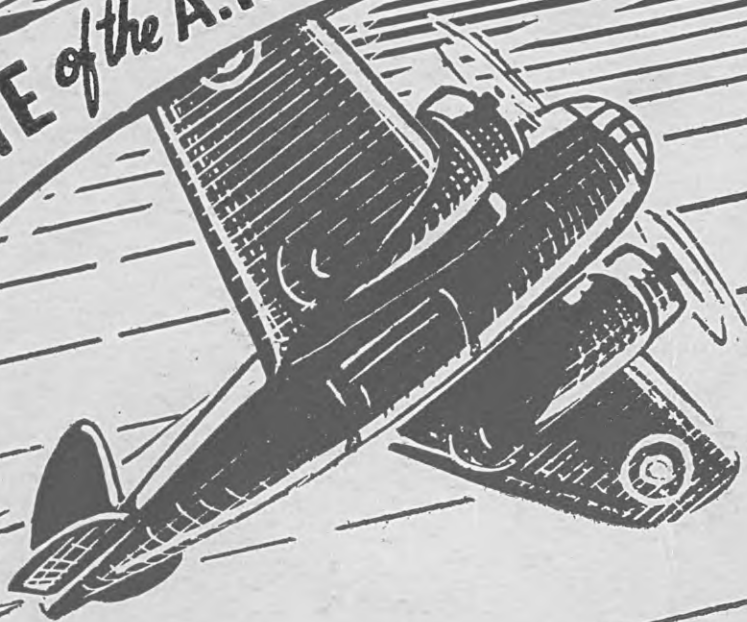


The Observer

MAGAZINE of the A.T.C. CADETS CH. CH. WING



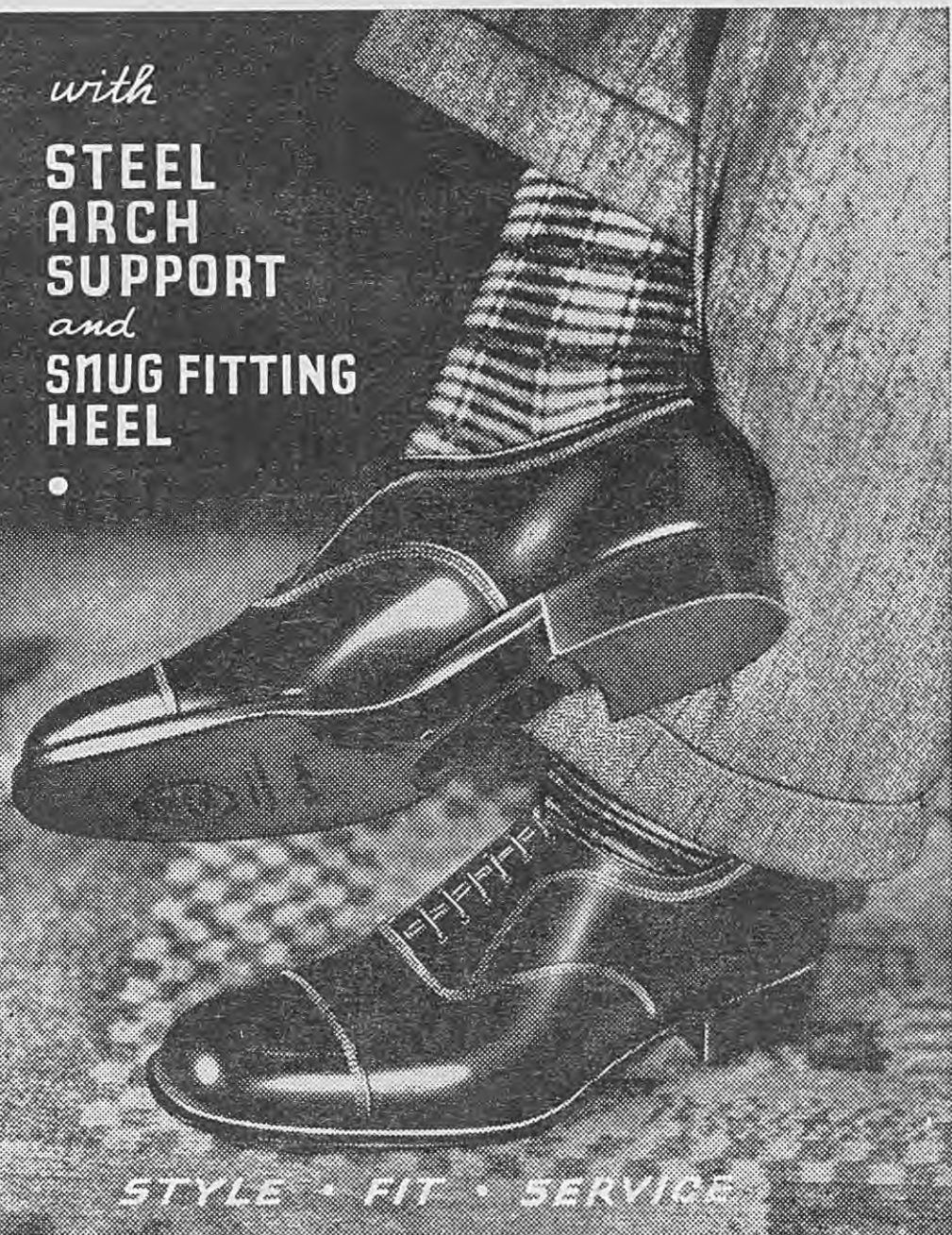
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Dedicated to the memory of those New Zealand Airmen
who have given their lives in the execution of their duty.

"ONWARD"

Over the last year enemy propaganda agents have told us of the glories of the Victory that is sure to be theirs and of the everlasting peace and unity that they will bring to the world. Yes—perhaps they would restore unity to the world. We would be "united" with fetters of sorrow, hardship, fear, treachery and deceit. Our unity being forced on us by the sword. Who can imagine "everlasting peace" from the Nazis or their murderous accomplices: those who have made all this mess by plundering the homes and towns of a free and real peace loving people: who

have assassinated the women and young, helpless children; who have destroyed what those people spent a lifetime in building. Things are not going to work out their way if our Air Force is going to play the part that we are certain it will. Work with the aim that the R.N.Z.A.F. will take you in preference to others because you have had the training which will be of vital usefulness to them. And, remember that you are part of this 'giant scheme to darken German skies with Empire Airmen.'

SHORT STORY COMPETITION

The closing date for entries in the 'Short Story Competition' has been extended for one month in order to enable us to receive more material from entrants. Copies of the last issue have been received by personnel that have left our ranks and who are now in the R.N.Z.A.F. and great enthusiasm and interest in the Competition has been shown by them.

Remember 15/- is waiting for the

winning Story and 7/6 for the runner up.

Post your entries not later than 30th April with the enclosed Coupon Addressed to:—

The EDITOR,
"OBSERVER",

R.N.Z.A.F. City Headquarters,
Cnr. High & Lichfield Streets,
CHRISTCHURCH.

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THE ROYAL NEW ZEALAND AIR FORCE

(continued from last month)

Training of pilots was first undertaken in New Zealand by the New Zealand Flying School, Kohimarama (Walsh Bros.) and later by the Canterbury Aviation Company, Sockburn. At these two schools nearly 300 New Zealanders received training up to the standard of the Royal Aero Club Certificate, and many of them proceeded overseas for further training and service with the Royal Flying Corps. and Royal Naval Air Service and later with the Royal Air Force.

Several of the early trainees at the N.Z. Flying School saw considerable air service and won honours for gallantry, viz:—

K. L. Caldwell, M.C., D.F.C. (and bar).

M. C. McGregor, D.F.C. (and bar).

H. W. Collier, M.C.

W. W. Cook, M.C.

H. F. Drewitt, M.C., A.F.C.

R. B. Bannaman, D.F.C. (and bar).

R. Russell, D.F.C.

F. S. Gordon, D.F.C.

F. de M. Hyde, A.F.C.

After the war the New Zealand Government approached the Air Ministry with a view to obtaining the services of an officer to advise on the establishment of an Air Force in the Dominion, and Colonel A. V. Bettington, D.S.O., R.A.F., was selected for this work. He brought with him four aircraft and two R.A.F. mechanics. The Air Adviser's Staff was augmented by the attachment of three New Zealand Officers who had served in the air during the war: Major de Bath Brandon, D.S.O., M.C., Lieutenant Shand, and Captain Don, the last mentioned being placed in charge of the aircraft, which were located in the Canterbury Aviation Company's aerodrome at Sockburn, where the Government had erected two hangars, each 80 feet X 60 feet.

The Air Force Adviser presented a report to the Government, but it was deemed too ambitious and no action was taken on it.

In 1920 the British Government found itself with a large surplus of aircraft and incidental equipment, and in order to assist and encourage the formation of Air Forces in the Dominions, it offered free gifts of 100 machines to each.

The New Zealand Government finally accepted a gift of 33 machines:

20 Avro 504K (Training Type)

9 D.H. 9's (Bombers)

2 Bristol Fighters

2 D.H. 4's Reconnaissance and Bombers

} Aircraft which accompanied the
Air Force Adviser.

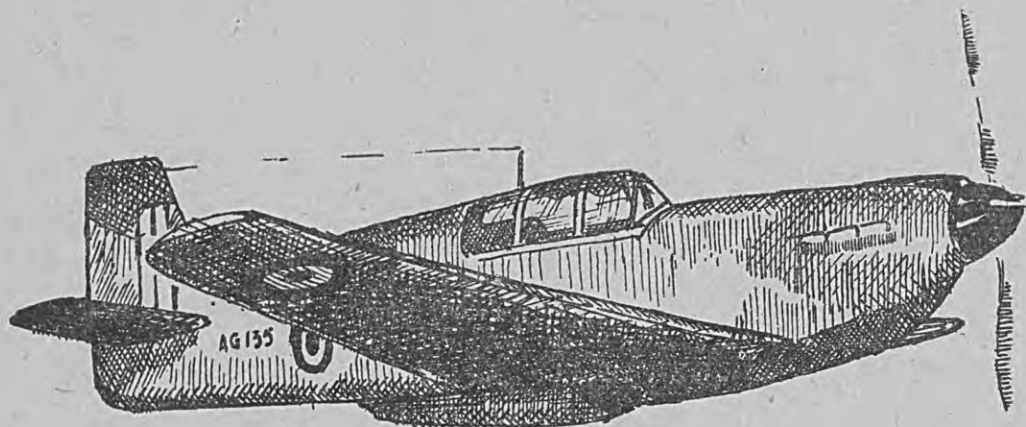
An Air Board had been formed in 1920 to advise the Government on Air Policy (it had no executive powers), and when the "gift aircraft" arrived, there being no place to store them, they were loaned to the two civilian flying training schools.

In 1923 it was decided to form a Reserve of Air Force Officers and to give them annual refresher courses.

Pilots who had seen service overseas were accordingly enrolled, and it was arranged for training to be carried out by the New Zealand Flying School, Kohimarama, and by the Canterbury Aviation Company. Ten officers were put through the course on seaplanes at Kohimarama and 24 on landplanes at Sockburn.

Ever since 1916, the Hon. Henry Wigram (later knighted) had been advocating that something should be done to provide for Air Defence. On 16th May, 1916, he moved and carried a resolution in the Legislative Council "That

in view of the rapid development of the science of aerial navigation which has taken place in recent years, this Council suggests that the Government should establish a school or schools in preparation for an Aviation Corps. for purposes of National Defence." (Hansard, Vol. 175, Page 213.) Sir Henry Wigram may rightly be regarded as the Patron Saint of Aviation—and particularly service Aviation—in New Zealand.



(Drawing by W/O Mannering.)

THE NORTH AMERICAN MUSTANG

One of America's newest, the Mustang is a slim low-wing monoplane with square-cut wings which are uncomfortably like those of the ME 109E from the spotter's point of view. Construction is entirely of metal with stressed metal covering. the undercarriage retracts into "Mae West" cowls under the centre section in the same manner as that of the Havard. The tail wheel is fully retractable.

The Mustang is powered with a 1,150 h.p. Allison E-1710-F3R liquid-cooled motor, which is neatly cowed into the nose. It drives a constant-speed airscrew. The long ducted radiator is beneath the fuselage behind the pilot's cockpit, two fuel tanks with a total capacity of 142 imperial gallons are built into the wings structure. The top speed is around 400 m.p.h.

He backed his untiring and enthusiastic work for the advancement of an Air Force in a practical manner. In 1923 he offered the Government a donation of £10,000 towards the cost of purchase of the Canterbury Aviation Company's aerodrome at Sockburn. This offer was accepted, and the property and plant taken over by the Government in June of that year. Later Sir Henry made a further gift of £2,500 to be utilised to purchase a modern service fighting machine—the first "Grebe". Finally, Sir Henry purchased Plumpton Park Trotting Course which adjoined the Defence Aerodrome (now known as Wigram Aerodrome) and handed it over to the Government for inclusion in the landing ground.

He was willing to pay out handsomely to place New Zealand in the position he was convinced she ought to occupy in the realm of national defence.

With the purchase of Wigram Aerodrome, things moved, and the formation of the New Zealand Permanent Air Force, to be part of the Permanent Military Forces, with Headquarters at Wellington, and the New Zealand Air Force, to be part of the Territorial Forces, was gazetted on 14th June, 1923.

A nucleus staff was enlisted and placed at Wigram Aerodrome and immediately commenced the assembly and overhaul of aircraft in preparation

for the annual training camps of the Territorial Air Force, which were to last for 10 days each.

Among those who attended the first Air Force course were Lieutenants G. Hood and J. R. Moncrieff, who were lost in 1928 when attempting the first Trans-Tasman flight. Others who attended and who to-day are still actively employed in aviation in the Dominion are Commander G. B. Bolt, Cook Straight Airways; Flight Lieutenant W. F. Parke, Instructor, West Coast United Aero Club; Squadron Leader S. Wallingford, R.N.Z.A.F.; Captain J. C. Mercer, Air Travel (N.Z.) Ltd.; Flight Lieutenant I. E. Rawnelsy, Instructor, Wellington Aero Club; Squadron Leader T. W. White, East Coast Airways; Flying Officer I. Keith, Instructor, Western Federated Aero Club.

It appears appropriate at this stage to mention the enthusiastic and valuable help rendered over a period of years by squads of cadets from the Technical College, Christchurch, during training courses. It is also fitting to chronicle that several of those lads are now very efficient N.C.O.'s in the Royal New Zealand Air Force.

(to be concluded)

* * * * *

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CAREERS IN AIR FORCE

An article recently printed in the Christchurch "Press" and re-printed in the "Observer" with their permission.

Cadets of the Air Training Corps were commended for their efficiency, discipline, and bearing by the Chief of the Air Staff (Air Commodore R. E. Goddard) at his first official inspection of squadrons of the Wellington wing on Saturday. Air Commodore Goddard was accompanied by Air Commodore J. L. Findlay, commanding the central group, Royal New Zealand Air Force, and Wing Commander G. A. Nicholls, commandant of the Air Training Corps. The band of the Royal New Zealand Air Force took part in an impressive parade.

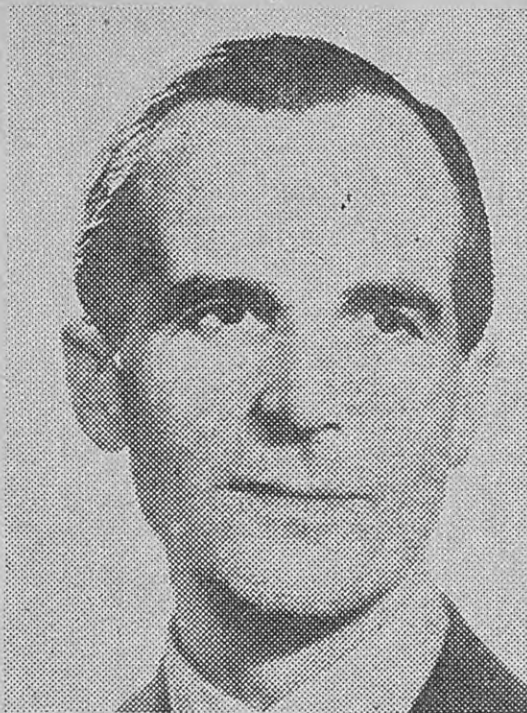
About 500 officers and cadets were on parade, and at the conclusion of his inspection Air Commodore Goddard addressed the cadets, expressing his appreciation of the effort they were making. "Boys and men who turn out in their spare time for the good of the cause and for the interest they have in it, do themselves good and do the whole country good," he said.

Referring to the entry of cadets into the Royal New Zealand Air Force, Air Commodore Goddard said that at present boys were joining at the age of 18. "It may be that the regulations will be altered and that young men will not be under any military obligation until later—but you will still be able to join the Air Force if you wish, and if your parents consent. You will have the choice between continuing training for a civilian trade or profession, and possibly earning more money, or joining the Air Force. I think you should remember there are real advantages in joining the service, which may be more valuable to you than anything else. "The flying service helps you to gain two of the most important assets for a happy life—character and comradeship. In the Air Force you will develop self respect, self reliance, and self control. Those qualities will be good for the rest of your lives. I would ask you and your parents to

bear this in mind when the time comes to choose."

Describing the success of cadets who had entered the Royal New Zealand Air Force, Air Commodore Goddard said: "I believe we have had no rejections of Air Training Corps cadets at the initial training wing stage, and I am confident that we shall get an excellent flying standard.

"It is probable that the strength of the Air Force will have to be kept up for a long time. Even if the war ends before some of you younger cadets are engaged in war flying, there will still be plenty of scope for you. The work of establishing peace and good order in the world will be done, I feel sure under the protective wings of air power, and I hope," concluded Air Commodore Goddard, "that many of you will in the meantime, have become good airmen serving New Zealand in the Royal New Zealand Air Force."



(by Courtesy "Star-Sun")

Air Commodore R. E. Goddard
(Now Air Vice Marshal)

MERCI BEAUCOUP BEAUCOUP!!

Our sincerest thanks to those of the populace who have helped us with the magazine by their generous donations to our funds. As stated previously, those people in true modesty wish to remain anonymous but to them must go our sincerest appreciation for their admirable intentions.

A.T.C. IS NOW WORLD WIDE.

Following Britain's lead, air training organisations are now firmly established in several Dominions, and many thousands of young Australians, Canadians, New Zealanders, West Indians and Rhodesians are hard at work training to enter their own air forces or the R.A.F.

The U.S.A., too, has recently started the A.T.C. of America.

ASHBURTON NOTES.

It is with great regret that we have to state that the Ashburton Notes for this issue were not to hand by Press time but we will be on deck with your jottings again next month.

Don't fail to get your Copy.

The first of the series of articles dealing with aviation during the last war, written by our Ashburton Correspondent will appear in our next issue.

The "OBSERVER"

Published Monthly

Price SIXPENCE

PROGRESS

Specially written for the "Observer" by Flying Officer H. Matson.

WIGRAM: February 1926....just enough height to clear the trees? She seventeen years ago. The time is 0630 just sneaks over the top and, is away hours and a handful of men are pre- into the blue. A sigh of relief and the paring the planes for a day's flying. leading Avro taxis into position.

On the tarmac the machines are lined up; two Training Avros and two converted Bristol Fighters...obsolete machines even at that time but still serviceable and the pride of the station. Alongside the hangar is the Aerodrome tender, an ancient—very ancient—car of probably 1914 vintage.

There is a refresher course on and the station is a hive of industry. The dozen or so pilots taking the course are waiting to fly and the Commanding Officer, Captain Isitt and the Chief Flying Instructor, Captain Findlay are on the tarmac.

"Contact"!!! A swing of the propeller and the engine of the Bristol springs to life. The chocks are removed and the old crate taxis into position for the take off.

She's away....a dozen pairs of eyes anxiously watching her lumbering across the flying field. Will she gain

These were busy days at Wigram. A handful of 'planes; a staff of not much more than a score; equipment mainly "leftovers" from the World War but each man keen, alert and on the job. This then was the foundation of the station that we know so well to-day as one of the foremost R. N. Z. A. F. Stations.

It is almost impossible for us to visualise the advances that will take place in aviation during the next seventeen years but there is no doubt that like the automobile, the aeroplane will in future become part of transport system. Even when hostilities have ceased and progress turns from war to peace, there must be a demand for trained aviation personnel and the youths fortunate enough to get this training will surely reap the advantages in the future.

CHEERS, CHEERS FOR OUR A.T.C.

We have the writer's permission to publish this song and we take this opportunity of telling you that we want you all to learn it that it may be sung wherever the A.T.C. may meet together in sport or in social gather-

ing. We want it to be sung to strike a note of fellowship and friendliness.

Words by

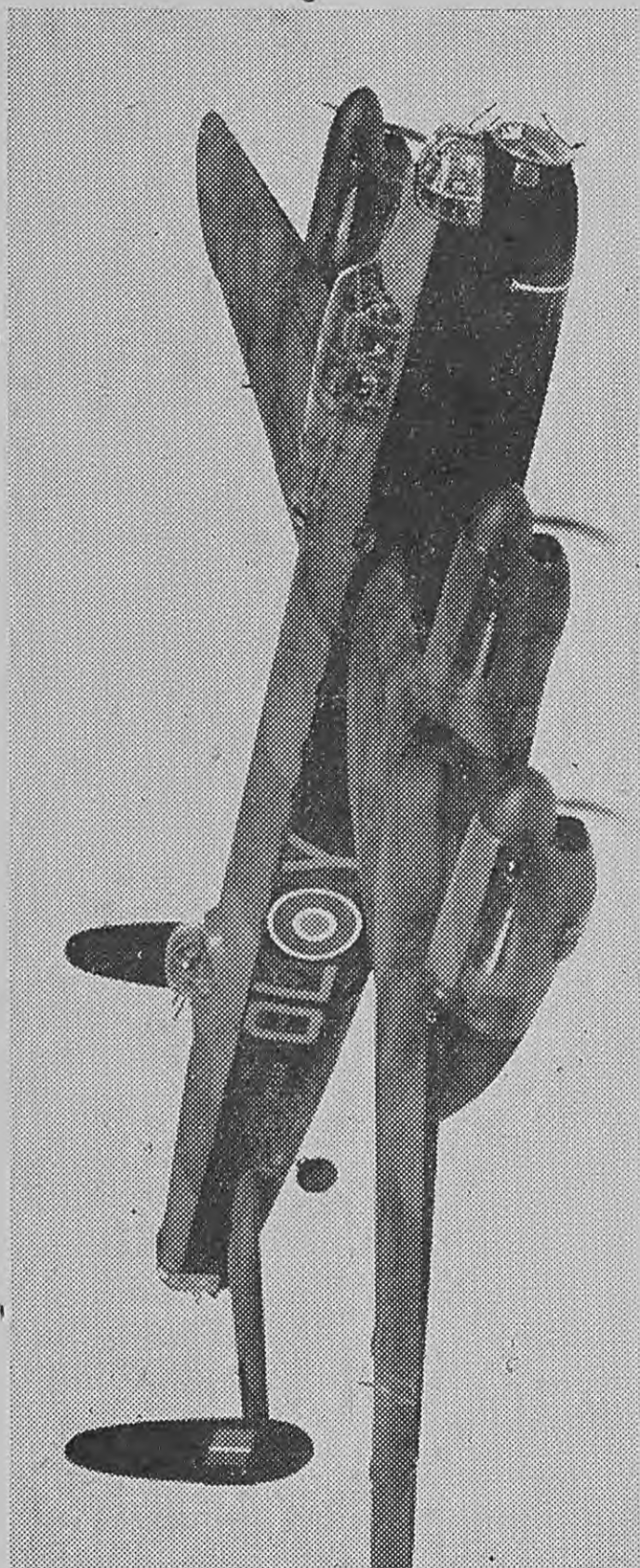
Sgt. John Athell Henderson B6
(with apologies to the Notre Dame College.)

In our town we have a Corps,
There's no place for shirker or bore
Where some learn to nav. and fly
They'll be pilots by and by
Into the sky they'll soar.

Then there's ground crew lads as well
And with knowledge their heads do
swell
Where do they swat from seven till
nine?
Where are the airmen true and fine?
In the Air Training Corps.

So we'll sing:

Cheers, Cheers for our A.T.C.,
This is the Corps. for you and me
Raise your loyal cheer on high
Shake down the thunder from the sky
What though the odds be great or small
Our A.T.C. will win over all
While her Royal Wings are flying
Onward to Victory.



(by Courtesy "Star-Sun")

BRITAINS NEW HEAVY BOMBER AVRO LANCASTER

First mention of the four-engined Avro-Lancaster I heavy bomber was made during October, 1941, when, from Canadian sources, it was learned that the Lancaster was being manufactured at three Canadian factories. The first official mention was on the 17th of April, when 12 Lancasters on their daylight raid on the M. A. N. diesel works at Augsburg. The Lan-

caster can carry the 4000-pound bombs which were first reported in service with the Royal Air Force on the 8th of July. The defensive armament is powerful and the rear turret is the Nash and Thompson type. The engines are Rolls-Royce Merlins. Dimensions are: length 69 feet 6 in.; span 102 feet; height on ground, 19 feet 7 inches. On July 11th, it will

be recalled that squadrons of Lancasters raided the port of Danzig, on the Baltic coast, where they bombed U-boat yards and slipways. Over an all-round trip of 1,750 miles, three machines were lost. With a speed of about 300 m.p.h. the Lancaster has gained the reputation of being a fast and hard hitting heavy bomber.

V. C.

In the next few issues of the "Observer" we are bringing you a series of articles dealing with V.C.'s which have been awarded in this war. These articles are being reproduced from a small magazine printed in England on 30th April 1942 and which has just been received in this country. No attempt has been made to condense or "butcher" in any way these amazing stories of gallantry and daring.

But first, a word about the V.C. itself: It is the most signal honour that

any sailor, soldier or airman, officer or man of the British Empire can win. This bronze cross, bearing the Lion of England over the Crown and the words "For Valour", takes precedence of all British orders and decorations. Instituted by Queen Victoria in 1856, only one thousand one hundred and one Victoria Crosses were awarded between that date and 1920. Many of these awards were posthumous.

Captain B. A. W. Warburton-Lee,

H.M.S. "Hardy", Narvik,

10th April, 1940.

Captain B.A.W. Warburton-Lee was posthumously awarded the V.C. for his gallantry, enterprise and daring in the first battle of Narvik. This was the first Victoria Cross to be awarded in this war. Knowing Narvik to be strongly held, Captain Warburton-Lee attacked on his own initiative, leading a force of five destroyers up Ofot fjord in heavy snowstorms. Attacking at day-break he took the enemy completely by surprise, and made three successful attacks on warships and merchantmen in the harbour. On the flotilla withdrawing, five German destroyers of superior gun-power were encountered and engaged. A shell hit the bridge of H.M.S. "Hardy", mortally wounding Captain Warburton-Lee. His last signal was "continue to engage enemy." Captain Warburton-Lee was born in 1895 at Whitchurch, Salop.

Flying Officer D. E. Garland, Royal

Air Force, and Sergeant T. Grey,

Royal Air Force, Albert Canal,

12th May, 1940.

Flying Officer Garland was the pilot and Sergeant T. Grey was the observer of the leading aircraft of a formation of five ordered to destroy a bridge over the Albert Canal at all costs. This Bridge, near Fort Eben-Emael, was the only one left to the Germans. Over it, they were pouring troops and supplies. It was strongly defended by machine-guns, anti-aircraft fire and fighters. The whole squadron volunteered for the operation, five crews being selected by drawing lots. The attack was made from the lowest possible level, driving through very heavy anti-aircraft fire. British fighters reported that the target was obscured by bomb-bursts. Only one of the five aircraft returned from the attack. The success of the operation was due to the coolness and resource of Flying Officer Garland and Sergeant Grey in the leading aircraft. They did not return. Flying Officer Garland was born in 1918, at Ballinacor, Wicklow, Eire, and Sergeant Grey in 1914 at Devizes, Wiltshire.



(by Courtesy "Star-Sun")

FAST LIGHT RECONNAISSANCE DE HAVILLAND MOSQUITO BOMBER.

This machine is of wooden construction and is powered by two Rolls-Royce liquid-cooled, twelve cylinder "V" type engines equipped with De Havilland three-bladed airscrews. Although performance figures may not yet be mentioned, it goes without saying that they are extremely good. Undercarriage and tail wheel are retractable but the latter is not completely enclosed.

It is a particularly clean aircraft with a beautifully streamlined fuselage on which the cockpit cover, while obviously providing good visibility blends very smoothly into the upper surface. Another interesting feature is the way in which the engine nacelles are underslung so that their upper surfaces merge into the upper

surface of the wings, an arrangement which affords very low drag as the airflow over the top of the wings suffers a minimum disturbance by the power units.

The Mosquito was first officially mentioned when four of them made a daylight raid on the Nazi Headquarters at Oslo. Since then the type has increasingly figured in successful raids on enemy objectives across the channel.

The Mosquito is the first operational type to be developed by De Havilland since the last war and its simple construction lends itself to widely dispersed manufacture.

Offensive armament may consist of four twenty Millimeter cannon and four .303 machine guns.

THE R.A.F. FIGHTS BY NIGHT

from NEPTUNE.

Equipped with the most modern secret devices, Royal Air Force night fighters take the initiative against enemy raiders.

In no branch of Britain's Air Force has there been such progress and such increasing success as in night fighting.

By the end of 1940, one thing was clear to all the world—that the modest and youthful Royal Air Force could repel by day the mighty German Luftwaffe (at that time undoubtedly the largest and most powerful air force in the world) and inflict shattering

losses in the process. They smashed Germany's chances of gaining general and local command of the air so effectively that the "decisive" invasion of the British Isles became an impossibility. When night bombing by Germany began in late 1940, the Royal Air Force pushed ahead faster than ever with new plans for fighting the enemy by night.



(by Courtesy "Star-Sun")

Another fall to the R.A.F.—an ME 109 bites the dust.

At first single-engined fighter planes were used, but early in 1941 new types were used, and new equipment began to make its weight felt.

The remarkable system of Radio-location, which enables the R.A.F. to detect the presence of enemy machines was introduced, and new planes began to be used, specially designed for attack on enemy machines in the dark.

The two best-known makes of machine used by the R.A.F. as night fighters are the Bristol "Beaufighters" and the Boulton and Paul "Defiant."

To-day the R.A.F. has built up a mighty force of night fighters, capable of inflicting devastating losses on any force the Germans may choose to send against Britain.

MULTIPLE CANNON

(from NEPTUNE)

How the Royal Air Force is using "Hurricane" fighters mounting 4 cannon guns.

It is not easy for those unacquainted with the facts to understand why the Royal Air Force, using the astonishing "Hurricane" single-engine fighters mounted with four cannon guns, should spend so much time shooting at enemy shipping. Why bother about small ships when Germany's main power is on the land? Can four small cannon guns sink a ship?

The answer to these questions can be clearly given. Germany's railway system has failed: the strain on it has been too great. When Hitler developed the famous "Autobahnen" he neglected the railways. To-day, with the petrol shortage, these magnificent roads are deserted and the neglected railways have broken down under the strain. The German High Command is compelled to muster every available cargo-boat and carry war equipment

to occupied Norway, Finland, Denmark, Holland, Belgium and France by sea in order to take the strain off the railways, which are used primarily by the German Army.

Readers unacquainted with shipping may not realize that one 3,000 ton cargo boat can carry the same load as six average goods trains, and can do so far more economically.

The destruction of the enemy's convoys by cannon-firing "Hurricanes" is therefore easy to understand, particularly when it is realized that the R.A.F. possesses many squadrons of these machines, that each of the four cannon fires 20 mm. shells and that in a dive at 400 m.p.h. upon an enemy ship one hundred small high-explosive shells can enter the enemy ship's hull below the water line in two and a half seconds!

HERE AND THERE

(Pages dedicated monthly to Tit-bits that will be of general interest.)

TROOPING THE COLOUR.

A most spectacular and musical ceremony was held at Lancaster Park on 26th and 27th February. This Wing played no small part in the ceremony as nearly all the Wing was present and the armed escort was drawn entirely from our own ranks.

EVEN THEN.

In Britain, in late 1939 the first troop of "Air Scouts" was formed in the Suffolk village of Kendington. The scouts wore the ordinary uniform except that their neckchiefs were of Air Force Blue. The lads were given instruction in Aerodrome duties by regular Air Force instructors and were then tested by Officers. They relieved R.A.F. personnel whose services were needed elsewhere.

UNCLE SAM'S COSTAL RECONNAISSANCE.

America's Flying Navy is on twenty four hour sea duty on the Atlantic, and for one purpose—to keep the sea lanes open. Day and night Uncle Sam's Catalinas are roaring away from their secret bases manned by two Officer Pilots, one Enlisted Pilot, two enlisted Engineers, two radio men and three gunners.

Flights average as much as twelve hours each and it's grim, nerveracking business for all concerned, with none of the glamour that is the lot of the boys of the R.A.F., but the Goods and Tools of war are getting through the U-boat blockade—and for the lads of the Atlantic patrol, that's all that counts.

TILTED TAILS.

Tailplanes with a dihedral angle are becoming more and more common. The Bristol Beaufighter is one of the latest types to succumb to the new fashion, and it is reported that all existing "Beaux" are to be modified.

It would not be at all surprising if certain other familiar types developed "tilted" tails, for it has been discovered that the tendency to swing during the take-off run (which varies considerably in degree with different types) is materially reduced by this simple expedient.

ITALY JUMPS.

The Facist Youth Organization of Italy, (Gioventu Italiana del Littoria G.I.L.) which enlists members up to 20 years of age is now organising special camps and courses for the training of parachutists. Upon completion of a course, members of the organisation are awarded an official badge and are to form the future reserve cadres for Italian paratroops.

GERMAN CURIOSITY

The Berliner Illustrierte Zeitung, a leading German periodical, devotes two full pages to pictures of crashed or captured remnants of British and American Aircraft. The Germans are apparently delirious with joy over finally having obtained a Spitfire undercarriage, an American hollow airscrew and a Wellington. Pictures are shown of experts busy on methodical examinations with magnifying glasses special cameras, etc.

The rear gunner's turret of a Wellington is a special attraction, and it is said, with glee, that "It will be of special interest to the Luftwaffe engineers." And this after three years of war!

ACCORDING TO SCHEDULE.

Describing the activities of Luftwaffe fighters in Russia, a German broadcast gives the following picture of a fighter pilot in action:

"He takes off approximately within one minute after the alert. Three belts have to be engaged—parachute belt, dinghy belt and safety belt. The fighter pilot uses a throat microphone with two membranes. A thin wire leads to the earphones, plugged in by one of the ground crew in advance. A turn of a lever cleans the firearms, another lever cleans the reflex sight in readiness for action and a set of luminous thread crosshairs appears. At a height of 8,200 or 9,000 feet, the pilot puts on his oxygen mask. As soon as the pilot contacts the enemy, he depresses a small lever on top of the control column and the machine guns are thus cocked. The whole aircraft has to be aimed at the objective, and all machine guns fire simultaneously."

SHOW A LEG.

Goodness knows what the veterans with Great War No. 1 ribbons think about it, but in an R.A.F. training station in the north of England the aircrew cadets are not awakened at the crack of dawn by the traditional notes of a bugle sounding Reveille; they are entreated to "show a leg" by the voice of the camp's radio announcer.

This particular station is extremely up to date in its radio-consciousness, for it has its own internal broadcasting system which gives forth three daily broadcasts containing instruction, entertainment and news, and ranging from talks on aircraft recognition to sessions by the station's own dance band and "domestic" news items—the dance band is a great favourite—needless to say!

The novelty of the system has been found greatly to stimulate interest in the corporate life of the station and in R.A.F. matters generally.

(continued on Page 20)

ROMANCE OF ROLLS-ROYCE AERO ENGINES

(by W/O Bannister.)

Someone once asked Lawrence of Arabia what he would most desire that could be bought with money but was neither beyond his dreams or his pocket. "I should like" he said, "to have a Rolls Royce with enough tyres and petrol to last me all my life."

Now, there you have the practical epitome of the ambition of one who was a romantist and an adventurer. He asked for a germ of engineering genius which was born of a marriage, of romance and adventure. He asked for more than a name, more than a tradition, more than achievement—a trinity of the three.

Now this firm, which builds engines that have made motoring history, written Britain's name in the spume of the sea, traced world speed records in the air above the waters of the Solent while the inventor lay on his back on a haystack at West Wittering, an old and bearded man with a clock-work mind, and watched them—this firm whose engines in the war powered almost every British fighter and bomber worth its salt, is turning out today an engine comparable to none in the world—superior to all.

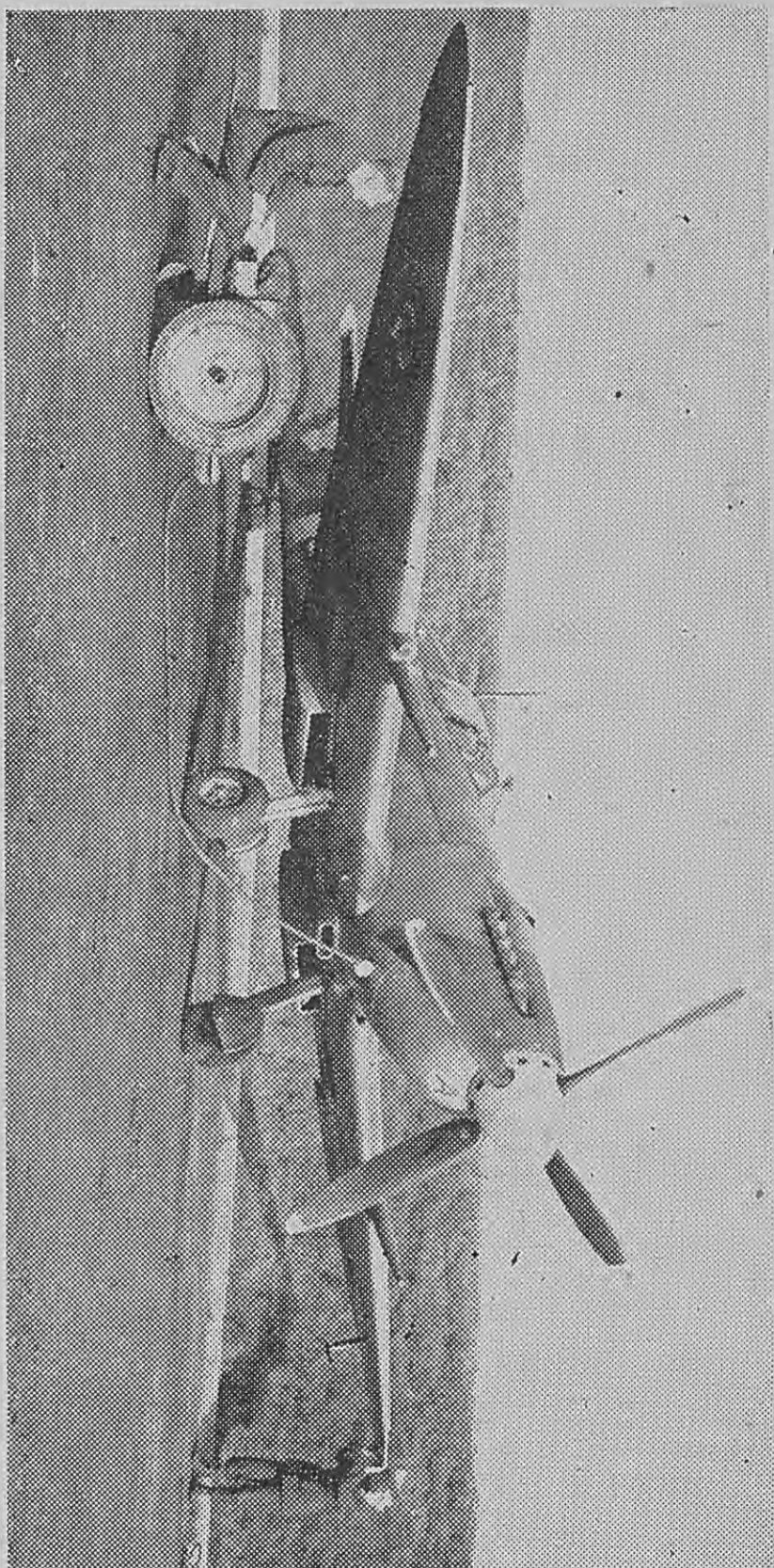
If you ask the men behind this firm the principles on which they designed that engine they will tell you that, like a successful marriage, it is the result of development and not of constant experiment with new designs.

It is, in fine, the product of no great inspirational genius, but that of transcendent quality of hard work, which as Carlyle once said, is the quality of genius. There is no need to go into the sombrely painstaking hard work which went on for the next 20 years. Henry Royce, true to his belief that progress is the child of development and not of constant exper-

iment with new designs, worked and improved. Nothing was ever quite good enough. He found fault. He was a martinet. He demanded always something better. He worked himself almost to death. He had to be forceably fed at his office desk. The Great War came. Early in 1914, Henry Royce who had cut his own salary to bare living expenses, was working on his first aero engine. He foresaw the future in the air. In October, 1915, the first Eagle engine roared out on the test bench at Derby. He had expected 200 h.p. He got 255 h.p., 55 h.p. more than he had calculated on.

Five months later the same engine was developing 266 h.p. Nine months later the same engine was giving off 322 h.p. Finally, it went up to 360 h.p. And all this, mark you, without any drastic alteration in design. As I remarked of this marriage, there was no constant experiment with new designs and unlike the modern marriage, there were no expensive broken models left lying around.

Royce was ill, overworked, constantly attended by a nurse. But during those war years he saw 70 per cent. of the British airships in commission fly on Rolls Royce aero engines. British fighters outfought and outclimbed the aces of Germany, that deathless squadron that fought under the Red Baron. Today, the Hawker Hurricane flies at more than 400 miles an hour on Rolls Royce engines. Today this Rolls Royce engine is having the same outstanding successes against Nazis as they did in the Great War. Other aeroplanes whose speeds cannot be disclosed, whose true velocity no official figure has ever revealed fly on Rolls Royces.



THE SPITFIRE MARK IX.

(by Courtesy "Star-Sun")

The latest Spitfire is now on active service. This is the MK IX, differing in several small details from previous models. It has a four-bladed airscrew and two radiators under the wing-roots.

Power is supplied by the Rolls-Royce Merlin 61 engine and armament consists of two cannon and four machine guns. The nose is slightly longer than that of previous models and the taper of the wings differ also.

TRAMP No. 9

by KAM.

"Sorry, gentlemen, but you will have to find another carriage, this one is reserved for the Boy Scouts." Thus spake the guard at the Christchurch Station as he cleared the way for twenty-nine A.T.C. cadets and nineteen Rover Scouts on the first leg of their journey into the never-never. Twenty rowdy minutes in the train and we emerged from the hole in the hill at the Port of Lyttelton. "By cripes! Tomorrow!" ejaculated one as we left the tunnel's stygian gloom for the bright light of a perfect day.

Across the railway tracks to the wharf where the A.T.C. Special tugged restlessly at her moorings. Contact! and the whirligig at the back commenced its task of shoving our craft through the waters for one and a half hours on our trip down the harbour to Port Levy. The sea was a bit lumpy at the Heads but all refrained manfully from doing anything disgusting. 1640 hours, and we were inspecting our bivvy, which was a large loft inhabited by large rodents who were apparently firm believers in the "apple a day" maxim.

It would take too long to describe our overnight stay in these most delightful surroundings; the weird me-

nus prepared by amateur cooks, a midnight sonata on the loft piano; periodical organized rat hunts through the not so still night, and the steady tramp of marching feet on the stair at 0430 hours when the gentle rain from heaven fell to the discomfort of those with hirsute chests who were trying to sleep under the stars.

By the time we had disposed of breakfast on Sunday, the rain had ceased and all save a few spindle shanked, loathsome creatures proceeded to pad the hoof to Diamond Harbour. The aforementioned creatures invited themselves to a ride to the top of the hill in a Heme Guard truck. May their bootlaces rot and their hobnails fall out. Breaking all existing records for this particular walk we arrived at our destination in plenty of time for a sasaparilla or two before settling to the serious business of lunch.

The afternoon was spent in swimming, exploring the foot of the cliffs and dozing in the sunshine. The launch took us back to Lyttelton, the train to Christchurch, our bikes to home and ourselves to bed.

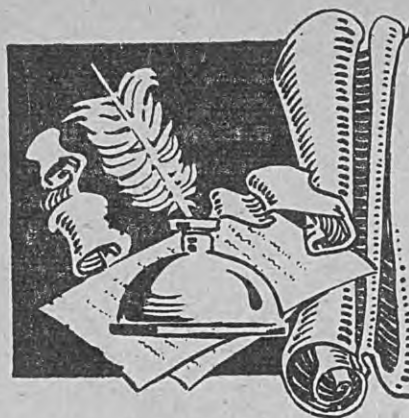
Thus ended A.T.C. Tramp No. 9.

18th CENTURY PROPHECY.

The time will come when thou shalt
lift thine eyes
To watch a long drawn battle in the
skys
While aged peasants, too amazed for
words
Stare at the flying fleets of wondrous
birds.
England, so long the mistress of the
sea,
Where wind and rain confess her
sovereignty.
Her ancient triumphs yet on high
shalt bear,
And reign, the sovereign of the air.

(translated from 'Luna Habitabilis',
Cambridge, 1737.)

Submitted to the Editorial Committee
by Cadet N. Harper.



LETTERS *to the* EDITOR

This column is being reserved solely for members of the Wing who are now doing a "job of work" in the R.N.Z.A.F. Don't forget to let us know what is happening to you as you pass on to the Senior Branch of the Service.

A letter has been received from our old friend and former Editor—F/Sgt. Loach. It's grand to know you're alive and kicking Max and thanks for the news.

"Jim McCormack is our P.T.I. He has his badge and his promotion to Corporal from L.A.C. Corporal Rothwell arrived today"—and many other passages concerning members of the Christchurch Wing who have gone from us to the Air Force. Give our kind regards to these members and tell them to write to us and let us

know what's cookin' with them.

AC2 Beckworth is stationed near Christchurch now. It is really grand seeing him again. News has reached us re our old associate W/O Garland now a shining A.C. plonk. He is stationed in the South Island and is apparently thoroughly enjoying the Air Force life.

Many thanks to all those others of you who have told us of your mode of life at present and for the kind and encouraging remarks re the Observer.

TIMARU CALLING

Early in the present month A.T.C. held a social evening in the Bay Hall which proved a great success, thanks to the aid given us by Pilot Officer Calder and Miss Jacobs. Novelty events were won by Max Moodie and Mrs. Craig, also Jim Fitzgerald and Miss Gillon.

Unfortunately we have lost Pilot Officer Craig, who is going to Dunedin to study for a Doctor. On behalf of the Officers and Cadets of the Unit, Flight Lieutenant Thompson presented Pilot Officer Craig with a tobacco bowl in recognition of the good work he has done for the Unit.

We have also lost our Secretary, Roy Entwistle, who has gone on into R.N.Z.A.F. We all wish Roy luck and happy landings.

During the month, baseball games

were played between A.T.C. and two other Timaru teams. A.T.C. were successful in both the games. Against a combined Team, Timaru won by 50-10 and against South Canterbury Women's Reps., we won by 22-13. Apparently there is quite an amount of talent as far as Baseball is concerned, in our Unit and we would welcome games with the other Units throughout the province.

One of our N.C.O's, Corporal Jock Lewis was successful in winning the Speechly Mile Swimming Race at Timaru last Saturday; Congratulations are extended to Corporal Lewis on his success. Our A.T.C. Splash Lunch Hour closes this month. 20 cadets have qualified for the Swimming Certificate of 440 yards.



JOTTINGS FROM A KIWI'S DIARY

by "WOM"

Since our last appearance in the OBSERVER the Squadron has undergone several changes. We have been fortunate in securing for ourselves at our Headquarters a room which we have converted, with the help of willing hands from the flights, into a first class Common Room and library where the cadets may sojourn whenever they may be free.

Many new comers to the Squadron are settling down to routine with all working hard at drill, sport and any job they may be called to do.

There was plenty of fun on Wednesday night, 10th March when we arrived at the College for parade. A rather violent electrical storm added to the confusion caused by the sale of the first printed copy of the magazine and as the lights blew with a severe flash of lightning we were freed to go almost an hour early. No-one seemed to mind the early break-up and all went paddling merrily through the H20.

Recent promotions include those of Sergeants Shamy and Thorpe to Flight Sergeants and those of Cadets Thorpe,

Brown and Rogers to Corporals. Corporal Lowell Thomas has earned a well deserved third stripe and has been transferred to the intake flight "E". Cadet Hatherley, one of the Orderly Room stalwarts has received his Corporals Stripes. Corporal Roper, of 'A' Flight sometime ago received a third stripe. Our sincerest apologies for our not having published this prior to the April issue.

This year we have made a grand kick off with the introduction of N.C.O.'s parades which will be held regularly. Prospective N.C.O.'s are also attending these parades and here is a great chance for their receiving some valuable Mutual Instruction.

A number of cadets have left us to join the new squadron which was formed recently under F/O Stuart and about which you will read elsewhere in the bulletin. With these members of the Squadron went Pilot Officer Perkins, formerly "D" Flight's commander and Corporal Ruske of "E" Flight. Their loss will be deeply felt by all ranks, but we know that their job with the new squadron will be just as important as their work with us.

So long for now, fellows—I'll be with you again next month.

Fifteen Shillings to the winner of the

"OBSERVER" SHORT STORY COMPETITION

See Announcement on Editorial Page.

AIR CREW AIRINGS

(by "WOB" and "SPIN")

NEW ORGANIZATION.

After much serious consideration by the officers of No. 6 Squadron, rough plans were drawn up for re-organization of the training syllabus. Two weeks were spent in perfecting the new system. This brings all the flights, except one, together on two nights of the week though it does not mean that they lose their identity. The main principle of the scheme is that cadets be put into groups according to ability only, instead of seniority. Under this idea better instruction and results are obtained.

PROMOTIONS.

Congratulations are extended to all those whose names appeared in the recent lists of promotions. They are as follows:—

- A Flight—Corporal Pinfold, D.R.M.**
appointed acting Sergeant.
- A Flight—Corporal Dunstan, W.T.**
appointed acting Corporal.
- B Flight—Sergeant McKellow, R.**
appointed acting F/Sergeant.
- B Flight—Corporal Hyde, A.M.**
appointed acting Sergeant.
- C Flight—Cadet Hitchings, W.J.**
appointed acting Sergeant.
- C Flight—Cadet Titheridge, N.A.**
appointed acting Sergeant.
- C Flight—Cadet Erickson, S.D.E.**
appointed acting Corporal.
- C Flight—Cadet Manhire, R.B.**
appointed acting Corporal.
- D Flight—Corporal Dingwall, B.G.**
appointed acting F/Sergeant.
- E Flight—Cadet Tie, A.S.**
appointed acting Sergeant.

E Flight—Cadet McCabe, A.W.
appointed acting Corporal.

E Flight—Cadet Walshe, J.W.B.
appointed acting Corporal.

E Flight—Cadet Murch, B.
appointed acting Corporal.

MOBILIZATIONS.

This Squadron lost many staunch and keen members to the R.N.Z.A.F. during March. Included were F/Sergeant H. Hobson and Sergeant I Husband. Many more of our lads will leave us this Month also.

LIBRARY.

Last Month we took another step with the formation of a Squadron Library. A very representative collection of books—all of interest to A. T.C. cadets—have been put on the shelves and cadets have been encouraged to use the library as much as possible by coming up whenever they have a spare half-hour.

ENTRANCE EXAM.

With another Entrance Exam. coming off late in April there is much 'swotting' going on in the Squadron. This time about half the Squadron intend to sit. We hope that when the results come out there will be a much higher percentage of passes than in any previous exam.

We regret to report that Corporal R. Rothwell has left us as he has been posted to G.T.D. on a South Island Station. His place has been ably filled by Sergeant R. A. Campbell, late G.T.D. Instructor. Already Sergeant Campbell has given many useful tips to our senior N.C.O.'s.

THE NEW SQUADRON

No. 31 Squadron, known sometimes as the "New" Squadron and latterly as "X" Squadron, met for the first time at Christchurch West High School on Monday, 3rd March, 1943.

The proposal to form a third town Squadron in Christchurch was mooted as early as October of last year. Before Flight Lieutenant Stedman could see his project put into effect he was transferred to Wellington. Flight Lieutenant Preston, with the vision and enthusiasm of his predecessor made the formation of the New Squadron a matter of first importance.

The organization of a new squadron entails much time and thought. The task, however, has been made comparatively easy, through the ready assistance given by Wing Headquarters and the Officer Commanding and the Officers of No. 17 Squadron.

We are indebted too, to Mr. Noble, Headmaster of Christchurch West High School and to the Canterbury University College Council for allowing us the use of such excellently appointed buildings as Squadron Headquarters. The lecture rooms are spacious and well lighted, the masters' common room serves admirably as an Orderly Room and the quadrangle makes a first class parade ground.

Despite this, West lacks facilities for P.T. but arrangements have been made with the Y.M.C.A. authorities for the Squadron to do this work in their gymnasium, and under the experienced direction of Pilot Officer K. Muff.

The Squadron consists of two Flights. Pilot Officer C. H. Perkins (formerly of No. 17 Squadron) as senior officer, commands "A" Flight and Pilot Officer H. R. Lake, in the meantime holds the dual position of Flight Commander of "B" Flight and of Adjutant to the Squadron. Mr. Payne is Warrant Officer and Corporals Brown and Ruske have been appointed Acting Flight Sergeants attached to "A" and "B" Flights respectively.

Dr. I. W. Fraser, M.A. and Mr. T. M. Penny, B.A., will assist on the educational side of the work.

It is difficult to imagine a Squadron commencing under more auspicious circumstances and officers and cadets will spare no effort to attain the high standard set by No. 6 and No. 17 Squadrons.

L. W. Stewart, Flying Officer,
Officer Commanding,
No. 31 Squadron,
Air Training Corps.

WHAT GOES UP.....

In 1939 a racing plane with a wing span of only twelve feet was designed and built by Tom Floyd of California. Due to its tiny wing span, the speedster, which had been named the Floyd Bean Special, after Floyd and his pilot, Bob Bean, had a landing speed of 120 m.p.h. In landing after its first test flight, this high speed caused the landing gear to collapse, damaging the propellor, fuselage and wing. Bean, however was unhurt and Floyd rebuilt his ship, claiming for it a top speed of 350 m.p.h. The power plant was a 400 m.p.h. Menasco engine

(continued from Page 12)

PETROL FROM PEAT.

Peat, which in past years had only a limited economic significance, is gradually becoming a strategic material. The Russians were the first to realise its dormant possibilities. In 1938 they made a careful study of their peat resources, estimated to amount to 150,000,000 tons. The Germans have recently established a new company, the Deutsche Torf-Gesellschaft G.m.b.H. (German Peat Company) with the object of exploiting the peat resources in Eastern Europe.

COAL FOR BOMBERS.

A few interesting figures are given in a German appeal to save fuel. It is stated that 115 tons of coal are consumed in all processes involved in the production of one bomber, and 120,000 tons for one warship. Should each German household save one average-size coal shovel in one week the resulting saving would be sufficient for the production of 22,000 twin-engined bombers.

In a further step to illustrate the need for fuel economy it is stated that for the production of one pound of benzine 5.5lb. of coal are necessary.

**GOLD STAR : LINE OFFICER,
U.S. NAVY.**

Twinkle, twinkle, little star,
How I wonder what you are.
Shining on an ensign's sleeve,
Tell me which I may believe.
Is his post a storm-swept perch,
Or a desk at 90 Church ?

Tell me as you glisten bright
On a shoulder gleaming white.
Does he pace a warship's decks
Or OK a pile of checks ?
Little star that proudly blazes,
From this target of our gazes.

Tell me, does he lead his men
With depth bomb or with fountain
pen ?
I'm puzzled as each stalwart one
Joins the throng at twenty-one.
Does he answer "Battle Stations" ?

Or letters headed "Press Relations" ?
Twinkle, twinkle, little star,
How I wonder what you are.
Do you mark a fighting man,
Or, perhaps a writing man ?

—Elanor Hart.

(The New Yorker, July 11, 1942.)

SAVE YOUR LAMP CAPS

Please remember when you buy an Electric Lamp (or bulb as it is sometimes called) you must return an old lamp or cap.

This is necessary to ensure continuity of supplies.

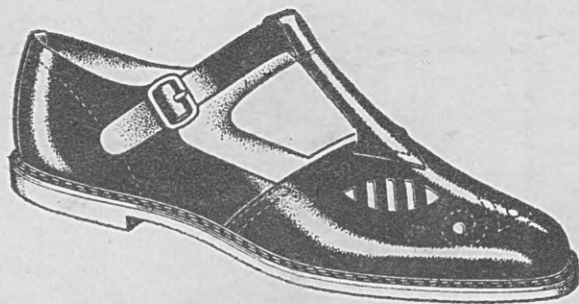


MUNICIPAL ELECTRICITY DEPARTMENT

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