoption here is very great if the Government will license persons who wish to use their own plants.

We fully appreciate that Mr. Webster is not anxious to reduce the profits of his department by taking over wireless again, and particularly so if he knew that the loss under his department was just about ten times the figures he quoted, *i.e.*, £30,000 to £40,000 per annum, and that the loss under the Naval department has been much greater.

Finally, we would add that the question of secrecy is one which is as important in line telegraphs as in wireless. Cross-talk on telephone lines, eavesdropping on party lines and switchboards, the ease with which a person knowing Morse code can read other people's messages at the counter of suburban and country telegraph offices, are all phases of the same question. There is no secrecy in a telegraph or cable message which is read by dozens of persons, including messengers, counter clerks, telegraphists, book-keepers and numerous other officials, at every station through which it passes.

Holders of licenses for private wireless stations can be sworn to secrecy and placed under a penalty, and the things they hear will be unimportant in comparison with what an international line tapper could learn by hitching a pocketful of small instruments to one of our main overland telegraph lines in some remote part of the bush.

A WAR PRISONER'S DIARY

BY ROY H. ALEXANDER.

[Mr. Alexander at the time of his capture was wireless officer in the *Wairuna* (Union Steamship Company of New Zealand). The seizure of this vessel, during her voyage from Wellington to Vancouver, by the German raider *Wolf*, was narrated in the March issue of *Sea, Land and Air*.—Ed.]

Part III. (Concluded from August Issue)

Brandenburg, Wednesday, June 5, 1918.

A typical day here.

Appel is at 6.15 a.m. and we are released half an hour later.

Immediately after *Appel* I sally forth to the "lake"-side (the large clay pit is euphemistically designated "the lake") armed with a "bogey" (an old tin converted into a stove), firewood, two tin "billies," a packet of Quaker Oats, tea, and a long, business-like ladle.

Practice has enabled me to carry all of these simultaneously.

On the chilly beach, with dozens of others (from captains downward) I manage to get a fire going in the old "bogey" and juggle the two billies over the fire till the porridge and tea are ready. I have progressed far since that day in Karlsruhe long ago, when I stared helplessly at the ingredients of a pie.

After breakfast (our barrack is dormitory, *salle-à-manger* and lounge—all in one) I "wash-up," peel the potatoes for our midday meal and am then free to lounge around till 10.45 a.m. or so. Our mess (a trio irreverently known as The Holy Trinity) has suffered many vicissitudes.

It is run on the principle of each member, in turn, being *chef* of the day; it is my turn to-day.

For weeks the mess has been on very low diet, packets being quite non-existent, and, to cap all, an Italian, engaged "by the day" as orderly, disappeared with most of our eating utensils, leaving the Trinity reduced to such extremities as saucepan lids for plates and one knife between three.

However, packets are arriving at last, and after an hour's deft manipulation of tins on the beach I shall serve up at noon the following menu, which, by the way, is quite exceptionally ample:—

"Camp Pie," with Boiled Potatoes.
Compôte of Rice and Apricots (dried).
Bread and Dripping.
Tea.

We spend the afternoon lounging around (a favourite pastime), in siesta, study, etc. At 5 p.m. I serve up:—

Fried Bacon (a thin shaving each).
Fried Bread.
Bread with Treacle or Dripping.
Cocoa.

Then our entertainments begin.

In the under-officers' barrack at a miniature Casino one may gamble at diversions varying from Roulette to Patience. Bridge "fours" are everywhere.

Football from 7.30 till 9.30 p.m. (it is not dark till 10 p.m. in these latitudes at this time of the year) and, as at Fürstenberg, model yacht sailing is very popular. Our "lake" is, however, not at all reminiscent of the blue Röblinsee.

The theatre is always crowded (of this more anon); in strange juxtaposition further along in the theatre barrack may be seen nightly the gleaming candles on the Catholic altar, with the little Italian prisoner-priest and his flock at vespers, whilst next to these a Russian congregation kneels before the garish *ikons* of the Orthodox faith.

In the evening, also, we do our "shopping." From 5 o'clock onwards the Russian day-workers from Brandenburg perambulate the barracks, offering for sale (or barter) potatoes, salads, boot-polish, even an occasional rabbit or fowl —all stolen, of course, and smuggled into the *lager* in unheard-of hiding places in the vendor's clothing.

Friday, July 5, 1918.

The camp is suffering from an influenza outbreak—yesterday I attended a comrade's funeral, and had to repeat the dis-

Morning Négligé at Brandenburg.
The right hand figure is the Author; his companion in misfortune is Mr. Norman Pyne, purser of the captured *Matunga* (Burns, Philp Line).

mal occasion to-day. The mournful little processions are pitiful—the black-and-silver vestmented priest, followed by his chanting acolyte; the plain deal box, the troops with fixed bayonets guarding both priest and mourners; and then the forest of wooden crosses, Jewish double-triangular symbols, and Mohammedan crescents marking the graves of over a thousand unfortunates who died of disease or starvation in our prison-camp of Brandenburg.

One grave, wherein lie the remains of Genower, a British bluejacket, is a monument to a typical act of Prussian brutality. Genower and six other prisoners (one Frenchman and five Russians) were serving sentences in the "strafe"-barrack for trivial offences, when the wooden structure caught fire.

Because the sentry had no orders to release them he deliberately allowed the seven prisoners to burn alive, prodding back into the flames with a bayonet one unfortunate wretch who endeavoured to squeeze through a tiny window!

Sunday, July 14, 1918.

The Trinity are in low water at present—have existed for over a week on nothing but dry biscuits and black tea.

Have had several minor excitements, a Zeppelin and a Gotha or two have been over; I got a bundle of letters (the first for over a year), and we were up one night in great excitement watching the distant flashes which we believed to be the long-expected Allied air-raid on Berlin—and which turned out to be merely Berlin's new anti-aircraft barrage being tested.

Saturday, August 31, 1918.

Our theatrical company deserves a word. The theatre itself is a barn-like structure, but has been well-equipped by the prisoners. It has a good stage with all necessary lights and fittings, a sunken orchestral pit, and seating accommodation for between 300 and 400.

Several companies are in full working order; the Russians, English, Italians and French all have separate companies, besides which are an international company, and international and English orchestras.

A full description of their work would occupy volumes, but typical is the English *révue* "Three Nights," the *première* of which took place this evening.

The theatre was packed with as assorted and variegated an audience as it would be possible to find—Poles, Italians, a few Japanese officers, English trawling skippers captured in the North Sea, survivors of the Jutland battle, Russians varying from heavy-faced peasants to a naval doctor and a conductor from the Imperial Opera House at Moscow, French *poilus*, Belgian officers, a brace of captains from torpedoed liners who voyaged to Germany in submarines, and—occupying

The Soup Queue.

the front stalls—the German staff of *offiziere* and *unteroffiziere*, among them being two girls from the Count's department.

"Behind" in the dressing rooms one sees a palpitating mixture of frantic "dressers," nervy stage "females," in weird degrees of undress, clawing at their wardrobe and begging their rivals in satirical tones to "*please* use up all of that —— —— rouge!" and of perspiring scene-shifters trying to pass with their burdens.

There are also such laughable sights and contradictions as a tall muscular "soccer" forward squeezing into corsets and a brunette "make-up," whilst an important little personage of five-feet-nothing (whom Fate and an agreeable tenor voice have conspired to cast as the "lady's" partner) endeavours to increase his height by adding several thicknesses of rubber to his heels.

The *révue* itself? Quite good, plenty of new songs, a splendid comedian, a few moderately passable "girls," and an exceptionally good orchestra.

Friday, November 8, 1918.

Events are moving rapidly now—Kaiser Karl has abdicated.

Also, we are to be divided into small parties and moved to various other camps on Monday—some to Schweidnitz, on the Bohemian border, others to Wanbeck, others to Clausthal, a little to the south in the Hartz Mountains.

Saturday, November 9, 1918.

News received at 11 a.m. that Wilhelm has abdicated; the telegraph wires between Brandenburg and Berlin were then cut.

A revolution is expected hourly, and we are ready to take to the forests immediately, should the *lager* be looted by mobs in search of food.

English "Soccer" Team.
Royal Navy.

English "Soccer" Team.
Merchant Service.

Sunday, November 10, 1918.

Last night at 9 o'clock the bells in Brandenburg commenced to ring. Cheering crowds could be heard; the *lager* guards removed their cap badges, and at 10 a.m. the Red Flag, ascending the flagpole, announced the commencement of a new era in Germany (or so most of us believe).

Monday, November 11, 1918.

I got into Brandenburg at 1 p.m. to hear that the Armistice was signed at 5 a.m. to-day. The streets were crammed—soldiers, sailors, a few officers stripped of their epaulettes, peasants from the surrounding villages, all making for the Rathaus in the Haupstrasse, where addresses were being delivered to a people who seemed stunned—quite incapable of realising what had occurred.

Brandenburg is the very heart of militarism and Prussian sentiment, and the majority of the *bourgeoisie* still stand to gaze with expressions of blank incredulity at the army blankets which do duty as Red Flags on the poles of various regimental barracks.

Orders and badges have everywhere been replaced by red cockades—I have an Iron Cross ribbon and a badge which I picked from the gutter.

In the *lager* the news was received very calmly, even with annoyance in places!

We are becoming a little vindictive, I am afraid, and to see Germany invaded would really please many of us more than this cessation of hostilities.

Our removal to other camps is, of course, cancelled.

Burial of the British Bluejacket and his Ill-fated Companions.
It will be noted that—at the graveside—most of the Hun officers retain their helmets, standing insolently "at ease," with their hands in their pockets.

Sunday, November 17, 1918.

Thanks to a working knowledge of "string-pulling" at the *Kommandantur* little parties of us have often got out of the *lager* on shopping or walking expeditions. To-day we repaired as usual to a favourite resort of ours—a homely old inn on the outskirts of the little village of Görden; the name of the inn is *Zum Waldesruh*—"The Forest Rest."

Zum Waldesruh boasts a cosy parlour, a piano, unlimited *Kriegsbier* (war beer) and coffee *ersatz*, besides which many of of our German acquaintances congregate here.

Peace was celebrated in the inn-parlour in rousing fashion, our day concluding with some merry visits to the *cafés chantants* and dance-halls of Brandenburg itself, where crowds were simulating gaiety and insouciance, whilst inwardly lamenting the fall of the Vaterland. The citizens of Brandenburg are too Prussian to really enjoy defeat and the shelter of the Red Flag.

We returned to our "home from home" in the evening in festive spirits—I was linked arm-in-arm with a congenial, red-cockaded and ingenuous young Hun who sang loudly songs of Vaterland and *die *Freiheit*, and who addressed me as *lieber Bruder*.

Thursday, November 21, 1918.

Wild excitement among the mercantile marine and corresponding depression among "other ratings" when we were told to prepare to leave Brandenburg for Copenhagen *via* Berlin on Saturday, under the leadership of Captain Evans.

* Freedom.

The English theatre gave a farewell dance to-night to the departing Thespians and their friends—a dance which it will be difficult for any of us to forget. The theatre was cleared for dancing, the full orchestra was in attendance, most of the "chorus" made-up for the occasion, and the merchantmen especially were in hectic spirits.

However, after a few conventional fox-trots and waltzes, the Royal Navy took a hand, a hefty tar announcing that an exhibition of a certain "Favourite dance of 'Is Majesty's lower-deck" would be given. The orchestra commenced "Every little thing in Dixie," and the cosmopolitan collection of "sitters-out" were treated to a lesson in the Favourite Dance—its genuine appellation is no less lacking in delicacy than is the actual dance itself.

The audience was partially paralysed for a few moments at this hitherto unheard-of terpsichorean novelty—then, amid hilarious yells, the room became a whirling, glittering kaleidoscope of blue and silver French uniforms, green Italian ditto, of khaki, of blue, of fantastic chorus-"girls," and of gold-braided dignity, all demonstrating with *esprit* and abandon the "Favourite Dance of 'Is Majesty's lower-deck."

Saturday, November 23, 1918.

Our Day of Days.

We are now *en route* to England. At noon over 300 of us, under the leadership of Captain Evans, marched out for the last time through the slimy, odorous courtyard, serenading our never-to-be-forgotten prison, with "Good Bye-e-e!" as we departed.

Brandenburg was decorated for the return of some of its soldiers from the front

The International Theatre.
Brandenburg.

(and, by the way, the familiar black, white and red and the Black Eagled Ensign are creeping back among the scarlet banners).

The long files of *Engländer* received about as much attention from the worthy citizens as would have been accorded to a funeral procession.

"Tipperary" was sung (although "Tipp." has become unpopular among the British, the Huns still regard it as *the* English war-song); but it was the slangy "Good Bye-e-e!" which caused bewilderment among those of our audience who understood English as usually spoken.

It was a six-hour train journey to our stopping-place for the night, Ruhleben, near Berlin—a journey which in normal times occupies a little over an hour.

Potsdam was in darkness as we whirled through. We detrained outside the gates of the notorious racecourse-prison at 9 p.m. The big civilian camp was in a state of flux, half the camp left yesterday, and the remainder leave with us for the Baltic to-morrow morning. All the women and children of the English and the English "suspects" are to accompany us, and the majority of them are spending the night here.

After being lavishly entertained by an excited old chap who could already see Tyne Water in his mind's eye (he almost fell upon our necks and fed us on tea and **Kriegsküchen* till we could eat no more), we went exploring before retiring to one of the horse-boxes for the night—and met some old acquaintances.

Cabin-boys, captured by the Möwe.
The inscription on the board is: "Hush! Don't make a noise. We are dreaming about the Exchange" (exchange of prisoners), Brandenburg, 1918.

* War Cakes.

Skippers of North Sea Fishing Trawlers.
Captured by raiding torpedo boats and submarines.

These were no other than the passengers from the *Matunga* and *Hitachi Maru*, and they had fallen on evil days.

On our arrival in Germany only officers were granted the privilege of being interned without compulsion to work, and all our passengers had been drafted into the labour-gangs with the crews of the sunken vessels! And here we met again, and a sorrier looking lot of scarecrows (sartorially speaking) it would be difficult to find.

Physically, the hard work had done them good, but the difference in these once trim and immaculate Anglo-Indians and business men was laughable.

The climax came when we were told by a well-known and successful Australian business man of how he and his colleagues had been engaged earning their bread by driving a certain vehicle which is odorous, yet necessary! The lack of sympathy and the wild hilarity which greeted this touching tale of sorrow cost us our popularity.

The Roman Catholic Altar.

The Russian Altar.

After the Armistice.

Sunday, November 24, 1918.

We assembled in the ex-Betting Ring and marched out to the waiting train 1,300 strong, men, women and children.

The train, consisting mostly of battered 3rd and 4th class carriages, was enormous, no less than 33 passenger-coaches and two baggage-vans being required to transport us.

Within a few minutes the long train was a mass of bunting; Union Jacks and other flags appeared from mysterious sources, and when, at 11 a.m., we passed out through the suburbs of Berlin, the train resembled a huge, gaily coloured reptile.

We were all a little dizzy with excitement, and the roof of the moving train was packed with fellows dancing and singing.

Two of these latter were swept off the train and killed—a little happening which did not altogether extinguish the spirits of the emotional remainder.

These Ruhlebenites have a maniacal habit of chanting such phrases as "Are we down-hearted?" to the dirge-like strains of the *Te Deum*!—a ridiculous idea which the Brandenburgers discourage by interrupting with ragtime.

All day and all that night the train swept on through Mecklenburg and across the ice-bound plains of Pomerania.

We passed the twinkling lights of Fürstenberg (of happy memory to me), past gangs of unfortunate prisoners still working under the bayonet, despite the Armistice, and then we spent the bitterly cold night on the floors and the wooden luggage racks.

A luggage-rack is by no means as comfortable as, say, a sleeper on the Melbourne Limited, but it suffices.

At midnight the train crossed the straits near Stralsund on one of the big train-ferryboats, and in the black dawn we found ourselves pulling in to the quaint little port of Sassnitz, on the island of Rügen.

We drew up on the quay alongside the blinking lights of a trim Danish passen-

The Jewish Synagogue.

The Author, Photographed on his return to Sydney.

ger-steamer, to be welcomed with beaming smiles by a staff of tall Danish nurses, lovely women, who appeared to us literally as goddesses of Liberty.

Then a horrible rumour found currency —the vessel had accommodation for not more than 1,100 passengers—200 must remain here in Rügen for some days!

And the rumour was true, but the occupants of our compartment were among those who boarded the elegantly-appointed *Kong Haakon*, and revelled among the baths and the civilised linen of the dainty little cabins.

And then a perfect breakfast in the flower-decked saloon—plain Danish dairy foods, butter, milk, fruit, eggs, etc.—it was absolutely ecstasy.

I am ashamed to confess it, but as the *Kong Haakon* drew away from Hunland leaving the disconsolate 200 still ensconced in their 3rd and 4th class carriages, all that we could spare in the way of leave-taking to our unhappy friends was a hasty glance through the saloon window before settling down to partake further of Denmark's flawless and lavish hospitality.

An all-day journey across the Baltic and we came on deck in the late afternoon (after a siesta well-earned by our luggage-rack experiences of the preceding night) to find ourselves in the grey Cattegat, the lights of Copenhagen gleaming through the mist far ahead on the port bow, and a Danish destroyer accompanying us, probably to be "on the spot" should we bump a mine.

Thursday, November 28, 1918.

Our reception at the Scottish seaport of Leith was amazingly enthusiastic—and a little disconcerting. We are the very first war-prisoners to arrive from Germany, and Leith "let itself go" for the occasion.

As a modest and retiring individual I am not accustomed to being shouldered aboard a motor-lorry which had been converted in a flag-draped pedestal, and then to be led by bands of Highland pipers through excited crowds armed with huge stocks of confetti, flowers, and multi-coloured "ticklers," as a *finale* being mobbed by adorable khakied lassies who actually spoke English! To hear one's own language again spoken by girls of one's own nationality!—I think we then realised for the first time that we had at last been released.

And this evening we are at Ripon, in Yorkshire, and a perfect little dinner, served in the perfectly-appointed officers' mess by the very *chic*-est of W.A.A.C's., is surely a happy setting in which to bring to a close these somewhat fragmentary "extracts."

THE LEAGUE OF NATIONS

Especially Written for "Sea, Land and Air"

By HAROLD H. JOHNSON

[This article is the first of a series dealing—in alphabetical order—with the countries which have signed the covenant of the League of Nations. The next country on the list, Britain, will be similarly dealt with in our October issue.—Ed.]

The evolution of the English speaking people of North America from a few weak, isolated States to a world power of the first magnitude is rich in unusual circumstances.

It has frequently been advanced by historians that "America has no history." The folly of such a statement—which has become a commonplace—is extreme, for the American continent prior to its settlement by Europeans was, in parts, peopled by civilised or semi-civilised nations who possessed well-marked historical traditions.

The modern history of North America dates from the ninth century, when Eric the Red made upon its shores the first attempt of the white race at settlement. Columbus "discovered" the Western continent in the fifteenth century, but communication between Northern Europe and North America was carried on more or less regularly for centuries before the day of Columbus.

The early colonies were isolated from one another, neglected and despised often by the country which gave them birth and, beset as the colonies were by fierce and warlike savages, it is a wonder that they reached social adolescence, much less the full stature of manhood; so that at the present day they have developed from a very small beginning, and in spite of such odds as the earlier settlers had to face, into a nation embracing 48 States and approximately 100,000,000 souls.

The original colonies which, in 1643, joined the Union for mutual defence and encouragement numbered four: Plymouth, Massachusetts, Connecticut and Newhaven—the first germ of the mighty confederation of to-day. The State of Pennsylvania was inaugurated in 1682; other States joined at later dates, and the last of the thirteen States of the original Union to be founded was Georgia in 1732, although it was not until 1788 that the thirteen States became a United Nation under Washington as the first President.

The city of New York, now the second largest in the world, was originally a Dutch settlement, and was known as New Amsterdam; but the Dutch were forced to submit to the English, and New York became an English township and its Dutch name altered to that of the city whence its ducal master—the brother of Charles II.—took his title.

The United States presents a striking contrast to another great empire of earlier times, *i.e.*, Rome, which also arose from a very small beginning and flourished as an empire or a republic for hundreds of years. The United States has, I think, without exception always had the right man at the helm in times of national danger. The Romans were not so fortunate, as military chiefs were sometimes elevated to the literal throne and relied upon the support of the army to sustain them, always an uncertain prop in olden times.

There have been four great national crises which the Americans have had to face:—the oppression of English statesmen, leading to the war which resulted in the Declaration of Independence; the Civil War; the Spanish-American War; and the States' participation in the late war.

The restrictions imposed by the English Parliament upon the trade of the colonies were galling to the Americans, and the Stamp Act of 1765 aroused general indig-

nation. The colonists resented the principle of taxation without representation, and after the incident known as "The Boston Tea Party," Britain retaliated by closing the port of Boston.

The resultant hostilities commenced on April 19, 1775, and the war, not at first designed to secure American independence, soon tended that way, and on July 4, 1776, Congress adopted the famous Declaration of Independence, the great turning point in American history. It promised to the people liberty, fraternity, and equality, which a few years later formed the watchword of the French Revolution.

During the war victories fell to each side, until the surrender of Cornwallis with his entire force in October, 1781, brought the war to an end.

Washington was Commander-in-Chief of the American armies, and it was but natural that the people should call unanimously for him who had liberated their country from oppression, to be the first President. His strong personality was the one thing needed in such troublous times, and no American citizen has left behind him a more grateful memory.

America and England were again at war which commenced in June, 1812, when England was deep in the Peninsula War, but after the overthrow of Napoleon in 1814, Britain was able to bestow more attention upon the American War, and the veterans of Wellington from the Peninsula easily routed the American levies. The European Powers in 1807 closed their ports against all outside merchandise. This act struck a heavy blow at American industry, and for four years, grain, timber, tobacco and cotton were stored because they could not be exported. No money entered the country—unemployment was rife and, as the great leaders of the Revolution were dead, popular annoyance had no brake upon it. Peace was signed at Boston in February, 1815, but no attempt appears to have been made by Great Britain to regain control of the United States.

The cause of the gigantic internecine struggle known as the American Civil War was rooted much deeper in American life than is generally imagined. The Aztecs of Mexico, under Montezuma possessed slaves acquired by conquest, in large numbers, and Cortez and his followers early in the sixteenth century adopted slavery also. The unusual labour in the mines of Mexico resulted in the speedy diminution of their numbers until the Spanish authorities, a few years later, "officially" discountenanced slavery.

The United States had cast covetous eyes upon the great region of Texas, and in 1829 she offered to purchase it from Mexico, but the offer was declined. As the possession of slaves in Mexico was against the law, although generally practised in the Southern States, a movement under a Virginian named Houston was inaugurated to gain Texas for the slave owners, and after a battle with the Mexicans Texas became independent, and offered to attach herself to the United States. The offer was at first declined, but the Southern States pressed her claims and the Northern communities resisted them on the plea that Texas would join the Confederation as a slave-owning State. But notwithstanding Northern scruples, Texas was annexed to the United States in March, 1846, thus greatly strengthening the hands of the slave-holding party.

The United States was at war with Mexico in 1847. Heavy terms were imposed upon Mexico, and New Mexico, Arizona, Utah and Northern California had to be ceded, although the U.S. paid 15 millions into the Mexican treasury. Once more difficulties arose as to the propriety of permitting slave-holding in the new territories. The Southern States openly talked of secession from the Union, and by 1850 the North and South had drifted so far apart as to be practically two separate countries.

The North was prosperous and civilised, the South had stood still; in reality the old colonial spirit ruled supreme—the slave-trade was its only "industry," and the political power was solely in the hands of the slave-owning class.

By 1860 the time had come—in the words of the American poet Lowell:—

> To every man and nation comes the moment to decide
> In the strife with truth and falsehood for the good or evil side.

The cruel and disastrous struggle lasted from April, 1861, until April, 1865; the direct *casus belli* was the secession of

eleven Southern States from the Union; in reality the rock upon which the nation split was the slavery question.

Many factors went to make this war an outstanding event in modern world history. The remarkable endurance, courage and perseverance of the troops on both sides, the brilliancy of the commanders, and the vast extent of ground covered by the operations all served to make the struggle one of peculiar severity.

One result of the war was to weld the United States into a powerful and coherent nation, in feeling as well as in fact. A new and higher patriotism was born of it, and the nation had decided which side it would take—truth or falsehood, good or evil. Whatever evils have been permitted to occur in its domestic affairs this nation has, more than ever since the Civil War, stood solidly for freedom in National affairs.

The great hero of the war, President Lincoln, the 16th President, was assassinated by a half-crazy person, to the horror of the civilised world, shortly after the surrender of Lee, the Confederate general.

The Spanish-American War may appear as a poor commentary upon America's stand for National freedom, but the condition of Cuba made it impossible that the United States should refrain from interference, both in her own interest and in the interests of the Cubans themselves. The destructioin of the U.S.A. battleship *Maine* in Havana Harbour on February 15, 1898, resulted in an ultimatum being despatched to the Spanish Government by President McKinley, demanding the withdrawal of Spain from Cuba. The ensuing war relieved Cuba of Spanish control, and the United States agreed to—and did—establish an independent Government for the island, which has not destroyed Cuban independence. The war raised the prestige of the United States very considerably and proved her ability to place an efficient army in the field.

The fourth great national event was the American participation in *the* War, coupled with the prominent part taken by President Wilson in the Peace negotiations. The part played by America is fresh in our memory, and the keenest appreciation for her help will not pass away in our generation.

During the war the Press repeatedly referred to the Monroe Doctrine—Monroe was the 5th President, and was elected on November 12, 1816—and it might have been gathered that he had expounded the principle of non-interference on the part of the United States in any theatre of war outside the American continent. This, however, is not so, as evidenced by the acquisition of the Philippine Islands after the Spanish War. Monroe's Doctrine reads as follows:—

> As a principle in which the rights and interests of the United States are involved, the American continents are henceforth not to be considered as subject for future colonisation by any European Power. We owe it, therefore, to candour and to the amicable relations existing between the United States and those Powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety—

Homer Lee, in "The Valour of Ignorance," preaches against America's military system under which she could not mobilise in any one place a field army of half-a-million regular troops in less than three years. He wished to stir up the military idea as the one safeguard of his country, and had no faith in militia. The Civil War showed how determined a nation can become when national freedom is at stake, and for the good of mankind it is hoped the late war has proved that it is unnecessary to keep a huge standing army which, although it may gain an initial success, cannot secure ultimate victory against a determined nation which arises in arms.

The United States is a land of big things. It possesses the tallest building in the world (except the Eiffel Tower)—the "Woolworth," in New York. It also has the highest lighthouse in the world (at Hell Gate, New York), 250 feet high, and the second highest also, the Statue of Liberty, New York, 220 feet; the largest suspension bridge in the East River bridge, New York, which has a main span of 1,600 feet, and an entire length of 7,264 feet. I think it also has the deepest mine, the Calumet copper mine in Michigan, 3,900 feet, the biggest cavern is the Mammoth Cave, Kentucky, and the biggest trees in the world are in the Yosemite Valley, California. Some of them are of very big circumference and 376 feet high.

The American railway systems are the greatest network of communications ever spread over a continent, linking up ocean to ocean, and have opened up immense regions for farming and industry.

Mechanical invention is now a passion with the American, and with the assistance of his machines he has grown rich by producing in abundance the "fruits of the earth" which, during the War, so materially helped to feed the population of the United Kingdom.

The value of last year's harvest was £2,800,000, and the nation was tilling £250,000,000 acres. To understand these vague, large figures we must imagine half the soil of Europe farmed by men and women scarcely more than, say, the population of two greater Londons.

Her steel industries are famous all over the world, and continual discoveries of vast natural reservoirs of oil, in Pennsylvania, California, Texas and elsewhere, have provided the Americans with another instrument of mastery. Their oil resources, combined with their immense manufacture of petrol and paraffin engines for almost every kind of work, have given them cheaper and handier means of power than any other nation possesses.

Since the harnessing of Niagara in 1890 the electric water power of the United States has been intensely developed, and the Americans are now busy harnessing other large falls of water for manufacturing purposes.

America has very definite domestic problems to face; the Negro population is restless, and at present there has been no indication given that another Bartle Frere is at hand. Her immigration laws—always strict—are likely to be the source of much trouble if not handled with extreme skill.

America has produced two notable scientists, Benjamin Franklin and Thomas Edison. The former took part in the war of Independence, and was thrice elected President of Pennsylvania. He discovered the identity of lightning and electricity, and the latter has been of immeasurable benefit to mankind by means of his practical applications of electricity to everyday life.

America is essentially a land of millionaires. The derivation of the word dollar is not at all clear. Prior to July 6, 1785, the English pound was in use in the United States. On that date Congress established the dollar. A dollar was originally coined at Joachimstal, a mining district in Bohemia, and hence was called Joachims*thaler*, or simply *thaler*, or dollar. The nation has been warned by writers against making the pursuit of wealth its chief aim. The Americans are not alone in this respect. The story of the recruit's religion when joining a British regiment may not be generally known, so is quoted as an illustration. The sergeant had duly instilled into the recruit what answers to give the colonel on the morrow, and as the sergeant, having ascertained that the "rookie" had no religion, suggested the Church of England. "Right oh!" said the recruit, "I'll remember that." Much to the amusement of those on parade the recruit, replying to the colonel's question: "What religion are you?" replied "The Bank of England, sir."

Now I don't put all the afflictions of humanity down to Capitalism as the Socialist does, nor ascribe them to drink as the prohibitionist does. But when the dollar is worshipped and the chief end of man is Dividend, extremism can only be looked for from the other side.

I see by the Press that the exchange value of the English sovereign is down to the equivalent of 17s. 2d., due of course to an adverse balance of trade. In view of the almost superhuman efforts physically and financially of Great Britain in the War there is no disgrace to our own nation in the sovereign failing to carry its face value in America. The depreciation of the sovereign is not so much as the depreciation of other European countries' currencies, although it rather supports the view of the author of "The Great Illusion" that the victor in a present-day war suffers almost as much financially as the vanquished.

It must take a long time for Great Britain to get back into her industrial stride, and until she does her gold sovereign must face a depreciated value in countries that are producing and exporting more than she does. America came into the war comparatively late, and her expenditure on the war was greatly counterbalanced by the tremendous amount she made in the earlier

stages by producing munitions of war which at first the Allies could not do in sufficient quantities to meet their requirements.

Now it is the practice in the shipping circles of the world to declare a "general average" in the case of an accident to bear the cost proportionately, according to values of the ship and cargo which is saved. Ship pays so much cargo and freight at risk also, according to value. The war was fought for an ideal of Liberty for the whole of mankind, and America did not bear her due proportion of the expenses in saving the liberties of the world from militarism, but she ought to. Great Britain bore the brunt of the financial strain and could justly ask America to bear her proportion of the financial sacrifice incurred for the common good of mankind.

The United States have become famous as a great nation because it has always striven for high ideals, and it requires no effort of imagination to predict that its future will be even more memorable and prosperous than the past. No effort will be lacking on the part of its citizens to enhance their present eminence until they are second to none. As the Americans are largely composed of the Anglo-Saxon race the British Empire will, it is hoped, enter the contest for supremacy with the same vigour as was shown in past centuries, keeping in mind that America and the British Empire are the greatest nations on earth to-day, that both speak the same tongue, and together they can ensure the peace of the world.

THREE ROADS

Especially Written for "Sea, Land and Air"

By CLAUDE R. BERESFORD.

Three roads there are that beckon to me daily;
The red road, and the white road, and the blue.
Some day I'll turn my footsteps down them gaily,
And meet my great adventure, overdue.
In habit's bond I make my mild resistance;
I long to burst those ever-chafing ties,
To view far lands gold-tinted in the distance;
To see what o'er the dim horizon lies.

Of ironstone, the red, red road goes winding
Beyond my door towards the distant range.
What peaceful haunts that highway must be finding,
To city folks so lonesome and so strange.
Above its ruts the big gums arch and tower;
Their fragrant leaves are meeting overhead.
But when the wattle blossom is in flower,
That is the time to take the roadway red.

Above my roof the highway white is stretching,
Among the clouds that drift in mammoth forms.
It has a lure insatiable and fetching;
The snowy way of zephyrs and of storms.
Borne by the fabric planes beneath me spreading,
Maybe some day I'll make a longed for flight,
With motors loud, towards the sunset heading;
A voyager down the windswept road of white.

The blue track is no path for idle dreamers,
The sailor fathers of our nation teach.
The way of beating barques and laden steamers,
That flings its tattered edgings on the beach.
The ocean calls; all night we hear its roaring.
Three are the ways that restless man may fare;
On keel, or wheel, or with the wide wings soaring,
By triple roads of Sea, and Land, and Air.

PEACE LOAN FLYING

Especially Written for "Sea, Land and Air"

By Captain LESLIE H. HOLDEN, M.C., A.F.C.

[Captain Holden, whose aerobatics have thrilled the luncheon hours of many thousands of Sydneyites during the past few days, has contributed the following interesting description of his flight from Melbourne and of his impressions of Sydney as seen from the air.—*Ed.*]

On August 18 I received a telegram from the Department of Defence inviting me to proceed to Melbourne and conduct an aerial tour of Victoria and New South Wales in connection with Peace Loan propaganda.

My very good friend, Captain G. F. Malley, M.C., A.F.C., was similarly invited and together we travelled down to Melbourne by the first available train, reporting at Victoria Barracks on August 22.

"How soon can you start?" we were asked, and replying that we were ready to leave immediately, were instructed to pick up our machines next day at the Central Flying School.

At 6.30 a.m. on Saturday, August 23, we motored to Point Cook, took possession of two *Avro* bi-planes, and, after a few short tests, set out on the first stage of our journey at 11.20 a.m.

My passenger on this tour is Sergeant Murphy, D.F.C., formerly technical warrant-officer and later holding a pilot's commission with No. 1 Squadron A.F.C.

I soon noticed that my engine, an 80 h.p. Le Rhone, was not giving quite enough work. I had not been up since the aerial demonstration over the city of London on Anzac Day (4 months ago); consequently, I was taking no chances on my first Australian flight and, before proceeding further, decided to land and remedy the defect.

Shortly after midday Malley and I came down at Broadford and completely overhauled the engine, removing and examining each of the nine plugs.

At 1.30 we resumed our flight and landed on the racecourse at Avenel. Apparently we were not expected here; nobody seemed to be aware of our arrival, nor could we obtain petrol. Wandering around like a pair of lost sheep, we eventually located a Chinese storekeeper and tackled him on the subject of lunch. We secured a couple of meatpies and some fruit, and greatly refreshed, flew on to Benalla, some 50 or 60 miles distant, landing at about 5 p.m., in the presence of a large crowd which quickly assembled.

Next morning (Sunday), Malley and I had planned to do a little stunting over the town, drop a few pamphlets and deliver two or three Peace Loan addresses.

The Author: Captain Leslie H. Holden, M.C., A.F.C.

My flying companion, however, had the misfortune to strike a pepper tree and then a fowlhouse; this mishap placed his machine temporarily *hors de combat*, and deprived me of his society for the remainder of the tour.

We filled up the petrol tanks and, after doing a little stunting over the town, started off for Albury.

Here we were met by the local authorities in charge of the Peace Loan, and having delivered a few more patriotic appeals, set off again for Wangaratta. The roar of the engine disturbed a church meeting in this town and the congregation flocked out to watch us. I take this opportunity of offering a public apology to the minister for the disturbance which my appearance created.

Three miles beyond Wangaratta my engine again became troublesome and I was compelled to land in a field in which a horse was quietly grazing. The unfortunate quadruped, after chasing itself madly around the field about half a dozen times, finally crashed; death, I believe, was instantaneous. The incident in itself is extremely regrettable but, with the provision of suitable aerodromes, this sort of thing will, of course, be obviated.

We put another plug in the engine, set off again at 1 p.m. and, following the railway line, arrived three-quarters of an hour later in Albury, where, after flying round the town for about ten minutes and dropping a few pamphlets, we landed on the racecourse.

We were met by the Mayor, who entertained us at lunch at the hotel. After lunch the Mayor and I gave a Peace Loan stunt and made a short flight.

At 3.30 we headed for Wagga—83 miles distant—and, flying against an adverse wind, made a good landing at 5 o'clock. Some local residents looked after the machine for the night; next morning, in lieu of payment for their services, I took them up for a short flight, during which a further supply of Peace Loan pamphlets were distributed. The Town Clerk received us in the absence of the Mayor.

Renewing our supplies of petrol and oil, we left Wagga and an hour later reached Cootamundra, where a large crowd had assembled to meet us. After delivering another little homily on the advantages of Peace Loan investments, I obtained a further supply of petrol and flew on to Harden, arriving there about 5 p.m. Here, we were received with particular enthusiasm, ours being the first aeroplane to land in this district since the visit of the late French airman, Guillaux, seven years ago.

We dropped pamphlets and addressed

Captain Holden looping over St. James' Church, Sydney, August 28, 1919.

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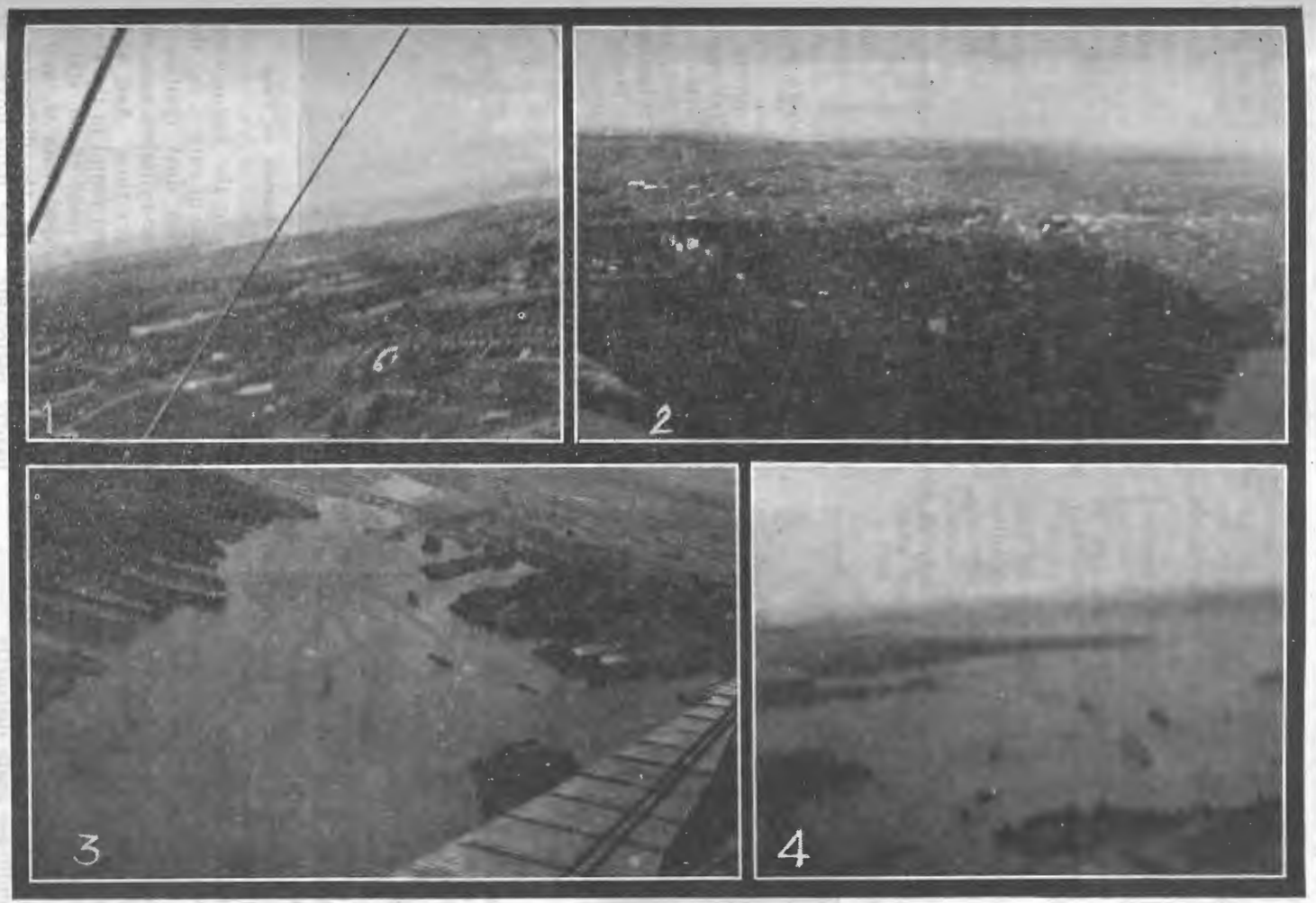

Aerial Photographs taken by Captain Holden during his Peace Loan Flight from Melbourne to Sydney, August, 1919.
(1) Aerial view of the Domain; (2) The City of Sydney; (3) Darling Harbour; (4) Bradley's Head.

the crowd until 5.25 p.m., when we left for Yass, 48 miles distant, arriving at 6 p.m. Here we landed and spent the night.

Next morning, we stunted over the town, carried out the usual propaganda programme, departed at 2.30 p.m. and, aided by a favourable wind, reached Goulburn half an hour later. Here we were met by the Mayor, who gave us tea—after which we returned to the landing ground and addressed the meeting.

At 3.45 p.m., we headed for Moss Vale and covered the distance in 45 minutes. The Mayor of Moss Vale had placed a sheet for us to land on, but despite this assistance Moss Vale proved easily the worst landing ground on the whole journey.

At Albury. An address to Peace Loan enthusiasts.

A strong westerly wind blowing at about 35 m.p.h. and accompanied by torrential rains added to our difficulties. We covered the machine with tarpaulins and pegged it down for the night.

On Tuesday, August 26, despite unfavourable weather conditions, I went up about 2,300 feet and commenced the last lap of my flight to Sydney. We passed over Bowral, Picton and Mittagong, encountering severe rain squalls over the mountains, but once clear of these the conditions improved.

On reaching Liverpool we cut straight across Lane Cove between Parramatta and Botany Bay and arrived at Sydney at 1 o'clock in the afternoon.

We dropped some pamphlets over the City and appeared to create a good deal of interest among the spectators, whom we could see quite distinctly.

We looped over Queen's Square, did some assorted stunting above the General Post Office and other public buildings and swooped down on a cinematograph man whom I had noticed cranking away at me from the roof of the Paramount offices. Apparently my intention of giving him a good film at close range was misunderstood, for immediately I dived towards him he let go the handle and scuttled away out of sight. The same thing was repeated in the case of a photographer on the roof of the T. and G. Building, and in other instances.

My total flying time between Melbourne and Sydney was a trifle over nine hours, though doubtless better times would have been recorded if my machine were fitted with a higher-powered engine; a 110 h.p. Le Rhone for instance, or a 100 h.p. Monosoupape.

On an 80 h.p. rotary of the type now in Australia, the journey is by no means a joy-ride; the engine is kept at full pressure the whole time, for there is no reserve power.

Generally speaking, reserve power is absolutely essential, and the Melbourne-Sydney flight should only be attempted at about nine or ten thousand feet, and on a stationary engine; under these conditions the flight could easily be made in 6½ or 7 hours.

Captain Holden welcomed to Yass.

Another objection to the low-powered rotary—or to any type of rotary, for that matter—is that unless dual ignition is fitted, and one of your cylinders cuts out, you have to land every time. And while dual ignition is seldom found in the standard rotary engine, most of the stationary types are equipped with it, and if one plug should miss, the difference is hardly noticeable. The Rolls-Royce, for instance, has four plugs to the cylinder, and if one of them misses it doesn't matter at all.

Photograph of Thames Embankment; snapped by the author while flying over London on Anzac Day, 1919.

The maximum air-duration of my present machine is 2¾ hours, and in my unbiassed opinion any aerial transport company which may contemplate establishing interstate services, can get nothing better for this class of work than the new Bristol Triplane, the Vickers-Vimy, the D.-H. 9 or the D.-H. 10.

In making this statement it must be conceded that the *Avro* is an excellent machine for comparatively short flights; but if height and long distance work are required one must have the big multiple-engined passenger carrier.

* * * *

A recent letter to *Sea, Land and Air* from Lieutenant-Colonel W. Oswald Watt, O.B.E.,—who commanded No. 1 Training Wing in England—refers to Captain Holden in the following terms:—

"L. H. Holden was one of the best fellows ever in the A.F.C. Trained by the Royal Flying Corps, he came to me about May, 1917, with excellent reports. He then went overseas with the R.F.C. on D.-H. 4's, and returned to me two months later with the same excellent report.

"On September 21, 1917, he went overseas with me on * D.-H. 5's and got his M.C. for Cambrai operations, November-December, 1917.

"After further excellent service in France he came back to me again when I was given No. 1 Wing, and was one of the finest instructors we had; for this work he was awarded the Air Force Cross."

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* See illustration July issue *Sea, Land and Air*, page 203.

PEACE LOAN TO BE SPENT HERE.

The currency of the Peace Loan, of £25,000,000 which the Commonwealth Government is floating is eight years, and the security offered is the best in the world. Previous loans were expended in shot and shell overseas. Not so with this one. Most of the money will be devoted towards re-establishing the returned soldier in civilian life. Financial experts agree that it is a good, solid investment, as the rate of interest is 5 per cent., with a special interest bonus which works out at £5 6s. per cent. per annum.

AUSTRALIAN-BUILT HANGARS

Our editorial in the August issue of *Sea, Land and Air* emphasising the necessity for aeroplane hangars, resulted in a visit from Mr. C. H. Gardner (of Messrs. Gardner, Wærn & Co., Melbourne), who, a few days ago, passed through Sydney *en route* to the United States.

Mr. Gardner stated that his firm has completed some very interesting experiments in this direction, and has now produced an all-metal hangar, constructed on the interchangeable section principle. The sections are of light steel, and have been submitted to various tests in the university schools of engineering, with entirely satisfactory results.

A model of the new hangar, which has a span of 40 feet, will be exhibited at the Melbourne Agricultural Show on September 22.

AVIATION IN WESTERN AUSTRALIA

By H. V. NORTON (late A.F.C.), Special Correspondent to "Sea, Land and Air."

Westralia's first flying season opened on Saturday, August 2, and was largely attended.

Major Norman Brearley, D.S.O., M.C., A.F.C. (late R.A.F.), who—as announced in a previous issue of this journal—recently imported two *Avro* biplanes from England, had advertised that passengers would be taken up for ten-minute "flips" over the city of Perth at a cost of £5 per head, and so keen was the competition that it was decided to sell the first flight by auction.

The Association Cricket Ground was selected as the theatre of operations, and approximately 4,000 enthusiasts passed through the turnstiles.

Rain fell heavily at intervals, but the airman had pledged himself to fly that afternoon, and the programme, as advertised, was duly carried out.

At 2.30 p.m. the first official flight was made by the Mayor of Perth, Alderman W. F. Lathlain, who subsequently, when interviewed on behalf of *Sea, Land and Air*, expressed himself as being "thrilled with delight at the sensation of flying." The Mayor added that he was "all eagerness to go up again at any time and perform every possible stunt."

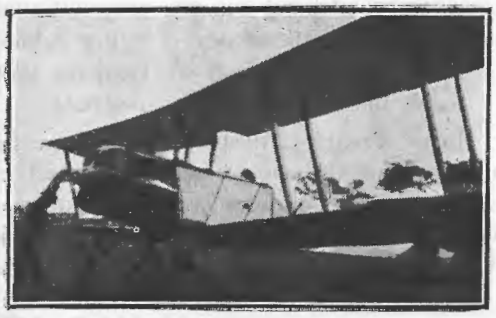
"I was sorry when we landed," he continued, "I had never fully realised the natural beauties of Perth until seeing them from the air. I had the utmost confidence in Major Brearley and I want to go up again and again."

The Mayor's sentiments were re-echoed by other civilian passengers who made their first flight that afternoon; among these was a lady of sixty years, Mrs. Henry Seeligson, also Mrs. D. C. Braham, Miss Vera Dent and Miss L. Pledger.

The aerobatics performed by Major Brearley included the double loop, the cartwheel, tail slide, Immelmann turns, stalling and, finally, from about 2,500

On the Belmont Racecourse, Western Australia.

Major Brearley (left) and his chief mec hanic, Mr. H. P. Hansen, ready to start.



"Contact, Sir!"

feet he executed a spinning nose-dive, bringing the *Avro* out of it at about 500 feet from the ground

Flying for the Children.

A second exhibition was given on Monday, August 4, when Major Brearley flew over the Esplanade and Swan River, dropping leaflets to the children, certain coupons entitling the finders to cash prizes offered by the firm of Charles Moore & Company.

Despite heavy rain and a strong adverse wind the airman once again kept faith with the thousands who had assembled to witness the aerial demonstration.

Taking off at 4.30, he rose very slowly to about 2,000 feet. Major Brearley subsequently told me that it took him eight minutes to do three miles (22½ m.p.h.) against the wind, and that when he turned his machine round, the speed indicator registered 200 m.p.h. His passenger, Mr. A. J. Beaton, thoroughly enjoyed the experience.

The star stunt on this occasion was a very pretty feat of "standing on the tail," the nose of the machine being brought to within ten degrees of the vertical and—with the prop cut out—sustained in this position for about fifteen seconds, during which time it was swung back and forth, pendulum-wise, by the force of the wind. After a thrilling swoop the *Avro* made a faultless landing on the Belmont Racecourse.

On August 7 five passengers were taken up, and on the following day fourteen more.

Five flights were made on August 9, and during the afternoon Major Brearley stunted over the Subiaco Oval, where a football match was in progress. On the following Saturday, August 16, a further exhibition was given at the Claremont Show Ground. On this occasion Major Brearley divided his programme into three spectacular demonstrations, each of about half an hour's duration.

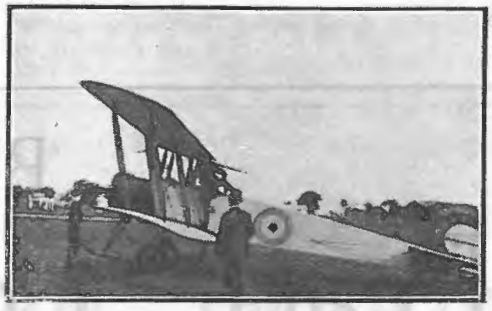
With the tail of his machine well against the fence, he took-off on the first "flip" of the afternoon, but made no attempt to rise until almost on the opposite side of the ground; from this point he gracefully zoomed up over the heads of a large crowd of spectators and reaching 2,500 feet, performed a series of continuous loops, rolls, half rolls, upward spirals and sideslip landings. Then, flying round the track at no more than 100 feet, he gave the visitors some idea of the "ground"-speed of an *Avro*. Next came a rapid dive to the centre of the ground, then a zoom up again to 1,000 feet or so.

The exhibition concluded with a very fine spinning nose-dive from 3,500 feet to within 200 feet of the ground.

Interviewed on his return to *terra firma*, Major Brearley remarked: "You can tell your readers that I haven't half exhausted my repertoire of stunts; there are several more tricks to be shown yet."

Questioned regarding future plans, he replied: "I intend to stay in the West—if the West wants me. I propose to establish a system of air transport for passengers, and—if permitted—of mails between Perth and Kalgoorlie. Besides giving exhibitions, I shall teach flying. I have already received applications from several aspirants who are eager to learn, and when it is realised that flying is going to be as common as motoring, no doubt many other applications will be forthcoming.

"I have erected a good hangar at Belmont Racecourse, and this will be my



Major Brearley takes his seat.

The two "Avro" bi-planes in front of Claremont Grandstand.

headquarters. I shall, of course, extend it if I find that aviation is to be part of West Australian progress."

Major Brearley was born in Geelong, Victoria, 28 years ago, but made his home in the West. On the outbreak of war, being keen on flying, he paid his passage to England, was accepted in the Royal Flying Corps and sent to France.

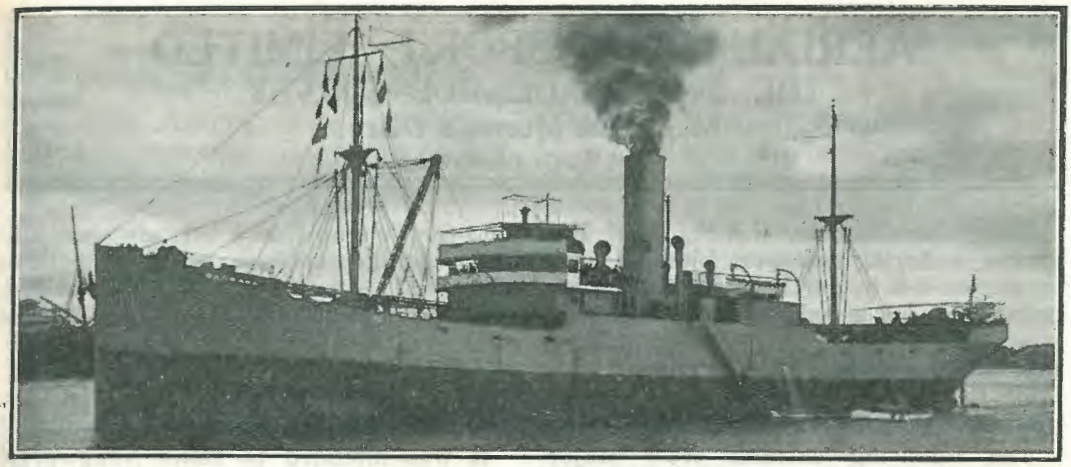
After three months' active service over Hunland he was wounded and pronounced unfit for further aerial fighting.

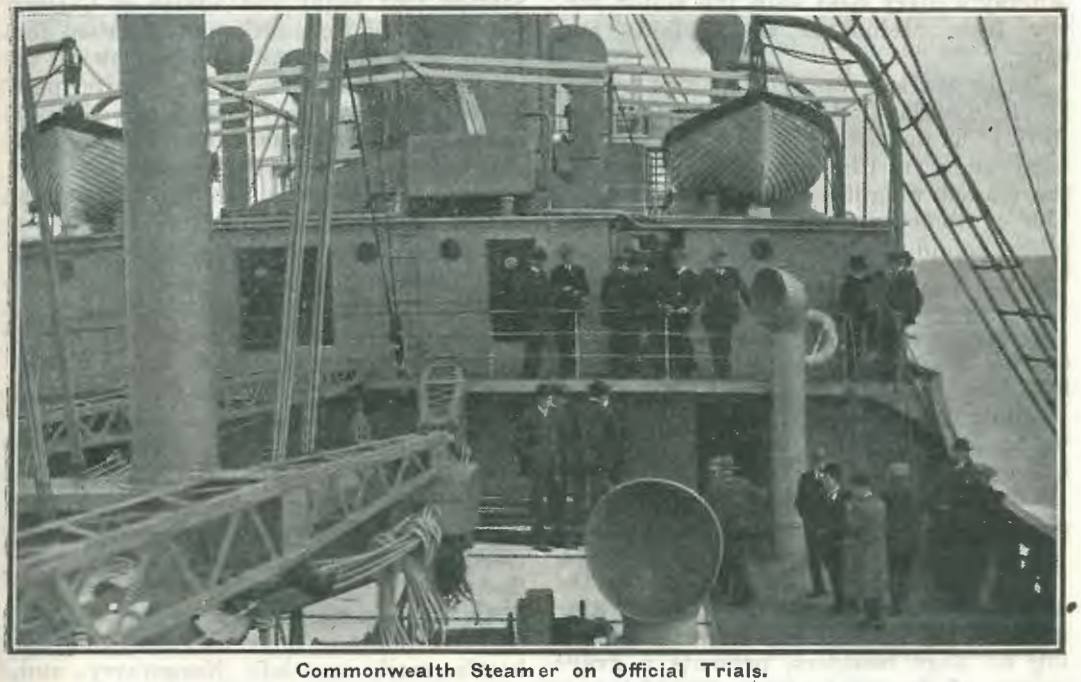
He was then transferred to the Gosport School in England, where his services were utilised on the instructional staff of the most advanced flying school in the world. His job at Gosport was to teach instructors how to instruct.

Major Brearley, despite the many calls on his time and energies, is doing all in his power to popularise the proposed West Australian Section of the Australian Aero Club, and in our next issue we hope to announce its successful inauguration.

Major Brearley taking-off on first demonstration flight.

Changing plugs after the final exhibition.





Commonwealth Steamer on Official Trials.

The official trials of the *Dromana* were made on Saturday, August 9. Over a distance of 5½ miles, between buoys, a speed of 11.8 knots was registered, while engines, steering gear, winches and pumps were pronounced to be in satisfactory wo king order. Wireless messages were transmitted from the new vessel to His Excellency the Governor-General, the Prime Minister and Mr. Watt. The upper photograph shows the *Dromana* leaving Williamstown Pier; in the lower illustration she is seen running down Hobson's Bay.

AERIAL TRANSPORT LIMITED

THE SYDNEY-ADELAIDE SURVEY

Major Lee Murray's Diary

Major Lee Murray, R.A.F., Chief Engineer to Aerial Transport Limited, who, as announced in our last issue, has been engaged on an aerial survey for the purpose of establishing aerodromes and landing stations along the route from Adelaide to Sydney, has now completed his preliminary work.

The following extracts from Major Murray's diary deal with the motor survey from Melbourne to Adelaide and back.

Major Murray was accompanied by Mr. D. K. Laidlaw, Assistant Surveyor to Aerial Transport Limited, the vehicle used being a Chalmers-Six automobile, the loaded weight of which was 31 cwt. The equipment carried included a complete camping-out outfit and sleeping bags.

Tuesday, July 1, 1919.

A start was made from the Company's offices, Equitable Building, Melbourne, at 9.25 a.m. Pouring rain.

While travelling at a fairly high speed, we struck the "Glue-pot," which was in a very bad and greasy condition.

Geelong was reached 1 hour 50 minutes after leaving Melbourne.

The road from Geelong to Colac, through Winchelsea, was good, with the exception of a 9-ft. culvert some nine miles before Colac. This culvert, consisting of huge boulders, presents a grave source of danger to motorists who may be unaware of its presence. There are no warnings on the roads, and it was necessary to apply the rear brake with such suddenness as to put it out of action.

We had intended to halt at Colac for lunch, but as the brake repairs would involve too lengthy a delay, we eliminated the halt and pushed straight on to Hamilton, arriving there at 6.45 p.m.

Despite incessant rain, the road through Stoney Rises and Penshurst was good.

Wednesday, July 2.

The back brake having been repaired in the morning, we left Hamilton at 3 p.m. for Coleraine, and here we were advised to take the lower road on to Casterton. This was by far the worst we had yet encountered, many places running over 400 yards axle deep in water and mud, and it was on this stretch that, for the first time on the route, it became necessary to come off top gear.

It was intended to make Nangwarry Station that night and advice at Casterton indicated that, although the road for about nine miles was very bad owing to logging, it was nonetheless, quite passable. This stretch of road proved even worse than we had been led to expect, necessitating almost continuous second-gear work and—in the dark—almost impossible to negotiate.

At Heathfield a number of sand and mud tracks appeared to converge at the same spot and, fearing to lose our way, we decided to camp there for the night. At a wood-millers' camp about a hundred yards away, we obtained food and camped at a fire.

Thursday, July 3.

After an early start, almost breakfastless, from Heathfield, the track, although sandy, improved and we reached Mr. Gardiner's homestead on the Nangwarry Station at 10.30 a.m. Here we were very hospitably received and regaled with morning tea. An hour later, carrying our host's mail, we left Nangwarry and, through more good sheep tracks, arrived at Kalangadoo.

Here we were directed to Millicent, but either the directions were wrong or we misunderstood them (probably the latter), for our road terminated abruptly on the edge of a huge paddock, and for one and a half hours our course was found by the aid of the compass.

We struck the main (Mount Gambier-Millicent) road near Glencoe and reached Millicent at 1.45 p.m. The latter town is on South Australian territory, and it was necessary to re-register the car.

We set out after lunch with the intention of making Kingston, 91 miles dis-

tant. From here on to Furner the road had recently been re-made and was only just passable, one particular stretch being so bad that we ventured on the muddy track at the side and, in consequence, got bogged. However, the road-men and their horse soon helped us out.

From Furner to Beachport Junction the road was good, and from the latter point as far as Kingston (which we reached at 7.45 p.m.) was the best stretch throughout the entire journey.

Friday, July 4.

At 9.30 a.m. we left Kingston on the 92-mile run across the Coorong Desert to Meningie. The famous "pipe-clay" track was under water, the alternative being a particularly flinty track, which seriously damaged our tyres. Half-way across, we were able to render assistance to a car going in the opposite direction, but with this exception we saw nobody at all.

The sand-banks, popularly supposed to hold such terrors for motorists, were quite good and presented no difficulty. The last 20-mile stretch was extremely rough and Meningie was made at 4.30 p.m. Thus the 92 miles were covered in seven hours, including several halts.

After tea, we decided to push on to Adelaide—92 miles distant—that night. Three miles out of Meningie we got our first puncture, but 25 minutes later were again on the road, making good time to Wellington. Here we were delayed half an hour, but the last 60 miles from Wellington through the Mount Lofty Ranges to Adelaide was good going.

We pulled up at our destination, the South Australia Hotel, Adelaide, 12 hours after leaving Kingston, the last lap having been covered in 4 hours 20 minutes, including stops amounting to well over an hour.

Saturday, July 5—Tuesday, July 15.

These ten days were occupied in a general survey of possible landing grounds, which, at this juncture it may not be desirable to indicate.

On July 15 the car was railed from Adelaide to Wolseley, where Mr. Laidlaw and I arrived on the following day.

Thursday, July 17.

More surveys.

Friday, July 18.

Leaving Wolseley at 11.30 a.m. we crossed the Victorian border fifty minutes later.

Through Kaniva and Lawloit to Dimboola the road was mostly bush track and, generally speaking, quite good, but between the two last-named towns we struck some rather bad sandy patches for a few miles; and but for the recent rains, it would have been impossible to cross the sand in certain places. This, however, was the last of our difficulties, and Dimboola was reached at 4.30 p.m.

Saturday, July 19.

Peace Day. In the midst of celebrations and processions, we left Dimboola for Horsham, which was reached at 4.30 p.m. Here a second instalment of Peace Day celebrations delayed us still further; eventually, however, we got clear of the town and started for Stawell. Exceptionally bad roads were encountered about six miles out, but better speed was maintained later on the bush tracks, although on one occasion, we narrowly escaped being bogged.

We struck the main (Murtoa-Stawell) road within four miles of our destination and got in by 4.30. Here, more Peace celebrations had obviously left their imprint on the majority of the inhabitants.

We spent the week-end in an unsuccessful endeavour to locate a serious leak in the water system. As this could not be achieved without completely dismantling, we decided to resume our journey without further loss of time.

Monday, July 21.

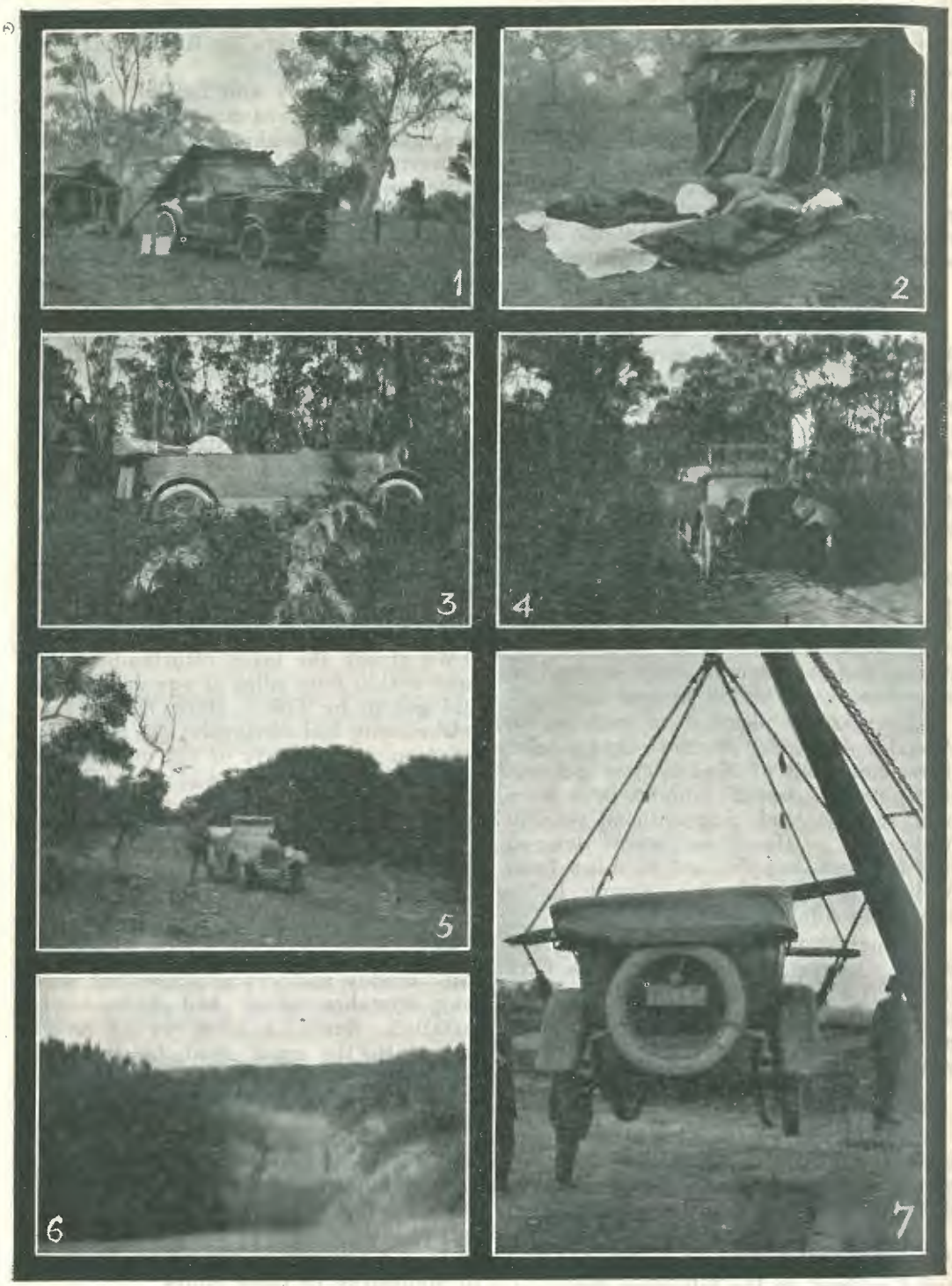
Through Ararat to Avoca, the road was fair—muddy and wet in places, but with long stretches which had been newly metalled. Some six miles beyond Avoca we struck the main road to Ballarat, which we reached at 4.55 p.m.

Tuesday, July 22.

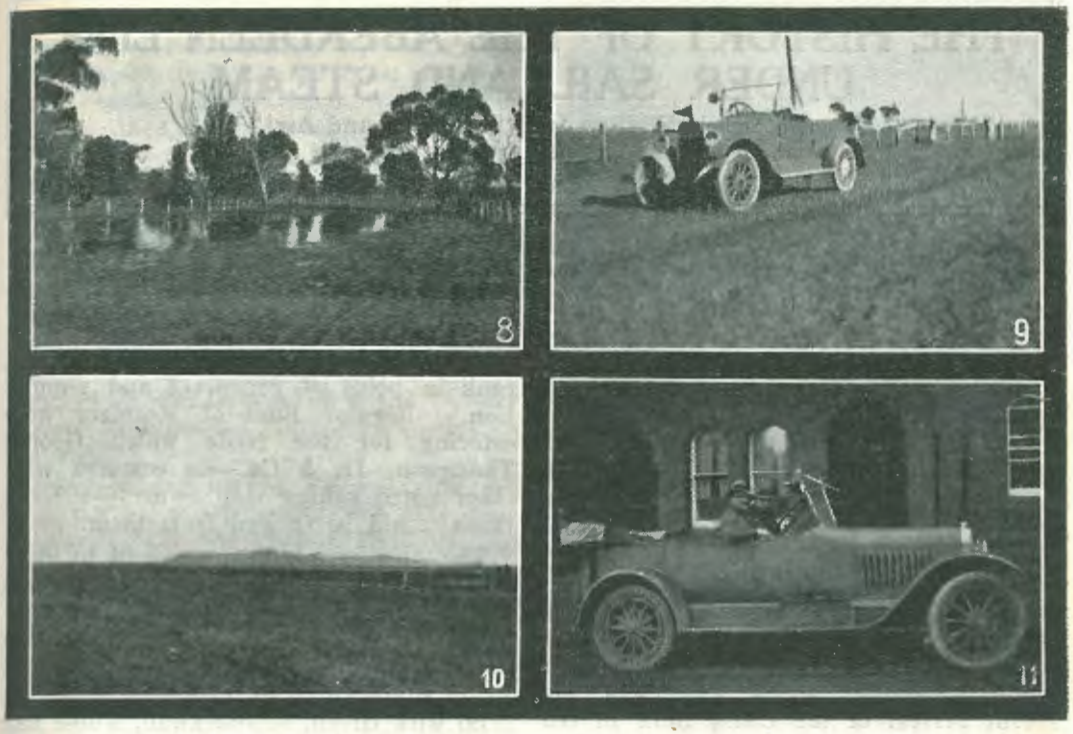
The Ballarat-Melbourne road on the whole was good.

A puncture occurred at Bacchus Marsh, delaying us for nearly 40 minutes; a second delay for photographic purposes increased our actual time from Ballarat to Melbourne to three hours.

Our destination was reached at 2.10 p.m., the running time on this section of 70 odd miles being 2 hours 10 minutes.



The Melbourne-Adelaide Aerial Survey.
(1) and (2) Camping at Heathfield. (3) and (4) At Nangwarry: the main road. (5) and (6) Stones and sand of the Coorong Desert. (7) At Wolesley; unloading car for return journey.



The Melbourne-Adelaide Aerial Survey.

(8) Main Road near Lawloit. (9) Crossing the border into Victoria. (10) Flat Country near Horsham, with Grampian Hills in background. (11) The Survey Completed. Major Lee Murray and Mr. Laidlaw return to Melbourne.

Accommodation throughout the journey was fair, many of the township hotels being very clean and comfortable, but the *menu* very poor.

* * * *

Major Murray left Melbourne for Sydney on Tuesday, July 29, arriving on Saturday, August 10.

While in Sydney, he was officially welcomed by the New South Wales Section of the Australian Aero Club, and departed for Melbourne at 7.30 a.m., Tuesday, August 19.

The survey was completed on Saturday, August 23.

The second portion of the journey—Melbourne to Sydney and return, together with photographs, will be published in the October issue of *Sea, Land and Air.*

THE HISTORY OF THE ABERDEEN LINE UNDER SAIL AND STEAM

Especially Written for "Sea, Land and Air"
By CAPTAIN J. H. WATSON, J.P., F.R.A.H.S.

Continued from August Issue.

III.

In the July issue, in writing of the ship *Star of Peace,* the final fate of her—as given in the Register of Australian and New Zealand Shipping—was questioned. The writer here makes the *amende honorable* by explaining that he was misled, and that the *Star of Peace* was broken up on Prince of Wales Island in 1895.

It may not be out of place here to refer to the *Thermopylæ* and *Cutty Sark,* illustrations of which appeared in last month's issue, for the purpose of calling attention to a paragraph in the shipping news of the *Daily Telegraph* which announces the recent arrival of the *Cutty Sark* in the Thames.

This remarkable instance of the longevity of a composite-built ship speaks well both for the material and for the work put into her, just fifty years ago, by Messrs. Scott & Linton, of Dumbarton; particularly when one recalls the severe buffeting she sustained off the Cape of Good Hope three years ago when, heavily laden with coal, she lost her mainmast, mizzenmast and fore topgallant yard. Some two hundred and fifty miles south of Cape Agulhas, she was picked up by the steamship *Indraghira* and taken into Cape Town.

Her appearance has changed somewhat since her great racing days, for in 1881 she had several feet cut off her lower masts, but was able for some years after to maintain her speed.

In 1871—when the next ship left the stock at Walter Hood's yard for George Thompson, Jr. & Co.,—many changes had taken place since the first ship to carry their house-flag entered Australian waters. The clipper had displaced the ancient bluff-bowed ships, timber had almost entirely been discarded in construction, and steam was threatening canvas.

Sydney, from a small town, had grown to a great city, even then. Melbourne, which in 1846, hardly existed, had by the discovery of gold, and by Victoria being created a colony, rushed into the front rank in point of commerce and population. Regular lines of steamers were catering for the trade which George Thompson, Jr. & Co.,—in common with other noted sailing ship owners—did not think would be enticed from them.

The Aberdeen Line were about to essay iron in their ships, and steam ten years later. The Loch Line commenced with iron, and got as far as steel with the *Loch Nevis* in 1894 but, failing to adopt steam, disappeared by 1913.

So with Green, of Blackwall, whose flag never was smoked, and whose fleet of wood and iron sailers passed into other hands, British and foreign. Messrs. Money Wigram & Sons, a noted London firm, whose splendid frigate-built sailing ships traded to Melbourne during the latter half of the last century, adopted iron in 1870 for their sailing ships but, in 1864, had gone into steam, with the unfortunate *London,* which was lost in the Bay of Biscay on January 11, 1866, on her second voyage. Their steamers and their house flag were taken over by another large company, and the flag is seldom absent from Australian ports.

The principal reason, however, for the disappearance of the whitewings was the opening of the Suez Canal in 1869, which event rapidly revolutionised shipping.

The first iron ship of the Aberdeen Line, the *Patriarch,* had by her success no doubt caused the firm to abandon wood, and their next vessel which made its appearance in 1871 was an iron ship of 1,495 tons, named *Miltiades.*

It will be noticed that in naming their vessels the manager of this line in its early days appears to have followed no definite plan; it was not customary to do so, and not until 1867, when the *Thyatira*

was launched, was the step taken of giving the vessels classical names. The effort, however, was spasmodic, for after the *Thermopylæ* and *Ascalon* there are four ships with names from promiscuous sources; then comes the ship launched in 1871, *Miltiades,* to be followed by the *Samuel Plimsoll,* and then six more that show that J. Lempriere, D.D., had been consulted, till another breakaway, when the last sailing ship of the firm bore a name which was a repetition of a former ship of 1860, and it was not until 1887 that all vessels coming under the flag had names associated with ancient Greece and its history, which will be seen when the "Under Steam" section of these chronicles is reached.

Coming back to the *Miltiades;* on her first voyage to Melbourne she was commanded by Captain Perrett, and remained principally in that trade for many years in charge of Captain Harry Ayling. The latter met with a severe accident, breaking a thigh, which necessitated his relinquishing the command at Melbourne and returning to England as a passenger by the firm's steamer *Damascus.* He recovered from the effects of this, and after a time resumed command of the *Miltiades,* but his health remained indifferent, and on a voyage to Melbourne in 1900, he died on September 15, when the ship was in latitude 40 degrees south, and longitude 123 degrees east; her position was signalled to Cape Otway, and confirmed when the *Miltiades* reached Melbourne in charge of Chief Officer Gould.

Captain Harry Ayling entered the service of the Aberdeen Line in 1867, and obtained his first command in 1885.

In 1873, while the next ship was being built, a member of Parliament was advocating many improvements on merchant ships for the benefit and comfort of the seamen, and the ship out of compliment to him was named *Samuel Plimsoll.*

George Thompson, Jr. & Co. now controlled Walter Hood's yard, and iron had superseded wood. The new ship was of 1444 tons and the command was given to Captain Richard Boaden, who left the *Star of Peace* to take it.

The *Samuel Plimsoll* was one of the finest of the Aberdeen ships, and ranked third in length of any the firm built. She consistently made good passages under

Captain Harry Ayling.

Died at sea September 15, 1900, while in command of the *Miltiades.* Formerly of the *Maid of Judah* and *Moravian.*

men well known in later days in the steamships, among them, Captain Spalding, Captain Douglas and Captain Henderson. She passed into the hands of Messrs. Shaw, Savill & Co., and went into the New Zealand trade. In 1903 she was partly dismasted on that coast, and her owners decided to sell her. She was towed into Sydney, and then to Newcastle, where, laden with coal, she was taken charge of by the *Duckenfield,* and at the after-end of a tow-line the once crack clipper was taken 2,100 miles to finish her days in Western Australia.

April, 1875, saw the addition to the fleet of another new iron ship of 1,130 tons, the *Salamis,* which for many years made Melbourne her port of destination, and was a great wool carrier. Most of the sailing ships under the White Star of Aberdeen had a short service at this time, for the owners were going into steam, and the sailer was passed on to the Norwegians.

The *Salamis,* like many of her sisters, carried timber from Fredrikstadt. In January, 1905, she brought a cargo to Mel-

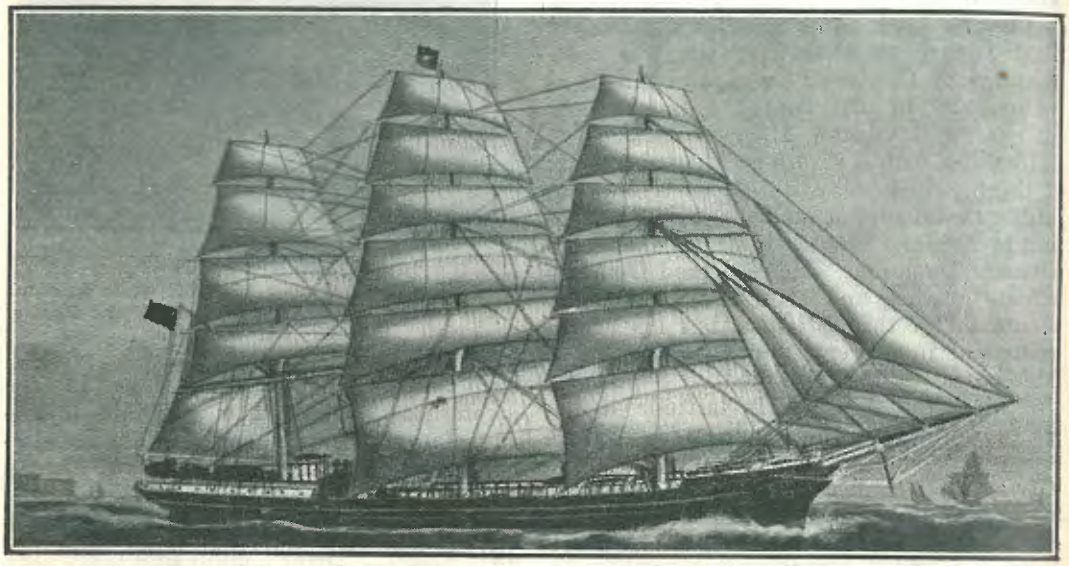
bourne after a voyage of 118 days. She left for Malden Island on February 13, to load guano; on arrival there, loading was delayed by weather conditions, but by May 15 she had taken in 1,200 tons and was ready to sail, when a fierce gale sprung up, which on the third day increased to a hurricane and continued until the next day. The *Salamis* was driven ashore and pounded to pieces. The crew having taken to the boats earlier in the day, reached the shore safely.

The largest vessel to leave the ways at Walter Hood's was the *Aristides,* of 1721 tons, and 260 feet in length and 39 feet beam. She made her appearance in March, 1876, and was known both in Melbourne and Sydney. She carried the house flag to the last, and after twenty-seven years under different skippers, ship, flag, captain and crew disappeared off the seas, no one escaping to tell when or how. In May, 1903, she left Caleto for San Francisco, under command of Captain W. T. Poppy, who had charge of her since 1894, and from that time has been among the "ships that pass in the night."

The *Smyrna* was built the same year as the *Aristides,* and was a 1,305 ton ship. She left the Downs on December 26, 1876, and reached Sydney on April 7, 1877 (102 days later) under command of Captain Jamieson.

The *Pericles,* a ship about the same size as the *Aristides*—being 1,671 tons, and 259 feet long—was built in 1877 at a cost of £31,500 by Walter Hood, and on her first voyage was commanded by Captain Largie, one of Thompson's captains, who had the first *Centurion* in 1862; he also at one time had the *Phoenician.*

An incident in the career of the *Pericles* which occurred in 1890, is worth recording. She left the Thames on March 17, and a Glasgow owned vessel named *Ardencapel* sailed on the same day, both bound for Sydney. This ship crossed the equator on April 10, the *Pericles* the following day. On the morning of June 11 the *Ardencapel* came to anchor in Watson's Bay, and the *Pericles* a few hours later. During this voyage Captain Phillips was in command; the time was 86 days.



Early Aberdeen Liners.
The *Pericles,* built 1877. Still afloat under the Norwegian flag.

The *Pericles* passed to the Norwegians in 1904, but has often been heard of in Australian waters, and almost every year since her sale a Press notice of "a famous clipper," "an old Aberdeen clipper," or some such headline announces she is still about, and was making money during the war.

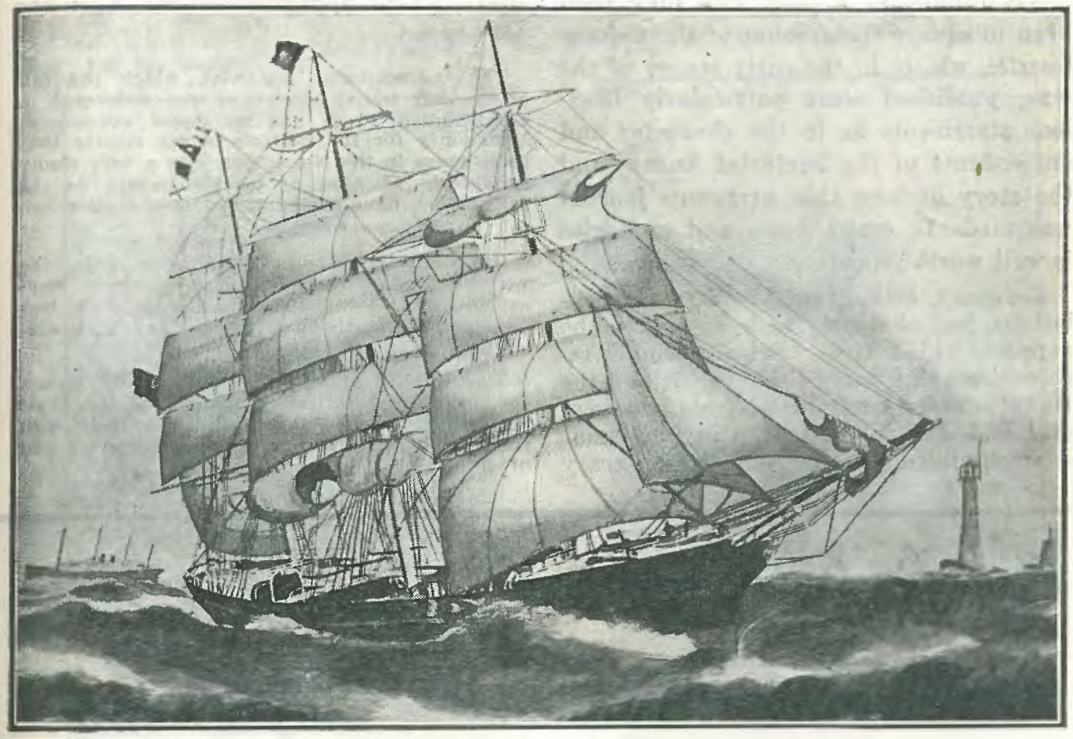
In 1879 the *Sophocles,* of 1,176 tons, took the water at Aberdeen, and Captain Faulkner brought her to Sydney on her first voyage; he captained the *Ethiopian* when she was dismasted in March, 1867, off the New Hebrides. The *Sophocles* was

sold to an Italian firm and in 1905 was reported from Cape Otway as being dismasted. She met her misfortune off Kangaroo Island, South Australia, and experts who inspected her after arrival at Melbourne considered it one of the worst cases they had seen.

It was in 1881 that George Thompson, Jr. & Co. built their last sailing ship, the *Orontes,* of 1,383 tons. Her life was not a long one, as she foundered in the Downs in October, 1903, after being in collision with her tug boat.

The *Strathdon* was the first and only steel sailing vessel owned by the firm, although steel was not new even then in construction. By the end of 1904 the *Strathdon* was the only sailing vessel left, of the 39 vessels that had carried the Aberdeen White Star round the world, in the gales and hurricanes of the two Capes, around which mariners had beaten for hundreds of years; and had dared the battle of the elements and the breeze for 62 years.

In the following year (1905) the *Strathdon* was sold to a French firm for £6,000.



Early Aberdeen Liners.

The *Samuel Plimsoll* (built 1873; dismasted and became a hulk 1903) off the Eddystone Lighthouse.

The last sailing ship to be owned by the Aberdeen White Star Line was the *Strathdon.* She was a barque of 2,093 tons, about 300 tons larger than any of their former vessels, built in 1885, at Belfast, by Harland & Wolff, and was launched under the name of *Queen's Island.* With her new owners she became the *Strathdon,* reviving the name of a wooden ship whose arrival at Sydney Heads in 1867 was indirectly responsible for the boat's accident related in a former issue.

During a part of her career (in 1892) she was under the command of Captain A. T. Wills, and had a marvellous escape from destruction when on the passage from Sydney to London, and in 45 degrees south. A heavy fog lifted and the ship was among icebergs, some of which were 1,000 feet high.

We shall meet Captain Wills again "under steam," but the white wings are gone, and with them the poetry and the romance of the sailer of the Aberdeen Line.

WITH THE AUSTRALIAN FLYING CORPS IN GERMANY

OUR "UNSPEAKABLE HUMAN REFUSE" SECURES APOLOGY FROM COLOGNE NEWSPAPER

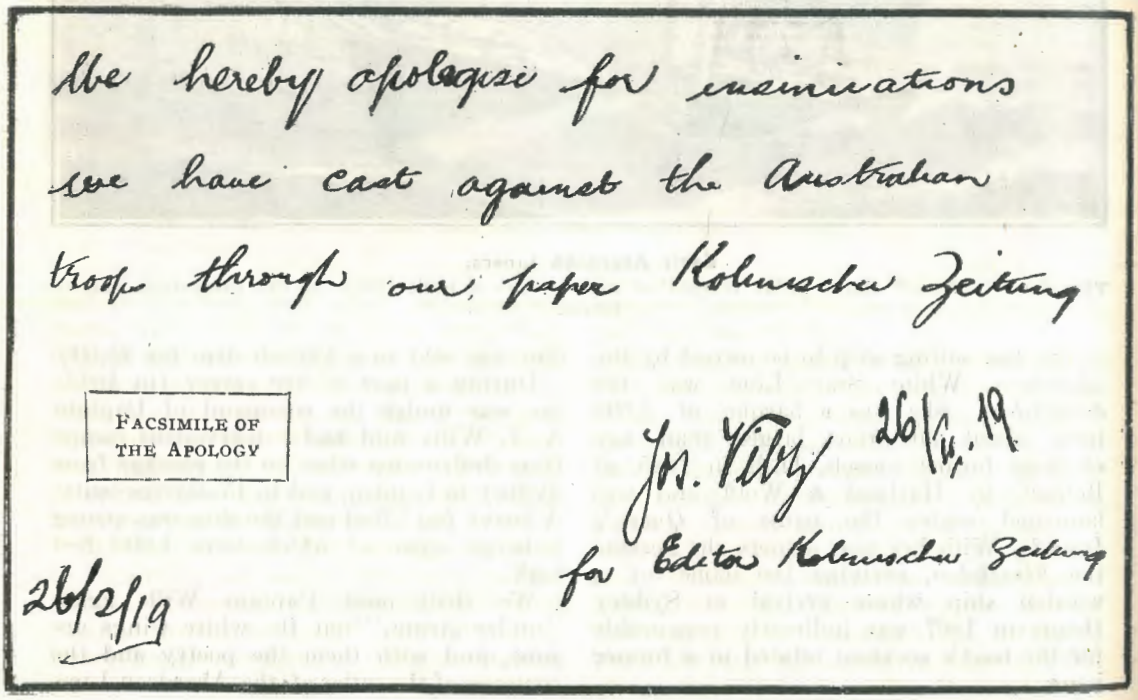
Especially Written for "Sea, Land and Air"

By CAPTAIN E. F. ("TAB") PFLAUM, A.F.C.

Australians as a body had long been keen to square the account of the *Cologne Gazette*, which, in the early stages of the war, published some particularly libellous statements as to the character and antecedents of the immortal Anzac; and the story of how this arrogant journal was made to crawl down and apologise is well worth repeating.

Germany, among many other miscalculations, had obviously underestimated the support which Great Britain would receive from this part of the world; and the Huns' opinion of Colonial troops in general and Australian troops in particular is exemplified in the following literary effort which appeared in the *Kölnische Zeitung*:—

> The indescribable joy with which the fall of the fortress of Erzeroum was welcomed in the English Press has no doubt evaporated sufficiently for the Britons to see clearly that their cause in the Near East is in a very shaky condition. Because of what elements do the forces they have available in Mesopotamia and in the adjacent regions consist?
>
> Of Australians and Canadians mainly, the very riff-raff of humanity, descendants of murderers and thieves, drunken hordes who despise the very thought of decency and discipline.
>
> This applies particularly to the Australians, the worthy posterity of men who, for their crimes, were once deported from their own country to found a colony at the extreme end of the earth.



FACSIMILE OF THE APOLOGY

These are the white allies of the black culture bearers who have set notoriously civilised England against us; these constitute the unspeakable human refuse against whom our heroic sons and brothers are doomed to fight.

And yet there are sentimentalists who would urge us to be dainty in the choice of our weapons when facing such beastial creatures as these!

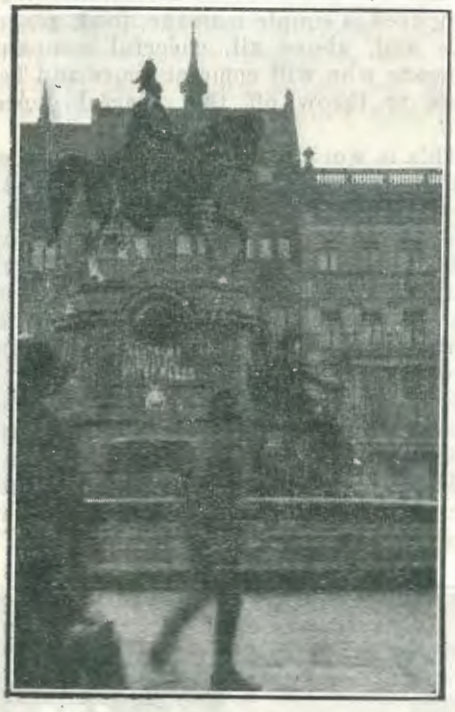
On the 26th February, 1919, * two perfectly respectable A.F.C. officers entered the office of the *Cologne Gazette* and having secured a footing in the literary department of the establishment we asked to see the editor.

We were led to believe that he had gone out to tea. However, in the circumstances, we decided that perhaps a quiet talk with the sub-editor was the next best thing. He was found and we ushered into his den. Just to make sure of him, one of our party took charge of the door while the other explained to him that we required a written apology.

And we got it.

Unfortunately we had to leave Cologne early next morning, and but for our departure we should most probably have added yet another signature to the document.

*One of the two "perfectly respectable officers" was the author.—Ed.



Ex-Kaiser "Crowned" by A.F.C.

And uncrowned by the Cologne Fire Brigade.

On their last night in Germany certain members of the Australian Flying Corps—billetted in the Kaiser Wilhelm Hotel, Cologne—celebrated the occasion by camouflaging the equestrian statue of the ex-Kaiser, which stands in a large ornamental lake in the centre of the town.

At dead of night there emerged from the hotel a small party bearing tins or aeroplane dope, brushes, and a pontoon of bedroom chairs across which they reached their objective. The nocturnal operations opened with an attack on the plinth of the statue, to which was added the inscription: "Deutschland *unter* Alles," and after "doping" the sculptured faces of four symbolic figures, and striping the horse's legs, the visitors finally scaled the huge mass of bronze and "crowned" William Hohenzollern with an article of domestic use, requisitioned, for that purpose, from the hotel.

Next morning, armed with telescopic ladders and many lengths of hosepipe, the Cologne Fire Brigade turned out and solemnly removed the decorations.

THE OPEN ROAD

WHAT WOMAN IS GOING TO DO WITH IT.

An Interview with Mrs. Gordon Wesche.

By Miss KAE McDOWELL.

Contemplation of the problem of the wholesale demobilisation of troops and consequent flooding of the labour market leaves one increasingly grave. Even here in Australia the stubborn fact of unemployment is furrowing many a brow. Once the solution was vaguely supposed to be easy; the removal of women from the industrial sphere would restore the balance. The robbing of Peter for the payment of Paul was hardly realised, or the fact that many thousands of women would also be workless on account of the closing of war industries.

A large number of women who were not compelled to earn, solved their part of the difficulty by retiring quietly into their homes. They will not, however, be content to stay there, and already their energies are seeking an outlet.

Mrs. Gordon Wesché, a prominent Sydney war worker, lately returned from England, gives some interesting information on the subject. In her opinion there is plenty of work both for the woman of means and for the woman who must earn.

So many people are making the mistake of thinking war-work is over, she says, that the signing of Peace, in some mysterious manner, blotted out the need for woman's assistance. In many ways, and for many years, the woman of leisure (nominal) will have more to do than she had while the fighting was on.

This is particularly the case in regard to the actual help of the injured, for then the hospital organisation, with its trained, professional staffs, paved the way and guided the feet of the Voluntary Aids. The work done by the V.A. was usually of a more or less impersonal kind. In the future this will not be so. The need for individual aid for invalids and semi-invalids is largely on the increase, and the work will generally be for the non-professional.

It is in this way that post-war work for women of leisure will be largely home-work of various kinds. As the hospitals and convalescent homes close, it will become more and more obligatory, for there are many hundreds of brave men who will never be "fit" again—men who are not sick enough for hospital nor wealthy enough for professional attention. What they need is simple massage, food, general care and, above all, cheerful company; someone who will come at times and help them to throw off that fearful depression.

This is work of immediate importance; and there is lots of it. We already have evidence that it will last for a number of years, for there are many whose lives have been shortened by what they have endured; whose health could only be repaired temporarily, and who, in a few years—some in a few months—will need frequent and tender care.

It would seem that the gift of kindness is what the world needs most, and will need for the next ten or fifteen years.

Mrs. Wesché considers that the almost chaotic condition of the woman-worker problem is already straightening out. The

A Delicate Operation—Lens Testing.

schemes developing for her betterment are of particular interest to Australians because something of the same nature is certain to be needed here soon. The care of her, as the mother of to-morrow, is receiving considerable attention. Colleges are being established and courses of lectures are already being delivered on all social and philanthropic subjects. At Bedford College the scheme is in excellent working order, the lecturers being, as well as fully qualified theoretically, experienced in administrative work. Trainees are taken through the various industries and familiarised with needs peculiar to the workers in them.

A point upon which much stress is laid is that public workers should thoroughly acquaint themselves with the municipal laws before setting out upon reformative campaigns. Much time and energy have been wasted in the past by well-meaning women engineering almost cataclysmic agitations after points that they discovered — afterwards — were gained already.

Women are in other ways also becoming more systematic and are reserving their intelligence and energy for the causes that most need them.

Many people claim that the transportation of the Women's Auxiliary Army Corps to the seat of war was a mistake. Mrs. Wesché thinks it did incalculable good. It broadened their outlook and made them more practical and more useful citizens (or citizenesses) than anything else could have done.

"Do you know," she says, "that at the end of the war all the baking for the British army was done by the W.A.A.Cs., and that they were employed in France and in Flanders in a hundred different vocations?"

There they learned discipline as women never learned it before. They learned the joy of an open-air life, no matter how hard the work. They learned confidence and resourcefulness. This point, by the way, is of special interest to us, as it is likely to prove the incentive of a new immigration scheme. Quite a number of people think that it will not be long before many a W.A.A.C. and many a W.R.E.N. will have come to this country to settle.

For the first time in their lives many of them heard of Australia when they were on service. To them it was painted in glowing colours by our homesick soldier boys. No advertisement was ever more enticingly worded. Land of sunshine, blue skies and wide spaces! The glamour of the unknown hangs over it. The call of adventure and romance. Women are waking up to the excitement of a new life as men did in the days of Eldorado and the Golden Fleece.

A Group of Women War Workers.

Mrs. Wesché is not enthusiastic in regard to industrialism as a field for women. "Surely it is men's work?" she says, "It has a hardening influence, and really, there is any amount of more congenial employment." Nevertheless she does not question women's ability in this direction. Hard-headed business men in England told her tales of wonderful service during the war. The manager of the Armstrong Whitworth Company, for instance, said that out of 130,000 employees

The Cup That Cheers.

75,000 were women, and if he could have had his way they would all have been women.

In the manufacture of aircraft in Australia there is a large field for women. But it is on the land that some of them will have their greatest success.

"I heard of a woman the other day," said Mrs. Wesché, "who sells £17 worth of carnations a month to one city florist alone. She grows them scientifically, of course, but it shows what can be done. I think there is a big market here for luxuries. It's the high-priced things that sell best. There are plenty of people in Sydney who will buy squab pigeons, and out-of-season mushrooms, and asparagus —and the supply of these things is very small."

One of the most serious aspects of Australian life to-day is the disfavour with which her women-kind view domestic work. It is the reason of the general meagreness of home life, the appalling lowness of the birth-rate and the key to almost every worry of the home.

The reason why educated women should fight shy of it is a cause of wonderment to many. With the aid of modern appliances and ordinary intelligence, the work is not hard, and the wages compare favourably with other classes of feminine employment.

A change, however, is on the way. With the widening knowledge of domestic economy and scientific cookery many an educated woman is beginning to see the career ahead of her outlined in the coals upon the hearth.

The question of congenial companionship is, perhaps, the biggest hindrance. Mixing educated with uneducated help in a big household is quite impracticable. This is a detail that the needs of the householder will shortly adjust.

Mrs. Wesché strongly advocates men and women working together on all boards for public administration. The need for co-operation is obvious. "Men see the ground clearly that is beneath their feet; women do not. But women see beyond where men do not. The union of the two is necessary to success."

She does not, however, approve of women in Parliament, though they should have a place on all municipal councils. And in her opinion it is of far more importance that women have a municipal vote than the parliamentary franchise.

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OCEAN CONVOYS

A TRIBUTE TO THE MERCANTILE MARINE.

By A. P. HERBERT.

"It was entirely due to the Convoy System that our boats were beaten," so said Captain Persius, the German Naval Expert. Mr. Herbert discloses some details of the system to which Captain Persius has paid this enforced tribute. He shows its workings from the inside, both at sea and from the "shore end," where tremendous work was involved.

No one knows about the convoys. We know about the Q-boats, the dramatic, offensive side of the submarine campaign, which belongs to the Navy alone. Of the defensive side of that intricate convoy system which gave Great Britain her food and finished her one real fear, we know almost nothing.

And we ought to know. For this was the joint achievement of all conditions of men, of the Navy and the shipping world, of business men, and of the mercantile marine—most of all, perhaps, the mercantile marine. It was typical indeed of all the best efforts of the nation in this war, in that it was compounded of many elements in co-operation that were not accustomed to co-operate before; of service and non-service people, of sailors and landsmen, of civil servants and business men, of cruisers and tramps in loyal alliance.

Looking through the old records, it is curious to see how many things there were to think of, how many awkward bits to be fitted into the puzzle; the painful eking out of limited escort forces; the measures taken to speed up the "turn-round" of ships and reduce delays to a minimum; the classifying of ships and grading of convoys according to speed so that the speed of the faster ships be not wasted; and how for that purpose, or because of the submarine situation, some sudden emergency, whole types of ships have been shifted from one "trade" to another; how the convoy organisation, always elastic, has had to be extended accordingly, and the machinery transplanted from port to port at short notice; how the Argentine wheat-crop was lifted last summer and safely convoyed to England, France, and the Mediterranean; and how that startling acceleration of the transport of American troops was obtained in the spring of last year by the manipulation of shipping and a skilful development of the convoy system. All these are matters of high policy which can only be hinted at here.

To the ordinary man a convoy was a casual collection of ships sailing almost fortuitously in company. Yet one can hardly exaggerate the labour and thought which made possible the assembly and dispatch and orderly progress of those ships. They must be coaled and loaded, and assembled at the port of departure in time to catch the convoy, and with the least possible delay; fitted out with guns, signalmen, fog-buoys, and all kinds of war devices; their masters must be interviewed and gathered in conference, and furnished with codes and charts and a destination, and all manner of instructions. A naval officer with a staff of signalmen must be sent with each convoy, in command, and a cruiser to protect the ships against raiders. There are changes of destination and breakdowns and coal-strikes, and a thousand hitches and difficulties before the ships are ready for dispatch. Two or three days out from home they must be met by destroyers, picked up somewhere in the wide sea at a given time and place; and, since the supply of destroyers is sadly limited, and on no account must a moment of their services be wasted, these same destroyers must have already escorted an outward-bound convoy through the danger-zone (here at once—says the writer in *Land and Water*—you see the germs of a complex time-table, which must be accurately kept if confusion and waste of tonnage are to be avoided).

They have all kinds of cargo: troops or horses, or sugar or wheat; they have many and different destinations. Half of them require special treatment, special

supplementary escorts to get them safely to port. Or there is a crisis at home. The food situation has altered. There is a strike at Liverpool. This sugar ship can no longer be taken at London; those munitions are wanted somewhere else. New escort arrangements must be made, a destroyer dug out of somewhere, a hundred considerations of shipping and cargo and submarines and destroyers weighed and adjusted, and the new orders, hurriedly devised, must be wirelessed out to 10° W. for the sailors to curse and worry over and loyally obey.

Always there were thirty or more convoys in being, sailing or arriving or at sea, being attacked, or hove to, or broken by storms, each hedged round with their own special perils and problems, each one watched and shepherded across the chart, night and day, at the Admiralty, where a few great organisers sat in a few rooms with a small staff—delivering the goods.*

The commodore of the convoy—a captain or commander, R.N. or, more often, R.N.R.—has a heavy job, full of responsibility and strain.

The mere navigational responsibilities are heavy enough; piloting a convoy through the narrow Mediterranean channels with shoals and reefs, thick weather and mined areas about, is a little more exacting than piloting a single ship; ships get out of station and threaten collision; "not under control" lights go up in the next ship.

At the best it is no light thing to keep his flock together; one of them has trouble in the engine-room and keeps slipping behind; she must be "gingered up" a little or the convoy slowed down to her standard. In the night there is a gale, and the ships plough on through the noisy dark, together but invisible; at dawn there are two missing, and, somehow, somewhere, he must gather them in. Always there is something to think about, something to look for—a ship showing lights, or throwing refuse overboard, or getting ahead, or doing some other crime; and he must keep a firm hand on his motley command, without nagging, without worrying, without a multitude of signals; must cherish a tactful discipline in a strange and sometimes difficult "soil."

This is in open seas where there are no Fritzes; in submarine waters his cares increase a hundredfold; for in the last resort, in spite of regulations, it is his judgment that stands between his ships and the bottom of the sea. A submarine reported ahead of him yesterday. Where is it now? Shall he alter course; and, if so, which way? Night-time off Lisbon, and a torpedo across his bows; his only escort vessel is astern with a damaged rudder. Somewhere near, in the dark, is a big submarine with twenty ships naked to her attack, able to choose her time. He cannot telephone to his ships and tell them all about it; cannot issue detailed orders; he cannot flash; he cannot wireless, for even that is dangerous. He can only alter course by emergency signal on the steamer's whistle, and fill the air with sinister hootings that bring the passengers leaping from their bunks. He can only alter course and alter again, twisting and turning like a hunted hare, cursing in his soul that he is not in a combatant ship that could strike a blow, and praying that his ships are understanding and clinging together. Now—has he shaken her off? Shall he alter course again? It is a still night, and the very whistles may give him away. Or the submarine may have worked past him; may be lying just ahead.

So that he has little sleep and few nights free from some emergency, real or apprehended. Nearly always he is on the bridge, looking for the Tuskar Light, for a lost ship, for a destroyer, for a periscope. And when in the small hours maybe he tumbles into his clothes to sleep, there is a clatter of excited feet—"Another convoy ahead, sir," "Submarine on the port bow, sir"—and perhaps it was a porpoise or a streak of phosphorus, or a drifting beam—or perhaps it was not. Anyhow, it is up to him.

Much of this—and more also—is true of the escort-commanders. Few men, perhaps, have deserved better of their country than the men in the destroyers

* The following is the final statement showing numbers of casualties in Ocean Convoys (Atlantic) from July 26, 1917—November 16, 1918:—

	Convoys.	Ships.	Casualties.	Percentage.
Homeward	596	9,184	79	0.86
Outward	528	7,346	45	0.61
Totals	1,124	16,530	124	0.73

and sloops, the P-boats and gunboats, and trawlers, and all those small craft—British and American—which have escorted the ocean convoys. Less near to danger than the commodore in his naked merchant ship, and having all the consolations of combatant service, their days are heavy with the same ceaseless watching and anxiety and strain, and with how much more of the physical unfriendliness of the ocean, the cold and wet, the discomfort and unrest of a small ship in a big sea, heaving, rolling, shaking, vibrating, intolerably cold on deck, intolerably hot below.

Necessarily, owing to their value and comparative scarcity, they have been overworked. They have gone out with an outward convoy, swept and battered in a westerly gale; on the third day they have picked up with unfailing accuracy their needle in a haystack, the homeward-bound convoy to be escorted in. They have taken them safely to some harbour many miles from their base. Then, on their way back—still vigilant and still hunting—to a brief spell of warmth and dryness and an end of tossing, they have had a *S.O.S.* call and steamed out again to pick up survivors, or stand by a torpedoed ship, or tow her painfully home by inches. Then, maybe, after a bare interval to refuel and provision, they have put out again on some errand of urgency that could not spare them their proper rest.

Before the war the Navy and the mercantile marine knew little of each other; the merchant captain weighed and set a straight course for his destination, taking no orders but his own, worried by nobody but the sea. In convoy he has no free moment. He is ringed round with printed orders and regulations about the conduct of his ship; he is under the immediate orders of a naval officer; all day he must be on the look out for signals from that officer; by daylight and moonlight he is zigzagging; all day and night he must keep his proper station, with ships ahead and astern and each side of him, and a little carelessness may end easily and quickly in collision. At any moment he may be pulled up, politely but firmly, because he is out of station, or because some steward is throwing rubbish overboard or some passenger has opened a scuttle and shown a dangerous light.

Then, what demands—new demands—have been made upon his professional knowledge and skill! The great weapon of the convoy is the power of manœuvre, which enables thirty or forty odd merchant ships to turn and twist and double out of danger as a unit, like a battle-fleet. But merchant ships have never been accustomed to manœuvre as a battle-fleet. They have been taught. And at the end they wheeled into Gibraltar Bay like a cruiser squadron—or, if they did not, they counted it a reproach.

Down in the engine-room this "station-keeping" has not made life any easier. It was a new art, and very burdensome. In the old independent days half a knot here or there made no odds; what you lost to-day you made up to-morrow, and the ship went ahead at her best speed, whatever it was at the moment. But for a number of ships to steam together in mathematical formation and zigzag at the same time, without colliding or forging ahead or falling behind, requires some very accurate work from the engine-room staffs.

One thing, the war has shown that "trade" was not "timid." Yet there would have been every excuse for it. For, indeed, it is a nervy game, a helpless, inhuman, cold-blooded affair. A less continual terror than that of the soldier, in that torpedoes are not every minute just missing the ship, and the days are not full of loud explosions, in a sense it is more continual; for at any moment the blow may fall, in calm water or in rough, in mid-ocean or in sight of shore; in a flat calm off Algiers with the water looking like velvet and too blue to be true, where a man cannot bring himself to think that in three minutes the ship in which he stands may be plunging to the rocks, or at a wild, unfriendly dawn in the Bay, where it is only too easy to believe the worst—any moment the shock may come.

Or if there *is* warning—a torpedo through the convoy at dusk—all the night to go, and the sea like glass, with every ship standing out monstrously against a starry sky—how small and defenceless a man must feel, how impotent and feeble. Nothing to be done but steam ahead, peering at the dark water, wondering, waiting. Then, how little seems the escort, how expansive the convoy, how large and

bulky the ship. There is much phosphorus in the water, and there are sudden flashes of white which catch the eye with the inevitable suggestion of a torpedo track, and large, pale suspicious patches of water, and the ship seems full of thuds and bangs and sinister sounds; the chief officer blows a whistle, and far below a passenger slams a door, and the ash-hoist wails and screams like a complaining ghost; and, when course is altered, and all the steamers repeat the signal on their whistles in their twenty different notes like a herd of wild cattle, the night is full of the dismal sounds, deep and shrill, and throaty and clear, but all melancholy, all charged with foreboding and the suggestion of danger. And to the little groups on the bridge, tense with watching and expectancy—all these things are like swords stabbing at the nerves.

This is on deck. But what of the man in the thumping bowels of the ship, the firemen shovelling in the stokehold, the sweating greasers, the engineers, who have no hint of what is going on—only maybe, the thud of a distant depth-charge or the muffled urgent blasts of the whistle. Up in the passenger cabins, that depth-charge has a sound full of menace, very sinister, and suggestive; how does it sound in those scorching rat-traps below, where the odds are so heavily against you and you may find so many fashions of death—caught and drowned in a dark hole, or scalded in the rush of steam, or flung into a tangle of machinery to die by inches as the water rises, or plunged into the depths as you clamber up the ladder or flounder helpless in the wreckage.

Happily for them, those men do not imagine things too much; but it would be a poor compliment to their courage to suggest that such pictures of peril were not sometimes very vivid in their minds. Many a tough seaman who went out without fear at the beginning, at the end of four years was very sensible of the strain, though to the observer the signs were not easy to see and the effect on their conduct was *nil*. For, after all, their great enemy is the sea; and they are used to her. And when the sea is kind and beautiful and calm, and a man can say in his heart, "Ah, but we would get the boats away in this," or "The old ship might float a long time to-day," he can afford to laugh a little at his other enemies. But when the sea is cold and cruel and grey, and the wind howls ceaselessly through the rigging, and the ship rolls and the timbers creak, and, looking over the side, a man says, "We should never get a boat away in this," and "If we did she wouldn't live a minute"; and in the night and the storm, perhaps, he has lost the convoy, and at dawn there are no ships to see, no escort vessels, nothing but the wicked, unfriendly water, with who knows what beneath—then, indeed, it needs no man of imagination to think of death, no landsman to recognise the ultimate master of all sailors, the might and cruelty of the sea.

But what shall we say of the men who went through this in the early years—before the convoys came?

MERCANTILE MARINE WAR SERVICE ASSOCIATION

"SEA, LAND AND AIR" ADOPTED AS OFFICIAL JOURNAL.

To the Editor, *Sea, Land and Air.*

Dear Sir,—It gives me great pleasure to inform you that at the last meeting of the executive committee a motion was unanimously carried adopting *Sea, Land and Air* as the official journal of the Mercantile Marine War Service Association of Australasia.

We feel sure that members of the Mercantile Marine will appreciate this decision as your journal is largely subscribed to by all ratings in ships to and from Australasia.

We shall endeavour, from time to time, to supply you with full particulars of the latest happenings and activities of the Association, and by this means we shall be able to keep in touch with absent members.

Yours faithfully,

R. T. KEARNEY, President.

Mercantile Marine War Service Association of Australasia,

27 Sussex Street, Sydney.

September 2, 1919.

THE SYDNEY-BRISBANE MOTOR TREK

OPPORTUNITY AND THE OPPORTUNIST.

Especially Written for "Sea, Land and Air."

"There is a tide in the affairs of man which, taken at the flood, leads on to Fortune." Thus wrote the immortal bard, and that his dictum still finds supporters in Australia was demonstrated a few days ago when Mr. Opportunity knocked on the door of one of Sydney's leading business houses; for the Opportunist within grabbed his visitor by both ears, and what passed between these two gentlemen culminated in a highly important event in the history of motor transport.

In the traffic congestion on the railways, due to the recent shipping deadlock, Messrs. Marcus Clark & Co., Ltd., —agents for the Chandler-Six automobile— saw a direct challenge to maintain their "keep-faith" policy. Queensland clients had been promised delivery of their cars in time to attend the opening, on August 18, of the Brisbane Cattle Sales, and the local agents (Messrs. Bradley & Holland) had to be protected, handicaps and expense notwithstanding.

To deliver the goods by normal channels was clearly impossible, and out of this situation was born the ambitious project of running a convoy of twenty machines from Sydney to Brisbane under their own power.

The journey in itself constitutes a fairly severe test, even when applied to cars which have already proved their reliability, but in the present instance the achievement is doubly commendable because, with but two exceptions, the entire convey took the road without a preliminary trial; they had, indeed, been taken from their original packing-cases only a few hours before attempting an 850-mile cross-country trek, the route of which lay across the Blue Mountains, the Great Dividing Range and the Black Soil Plains.

Led by Mr. H. L. Chapham (manager of the firm's motor section), the expedition was accompanied by Mr. Frank Bignold (publicity-officer and treasurer), two Press representatives, a cinematographer and slide expert, a first-aid man with complete outfit, and—for some reason which is not altogether apparent—an undertaker! Drivers, mechanics and passengers brought the total to thirty-five.

For the following descriptive account of the expedition we must acknowledge our indebtedness to Mr. Bignold who, it may be added, was one of the first Australian journalists to recognise the future of commercial aviation, and who—to readers of this journal—is familiar (even if only by name) as an active member of the Australian Aero Club Committee, in the formation of which he was closely associated with the present writer.

On Tuesday, August 12 (said Mr. Bignold), the convoy—consisting of 14 roadsters and touring cars and 6 chassis—assembled at the Sydney Show Ground and were shod with Dunlop Railroad Tyres. They then proceeded to the firm's garage in Castlereagh Street, where passengers and luggage were taken aboard. After a demonstration round the Post Office block, the procession traversed Pitt Street and Central Square, and made for Katoomba *via* the Western Road. This was the first day's run, it being decided to nurse the cars during the early stages in view of their first appearance on the road.

The trip to the Mountains was devoid of incident, except that, in the dark, one car tried conclusions with a culvert, with the result that a bent axle had to be straightened in the morning.

The weather was delightfully fine when a start was made for Mudgee—the terminus of the second day's run—a distance of about 140 miles. Some charming views were taken of the convoy descending the Victoria Pass.

On arrival at Blackheath a log-laden jinker drawn by a team of bullocks was met, and a unique picture taken of these

ancient and modern methods of transport, affording a fine contrast between city and bush traffic.

After a demonstration through Main Street, Lithgow, a start was made for Rylstone, where lunch was scheduled, but owing to taking the wrong turning the majority of the party continued on to Mudgee, which was reached about 8 p.m. The roads were in fine condition, except for dusty patches.

Great interest was manifested all along the route by old and young alike. Several motor parties were seen, evidently attracted by the novelty of the enterprise. The chassis especially were critically inspected, the "works" being visible without difficulty.

After an enjoyable stay at the Caledonian Hotel, Tamworth was left on Friday morning for Glen Innes, with lunch at Armidale. Some fine scenery was

A Halt at Tamworth.

An early start was made in the morning for Tamworth, the day's run being 200 miles.

The car in which I rode was 45 minutes late, but overtook the leaders in 35 miles. The distance from Mudgee to Gulgong — 18 miles — was covered in 25 minutes, and several consecutive miles were timed as occupying 1.21, 1.18, 1.15, and so on. Tambar Springs was reached by the entire outfit in company and after lunch the afternoon's journey was successfully negotiated.

passed on this stretch, and good times were recorded, the roads being in capital order. In fact the New South Wales country roads generally put the city and suburban thoroughfares to shame. The cars were running smoothly, and except for the dust—unavoidable where so many cars were following in close formation—the trip was most exhilarating, the air being fresh and bracing.

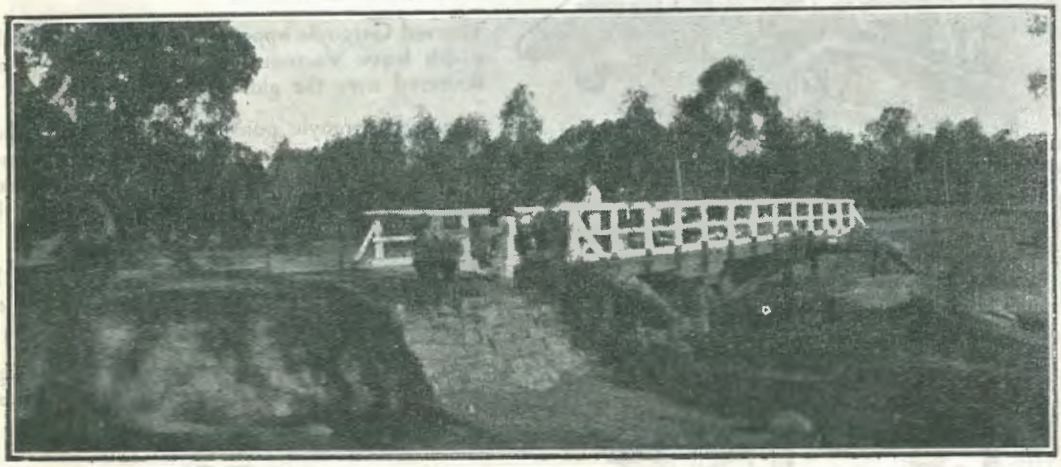
The border was crossed in the afternoon of Saturday (after lunch at Tenterfield) and the cars were stabled for the

Putting a "Chandler" over a "Ford."

night at Warwick, where a very large crowd assembled on Sunday morning to see the convoy start on its last full day's run to Ipswich, with lunch at Toowoomba. The beautiful panorama of the Darling Downs was greatly admired, especially by those who were seeing it for the first time. A charming blending of colours was presented by the golden russet of the stubble, the sooty-brown of the newly-tilled soil, and the vivid green of the young crops. The good roads had been left behind, the conditions between Stanthorpe and Warwick being simply appalling. What is ostensibly the main road is for the most part merely a bush track, and rough at that! Fast times were simply out of the question, and the party congratulated themselves that they had availed themselves of the good roads on the New South Wales side, otherwise the cars could not have arrived on time at their destination, which was reached on schedule at 9.30 on Monday morning.

The fame of the Chandlers and their record "stunt" had preceded them, and there was a very large crowd of interested spectators to greet them on arrival at the garage of Messrs. Bradley & Holland, in Albert Square. The visitors were cordially cheered and congratulated on the fact that Chandlers had "kept faith," and had enabled those in charge to deliver the goods. In the afternoon the cars were driven to the military hospital at Enoggera Camp, and a party of wounded soldiers and a carload of nurses were taken to the Showground for a run.

A most important feature of the expedition was that the cars, although new, averaged about 18 miles to the gallon. A tribute must also be paid to the excellence of the Railroad Tyres. The total mileage run by all the tyres was 68,000 (850 x 20 x 4), and there were only three punctures—two on the same car, on the same night, and the third on the last stage, within 3 or 4 miles of their destination.



On the Road to Brisbane.

As showing the general interest taken in the stunt, the slogan of the outfit "Keep Faith" was taken as the text by a preacher at Carlton, near Sydney, on Sunday, and after referring to the policy of the Chandler agents in keeping faith at all costs, and to the magnificent way in which the cars themselves had vindicated the confidence reposed in them, the minister proceeded to discourse on a Higher Faith than that of the commercial world, highly estimable though that be.

It may be added that at the last general meeting of members of the N.S.W. Ad. Men's Institute a motion was carried by acclamation complimenting the firm on its enterprise in undertaking this big stunt, and congratulating it on its successful consummation.

"SEE OUR HOMELAND FIRST"
GOVERNMENT TOURIST BUREAU STARTS CAMPAIGN.

With the removal of all wartime restrictions on travel, the New South Wales Government Tourist Bureau is again making a praiseworthy effort to facilitate tourist travel within the State.

The return of peace brings a welcome respite of relaxation and recuperation, and one may now without a qualm of self-reproach contemplate a holiday; certainly there are few in the community who have not earned one.

The return of our fighting forces will, it is anticipated, very considerably increase the volume of tourist traffic, both within and to the State.

Demobilised men will have leisure and money at their disposal, and many will doubtless spend much of both at the various health and holiday resorts of our Homeland. This, together with the huge advertisement the Mother State has received overseas from the men themselves, points to a busy and profitable time for the Bureau.

Every country whose shores are washed by the Pacific is now seizing and improving the opportunities to make its tourist attractions more widely known, recognising that to induce leisured travellers to spend a holiday within its borders means the introduction and circulation of considerable sums of money, quite apart from other advantages to the country concerned. Hand in hand with the Governmental endeavour to attract tourists from other States and from Overseas goes the encouragement of its own people to first exhaust the scenic and health attractions within its own confines before going further afield.

To compete successfully with other Tourist Bureaux, necessarily calls for continuous and specialised endeavour, and this is forthcoming. Already much of the New South Wales official tourist literature has been revised and re-illustrated, and a large area of new ground has been broken.

The Director's aggressive policy incorporates novel schemes which it is anticipated will prove of utilitarian educational value.

It includes a series of conducted tours, at regular intervals, to the Irrigation Areas, the Wheat Belt, and to centres where city folk may acquire a general knowledge of the conditions under which our Primary Products are won. The regular tourist excursions to Jenolan Caves will be modified, when desired, to include a day at Lithgow (Australia's Birmingham), with a peep at the Coal Mines, the Small Arms Factory and the Iron Works. Country folk visiting Sydney will be especially catered for by means of organised visits not only to the State's famous holiday places, but to many of the larger industrial works and factories, thus affording them opportunities of seeing for themselves how our primary products are dealt with, and, so far as local requirements are concerned, how the necessity of sending raw material away from the State is being obviated. This section, with its undoubted possibilities, will be thrown open to school pupils during vacation.

Arrangements are being made for the regular display, in each of the country towns in turn, of a collection of photographs of the State's principal tourist attractions. These travelling exhibitions will be in charge of a junior officer of the Bureau, who will deliver illustrated lectures descriptive of the activities of the Bureau and the tourist features, of the Resorts under its control. He will plan conducted parties to Jenolan, Kosciusko, and elsewhere, and—where inducement offers—organise local Tourist Associations which will work in closest touch with the parent Bureau.

Reciprocal relations will be established with the Queensland and Victorian Tourist Bureaux, under which parties will be formed in the sister States and conducted by New South Wales officers to the principal scenic attractions and tourist centres in and adjacent to the metropolis, including the Blue Mountains and Jenolan Caves, whilst similar parties recruited in Sydney will be taken to Victoria and Queensland.

THE AUSTRALIAN AERO CLUB

A general meeting of the New South Wales Section of the above was held in the Lecture Hall of the Royal Society of New South Wales, Sydney, on August 18, Mr. H. C. Macfie presiding.

It was the Club's privilege that evening, the chairman announced, to welcome Major Lee Murray, Mr. Hector Sleeman and Mr. Reginald Lloyd, all of whom had been engaged in valuable groundwork in various portions of Australia, and he would call upon them to speak of the surveys which they had just completed.

Mr. Reginald Lloyd, managing director, Aerial Services Ltd., after detailing his recent * survey from Sydney to Darwin, stated that the commercial aeroplane must eventually play as important a part in our communications as do the present day steamship and railway train. He hoped that the natural development of aeronautics would not be retarded by the criticism of unreflecting persons, and further reminded his hearers that in all experimental work the two greatest assets are confidence and optimism.

Air.

Major Lee Murray, another pioneer of the commercial aviation in Australia, and whose projects were printed in this journal as far back as February, 1919, was accorded a particularly enthusiastic reception. The speaker prefaced his remarks with a reference to the existing aerial mail service in the United States which, although conducted at high prices, was, nonetheless, yielding proportionately big profits. Referring to a recent letter from the Secretary of the Prime Minister's Department to the General Secretary of the Australian Aero Club, wherein it was stated that the "Commonwealth has no power to control commercial aviation within any State of the Commonwealth." Major Murray pointed out that it was absolutely essential for the Aero Club to peg away at the various State Governments and thus eventually ensure the ratification of the Air Navigation Regulations published in the *London Gazette* of April 30, as applied to (a) the registration of aircraft; (b) lessening of personnel, and (c) certificates of airworthiness of passenger aircraft with periodical overhaul and examination of same. Unless we had cohesion in this matter, continued Major Murray, undesirable situations must undoubtedly arise, and it was absurd to suggest that on the flight from Melbourne to Sydney, for instance, a machine must proceed to Albury under certain rules, and from thence to Sydney under a different set of rules.

The time was ripe, the speaker added, for some very definite campaign against the proposed imposition of 20 per cent. duty on the total value of aero engines imported from overseas, and in imposing such duty it would be childish to pretend that local industry would be protected. He had heard on good authority that the Federal Government seriously contemplated imposing this duty, and unless it were opposed the aircraft industry in this country must receive an almost incalculable set-back. (*Applause.*)

Mr. Hector Sleeman, Managing Director of Aerial Transport Limited, outlined the preliminary work done in connection with the formation of the inter-State sections of the Club, and in supporting the comments of his partner, Major Murray, on the proposed duty on aero engines, pointed out that, although aeroplanes may certainly be manufactured in Australia at any time, the manufacture of aero *engines* would entail a cost of £100,000 for additional machinery to existing plant, while for a new factory capable of producing one hundred aero engines per annum the additional cost would be not less than £200,000.

"It may not be generally known," continued Mr. Sleeman, "that the United States Aerial Mail Service was conducted on converted war machines, and that at the end of twelve months' continuous service, the same engines were still in use. The running cost was 3/9 per mile.

"On the subject of adverse criticism in the press, on regarding fatalities," the speaker continued, "it should be noted that for every fatal accident, upwards of 63,000 miles had been flown, and that, in the majority of cases, these occurred on

* Published in August issue of *Sea, Land and*

the ground and were caused by mechanics being hit by a propeller or by not getting out of the way fast enough."

At the chairman's request, Captain P. G. Taylor, M.C. (R.A.F.), described his flight, in April last, from Melbourne to Sydney.*

Mr. V. B. Madden, of the Vacuum Oil Company, speaking on the subject of petrol, stated that a modern oil company would render every facility for the supply of petrol at intervals of 150 to 200 miles throughout the entire route from Sydney to Darwin or to Broome. Members would perhaps be interested to learn that a special aviation spirit, suitable for light aircraft, was to be put on the Australian market very shortly.

Mr. W. E. Hart, speaking on the subject of Customs duty on imported aircraft, said that he had been instrumental eight years ago in getting this removed. When Hammond brought out his Bristol Box Kite to Australia in 1911 he had to pay 33⅓ per cent. duty on the value of the machine, which was estimated at £1,000, and in order to obtain the customs drawback, was compelled to take the machine to New Zealand. He returned to Australia in the same boat, the cost thus involved being about £50. The first Wright machine which came to this country carried a duty of £500, and to recover the amount the aeroplane was taken outside the Heads and tipped overboard. Mr. Hart expressed the opinion that we want as many machines in Australia as we can get, and if we did not resist the imposition of this duty before it were finally imposed, we should find considerable difficulty in getting it removed later on. (*Applause.*) Mr. Hart concluded his remarks with an amusing description of his early flights over Parramatta.

Major Murray, in responding to a vote of welcome, which was accorded to the visitors, stated that he was immensely pleased to note the progress which the New South Wales Section had made during its early weeks, and trusted that in co-operation with other State Sections, it would soon develop into a very potent factor in the control of civil aviation. "The bigger the club, the bigger the power," concluded Major Murray, "and if you will permit the suggestion from a visitor, I would like to propose a sweepstake for the member bringing in the highest number of new members from month to month."

In support of the previous speaker's suggestion, Mr. Hart offered to present a guinea hat at the next general meeting.

Mr. S. H. Deamer, proposed a vote of goodwill to Mr. Macfie, who, he understood, was sailing for England at the end of that week.

Captain H. G. Watson, D.F.C., in supporting the vote, suggested that the honorary secretary arrange a farewell dinner to the departing president. Mr. E. J. Hart was instructed to make the necessary arrangements, and at Paris House, Sydney, on the eve of his departure, Mr. Macfie was entertained by the following members of the Club:—

Lieutenant-Colonel P. W. Woods, D.S.O., Captain H. G. Watson, D.F.C., Captain J. G. Bolton, Flight Commander C. M. Chatau, Messrs. F. Bignold, H. Coughlan, S. H. Deamer, W. J. Drummond, E. J. Hart (Hon. Sec.), R. Hendy, R. Lloyd, B. Lucy, and V. B. Madden.

On the motion of Mr. S. H. Deamer, it was resolved that in future the general meeting be held on the third Monday of each month.

* See *Sea, Land and Air*, May issue, pages 77 to 82.

"GOING UP"

AN AERONAUTICAL COMEDY.

A maid, two men, and two aeroplanes; love, rivalry and an air race; such is the foundation of Australia's first aeronautical musical comedy.

Robert Street, novelist, who (to quote his own confession) knows as much about an aeroplane as he does about an Esquimau baby—has written a book on aviation. So heavily has his imagination been taxed that he is ordered to some quiet, peaceful spot in which to recover from the mental strain.

With a pushful publisher behind him, his book has become one of the season's "best-sellers," and the author's name a household word. Hardly has the ink dried upon the visitors' register at the "quiet, peaceful" hotel in the country, than Street is identified as the author of the book of the year—"Going-Up," and the general conversation of the district at once changes to aeronautics, aviators, aero clubs and the relative advantages of various types of aero engine. Moreover, to add to his embarrassment, he is called upon, several times a day, to entertain new visitors with an imaginary description of his first flight, and does so in the following words:—

MY FIRST FLIGHT IN AN AEROPLANE.

"I took the aeroplane out of the garage.

"Seizing it with a firm hand, I led it to a large field.

"Everything was ready.

"Jumping lightly into the saddle, I grasped the lever that started the paddles—and up went the aeroplane into the air.

"Almost instantly I was above the clouds.

"'Whoa!' I said.

"I grasped the lever firmly; I turned on full power; I threw over the rudder; I dashed into a cloud.

"Then I flew on, and I flew on, and—on I flew."

In "Going-Up," the "love interest" (without which no modern musical comedy is complete) is supplied by the pseudo aviator (Street), a fellow guest (Miss Douglas) and a romantic Frenchman named Jules Gaillard. The last named is a fully certificated, leather-upholstered aviator, and has brought to the hotel two modern, high-powered biplanes.

Miss Douglas's father, aided and abetted by Street's publisher, promotes an air-race between the two rivals. Large sums of money are staked on the contest, the conditions being that he who flies higher, goes further and stays up longer than his opponent, shall be declared the winner and marry the girl.

For Street the only way out is to confess his fraud, but in this he is handicapped by the girl herself, who firmly believes in him and who, with unconscious irony, says: "Promise me that you'll fly to-morrow as you've never flown before."

Text books, far from helping him, produce quite the opposite effect. In Newton's "Law of Gravitation," for instance, he reads that: "If a body in motion strikes a body at rest, the result is called *impact*;" similarly, "if a body is raised above the ground and is left unsupported, it falls to the ground."

But fly he must, and, in despair, engages an aeronautical instructor whom he attempts to induce to make the flight with him on the morrow and exchange seats after the take-off. The expert declines: "I'm a married man and can't afford to take chances." "Well, one of your mates, perhaps?" suggests Street. "My mates is all in 'orspital; last poor fellow fell yesterday!"

Follows a remarkable course of theoretical instruction in the elementary principles of aerial navigation. A chair is placed on a table. "That chair is your aeroplane, you sit in it." Street seats himself as directed. A toolbag is dumped at his feet. "That's your h'engine." A walking stick is thrust into his hand: "That's your control-lever, commonly called the 'joy-stick.'" The cane is surmounted by a straw hat; "that's your wheel." In the hat band are inserted

two visiting cards, left and right. "This card," the instructor explains, "is your throttle; pull it down and it feeds the h'engine gas. The other card is your sparker—you pull that down, too; the further you pull it down the greater the speed—and always remember there's safety in 'igh speed!" "You mean," ventures Street, "that the harder I hit anything the less I'll know about it?"

To give the comedy a satisfactory ending Street, of course, wins the race; he climbs higher, travels further, stays up longer and descends about an hour later than his French rival, who, while standing with him at the hangar just before the start, asks the novice what oil he intends to use. "St. Jacob's!" comes the reply.

AUSTRALIA'S FIRST AERIAL "OVERSEA" MAIL.

Captain H. G. Butler, A.F.C., R.A.F., whose flight on August 6 from Adelaide to his home in Minlaton on the York Peninsula, has already been widely reported in the daily Press, stated to a representative of *Sea, Land and Air* that the visibility at 10,000 feet was remarkable and infinitely better than anything he had experienced either in France or in England. There was, said Captain Butler, little or no "bumping" worth mentioning.

The flight was made at an altitude of 17,000 feet on a Bristol monoplane fitted with a 110 h.p. Le Rhone engine.

Captain Butler will give further exhibitions in aid of local war charities. He paid his own passage from South Australia to England on the outbreak of war, joined the Royal Air Force, and after distinguishing himself in France returned to England. As fighting instructor both at Gosport and Maske, he instructed many pilots of the Australian Flying Corps and was awarded the Air Force Cross. His first exhibition on returning to South Australia, was held at Unley Oval, on July 23, when he performed a series of stunts in aid of the Repatriation Fund.

On the flight to the York Peninsula Captain Butler carried the first Australian "oversea" aerial mail.

LIST OF WIRELESS OFFICERS ATTACHED TO VESSELS OF THE AUSTRALASIAN MERCANTILE MARINE.

SHIP.	OPERATOR.
Australpool	K. J. Dines
Australrange	C. Black
Australbrook	R. E. Haddock
Australford	T. W. Bearup
Australmount	A. R. Catford
Australport	A. H. Jeremy
Australmead	G. Pow
Australglen	J. R. Gilligan
Australpeak	C. H. Kidman
Australplain	———
Australcrag	E. S. Earngey
Apolda	J. W. McKay
Arahura	G. Donnelly
Aramac	R. D. Thompson
Atua	G. Ross
Arawatta	F. C. Davies
Bellata	T. V. Tressler
Bingera	J. Toohey
Bundarra	H. K. Burbury
Bombala	T. Bannister
Culburra	A. R. D. Davis
Challamba	H. W. Barnfield
Coolcha	M. A. Prudence
Cethana	K. L. Freeman
Canberra	H. F. Hartley
Changsha	J. F. McGinley
Charon	J. E. Cleary
Coolgardie	R. S. Taylor
Cooma	J. H. Hawkins
Eastern	P. C. Gillon
Dimboola	A. F. Vipan
Flora	F. A. Hunter
Kanowna	W. J. Washbourne
Karoola	———
Katoa	B. Boni
Katoomba	W. H. C. Phillips (s) E. H. Thomas (2nd) H. L. Macdonald (3rd)
Karori	W. S. Harvey
Kurow	F. E. Duggan (s) C. Hart (j)
Kowarra	H. Fullerton
Kaiwarra	C. Smith
Kaituna	M. H. Ryan
Kauri	V. Blight
Koromiko	A. O. Sutherland
Kaiapoi	A. E. Sheppherd
Kaitangata	S. G. Jones
Levuka	S. J. McVeigh
Loongana	W. E. C. Sawyer
Maunganui	J. A. Heavey (s) V. M. Simpson (j)
Macedon	A. L. Dixon
Maheno	———
Makambo	S. R. Dixon
Makura	L. G. Devenport (s) E. A. Hunter (j)
Maori	V. C. C. Parke-McIlveen
Marama	J. H. Bennett (s) A. E. Lawrence (j)
Mararoa	O. Jones
Marsina	W. H. Richardson
Mataram	C. F. Griffiths

SHIP.	OPERATOR.
Minderoo	J. G. C. Higgins
Mindini	A. Stuart
Moana	J. F. Hutton (s) J. G. Campion (j)
Manuka	A. S. Smith
Melusia	N. E. Watts
Monowai	L. V. B. Sutton
Moeraki	S. A. Ludlow
Mokoia	F. N. Davidson
Montoro	N. W. Marshall
Morialta	R. Alexander
Morinda	N. G. W. Scott
Navua	J. A. Meek (s) H. Arthur (j)
Niagara	W. J. Martin (s) G. Hugman (j)
Ooma	E. A. Miller (s) T. Ward (j)
Oonah	D. N. Quinn
Paloona	S. E. Brown (s) R. H. Browne (j)
Paringa	L. S. Lane
Pateena	D. C. Lane
Rona	C. F. Green (s) N. H. Brown (j)
Rakanoa	A. T. Blomfield
Riverina	E. J. Giles
Rotomahana	J. H. Williams
Rupara	G. Cook
South Africa	C. Williamson
St. Albans	T. A. Jones
Taiyuan	H. A. de Dassel
Tahiti	H. M. Lamb (s) J. Elmore (j)
Talune	H. Speed (s) T. H. McWilliams (j)
Tarawera	H. F. Harman
Terawhiti	L. R. Dickson
Tofua	W. A. Hawkins (s) E. L. Wyles (j)
Ulimaroa	E. M. Bain (s) C. F. G. Taylor (j)
Victoria	F. J. C. Hall
Wahine	A. J. E. Corbett
Waihora	V. M. Brooker (s) F. L. Dawes (j)
Waimarino	L. H. Jones
Waitomo	A. S. Dening
Wandilla	T. Chalmers
Wairuna	H. L. Miller (s) H. G. Reilly (j)
Waitemata	M. Sedgers (s) H. R. Allen (j)
Wanaka	W. E. Long
Waipori	H. E. Young
Westralia	R. R. Robinson
Whangape	C. H. Brown (s) R. W. Barnes (j)
Willochra	F. A. Cook (s) E. N. Williams (j)
Wodonga	L. J. Glyde
Wyandra	R. M. Firminger
Wyreema	H. Tuson
Zealandia	——

OUR QUESTION BOX

W. E. Purnell, Dunedoo:—(Copper Pyrites): Copper ore containing iron, occurring in several forms, one of which is $CuFeS_2$, and another of which is $Cu_2S.Fe_2S_3$, known as chalcopyrites. Is a copper sulphate having a brilliant brass-yellow colour. Used as a low potential rectifier crystal in conjuction with zincite and tellurium.

L. L. Watkins, Mt. Merewether:—The term "Vacuum Tube" is usually applied to a glass tube exhausted of air and having two electrodes, one at each end, used for the production of various rays, such as the cathode rays, Rontgen rays (X-rays), etc. When a high potential is created in rarefied gas the discharge does not take place in form of a spark but in a more steady flow of electrons. The colour glow seen in a vacuum tube during its excitation is due to cathode rays striking on the glass walls of the tube.

W. Earle, Kensington:—(1) Yes. Light and heat are electromagnetic waves; these travel across millions of miles of vacuum from the sun and stars. (2) Yes. (3) Your inquiry should be addressed in writing to Amalgamated Wireless (Australasia) Limited.

F. J. Cook, Kapunda:—This matter should be brought to the notice of the District Naval Officer, Naval Office, Birkenhead, S.A.

J. S. Skeyhill, Middle Brighton:—The Loomis Cooling System for aircraft was explained some months ago in the Bulletin of the U.S. Experimental Department, Aeroplane Engineering Division, and is reprinted in *Aeronautics* (London, 8/5/19).

O. E. Goddard, Suva:—(1) The main characteristics of the Vickers *Vimy* bi-plane are the large gap and central skid undercarriage, additional to the "vee" undercarriages beneath the engine nacelles. (2) In the Handley-Page "0.400," the distinctive features are: bi-plane tail, balanced ailerons projecting beyond the ends and trailing edges of the main planes. (3) D.H.-5 has a very noticeable back stagger, characteristic D.H. tail and very wide rounded body. De Havilland is spelt with *two* "l"'s.

T. G. Jessop, Mandurama:—We have no direct information beyond American newspaper reports of an announcement made, on June 4, at Venice, California, by Thomas H. Ince, motion picture producer, who offers 50,000 dollars for a flight from that city to Australia. To the first man to land on Australian soil the sum of 35,000 dollars is offered, and 10,000 dollars to the first airman attempting the flight and reaching the Hawaiian Islands. As an alternative, 5,000 dollars will be paid to the one making the best attempt. Mr. Ince has lodged his cheque for 50,000 dollars with the City Treasurer at Venice. The distance from San Francisco to Honolulu is 2,089 miles, from Honolulu to Apia 2,240 miles, and from Apia to Sydney, 3,354 miles. Fuller particulars when available will be published in *Sea, Land and Air*.

AMALGAMATED WIRELESS (Australasia) LIMITED

TWELFTH HALF-YEARLY MEETING.

The twelfth half-yearly meeting of the above Company was held at Wireless House, Sydney, on August 29.

The chair was taken by the Hon. Sir Thomas Hughes, M.L.C., Chairman of Directors; other Directors present were: Captain T. Langly Webb, Messrs. C. P. Bartholomew, James Taylor and E. T. Fisk.

A dividend for the half-year at the rate of 5 per cent. per annum was approved.

Chairman's Address.

The chairman, in moving the adoption of the report and balance-sheet, made the following statement:—

An additional number of vessels are being supplied with the Company's service and apparatus, and it will no doubt interest you to learn that the Company is now conducting wireless services on board a considerable number of British vessels that are trading in all parts of the world and, by arrangement with associated companies throughout the British Empire and in Allied countries, we are able to provide for the shipowners a uniform organisation and apparatus of a standard pattern with that used in more than 3,000 British merchant vessels at the present day. Such a service could only be supplied by an Australian Company working in co-operation with similar companies elsewhere and, apart from its financial value, it has a national importance parallel with that of the British Mercantile Marine itself. Ships carrying our apparatus and our operators can go into any of the principal ports of the world and find a depot and an inspector who is able to direct and assist the operator in all branches of his work, who understands the apparatus and is able to effect repairs or supply standard spare parts upon the shortest notice.

It is an interesting and important fact to know that a merchant vessel at sea equipped with wireless apparatus is linked, through our organisations, with all the inland telegraph and cable lines of the world so that messages can be sent from the ship to any address where there is a telegraph delivery office while from any telegraph office on shore messages can be sent to ships at sea in any part of the world; by the same means a passenger in a vessel steaming between New Zealand and Australia can send a wireless message to a friend on board a vessel in the Atlantic Ocean.

New Wireless Inventions.

Advice has recently been received from England that the Marconi Company has perfected an ingenious apparatus which will enable ships to locate their position in the densest fog or the darkest night, and this will also be extended so that ships approaching one another in circumstances where there might be danger of collision will become aware of each other's position and direction of travelling, so that the risk of collision at sea will be very greatly reduced—if not entirely eliminated—by the use of this apparatus. The Company's technical staff is already acquainted with the details and we are prepared to manufacture it in Australia as soon as the demand arises.

Considerable interest has been created by a demonstration of wireless telephony given in Sydney recently by your managing director. This is a comparatively new phase of wireless development which the Company is following closely in conjunction with its associated companies in England and America. We are all expending considerable sums in developing this new branch, which will prove to be very valuable and particularly in Australia, where aviation and wireless communication will be among the greatest factors in developing our vast inland territory and destroying its isolation.

Since the development of aerial navigation appears to be progressing rapidly the Company's attention is being closely directed to the special requirements of wireless communication for aircraft and aerial landing stations. Aerial navigation

will be dependent upon wireless for its success to a very great extent, and with some of the new apparatus which is being developed it is anticipated that aeroplanes will be able to travel quite safely at night and in the day through cloudy or foggy weather.

Wireless to all Countries.

As a result of the successful experiments carried out by the managing director last year, when wireless messages were received in Sydney without relay direct from the Marconi Company's Trans-Atlantic station in Wales an offer has been made to provide a permanent direct commercial service between Australia and England. If this service is established all classes of messages—including code, plain language, deferred and Press messages—will be forwarded by the wireless service at one-third less than the existing cable rates. That will be at the outset, but it is anticipated that, as the number of daily messages increases beyond certain defined stages, this rate will be proportionately reduced and thus it will eventually be possible to bring them as low as the present day rate for messages between England and America. In addition to this, proposals are also being considered for a special service devoted exclusively to Press work.

Waiting for a License.

There has been some delay in the progress of this matter because under the Wireless Telegraph Act it is necessary to have a license to erect and operate wireless stations. Negotiations for this license are being followed up and it is hoped that our Government will decide the matter without undue delay, so that the erection of the stations can be proceeded with.

It has been suggested in some quarters that the license should not be given and, although we have not been officially advised to that effect, your directors have reason to believe that is the cause of the delay. In the absence of official advice we can only assume, from general knowledge, the objections which apparently have been raised in certain quarters, and this can probably be credited to the ideas of a few people who argue that such stations should be worked by the Navy in preparedness for war. Obviously the same argument could be applied to a wide range of subjects, and general progress would thereby be hampered.

Business Organisation Essential.

In our opinion the value of this service would be inestimable for the commercial and social welfare and progress of this country, but it must be conducted efficiently and along standard lines. This requires uniform methods and organisations at both ends of the system and in any other countries to which it might be extended, sound commercial organisations conducted on the best and most efficient business lines and continuous development of the methods and apparatus in keeping with the wide experience which will be gained through conducting such a service in all parts of the world.

We say unhesitatingly that it would be fatal to attempt to combine a naval service with a commercial service. If a naval service is needed it must be quite distinct, and it should be conducted on purely naval lines. Any attempt to combine the two would destroy all possibility of efficiency on either side.

Your directors have good reason to believe that this commercial service will be successful and that it will be capable of expansion to provide communication with almost every part of the world so long as uniform apparatus and organisation are employed at all stations. There is no reason why several such stations, if required for different purposes, should not be erected and worked simultaneously in Australia without mutual interference.

Keen Competition.

We believe it has even been suggested by some of the opponents of this scheme that no company should be granted a monopoly of overseas communication, and it is an astonishing fact that such suggestions are seriously raised because there is nothing under the Wireless Telegraph Act to prevent similar licenses being granted to other companies who can produce a workable system, and who are sufficiently enterprising and courageous to undertake so great a scheme. Obviously this would not be a monopoly, particularly in view of the fact that the cables with which we should have to compete are already in existence, and that one great cable company is reported to have decided to spend £3,000,000 in improving