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HANGARS

Last month, in an editorial dealing with the problem of the demobilised airman, we pointed out that an official statement should be made explaining why our eight flying squadrons returned to Australia without a single aeroplane.

The official explanation was given to the writer a few days ago in Melbourne. It is, that the machines could not be shipped because there are no hangars in Australia in which to shelter them. For the same reason, the hundred gift aeroplanes offered by the Imperial Government still remain in the country which offers them to us, and a staff of riggers and mechanics of the Australian Flying Corps is retained in England for the especial purpose of overhauling and keeping in repair the machines and engines for which no accommodation can be found in the country which most requires them.

As the garage to the motorist, so is the hangar to the airman. To carry the simile a shade further, it may be demonstrated that an Air Service without a chain of well-equipped aerodromes is as a railway without railway stations, for the permanent way of the air can no more be negotiated with-

out aerodromes than can a railway system without rails.

The situation is one which calls for immediate action.

Australia needs hangars—small hangars, large hangars; hangars for single machines; hangars for machines in batches of half a dozen; hangars for the hundred gift aeroplanes now awaiting shipment from England; hangars for the three-hundred passenger aeroplanes which, according to a recent cable, have been purchased by Mr. Samuel W. Copley, of Western Australia; hangars for the various types of machine which Private Enterprise is importing from Great Britain and America; hangars for the aeroplanes which Australia will soon be building for herself.

The materials are here, waiting to utilised. Vast tracts of timber, to be had for the felling; structural steel from the Broken Hill Works; unlimited supplies of Australian paint; half a dozen standard types of roofing from which to make a selection; lighting sets for aerodromes and oxy-acetylene projectors for night landings.

Arrangements are already well in hand for the erection of privately-owned hangars

and the laying out of privately-controlled aerodromes; yet, since the conclusion of the Armistice some nine months ago, the Defence Department has achieved nothing definite beyond building two hangars at Point Cook.

With the inauguration of the proposed Air Service 'dromes at Corio Bay and Liverpool the need for adequate accommodation becomes even more urgent, and these

comments are made not so much with the object of exposing Government apathy as to indicate the direction in which its activities should be concentrated.

Without Federal hangars there can be no Federal Air Service.

Meanwhile Private Enterprise, if not unduly hampered in its development, can be relied upon to establish commercial aviation on a sound practical basis.

CIVIL AVIATION IN AUSTRALIA

The Larkin-Sopwith Aviation Company (Australasia) Ltd.

Captain Herbert J. Larkin, D.F.C., general manager of the Larkin-Sopwith Aviation Company of Australasia Limited, was a passenger from England in the *Bremen* and reached Melbourne on July 25.

Captain Larkin states that the object of the new Company is to assist aerial transport companies in the formation and maintenance of their passenger-services. "We are prepared," he said, "to equip aerodromes with the most up-to-date appliances and apparatus. Three post-war models of the Sopwith aeroplane are now being put on the market, and our stock will further include dope, paint, varnish, aero cameras (oblique and vertical), electrically-heated clothing, balloons, parachutes, tape, cable, petrol-storage tanks (fixed and portable) with a capacity of from 50 to 5000 gallons, oxyacetylene projectors for night landings, aero sprays, airmen's electrical "throat" telephones (an improved model for instructional work), Verey Light pistols; everything, in fact, that the modern airman is likely to require, including canvas hangars for 1, 2, 3, 4, 5 or 6 machines. A very light, portable hangar is being produced and it will be possible to carry this in a single-seater machine.

"A London office has been opened at No. 4 St. Mary Axe, E.C., under the management of my brother Captain R. S. Larkin, M.C., who will keep Australasian branches well informed as to the latest aeronautical developments in England and on the Continent. I am being assisted

by Captain A. W. Vigers, M.C., D.F.C.; Captain G. C. Wilson, M.C., D.C.M., A.F.C. (Air Force Cross); Captain Roy King, D.S.O., D.F.C. (New South Wales "Ace"); Captain G. C. Matthews, A.F.C. (formerly Wing Examining Officer in the First Australian Training Wing), and Mr. T. T. Shipman, Sales Manager.

"I am advised by cable," continued Captain Larkin, "that the first of our machines—the Sopwith *Dove*—has been shipped by the *Demosthenes* and will shortly be landed in Australia. This machine bears a marked resemblance to the well-known Sopwith *Pup*, but is a two-seater, fitted with an 80 h.p. Le Rhone engine and should be popular among those desiring a very fast sporting two-seater.

"Another machine which will be landed here very shortly is the *Gnu*, a three-seater fitted with either 110 h.p. Le Rhone or 200 h.p. Bentley engines, and constructed either with an enclosed limousine or open touring body. In both types of machine the passengers are seated side by side, the pilot being in front. The *Gnu* has a climb of 6,000ft. in five minutes and a speed of 118 m.p.h. with complete load.

"Yet another type from the same factory is the *Transport*, a long-distance, weight-carrying machine with a particularly good record. This machine is similar to Hawker's transatlantic model and carries petrol for 1,000 miles in addition to its useful load.

"An instructional machine is almost ready for shipment. This will be fitted either with 100 h.p. *Monosoupape* or 100 h.p. *Anzani* engine and will possess all the

delicacy and strength necessary for training machines."

The headquarters of the new company are at Australian Buildings, Elizabeth Street, Melbourne.

* * * *

Captain Larkin's war career is particularly noteworthy.

On August 19, 1914, he enlisted with the Australian Engineers, and proceeding with his unit to Gallipoli, was wounded after five months' service in that campaign. He was then evacuated to England and, later, promoted to Sergeant. His interest in aviation dates back several years, and he took the earliest possible opportunity of transferring into that branch of the service which, in the early days of the war, was straining every nerve to maintain aerial equality with the enemy.

Captain Larkin was given a commission in the Royal Flying Corps and, early in 1916, was posted to No. 5 Squadron R.F.C. This squadron was then in operation in France, doing magnificent work, in which Captain Larkin soon bore his full share. After about eleven months' service, he was awarded the *Croix de Guerre* (with palm) for "conspicuously valuable photography and reconnaissance work in connection with the German retreat from Bapaume." He was then transferred to England as instructor, but finding this occupation comparatively dull and yearning for yet another shot at the Boche at close quarters, he joined No. 87 Squadron and returned to France in 1918. No. 87 was essentially a fighting squadron, equipped with the Sopwith *Dolphin*—an exceptionally fast machine. Within a very short time, Captain Larkin had gained further distinction by bringing down 11 enemy aircraft, and for his prowess was awarded the Distinguished Flying Cross.

* * * *

The Australian Aircraft and Engineering Company.

Lieutenant Nigel Borland Love, A.F.C., of the Sydney firm of John Bridge & Co.—who returned in the *Kaisar-i-Hind* on June 19, has acquired the Australian agency for the products of A. V. Roe & Co., Ltd., London, Manchester and Southamp-

ton, manufacturers of the *Avro* aeroplanes and seaplanes.

As associates in the new enterprise Lieutenant Love will be joined in Sydney by Lieutenant W. J. Warneford, formerly Equipment Officer to No. 3 Squadron, and Mr. H. E. Broadsmith, F.R.Ae.S., chief engineer and designer to A. V. Roe & Co., Ltd.

Lieutenant Warneford has been taking a post-armistice course with the *Avro* manufacturers, and is expected to reach Sydney next month in charge of the first shipment of aeroplanes from England. Four demonstration machines will be landed, in addition to twenty two-seaters, mostly of the standard K 504 type. They will be shipped in parts and reassembled locally, for which purpose erecting workshops will be established near Sydney.

The new company will probably be known as The Australian Aircraft and Engineering Company, for which title registration was applied for early in July. Operations will commence in October and will be confined to New South Wales, Victoria and Tasmania. Aerodromes are to be laid out within easy access of Sydney and Melbourne, with probably a third at Hobart.

Lieutenant Love states that the object of the new company is to establish aviation on a commercial basis in Australia, and that the programme will include joy-rides and excursion trips.

* * * *

Three New Joy-Riding Companies.

Two of the D.H.-6 aeroplanes recently offered for sale by the Department of Defence, have been purchased jointly by three returned officers of the Australian Flying Corps: Captain E. J. Jones, M.C., D.F.C., Captain R. W. McKenzie, M.C., and Captain Stanley G. Brearley, D.F.C. The machines are being overhauled at the Central Flying School, Point Cook, and will be flown to Hamilton, Victoria, the headquarters of their new owners, who will use them for joy-riding and advertising "stunts" over the Western District.

* * * *

Another of the D.H.-6's has been purchased from the same source by Lieutenant H. Treloar, A.F.C., and will be similarly employed over a territory north of the Victorian railway line between Service-

ton and Ararat. Lieutenant Treloar, whose headquarters will be at Bendigo, has concluded an amicable arrangement with the Jones-McKenzie-Brearley partnership, whereby the "territory" will be evenly divided between the two concerns. Lieut. Treloar has been piloting the Maurice Farman "Shorthorns" recently purchased from the Defence Department by the Carey-Fenton joy-riding syndicate.

* * * *

Major Norman Brearley, R.A.F., returned to Australia last month in the *Nestor*. Before leaving England he purchased two *Avro* monoplanes which were landed a few days ago at Fremantle by the *Port Napier*, and were erected at the Belmont Park Racecourse. The machines will be used for joy-riding and exhibition flights, the first of which were made on July 30, when the Mayor of Perth (Alderman Lathlain) was taken aloft on his maiden aerial excursion.

* * * *

Melbourne-Bendigo Flight.

A commercial flight from Melbourne to Bendigo was made on July 18 in one of the six 80 h.p. Maurice Farman "Shorthorn" bi-planes recently purchased by Messrs. Carey and Fenton.

Mr. Graham Carey carried as passenger Mr. E. G. Willenis — foreign sales representative of the Dodge Automobile.

The return journey of 202 miles was completed in 187 minutes, the time table being as follows:—Leave Melbourne 9.30 a.m., arrive Bendigo 11.15 a.m. Return flight: leave Bendigo 3.45 p.m.; arrive Melbourne 5.7 p.m.

* * * *

Richmond-Bathurst Flight.

A passenger flight from Richmond to Bathurst was made on August 6 in one of the two D.H. 6's, operated by Aerial Company, Limited, Sydney. The machine was piloted by Lieutenant Clement V. Ryrie, who was accompanied by Lieutenant N. P. H. Neal, M.C. (Bar) M.M.

Lieutenant Neal writes us as follows:—

"We rose from the 'drome at 11.15 a.m. and circled till we attained the height of 4,000 feet (which took about half an hour), and then headed for Valley Heights. From there we travelled towards the railway line. From Black-

heath we followed the railway to Mount Victoria, thence to Rydal, Yetholme and Bathurst, where a good landing was made at the racecourse at 1.50 p.m. A westerly wind was encountered after reaching Mount Victoria. The engine ran well, but parts of the trip were very bumpy, especially near Blackheath and Yetholme. At these places, it was very difficult to keep any height, and on several occasions we were forced dangerously low by the air currents.

"Lieutenant Ryrie considers the flight across the Mountains a very difficult one, and should not be attempted at a height of less than 10,000 feet."

Mr. H. C. Macfie, Chairman of Aerial Company, Limited, will sail for England in the *Ormonde* on August 23.

* * * *

Aerial Surveys.

Major Lee Murray, R.A.F., Chief Engineer to Aerial Transport Limited, has completed his survey of the Melbourne-Adelaide route. The double journey (1,270 miles) was made in a Chalmers-"Six" automobile, the running time being 65 hours 25 minutes. Leaving Melbourne on July 1 at 9.25 a.m., Major Murray returned on July 22 at 2.10 p.m. Five landing sites have been selected. Major Murray is now engaged on the Melbourne-Sydney survey and departed from the southern capital on July 29. He expects to reach Sydney on August 6, and his report, together with photographs taken *en route*, will appear exclusively in the next issue of *Sea, Land and Air*. While in Sydney, Major Murray will be joined by Mr. Hector Sleeman, managing director of the Company.

* * * *

An illustrated description of Mr. Reginald Lloyd's transcontinental survey, from Sydney to Port Darwin, appears in another section of this issue.

* * * *

The Minister for Defence has sanctioned the undertaking of an aerial survey of the Cloncurry-Pine Creek (Northern Territory) aerial route. This will be commenced at an early date.

* * * *

Mr. Kenneth Bennett, of Bennett & Wood Ltd., Sydney, is said to be contemplating the purchase of a Curtiss flying boat for his personal use.

COMMONWEALTH SHIPBUILDING

THE "DUNDULA" LAUNCHED

The * third vessel of her class, the *Dundula*, was launched at Cockatoo Island in the presence of some three hundred guests. The ceremony was performed on July 9 by Mrs. W. A. Holman, wife of the New South Wales Premier.

On account of the somewhat restricted accommodation at the Slip, the number of invitations was necessarily limited, while with Parliament in Session, neither the Minister for Shipbuilding (Hon. A. J. Poynton, M.H.R.), for any other Federal Members could attend; the Minister, however, was represented by Mr. H. W. Curchin, Chief Executive Officer for Commonwealth Ship Construction.

The guests included their Excellencies, the Governor-General and Lady Helen

Minister for Labour and Industry, Hon. G. S. Beeby and Mrs. Beeby; American Consul-General, Mr. J. I. Brittain and Mrs. Brittain; Consul-General for Japan and Madame Shimizu; Consul for Belgium and Mrs. Balthazar; Archbishop of Sydney, Mrs. and Misses Wright; Judge and Mrs. Backhouse; Commodore J. S. Dumaresq, C.B., M.V.O., R.N.; Commodore J. C. T. Glossop, C.B., and Mrs. Glossop; Flag Captain C. Cumberledge, R.N.; Flag Paymaster Lieut. Commander E. Kingsford-Smith; State Commandant Major-General L. Lee, C.M.G., D.S.O., and Mrs. Lee; Captain A. C. and Mrs. Dunn; Captain and Mrs. E. C. Hardy; Captain and Mrs. Robins; Captain, Mrs. and Miss Brownlow; Engineer Captain G. H.



"I name this vessel "Dundula"!"

Munro Ferguson, attended by Capt. Duncan, A.D.C., the Premier, Mrs. W. A. Holman and Miss K. K. Holman; the Chief Secretary and Lady Fuller; the Attorney-General, Hon. D. R. Hall and Mrs. Hall; the Minister for Public Health, Hon. J. D. Fitzgerald; the Minister for Justice and Solicitor-General, Hon. John Garland and Mrs. Garland; Minister for Education, Hon. A. G. F. James and Mrs. James;

Bromwich and Mrs. Bromwich; Commander and Mrs. H. J. Feakes; Commander and Mrs. Burrows; Flag Lieutenant Morgan, R.N.; Paymaster Lieut. Commander Cooke, R.N.; and the Wardroom and Gunroom Officers and Warrant Officers of the Fleet; Captain and Mrs. Seone; Captain and Mrs. A. N. M. d'Apice; the Chief Executive Officer of the Commonwealth Ship Construction Department, Mr. H. W. Curchin; Lady Cook and Miss Cook; the principal officers of the Commonwealth Naval Dockyard and their families; principal officers of other Naval Establishments; State Members of Parliament; Assistant State Secretaries, and others.

* Earlier types of this vessel are:—

- (1) The *Delungra*, launched at Walsh Island, N.S.W., on March 25, 1919, by her Excellency, Lady Davidson;
- (2) the *Dromana*, launched at Williamstown, Victoria, on April 11, 1919, by her Excellency, Lady Helen Munro Ferguson.

Mrs. Holman christened the vessel by breaking a bottle of Minchinbury on the bows, the baptismal speech being:—

“I name this ship *Dundula*. May all who sail in her go in confidence, peace and security under the great flag of the Australian nation!”

Presented with a handsome wooden casket containing a mallet and chisel, Mrs. Holman then severed the cord which held up the dog shore weights, and the vessel took the water to the strains of “Australia Fair” and “Rule Britannia,” rendered by the Cockatoo Dockyard Band.

which consist of web plates varying in depth from 14in. to 42in., supported by face angles connected to the plating by large angles.

The transverse frames are spaced from 11ft. to 12ft. apart, and form a continuous web surrounding the whole girth of the ship below the upper deck. The depth of the transverse frame is 14in.; at the sides, about 23in. and in the bottom 42in. The latter is plated over and forms a continuous floor, or inner bottom, some 280 feet in length.

The space between the inner and outer bottoms is utilised chiefly for carrying



The “Dundula” takes the water.

The *Dundula* is of the single deck type, with long bridge deck amidships. The crew are accommodated in the poop, the officers and engineers on the bridge deck, and the captain and wireless operator on the navigating bridge. All the ship's stores are carried in the forecastle. Of her 1,460 tons of structural steel 876 tons is of Australian manufacture. For a vessel of this size the pumping and draining arrangements are very complete. The main framing consists of bulb angles, varying from 7in. to 9in. in depth and running nearly the full length of the vessel at a distance of about 28in. apart. Securely riveted to the shell plating, they are stiffened by the transverse frames,

water ballast and feed water for the boilers; of perfectly watertight construction, it may be considered as a large tank, extending the full width of the ship and entire length of the inner bottom. It acts also as a watertight bulkhead. Situated in this tank are the centre line girder plate and two side girder plates, approximately 42in. in depth. They materially assist and are in themselves vital units in the longitudinal framing of the structure.

The framing—longitudinal and transverse—together with the plating of the shell and decks, form the main factor of strength in this particular type of vessel. The watertight bulkheads, five in number, add considerably to her strength.

The *Dundula* is designed to carry a cargo of 5,500 tons deadweight, and when fully loaded will have a displacement of approximately 9,000 tons.

Power is provided by steam generated in three boilers of the Babcock and Wilcox type. They are of the water tube model and supply a tube-heating surface of 8,289 square feet.

weigh well over 100 tons, their dimensions being 21ft. 3in. long overall, with a width overall of 16ft.; height from sole plate upwards 23 feet.

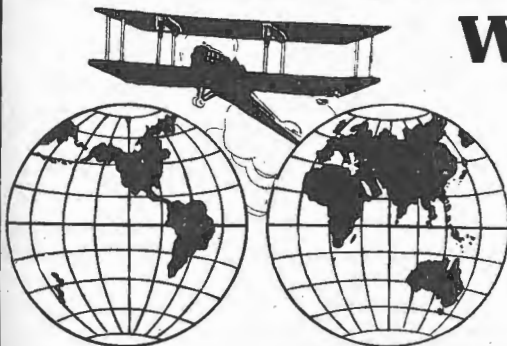
The auxiliaries include the condenser with a cooling surface of 2,600 square feet, several large Weir type feed pumps, ballast pumps, and a 25-ton evaporator. The Weir type had proved itself quite



The State Premier, Mr. W. A. Holman, delivers a brief address.

The engines, manufactured by Messrs. Thompson & Co., of Castlemaine, Victoria, are of the triple expansion type. The cylinders are 25in., 41in. and 68in. diameter, with a 45in. stroke and developing 2,200 indicated horse-power. The engines are of the usual inverted marine type and similar to those now going into "C" class ships in Great Britain. They

the best for the purpose, and is now generally installed in modern ships. Other accessories, all of which have been turned out in the Dockyard workshops, comprise pumps, feed heaters, filters, condenser, winches, electric light, engine, windlasses, steering engines, auxiliary screw gear, the ventilating fans and fan engines.



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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 II.—Continued from July issue.

Tuesday, 5th March, 1918.

The falls of snow have left the roofs of the barracks and the hills on the other side of Kiel Bay covered in white.

This afternoon, from our balcony overlooking the Bay one saw the usual patrol of four destroyers slink out, bound for the Skager-Rack.

The fleet has returned to Wilhelmshaven; but for the few battle-cruisers in dock there are no large warships on this side of the canal.

The *Wolf* has left for Lübeck (probably for exhibition purposes); the Kaiser's beautiful toy *Hohenzollern* is further up the bay, nearer the town.

From activities aboard the *Möwe* (clearly visible some few hundred yards off) it would appear that she is to soon make her third attempt at blockade-running—my friend Karl in number X. is industriously "lead-swinging," with a view to dodging the unwelcome honour of manning the till-now elusive raider.

The huts in which nearly all of the British captives are imprisoned are now covered with snow; a note smuggled through to me says that the cold striking through the thin *papier-mâché* walls is intense, that the military guards allow the fires to flicker out, and that many of the poor chaps are now suffering from chest troubles in addition to their other ailments.

I am in the * *Festungslazarett*, Kiel Wik.

Wednesday, 13th March.

The Princess Irene, wife of Henry of Prussia (or, as it is here, Heinrich von Preussen) visited the hospital to-day.

She asked me a number of polite inanities; without a trace of irony the dear lady "hoped I was content"!

A dowdily dressed woman with charming manners.

* Lit. Fortress Hospital.

Wednesday, 20th March.

This afternoon 26 corpses were landed and passed under our windows *en route* to the morgue.

An *Unterseeboot* was on her trials in the bay when she dived with her conning tower open. *Finis* submarine!

Saturday, 23rd March.

Our neighbour, a military lieutenant, (Hun, of course) tells us amazing tales of a huge German offensive which commenced yesterday.

The Allies, so says the *Herr Leutnant*, are running like sheep, and the war will be over in three months.

He was very pained at our terse "not-likely!"

A very decent chap, our neighbour, but addicted to uniform.

Dinkum: I met him on his way to the † *Verbandzimmer* the other morning to have his wounds dressed.

As a concession to hospital custom he was wrapped in a gorgeous flame-coloured dressing-gown, whilst underneath the garment he was in full uniform!

Leutnant "Jerry" gives us books, "fags," etc.—we give him tea in exchange.

Tuesday, 2nd April.

With parting * *Auf wiedersehens* and † *Gute Reises* from Sisters Kate, Doris and Olga, I left the fortress hospital this morning on the first stage of my long journey to the officers' distributing depôt at Karlsruhe, in Baden.

Those Sisters have treated me in an attentive, careful and sympathetic manner, which could not possibly be improved on in any hospital staffed by nurses of my own nationality.

It is to be regretted that so many of our howling jingoes have been so ready to

† Lit. Dressing Room.

* Lit. *Au revoir*.

† Lit. *Bon voyage*.



Officers' Prison Camp at Fürstenberg

credit absurd stories about German nurses maltreating prisoners.

I was in charge of an *Unteroffizier* of the *Landsturm*; a youngish fellow unable, for medical reasons, to serve at the front.

Our train journey into the city was past block after block of crowded "flats," past hundreds of flabby children playing in the streets (the absence of fats is having a very bad effect on all, but on the children in particular), and past churches stripped of their metal tiles and bells.

The streets were crowded, the naval uniform predominating, but the shop-window displays were laughable.

The sole exhibit of one pastry cook consisted of two loaves of war-bread; a shoe store showed nothing but wood-soled boots and clogs. In the city itself is the Trawler's Quay, very similar to the Fishermen's Basin at Hobart; but in this instance a battle-cruiser was in dock, and the network of steel trellis at the submarine works formed a background which little old Hobart lacks.

The main court of the *Bahnhof* was crowded, and the advent of an Englander escorted by an *Unteroffizier* and three soldiers caused quite a sensation.

The walls of the station were decorated with government propaganda placards; prominent being one in thick black lettering:—

ENGLAND IS TO BLAME!

**When you get your ration cards—
REMEMBER ENGLAND!**

**When your children cry for bread—
REMEMBER ENGLAND!**

And alongside this was a touching, but contradictory study of a famine queue in "starving London!"

It was typical that these exhortations to the populace, whether calling upon them to hate, to endure, or to sacrifice, all alike were framed to appeal either through or to their stomachs. The German Soul, if it exists, is gastronomic.

We left Kiel in one of those atrociously uncomfortable wooden coops in which a benign government pens its third-class passengers, changing to the comparative luxury of a second-class coach at Neumünster, however, and sharing our compartment to Hamburg with two really pretty girls, a worried-looking *hausfrau* with an ill-nourished child, two *unteroffiziers*, a dashing war-widow, and an elderly business man.

They were quite affable to me; all chatted together, the conversation being chiefly about the scarcity of food and clothing. Despite this they were all well dressed, the widow and the girls being particularly smart.

Of the "beautiful" (*vide* Bædeker) province of Schleswig-Holstein, I saw only bleak, leafless landscapes dotted with red-brick farmhouses and dreary towns, the whole countryside being draped in a chill drizzle.

At Hamburg in the evening I treated my *unteroffizier* to a dinner in the big first-class restaurant of the *Bahnhof*. The large hall presented a brilliant spectacle, crowded as it was, chiefly with officers and their womenfolk.

The entering Englander was stared at so openly, my table was of such obvious interest to the assemblage (which was mostly dining on soup and potatoes) that



Portion of the Prison Camp at Brandenburg, Prussia.



Prisoners' Cemetery at Brandenburg.

I considered it my duty to advertise England's food resources.

I therefore drew upon my Red Cross "reserve" to an extent which I could ill afford. But the opportunity was unique. Amid gasps I placed a large tin of bacon and beans in a dish and then hustled the waiter (ex-London hotel) for more dishes. (Everybody brings most of his own food in restaurants now.)

I then had opened a tin of Morton's sausages, a Morton pudding (inundated with condensed milk as a sauce), a tin of cheese and a plate of biscuits.

This display created an absolute sensation; people a little distance off stood up to see the *verdammte Engländer* gorging at one meal what to them was a week's rations, while an obese and stately *Frau Oberst*, dining on soup at an adjoining table, asked of Gott and her brass-hatted hubby, in a flood of passionate verbosity, why the Engländer should gorge whilst she hungered.

Later, after war-lager, coffee **ersatz*, (an important word in modern Germany is *ersatz*) and "Woodbines," my *unteroffizier*, beaming and *Kamerad*-ish owing to the feed, actually proposed that instead of going south to-night we remain at his flat in one of the suburbs of Hamburg.

We slipped through the imposing Bahnhof Platz and unobtrusively standing on the darkened rear-platform of the "electric" we were whisked past the brilliantly illuminated but lifeless *cafés* and *cafés chantants* of Hamburg on our way to a jolly little evening where Frau Unteroffizier presided over the ceremonies and finally unearthed vast quantities of deliciously comfortable feather-beds for her unexpected guest.

* Substitute.

Thursday, 4th April.

The south-bound passenger train in which we left Altona yesterday was abruptly commandeered at Hamburg, the passengers were bundled out on to the platform by a shrieking Hun, and the train was crammed with troops *en route* to strengthen the line at Metz.

I obtained permission to travel by the troop-train at the last moment, however, and squeezed into a compartment already crowded with young Huns, all clad in the regulation greenish-grey and wearing little round caps of the same material.

I had had some most interesting glimpses of Hamburg (looking across the Innen Alster is like looking at a city of palaces fringing a lake), but the views we now obtained of the huge merchant fleet rusting in the Elbe were of special interest.

One dock which the train skirted is completely filled with large passenger steamers, the funnels and hulls of which are a mass of rust.

The river itself is lined with ships; big two and three funnellers standing out conspicuously.

Our all-night journey was a dreary nightmare of changing trains, shunting into sidings whilst crowded troop-trains passed South; of wooing sleep whilst sitting bolt upright on a wooden bench, and of listening to a snoring multitude who could apparently sleep (*and expectorate*) while marching, if necessary.

Midday-to-day found us in Frankfurt-on-Main; among whose crowded blocks of buildings are scattered torn gaps which mark the trail of the Allied air-raiders.

Half of the big Bahnhof itself has completely disappeared—the result of a recent raid. Just outside Frankfurt is a very well camouflaged Zeppelin hangar,



Officers' Quarters at Brandenburg.
The Author's bunk is indicated by the "X."



Human "horses" hauling the food waggon.

with red-roofed cottages and fields of rye apparently sprouting from its roof!

All the afternoon we pushed south through the really beautiful province of Baden; spring has already arrived here, the countryside is dotted andavenued with fruit trees in full blossom; dozens of old castles cap the hills here and there, with quaint old villages straggling down from the castle walls. The clumsy, slowly moving farm carts are drawn by a magnificent breed of white oxen.

Those at work in the fields are mostly women and war-prisoners, the latter being usually clad in broad, yellow-striped clothing in all stages of raggedness; though here and there one sees a tattered French-blue or khaki uniform. Store, troop, gun and munition trains are all rushing south.

Just at dusk we pulled out of the valley of the Rhine at Heidelberg; the darkened train entering Karlsruhe at about 8 p.m.

An air-raid was expected; Karlsruhe was in darkness and the passengers were quickly passed with their passports through the examination turnstiles. A glimmer of light showed big notices:—

***IN FLIEGERGEFAHR!
TO THE CELLARS.***

With my escort I was marched through the darkened streets to the ex-Hotel Europaischer-Hof, now a receiving depôt for officer-prisoners. In the lobby my *unter-offizier* obtained a receipt for *ein Gefangener, englische*, and then, in all sincerity, wished me a *gluckliche Gefangenschaft*—a happy imprisonment! The sense of humour is an unknown quantity in Deutschland.

I was locked into a cubicle measuring roughly 6ft. x 12ft., its furniture consisting of two camp beds, two mattresses stuffed with wood shavings, and a small, deal table. My "stable companion" is Astor, a noted French aviator, whose decorations include the *Legion d'Honneur* and the *Croix de Guerre*.

Saturday, 6th April.

After being interrogated by a sleek, oily person attached to the German Secret Service I left the depôt in company with an assorted collection of prisoners, and am now in the prison-camp proper of Karlsruhe; the notorious barbed-wire cage which is erected in the Stadt Garten in close proximity to the Grand Ducal Palace for the humanitarian purpose of protecting the Serene Highnesses during Allied air-raids. Enclosed within the wire are a number of huts, one used as a mess-room, one as an amusement centre and library, the remainder as barracks.

The barracks are furnished with camp beds and deal tables, as at the depôt, and everything is very clean except the mattresses of wood-shavings, which are not entirely devoid of insect life.

"Among those present" in the cage this week are Brigadier General Dawson (South African Forces) and staff, half-a-dozen colonels, and lesser lights to burn. No naval men, and I am the only Merchant Service man here.

Besides the British there are scores of French and Italian officers, a Roumanian somebody, and a Serbian colonel.

A concert in the evening — a stupid French farce, a very weak English melodrama, and Colonel Lord "X" gave "Off to Philadelphia." The noble Lord is a genial



The Italian "Theatrical Company" at Brandenburg.

* "Air Raid Danger."

personality with a likeable manner, but an appalling voice. Somebody really should tell him about it! However, "Philadelphia" got much polite applause, and we all joined in the chorus.

Tuesday, 9th April.

The daily routine here is as follows:—

No breakfast is supplied, but coffee *ersatz* may be obtained from the canteen at 15 *pfennigs* (1½d.) a small cup.

Muster is at 10 a.m.; all line up in the amusement hut and respond to their names by passing out and saluting the Hun adjutant standing in state at a saluting base in the porch.

The adjutant is a pompous old thing conspicuous by his huge sword, spiked helmet and much over-developed abdomen.

Lunch is at 1 p.m., and consists of soup, (extremely weak), potatoes, a unique and ever-present dish of sugar-beet from which the sugar has been crushed, thus leaving a sort of more-or-less edible fibre; twice a week we get a small quantity of meat, and we frequently have common dandelion plants served as a salad.

After this scanty lunch we usually return to our hut and eat whatever is obtainable from the canteen. We have formed a mess of eight (a war-time major of 28 and assorted Flying Corps veterans of from 18 to 23):

To-day, at exorbitant prices, the mess managed to procure some dried fruit, and with this and our allowance of bread we made a pie in a wash-basin, baking it in the French kitchen.

Helplessly we all regarded the pie-to-be and it was generally conceded that I, an Australian, should know how to cook. And how was I to tell them that I was a city-"Aussie"?—England does not know that such a breed exists!

Finally, the major did the mixing while I "crumbed" the bread—the pie was a howling success.

"Dinner" is at 6 p.m., and is almost a replica of lunch. For these two scanty meals and our "accommodation" we are charged about 2 *marks* a day (the British Government makes special allowance for this purpose).

Till 9 p.m., when a second muster takes place, the time usually passes with cards, etc.

The evening's entertainment is frequently added to when the wailing of the big siren mounted in the Bahnhof Platz

announces that the raiders are coming and the "Archie" barrage gets busy.

Saturday, 13th April.

A party of fifty left Karlsruhe to-day bound for another lager at Fürstenberg, a town up north in Mecklenburg.

Under a strong guard we marched to the station and were placed in two coaches (2nd class) in which we shall joggle along for at least two days. The *modus operandi* with prison-coaches is to attach them to any train which happens to be going in the desired direction, and to shunt, couple, and un-couple the coaches to and from various trains till the destination is reached. A prison-coach sometimes takes a fortnight to go from south to north Germany!

The chap next to me in the train (an R.A.F. pilot) showed us a new point of view as we pulled out from Frankfurt-on-Main.

"A beautiful city, this," he said, with an expression of retrospective ecstasy, indicating by a wave of his hand the packed and dreary-looking blocks of "flats." "It makes glorious bombing! You've only to drop a pill and it's bound to smash something!"

Monday, 15th April.

Yesterday we passed through the eastern sector of the Hartz mountains, a district of rushing river-valleys, little farms with rye-fields of vivid green, backed by the deep myrtle of the fir forests, and pine-clad mountains dotted with tiny red-roofed villages.

We were then in the country of Goethe, but the descendants of Faust and Marguerite are not very romantic-looking.

The men wear *velours* hats adorned with big tufts of feathers, and the women have huge feet and wear their hair drawn back into the knot beloved of char-ladies.

As we marched through the streets of Güsten to get some soup at a military dépôt, the villagers stoned us, the man next to me having his ear slit by a well-aimed shot.

A run across the sandy Prussian plains on which Berlin is built, through Berlin itself (of which more anon), and a few hours later we detained at Fürstenberg, in the Mecklenburg lake district.

Through the town (which consists of a picturesque yellow-brick church surrounded by a vast number of narrow cobbled streets), and a march of a mile of so brought us to the Röblinsee, a forest-

fringed lake on the southern shore of which are scattered a number of pretentious modern villas and *pensions*.

To our astonishment we were marched up the drive of a most opulent-looking, white-walled establishment; the barbed-wire encircling the grounds assuring us that this must be our destination.

A wide glass verandah enclosed two sides of the building, one of which opened on to a fine balustraded terrace.

In the centre of the garden sloping down to the road a fountain was plashing into an ornamental stone basin.

We were lined up on the terrace and allotted rooms; I drew a prize, the well-furnished room which I share having a glorious view across the placid Rößlinsee.

Almost dazed by this time, we were served a lunch of cold tongue, beef, salad, potatoes, tea, jam and butter by a staff of efficient orderlies in a parquet-floored dining room. My staid, "three-pipped" *vis-à-vis* beamed Bairnsfatherly and mumbled, between mouthfuls, "Like it, Bill"?

"Not 'arf!" I murmured back, reaching for the Lea and Perrins.

Prepared for anything now, we heard without visible emotion that "dinner is at seven, gents., and the *révue* commences punctually at eight!"

The *révue* was great, and as hot as mustard. (A stage, complete with "flies," footlights, etc., stretched across one side of the dining room.) Quite purple was the touching *chanson d'amour* warbled by the leading lady (of the R.A.F.) and impeccable the juvenile lead, in white serge, a panama, and a tooth-brush moustache.

Wednesday, 17th April.

Here is our daily routine:—

Breakfast 8.30 a.m. Food is not so plentiful as it appeared on the day of our arrival as those "spreads" were the result of a special effort made by the fellows from their parcels from England in order to give us a good welcome; bless 'em!

We must now economise rigidly until our own parcels begin to arrive, although everybody here is doing everything possible for us and we receive frequent invitations to teas and dinners. Practically no food is obtainable from the village, but the Older Inhabitants here breed rabbits and grow vegetables, thus being fairly well off.

9 a.m.: First **Appel*.

From 9.30 a.m. till 11.30 a.m. we are allowed out on parole. This morning a party set out at a quick pace, a sentry following at a distance. We skirted the Rößlinsee, from there—swinging off into a pine-wood, and the beech-forests near Augustablick—a spot in the hills from where one looks down over the shimmering beeches to a deep green lake far below.

The silvery beech-trunks, the ground thickly carpeted with the mellow browns of last year's leaves, the vivid brilliant green of the young leaves, and the patches of wood-violets form a dazzling picture—after my caged existence of the last 10 months aboard the *Wolf* it was like frisking through a new world for a couple of hours.

From noon till 1 p.m.: Lessons (in the library).

1 p.m.: Lunch.

2 p.m. till 3.45 p.m.: One takes one's choice of another walk, of lounging by the lake sailing toy boats, or of joining a swimming party.

The tennis court and cricket pitch are available all day.

4 p.m.: Second muster (on the terrace). Tea immediately afterwards.

5 p.m. till 7 p.m.: More classes. (Classes include French, German, Mathematics and shorthand, the shorthand master being Australian, Lieut. Collier, ex-*Hobart Mercury*.)

7 p.m.: Dinner.

After dinner there are sometimes impromptu dances, and bridge parties, many of the prisoners have private gramophones and pianos.

At eventide my floor becomes quite lively; a soulful person next door plays Chopin and Beethoven on his piano till "lights out," opposite is a well-patronised and flourishing roulette room, there are two or three opposition gramophones and another room is well adapted for indoor tennis (when the beds are pushed into a corner.)

And, of course, there is the bar, which stocks only beer at 20 *pfennigs* (2d.) a glass and *vin ordinaire* at prices which are by no means "ordinaire."

For a glass of the red ink which is usually thrown in with the 3 francs *table d'hôte* of a French restaurant one must here pay 1 *mark* 50 *pfennigs* (1/6). Then there is a cinema-show once a week and frequent concerts.

Lights out: 11 p.m.

* Muster.

Life at our *lager* has no resemblance whatever to the mode of living which would be customary at this Kurhaus in the "pip-ing days of peace."

Our "home"-life may be likened to an "oil-and-water" union between a boys' college and a Twilight Home (one remembers those worthy institutions "for indigent gentlewomen" for which subscriptions are canvassed in Sydney).

The groups of middle-aged and elderly veterans sunning themselves on home-made chairs on the terrace are laughably reminiscent of decayed gentlewomen. Their activities consist of gardening, scandal, breeding rabbits in hutches, mending clothes, cooking and bewailing the vanished glories of their pasts.

Then there are "the boys," the subalterns and the junior mercantile officers.

Various classes are held in the library with everybody more or less doing daily "swotting" at French, German, etc., with intervals for tennis, cricket or walking. Whenever we leave the *lager* (although on parole) we must keep together and take a German soldier with us as a guard, and the long straggling files clad mostly in "shorts" and followed by a uniformed Fritz, have a most academic appearance.

Then there is our daily "yachting party"—a never-failing source of joy to the irreverent. The yachts are models, and it is a truly unique sight to see dignified captains, mostly clad in an inharmonious admixture of gold-braided jackets and abbreviated "shorts," toddling down to sail toy boats in the blue Rößlinsee, a large retinue of advisers and critics bringing up the rear. One caustic misanthrope says that he is undecided whether our yachting party most resembles a community of Peter Pans or the "harmless" ward of a mental hospital.

Tuesday, 21st May.

For our sins Captain J—and myself are to go to Berlin to-morrow; my ultimate destination being Brandenburg, the Prussian Aldershot. Brandenburg is one of those notorious hells which contain well-filled private cemeteries—several commiserating and horrified friends have spent the day telling me such cheering anecdotes as that seven hundred prisoners were left to die of disease and starvation when a typhoid epidemic broke out in the camp; (an incident which actually took place, by the way). "Strafe" is a specialty; and

if one escapes being prodded by a bayonet one usually dies of starvation during the stoppages of parcels which frequently occur. A cheerful prospect!

Wednesday, 22nd May.

A glorious spring day, the news from the Front is still good, and the whole of Berlin was promenading in the Tiergarten and Unter-den-Linden.

The fact that I was practically on exhibition as a type of Englishman, being led all through the principal streets by my escort did not add to my pleasure, but it has nevertheless been a most interesting day.

The famous rows of * *Linden* stretching down from the imposing Brandenburg Gate are now in full leaf, the beautiful street itself was thronged, and the hotel terraces and *cafés* near the Leipsicer Platz were crowded with chattering femininity airing their new spring toilettes and sipping coffee *ersatz*. Glittering like a golden bubble in the sunlight was the gilded dome of the Reichstagesgebäude, the meeting-place of the Imperial Parliament.

My exhibition "turn" over, I lunched in company with much well-cut mufti and many dazzling uniforms in the first-class *Potsdamerbahnhofrestauration*, not without a little scene at the entrance doors.

The trouble was typically Prussian; no objection was raised to the *Englische Herr Offizier* entering the sacred precincts, but it was *streng verboten* for my poor old *Landstürmer* to breathe this rarefied atmosphere!

After frugally lunching on beer, coffee *ersatz*, and a Libby's "veal loaf" we drew out in a crowded troop-train through the acres of tiny kennel-like dwellings on the outskirts of Berlin.

We passed a gang of French *women* navying on the railway line.

Viâ Potsdam and its villas we reached our destination, some 30 miles from Berlin.

Through the bustling provincial town and out past the Plauertor—(the well-preserved tower which 'was one of the towers of the South Gate of mediæval Brandenburg)—on the Plauerstrasse, here bordered by the barracks of many famous regiments.

Away past rye-fields and canals stretches the chestnut-bordered Plauerstrasse;—a

* Trans.: Limes.

Via Dolorosa where I passed groups of flabby, dropsical-looking Russians dragging their wood-clogged feet with evident effort over the cobbled surface, past a waggon in which English prisoners took the place of horses, past a hand-cart in which a tubercular Frenchman was being dragged along by a fellow-prisoner to die within the hospitable wire walls of our prison. The *gefängenenlager* of Brandenburg is an old brick-works situated on the bank of the Havel. I was hustled across a slimy cobbled yard and locked in a barbed-wire enclosure with a number of Russians, filthy and wretched, and a few sailors "home-ward"-bound from labour Kommando.

A long, low barrack, infested with lice and indescribably filthy, was to be my abode for the night.

In this building all were to sleep together on a long shelf-like arrangement on which was scattered a little matted straw.

No food, bedding or blankets were provided. I spent the night walking up and down outside the odorous barrack, scratching, accustoming myself to the varied effluvia given off by my Russian fellow-prisoners, and listening to tales of horror from returning English workers. Poor devils! they slave in mines—farms—everywhere—for 30 *pfennigs* (3d.) a day till they can work no more and then return to this choice convalescent home to recuperate—or to die.

Thursday, 23rd May.

The camp consists of two portions—the old brickworks themselves, now used as the offices and dwellings of the *lager* staff; and the prisoners' quarters, long barracks surrounding the slime-covered clay pit.

Wire everywhere divides each barrack into a separate compound.

I am in No. 10 Barrack—a long structure divided into sections for officers, under-officers, day-workers and the French. Other barracks accommodate hundreds of Italians and many thousands of Russians, the latter mostly peasants of magnificent physique who are drafted in and out of camp in the slavish labour gangs like so many cattle.

Also; the Russian peasant is interesting to meet in the pages of Dostieffski and Turginev, but as a "stable-companion"—!! Even to have him existing within a few hundred yards of one is an ever-present insult to one's eyes and nostrils.

The English, French and Italians (all, that is, with the exception of officers and under-officers) are also drafted out in the kommando gangs to toil for the usual 3d.

The only food supplied (it is given to all alike) is coffee *ersatz* at 6 a.m., a basin of quite indescribable soup at midday, another basin at 6 p.m.

A small cube of bread (black and chiefly sawdust) is issued daily.

One must be ravenous before one can eat this awful food—we British who are not yet in receipt of parcels exist on a weekly dole issued by the British Relief Committee.

In such a place as this the committee is naturally unable to supply much.

The Hun Kommandant is Count von Bradow, a grey-bearded, elderly man, who leaves almost everything to his *unteroffiziere*, with the result that the discipline for officers and under-officers is not very strict, provided that one keeps well away from the Kommandantur.

(To be Concluded.)

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THE STEALING OF THE STEAMER "FERRET"

AN ACCOUNT OF HER VENTURESOME VOYAGE

Epecially Written for "Sea, Land and Air" by CLAUDE R. BERESFORD.

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Plying out of Port Adelaide on a weekly service to the ports of Spencer Gulf, the small steamer *Ferret*, bearing the yellow and black funnel of the Adelaide Steamship Company, does not appear to be a very striking subject for an article; but when we delve into her past history a different opinion is formed. Some of the adventures of Captain Kettle—Cutcliffe Hyne's hero in fiction—are tame when compared with the voyage out from the United Kingdom of this small packet of under 400 tons.

Built in 1871, the *Ferret* was owned by the Highland Railway Company and ran a service out of Inverness for some years; however in the autumn of 1880 her owners were approached by a shipbroker named Walker, who arranged to charter her for a period of six months, on behalf of a Mr. Smith.

She was at this time in the Clyde, and steps were immediately taken to outfit her for a lengthy voyage. Ship chandlers, eager for business, readily listened to the proposition of Walker, who outlined the extensive yachting voyage about to be undertaken by the wealthy Mr. Smith, of London. References were asked for by the merchants, and readily supplied, with the result that stores of every description, including a large stock of high-class wines, were shortly shipped aboard. As Mr. Smith was mentioned as a relative of the then First Lord of the Admiralty, and inquiries at his bank revealed a healthy balance on hand, the ship chandlers accepted promissory notes of three months in payment for their supplies.

After an overhaul and general outfitting the *Ferret* steamed down the Clyde and dropped the smoke of Glasgow far astern. She proceeded to Cardiff, where she filled her bunkers with good Welsh coal and sailed from there on October 25.

Her next place of call was Milford Haven, where she stayed a week, and here Mr. and Mrs. Smith boarded her. Then she sailed, the owners having been pre-

viously advised by the charterer that he was bound for Marseilles, and nosing southward into the Atlantic, with the Biscay roll on her beam, she set forth on her eventful voyage.

Duly Gibraltar loomed out of the sea ahead, and steaming close in to the Rock she signalled her number one sunny afternoon as she passed into the Mediterranean. Her passing was telegraphed to Lloyds', London, and then she seemed to vanish into thin air.

Weeks passed into months, but still she did not arrive at Marseilles, neither did any other of the world's many ports give tidings of her. Disaster was feared until the Glasgow providores sought to collect their bills; then to their dismay they found that there were no funds to Mr. Smith's credit at the London bank, the account having been closed. Approximately £2,000 was involved the merchants approached the Highland Railway Co., but this firm was in no better position, for the charter money had not been paid after departure from Cardiff.

As it was apparent that sharp practices were behind the steamer's disappearance Lloyds' and the Board of Trade were advised, and British Consuls all over the world instructed to keep a sharp lookout for her.

This was in February, 1881. On April 20 of that year, a small steamer entered the Melbourne Heads, proceeded up the Bay and anchored off Williamstown. She bore the name *India* on her bows, and her owner, who was a passenger aboard with his wife, came ashore with the master. She was duly entered at the Customs House, and the next morning's *Argus* printed the following in its shipping column:—

Arrived Melbourne April 20, s.s. *India*, 346 tons. R. H. Wright master, from Bermuda, via La Guayra, Cape Town, Mauritius and Albany. Passengers. Cabin, Mr. and Mrs. J. S. Henderson—J. S. Henderson, owner and agent.

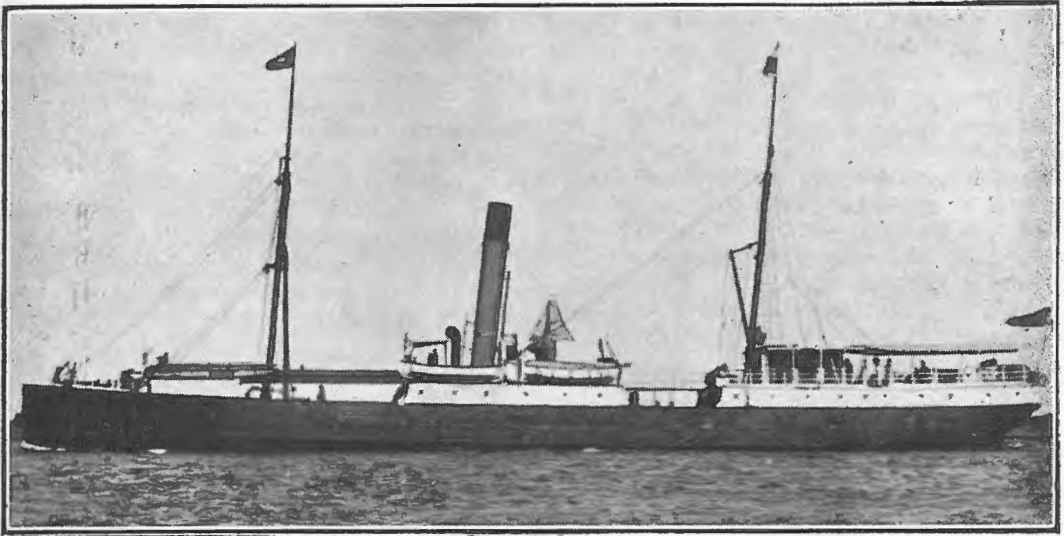
Chatting to a newspaper reporter Mr.

Henderson, who was staying at a city hotel, stated that he had purchased the steamer at Bermuda, and was combining a pleasure cruise with business by carrying cargoes between various ports *en route*. He had intended loading sugar at Mauritius for Australia, but had been dissuaded by commercial people there; he further mentioned that he had no particular destination in view.

A couple of days after the *India's* arrival, Constable James Davidson, stationed at Queenscliffe, who had seen the vessel passing inward, communicated with

Mr. A. T. Clark boarded her in person with a number of police and customs officers, and upon the presentation of a revolver the seizure of the vessel was effected without opposition. Several of the crew were found to be drunk. Search among the ship's papers revealed that the name of the vessel on various documents and log-books had been erased, but between the leaves of one book was found a seaman's advance note bearing the name *Ferret*.

Further examination showed that the official number carved on the coamings of



The Stolen Steamer "Ferret," alias "Benton," alias "India," alias "Raven."

the Commissioner for Customs, Mr. A. T. Clark. The constable had read Press reports of the *Ferret's* disappearance, and having been aboard her in Scotland, informed the authorities that he had a sound suspicion that she was identical with the *India*. As none of the crew were allowed ashore from the latter, with the exception of the master and purser, and steam was constantly kept up, while no s.s. *India* of that tonnage could be found in *Lloyds' Register*; the Customs Department considered that they had good grounds for action, with the result that arrangements were made to board her after dark on the evening of April 27.

the main hatch had been defaced, and the number 77072 substituted. Application of kerosene revealed portions of the original figures, 638364, beneath, and this was the *Ferret's* official number. Further confirmation was found on the ship's bells, both of which bore evidence of having names filed off them, but in one instance the tell-tale letters of the word *Ferret* could still be deciphered. The original ship's articles seized showed that the crew had been signed on at Cardiff—a temporary crew having worked the ship from Glasgow—for a period of three years, but sham articles, purporting to have been made out at Bermuda, were substituted for these

when she was reported at Melbourne and other ports.

The ship was placed under a police guard and moored near H.M.S. *Cerberus*, which was then in her prime. Action was taken to arrest the master and reputed owner, on a charge under the Merchant Shipping Act of defrauding the Customs by using false ship's documents. Henderson however, had left Melbourne, but was later arrested in the country and returned to the city under police escort.

The tale of the *Ferret's* voyaging from the time she passed Gibraltar until her arrival at Melbourne has now to be related, and from the statements of members of her crew the narration has been pieced together.

When the Rock was well astern and darkness had fallen, the steamer was put about, but not until—by the master's orders—a boat, several lifebuoys bearing the ship's name, water buckets and other movable deck fittings had been heaved overboard, in order to serve as evidence that the ship had foundered. In the darkness, with all lights obscured, the *Ferret* then returned through the Straits and faced the wide Atlantic.

Next morning the deck-hands, under orders, were busy with paint brushes, and soon the ship presented a very different appearance. Her name had been changed from *Ferret* to *Benton*; her funnel, formerly yellow, became black, while the blue painted life-boats now bore a coat of white. The crew, whose curiosity was thoroughly aroused, were then summoned aft to the cabin, and here the mysterious Mr. Smith addressed them. He said that these alterations were none of their business—the ship was his and he could do as he liked with her; but no harm would come to them if they did their duty as usual. Further he threatened with a revolver that he would deal with those who did not keep a silent tongue in their heads. The engineer privately approached Smith, and though the latter seemed loth at first to tell, he explained his actions by a statement that he was an American colonel in exile from U.S.A. for political reasons. He was therefore *incog.* and desirous of destroying all traces of his whereabouts, so that under another name he could subsequently revisit the States. He then ordered the en-

gineer to destroy all traces of the original ship's official number, and to obliterate her name from the bells, stating that he alone would bear the blame.

Steering south-west from Gibraltar the *Benton* made for the Cape Verde Islands and anchored off San Antonio, where she stayed for 17 days, loading 40 tons of ballast and renewing her water supply. The blue Peter flying at the fore, and the anchor out of the mud, she was soon crossing the Atlantic again, bound this time for Santos in Brazil.

Smith lauded at the Brazilian port and proceeded to make himself known to the mercantile community, informing them that he was sailing for Marseilles and desired to lift a cargo for that port. Confiding merchants therefore arranged to ship in the ordinary manner a large consignment of coffee-beans, and bills of lading were taken out for 3,992 bags of coffee consigned to several French importers. Before departure the engineer complained that there was not sufficient fuel aboard for the trip, and claimed that the coffee cargo was utilising space that should be taken up by bunker coal, but Smith would not listen.

After leaving the Brazilian coast, instead of heading northward for Marseilles, the steamer bore eastward, and soon underwent a further transformation, a large red star being painted on her black funnel and her name again altered, this time to *India*. Also a wheel-house on the bridge was shifted to the after end of the vessel.

In her cabin, instructed by Smith, a steward named Joseph Brown, was hard at work making out a fresh bill of lading which showed that the whole consignment of coffee, said to be from La Guayra and shipped by a firm named Pinheiro & Corea, was consigned to Smith under the name of Henderson, at Cape Town. Brown, in addition, made out a faked invoice, duly receipted, which showed Henderson to be the purchaser of the coffee from Pinheiro & Corea. The *Ferret*—as we have seen—had never touched at La Guayra.

Table Bay was the destination of the newly-named *India*, but before she reached the anchorage there her coal gave out and, under instructions from Smith, coffee was used to feed the fires, and nearly 300 bags consumed ere she arrived at the Cape.

The captain from England had been a

coloured man named Watkins, but he evidently had a disagreement with Smith, for he left the ship at the Cape, and the mate was made master there. The purser, it might be mentioned, was the man named Walker who had originally approached the Glasgow providores.

Henderson, as Smith now described himself, got in touch with Cape importers and succeeded in selling them the full cargo of coffee, which he stated to be his own property—producing, of course, the faked invoice and bill of lading which had been prepared for this purpose—for about £14,000; but unfortunately for him a portion of the payment only could be secured in cash, the balance being in bills on London.

At Cape Town, to further disguise the steamer, a yard and square sail were rigged to the foremast. After a fortnight in harbour the *India* sailed for Mauritius, and as her bottom had by this time become foul, it was decided to have her docked for scraping and painting on arrival there. This was done, and in decent trim again the steamer cleared “for Guam,” which in shipping quarters means the world at large.

Albany, however, was the real destination, and having bunkered in King George's Sound, she proceeded to Melbourne, meeting there with the seizure already related. The crew in addition stated that on the fresh ship's articles made out in the name of s.s. *India* they were all issued with a further supply of fictitious names, and that at any time during the trip the men could go aft and get a glass of grog when they liked. After this story had been elicited from the crew, who were evidently the dupes of the adventurers and did not participate in the spoils from the swindling, an exhaustive search of the vessel was made.

A new log-book was discovered with the ship's name entered as *Raven*; so evidently another change was meditated after leaving Melbourne. A printing press with type complete, a small illicit still, two breech-loading rifles and a large quantity of ammunition, came to light and also a private telegraph code with all sorts of phrases applicable to the swindling cruise for telegrams to confederates in London. Probably the most interesting discovery

was a collection of customs papers, consular stamps and seals, etc., for practically every large port in the world, so the schemers were well prepared to supply themselves with fraudulent clearances.

On learning of the sale of the coffee at the Cape the Melbourne police immediately cabled to London to stop the honouring of the bills made payable there.

Wright the master, Walker the purser, and Henderson the reputed owner, being all under arrest were now charged at the Melbourne Police Court and duly committed for trial. It transpired that before his arrest Henderson had approached a local broker and instructed him to endeavour to find a buyer for the *India* for about £9,000, but requesting that the fact be not advertised. Henderson explained the non-appearance of the *India's* name in Lloyds' Register by saying she had sailed from England to Bermuda (where of course she had never been) without being registered, and that her name would be in a supplement to the Register which had not yet reached Melbourne.

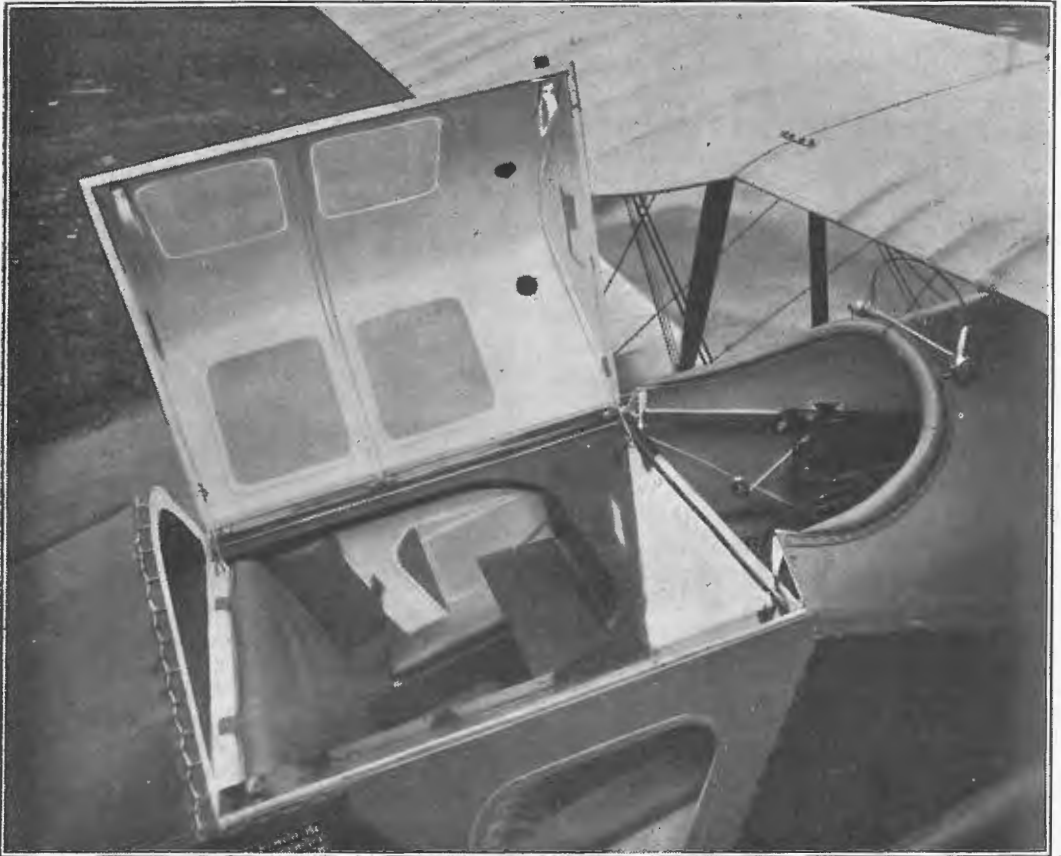
The Criminal Sittings were held in July, 1881, and great public interest was aroused when the three conspirators faced the judge and jury. The facts already outlined were brought forward by the Crown as evidence against them, and Henderson in defence made a very ingenious statement, which, however, did not clear him. It was to the effect that he had hired the ship in the first place for Watkins, the former coloured captain, who was an agent of the Peruvian Government. Peru and Chile were then at war, and the latter had blockaded the ports of Peru. It was intended to use the *Ferret* to run this blockade and take a cargo of arms to the besieged country. Everything done subsequently, such as altering the steamer's name and appearance, was to conceal her. He added that all the documents prepared with the bogus names and other false movements from the Chilean Government, formation, were supplied in London by the agent of the Peruvian Government. They were to receive £50,000 if their blockade-running feat was successful.

The jury found them all not guilty of an attempt to defraud the Highland Railway Company, but guilty of defrauding the Customs by false articles and ship's papers. For this Henderson and Walker

were each sentenced to seven years' imprisonment, while Wright, who had been the creature of the other two, received three-and-a-half years. Walker had been a shipping broker in London with a full knowledge of shipping practice, and his ready brain had evidently devised the major part of the gigantic swindle.

As the Highland Railway Company did not wish to have the *Ferret* returned to Scotland, a buyer was sought in Australia, and she was purchased by the Mount Gambier Shipping Company for the coas-

tal trade. From this firm she was bought by the Adelaide Steamship Company in 1883, and is very well known in South Australian waters. In 1918 she was considerably altered by her owners, a new fo'c'sle being built forward, and another funnel substituted, besides sundry other improvements, so that she now has an appearance rather different from that shown in the photo reproduced, which was taken a number of years ago, and therefore depicts her practically as she was at the time of her great adventure.



FOR THE COMMERCIAL AIRMAN.

Our illustration shows the passenger's seat in the Bristol "Coupé." The passenger is accommodated in a warm, closed-in—yet well ventilated—apartment, fitted with Triplex windows for observation purposes. Writing table and other conveniences are installed and the passenger is in telephonic communication with the pilot.

The Bristol "Coupé" is especially designed for the commercial man, and is engined for speeds ranging up to 130 m.p.h. This type of machine has already proved very popular, particularly along the air route between Bristol and London, and covers this distance in less than an hour, as compared with about two and a half hours taken by express trains.

THE HUNTED GODS

A FANTASY

Especially Written for "Sea, Land and Air" by C. A. JEFFRIES.

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The immunity from accident enjoyed by the mail-planes of the Pan-Britannic Service in the early days of aerial commerce was extraordinary. Flying over thousands of miles of wild and savage countries, forced descents were very rare, and when they did occur the 'planes invariably descended in places of safety. This was due to the installation of directive apparatus for wireless steering, by means of which pilots who had lost their bearings through fog or other causes, were guided to the nearest aerodrome, where they could make perfectly safe descents to ground not even discernible.

A chain of wireless stations controlled every aerial route and, by virtue of an international agreement, the British Air Ministry was able to maintain these stations even in foreign countries and their possessions.

On the morning of September 10, 1924, the British station in Java suddenly sent out a warning that a terrific volcanic outburst somewhere in the Straits of Sunda had covered the southern and western areas of the Netherlands Indies with a vast volcanic cloud, consisting of dust, steam, cinders and clouds of poisonous gas.

The *Eagle of India*, with mails and passengers from Britain to Sydney, picked up the warning two hundred miles north of Singapore, and came gracefully to earth at the aerodrome of that city.

The *Eagle of the Orient*, with mails and passengers from Australia, made no reply and, though the ether was kept "red hot" with warnings and inquiries, no reply was received, and that night the papers of the world announced that the Pan-Britannic Aerial Service had sustained its first great disaster. One of the finest aeroplanes in the world, with over seventy valuable lives aboard, had utterly vanished.

Gigantic seas, tidal waves and other disturbances followed the seismic up-

heaval. Ships were flung high and dry far inland. Houses were found floating far out to sea. British naval 'planes searched the coasts and islets for survivors of wreckage, but found nothing, and at the end of the week the *Eagle of the Orient* had passed into history as the first great aerial liner to completely disappear.

A Dyak found a metal cylinder in the mud at the mouth of some Borneo River. It had strange signs scratched upon it, and he, being superstitious, traded it cheap to a Chinaman. The Chinese prised it open and discovered that it contained a roll of papers, written in the signs of the foreign devils. He knew that the white barbarians would usually pay handsomely for such things, so placed it in safety till he should go down to Sarawak. Years went by and he kept postponing his visit to Sarawak. Then he came to a sudden and violent end.

The Border Police discovered the crime and, while investigating it, discovered also the cylinder and its contents, but were unable to read it. It was written in Esperanto. They sent it to headquarters, where a weary, fat man deposited it in a pigeonhole and forgot all about it. At the end of a decade or so, the fat man fell asleep, and never woke. The young man who succeeded him cleaned out the pigeonholes, found the cylinder and, being an Esperanto scholar, read it and gave the world a startling story, to wit, the diary of Commander Locke of the Britannic Imperial Mailplane *Eagle of the Orient*, from September 10, 1924, till October 11, 1925.

* * * *

COMMANDER LOCKE'S STORY.

The Clouds of Chaos.

While flying north-west after leaving the Australian mainland on the morning of September 10, 1924, Flight Navigating Lieutenant Morris drew my attention to

what appeared to be a vast range of mountains. I recognised it as a dangerous cloud formation and gave instructions to steer west and skirt it.

We bore away to the west, but the cloud was racing at us and before we could turn it was upon us. The sunshine turned to grey and there were red flashes all around us. Our instruments suddenly became useless. The light failed, and we had to turn on our most powerful lamps. We increased speed as the air was growing more foul every moment. By this time we realised that we were caught in the blast of some tremendous volcanic eruption. We strove to climb out of it, but, as far as we could ascertain, failed to rise an inch.

The gloom increased. All power was turned on and the crew worked magnificently. The six engines were driven to their extreme capacity, and oxygen used recklessly to keep them at full power. The three tractors and the three propellers were doing their maximum number of revolutions per minute, and I believe we must have been driving through the cloud at fully two hundred and fifty miles per hour. We had turned direct south, and expected to race clear at any moment, so long as we did not crash.

We continued at this headlong speed for what seemed an interminable time, but without any sign of the cloud thinning. I began to fear we were running in a circle. Owing to the failure of our instruments we were hopelessly lost, we had no indication as to our height, and expected to crash at any moment. Hours passed. Two passengers became crazed with terror and one committed suicide.

Suddenly the black turned to grey. The grey turned to sudden sunshine. We were among white clouds. A blue sea sparkled fully ten thousand feet below. We had believed ourselves to be flying south—the position of the sun showed that we were rushing due north. There were islets in that sea, but we recognised none of them. I ordered Mr. Morris to descend so that we could ascertain our position by observation, but we discovered to our astonishment the 'plane was out of control. Nothing we did could deflect the 'plane from the course it was then following. We were powerless.

Being clear of the seismic disturbance

our instruments should have shown signs of returning to normal, but they did not. Our wireless was hopelessly out of action.

It was a most extraordinary position. We were on an aeroplane altogether out of control as far as we were concerned, but evidently under some other and mysterious guidance. The vibration was terrific and it began to dawn upon us that we were travelling at a most alarming speed, such as we would have attained as we neared the earth on a straight nose-dive.

Over the rim of the earth rose a land of mountain and plain, river and lake, and forests of purple and green. A land neither of us had ever looked on before. We swept it with our glasses but could detect no signs of habitation.

Then a real mountain range loomed up in front of us. In vain we strove to deflect the 'plane or stop it. She flew on, at an ever increasing speed and suddenly, as though in obedience to some invisible but all-powerful hand, soared upwards, clear over that mighty rampart of bluffs and perpendicular heights. We found ourselves staring down on a wonderful scene—gardens as far as we could see among the trees, whose tops we scarcely cleared, and buildings of the most chaste and ornate styles of Grecian classic architecture.

Exclamations of delight and wonder burst from the passengers, then we circled and made a faultless landing on the grassy sward of a splendid aerodrome, in the presence of a number of ladies and gentlemen dressed mostly in white.

I did not know where we had arrived, but I put down the gangway stairs and awaited the arrival of the officer in charge of the port of entry. Mr. Morris had our papers ready, and while we waited he drew my attention to a lady dressed in white, with a double-headed snake belt, gilded shoes, and with hair the colour of new sovereigns.

"Might be Aphrodite herself, sir;" he said with a laugh.

"We have blundered into some extraordinary mystery, Mr. Morris. You have never seen a place like this in your life before?"

"No, sir, I have not. I am wondering if it is hallucination resulting from poison gas in that volcanic cloud."

We compared notes and agreed that if it were delusion we would not both see the same things. While I stared down I suddenly saw descend right close to us another aeroplane almost identical in size and shape to our own. But it was of a pale flame colour, almost invisible.

"Do you see over there," I pointed, "what I see, Mr. Morris?"

"I see an aeroplane, its wings less than six feet from the tips of ours, the colour of light flame—is that what you see? Where the devil did that craft come from?"

A gangway had been lowered and a party went trooping down the side, to be welcomed by the ladies and gentlemen who had been watching us. Then it became evident that we were the objects of conversation. A tall young man in white approached and with a quick, springing step, ascended the gangway.

His white suit might have been cut by the best London tailor. His boots matched it. Instead of a hat he wore a sweatband around his forehead, and his hair was curly and of the colour of pale gold.

He glanced round the plane:

"Britannic?" he inquired, lightly.

Mr. Morris handed him the papers while I informed him of our identity. He took the documents, glanced at them disinterestedly, and handed them back.

"Why, in the name of Jupiter, did you come here?" he asked.

"Couldn't help it. We seemed to be held in a grip which nothing could break. We tried hard enough to avoid it; but the mysterious control was too powerful."

He smiled.

"I understand. It is very simple. Your plane, for some reason which we will discover later, is susceptible to our magnetic control. We were bringing in two; you got caught in the same influence and, willy nilly, had to come too."

He laughed heartily.

"Pardon me, but where are we?"

"Somewhere not marked on the charts. Your arrival has raised a pretty problem. We cannot let you go, and we don't know what to do with you if we keep you. You have pierced the mystery of our seclusion, and seclusion is as essential to us as commerce and all the rest of it are to you."

"What on earth has a community like this to hide?" I asked in amazement.

"Everything—its very existence. In the meantime you are captive. Make no attempt to leave, or you will be destroyed. Your wireless is out of action. If you require provisions they will be supplied. You need anticipate no violence. If you remain in duress you can rely upon it being made as pleasant as possible."

I reminded him that this was the Pan-Britannic mail and passenger service. It was only a question of time till we were found; then a heavy penalty would be exacted.

"I am well aware of the Britannic might," he replied, "but you have broken, quite unwittingly I know, into our secret. If we let you go you take our seclusion with you."

"Quite the opposite. I assure your seclusion. You send us on our way, you make the sending of us a condition that your seclusion shall be respected. In any case, you have the right to exclude the outside world from your settlement. The world grants that right."

"By keeping you we make sure of it. By sending you we may get it. Better to be sure than sorry."

"You forget that to seize a British mailplane is an act of war, and to detain its crew and passengers is an outrage which must be resented."

He thought for a while.

"I can see the force of your argument. I think it would be an excellent idea if you accompanied me and put these facts before the Council which will decide the question this evening. Will you be my guest?"

"With pleasure."

We passed down the gangway together.

* * * *

Gardens everywhere. Wilderness upon wilderness of loveliness. We entered a building of exquisite beauty. On the outside it was the perfection of line and mass; inside it was the penultimate in rich but subdued luxury. Mural pictures of rare beauty, hand-wrought decorations, furniture that showed no sign of joining. Through an open casement I looked across a panorama of sleeping, glittering waters, wood and wold to distant blue hills, along the crests of which flamed a perfect sunset.

Lost in contemplation of this scenic loveliness I momentarily forgot everything. When I suddenly recollected myself I found my captor regarding me with grave interest.

"Elysium!" I said.

"You like it? So do I. Can you wonder we wish to keep it as it is?"

"Excuse me, sir, but who are you mysterious people?"

He smiled. At that moment the heavens seemed filled with faint melody which swelled louder and louder and then ran down into a series of tinkling trills and died away into silence.

"A carillon?" I inquired.

"The summons to the Council. Come!"

He led the way through an arched doorway, down green jade steps to where a small vehicle, just large enough to accommodate us, waited with open door. As I closed the door the machine glided off and seemed to follow the winding drive of its own volition. We ran through gardens and park lands till we came to magnificent carved pillars in a great hedge of golden roses, and then, as we passed through, there reared itself before us a splendid pile with a great Greek gable. The wide steps were crowded with men and women clad in rich materials of exquisite art colours.

Inside I blinked, wondering was I after all in a dream. Ranged down a long table of wonderful red marble were—the gods of Greece! At the head of the table, on a raised seat, sat Jupiter himself, with curled beard and massive head. The fact that these people wore conventional clothing made no difference. It was their heads, their features, their presence; in the assembly of them the illusion was complete.

They spoke without rising, and the perfect acoustics of the hall made every syllable audible. I recognised the classic Greek—the Greek of Aristophanes; but could not follow it. Then from somewhere floated a clear voice that requested me, in English, to show cause and reason why the mailplane, with the passengers and crew, should not be detained to preserve the seclusion that was necessary to the welfare of the community.

I repeated what I had said about the act of war.

The voice replied that they did not fear war. They could easily hold their own. It was the rush of visitors, unarmed, and merely anxious to see things, and then to stay, that they dreaded. They could defy attack but not peaceful penetration.

To this I replied I was an officer and could speak only as my duty dictated.

There was a silence, and then the Voice spoke again. The strangers would be detained and properly provided for. The aeroplane would be broken up. The mails would be delivered by their own planes at Singapore. Friends, relatives and children, would be brought to the captives, if such relatives cared to come. This decision was final.

Again the carillon sounded and the Council rose. My host appeared suddenly by my side and led the way to a side door; we entered our little vehicle and glided away through odorous gardens by a mysterious light that seemed to glide along just in front of us till we reached the pavilion and the room from which I had gazed on the sunset.

There, to my astonishment, I found all my personal belongings had been removed from the mailplane. I looked to where the top plane should have been visible over the low hedge of brilliant flowers. It was not there. My host entered and explained that the plane had already been removed and the crew and passengers distributed wherever accommodation could be found. They were perfectly comfortable, and tomorrow I could inspect everything and satisfy my mind. Tonight—well, the night was young. He would conduct me to my apartments and I must excuse him, he had to go on duty. I was to act as though I were on my own mailplane.

"We all have work to do in this community," he smiled. "I am in charge of the Power House supplying the electric current by which our planes traverse the world."

"Traverse the world! Where do your planes travel to? I had never seen one until this afternoon."

"I am sure of it. We see but are not seen. As to our radius; well, last week I was in London. Three of our planes are at present somewhere in America and the same number in Japan. Some day

I'll explain it all to you—when you have reconciled yourself to staying with us for good."

Then a young man appeared and took charge of my baggage, and I followed my host to the part of the pavilion that had been given over to me.

"You'll find plenty of reading matter, also creature comforts. When I come off duty we will dine together. Before then you'll probably have callers as you are an object of interest to our people."

He nodded and withdrew. My luggage arrived and the young man commenced to stow my wardrobe, books, instruments and other property in their various quarters. I had three gorgeous rooms; a palatial bedroom, a large room opening on to a verandah, and the third, which the youth in rather halting English described as a work apartment. At the end of the verandah was an exquisite bathroom. The illumination was wondrously soft, yet as perfect and clear as sunlight, and controlled by small carved switches of ebony. The light itself emanated from milky globes set in the walls or held by statues half life size.

The "work apartment" was a library, filled with books. A beautiful desk contained a modern typewriter of the wheel and anvil type, with Greek, English and the characters of an unknown language ready for use.

I dived at once into the book cases, seeking some hint as to the identity of the strange community into which I had fallen.

The first half-dozen books I opened were in the unfamiliar caligraphy I had found on the typewriter. Then I found some in Greek, and turned to the fly-leaf. As I turned over the pages my eyes caught an English title in gilt lettering. It was Lanchester's History of Aviation, and I dropped the Greek volume and picked up the English. Inside I found a charming bookplate with the single word *APOLLO* in plain black, amidst a wilderness of delicate decoration, and beneath it: *1919 AD.—8,940 At.*

* * * *

Strange Story of the Atlanteans and Olympians.

How long I had been delving among those books I cannot say, but I was sud-

denly brought back to earth by a lady's voice:

"May I come in?"

At the door stood she whom I had seen in the afternoon, but seemingly more youthful, more slim. Yet the likeness was perfect: the same white clothing, the same gilded slippers, the same golden circlet with the jewelled snakes' heads forming the clasp; her hair the same brilliant gleam of new sovereigns.

"Come in certainly, Madame. I believe I saw you when we landed this afternoon?"

"No, that was my mother. We thought you might find it lonely till Apollo returns. If so, I am to take you back with me. But you must please yourself. How do you like your present abode?"

"It is most charming. I am diving into these books to try to find some inkling as to where I am."

"That is very simple. Did not Apollo tell you?"

"He hardly had a chance. I realise that you are all of Greek descent. Your Council to-night was an assembly of Olympians. Whatever is the explanation?"

She laughed.

"Yes, it must seem mysterious to you. It is such a delightful mystery I really think it would be cruel to spoil it. Still, mysteries soon become tantalising, don't they?"

"They do. I shall go mad if I cannot solve this one soon."

"Please do not. I would sooner rend the veil than risk anything so dreadful. Tell me first who you think we are?"

"Descendants of some colony of ancient Greeks who penetrated to the East Indian Archipelago; for if I am not very far out, this is either Java or Sumatra."

"Wrong! We are not Greeks at all. We are the last of the Atlanteans who, under the guise of the Olympian polytheism, lifted the Greeks from barbarism."

I stared at her in astonishment. My bewilderment seemed to amuse her.

"Do you mean you claim to be immortals?" I gasped.

She bubbled over with girlish laughter. "Oh nothing so dreadful! We never were immortals—we only pretended to be. That was necessary. We were scien-

tists, engineers, chemists; the remnants of a civilisation that wrecked itself as yours is wrecking itself to-day."

"Where did you come from?"

She rose, walked to a cabinet and drew out a great map, unrolled it on the table and leaned over it.

"This is the map of Atlantis. You see it stretched from where the Azores are now—a long, narrow land, right away to the present Yucatan. We had no iron, so could not build ships. Once we had good supplies of timber, but the forests were burned in the great class wars. Our only metal was a limited supply of copper. Subsidences followed each other in quick succession, and as the land area grew smaller the struggle for existence became more acute. The present Azores were inaccessible mountains then, and there the remnant of the scientific classes took refuge, discovered the art of aviation, and used it to reconquer the masses."

"And ruled till the final subsidence?"

She shook her golden head.

"No. For a century and a half they ruled the masses with rods and with sudden death. By birth restriction they reduced the population to numbers that the land could decently support. But there were renegades. Other scientists were arising among the people. Conflicts occurred in which the Oligarchy were hard pressed. Then another terrific subsidence took place. The aviators were a thoroughly exclusive class and succeeded in provoking the other sections of the Oligarchy. The Supreme Council passed a law that all members of the Oligarchy must be taught aviation. The aerial class refused. Civil war broke out, and the remnant of the aerial class, who had already visited Spain and Africa, fled from the distracted land. They included in their class all the crafts and sciences, and once clear of Atlantis, could hold their own."

She rolled up the map and replaced it in the cabinet.

"What happened—did they go straight to Olympus?"

"Oh no! There were three great Flights. The First went westward—and vanished. The Second landed on the Iberian Peninsula and sent glowing accounts of the boundless forests, the unlimited metals, the water, the ignorant

though civilised population that solved all labour problems. The Third Flight followed, but settled further south and set up an independent community."

She drew out another map and unrolled it. It was of the Peninsula. She traced boundaries with her finger.

"This was our realm. That huge tract was the Northern Realm. They made the grave mistake of mixing their blood with that of the natives, and in a couple of centuries the halfcastes became the bulk of the population. All the wealth, the power, the land and factories belonged to the old Atlantean families. Naturally they could not keep their own blood in subjection. They made concessions. The halfcastes got to like the taste of concessions. They became omnivorous. Then the Oligarchy shut down on concessions. The halfcastes revolted, but the 'planes smashed them. They rose again, and were crushed once more.

"All our 'planes were electrically driven. The Law of the Atlanteans was that only the first-born son of pure Atlantean blood could be an electrician. If any halfcaste was found in possession of electrical knowledge his portion was sudden death. The halfcastes could build 'planes, they could fly 'planes, but they could not make the electric current, and the generation of it remained a mystery to them.

"It became unhealthy to be an eldest son in the Realm of the North. The Atlanteans wrought a terrible vengeance. The halfcastes refused to work, to produce the metals, to do anything. The Supreme Council met the representatives of the halfcastes to arrange terms of peace to save the State. The halfcastes demanded equality, absolute and complete. All having Atlantean blood were to be equal, and to have the right of being electricians. The Supreme Council agreed.

"The electricians refused. At a given signal they wrecked the plants and, crowding into their 'planes, fled to us.

"The new Supreme Council of the North demanded that the Realm of the South should surrender the fugitives. This was refused. They sent emissaries to stir up our slaves. The South had practically no miscegnation problem. The slaves never revolted, but they became truc-

lent, and when severe measures were adopted the North sent an army to liberate them.

"That army perished in a network of electrical defences, and aeroplanes annihilated the survivors. The 'planes then carried the war to the North. Cities were razed to the ground. Armies were butchered from the air. The Northern Realm was destroyed. Fugitives poured in thousands to the South; but were refused admission when the Southerners found they were tampering with the slaves. Pestilence followed war. The slaves refused to work. They fled to the hills and forests where the 'planes could not reach them. The non-electrical population howled for peace—otherwise they would be ruined. By a majority the Supreme Council abolished the law of the First Born Sons.

"Again the electricians refused. Many of them were arrested. The remainder seized the members of the Supreme Council as hostages. The mob broke into the prisons and killed the electricians, who died to a man rather than betray their secrets.

"The electricians attacked them in their 'planes, hurling down the hostages first and streams of electricity afterwards. The streets became shambles. Then, gathering their women folk into the 'planes, the electricians fled east—a mere fragment.

"They found a natural fortress in the Olympian mountains, where they drafted a new Constitution. All communication to the outer world was by aeroplane only. The birth rate was rigorously controlled and there were never more than five thousand Olympians. Jupiter invented high explosives. A system of pre-natal sex determination was discovered. No outsider could be brought to Olympus, except by permission of the Supreme Council for what might be called political purposes.

"When their presence became common knowledge among the Greeks it was decided to pose as a community of immortals. Apollo established oracles where on certain dates advice could be sought. The native kings were taken in hand and taught improved methods of agriculture and primitive arts. We replaced their

wooden ploughs with metal ones. In a word, we civilised them.

"Men will be men. The sons of God saw the daughters of men, and that they were fair. No Olympian could bring a mortal woman to Olympus. So they builded temples to themselves, and installed priestesses. They wished to bring the sons of these temples to Olympus, and there was much trouble over it. In a few cases it was permitted. The immediate result was the scandal of Ixion, which, I believe is common property even to-day. It was wildly humorous"——

A sudden crash of aerial melody drowned her voice.

"I'll tell you the rest to-morrow. That is the signal that I am wanted at home. Adieu!"

"One moment—please tell me to whom I have had the pleasure of listening?"

"Hermione,—daughter of Venus. Your host is Apollo. Farewell!"

A few minutes later my host hurried in, declaring that he was as hungry as a hunter. I greeted him by name. He laughed.

"It was such a wild story that I did not care to tell you until you had been here some time and would realise its authenticity. That minx Hermione has been enlightening you, I suppose?"

I nodded.

"Well, what about something to eat—ambrosia and nectar are things of the past; and I can only offer you an English country house dinner."

"Nothing better—still I'd liked to have sampled the ambrosia—no, I mean the nectar."

"Perhaps I might manage to dig up a drop somewhere—meanwhile what's wrong with a sherry-and-bitters?"

Then he led the way to an exquisite little dining room; a wonderful saloon of agates with decorations of Bartolozzi red.

After a delightful meal he proposed a flight, just to let me have a look at the realm, as he called it. We boarded an aeroplane in its hangar, and two grave assistants opened the doors wide. The propeller revolved slowly, drew us out on to the sward, and then, with a sudden roar, we went up at an angle of about 40 degrees, described a circle, and glided noiselessly over the tops of the trees.

It was a land of terraces, rising gradually towards those mountains along which I had seen the splendid sunset. Magnificent homes dotted everywhere amid the most beautiful gardens. I discovered that the architecture was not all Greek. There were homes such as one might see in any white man's country. And every house seemed to be a blaze of light. We were drifting slowly over a lake when another 'plane, in which sat a mere boy and girl, swooped down, glided alongside, and passed a jest, then dived downward and skimmed just over the surface of the water and seemed to come to a standstill.

"Can you hover?" I asked in astonishment.

"Yes—that's one of the beauties of electric propulsion. You just hang on to the current, as it were, and it will keep you up. She's gathering water lilies."

"Then you don't use petrol?"

"Haven't done so for four thousand years; not since that affair of Prometheus. This is much more simple. Currents of power radiate all over the earth, and our 'planes just hook on to the nearest one. No fuel troubles."

Wood and wold, mountain, lake and river. Underneath the garden landscape, and then we vaulted clear over those tremendous mountains.

"That's our frontier on the north and north-west. We have made the passes of old quite impassable. On the east and south and south-west the tableland of our realm ends in a series of cliff quite impassable to any but men in aeroplanes. We'll have a look at it in daylight later on."

The 'plane turned homewards, and from the hangar we walked into that wonderful radio station that sent six distinct currents of electricity right round the globe to supply power to their 'planes. He explained these were not waves, but concentrated streams from which spread off small streams in every direction, enabling the Olympian 'planes to grip the main currents. This power was practically the same as that by which an electric tram is driven, only there was no trolley wire. The 'planes could travel in any direction by it, the sole function of the current being to supply power. In the event of a 'plane being disabled it could

hook on to the current by magnets and be carried along by it, as had happened to our 'plane, though, in our case, it was accidental, our wireless having acted as the magnet.

He sent a cold shiver down my back when he explained that it was fortunate we got caught in that particular one which was flowing homeward. Had we got caught in the alternate one we would have been swept right round the globe, traversing the Antarctic and Arctic regions before reaching the power house. They were now working out a scheme to prevent such a catastrophe.

* * * *

I awoke to the melody of birds. The sky was streaked with pink and gold, and the air was heavy with the perfume of the garden. White-robed youths and girls were going over the sward with curious instruments of horticulture, burying all dead leaves and leaving the soil smooth and open. The vast expanse of Apollo's garden was the work of a few minutes only, and the boys and girls passed through the rose arches to the domain beyond.

There was a rustle among the leaves, and then a cool breeze came down from the mountain range, which now looked like a mass of purple cloud. Apollo, smoking a cigar which seemed oddly out of place in his classic face, appeared and showed me the way to manipulate the electric apparatus of the bathroom. Then came a snack, and we set off for a sharp walk through the bracing breeze.

I had lost all sense of direction among these flowering fences and avenues of trees, till I suddenly saw our own place in the middle distance just beyond a beautiful little dwelling of pink marble, down the path from which was walking Hermione, daughter of Venus.

"I am taking you home for breakfast," she said with a nod to Apollo, adding: "He is not allowed to breakfast away from home."

Apollo laughed, nodded, then clearing the fence with a bound, disappeared.

"See my garden and then we will have breakfast, and I'll tell you the rest of the story."

The garden was only half explored when the carillon sounded, and we hurried into the house. There I met the

lady Venus—mother of Hermione. She led the way to a sunny nook where breakfast, conventional and orthodox English, awaited us.

* * * *

Hermione leaned back in her chair and stretched a skein of some sort of yarn on her dainty hands while her mother rolled it into a ball.

"I was telling you of Ixion. He was one of the numerous outside sons of Jupiter VII. Juno IX. was his second wife and twenty years his junior. Jupiter had made Ixion a king somewhere in Greece, but his subjects hunted him for his life. His father rescued him and took him secretly to Olympus, without securing a permit. He locked him up in a room and forgot all about him. After two days and nights Ixion got desperate, and began to try and batter his way out. Juno, hearing the noise, opened the door and found the most beautiful youth she had ever set eyes on. She fed him, made love to him, and planned an elopement.

"Had he been one of the Olympians she could have gone off without a word of explanation, but as he was a 'mortal' she dared not, for the poor mortal's sake.

"When Jupiter remembered him he was astonished to find him alive. To all his inquiries Ixion lied in a most gentlemanly way. He admitted he had been fed, but did not know by whom, as the food was always placed there while he was asleep. Then Jupiter played a paltry trick. He discovered that Juno had ordered an aeroplane for moonrise that night. He locked her up, and when the door was opened poor Ixion saw a cinematograph picture of Juno in her aeroplane awaiting him. He rushed across with outstretched arms, the picture vanished and the old man seized him."

"What happened to him?"

"Poor wretch! they put him in an aeroplane and turned it loose. Needless to say, he was never heard of again.

"A much more serious matter was the case of Jupiter IV. and Prometheus. He was a son of the sovereign by a Grecian mother. Brought to Olympus he became an engineer, and explored the Further East, where he discovered the petroliferous wealth of the Caspian. It was as a lubricant that it was valuable at first, but he discovered how to drive engines with

it. He demonstrated the fact by making an aeroplane fly by engines using it. This incurred the hostility of the electricians who saw the danger. It was known that Prometheus sympathised with his mother's people, and he tried to leave Olympus in an aeroplane of his own making. Captured in the act he was locked up, but got out and actually escaped in the 'plane.

"Unless he could be recaptured the reign of the Olympians was over. The very people he tried to help betrayed him, and he was captured. They tortured him to death on a rocky island in the Euxine.

"As civilisation increased all around them the Olympian position became precarious. Approaches to the mountain had always been forbidden, but population was creeping closer and closer. The women who had borne sons to the Olympians scoffed at the idea of divinity. Also, men who had been favoured with the love of the so-called goddesses scoffed at the idea of immortality. There were thousands who recognised them for what they really were. Their priests and priestesses made their names hated on account of their exactions.

"Exploring flights were sent out to find either a tableland, such as this, or an island far removed from the habited world. A place was discovered in the heart of Asia, north of the Himalayas, and one morning Greece was deserted by her gods and goddesses. The temples remained, the priests and priestesses continued. But the scientific power that had been behind them being withdrawn they faded out.

"Meanwhile strange things happened in Central Asia. North, south, east and west spread the stories of the 'Mighty Ones' who dwelt among the mountains. We had to have mountains and falling water to generate our electric power. Pilgrims came and penetrated to our palaces despite all the care we could exercise. They worshipped and departed. Then, one day, an army came. It was destroyed.

"After it came another army—an army of fugitives who had escaped from the invaders and come to the Mighty Ones for relief. Their numbers were so great we could not relieve them; and they died in such numbers on our hands that even

the immortals were stricken with pestilence. Our divinity faded in a night.

"More exploratory flights, and then this place was discovered. Two thousand years have rolled by since our fathers and mothers made this new Elysium. And now you have come; and we are wondering are you the end of us. There is no other pleasant place in the world to go to."

"Have you been into the outside world?"

"Oh yes, almost everywhere. I think our doom is to be swallowed up. Don't you?"

"Not necessarily. How many of you are there?"

"Less than ten thousand. All living as you see us here."

"No poverty? No working class? What is the secret of it all?"

"Machinery—horse power per head of population. We do not work because there is about 200 h.p. working for every man, woman and child in the community. Most of it is automatic. Only

one-third of the population works at the same time. Just enough to keep them healthy."

"A carillon sounded; did you hear it?"

"Yes, it is the signal that Apollo wants to take you to see how your people are being cared for. Shall we walk over, or take the heavenly scooter—the little vehicle you went to the Council in last night?"

"Thanks, if you're willing, we will walk."

She donned her jacket, gathered her curls under a little cap, and slipped her arm through mine.

"Come along then—this way."

It is Elysium. I am going to stay here for two reasons. First: They won't let me go. Second: I have no desire to leave.

[Here this strange document ended; the remainder of Commander Locke's message having evidently been lost by the Chinaman, or stolen by the latter's assailants.]

THE TRANSCONTINENTAL SURVEY

MR. REGINALD LLOYD'S REPORT

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The following extracts are from Mr. Reginald Lloyd's report to the directors of Aerial Services Limited. It is explained that his complete report is an exhaustive document, but that the many suggestions relating to the future operations of the Company are not for publication.

The report opens thus:—

"The objective of Aerial Services Limited being to create an aerial service between London and Sydney, its survey party left Sydney on January 31 last on motor cycles to cross the Continent of Australia from south to north, it having been agreed that the first step in any organisation of the kind must be a series of landing, relay and fuel stations at suitable distances between the two opposite points. The trip has placed the Company in possession of these essentials, together with all particulars necessary for the preparation of a comprehensive chart. It has

completed and partly completed contracts for ten landing and relay stations, four of which are in Queensland and six in the Northern Territory. A station was selected at Moree in New South Wales, but the Company may abandon Moree and substitute Bourke as a more suitable locality. In selecting localities, both present and future requirements were borne in mind.

"The survey is being continued across the Malayan Archipelago under Mr. H. B. Manderson, who is now in Timor.

"The value of the present work done by this Company is obvious. The fact that its survey party crossed the Continent of Australia from south to north places it in the position of knowing first hand the nature of the country over which its planes will eventually fly. To have known only the characteristics of its landing places and nothing of the in-

tervening territory would have been a tragic mistake.

"Speaking more broadly, it is on the highway to possess one of the Imperial aerial commercial roadways of the world.

"Long distance flying is removed from the realms of ordinary competition, although of course liable to aerial competition, while short distance aerial transport has to cope not only with aerial competition but with every conceivable phase of transport competition, including the clock. Therefore the Company must confine itself to long distance flying.

"The commercialisation of aviation does not lie along orthodox lines, nor should orthodox reasoning be applied to it. The whole thing is so huge that revolutionary means are necessary to establish it on a financial basis. Take, for instance, the running cost, which the short-sighted man considers will be its doom, and the method by which he arrives at his conclusion. Both are wrong. No one to-day knows either the cost of establishing an aerial service or the cost of maintaining it, nor will that be known until the matter has progressed some little distance farther. Adverting to running cost, this will be greatly less than non-thinking people contend. The great commercial aerial companies of the world will attend to this in a practical way.

"To stimulate public interest in its own particular undertaking, this Company should enter a team of Australian-born boys now in Australia, every one of whom must have seen military service, to contest the Commonwealth £10,000 flight.

"To assert that commercial aviation will pay is to assert something which one cannot prove unless one go out and do it; on the other hand, to contend that commercial aviation will not pay is also a phase of the question that cannot be demonstrated by fact.

"Those opposed to the commercialisation of aviation on the grounds that it will be a financial failure, at any rate for many years to come, seem to forget that they are living in an age of rapid change. They apply known figures to an unknown proposition. This may or may not be correct."

* * * * *

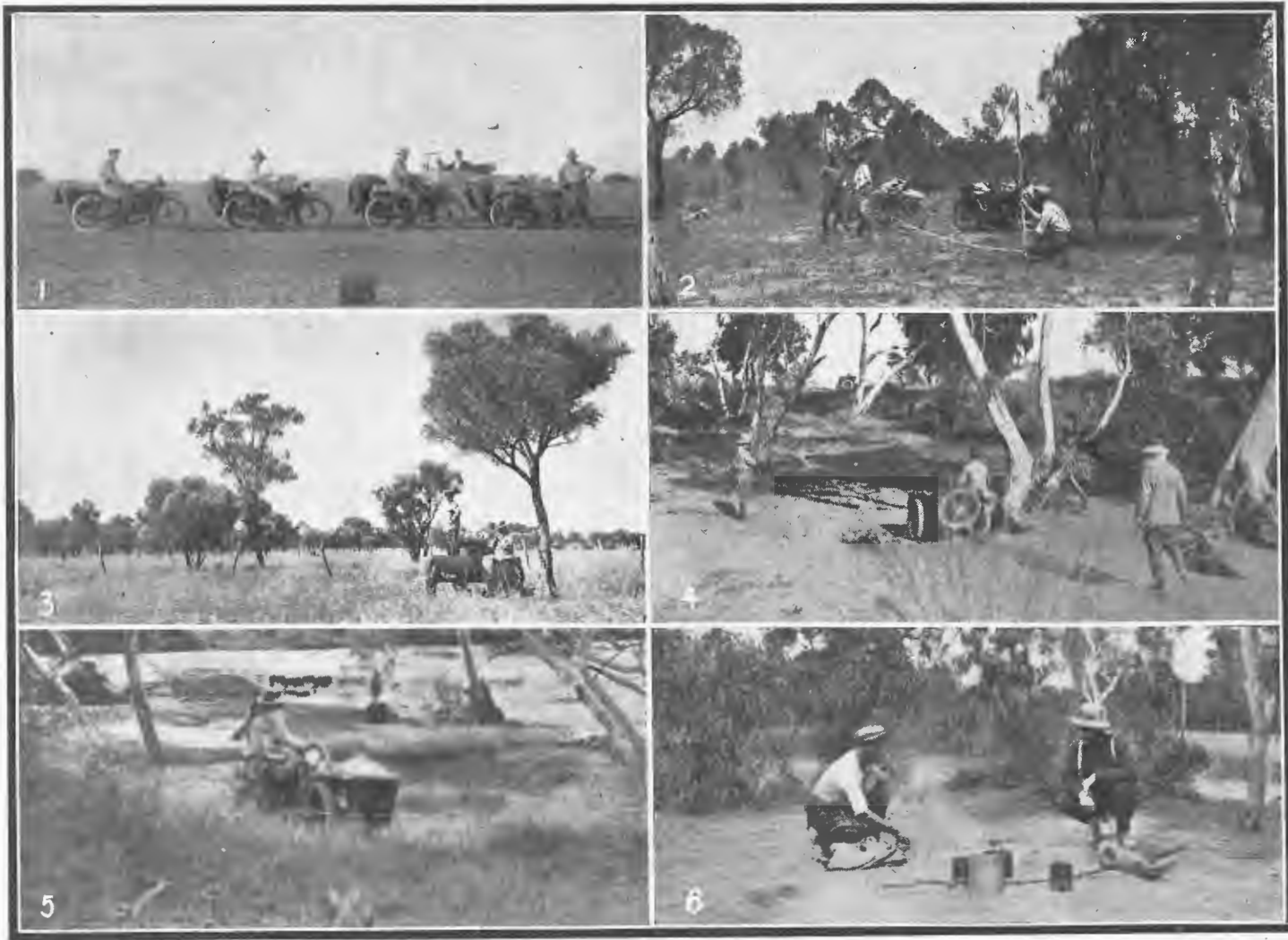
"Building one of the Imperial aerial roadways of the world is quite an interesting project," continued Mr. Lloyd. "To

traverse the Continent of Australia on motor cycles has in appearance all the elements of greatness about it; in fact, however, it entails no personal risk, provided always that the general arrangements are in capable hands. Our party suffered no real hardships. From the public's point of view this may be disappointing, for I have no hard luck stories to tell, can give no graphic description of sleeping in trees on the banks of rivers to dodge alligators, or struggling against semi-tropical deluges in the morning and, in the afternoon of the same day, riding for one's bare life to evade a rapidly overtaking bush fire. Alligators do exist in Australia—that is a fact—although I have never seen them. Bush fires with frequency occur, but not, to my knowledge, on rainy days.

"Intense enthusiasm was shown by the people of the interior of Australia, and nothing was too much trouble to them when aiding our party in its work. We were entertained at most centres *en-route*, and during the trip it fell to my lot to deliver many addresses, all of which were largely attended and in each case received most cordially. When we passed through Winton (128 miles from Longreach) the town, as usual, turned out to meet us; we were escorted by the Mayor and Councillors to the Town Hall, where we were welcomed; but great was the disappointment of all when I had to announce that Winton, although on our route, would not be a landing place. The people of the interior, I think, thoroughly realise the great possibility which the aeroplane will give them of being brought nearer to civilisation, and they are prepared to assist aviation in a practical way.

As an incident, the following has interest:—

"At my Camooweal meeting, sitting in the front row wearing spurs and chewing his hat rim, was a youngster known as 'the local lad.' During my remarks I pointed out that the aeroplane would be useful in suppressing 'cattle-duffing,' which is recognised generally as being very prevalent, particularly in the Cloncurry district. This youngster was evidently impressed, for in a loud voice, and using several adjectives—permissible in the best society in Camooweal, but not everywhere—he exclaimed: 'That's no



LLOYD'S AERIAL SURVEY PARTY CROSSING AUSTRALIA.

1. On the track outside Longreach.
2. Surveying Charleville landing station.
3. Longreach landing station.

4. Crossing Cloncurry River.
5. Pete Hunter salutes the camera. (The blurred appearance is accounted for by Hunter's fly veil.)
6. Cooking a damper.



7



8



9



10



11



12

LLOYD'S AERIAL SURVEY PARTY CROSSING AUSTRALIA.

- 7. Arrival at North Gregory Hotel, Winton.
- 8. H. Seabrook (Mechanic) repairing a side-car.
- 9. The Camooweal-Cloncurry coach and Lloyd's party meet on the road.
- 10. North Queensland squatter's family interest themselves in Lloyd's party.
- 11. Crossing the Barkley Tablelands, Northern Territory.
- 12. A general smash up. Mechanic Seabrook's ingenuity to the rescue.

good to the — — bag man!' Obviously he was highly indignant. The bag man, I might remark, is one who, when he wants beef, just kills a bullock by the roadside and takes from the carcass as much as he can carry, leaving the rest for the crows."

Regarding that adverse criticism which all comparatively new sciences are bound to encounter, Mr. Lloyd made the following statement:—

"Commercial aviation is much in the same position to-day as was shipping in the 'forties. Then, Charles Dickens crossed from Liverpool to New York in a paddle steamer. At that period, most emphatic was Dickens that steamers, although delightful toys, would never be of commercial utility. So is it with the aeroplane to-day. Just why the aeroplane is not going to be of commercial value in the arena of transport is never definitely demonstrated. Rarely, however, when discussed on this basis, does it escape without reservations being made in regard to its limitations, and with no regard paid to the fact of its infantile age. We should in all things be fair, and if we were really fair when discussing the aeroplane, we would abandon all orthodox lines of reasoning and pre-historic conceptions; but we don't. No one can imagine with any degree of certainty what will take place in commercial aviation during the next five years.

"That commercial flying will be one of the great transport systems of the period is an affirmative without proof. No sane mind should endeavour to establish by argument a case for commercial flying, the simple reason being that one has no data on which to proceed; and yet, on the other hand, many allegedly sane minds endeavour to establish a case by argument against its ultimate commercial utility. In viewing this subject the wide-angle lens

must be applied. One needs to recognise that during the period of the war nothing was done to commercialise flying, although much was done to prove the utility of the aeroplane in other avenues. Since the Armistice, much has been done to construct a machine with commercial properties. Looking into the future, however, and taking as one's guide that half a dozen times within the past few weeks the Atlantic has been crossed by means of aerial transport, and discounting all the sensational reports that those engaged in spectacular flying think fit to paint, a basis in the immediate future may be arrived at from which the commercial brain can eventually develop aerial transport. In actual practice there is no person more consistently wrong than the expert, always provided that he be engaged in prognosticating the future. The expert judges things by what has happened in the past, and is rarely possessed of sufficient imagination to realise what may happen in the future. It is distinctly fair in consequence, when discussing the aeroplane, to accept the expert's opinions only along these lines. It has been a hobby of mine to collect expert opinions and reasons why the aeroplane must fail in the arenas of commerce. So far my collection consists of 201 opinions and reasons in this connection, and yet the impression created in my own mind by these experts' adverse opinions and reasons is that during the present decade the aeroplane will be as common and as useful in the region of long-distance transport as are trains and steamers in the same sphere.

"Rarely does a critic proceed along constructive lines. In fact, 'it is an axiom that the best critics are the worst builders,' said the late Lord Strathcona to me in London, one afternoon, and Lord Strathcona pioneered and built the Canadian-Pacific Railway."

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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.
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Continued from July Issue.

II.

The Aberdeen White Star vessels at the end of 1860 had been 15 years in the Australian trade, during which time great changes had taken place both in the extent of the commerce that had to be carried, and the size of vessels which bore it. The old bluff bowed ships had given way to the clipper, the latter in turn being threatened by the steamer. And although since 1852, when the Peninsular and Oriental Steam Navigation Company, the Australian Royal Mail Company, and Messrs. Gibbs, Bright and Company of Liverpool, entered the Australian trade with steam, and many other owners had followed, it had not yet been demonstrated to the shipping community that the sailing ship had anything to fear from her rival, for 1861 opens with George Thompson & Co. placing the *Queen of Nations* in the Sydney trade. She was an 827 ton ship of Walter Hood's now well-known type, and made her first voyage under command of Captain Thomas Mitchell, in 1862.

This vessel ran continuously to Sydney for six years under the same command, when in 1868 Captain Mitchell transferred to the *Centurion*, and Captain Donald of the *Woolloomooloo*, took over the *Queen of Nations*, which he had for some years, the vessel being lost on the Bellambi Reef near Wollongong. Her figure-head is said to be in the garden attached to a refreshment room at La Perouse.

A month after the *Queen of Nations* was entered in Lloyd's register the ship *Colonial Empire* was added to the list of vessels of the line. This was not an Aberdeen built ship; she came from the yard of Baldwin, of Quebec, and was of 1305 tons, the largest as yet owned by the firm. The command was given to Captain Lawson—formerly of the *Wave of Life*—who held it for two years, and was then suc-

ceeded by Captain Ross. The latter remained in charge for a corresponding period until relieved by Captain Bruce.

This vessel seems to have been an experiment; her shortest passage was 99 days, and judging from the change of captains, and her being passed on to a Liverpool owner in 1874, she evidently was not a success.

The *Kosciusko*, built in 1862, was one of Walter Hood's, of 1193 tons, and well-known to Sydney people in her last days, as she became locally owned, having been acquired by Mr. H. S. Forsyth. At this time she was barque rigged.

The *Ethiopian*, of 838 tons, was turned out by Walter Hood in 1864 to carry George Thompson's house flag in the annual race from China to England with the first of the "new season tea," a competition which attracted the world's finest clippers, until the Suez Canal and steam put an end to what—to the English shipping community—was as exciting as the Melbourne Cup is to Australians. The *Ethiopian* was put into the Melbourne trade, and had Captain Falconer in command for some years. On her second voyage, after discharging her cargo and loading coals for Shanghai, she left Melbourne on February 27th, 1867, and made a good run until March 7th, when off the New Hebrides she met very heavy weather causing her to roll and ship heavy seas. The gale increased to a furious hurricane, and the ship was hove over on her beam ends, the lee rail under the water, which was as high as the bell on the poop. All the masts were cut away, and the crew got below and trimmed the coal, which had shifted. But before this was done the chief officer, Mr. Anderson, was washed overboard and lost. After a most terrible night the weather cleared, and all hands next day got jury-masts rigged, and in a

crippled condition the vessel was put on a course for Sydney. When nearing her destination she was caught on a lee shore in a south easter, and was picked up five days later by the French war-ship *Marcceau*, which took the *Ethiopian* into port. Remasted and refitted she left on her voyage to Shanghai on July 24. Her next voyage was to Sydney, and she was a frequent visitor after.

In the same year (1864) as the *Ethiopian*, the *Nineveh*—of 1174 tons—was added to the fleet, and although not a sister ship to the *Kosciusko*, she was of the same size. She made her first appearance in Sydney harbour on August 31st, of that year, commanded by Captain Donald, formerly of the *Walter Hood*. After a long career she passed into the hands of a local timber firm and while on a voyage from Puget Sound to Sydney, had to be abandoned, as she had opened her seams and had 12 feet of water in the hold. The ship was fired to prevent her becoming a dangerous derelict, and the crew taken off by the San Francisco owned three-masted schooner *Compeer*, and landed at Oakland on February 5th, 1895.

In 1866 the *Harlaw* was launched. She was another of the smaller and yacht-like type of vessel which marked the George Thompson ship, of 894 tons. Under Captain W. Phillips she arrived in Sydney on July 28, being welcomed in the Press as "a splendid addition to the Aberdeen Line of clipper ships, after the second best passage made for years. . . . and is in every respect a clipper, and will bear comparison with any craft that ever visited this port."

Her time was 83 days. She left for Shanghai on September 20th, and was back again in Sydney on August 22nd, 1867 from London, being this time 81 days. She left again for Shanghai on October 2nd, and returned to Sydney on September 1st, 1868, this time in 80 days. Shanghai was again her destination when she left Sydney on October 7th, it was in anticipation of another quick run home and back to Sydney, but she was diverted, and did not revisit Australia until December 30th, 1870, leaving again for Shanghai on January 3rd 1871. Although so often to China at the same time of the year, she had generally made a fine weather passage, but was finally lost with Captain Phillips and all hands in a typhoon.

The name of a member of George Thompson's family is perpetuated in the 1079 ton ship *Christiana Thompson*, which made her first voyage in 1866 under Captain Murray, formerly of the *Damascus*, arriving in Sydney on January 17th, 1867. Her time was 83 days.

The *Sobraon*, so well known both in Sydney and Melbourne, and now the Royal Australian Navy training ship *Tingira*, arrived a few days later, having made the voyage in 75 days; and the celebrated tea clipper *Yang-Tsze*, arrived on the same day as the *Sobraon*, in 76 days.

The *Christiana Thompson* passed into Norwegian hands and carried the flag of Norway for many years under the name of *Beatrice Lines*.

Several ships of this period are often spoken of as being owned by the George Thompson Jr., firm, among them the *Garrawalt*, a ship of 627 tons, built in 1862 by Walter Hood, her owner being Alexander Nicol, of Aberdeen, who owned at various times many fine vessels trading to Sydney, and being built at Footdee on the model of Thompson's ships, was no doubt often mistaken for one.

This ship, while under the command of Captain George Phillips, was lost in a typhoon in the China seas during a passage to London, on September 26th, 1865, the captain losing his life.

Another, the *George Thompson* (1127 tons), built in 1865, at the same yard, was also owned by Alexander Nicol, who named her as a compliment to his fellow townsman.

The *George Thompson* became the property of Mr. A. Burns, of Sydney, and later of Messrs. J. M. Campbell & Co., and was used in the timber trade.

The next ship to be built for the rapidly growing trade was the *Thyatira*, launched in 1867, and a departure from the construction policy of Walter Hood, which he and George Thompson's people had been slow to adopt. Composite ships, that is iron frames planked, had been slowly coming into favour since about 1854; Stephen, of Glasgow, Hall, of Aberdeen, and Pile, of Sunderland, in 1862 and 1863 leading and continuing, but Hood was cautious until the advantage of the combination had been proved.

The *Thyatira* made her maiden trip to Melbourne, with Captain Ross in command, in 77 days. Her second voyage,

also to Melbourne, occupied 81 days, and her third, which was to Sydney, with Captain McKay in charge, took 83 days. The *Thyatira* was of 962 tons, and the new departure in construction was approved, for another ship on the same principle and tonnage was launched in 1868. This was the *Thermopylæ*, a vessel which has had much paper and ink devoted to her praise, but not always with a strict adherence to fact. She was placed under the command of Captain Kemball, who previously had the celebrated tea clipper *Yang-tze*, and on her first voyage to Melbourne, where she arrived on January 9th, 1869, the time taken according to the ship's report, was 63 days 17 hours. One writer says she did it in 60 days, another 61 days, and one

The *James Baines*—another celebrated American-built Liverpool ship—left Liverpool on August 5th, 1855, and anchored in Hobson's Bay (Melbourne) on October 5th, the voyage occupying 61 days.

The *Thermopylæ*, however, repeated her performance on the second trip. She is always associated with another beautiful little vessel, the *Cutty Sark*, a 921 ton composite ship, built by Scott of Dumbarton, in 1869, and owned by Mr. John Willis, of London. In point of speed there was very little difference between them, but in the tea race the *Thermopylæ* generally triumphed over her opponent, although neither ever claimed the blue ribbon.

Having fulfilled her duty, the *Ther-*



TWO EARLY ABERDEEN LINERS.
The "*Thermopylæ*" and the "*Cutty Sark*."

of the crew, writing to the Press in 1906, says: "She made her first three passages to Melbourne all under 60 days, and when I was in her she came out in 56 days."

Here are enthusiasm and partiality let loose. If the question is looked at impartially and old records turned up, it will be seen that the Black Ball liner *Lightning*, an American-built ship, made the run home from Melbourne to Liverpool in 63 days 18 hours. The time taken on this voyage in 1854, outward and homeward—including 20 days in port at Melbourne—was only 5 months 8 days 21 hours.

mopylæ was sold, and became a training ship for the Portuguese Navy, and when no longer useful for naval purposes she was given a naval funeral by the Portuguese. She was taken out to sea and sunk by the guns of two warships, thus was the celebrated clipper spared the degradation of being converted into a coal hulk.

Her rival, the no less celebrated *Cutty Sark*, passed into the possession of a Portuguese firm, Messrs. J. A. Ferreira & Co., who named her *Ferreira*, under which name she crossed and re-crossed the Atlantic many times, until in May, 1916, she

was picked up off the Cape of Good Hope knocking about in a very heavy sea with her mainmast, mizzenmast, and fore-top-gallant yard carried away. She was towed into Cape Town by the s.s. *Indraghira*, which had rescued her from foundering.

Another ship equally well known in Melbourne and in Sydney, was the *Jerusalem*, which chronologically, should have been placed between the *Thyatira* and *Thermopylae*. She was a 900 ton vessel built in 1867, and of the many officers of the line who passed through this ship the one perhaps best remembered was Captain Mark Breach, who died as lately as February, 1917. He commanded her in the late seventies, as a successor to Captain Larjie. The *Jerusalem* was sold to Norwegian owners and eventually foundered in the Atlantic.

Like the *Jerusalem*, the next vessel off the stocks, after the *Thermopylae*, was a wooden ship named *Ascalon*, of 938 tons; it was apparently anticipated by the firm that composite vessels would not prove a success. She came out to Sydney on her first trip with Captain Scott—formerly of the *Maid of Indah*—in command, and made a very poor run, her time being 105 days. After twelve years she was sold to Norwegian owners.

The next vessel was also a wooden one, and the name of an early ship was repeated in the second *Centurion*. Of 965 tons, she arrived in Sydney, on September 10th, 1869, with Captain Mitchell in charge, making a good passage of 79 days. In 1871, on her third voyage, she came with Captain Thomas Taylor in command, which he retained until 1886, when illness necessitated his replacement by Captain Charles Taylor, of the *Aviemore*, which had just arrived home. On Saturday night, January 15th, 1887, when on the homeward voyage, the *Centurion* was proceeding to sea in tow of the *Phæbe*, she encountered a heavy squall with rain from the south-east, between the heads of Port Jackson. This drifted her towards the ship *Manhagan* which, with the tug which was taking her out, partially blocked the channel, and obliged the master of the *Phæbe* to reverse his engines and thus lose control of the *Centurion*. Despite the fact that her anchors were dropped, she was driven on to the rocks and became a total wreck. An inquiry was held by the marine board and the captain relieved of any blame, the being "no evidence upon which

to found a charge of default," as the official language puts it.

Captain Taylor received many expressions of sympathy from the shipping community, to whom he was well-known, as he is now, and leads an active life on the Sydney water front.

Although iron ships had been constructed for more than twenty years, it was not common for sailing ships, although general for steam vessels, and owners seemed slow to adopt that material. Walter Hood built no more composite ships for the White Star, but an experiment was made in 1869 with iron, and the first iron ship the *Patriarch*, of 1339 tons, the largest ship of the line up to that time, was launched in 1869. Her masts were of iron, her lower and top-masts being in one, whilst the top-gallant masts telescoped into the topmasts. The first commander was Captain Pile, who had her for many years, making consistently good passages. Captain Mark Breach sailed her for the last eight years she carried the house flag, and regretfully hauled it down when she was passed over to Norwegian owners in 1898. She cost £24,000 to build, and was sold for £3,150.

With the *Patriarch*, iron stood its test, and the last wood ship to leave the yard of Walter Hood for the White Star line followed her, and was named *Aviemore*, just 12 months after the *Patriarch*, in 1870.

She made her first run, out to Melbourne, under the command of Captain Thomas B. Ayling, in 73 days. She was a vessel of about 1100 tons, and as pretty a ship as one could find. In 1872 the writer, while serving on the *Star of Peace*, and lying at the Williamstown Railway Pier, often admired her, on the opposite side. But like many other of England's clippers she in due course went to Norway, as sails gave way to steam.

The substitution of iron for wood in construction; of steam instead of canvas for propulsion; and the opening of the Suez Canal, whereby steam vessels could shorten the time to Australia by fifty per cent. as compared with the sailer; all these were matters which caused shipping companies to think. Up to 1870 the effect of the canal traffic had not been felt, so the controlling power of the Aberdeen line went on building iron sailing ships.

(To be Continued.)

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¶ Inquiries are therefore solicited from Governments, companies or individuals interested.

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WHAT IS A HELICOPTER?

THE AERIAL QUESTION OF THE HOUR

Especially Written for "Sea, Land and Air" by TED COLLES

Ever since the British Air Ministry darkly hinted that it was experimenting with one of these strange objects people interested in the romance of aviation have been asking what a helicopter is. Is it something we can eat? Is it a species of insect that infests deserted hen-houses—or what?

Yet, nearly everyone who was ever a small boy once had implicit faith in the heli—*etc.* Do you remember those thrilling penny novels, on the cover of which was often depicted a great steel airship, suspended in the heavens from a set of whirling fans, mounted on the top of its bullet-proof (!) hull? Then you can thank Frank Reade, the fictional hero of those adventures, for first introducing you to the helicopter. For that is the name by which scientists and aeronautical persons refer to those horizontal fans or screws which were supposed to travel upwards, lifting the weight of the object attached beneath with them.

Inventors of many ages have dreamed of their uses and experimented with them in models; and even of latter years efforts were made in America to attain some degree of perfection in their application—but with little success.

The difficulty lies in the power required to lift any object straight up from the ground. For instance: a small boy can push along the ground a large soap-box containing his two fat, twin-baby-brothers with comparative ease; but it might require even all of poor father's strength to pluck the lot up bodily and lift it vertically off the ground. For the same reason, an aeroplane has not yet been invented with a screw and engine-power that can lift it vertically up into the air, but by generating enough forward motion it can rise gradually by "slithering" along—and up on—the air force caused by its speed and passing under its inclined wings—in the same way that the laden soap-box could be "slithered," or sleighed, up slightly sloping ground by the small boy, with comparative ease.

But just here it occurs to me that this action of the aeroplane might also be even more simply and interestingly made clear by studying that same small boy when he's flying his kite. . . . He begins by running along the street dragging the kite after him. As his speed increases the air-current caused by his running presses under the inclined surface of the kite, pushes it up—the kite gradually rising—or "climbing," as the aviator says of his machine—and there you are. Only, in the case of the 'plane, the sustained speed of the fast-travelling engine and propeller (in front) takes the place of the galloping urchin.

But, as I have tried to show, it would require a tremendously powerful engine and propeller to lift the aeroplane straight upward—as the airships of the Frank Reade stories were supposed to have been lifted. In fact it is doubtful if any engine could drive a propeller powerful enough to lift even its (the engine's) own weight vertically off the ground. Yet an arrangement of steeply inclined wings, or planes, in a helicopter-machine, may one day be designed so that it may climb more steeply than—though on the same principle as—the aeroplane of to-day.

The construction of a machine workable on the helicopter principle has long been a dream of aircraft builders. And the perfection of this movement would make flying much simpler than it is now; for the aeroplane that can rise or descend perpendicularly on a small area will have a thousand advantages over those that require miles of atmosphere to sweep around in before they can climb up into the heavens or come down to rest on the ground. In fact, the successful application of the helicopter principle would entirely revolutionise flying and bring it within the bounds of common every-day usage by milkmen, rent-collectors and people of all kinds. For what is it that to-day prevents the private citizen, who can afford it, from owning a machine? Simply, that he cannot always own a back-yard large enough to allow of



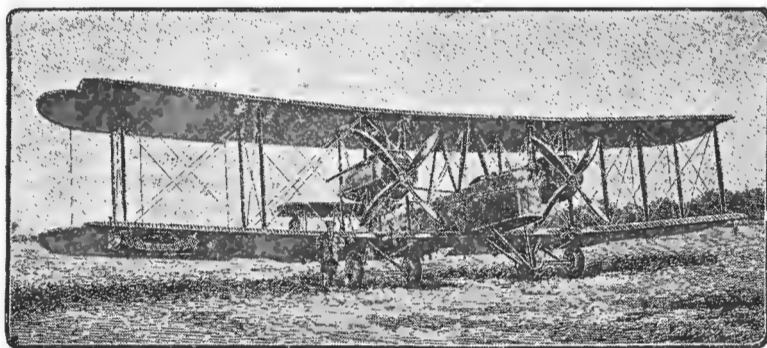
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him gradually mounting into the air and sweeping down on to earth again without scraping the neighbouring house-tops or tearing down the fences and fowl-houses.

Of course, there might be municipal aerodromes some distance away on the outskirts of our towns, where the private owner could keep his machine until he wanted to take it up for a spin; but that would often be inconvenient. A man would appreciate his machine much more if it could be kept outside his back door, handy for whenever he wanted to use it. At present he could not even have it brought round into the street in front of his house without there being the danger of alarming old ladies and flattening-out all traffic for half-a-mile in either direction should he attempt to fly. Besides, such behaviour on the part of any reputable citizen would make him quite unpopular in his neighbourhood.

So what is there left but the helicopter?

By its use the flying machine would become as easily controllable as the motor car, and much more so than some of our big steamships which sometimes—when they get too much under way—side-shove

wharves and jetties off the face of the water-side before they can be brought under control again by the hastily rung-up engine room staffs.

With the perfection of the helicopter lifting principle, 'planes will be able to rise directly off the flat roofs of private aviators' houses; and will be able to descend straight to roost in the same way—without swooping about, clipping off the neighbours' chimney-pots and the tops of their fruit-trees.

And when the big aerial liners of the future have developed top-planes large enough to serve as spacious "boat"-decks, aero-police and customs officers will helicopter down on to these, in search of opium and dutiable goods, as soon as they appear over the horizon. Also, aerial burglars and other evil-doers will live in constant dread of the law dropping upon them like a bolt from the blue. And—speaking of bolting from the blue—what amusement and excitement will be caused by the frantic wheelings and dartings of speed-exceeding joy-riders in their efforts to escape the downward pouncings of the watchful helicopters!

Verily, there are quaint times ahead

AIRCRAFT MANUFACTURE IN AUSTRALIA GOVERNMENT WILL FACILITATE

A section of the Press has conveyed the impression that a certain British firm had recently made application to the Commonwealth Government for the sole right to manufacture aircraft in Australia.

In justice to all parties concerned, we print hereunder the *Hansard* report of Parliamentary Debates in the House of Representatives on July 31, from which it will be seen that no such monopoly was sought:—

AEROPLANE CONSTRUCTION.

Mr. MACKAY asked the Acting Prime Minister, upon notice—

(1) Whether it is true that an application has been received from a British firm, offering to undertake the construction of aeroplanes in Australia?

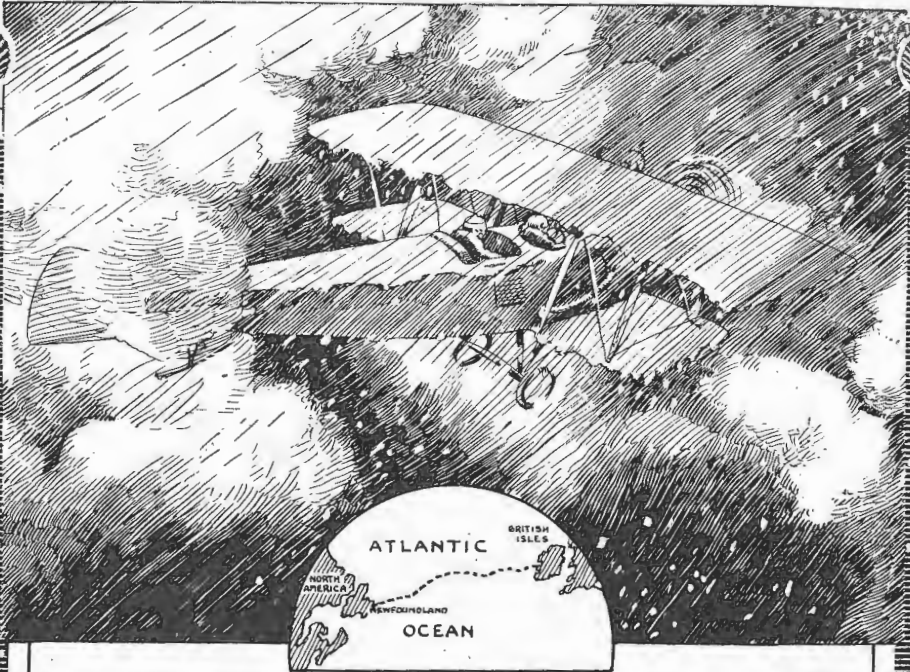
(2) If true, what concessions were asked for, and what is the decision of the Government?

Mr. GROOM: The answers to the honourable member's questions are as follow:—

(1) Yes.

(2) The firm, in asking the Commonwealth Government to invite them to start a factory at their own expense in Australia, stated that it would not ask the Government for any guarantee of orders, or, indeed, anything but an invitation to start a factory at their own expense.

The Government decided that it was unable at present to invite any one firm to start a factory in the Commonwealth, as a number of firms were considering the matter on their own account, and as local companies were being formed to undertake aerial transport; but that, while being unable to give any specific invitation, it would be only too glad to offer any facilities in its power to companies who determined to manufacture aeroplanes in the Commonwealth.



THE GREAT ATLANTIC FLIGHT

'SHELL' BENZINE

WAS USED IN THE VICKERS-VIMY BOMBING AEROPLANE FLOWN BY CAPTAIN ALCOCK AND NAVIGATED BY LIEUT. BROWN DURING THEIR SUCCESSFUL FLIGHT ACROSS THE ATLANTIC. JUNE 15, 1919

THE BRITISH IMPERIAL OIL CO. LTD.



HANNAN

WITH THE AUSTRALIAN FLYING CORPS

Especially Written for "Sea, Land and Air" by "WINGS," A.F.C.

(Concluded From July Issue)

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Barrage Contact.

During our Autumn offensive of 1918 the Hun flooded the front with the best Scouts ever used by him—the *Fokker* bi-plane. These were to be met in bunches of twenty and thirty, at any height up to 17,000 feet, and there always seemed a few to spare for dodging around clouds awaiting inoffensive *R.E.8*'s. On account of the top plane extending beyond the lower one (as in the case of the *R.E.*) they were easily distinguishable, which was very fortunate, for when one's machine could dive at 160 and make for home at about 90 miles per hour while the other fellow's bus could dive at nearly 300 and give chase at 130 it was useful to see him when he was a respectable distance away.

But they were very careful to attack only in bunches or to wait for "lame ducks," and so far as No. 3 Squadron was concerned they suffered more losses from combat than we did. The instance of one of our Artillery Pilots who brought down two out of six that tackled him was by no means an isolated one, and more than half of the men in the Squadron had two or three Huns each to his credit. Of course to Scout men this was just a detail, but then there was always this difference—it was their special job to push Huns down and ours to keep Huns from pushing us down.

Our two Artillery Flights were the more interested in these people. Working at from 3,000 to 7,000 feet and generally around one target, they were fair prey for unemployed *Fokkers*. The Contact men were not so directly concerned. Their work was at too low an altitude for much scrapping, and a kindly Providence seemed to think they had enough trouble coming upwards without overburdening them with tracer bullets, from above.

The great majority of our casualties were from the ground. Hun "Archie" was a much-practised individual and a fair number of his machine-gunners pos-

sessed aerial sights which made their shooting pretty deadly to a man who had to come down to less than a thousand feet. To be effective "Archie" needed to be very lucky but when, day after day, a Pilot was forced by the necessity of doing the job, to sit at "Archie's" pet range dodging those little black clouds that came up, he seemed bound to collect something in time; and several of our men went down by direct hits.

Occasionally one heard of a machine being shattered by a shell during a bombardment or a barrage, but this was a rare occurrence. Nevertheless I think it was the one nightmare which troubled the Contact man, whose job it was to fly under the barrage. I never did understand why these machines were so rarely hit by shells. To get in touch with the infantry one had to fly across the path of the shells and then up and down between the two layers at about 800 feet, which was supposed to keep one nicely above the shells from the field guns and below those from the howitzers. It was a pretty "windy" job, and to make the entry was (to choose a mild simile) something like jumping under a cold shower during the middle of winter—only a little worse. The knowledge that the Hun barrage was crossing ours somewhere above or below, was not in the least reassuring, and when a high explosive gave its horrible sharp crack seemingly about one inch under one's bus; when an "Archie" shell crumped somewhere altogether too close, leaving a black trail under the tail and another under the nose; when a hatefully persistent *rat-rat* went on below and seemed to be connected with the little rips which were being made in the wings; and when a mine explosion made one try to jump out of the belt, there seemed to be so many much nicer jobs in the Army.

But when the Observer leaned over and excitedly pointed below, yelling the magic word "Diggers!" and one looked down to see odd groups of little men dodging about on the tormented earth, and a

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PERFORMANCES:—Speeds: At ground level, 125 m.p.h.; at 5,000 ft., 122 m.p.h.; at 10,000ft., 113 m.p.h. Landing Speed, 55 m.p.h. Climb: To 5,000ft., 5 minutes; to 10,000ft., 12 minutes.

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The British & Colonial Aeroplane Co. Ltd.
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Cable Address: "Aviation, Filton," England.

ludicrous looking tank crack up before bursting into flames, one felt a little less lonely. In an hour at most we would be free of it, floating back over the quiet areas, and while we played a poker hand after Mess the poor old "Digger" would still be there—hanging on. If there seemed much nicer jobs we knew there were worse.

I often wonder if the Observer who took his first flip under the barrage with me still recalls the experience. Neither of us had done a barrage Contact before, and during the half-hour or so that we lasted we struck a little more trouble than can usually be packed into so short a space of time. It was a nasty morning, with a strong wind blowing towards Hunland, and thick banks of very low clouds through which the gun flashes showed up brightly as we crossed the artillery. The troops were due at a "halt line," and an intensive barrage was being put down to protect them during a brief rest. It was our job to fly under that barrage to discover if the advance had "progressed according to plan," and, if not, to report exactly how matters stood. Observation was very difficult and we had only just entered the barrage, with no time to look around, when we were engulfed in thick clouds. We were completely cut off from the ground and, conscious of the shells passing above and below, felt very unhappy. My compass was gyrating like a tired top, and in a few minutes I couldn't tell east from west. We came down to 500 feet, but were still in clouds, so I just kept the machine straight and hoped we were making for our side. A little later a series of savage red flashes spurted up from below and the bus rocked with the concussion. If it was not our own artillery we had crossed then it was the Hun's. I kept my eyes on the compass which gradually settled down—pointing due east!

I whipped round in a vertical bank, opened the throttle full out and flew straight in the opposite direction. The wind had drifted us a considerable way over Hunland, and it was ten minutes before, through an opening in the clouds, we could see the line. We yelled a few questions at one another and decided that the job couldn't be done for the moment and made for the map reference given us

as our "Forward Drome" for the day, from which we could get in touch with the Flight Commander. But our troubles were not at an end for in landing on a strange spot I overshot and dashed helplessly and foolishly into the only hangar on the ground.

As the propeller ripped through the canvas and the top wings folded back with that peculiar sound which makes the word "crash" so expressive, a startled little group of Pioneers, who had chosen the empty hangar as an ideal place for a "two-up school," scattered like frightened sheep. It was the only compensating touch of humour we could find, and when, a little later, the Squadron Commander, with a comprehensive sweep of his hand over the ground, asked, "Isn't *that* big enough for you?" I failed to mention our moral achievement of scattering a two-up school, thinking that for the nonce he was interested in material things only. Nevertheless, when three or four others attempted the same thing bye and bye, I felt that a better speech for the defence might have been made.

Artillery Patrol.

In the Artillery Squadron one of the most interesting jobs was a counter-attack or an Artillery Patrol. With four 20lb. Cooper bombs hitched to the bottom planes the men on these jobs set out for from two to three hours of free-lance work. They were a kind of aerial *Auto-lycus*—out to pick up all sorts of unconsidered trifles. There was no definite commission except to seize every opportunity of annoying or damaging the Hun and of prying into his secrets.

It was very rarely that a man complained of dulness on these occasions. To the adventurous came adventures, and these patrols generally produced some good stories to add flavour to the after-dinner pipe.

The pet objective was to bomb an "Archie." It was no easy task, and one rarely accomplished, for "Archie" was an unblushingly "windy" individual, who specialised in camouflage and who invariably ceased to bark as soon as he thought his special little hole was discovered. But failing bombing him he could always be teased and forced to waste vast quantities of ammunition. Hun trains and transport never failed to provide material for



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hunting. When the former was discovered we generally relied upon the artillery to do the *strafing*, sending down the position and other particulars by wireless, and then sitting above hopefully waiting for them to open fire. We were not always rewarded, for wiser heads decided whether to let a few shells loose on the spot or whether to note the position and hold back for a more favourable opportunity. Road transport was generally an ideal subject for our bombs and machine guns. It was the delight of the Observer's life, for he always loved to empty a couple of magazines into a crowd below and chuckle over the panic he was causing. For the Pilot to stick the nose of the bus down and open up a few from his Vickers' was only tolerated up to a certain point as an indulgence. The Observer would soon get peevish if one made a practice of it.

It was a hard job to pick up road transport, for the Hun seemed to have no dust on his roads, which were nearly always methodically camouflaged, but sometimes one's vigil would be rewarded by the sight of a mule train or a column of troops. To chase transport was most exhilarating, and with a little luck a lot of damage could be done. It was intensely annoying to "Archie," who could see one's bombs through his Zeiss glasses and was never quite certain when they would be released, which made it necessary for him to keep barking at one viciously, and often wildly.

But I think the Scout men gloried in this work most. The extra speed and climbing ability of their machines made it possible for them to search further afield and at lower altitudes. They could afford to be very cheeky, thus providing a greater element of fun, because the stolid old Hun would become speechless with annoyance.

The story is still related of a member of No. 4 Squadron who returned from one of these expeditions to delight his Recording Officer by claiming two Huns. When asked for details he said the first was a bargee on the Canal, who had been submerged in the water splashed up by a bomb, and who died from pneumonia; the second was his assistant who had succumbed from sympathetic fright!

There was generally something to laugh at on these free-lance jobs, but it was not always a walk-over, and many an *R.E.*

Pilot who became so engrossed in the hunt that he wandered much too far over Hunland, had to fight back through a wall of "Archie" and machine guns with half a dozen Hun Scouts buzzing around him to add to his worries.

In flying matters it is only safe to deal with personal experiences, because men receive impressions so widely different. I have therefore only been able to indicate some of the work done by our two Scout Squadrons in France. No one held them in higher esteem than we humbler brethren of the Artillery Squadrons. Their record was a wonderful one, and the fact that our No. 4 Squadron was among the first in France to be supplied with the new *Snipe* scout, which was just replacing the *Camel* when the Armistice occurred, is sufficient evidence of the high esteem in which they were held by the Chief of the British flying work in France. On these machines the Squadron squeezed in a vast amount of fighting during the last few weeks and pushed down Huns at record speed.

Both No. 2 and No. 4 Squadrons were incurable raiders of Hun 'dromes, and they had a splendid reputation for their work as escorts to two-seater machines, which, after all, was the real test of a Scout. To do justice to these Squadrons one must delve into the Squadron Record Books for the individual stories of these men who sought and found adventure. But even in the books there are many missing links, for rarely was a page complete which did not bear the brief entry in the Remarks Column—"Pilot did not return." Only the men who saw him spin down in flames from higher than the hills, or who saw him topple over like a badly wounded bird and flutter down to earth, can tell you why he did not return.

In retrospect the happiness of these days is tinged with melancholy. The price which Service flying seems to demand was paid in full, and the little group with whom I spent hilarious training days paid more than its share. Less than a quarter of that group is left. Training itself claimed a heavy toll and took it from among the best. But those who found their way overseas did their work well and often, brilliantly helping to uphold the name of the Australian Flying Corps, of which Australia may be as proud as she rightly is of those indefatigable and incomparable fighters of hers—the Australian Infantrymen.

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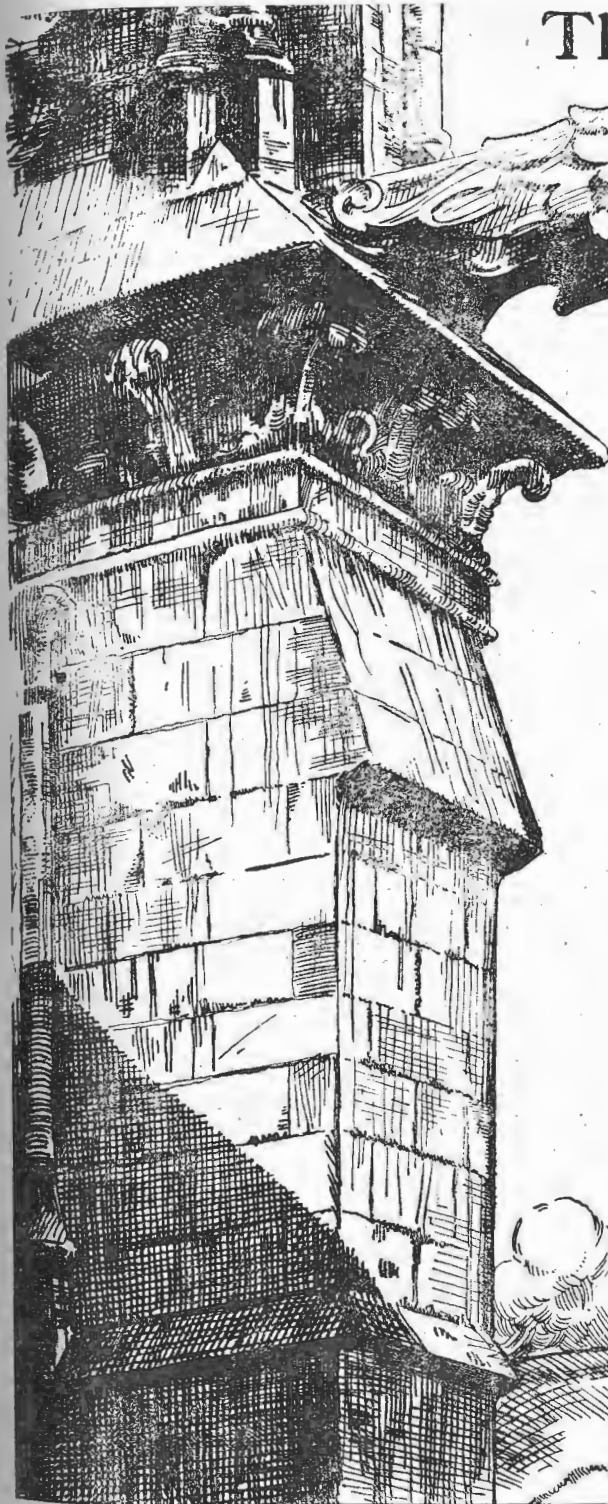


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Unique views of the workshops of the Curtiss Aeroplane Corporation.

- (1) Fuselage Department; (2) and (5) Final Assembly of Flying Boats; (3) Aircraft Engines.
 (4) Acroplane Assembly; (6) Panel Department, showing wings before covering.

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TRANSPORT WORK OF THE AUSTRALIAN COMFORTS FUND

Especially Written for "Sea, Land and Air" by Miss KAE McDOWELL.

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An effort was made in this journal recently to give a survey of war-work done by Australian women. It was, of course, only possible to touch the fringe of the subject, emphasis being given to the three great depôts in which the country's feminine energy was pooled:—The Red Cross, the Australian Comforts Fund and the Voluntary Workers. It would be impossible to mention a fraction of individual activities in the space at the disposal of any magazine. The Australian Comforts Transport arrangements are, however, of particular interest to readers of *Sea, Land and Air*.

Wild tales are told of problems involved. In Mesopotamia, comforts were delivered by aeroplane, and authorities state that the A.C.F. was the first to make use of this mode of conveying merchandise. In the last "Great Push," it will be remembered, the Allies carried ammunition by 'plane—dumping it down where necessary.

The field to be covered by the Comforts' Fund was wide enough to strike dismay into the hearts of its organisers. From Bazaal it stretched to India, Mesopotamia, Gallipoli, France and the United Kingdom. It followed the troopships with tireless vigilance past every port of call. It experienced grave difficulties in Egypt in its "headlong dash after the Egyptian Expeditionary Forces." Its manner of handling ship and truck shortages, congested lines, impassable roads and absence of all organised transport, savoured sometimes of the miraculous.

Their first Christmas in Egypt proved an anxious time for the A.C.F. The shortage of shipping accommodation proved insurmountable, and what were the boys in the big training camps on the Canal to do? A solution to the problem was found in money, which the Genii in Egypt turned into kind. In the end 1,700 dressed turkeys and vast quantities of cakes and dates found their way into the expectant camps.

The establishment of the coffee stalls in France was a daring undertaking. At first they were placed 4,000 or 5,000 yards behind the front line, and all the men going in and out were supplied free with hot soup or cocoa. But it was soon decided that this was not sufficient. The men in the front trenches really received little benefit. Thirty advance cooking depôts were established closer up—sometimes within 200 yards of the front line; in one case within 50 yards of the enemy. So near were they, in fact, that they could not be conducted during the daytime. At night, hot cocoa and soup were sent in petrol tins to the men in the firing line. A Victorian lad writing to his sister said the stalls were a godsend to thousands a day. "You see a modest little board with AUSTRALIAN COMFORTS' FUND written on it, and you know that you are within a few feet of a drink of hot cocoa or soup. They are open twenty-four hours a day, and you drop your bundle and have a spell. You can't imagine what it feels like after being in a frozen trench for a few days, or else up to the knees in mud with snow, sleet or rain to keep you company. Then again there are the wounded going out (walking cases) with slight wounds, but physical and mental wrecks after what they have gone through. They are given a drink, a biscuit and a few cigarettes. I received this in four different places before I reached the Clearing Station."

He goes on to tell how the first drink was a hurried affair as the enemy was shelling the place badly. The A.C.F. coffee stalls at Bapaume and several other places were blown up, and once the entire staff of 35 men either killed or wounded.

The cold, however, was so intense that even the coffee stalls could not provide adequate comfort. So the A.C.F. came forward with those priceless little contrivances—the "Tommy Cookers." These were given to the men in the trenches, together with tins of cocoa and milk, and

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Presenting Christmas Gifts to Officers and Men of the Australian Flying Corps, at the Training Depot, Halton Park, Wendover, England.
From Left to Right: Lieut.-Col. E. H. Reynolds, Staff Officer for Aviation; Major A. Broun, Officer Commanding Depot; Major T. Henley, M.L.A.; Lieut. J. Keating, M.ss and Mrs. Henley.

many a bonny young life they saved. Captain H. W. Crouch, M.C., says of them: "They enabled the boys to have hot drinks when there was nothing around but mud, snow and ice." The impossibility of dealing with the problem before their advent is easily understood by one of his descriptions. "I have seen supposedly hot tea brought up in petrol tins by ration carriers, and by the time it reached the front line trench, it would be a frozen solid block. One ration carrier found it easier to take out the block of tea from the tin, and, by boring a hole through it and inserting a piece of string, carrying the 'hot tea' over his shoulder. At this time the 'water fatigues' would go out with a pick and bring back their ration in a bag."

Captain McCallum, the Western Australian Commissioner of the Fund, indicating the magnitude of A.C.F. organisation, says that between January, 1917, and June, 1918, they distributed twelve million drinks free to the boys, 60 miles of cigarettes, 1,700 cases of cocoa and milk (representing 10,120,000 drinks) and countless other comforts.

In eighteen months the Assistant Commissioner of the 5th Australian Division (Mr. Campbell) distributed to his section 97,914 pairs of socks, 14,400 Tommy Cookers, 23,220 tins of refills, 192,000 tins of cocoa and milk, 33,600 lbs of soup, 44,800 of tobacco, 6,520 packs of cards.

During the terrible winter of 1916-17 General Hobkirk (14th Brigade Commander on the Somme) said: "The issue of dry socks by the A.C.F. saved thousands of men from getting trench feet and maintained the efficiency of the troops in the most trying circumstances."

And this is how the transport was managed.

All Comforts for the men in France and Egypt were gathered together at the various ports in Australia and shipped to England. There Major Henley met them and took immediate charge, so as to minimise the chance of mishap. The goods were then placed in sealed stores, for no customs dues had to be paid on them. From the stores they went in special free trains to Southampton, which was the great shipping port for France. A.C.F. goods not only got free railway

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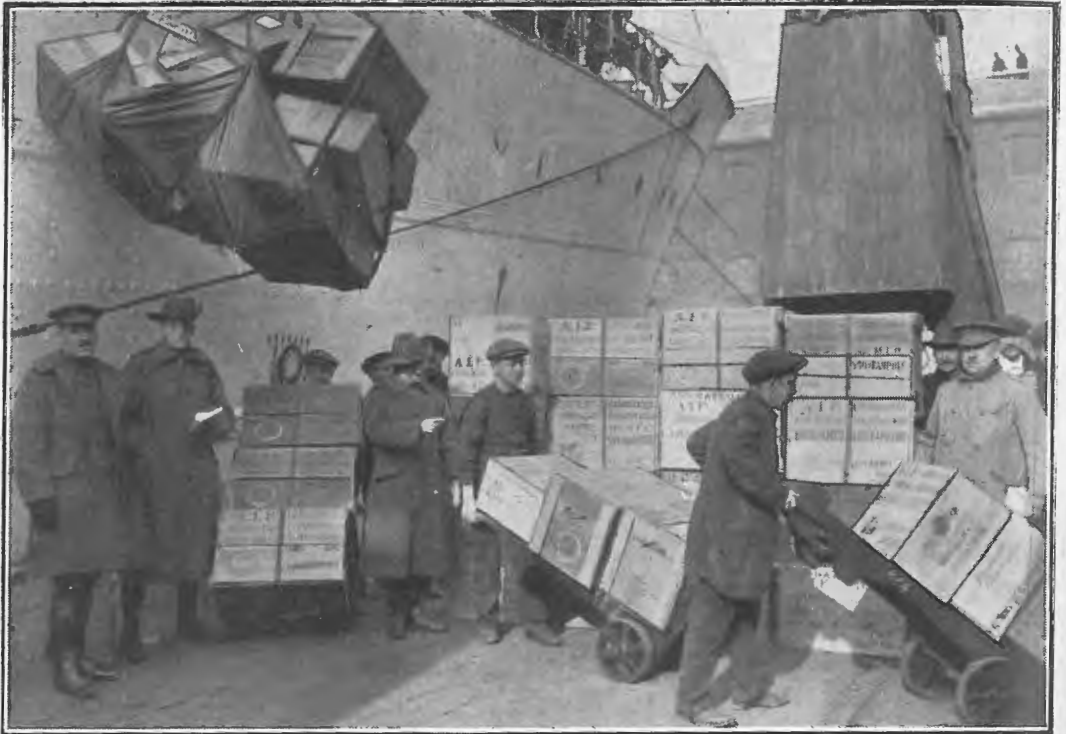
freights and dock charges, but all handling, stacking and lumping charges, and shipment from Southampton to Havre.

The depôt at Havre was a busy place indeed, where all business had to be carried out with clock-like precision. Stock sheets were compiled every Friday and received in London on Tuesday, stating exactly what goods were available at the depôt for transfer to the Front.

For the distribution of goods at the Front it was necessary to have an assis-

already in the depôt and could safely be given, having regard to the requirements of other Divisions. Requisitions were always supplied in full where possible, because, naturally, the Assistant Commissioner on the field knew more about his wants than the London office did.

Havre was then given the order and transport to the Front arranged. Sometimes it took two or three days for the goods to complete their journey. As soon, however, as the trucks started Captain



The Australian Comforts Fund in Operation.

Discharging 8,473 cases of "comforts" from the *Boorara*. This vessel was captured in Port Phillip Harbour, Victoria, in 1914.

tant Commissioner with every Division. It was his duty to keep in touch with both officers and men, ascertaining their needs and devising the most prompt means of satisfying them. These Commissioners also had to procure information regarding projected movements and happenings, basing on it their calculations for the Division's needs in the immediate future. Their lists of goods required were then wired direct to London. Here they were compared with the Havre stock sheets to decide if the quantities requisitioned were

Parry (at Havre) would wire to the Assistant Commissioner in question to ask him to arrange for transport at the rail terminus. Military authorities were requisitioned in regard to the necessary transport, and, as soon as the goods arrived, they were dumped on the lorries and taken, either to the A.C.F. stores or direct to the units requiring them.

Of the Assistant Commissioners, it has been said that volumes might be written. "Of their troubles, joys, experiences, hair-breadth escapes from death at the

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hands of the enemy, their strenuous labours and rapturous welcomes by the men."

And these men's work was entirely voluntary. Not only did they receive no salary, but they paid their own expenses. Out of every pound subscribed to the

A.C.F. nineteen shillings and eleven pence went to the soldiers.

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When George Stephenson invented railways neither England nor any other country sprang to its feet and called him blessed. All manner of objections were urged against railway transportation, and the evolution of the railway was a longer and more painful process than the man in the street ever dreams of. Yet its success was inevitable, for the simple reason that the old system of transportation by canal and road waggons drawn by horses could not cope with the business of the country.

For the ten years before the war Europe and America had been complaining that the railways were unequal to the demands put upon them. More lines and increases of rolling stock on existing lines were demanded. The hauling power of engines quadrupled in about fifteen years. Trucks soared up from six tons maximum to ten and then fifteen tons carrying capacity. Trains doubled in numbers and in size.

But in spite of all these increases the discontent with the railway services increased.

Then came the war, and the railway systems of the United States and Britain broke down utterly. They could not cope with the rush of war material and carry on the civil transportation of the two countries as well. In England hundreds of miles of permanent way were torn up and shipped in sections to France to be utilised in the construction of strategic railways for the use of our troops. The great cities were informed that they must find other means of provisioning themselves.

In the United States the congestion was frightful. Whole districts found themselves on the verge of famine. Something had to be done.

In despair both countries turned to the motor lorry. In England the matter was further complicated by scarcity of petroliferous fuel; so they ran their motor lorries on coal gas from which the toluene had been extracted. Parks and recreation grounds were turned into vegetable gardens, and at one bound England started to grow her own vegetables and to provide

her own butter, cheese, eggs and poultry, which had previously been largely imported from the Continent, from Canada, and the United States.

In the United States Transport Committees were appointed in each State. The primary object of these committees was to organise what they called "Both Way Loads"—meaning thereby that the available supply of motor lorries should be used all the time and have no empty return journeys. Bureaux were established in each centre, mostly at the local post offices, and when a loaded lorry arrived the driver notified the Bureau, which had been notified by all the people who had loads for other centres. In this way waste of time and energy was eliminated, and the lorries got loads on both their outward and homeward runs.

Then a smart young man in the United States parcel post office made a suggestion. It was that the post office should amend its Parcels Post Act so that the department could run either its own lorries, or commandeered privately-owned ones, and enable farmers and market gardeners to send their produce to the cities by parcels post. Previously the post office could not accept any package over certain dimensions or in excess of forty pounds avoirdupois. The amendment enabled these parcels posts trucks to carry up to one ton.

The effect was startling. Something like a revolution occurred. In a hundred cities the markets became practically obsolete, their operations declining by something like fifty per cent. in the first month. Instead of sending their produce to the markets to be sold by commission agents, the farmers and market gardeners sent it direct to their customers.

The city people suddenly found that they got their fruit and vegetables much fresher. Retailers discovered that by ordering direct from the growers they got the goods cheaper—and quicker.

The reason is simple enough. When the man on the land at Windsor wishes to sell some produce in Sydney he loads it up on a dray. That is the first handling. He

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carts it to the railway and unloads it. Second handling. The railway men load it into a truck with the produce of several others; which means a third handling and some waiting for the truck to be filled. Then it departs and duly arrives in Sydney, where it is unloaded—fourth handling—into the cart of the purchaser, generally the retailer. He unloads it again at his store—fifth handling. Then, it may be loaded up again for delivery in the suburbs, which means two more handlings—seven altogether perhaps, but certainly five.

All these handlings take time and cost money. With the parcels post system as adopted by the United States the farmer notifies the post office official on the previous day that he will have such-and-such a load ready for the parcels post lorry at 4 a.m. to-morrow morning. The parcels post lorry arrives at 4 a.m., or according to its time table. The goods are loaded up, and go straight to their destination, where they are unloaded. Two handlings only, making a saving of at least three handlings and eliminating quite a considerable amount of delay.

That was what happened in the United States. Retailers cut out the public markets and got into touch with growers, who consigned the goods to them direct at the ruling rates. Then the big hotels, restaurants, *cafés*, etc., all got on to the same idea. Big city houses utilised the lorries on their return journey to distribute parcels of goods ordered by telephone or post, with a waybill which showed the exact amount to be collected. The post office not only delivered the goods, but collected the money for them, and accounted for it in the usual way.

At first it was contended that a radius of twenty-five miles would be the utmost at which this sort of service could be profitably maintained. But the United States had just passed through a wonderful period of good road construction, and it was soon discovered that where brick or concrete roads obtained, twenty-five miles was a mere bagatelle. Thirty-five became the limit; and then fifty. To-day these delivery and collecting two-way-load services are operating successfully over radii of 100 miles. That is, of course, where the roads are of brick or concrete. Where good roads are not yet made the limit remains within the vicinity of fifty miles.

In the United States the railroads have lost that short distance traffic for ever. Neither the producer nor the consumer will willingly go back to the old inefficient way. At a banquet celebrating the new development in New York the representative of the management informed the members of the company that they were sitting down to eat vegetables that ten hours previously were in the soil 98 miles from where they sat.

Apart from the saving of time both the producer and consumer have saved money. They have eliminated the middle man and divided his profit between them, and they discovered when they came to divide up his sometime spoils that he had made a handsome profit out of both of them. Now the consumer gets his goods for less money, and the producer gets more for them, and gets it cash on delivery, whereas before the agent got the cash, used it for a week and, when he did pay it over, practically charged the farmer a commission for depriving him of the use of his own money.

This adaptation of the motor lorry depends, of course, entirely upon the existence of decent roads. If the roads are good, like those excellent concrete roads that have become such a feature in the United States, the lorries, fully loaded, can do fifteen to twenty miles per hour without undue strain on the mechanism. The postal department utilises faster lorries for the long-distance runs, while the older and slower trucks are reserved for the shorter runs.

As to how all this affects Australia is rather hard to say. At present, owing to the shocking state of the roads approaching all the Australian capitals, it seems to be quite impossible. Yet it is a most important question, and has a direct bearing on the health and wealth of the community.

Good land, suitable for growing vegetables, is comparatively scarce around Sydney. The result is that this metropolis draws most of its supplies from the north and south coastal districts, and most of them are sea-borne. We even draw supplies of cabbages from Victoria, and it requires no great stretch of the imagination to grasp how much those Victorian cabbages have deteriorated by the time they reach the consumer's table in the Sydney suburb. Given good roads, especially highways paved with brick or concrete, the latter of which are the best and the cheapest to build and

maintain, by the adoption of this American system Sydney should be able to surround itself with a band of profitable market gardeners. For, with the progress made in the agrimotor industry, market gardening is no longer a Chinaman's occupation. It is possible to eliminate the drudgery of it that has hitherto driven the white man out of it. In the matter of city and suburban delivery by motor van both Sydney and Melbourne are already far advanced. Even in the railway suburbs the parcels trade is negligible till we pass the ten miles limit, then it begins to make a showing. In spite of the awful roads that obtain around Sydney, especially in the western suburbs, the motor delivery vans have long since eliminated the railway as a distributing machine.

Apparently the whole tendency of the present time is to utilise the railways for the carriage of heavy loads long distances, or anything over the hundred miles limit, and to utilise motor transport for the traffic between the cities and their immediate suburbs and the surrounding country.

Good roads cost less than railway lines. Also the cost of maintenance, provided the roads are properly made, is infinitely less. Railways have to be maintained in perfect condition all the time, as the slightest departure from perfection endangers life and property. Railway permanent way is a much more delicate creation than an ordinary road, even the best of roads, and exactly how lasting roads can be made is amply demonstrated by the splendid durability of the old Roman roads through Britain and on the Continent of Europe. In Hungary and Roumania many of the old Roman roads, with only their surfaces repaired and levelled, are still in use, and during the war were used for the transportation of great armies with all their baggage and heavy artillery.

With the development of the weight-carrying aeroplane the far-out settlements will be assured of more frequent mails, more easy transport of small quantities of goods of any sort. Upright grand pianos have already been carried by aeroplane, and the development that is daily taking place in both Europe and America make it certain that in the near future the pioneer Dominions will not have to spend vast sums of money making some sort of a road to

every out-lying settlement. The money can be utilised to better purpose in the creation of good roads to save the cost of railways in the more closely settled districts.

Just as the horse waggon and the canal boat outlived their usefulness in Britain, so now the railway all over the world has to adapt itself to altered circumstances. For local traffic it has become obsolete if the community will go to the expense of installing good roads and motor services. It seems to this writer that all roads, vehicular or railed, should be under the control of the same authority. Many railways in Victoria and other places have become worthless, and finally been abandoned and dismantled because the local authorities would not go to the expense of making decent roads from the surrounding districts to the railway stations. This is not a Victorian experience only. It happened in quite a number of localities in the United States, and in Africa before the war.

No matter how excellent the railways may be, they can be fed properly only if the country through which they pass has good roads to connect their stations with the producing areas. Hence it follows that if the Railway Department puts down a railroad through a district, the same department should have power to construct decent roads through that district to feed its railroad.

When the Canadian Pacific Railroad Company built its great transcontinental line the engineers paid the utmost attention to that phase of the matter. Canada is a land where road making is expensive, and where even concrete roads are difficult to construct owing to the ravages of the frost. In the Province of Manitoba more money was spent on the making of the vehicular roads to feed the railway than on the railway itself. But the Company got its reward. Its line *has* promoted settlement. In numerous other places, including Victoria, it has been proved that railways without good roads to feed them do *not* promote settlement.

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THE AUSTRALIAN AERO CLUB

At a general meeting held in the Lecture Hall of the Royal Society of New South Wales, Sydney, on July 15, a letter was read from the Honorary Secretary in Melbourne, stating that a resolution had been passed that the Melbourne Club in future be known as "The Australian Aero Club, Victorian Section," and that the branch recently formed in Sydney will be known as "The Australian Aero Club, New South Wales Section."

All Sections of the club will be governed by a Central Committee, consisting of a General Secretary and two members of each State committee. The following have been appointed office-bearers:—

General Secretary: Mr. Hector Sleeman.

Victorian Members: Major W. J. Sheldon, Commanding the Central Flying School, Point Cook, and Captain F. H. McNamara, V.C.

New South Wales Members: Captain H. Gilles Watson, D.F.C., and Mr. Edward J. Hart.

The Honorary Secretary stated that he would be proceeding (as Managing Editor of *Sea, Land and Air*) to Melbourne for the purpose of interviewing Major-General Legge, C.M.G., C.B., regarding the selection of returned airmen for the proposed Australian Air Force, and that in this connection he would be pleased to receive instructions from the Committee.

On the motion of Mr. S. H. Deamer, seconded by Lieutenant-Colonel P. W. Woods, D.S.O., Mr. Hart was asked to point out the disabilities of those who desired to continue flying; to urge that Wing and Squadron Commanders be consulted with regard to the selection of officers and men for the Australian Air Force; and to consider the commercial aspect of aviation.

The above resolution was conveyed to Major-General Legge on Wednesday, July 23. On Thursday, July 31, a Selection Committee met at Victoria Barracks, Melbourne, to deal with applications for appointment to the Australian Air Service, the undermentioned Wing and Squadron Commanders of the Australian Flying Corps having been invited to form the Selection Committee:—

Lieut.-Col. W. Oswald Watt, O.B.E.

Major W. H. Anderson, D.F.C.

Major A. H. Jones, M.C., D.F.C.

Major R. S. Brown.

Major A. W. L. Ellis, M.C.

Major S. W. Addison.

Major R. C. Phillipps, M.C., D.F.C.

Major W. J. Sheldon.

A general meeting of the Australian Aero Club, New South Wales Section, will be held in the Lecture Hall of the Royal Society of New South Wales, 5 Elizabeth Street, Sydney, on Monday, August 18, at 8 p.m.



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R.A.N. AMELIORATION COMMITTEE

The Naval Board has decided that it is desirable to make permanent arrangements for bringing to notice from time to time matters affecting the well-being of the Petty Officers and men of the Fleet.

For this purpose the Naval Board, at stated times, will call upon the Commodore Commanding H.M.A. Fleet to arrange for the election of representatives from the various branches of the Fleet. H.M.A. Naval Establishments at Sydney will be included with the seagoing ships of the Fleet for the purpose of such election.

The Commanding Officer of H.M.A. Naval Depôt, Williamstown, will be called on to arrange for representatives from H.M.A. Naval Establishments at Melbourne.

The machinery will take the form of a Joint Conference of Officers, Petty Officers, and men—the Officers being selected as a Committee by the Naval Board, the Petty Officers and men being elected as representatives by the various branches.

The Petty Officers' and men's representatives will sit in an advisory capacity, attached to the Committee.

The questions put forward by each class will be considered jointly by representatives of all the classes.

There will be:—

List "A"—Two representatives from each Branch, from ships under the command of the Commodore Commanding H.M.A. Fleet, and from other ships and establishments at Sydney (including *Tingira*. The R.A.N. College at Jervis Bay is to be classed with the above.

List "B"—One representative from each Branch serving in Shore Establishments at Melbourne.

List "A"—H.M.A.S. *Australia, Melbourne, Sydney, Brisbane, Swan, Yarra, Parramatta, Huon, Warrego, Torrens, Platypus* and six Submarines, *Penguin, Encounter, Tingira, Franklin* (R.A.N. College).

List "B"—H.M.A. Naval Depôt, Williamstown (*Cerberus, Protector*).

The branches to be represented will be as follow:—

(a) Chief Petty Officers of Seamen, Signal and Telegraphist branches.

- (b) Petty Officers of Seaman, Signal and Telegraphist branches.
- (c) Leading rates of seaman, Signal and Telegraphist Branches.
- (d) Able Seamen and Ordinary Seamen and corresponding rates of Signal and Telegraphist branches.
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- (h) Shipwright and Carpenter ratings; Electricians; Armourer ratings; Ordnance Artificers; Plumbers and Coopers.
- (i) Writers Victualling ratings; Sick-berth ratings; Officers' Stewards and Cooks.

Subject to the foregoing, the Committee will be authorised to receive and discuss representations as to Service conditions in respect of—

Promotions, accommodation, messing and canteen arrangements, uniform and clothing arrangements, deferred pay, term of engagement, pay and allowances,

and similar matters affecting the general interests of the Service.

The Committee will not be authorised to receive or discuss representations as to:—

Matters of policy—such as the employment or distribution or training of the Fleet;

Matters of discipline; or the general arrangement of duties in the Service;

Individual claims, or individual grievances, of any kind;

Matters affecting individual Ships or Establishments.

The Naval Board further draws special attention to the fact that these Conferences are not to be regarded as providing an alternative channel for the presentation of individual claims or grievances. The object is to give recognised opportunities for the discussion of questions affecting the general interests of the Men, and to bring to the notice of the Board any conditions which, in the opinion of Officers and Men, require, and are capable of improvement.



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An Open Letter to Officers and Men from Sergeant H. T. PARISH.

"Through the far-reaching medium of *Sea, Land and Air* I salute my old mates of No. 1 Pack Wireless Signal Troop and all members of the Wireless Squadron who were on active service in Mesopotamia. No horses to water nowadays, eh men? And no land lines destroyed by enemy Arabs! I hope you are all having happy times after your trying experiences and enjoying perfect health. Some of you, I much regret to hear, are still far from that condition, but I trust you are progressing towards ultimate recovery.

"Many of you no doubt, read the recent announcement in the Sydney daily papers inviting attendance at a dinner to Captain Bagot at the Wentworth Hotel. The announcement was inserted by Corporal Simpson, D.C.M., but did not allow much time for a big rally; this was due to the brevity of Captain Bagot's visit. It will probably be news to many that he is to return shortly to old familiar scenes, this time in a private capacity. He and Captain Hilary propose to open up Australian

trade in Mesopotamia and as they will command a very well capitalised concern the success of their project seems assured. Those who were with him at this little impromptu dinner were given a clear explanation of his new interests. There were, of course, a few toasts, among them, one to Sergeant Johnston, D.C.M., and one to Corporal Simpson, D.C.M. Nor were old comrades forgotten; indeed it was their absence which inspired the suggestion that some endeavour be made to secure mutual intercourse, whereby an occasional rally in force might be effected and a happy social evening spent together.

"The suggestion was very warmly supported and it was proposed that I should try to achieve this re-union. The future benefit, or otherwise, of the association was not considered, but all present evoked a most sincere desire to know something as to the whereabouts of old mates, to establish some closer touch, and thus render possible a meeting whereby something



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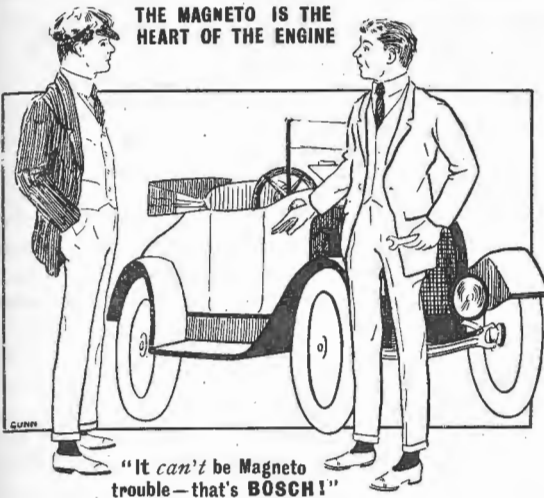
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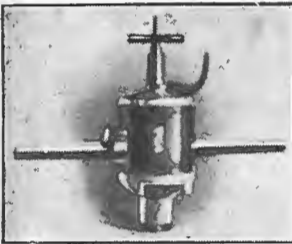
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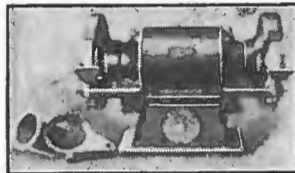
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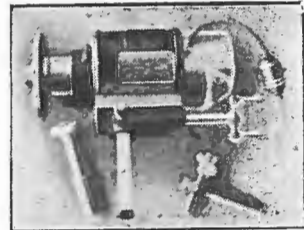
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tangible might be done towards permanently retaining old friendships.

"If all who were on wireless service in Mesopotamia will send me their names, addresses and rank, I will so record them as to enable instant reference to be made to each man. It should be understood that this Fellowship League is prompted solely to foster the social and friendly side. I know that this service has won me friendships which will, I hope, endure for many years; you too, have probably done the same and it seems a pity that, through lack of established means of cohesion, our little squadron should lose its identity. Don't you think so, men? Well, write to me and make any suggestions you think advisable.

"In conclusion, I should like to add a word concerning the generosity of *Sea, Land and Air*, which has thrown open its columns for the purpose of re-uniting ex-members of the Australian Wireless Squadron in Mesopotamia. I am sure that every one of you will appreciate this unsolicited offer just as I do, and I most sincerely hope that it will be the means of keeping a little monthly par. going. You can do this by letter or by telephone; my number is "2271 North." I am always at home in the evening and shall be glad to hear from all of you.

Very cordially yours,

H. T. PARISH (Sgt.)

"Dahwar," Grenwich Road, Greenwich,
N.S.W.

LETTERS TO THE EDITOR

To the Editor *Sea, Land and Air*.

Dear Sir,—Now that peace has been declared, wireless experimenters throughout Australia are anxiously awaiting the removal of restrictions on the use of experimental stations, and it is hinted by those in authority that we experimenters are not in for a very rosy time with the conditions under which licenses are to be issued.

Through your columns I would like to point out to the authorities that by limiting the use of amateur wireless they are not doing that which is best for the country. The time may come when Australia will need every available wireless operator and it is only by encouraging the amateur that we will have the numbers needed.

We should remember that many amateurs rendered great service to their country during the war and many of them have made the supreme sacrifice.

When America entered the war, thousands of amateurs joined the National Radio League, pledging their services either as radio operators or for signal corps duties with the United States Government if, and when, called upon. Of the 400,000 amateurs in the United States there were, of course, thousands whose services were not required; but they were there if wanted, and it is always better to have too many than too few. Moreover, it requires months of practical work to make a proficient operator. Any limitation to the experimental work of the amateur enthusiast will retard both the progress and development of the science of wireless research; for many improvements in wireless apparatus have been due entirely to the work of amateurs. There must, of course, be some control of amateur wireless stations because it would be unwise to allow the indiscriminate use of wireless, thus interfering with the working of Government and commercial stations. I know that before the war this occurred in several instances, but happily these are now very far between and it cannot be believed that a *bona fide* experimenter who had spent many pounds and much valuable time in getting his gear together would permit—if he could prevent it—any such breach of the regulations.

I would suggest that the control of amateur stations be given to the Wireless Institute in each State. The executive bodies of these Institutes would be in a better position to detect breaches of the law in this connection than would the authorities themselves.

In my opinion, if the authorities issued licenses sanctioning the use of wave lengths which would not interfere with shipping and commercial stations, this authority would constitute all the control necessary to meet the requirements.

If Government stations in this State (South Australia) suffered any interruption in pre-war days from amateurs using wave lengths up to 250 metres, then obviously the fault lies in their own receivers; for with my set tuned to 600 metres (the wave length commonly used

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by shipping and commercial stations) or even to 300 metres, I could never hear an amateur station working.

In England in pre-war days, persons applying for experimental licenses were required to have the recommendation of some wireless club or society and this I think would be an excellent plan for the Australian authorities to adopt. If it were done, only those who desired to conduct *bona fide* experiments would be able to apply for licenses.

The Wireless Institute of Australia, with its various State branches, would be well able to control its own members and ensure that no interference with Government and commercial stations occurred. If not unduly restricted this Institute will doubtless soon develop into a great national asset. It will, in time, possess its own laboratories for the use of members and much useful research will be carried on; indeed, I hope to see the Institute become recognised both by amateurs and professionals as *the* authority on all matters connected with wireless.

In conclusion I would add that any harsh restriction imposed upon the wireless amateur must, sooner or later, reflect upon the efficiency of the Commonwealth.

Wishing your journal every success and

thanking you for the support which you are giving to amateurs.

I am, yours faithfully,

CLEMENT E. AMES, Organiser.
The Wireless Institute of Australia, South
Australian Branch, Torrensville, S.A.,
6th July, 1919.

NEW WIRELESS ASSOCIATION

Formed by Belgian Marconi
Operators.

The Secretary of the *Vereeniging Van Radio-Telegrafisten Ter Koopvaardij* (Association of Wireless Telegraphists of the Mercantile Marine) writing from Amsterdam, announces the formation in November last of the new Association.

Its members are operators attached to the Belgian Marconi Company of Brussels. Headquarters are at Amsterdam, West-einde, and the Association has for its objects the furtherance of the interests of its members in co-operation with similar bodies in other countries. The Secretary, Mr. T. A. van der Vlies, states that the Association is fully recognised as being representative of the operating staff.

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