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IN these busy days (and *are* they busy?), the name Desoutter is muttered in many a machine shop and tool room. What are they saying? "Where the - - are those - - Desoutter Die Sets?" they are saying! Bless you, boys, we don't blame you. Yet few of you wait more than fourteen days and many of you get delivery from stock. O.K.! O.K.! don't shout. The Managing Director is on his way round to you now!

Desoutter
DIE SETS

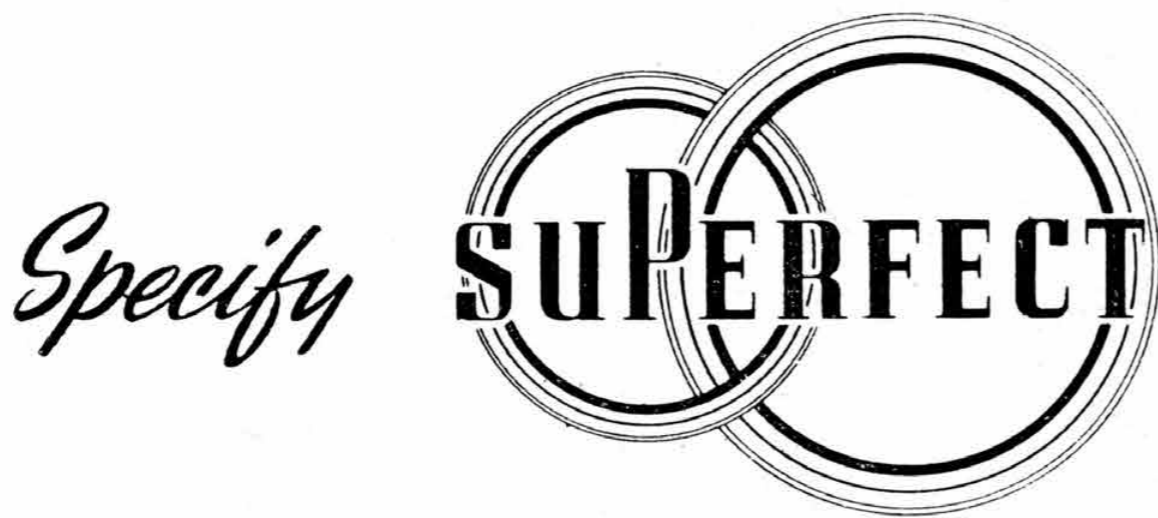
DESOUTTER BROS. LTD., DEPT. A, THE HYDE, HENDON, LONDON, N.W.9 TELEPHONE: COLINDALE 6346-7-8-9 TELEGRAMS: DESPNUCO, HYDE, LONDON
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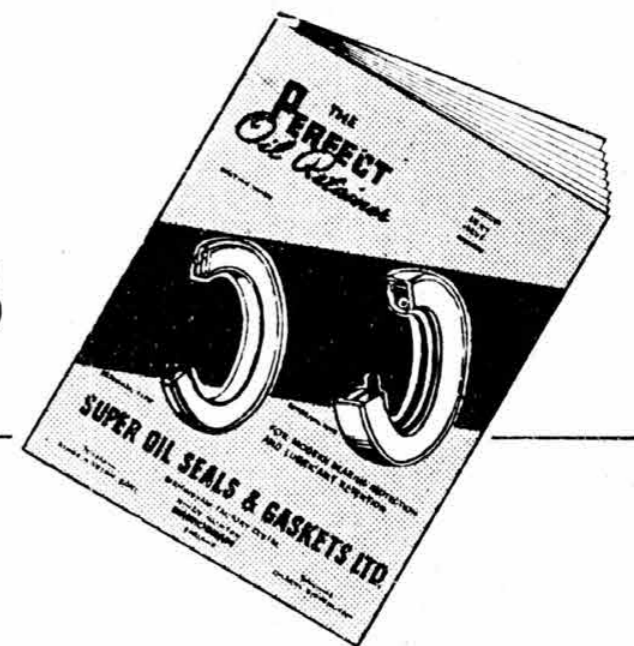


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DECISIVE
YEAR!**

— and the pace gets faster and faster and will continue to do so after victory. There never was a time when SuPerfect Oil Seals were so necessary to keep planes, ships, tanks, transport and production on the job. Be kind to overburdened bearings, **BE DECISIVE . . .**



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& STILL IN SERVICE**

TAYLORCRAFT “AUSTER”

WITH

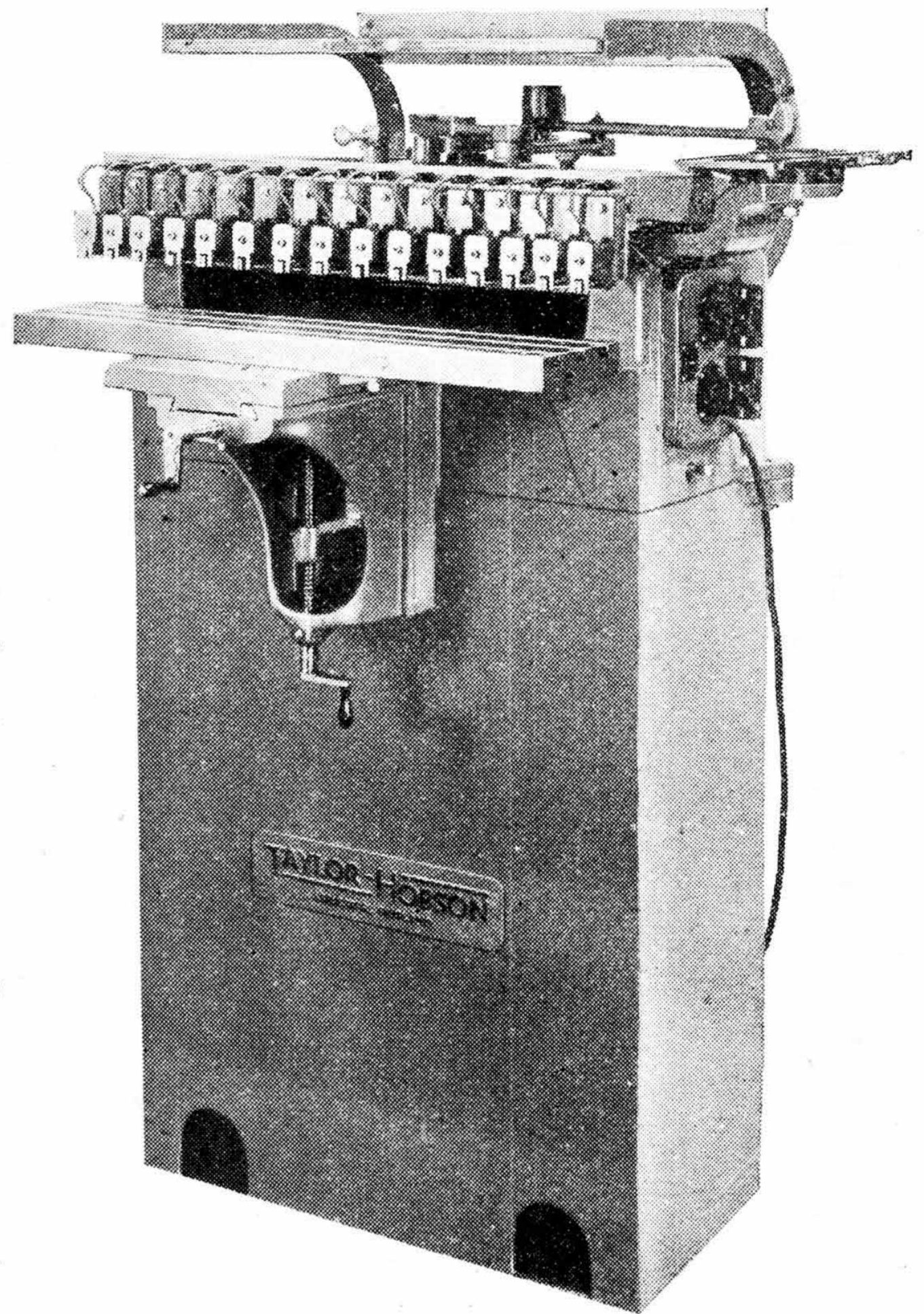
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"JAVELIN"

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- ★ Up to fifteen parts etched simultaneously from one master copy.
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- ★ Does not affect fatigue resistance of the metal.
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- ★ Variable intensity of marking.
- ★ Supplied for 50 or 60 cycle A.C. Special equipment available for D.C.



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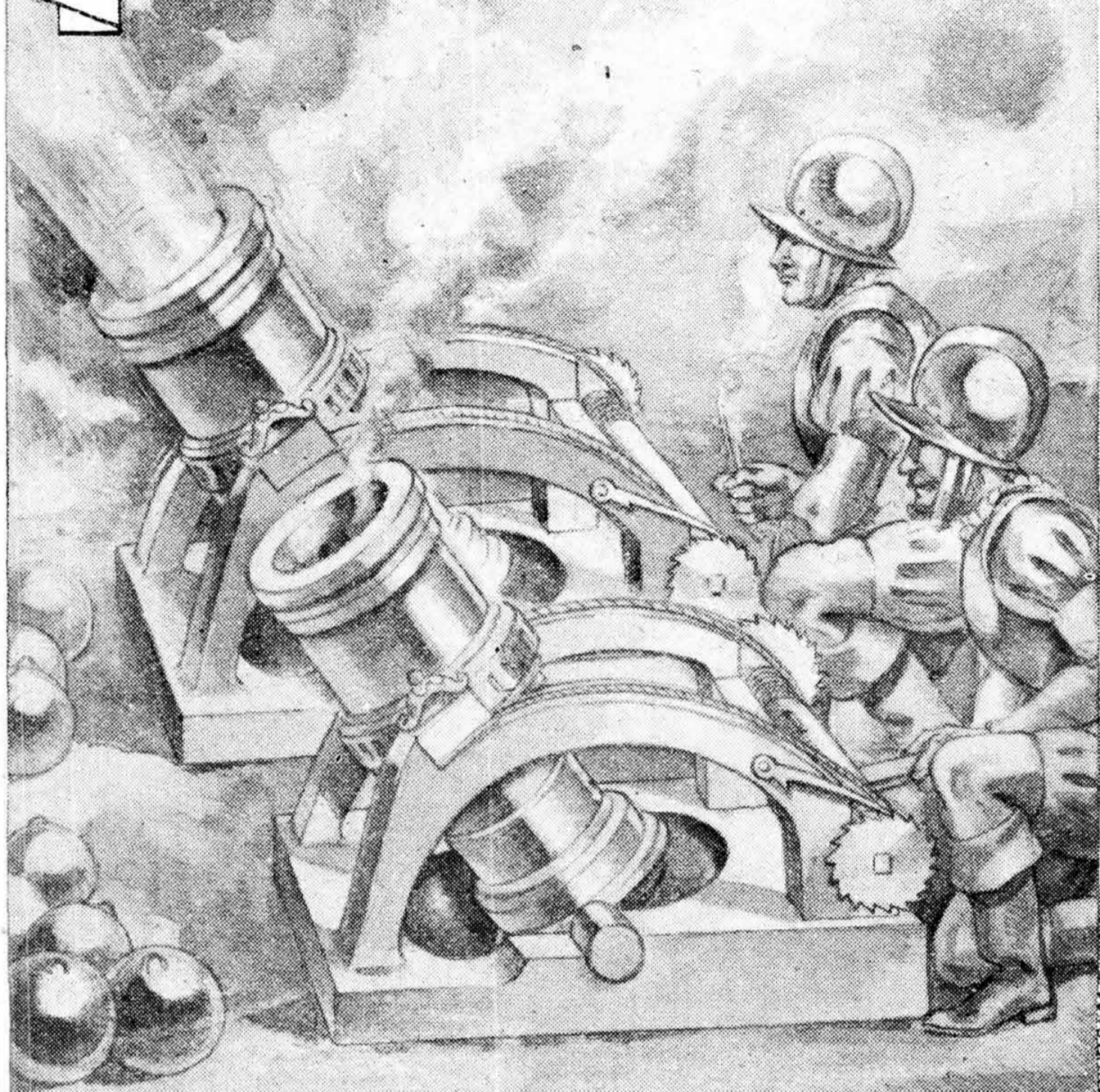
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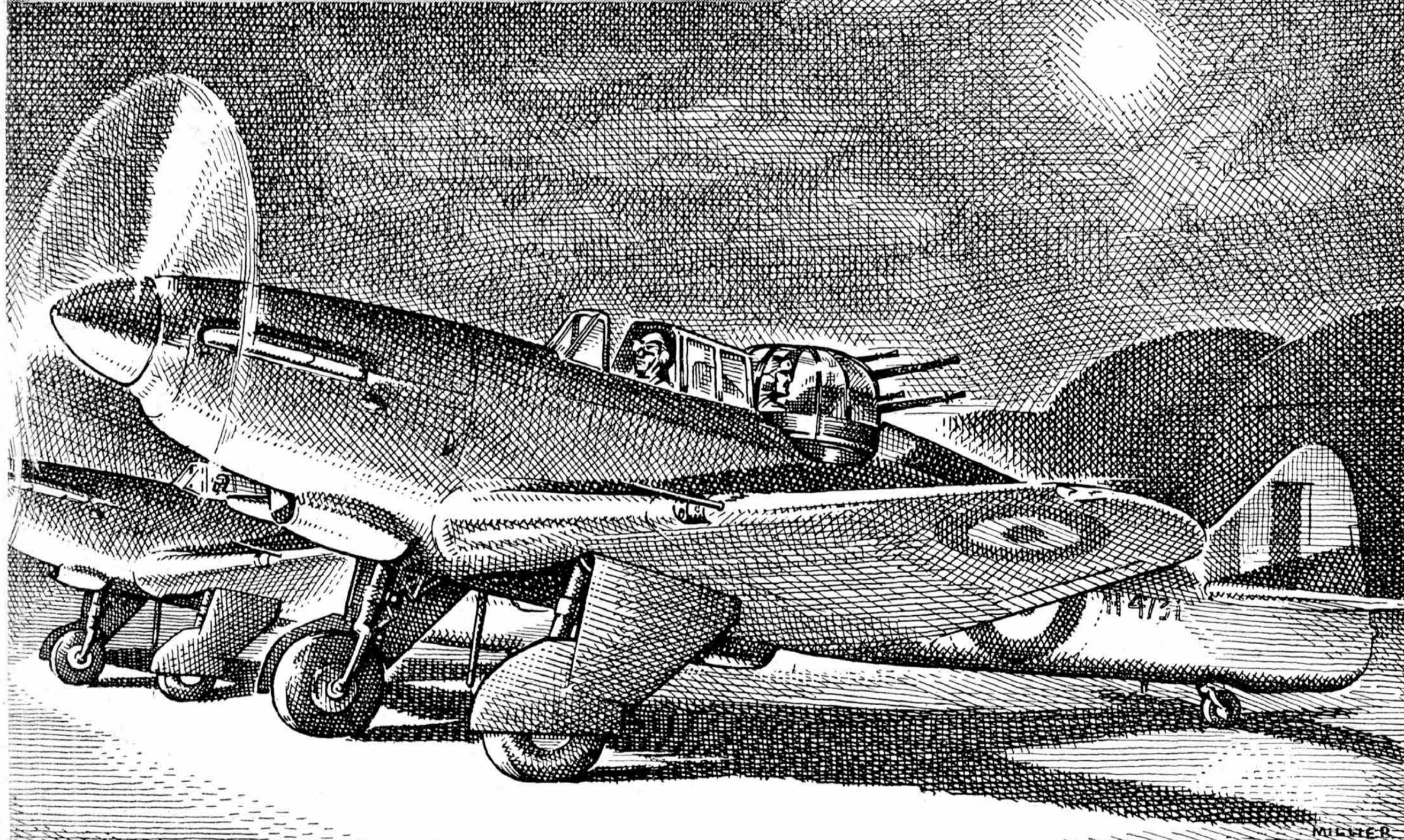
WEAPONS OLD AND NEW



THAT this early form of mortar "packed a useful punch" is evident from the size of the projectiles shewn on the picture, and it is not to be wondered that few fortifications could withstand a continued bombardment from such weapons.

... but the advent of heavy fire-arms made it impossible to render any fortress impregnable, and led the way to new ideas of speed of movement and fire power as the dominant factors in warfare.

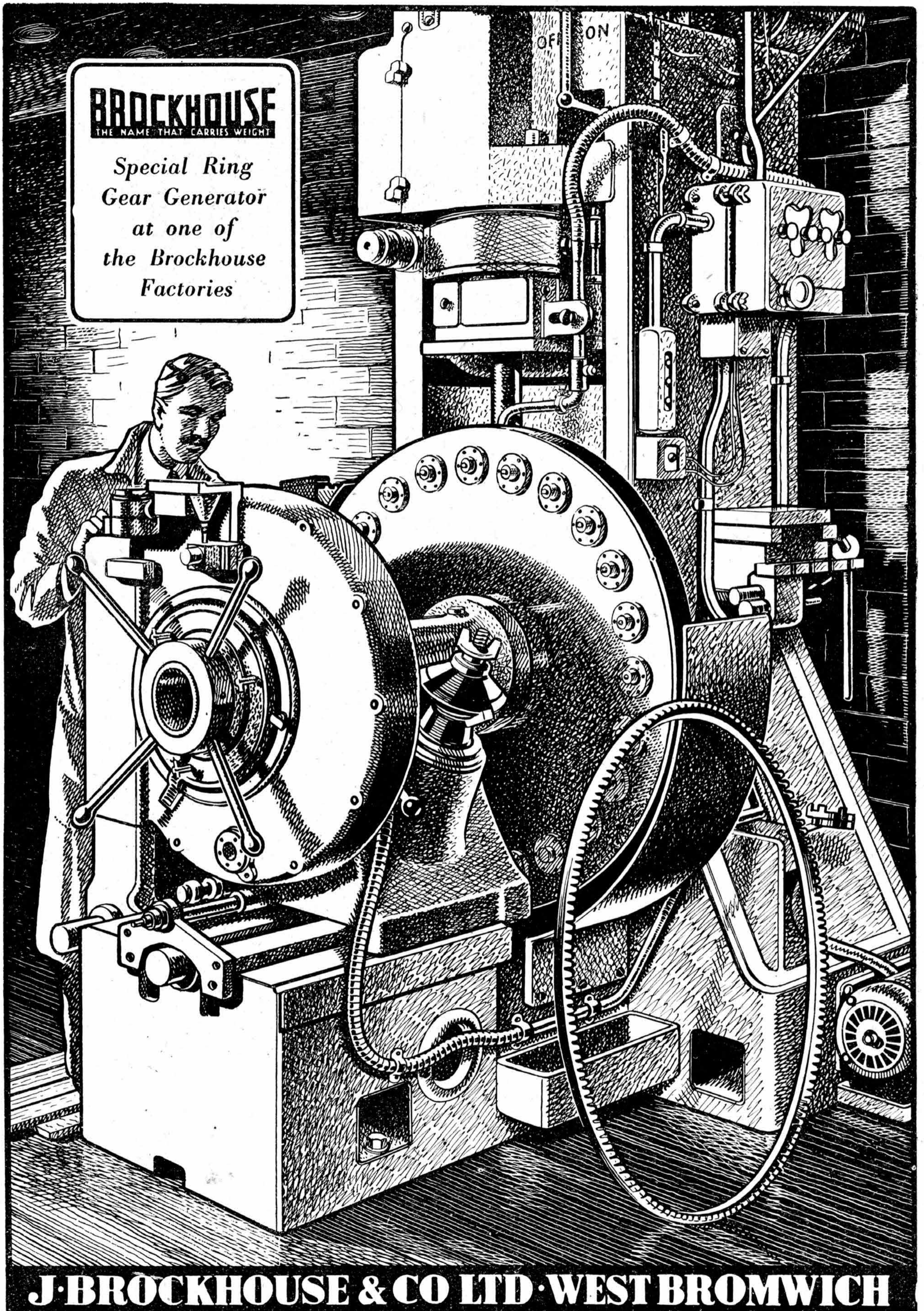
In our day, the aircraft gun turret is perhaps the logical conclusion of this conception—a high precision weapon of devastating fire power carried on the swiftest of modern conveyances, capable of dealing lightning blows in the right place, at the right moment.



BOULTON PAUL

GUN TURRETS







WHAT DO YOU MEAN
medium
bomber!

There's nothing "medium" about our American medium bombers but their size. For example, the Vega Ventura can bomb accurately from high-level flight—swoop down on its target for low fast attack—strafe troop concentrations—blast tanks—tow gliders loaded with men and supplies, and tow high speed targets for our fighters to practice on—a combination of tasks no other medium bomber can do.

Then, too, the Ventura patrols thousands of miles of cold gray ocean to drop depth charges when it finds a sub—carries torpedoes to attack enemy ships—plants mines to trap them. What do you mean, "medium" bomber!

The Ventura has the same basic qualities of *all* Lockheed and Vega planes, *extra* strength and *extra* dependability. That's why the Canadian, British, Australian and U. S. Army and Navy Air Forces are all using Venturas—lots of them.

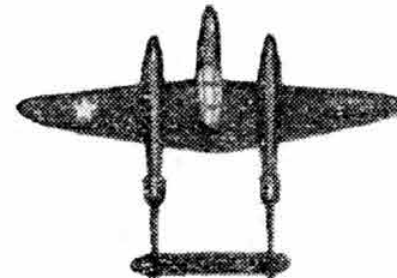
A subsidiary of Lockheed

Vega

Aircraft Corporation



*Lockheed Hudson
Medium Bomber*



*Lockheed P-38
Lightning Fighter*



6687 B

Many factories in this country—too many—are still without Power Trucks. In these factories Power Trucks would

- speed up movement of material and work-in-progress
- enable ONE girl to do the work usually done by TEN men
- cut out intermediate handling so that Movement can ANTICIPATE Processing

Write for particulars of the Douglas Truck-stillage system—the Advanced Striking Force of the Factory Fronts.

The **Douglas**
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VOKES

There is something in a name

WHEN YOU DISCUSS FILTRATION PROBLEMS

VOKES are pioneers in the science of filtration. They have fought opposition, indifference and neglect until to-day Vokes Air, Oil and Fuel Filters are recognised by aircraft manufacturers, ship builders and engineers in all classes of industry as essential equipment for the maintenance of long life of machinery and machine tools.

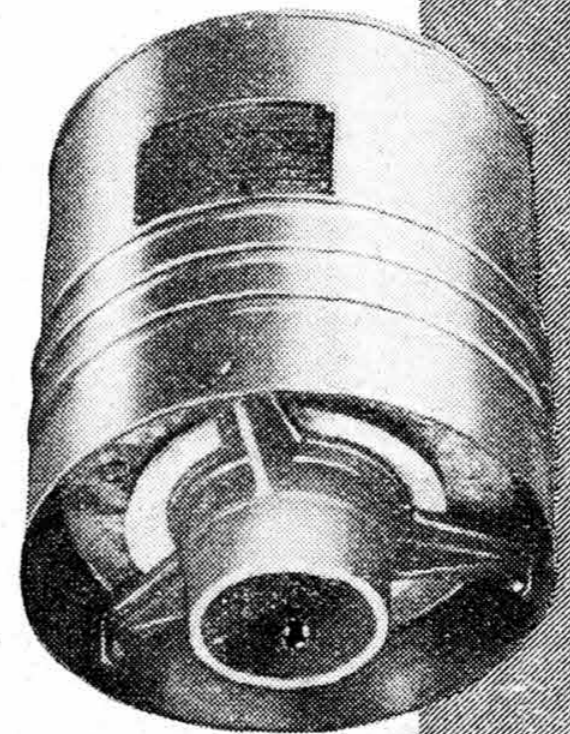
VOKES work in the field of aeronautics covers more than a quarter of a century of laboratory research and practical experience. To-day, Vokes Filters are approved and adopted by British and Dominion Governments and are fitted to all types of aircraft used by British & Dominion and many American fighting forces in all battle areas.

VOKES make this clear statement of policy. Filtration cannot be bought on price. Cheap inefficient filters, filters that do not filter all the air and all the oil all the time, filters that do not rate up to the Vokes standard—99.9% filtration efficiency when necessary do not save wear and tear and may prove worse than useless.

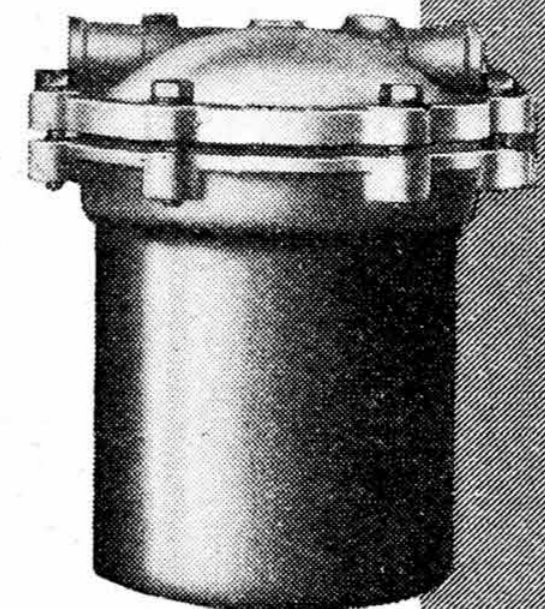
VOKES produce Air, Oil and Fuel Filters for every purpose in all forms of industry. Vokes experts can tackle any special filtration problem and produce special models to any capacity when desired.

VOKES believe that to-day with machinery and machine tools almost irreplaceable it behoves all in charge of maintenance to investigate filtration problems closely and to instal efficient filters to counteract the serious wear and tear caused by dirt and impurities in air, oil and fuel. Vokes gladly extend their co-operation and place their specialised experience at the service of all concerned.

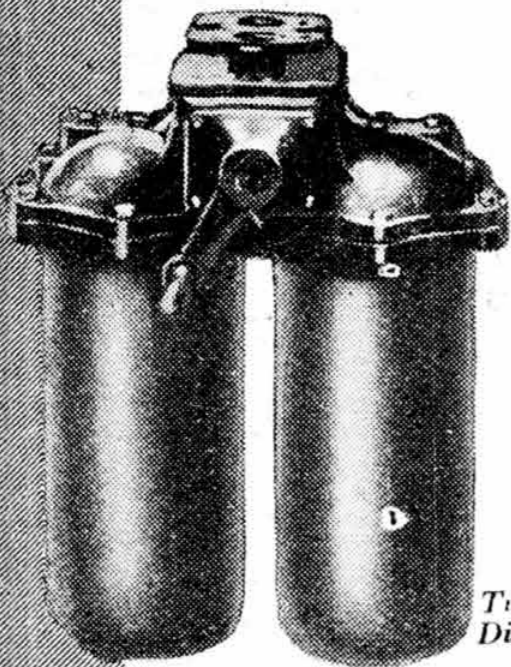
VOKES have produced over 3,000 different models of their famous Air, Oil and Fuel Filters. To ensure the maximum efficiency of these Filters Vokes also provide the essential housing and induction systems. It will pay you to consult the firm who specialise in filtration problems.



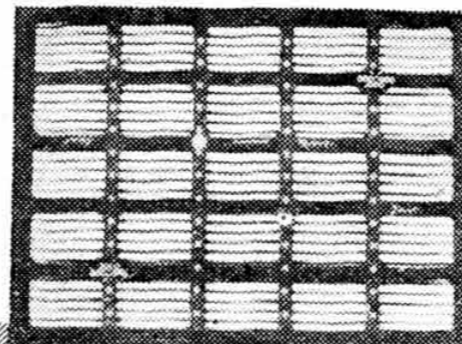
Vokes industrial type Protectomotor oil filter



Lubricating oil filter for general purposes.



Twin fuel oil filter for Diesel Engines.

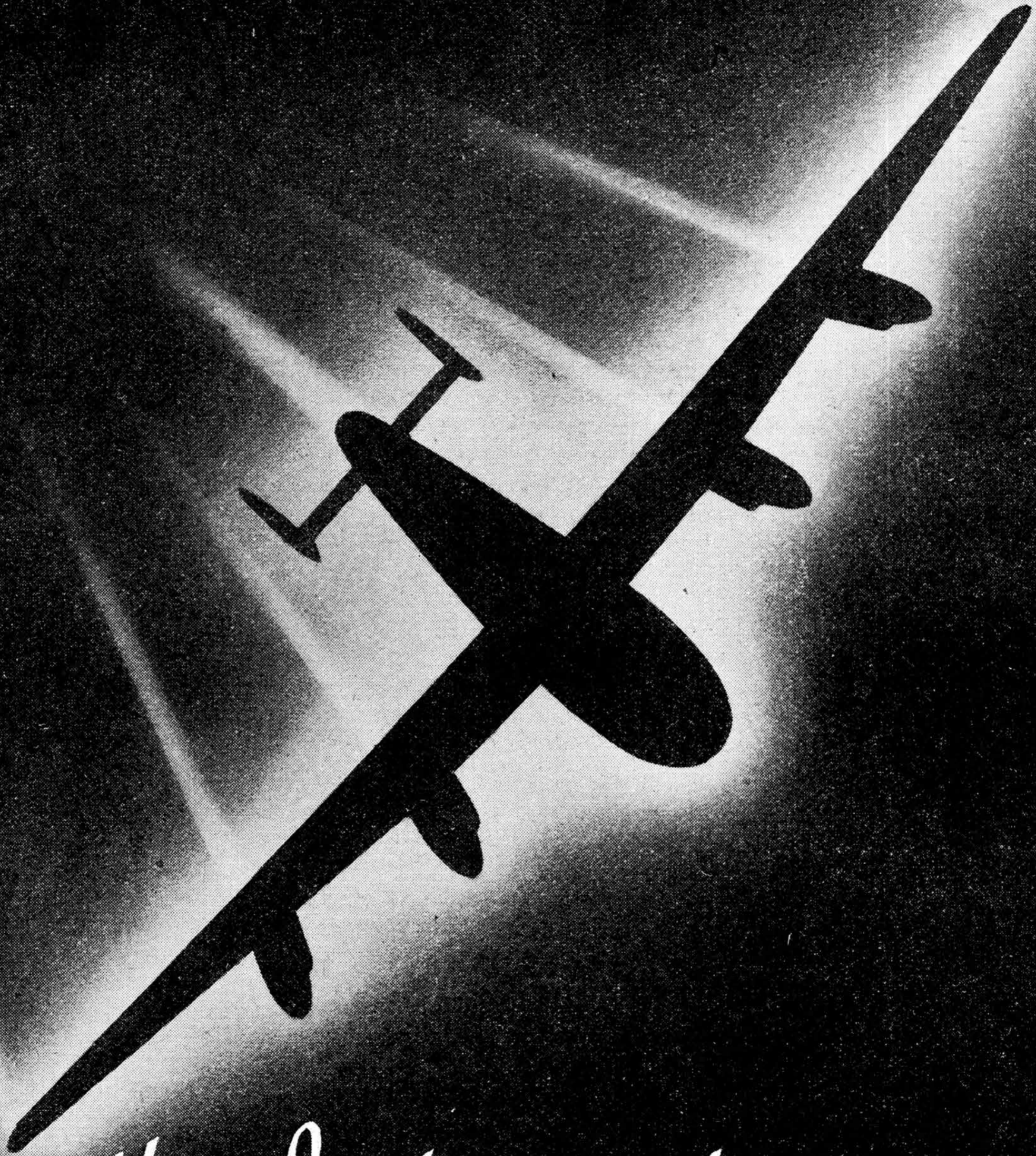


Vokes Aerocee Filter Element for aircraft.

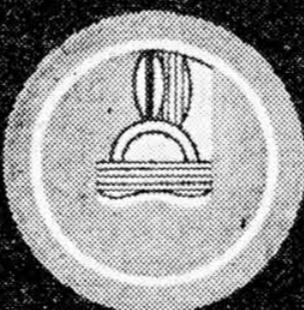
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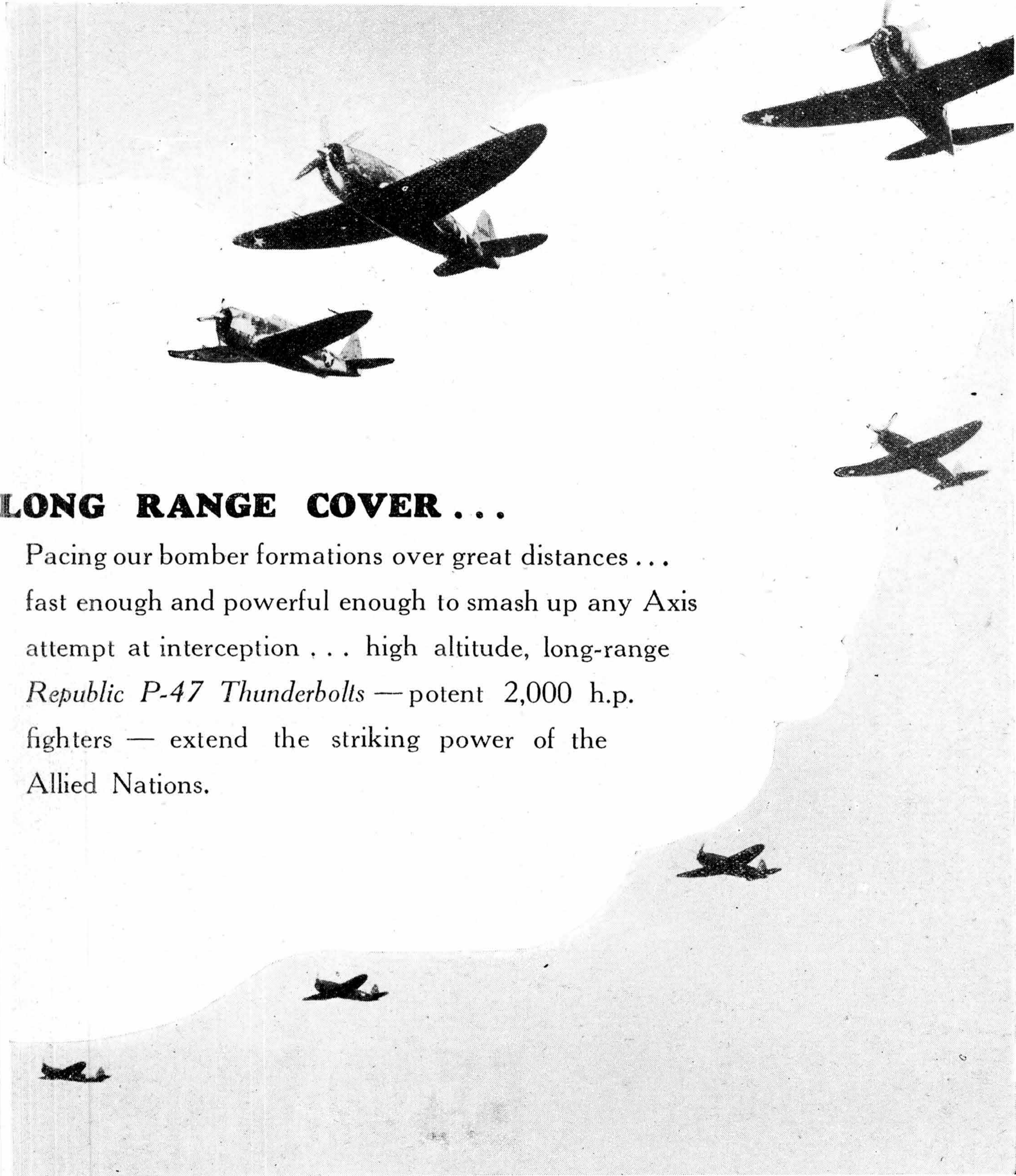
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LONG RANGE COVER . . .

Pacing our bomber formations over great distances . . . fast enough and powerful enough to smash up any Axis attempt at interception . . . high altitude, long-range *Republic P-47 Thunderbolts* — potent 2,000 h.p. fighters — extend the striking power of the Allied Nations.

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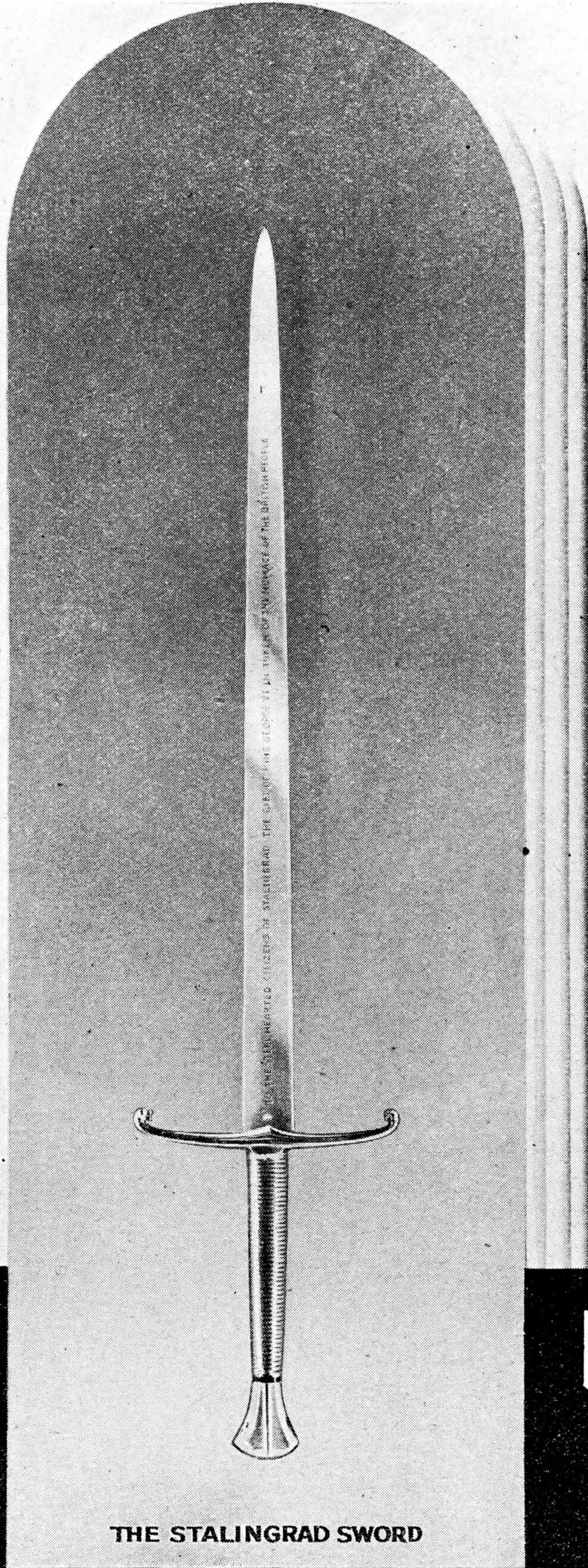
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No. 1693

NOVEMBER 5, 1943

VOL. LXV.

MATTERS OF MOMENT

War in the East

LAST MONTH the monsoon ended in Burma and it became possible to resume operations on land and intensify our air attack. British and U.S. Air Forces managed throughout the rainy season to maintain a surprisingly heavy scale of attack. But, owing to the absence of suitable targets, air action against the Japanese in Burma can have little more than "nuisance value." The same can be said of a land offensive from the north since poor communications make it possible to employ only small forces. It may be presumed that Admiral the Lord Louis Mountbatten has been sent to the East for the purpose of staging a seaborne attack to retake Burma and reopen the road between Rangoon and Kunming.

The importance of retaking Burma is that it offers the best prospect of direct attack on the centre of Japan's war effort. Forces under Gen. MacArthur are making good progress in the Pacific, but if we were to rely on the capture of each of the islands now occupied by Japan before the mainland could be attacked, the prospect of victory would recede into the distance.

Carrier-borne bombers under Gen. James H. Doolittle carried out a most effective attack on Japan and we may hope that that form of attack may be repeated. But there is great risk in venturing carriers within range of shore-based aircraft, and for sustained attack it is necessary to obtain land bases. Russia provides the only alternative to China for a sustained attack on Japan, but Russia and Japan are still at peace.

Since we lost Burma to the Japanese China has had to rely for war material on the air service, organised by the Americans, from Assam to Kunming. This has been barely sufficient to enable the Chinese to continue the struggle, and they have been unable to undertake a large-scale offensive. A road is now being driven through the difficult country between Assam and Kunming, but Assam is not a source of supply of war material and it must all be brought from Calcutta. The rail journey from Calcutta is slow and the capacity of the line limited. The river route is difficult since the Brahmaputra often changes its course and newly formed shoals prevent night navigation. Aircraft provide the only satisfactory method of transport and the quantity of material they can carry is limited. China can be expected to do little more than hold her own until we can reopen the road from Rangoon to Kunming.

The poorness of communications between Calcutta and Assam indicates the difficulty of staging an offensive against Burma from the north and this is increased by the fact that there is only one road into Burma from

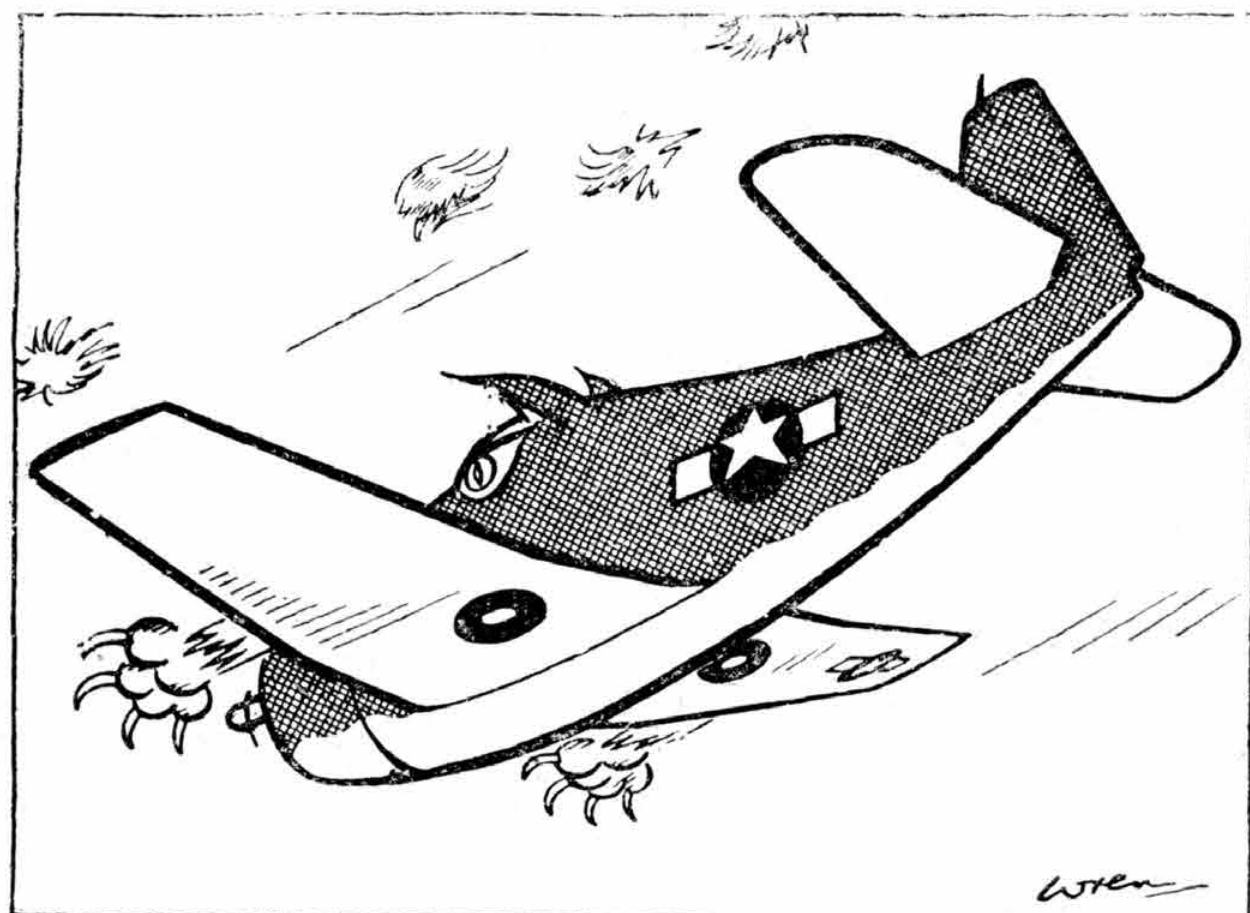
Assam. There was no road beyond Imphal, 180 miles from railhead at Manipur Road, until it became obvious that our troops were being driven out of Burma in the Spring of 1942. Then in great haste the road was pushed through the jungle to link Imphal with Mandalay and was used to withdraw the greater part of the Army and a large number of refugees. No doubt this route will be used for diversionary attack on the Japanese in Burma, but the main force to recapture the country will have to be sent by sea.

Despatch of a seaborne expedition from India depends on the provision of shipping and landing craft which have hitherto been lacking. The plan may be to establish an advanced base in the Andaman Islands whence a landing could be made at Moulmein or elsewhere on the Tenasserim coast, and from there the force could move north on Rangoon, as the Japanese did. Alternatively the Andaman base could be used for a more direct approach by way of the coast south-west of Rangoon. The Commander-in-Chief may prefer, however, to approach that portion of the coast by successive stages along the seaboard from India by way of Chittagong and Akyab, since he would then have the assistance of shore-based aircraft. Lack of roads through the jungle-covered hills makes it impossible to reach the interior of Burma from Akyab or elsewhere along that coast.

This campaign may well become a pattern of modern warfare. In the first stage the Royal Navy, the "carrying" force, must play the primary part. In the second stage it will be the task of the Army, the "holding" force, to drive back the enemy and secure aerodromes. In the third stage the primary role will pass to the Air Force, the "striking" force, which will be able first to strike at Japanese targets in China and at shipping off the Chinese coast. Later, when with our help the Chinese have driven back the invaders, it will become possible to strike at the centre of Japan's war effort.

Before the new campaign opens it is obvious that almost all the Air Force units in India must be placed under the command of Lord Louis Mountbatten and the anomalous position in which the Royal Air Force has existed there for the past 25 years will come to an end. Up to the present the Royal Air Force has always been under the Commander-in-Chief of the Army. In theory the A.O.C.-in-C. has not been allowed to communicate with the Air Ministry on a matter of policy except through the Secretariat at Army headquarters and the India Office in Whitehall. There can be no return to that condition and after the War the Royal Air Force in India must be on the same footing as it is throughout the rest of the Empire.

ODDENTIFICATION—CXXXV



["Aeroplane" Copyright.]

Good luck! What a savage attack!
 'BLODIE JAP!
 It is useless to struggle and bite,
 And to kick and to scratch,
 You have met with your match,
 And the Grumman Hellcat holds you tight,
 Despite
 Your determined attempts "to show fight."
 (After "The Ingoldsby Legends.")

The Weather Men of India

THE METEOROLOGICAL DEPARTMENT of India was founded nearly a century ago and has often proved of great value to agriculture. Under war conditions, it has received a tremendous impetus. A wide network of weather-reporting stations is being built up which will serve India's airways well in days of peace. At the moment, the service performs the important job of helping to sustain air attacks against the Japanese in Burma, and selected pilots of the Royal Air Force keep up a constant survey of the atmospheric roof over this part of Asia.

These "Weather Men" fly over deserts, jungles and mountains, and the meteorological maps they plot predict conditions which include the hot winds of the Sind, the snow and mist of the Himalayas and the storms and cyclones of Bengal. They are probably the most remarkable maps of their kind in the World. Pilots on operational service depend upon them for the safety and success of their missions. Aircraft are sent out occasionally to have a look at the weather over enemy-occupied territory, and bomber and fighter pilots returning from operational flights hand in weather reports which help enormously.

One of the wettest places on earth is the district around Cherrapungi in Assam, a stretch of hill country receiving 440 inches, makes the place damp. Cloud may extend from ground level in great cloud towers up to 30,000 to 35,000 feet high, containing strong up and down currents, and electric storms often upset instruments entirely. India, ringed as it is by mountains, jungles and sea, is one of the most difficult countries for the weather prophet, but the service does its best.

Just how good that best is may be judged from the remark-

able success which attends R.A.F. bombing raids and fighter sweeps over enemy territory. These raids have continued almost without interruption throughout the monsoon.

Saunders-Roe, Ltd.

MR. A. GOUGE, B.Sc., F.R.Ae.S., President of the Royal Aeronautical Society, has joined the Board of Saunders-Roe, Ltd., the well-known flying-boat builders.

Mr. H. E. Broadsmith, M.I.N.A., F.R.Ae.S., and Captain E. D. Clarke, M.C., Joint Managing Directors, and Mr. H. Knowler, A.M.I.C.E., F.R.Ae.S., Chief Designer, are also members of the Board. Mr. Gouge has been elected Vice-Chairman.

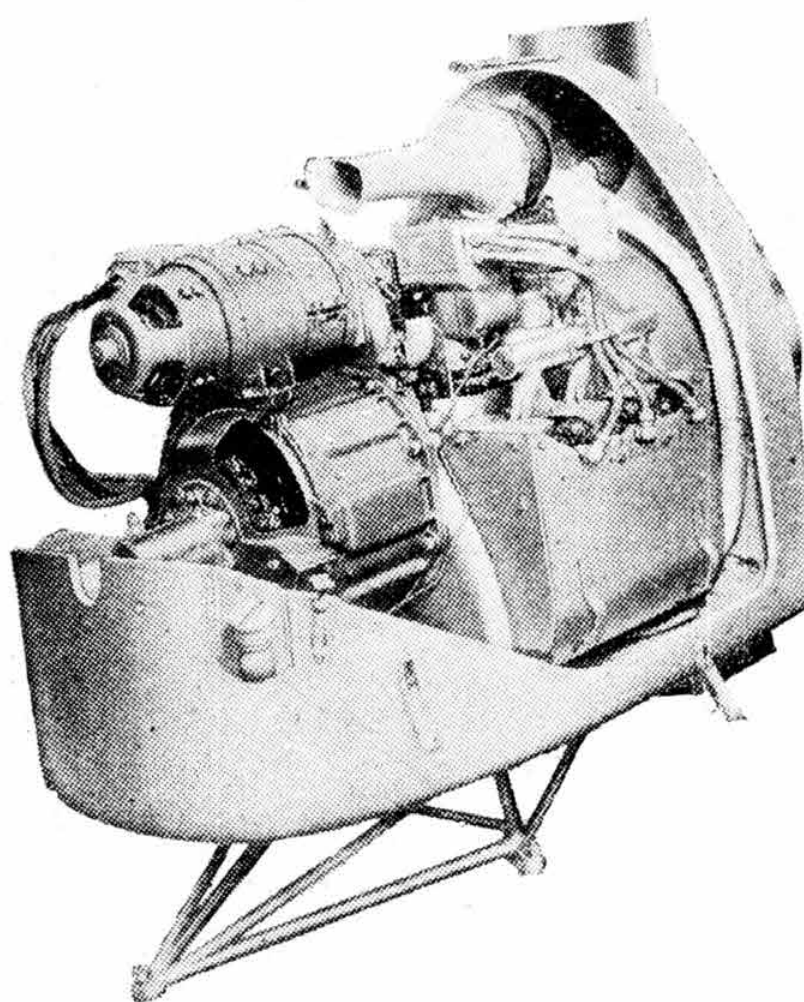
Air Defence of Great Britain

THE USE of de Havilland Mosquito II fighters in defence against German night raids on this country has just been announced. The need for stepping up the speed of night fighters was indicated when the enemy introduced Focke-Wulf Fw 190 and other fast fighter-bombers for night raids on London, the South and South-East.

Mosquitoes have already accounted for a large proportion of the recent successes Fighter Command has gained in combating these nocturnal nuisance raids.

Independent Auxiliary Power

DETAILS have just been released of the Rotol auxiliary generating plant. Its six-cylinder air-cooled sleeve-valve motor is capable of developing 93 h.p. at ground level. It is

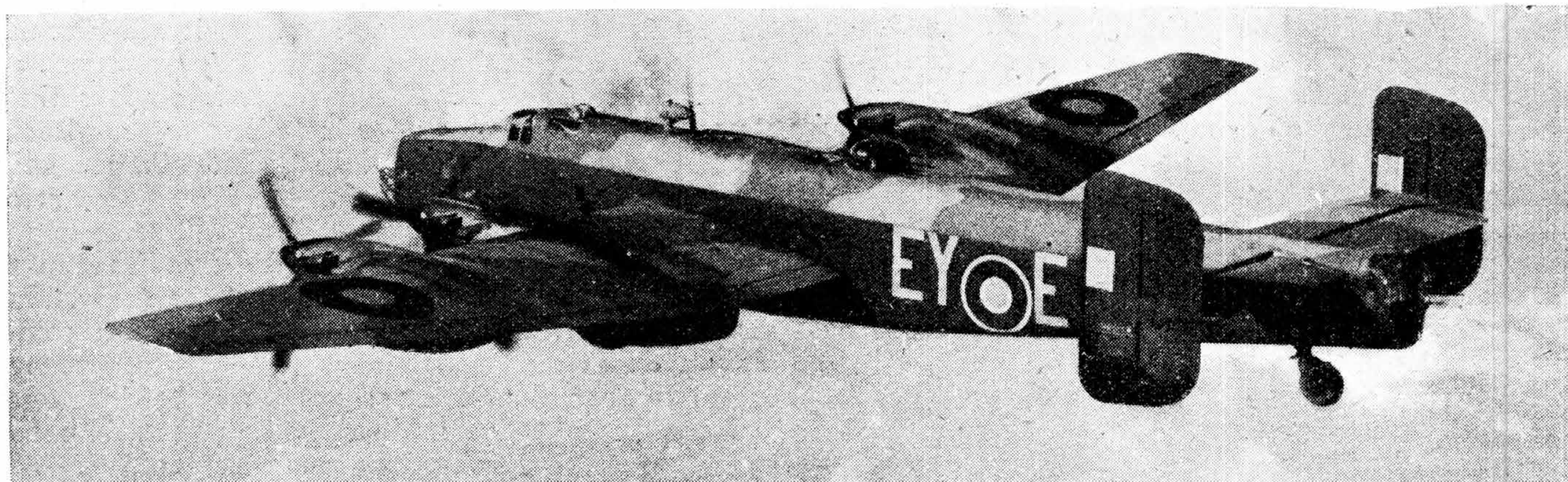


not supercharged, but can maintain a full normal load of 62 b.h.p. up to 21,000 ft. This self-contained unit, designed by Mr. D. R. Pobjoy, well known for his pre-War production of light aero-motors, drives two electric generators with a maximum output of 37 kilowatts. These generators provide electric power for operating all the auxiliary accessories now demanded in large aircraft.

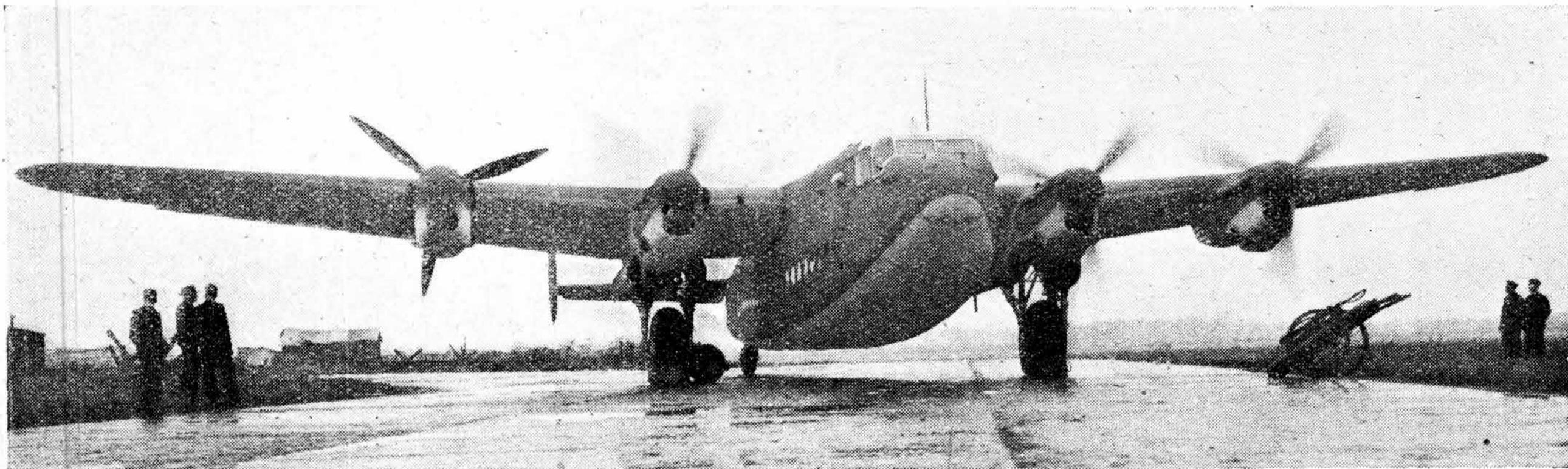
MULTUM IN POBJOY.—A general view of the Rotol Auxiliary Generating Plant with the lid of the sound and fume proof box removed. The D.C. generator may be seen mounted over the A.C. alternator on the left. The complete unit was designed by Mr. D. R. Pobjoy, who is well known for his association with Sir Roy Fedden and his designs of light aero-motors.

Colonel Holliday, in an interesting address to the Society of Automobile Engineers in America on "Aircraft Accessory Systems," strongly stressed the need for centralised power units and advocated the universal adoption of electrics in place of

other forms of auxiliary power. This address has been reproduced in THE AEROPLANE of Oct. 29 and this issue, and we hope to give technical details of the Rotol A.G.P. shortly.



SQUARED UP.—A Halifax II Series IA flying high over the English countryside. This particular machine has modified fins and rudders and is of the type now going into squadron service with the Royal Air Force.



PUGNACIOUS NOSE.—Powered with four Rolls-Royce Merlin liquid-cooled upright vee in-line motors driving three-blade constant-speed airscrews, the Avro York, first of the new air transports designed by British aircraft manufacturers, has a wing span of 102 ft. 0 in. and an overall length of 78 ft. For short range work passenger accommodation can be for more than 50 passengers. Alternative internal arrangements allow for mixed passenger and freight transport, or use as a freight transport only.

“Fleet Air Arm”

AN ATTEMPT to tell the story of the Royal Navy's Air Branch is made in a booklet called “Fleet Air Arm,” prepared for the Admiralty by the Ministry of Information and published by His Majesty's Stationery Office (price 1s. 6d.).

The book is inadequate because the true story of the Fleet Air Arm cannot be written until after the War—long after. There is so much that must, at present, be left out. In any case, the story of the Fleet Air Arm during this War is an epic. It needs the inspired pen of a Byron or a Tennyson to do it justice. Has any fighting force faced such fearful odds with such inadequate weapons over so long a period? Or any other body of men been handicapped with such lack of intelligent and sympathetic understanding of its peculiar problems and difficulties?

Even now, in the fifth year of the War, the Royal Navy has not in operation a single British Fleet Fighter designed as such. Navy pilots fly modified R.A.F. fighters. At the beginning of 1943 the standard naval torpedo-bomber was a ten-year-old biplane with a cruising speed of little over 100 knots with full load. Nevertheless, in spite of all this, naval pilots, observers and crews have fought enormous odds, never refused combat and never admitted defeat.

The year 1943 has seen great and long-overdue improvements in naval aircraft equipment. The year 1944 will see more. Naval pilots will go into battle, not only with stout hearts, zeal and devotion to duty, but with aircraft that are worthy of them.

In spite of its inadequacies, “Fleet Air Arm” is a good 1s. 6d. worth. Being a Government publication, it is printed on art paper and profuse in first-class illustrations. Two are outstanding: a photograph of the deck of the carrier *Illustrious* just after it had been pierced by a bomb and another of the Escort Carriers *Biter* and *Avenger* pitching about in a rough sea.

The text contains some good tit-bits. It explains how “every station bears the name of a commissioned ship and, true to the tradition of all Navy shore establishments, the engaging fantasy of shipboard life is maintained.” It tells how the old *Argus* had no funnels to “embarrass the pilot”; how Air Vice-Marshal H. P. Lloyd called the naval *Swordfish* at Malta his “goldfish” and for every ship sunk by them presented the squadron with a bottle of rare and precious Plymouth gin. The Air Vice-Marshal's “wine bill” must have been somewhat extended, for by the end of 1942 naval squadrons operating from Malta had accounted for something like 400,000 tons of enemy shipping. Then there is the delightful story of the old lady who was shown over an aircraft carrier and after inspecting its deck and aircraft exclaimed, “and do these things really fly?” Whether she was referring to the carrier itself or its aircraft is not known.

We learn that the *Albacore* is “being replaced by the *Fairey Barracuda*, a newer and faster torpedo monoplane with a single Merlin engine and an increased range, and also by the American *Grumman Tarpon*, a torpedo aircraft which became famous in the Midway battle under its American name, *Avenger*. It carries a 21-in. torpedo or a ton bomb load and has a speed

(unofficial estimate) of 270 m.p.h.”; no naval torpedo-carrying aeroplane should be slower in these days.

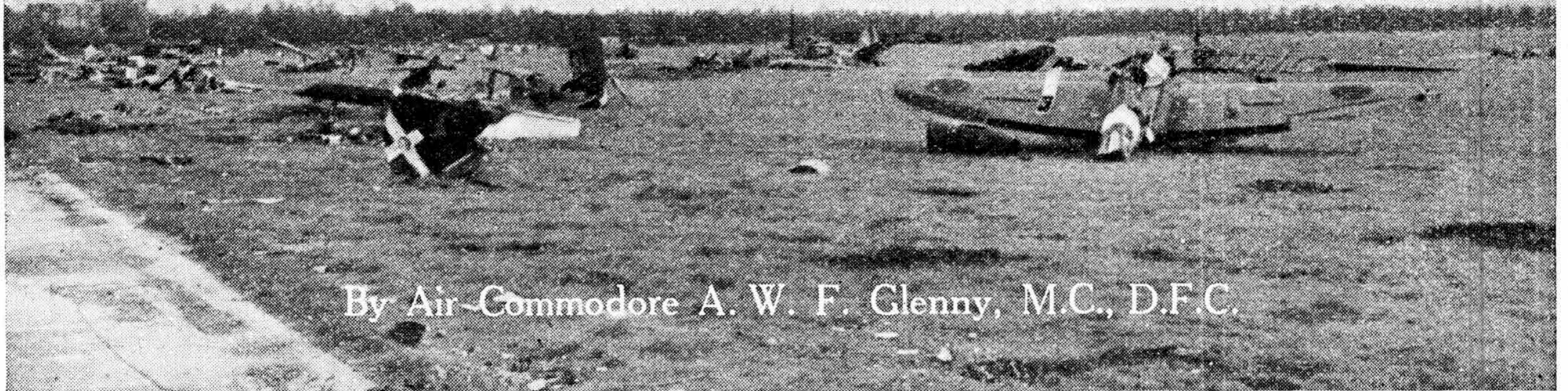
There are certain incongruities in the book such as “. . . . *Fairey Fulmar*, a two-seater fighter with eight guns *for'ard*”—bad enough, and the description of naval reconnaissance aircraft as “*Frigates of the Air*”—appalling. Somewhat naturally the book is chiefly concerned with aeroplanes operating from carriers on active service. A little space might have been spared to pay tribute to other branches of the Fleet Air Arm and one in particular. No mention is made of the R.N.V.R. pilots who are helping to train naval observers and air gunners. Most of these, especially in the early days of the War, were elderly gentlemen who had volunteered their services to the Admiralty on the outbreak of War. They deserve a little recognition and have, so far, received none. Their flying has been monotonous, trying and often dangerous, especially in the early days of the War over the South Coast and over the Caribbean Sea, with its sudden changes of weather.

Some day when the struggle is one of peace rather than of war, when unlimited printing ceases to be the privilege of the Government bureaucracy, and when the sunshine of victory softens the mistakes of war, the true story of the Fleet Air Arm will be told with all its tragedies, misunderstandings and shortcomings, the undaunted courage of its pilots and crews, the vital part they played in the early days of the War and their decisive contribution to final victory.



DIRECT HIT.—Part of the flight deck of the aircraft carrier *Illustrious* after a direct hit from a bomb on January 10, 1941. Stores, stowed in the roof of the hangar just below, caught fire and smoke can be seen coming through the bomb hole. The deck was so hot that water poured on to it turned to steam. The after lift was raised bodily from its place and can be seen beyond the hole. The carrier reached Malta and later crossed the Atlantic to America for repair.

MEDITERRANEAN AIR POWER



By Air-Commodore A. W. F. Glenny, M.C., D.F.C.

ERASING THE PAST.—Capodichino aerodrome, near Naples bears testimony to the accuracy of Allied bombers. The wreck of a Caproni-Reggiane Re 2001 in the foreground has its Fascist insignia painted over. Other wrecks in the picture include two Ju 52/3mfs, an Me 109 and a DFS 230 glider.

The Third and Last Article by Air Commodore Glenny on his visit to the Mediterranean Area of War.

ONE BIG DIFFERENCE between the air operations conducted by the North African Air Forces and those conducted by Fighter and Bomber Commands is that ever since fighting began in earnest last year the Allies have had absolute command of the air in the Mediterranean zone. This held good even when the Eighth Army was in retreat to El Alamein. Our control of the Luftwaffe loosened somewhat during the winter of 1942 over the areas of the First and Seventh Armies because of lack of fighter bases, but what freedom of action the German Air Force gained then was temporary and restricted because on their side they were short of both aircraft and fuel. The stories printed about the "rocking hell of Tebourba" alleged to have been caused by the Stukas were much exaggerated, and on the whole Allied land forces have not had to worry about the Luftwaffe for over 12 months.

It was, in fact, precisely for the creation of a situation in which the soldiers "did not have to worry about the Luftwaffe" that Air Chief Marshal Sir Arthur Tedder had to apply a considerable proportion of his air effort. Preparatory to all the major land battles, for example, the greater part of our bomber effort was devoted to attacking aerodromes, and air "strikes" against the enemy's shipping were employed to cut off German and Italian forces in Africa from their supplies of fuel, transport, spares, bombs and so on.

Our Coastal Air Forces also contributed greatly to the task of gaining and maintaining air superiority. Their offensive against axis shipping so reduced the flow of essential materials to the Luftwaffe that the number of aircraft the enemy could maintain in Africa was limited to a figure much smaller than that maintained by Air Chief Marshal Tedder. Furthermore, by cutting down progressively the flow of fuel, the shipping "strikes" substantially reduced the amount of flying the Luftwaffe could afford. This in its turn limited the scope of his air activity in defence and more particularly in offence. In many cases, also, aircraft destroyed by Allied bombers on aerodromes were grounded because the shipping "strikes" had made it impossible for them to take-off through lack of fuel. This occurred in Sicily, as well as in Africa, and will no doubt continue to happen in Italy. Petrol, oil, spare parts, bombs, and so on, are bulky, and are used at such a rate in the Mediterranean Air War that fair-sized tankers and ships are needed for transportation.

Restriction of Supplies

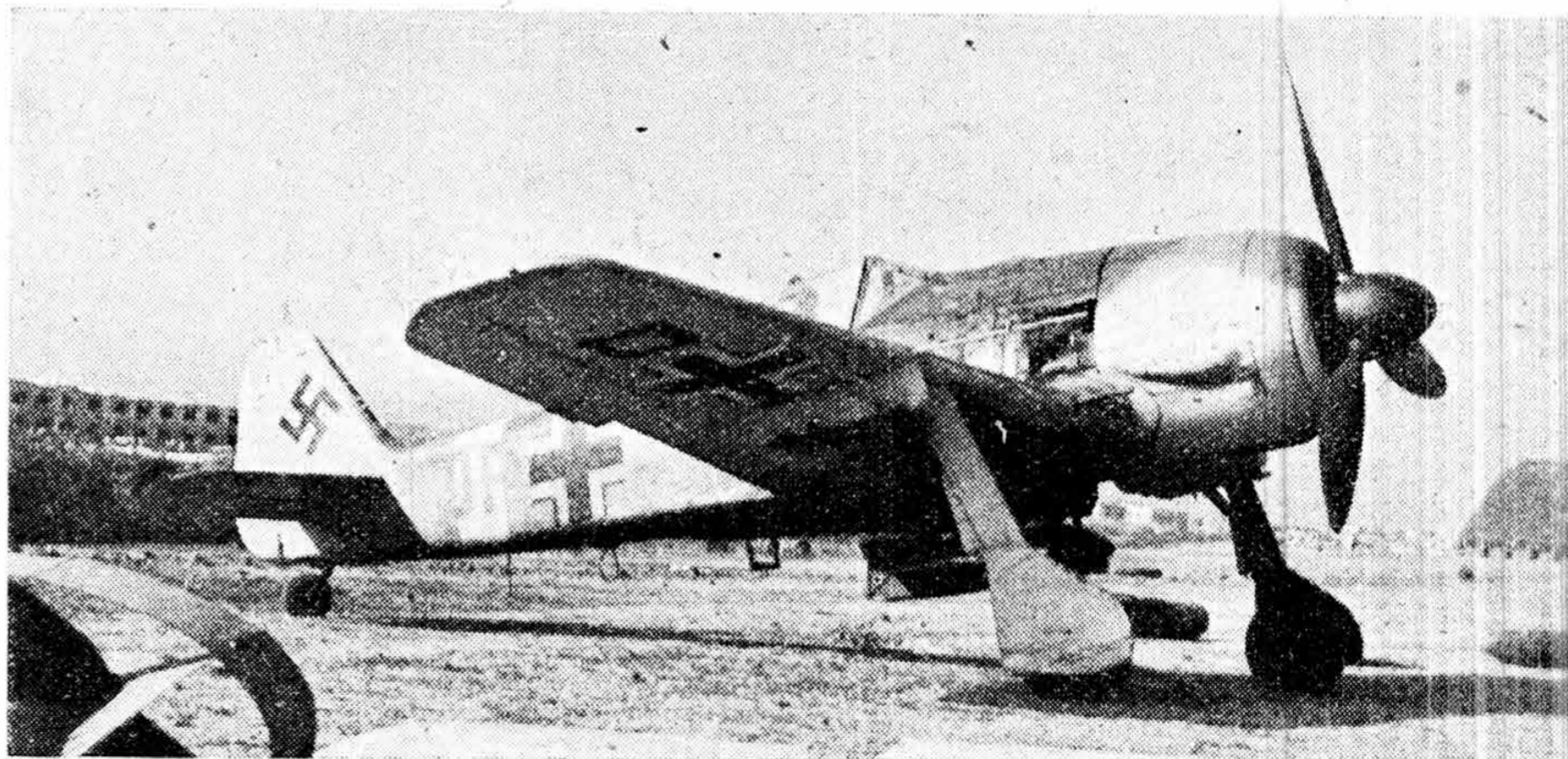
The Germans tried to feed their squadrons in Sicily by sea transport from Naples, Genoa, Spezia and other Western Italian ports so as to make up the bulk which the railways of Italy could not carry while constantly interrupted by air bombardment. They failed, however, to protect their ships from Coastal Air Force, and their squadrons in Sicily were so limited in activity

that they could protect neither their own aerodromes nor Kesselring's land forces from our bomber offensive. Corsica, Sardinia and Adriatic bases are now available to Air Vice-Marshal Sir Hugh Lloyd's Coastal Air Force and his aircraft will obtain an even firmer grip on any enemy shipping which may attempt to feed the German air bases in Italy with fuel. Maj.-General James H. Doolittle's Fortresses and Liberators and General Webster's Marauders will see to it that alternative supply routes by road and rail are kept as chaotic as possible.

Importance of Offensive Action

The foregoing illustrates the importance of offensive action against the enemy's supply lines in the struggle for air superiority. All the way from the Western Desert to Naples and Foggia the bomb and the torpedo played the major part in creating conditions in which the enemy air force was reduced to a state of uselessness for defensive and offensive action. It is all the more remarkable how well the German Army has fought for over a year without any effective air support. In Sicily, for example, half a German battalion held firm against a superior number of Allied battalions for three days, although during that period they were shelled for 48 hours and bombed heavily for 24 hours. The German soldier is as tough as hell and has learnt to fight without air support, but however determined his resistance on the ground may be he is fighting losing battles which are merely milestones in his ultimate defeat. The power of bomber attacks against his communications and transport has ensured this.

The German High Command either "cannot," "will not" or "do not know how to" use air power to advantage. A mixture of all three is the probable explanation. "Cannot" because Bomber Command and the Eighth U.S. Army Air Force



SPOILING THE LINES.—A short-range version of the Focke-Wulf Fw 190A4 captured intact on Monte Corvino aerodrome, near Naples. Presumably the wing racks, which replace long-range tanks on this version, carry 250 lb. bombs. Total bomb load is thus 1,000 lb.

are putting their aircraft factories out of action; "will not" because they are "land power" minded and interpret problems of policy and strategy in terms of "horizontal warfare"; "do not know how to" because they have concentrated their productive efforts on defensive fighters which, as such, are not the proper weapons to make air power felt as it should be felt—as hitting power.

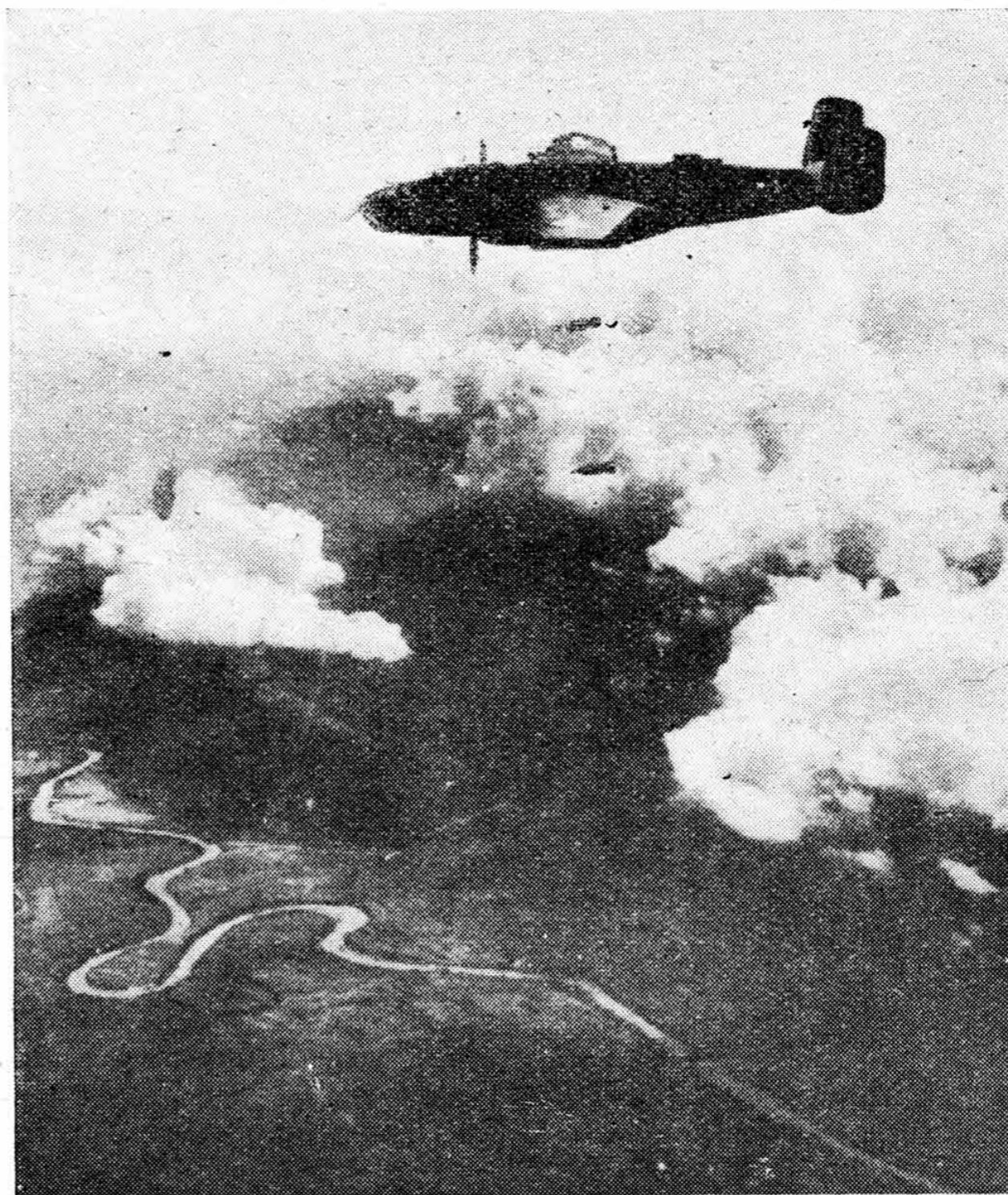
It is hitting power by bomber—proved by the wrecks of hundreds of German aircraft on enemy-occupied aerodromes—rather than by fighter action that has neutralised the Luftwaffe in the Mediterranean zone. These wrecks of every type of aircraft which litter the aerodromes of North Africa, Sicily and Southern Italy, astonish visitors, and equally amazing is the sight of aerodromes which our pattern bombing has potted—the craters almost touch each other. Pattern bombing of aerodromes is reserved for those which are not intended for use when captured. The destruction of enemy aircraft, achieved by the U.S. 20-lb. fragmentation bombs, or by our own rodded 250 pounders, does not necessarily cut up the surface beyond quick repair. Now that aeroplane and aerodrome destruction has been developed to a fine art our policy is to attack the enemy's air bases farther and farther away. We shall try to push the enemy air bases back out of range of our intended theatre of land operations when it is desirable to switch our air effort from attacks bearing directly on the land operations. Many of these operations will be carried out by unescorted Fortresses, Liberators and Marauders flying by day, backed by Wellingtons flying by night. Enough has not been heard of these latter. They are doing a marvellous job and in one recent month were responsible for over half the total tonnage of bombs dropped by Stratforce.

Precision Bombing and Long-range Fighting

The bombers have had to do a fair amount of fighting both in attacking aerodromes and in raiding communication targets. For this, escort fighters—Lightnings and Warhawks—are valuable. Long-range fighting, either by escort fighters or by offensive patrol aircraft, in which the belly tank gives the necessary range, is a noticeable feature of the North African Air Force's operations.

The degree of air superiority achieved by the North African Air Force enables it to carry out precision bombing of an exceedingly high order against any target within range and with far less interference from the enemy than in North-West Europe. In consequence, the military effect of it, in the widest sense, is enhanced. Furthermore, air superiority has enabled the Allies to employ in the Mediterranean types of aircraft, such as Kittyhawks and Blenheim Vs, which could not be used over France or Germany except at considerable risk. We have been able to take liberties with the Germans, both in land and air operations, which we should not assume to be possible in future Continental operations. Fighter squadrons, during the Salerno landings, for instance, were flying from an aerodrome which was in front of our battery line. The landing at Salerno, indeed, at such a distance from the fighters' bases (200 miles in the case of Spitfires), was a liberty in itself, apart from the fact that our invading forces were far fewer than the available German forces.

Conditions were favourable for us to attain and keep our superiority. The supply communications of the Luftwaffe were



VOLTURNO VÆ VICTIS.—Bombs from a North American Mitchell I of the North West African Air Forces falling on enemy gun positions near the Volturno River. Recently North American Mitchells have started to be fitted with four external bomb racks, two outboard of each motor nacelle, which have greatly increased the bomb load. The Mitchell therefore has been raised from the light-medium to the medium bomber class.

vulnerable and seem to have lacked any salvage, runway repair, reconstruction service or equipment worth the name. As a result, they had perpetual "air base trouble."

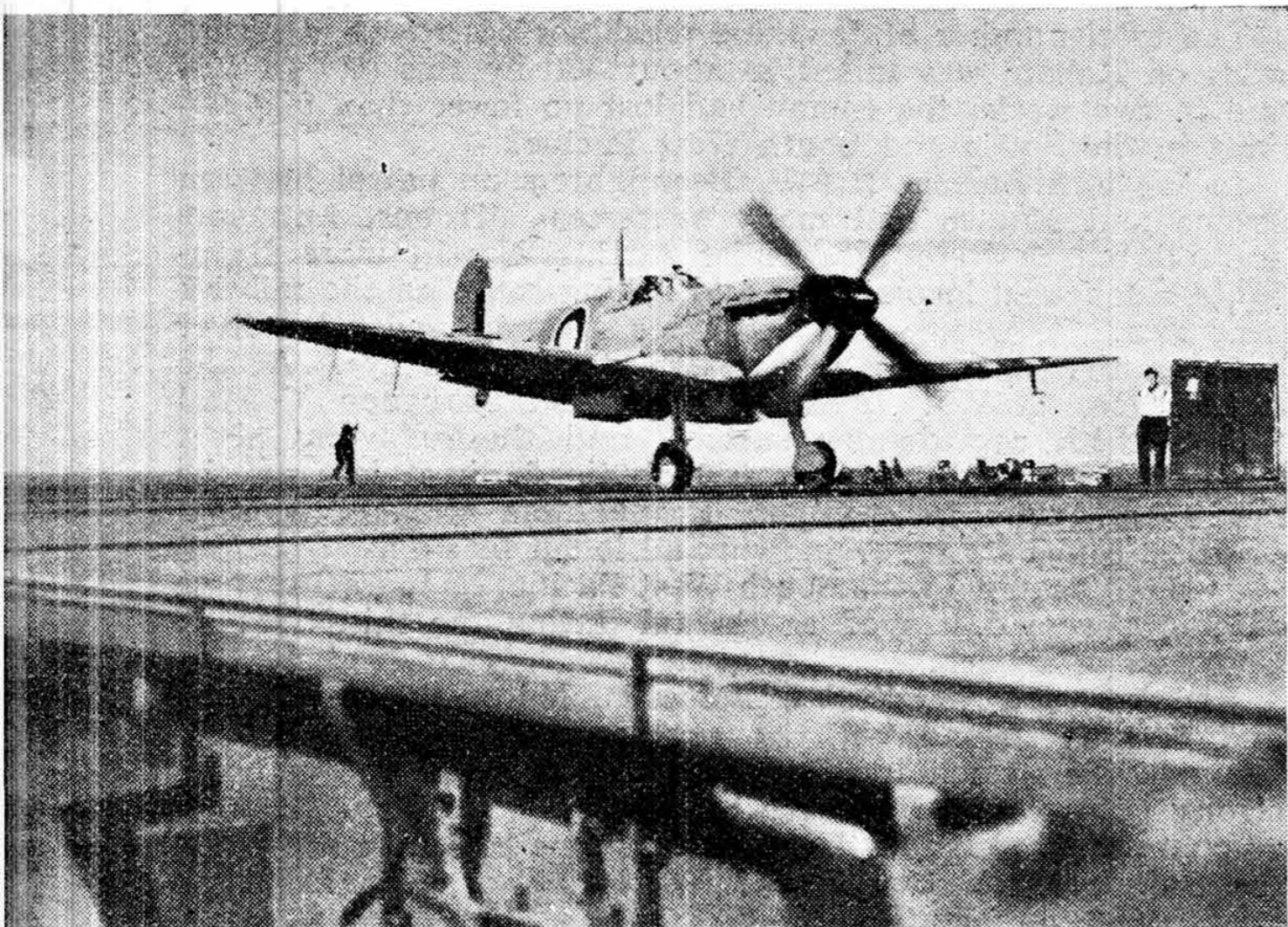
Neutralisation of the German Air Force, then, was in itself worth while, involving as it did the destruction of thousands of enemy aircraft at a time when his factory output difficulties and man-power shortage were acute worries. Fundamentally, however, we set about the Luftwaffe, not in order to give our own bombers freedom of action, nor in order to increase his production difficulties, but to protect from German air attack both our sea and land communications and our forward troops. That is a defensive purpose.

Basic Purpose of Air Power

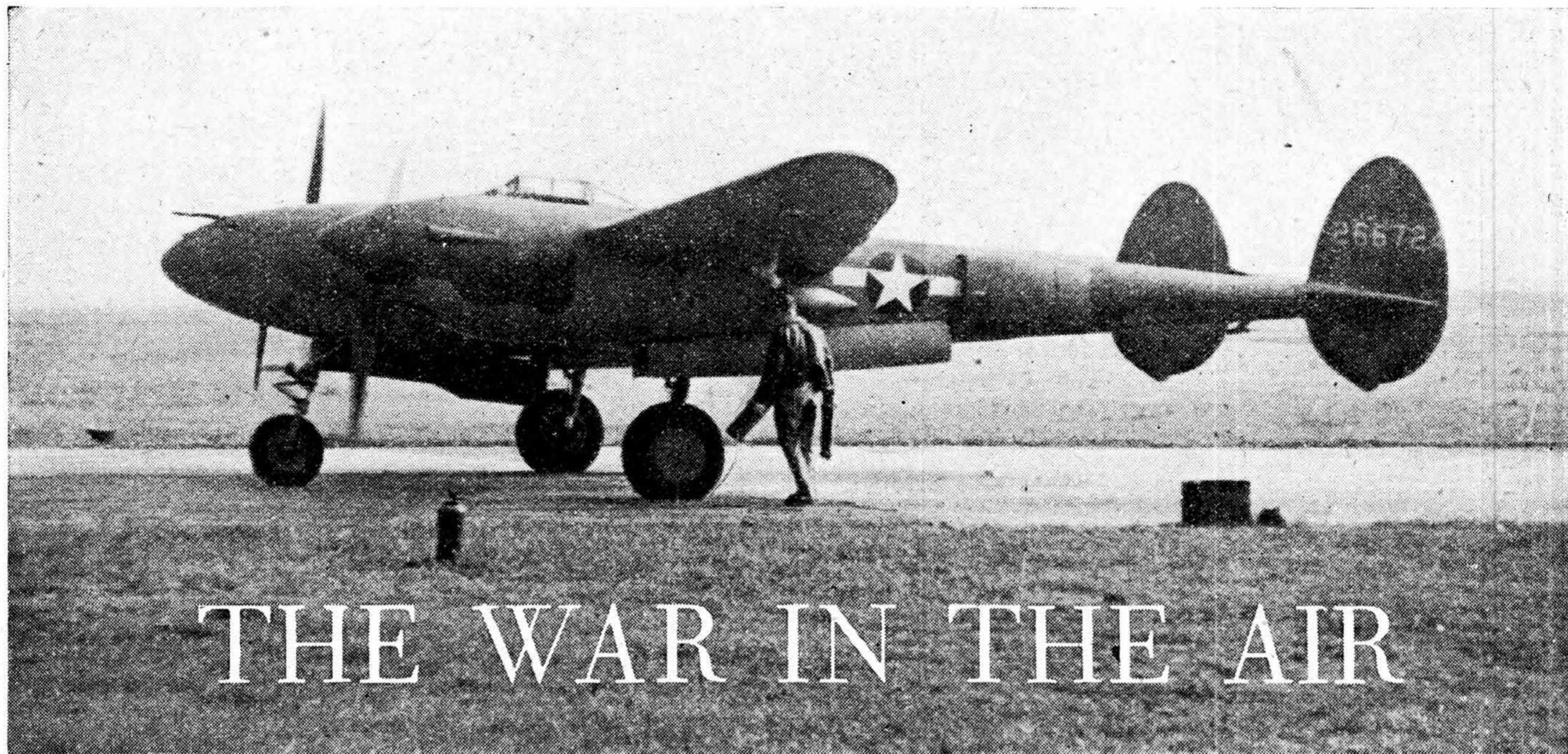
Thus, although the basic purpose of the struggle for air superiority is "security," the results it achieved in the Mediterranean were also the increase of offensive freedom for our bombers. In the process, however, fuel, bombs, aircraft and lives had to be expended to achieve what is, in reality, a secondary aim in "vertical warfare." The primary aim is to influence the course of events on the surface, and this is the true aim of air power. If it is possible to proceed to that purpose—to hit at the enemy on his natural element, the surface, without being diverted to defence or to the attack of enemy "air" objectives—so much the better.

This is the policy to which the greater part of our Bomber Command's effort is, at present, devoted. Therein lies the difference between the character and effects of Mediterranean and home-based bomber operations. The moment the Allies invade across the Channel and create a surface war, then the pattern of our air effort from home or Continental air bases will be the same as it has been in the Mediterranean. The vital question is, of course, whether air power used to influence a land war in this way is of more effect against the enemy's will and power to resist than it is when directed against his vitals. Judging by Göbbels' recent statement that "the air war is the worst of Germany's difficulties," the point is open to argument.

Mediterranean Air Command has shown how, in certain circumstances, "vertical" war can influence operations on the surface. The material lessons learnt are invaluable. Of greater importance is the morale ascendancy of the R.A.F. and the U.S.A.A.F. over the Luftwaffe. The thrashing given to the German Air Force by Air Chief Marshal Tedder is bound to have had deep morale repercussions on the German Air Force as a whole, from which it will not be able to recover.



HUNTER'S HUNTER.—A Supermarine Seafire single-seat Fleet fighter of the Royal Navy takes off from H.M.S. Hunter on a sortie during the Salerno Bay operations in Italy. This is the second photograph showing a four-blade airscrew fitted on the latest Seafire.



THE WAR IN THE AIR

[“Aeroplane” photograph]

LIGHTNING DISPERSAL.—A Lockheed P-38 proceeding along an aerodrome perimeter road under its own power to its dispersal point. The steerable front wheel is of great assistance in this operation. The size of the Lightning may be estimated from the American mechanic who is approaching the aeroplane with wheel chocks.

ONCE AGAIN, Russia held the stage throughout the entire week. The Three-Power Conference in Moscow ended in a most satisfactory manner. President Roosevelt stated that the Conference had been a tremendous success, and had confirmed his confidence that Russia would collaborate with the United States and Great Britain in the post-War period.

In the field, all those possibilities which looked so promising towards the end of the previous week, particularly in South Russia, were carried into effect with a speed which staggered the German Command and everybody else with the possible exception of Premier Stalin and his Staff. The German débâcle—there is no other word for it—began with the unexpectedly rapid fall of Melitopol and Dniepropetrovsk, whose garrisons had been greatly strengthened to withstand a siege.

When both these strong points were taken almost at the same time, German forces, which had been massed in them, attempted to get away by the same escape gap, which became jammed with their transport, even before the Russians had time to close it. By Saturday last, the Red Army was between 70 and 80 miles west of Melitopol, Konstantinovka had been taken, and Russian troops were surging forward west, north and south. They cut the retreating German columns to pieces and pinned thousands of enemy troops to the South bank of the river.

At the same time other Russian forces had crossed the Dnieper above Zaporozhe, closing down upon the other bank and rendering useless any attempts of the enemy to cross. The main Russian thrust in this area, however, was to the South-West, in a race to cut off enemy troops retreating from the Crimea. Here, the Russians broke all their previous records for hustle. By the week-end, they were within long-range gunfire of the Perekop isthmus, last land exit from the Crimea.

How many German troops are left in that area we do not know, as a general evacuation has been proceeding for some time past, but those remaining will have to stage some kind of Dunkirk across the bay to Odessa. Even there they will find only a provisional and temporal safety, for it is becoming abundantly clear that Stalin is out to finish the job and drive the enemy right out of Russia.

The timing of this irresistible push in South Russia is excellent, for in a very little while now Winter closes down in the far North and Russian transport difficulties there will be greatly eased. The German Army in Russia had already experienced two Soviet winter drives, but in each case they had an Autumn respite. This year the exact opposite is the case and what should by their reckoning have been a relatively quiet period has seen the most violent fighting of the whole Russian war.

A queer kink in German psychology was demonstrated by the Berlin accounts of the fighting in South Russia. The term elastic strategy had, one would have thought, been worn to death years ago. We ourselves had enough of it during earlier stages of this War, but Berlin commentators still insist upon using the expression. To make matters worse, they began last week comparing the elastic strategy employed by

German commanders on their Eastern front with that of Ludendorf in the Autumn of 1918. Mention of that particular period would, on the face of it, seem to be the last thing calculated to revive civilian or military morale, but one must remember that the German does not think as we do. The young or even middle-aged inhabitant of the Reich to-day has had drummed into him from childhood that his armies were not beaten in the field when the Armistice on November, 1918, was signed. He is told that German armies in France had been saved by Ludendorf's elastic strategy.

During Göring's tour of inspection of air defences in Western and Southern Germany, he is said to have examined some of the worst bomb damage. A brief glance at the nine square miles of industrial Hamburg, flattened out by Bomber Command, must have given him interesting first-hand information as to how that kind of job can be done when one has the means to do it.

Far East and Pacific

Rabaul had a series of heavy raids on Monday, Oct. 25, when 123 Japanese aircraft were destroyed. Allied raiders dropped 105 tons of bombs and smashed or burnt 45 enemy bombers on the ground, in addition to the fighters shot down. Only four Allied aircraft were lost in these operations, which is striking evidence of Allied air superiority in that theatre of war.

The total number of Japanese machines destroyed in recent raids on Rabaul was raised to about 300 by this day's effort and in two weeks the enemy had lost no fewer than 900 aircraft in the South and South-West Pacific.

In Western Burma, R.A.F. Beaufighters on patrol between Prome and Magwe had many successes. Troops, hutments and oil barges were hit, whilst farther North, more Beaufighters damaged locomotives and rolling stock on the railway near Yeu. They also attacked three steamers and other river craft on the Chindwin, leaving two steamers on fire. At the same time, R.A.F. Liberators attacked Rangoon Central Station with considerable success, and the following night Wellingtons went to Sagain and obtained direct hits on the railway station. In daylight, Beaufighters attacked a large paddle steamer on the Chindwin and left it blazing.

Two days later, in the South-West Pacific, 58 more Japanese machines were destroyed at Rabaul during the third raid on that base in a week.

American and New Zealand forces landed on the small Mono and Stirling Islands in the northern Solomons, south of Bougainville, which increases pressure on New Britain, chief strong point of the Japanese in the South-West Pacific. Air co-operation assisted in these landings by a softening process in the Buin area on Bougainville, and also on Faisi in Shortland Island, culminating in a 500 raid on Buin air base.

In Burma, on Thursday, Oct. 28, Beaufighters damaged five locomotives and 80 wagons on the railways running East and West from Mandalay. Hurricanes shot up enemy-occupied villages near Kalemeye, while Vengeances and Mohawks attacked positions in the Chin hills with good results.

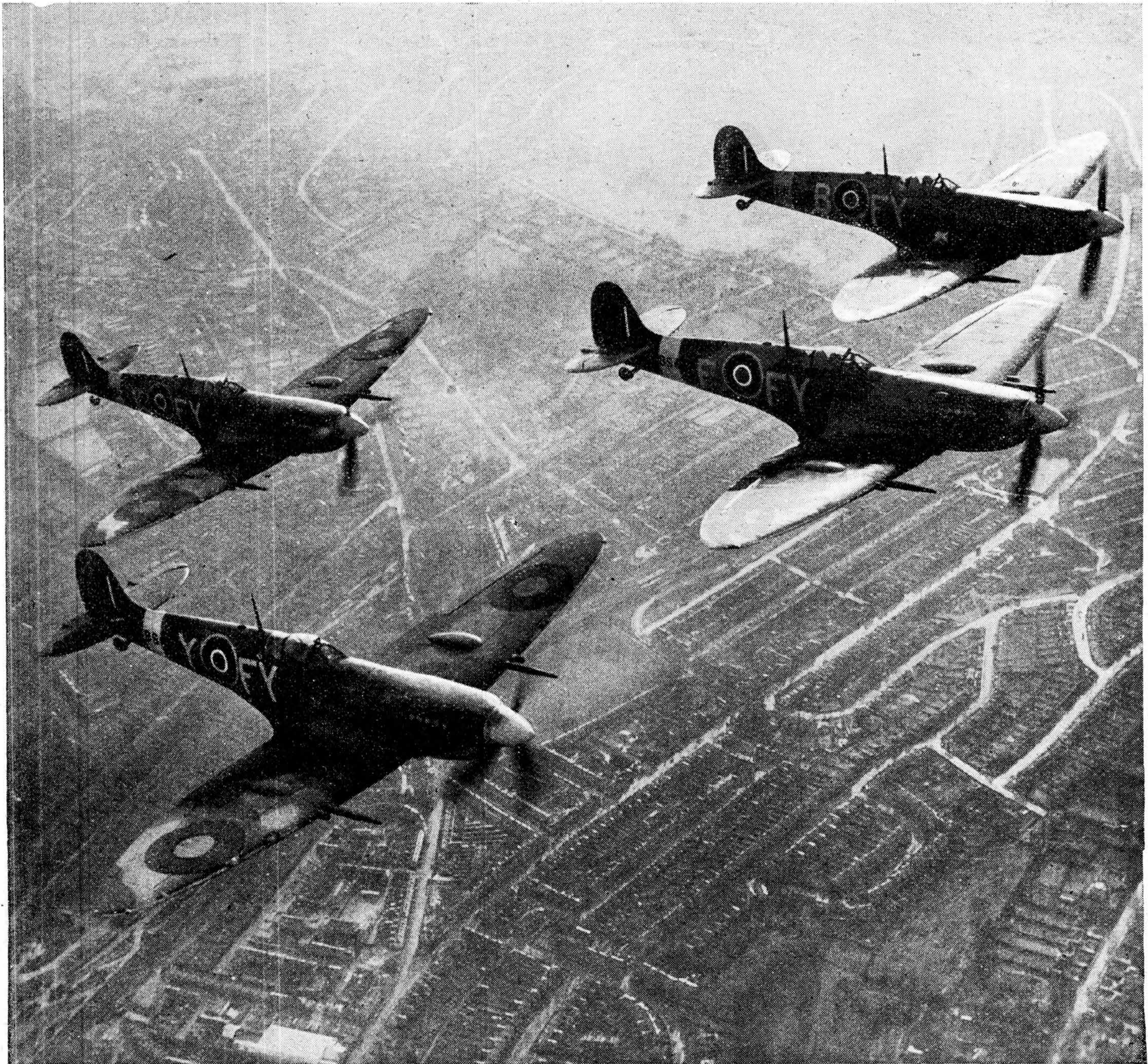
THE 25th German aircraft to fall to Wing Commander J. E. Johnson, D.S.O., D.F.C. and Bar, the other day, was the 100th victim claimed by the Canadian SPITFIRE wing he leads

His SPITFIRE recently went in for its regulation overhaul after 240 hours in the air. It is a great machine. Nearly 100 of his more than 200 cross-Channel sweeps have been made in it.

That SPITFIRE has never been scratched, either by enemy action or in landing. It has never turned back on any sortie, and has never been late at any rendezvous with bomber formations or other fighter squadrons.

Fighter Command experts consider it an outstanding record for any fighter-airplane of any nation.

Evening Standard, 9-9-43.



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BUY DEFENCE BONDS

NEWS OF THE WEEK

During September, aircraft of Bomber Command destroyed 45 enemy night fighters and damaged a large number of others, of which a large proportion are unlikely to have reached their bases. Nineteen of the 45 German fighters brought down were single-engined machines normally used for day fighting. During the same month aircraft of Bomber Command dropped over 17,000 tons of bombs on Germany as compared with 160 tons dropped by the enemy on this country.

The King has been graciously pleased to approve the appointment of Captain Gilbert Rae and Radio Officer James Stanley Wood Payne, both of the British Overseas Airways Corporation, to be an Officer and a Member, respectively, of the Order of the British Empire in recognition of their high courage over an extended period in flying unarmed aircraft on the civil war-time service between the United Kingdom and Stockholm. When Capt. Rae was attacked some time ago over enemy-occupied territory, his aircraft was damaged by cannon fire and the undercarriage hydraulic system put out of action. By most skilful evasive tactics and exceptional coolness in a hazardous situation he was able to avoid further damage, to shake off his assailant and eventually make a forced landing in Sweden with his undercarriage retracted. The landing was made so well that little damage was done to the aeroplane. A few days later, Capt. Rae was again attacked by two German aircraft and again he shook off his attackers and landed safely. On a third occasion, half-way across the North Sea, with a very heavy load, one of his motors failed, but by superb airmanship he got safely back to base. On all these occasions Mr. Payne acted as radio officer of the aircraft. His skill as a radio officer and coolness in the face of extreme danger have been outstanding.

Air Commodore Sturley Philip Simpson, C.B.E., M.C., commanding the Royal Air Force Station at Gibraltar, has been appointed acting Air Vice-Marshal. Air Vice-Marshal Simpson will retain the Gibraltar Air Command, which he has held since Dec., 1941.

Wing Commander James Ernest Pelly-Fry, D.S.O., has been appointed by the King to be an extra equerry and has taken up his duties at Buckingham Palace. This is the first appointment of a serving officer as temporary equerry, and it is likely to be followed by similar appointments denoting a special mark of honour from His Majesty.

The United States output of 100-octane spirit will be doubled within the next 12 months, according to Mr. Harold Ickes, Secretary of the Interior and Petroleum Administrator. Twenty-six new refineries are to begin operation between now and next spring. These statements were made by Mr. Ickes at the opening of a new \$13,000,000 Sun Oil Company plant at Marcus Hook, Penn.

Göring is reported by the German Radio to have completed a three-weeks' inspectional tour of the anti-aircraft defences in Western and Southern Germany. He paid special attention to the Ruhr, where he held conversations with Reich-Defence Commissioners and local gauleiters.

A Fleet Order announces accelerated promotion for Telegraphist/Air-gunners in the Fleet Air Arm, as from Aug. 27, 1943. Instead of requiring a minimum service of five years to reach the rank of Chief Petty Officer from Naval Airman, the new entrant is now promoted Leading Airman so soon as he qualifies and can become a C.P.O. after 18 months' service. Candidates on reaching 18 years are now being called up for immediate training. Apart from ground instruction, this includes more than 100 hours' instruction in the air.

A Polish-air-crew member, who made a parachute landing in Germany about a year ago and is now back with his unit, has had some curious adventures. He was in a raiding force bombing a German city when his aeroplane was badly hit and the crew had to bale out. He himself made a safe landing in the middle of the town and found the streets absolutely deserted. Some of the houses were standing open, the occupants having taken to shelters. Walking along the street, with the raid still going on, he entered a house and found some civilian clothing in a wardrobe. Substituting this for his uniform, he went out again and

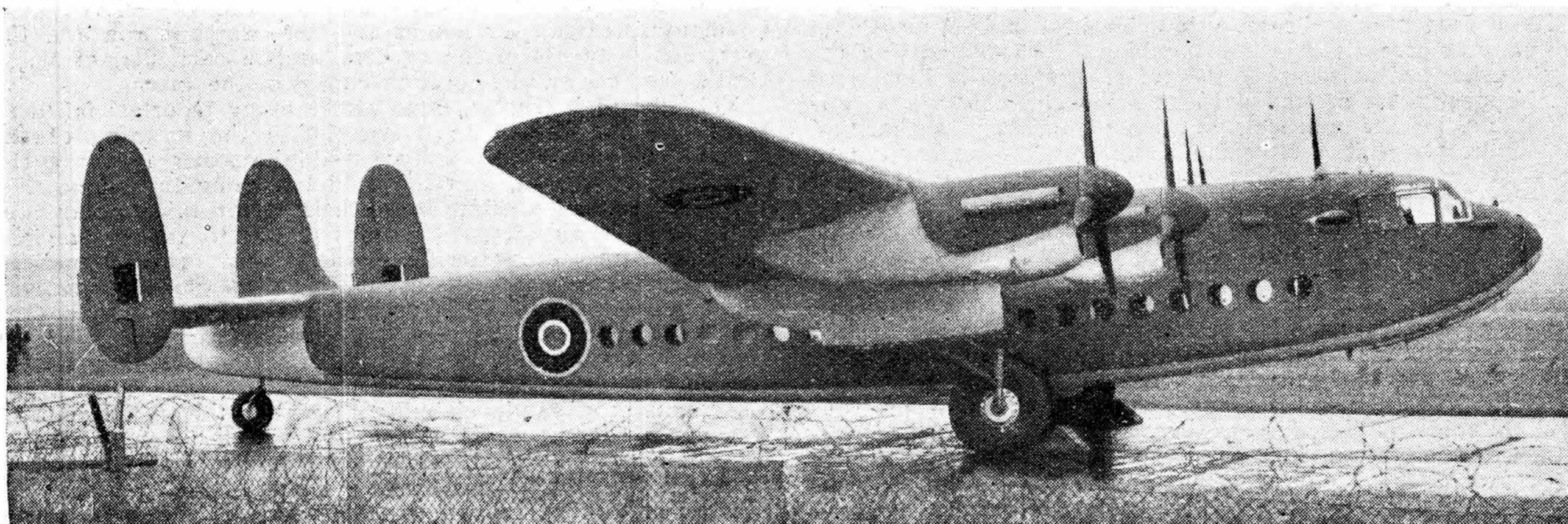
overtook two workmen who, by an amazing piece of luck, proved to be Poles brought into Germany to work. One of them provided the airman with his own identity papers. With these, and his civilian disguise, he worked his way out of Germany into France. Here, he managed to hide for some months and eventually escaped to England.

The outfit allowance for all newly commissioned R.A.F. officers has been cut from £55 to £45. This reduction has been introduced because, in future, officers will only require one service dress of the standard pattern and one battle dress, instead of two service uniforms. The blue battle dress is a working uniform, and will not be worn for ceremonial parades, or when officers are away from their station on leave. Men commissioned from the ranks who already have a battle dress will be allowed to retain it on paying 50 per cent. of the cost.

The vast possibilities of post-War air transport development have not been lost sight of in Central European countries in spite of present conditions. What is described as one of the largest civil airports in the World is said to be nearing completion at Budapest. This has been laid out as part of the public building programme.

A large new transport aerodrome has been opened in the neighbourhood of Cairo to speed the movement of American Air Transport Command aircraft in transit to many fields in the Middle East and India. The construction of this fine aerodrome, with 70 buildings, on the open desert, in the space of 60 days is a notable achievement. The opening ceremony was performed by Maj.-General Ralph Royce, commanding U.S. Forces in the Middle East, and a British military band played the Star Spangled Banner as the American Colours were hoisted. The aerodrome is to be known as Payne Field, in honour of Lieut.-Colonel John Payne, killed in an operational flight on Jan. 11, 1943.

As an example of Anglo-American Air Co-operation, it may be revealed that an important R.A.F. repair depôt somewhere in England was handed over to the United States Army Air Force Service Command last week.



BRITAIN'S PRIMARY WAR TRANSPORT.—The Avro York freight or passenger transport has been in service with the R.A.F. for some time. It is developed from the Avro Lancaster four-motor heavy bomber and incorporates identical wings and motor mountings. The fuselage has been entirely redesigned and a triple-fin tail unit has been introduced.

News from Germany

GERMAN PROPAGANDA dealing with the raid on Schweinfurt by U.S.A.A.F. Fortresses on Oct. 14 is a desperate attempt to raise morale at home, as is shown by German statements, official and unofficial, during the three days following the attack.

The second attack by the U.S. forces on the Tichtel and Sachs roller-bearing factories at Schweinfurt was of primary importance. Study of German propaganda after such an event may be undertaken in two ways. A direct comparison of facts and of tactics and results as described by both sides is usually inconclusive, the German figures of Allied losses and their own "successes" being so greatly exaggerated as to be worthless. The second method uses study of the facts presented by the enemy as the basis for investigation of the reasons for special lines of propaganda and draws certain conclusions about the enemy's state of mind from them.

If we investigate Nazi propaganda statements after the Schweinfurt raid according to the first method, research soon has to be abandoned. The German claim to have destroyed about 199 Flying Fortresses of an attacking force of between 250 and 300, while the Luftwaffe lost only 17 aircraft, is so ridiculous that any further attempts to establish the truth would be simply waste of time.

On the other hand, if we consider propaganda as a weapon of politics, we have to study the political background which governed the issue of such ridiculous claims. The recent past gives two significant clues for such research. One was Doctor Göbbels' speech on Harvest Thanksgiving Day on Oct. 3, the other a meeting of German High Court Judges and high officials of the Ministry of Justice on Oct. 20. Both events had one common aim, to raise the low morale of the German masses.

Göbbels' Propaganda

Göbbels, as Minister for Propaganda and Public Enlightenment, laid down the lines of propaganda for October. Only those dealing with the air aspect need be quoted. He told his audience that "in future ever-increasing enormous losses in personnel and material will be inflicted on the enemy. The moment will then eventually arrive when their success no longer corresponds to the resources in men and material employed. The so-called Flying Fortresses will then become flying coffins." Yet he did not fail to warn his compatriots that setbacks may be experienced, in particular in unfavourable weather. Like a year ago, he promised his audience devastating blows in retaliation.

The German Press commenting on Göbbels' speech enlarged in particular on his indication of retaliation, and one comment of great interest appeared in the "Münchener Neueste Nachrichten" on Oct. 4, the day after a particularly heavy Royal Air Force raid on the important industrial and communication centre Munich. The following sentences speak for themselves: "After nights such as the last, the question of active and effective retaliation arises ever more urgently and passionately over and above the momentary state of distress. Remembering the binding promises of the Reich Government, the German people is waiting with set teeth for the hour which must surely come, lest the enemy's insane terror should become an undisputed law directed against us. Germany is waiting for the day of retaliation, for she is accepting sacrifices and suffering because she is convinced that the fuhrers have prepared the expected hard counterblows thoroughly."

These sentences indicate a low level of public morale in Germany as a result of Allied bombing. The difficulty of the Nazi authorities in stopping the rot is significantly illustrated by the meeting of the judicial leaders which, incidentally, was called not by the political, but by the military authorities. This indicates that a situation somewhat similar to that of 1918 has arisen. The short communiqué issued stated that the meeting dealt with "the administration of the law for the morale and maintenance of the home front in Total War." This means that in future more people will be hanged for grumbling.

A few facts about the Schweinfurt raid as given by official American sources may be recalled. The operation lasted about seven hours from taking off to landing and was made by a strong force of Fortresses accompanied by Thunderbolts far into Nazi-occupied Europe. As on the two previous daylight raids by U.S. forces, Messerschmitts and Focke-Wulfs attacked the escort fighters, while other fighters, mostly two-motored, kept out of range of the 0.5-in. guns of the Fortresses and fired rocket shells. Ground defence batteries tried to make a high artificial fog by firing fog shells. German attacks on the formations took place over the coastal areas of the occupied Western territories and after the bombers had crossed the Rhine, and also on the return journey. The

Command of the U.S. Eighth Army Air Force stated that 60 bombers were lost and that 104 enemy aircraft were destroyed for certain. Four hundred and eighty-five tons of high explosives and 88 tons of incendiaries were dropped over the target. After a careful study of air reconnaissance photographs taken during and after the raid, Brig.-General Frederick L. Anderson, Commanding General of the Eighth Bomber Command, stated that at least 50 per cent. of Schweinfurt's production was destroyed.

The backbone of the German reports of the Battle of Schweinfurt was an almost verbal repetition of Göbbels' points on Oct. 3. According to these reports American losses had reached a level unknown in the history of air warfare; the last gap in the mosaic of German defence was now virtually closed; the Flying Fortresses had become flying coffins; the success of the raid did not pay for the losses as mainly residential quarters and shopping centres in Schweinfurt were hit. In addition to these main points others dealt with new tactics and weapons and gave glowing descriptions of the death-defying heroism of the German fighters who threw themselves again and again against the close ranks of the American bombers bristling with machine-guns and cannon.

The German reports of the losses inflicted upon the attacking force are worth discussion. The communiqué of the German High Command, which was issued almost 24 hours after the raid, spoke of 121 bombers destroyed "according to reports so far received," but said that the destruction of other bombers were probable. Incidentally, the first reports, issued a few hours after the battle, spoke of only 50 enemy aeroplanes destroyed.

The German High Command's communiqué was the signal for even higher claims. In the early evening of the same day the score had reached 174, while late at night 199 were claimed and reports added that this was not the final result as many bombers might not have reached their bases, but have fallen into the sea. The steadily increasing number of American bombers claimed to have been destroyed is in itself a confession that the claims were far from the truth. The Germans asserted that the wreckage of many enemy aeroplanes were found at lonely spots all along the route of the bombers. He who knows densely populated Western Germany and takes also into account the much-boasted densely woven net of air observer posts spread over this part of the Reich, can hardly believe that bombers could crash unobserved. The assumption is justified that the Nazis also counted the wreckage of Flying Fortresses which had been shot down in previous raids, but had not been removed.

The conclusion which the Nazis derive from these losses is equally fallacious. They stated that if an attacking force loses 50 per cent. of its strength that spells disaster, while only a short while ago they claimed that losses of attacking forces have to be judged in comparison with the productive potential of industry and the capacity of training organisations.

Orders for German Press

Göbbels' directions to the German Press regarding one major point do not seem to have been as clearly defined as hitherto, that is in apportioning shares in the German "victory" to the new material, the new tactics or the men who had to execute the orders. The first reports spoke only of the new weapons, the new shells and new fighter types. Later reports gave exclusive credit to the new tactics and denied that new aeroplanes had been used. Eventually Germany's craving for heroes and hero-worship won and the great achievements of the fighters, and in particular of Major Graf's Jagdgeschwader, occupied most of the space.

Yet, like their master, none of the many reporters failed to warn the masses not to over-estimate the meaning of the "great victory." Especially suitable weather favoured the defenders, they said, and it would be wrong to assume that the Allies would abstain from their terror raids because of these losses. The reporters did not fail to repeat previous statements regarding the heavy armament of the American bombers and the enormous fire-power of the closed formations which, according to the reporters, was increased further by the "flying battle cruisers," Fortresses carrying some 30 machine-guns installed in batteries of six and fired by remote control.

German propaganda claiming that the raid on Schweinfurt was not a success worth the great losses is given the lie by a small notice in the "Hamburger Fremdenblatt," according to which the Fichtel and Sachs combine opened a great ball-bearing factory at Puerstein near Bruex in the Sudetenland. The share capital of the Puerstein works indicates that it is not a sub-factory, but has to replace the main plant of which, in two attacks, over 50 per cent. of the productive capacity has been destroyed.



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SPEEDY RESCUE

A Coastal Command group, on the south coast, received word that coastguards had seen an airplane in trouble. Air-sea rescue went into action. Twenty minutes later came a message: "Successful. Crew all O.K."

The airplane in trouble, a Hampden, setting out on a morning patrol, developed engine trouble and was forced to "ditch" a few miles off shore. Coastguards who saw it losing height were able to give an approximate position.

Two high-speed launches were soon racing to the position. The airplane's crew were aboard one of them after having been in the water for only a matter of minutes.

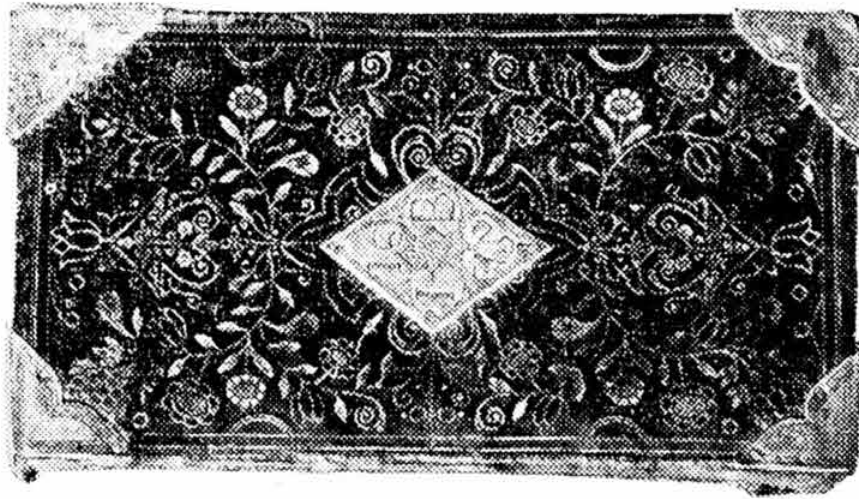
From the EVENING STANDARD, Thursday, 19th August, 1943

The Development of the R.A.F. High-Speed Rescue Launch is another of the achievements of

THE BRITISH POWER  BOAT COMPANY LTD.

Constructors of Scott-Paine designed Surface Craft

ENGLISH WORKMANSHIP



Some time in 1675, a little team was making this tiny book, shown in its actual size. Someone must have brought over the Morocco leather, another the silver and the gold, and using the simplest tools, some produced the silver sheet and engraved it, while others beat the gold into leaf, tanned and dyed the leather, and worked upon it this airy and delicate design.

How free and untrammelled they seem to have been, yet for all we know, their patron may have been changeable, requiring one thing to-day, an alteration to-morrow, and when all was done, the book may have lain unread.

For our own part, we in our work must answer to only one instruction: to make the best: when our work is done we know that what we have made will travel we know not where, carrying we know not what, for the common cause which—despite arguments as to its definition—is the same as that of the ball bearing: to carry the load and yet to be 'free.'

Fischer Bearings Co. Ltd., Wolverhampton. Associated with British Timken Ltd.

Ball and roller bearings & transmission equipment by **Fischer**

The music lesson

This piece of Chelsea porcelain, based on a work by Boucher, shows exquisite English workmanship; to glance at its playful nonsense is to escape some of the urgent austerity of the moment.

What progress, we wonder, would be made by a pupil who contributed only puffs of air in tempo with the skill of her swain?

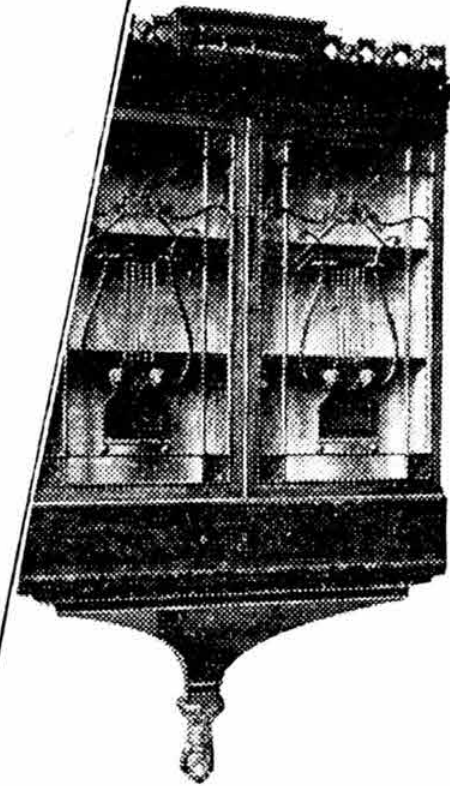
Would she, perhaps, have reckoned on an increased activity among those labouring within earshot?

And which of the pair, if either, would have to answer to the Performing Rights Society of those days, and would the presence of the adulatory audience influence the royalties?

Fischer Bearings Co., Ltd. Wolverhampton. Associated with British Timken Ltd.

Ball and roller bearings & transmission equipment by **Fischer**

WORKMANSHIP



Metal, mahogany and elegant design are coupled together in this hanging cabinet, made in about 1800.

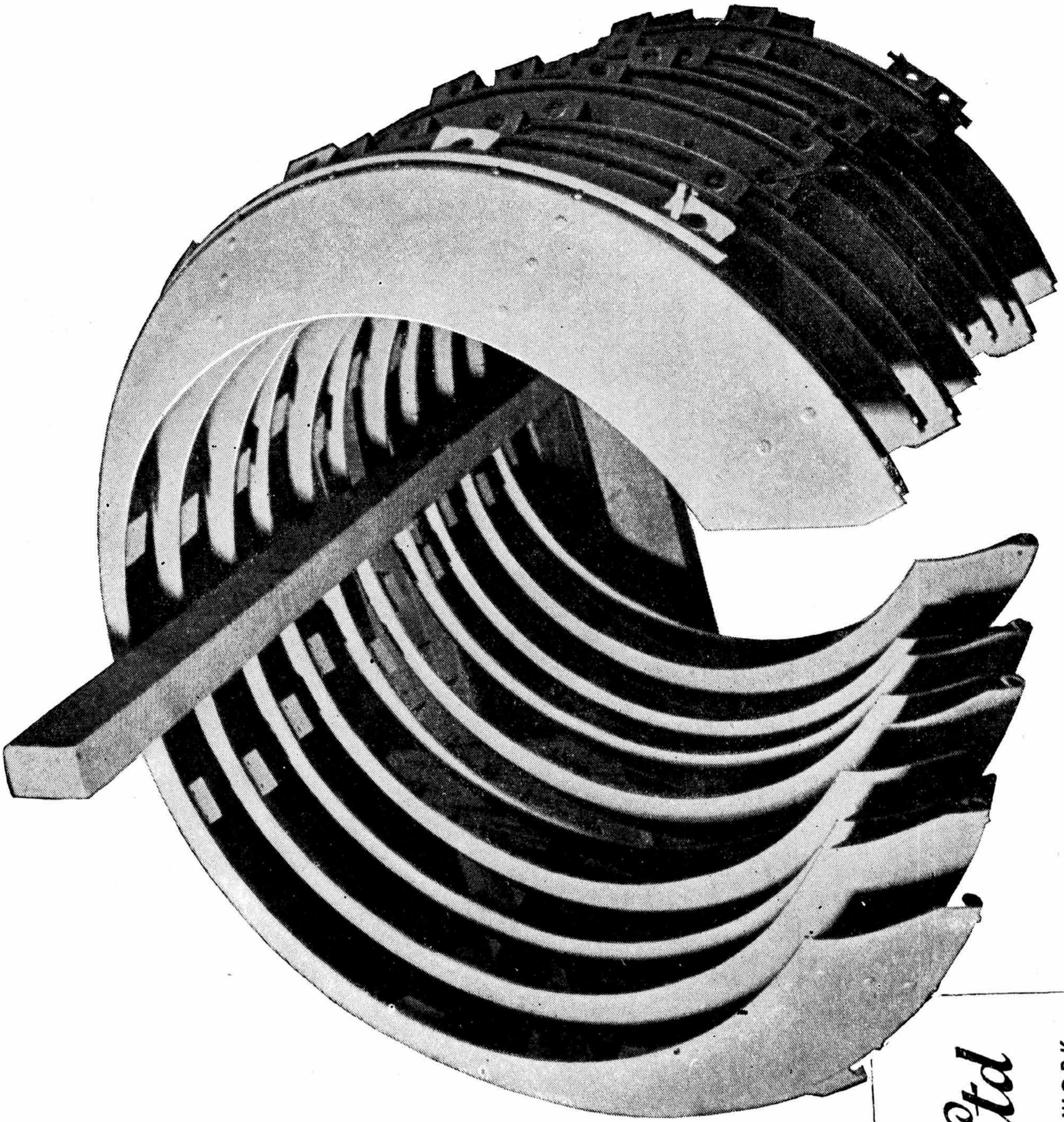
We look at a modern cubist cupboard on the wall, adhering without evidence of any support, and then at this.

Is it merely due to our intellectual craving for structural security that some of us are happy to be deceived by the pretending corbel, or is some other thought in our minds, akin perhaps to that which leads some of us to accept as a form of beauty the glint of metal decoration inlaid among the random-figured wood?

These questions we leave to you to answer while we go back to our own task of maintaining, in every piece we make, a high-water mark in workmanship, which—forbidding all caprice in design or ornament—is of known and vital necessity.

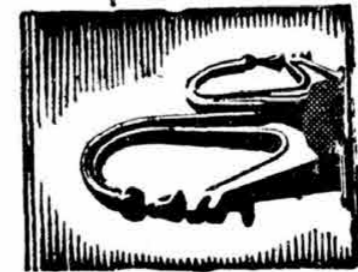
Fischer Bearings Co. Ltd., Wolverhampton. Associated with British Timken Ltd.

Ball and roller bearings & transmission equipment by **Fischer**



Collars on the drying fields of Eton? . . .

Not really, but something to do with the neck — Hitler's neck, and a pain therein. These front support rings for engine nacelle fairings will become part of our ever-growing aerial armada. And each of these support rings, like all sheet metal work by Ranalah craftsmen, is made to such fine limits that interchangeability of parts is guaranteed.



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*Ranalah Ltd., Head Office, Morden Road, Merton, London, S.W.19
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CORRESPONDENCE

Vertical Thrust

I HAVE recently been reading a book entitled "The Romance of Aeronautics" written by Charles C. Turner and published in the year 1912

With regard to the recent correspondence in THE AEROPLANE on helicopters, I found the following paragraph particularly interesting. It was included in a chapter called "Curious Early Fallacies":—

"A very persistent belief is that a practicable flying machine can be driven by a propeller with a vertical thrust like the familiar helicopter toy. In practice no existing engine is powerful enough to lift its own weight in this fashion, but the fascination of the prospect of rising vertically from the ground is sufficient to tempt inventors, in alliance, be it said, with company promoters, to produce schemes for this type of machine. A moment's thought will show how entirely useless such a machine would be even if it could be made to ascend. If the engine stopped it would descend vertically. The advantage of the aeroplane, indeed, is that . . . in case of the sudden stoppage of the power, the machine descends in the way it goes up, namely, at a small gradient."

The author's first argument is no longer valid, due to the advances made in the power/weight ratios of aero-motors, but what about his second objection? Admittedly aero-motors are much more reliable now than they were in 1912 and, presumably, if the helicopter were in motion it could glide a short distance, but if it is hovering and the motor stops does it crash to earth or is some provision made against this?

I. D. HILL.

In Favour of Heavy Bombers

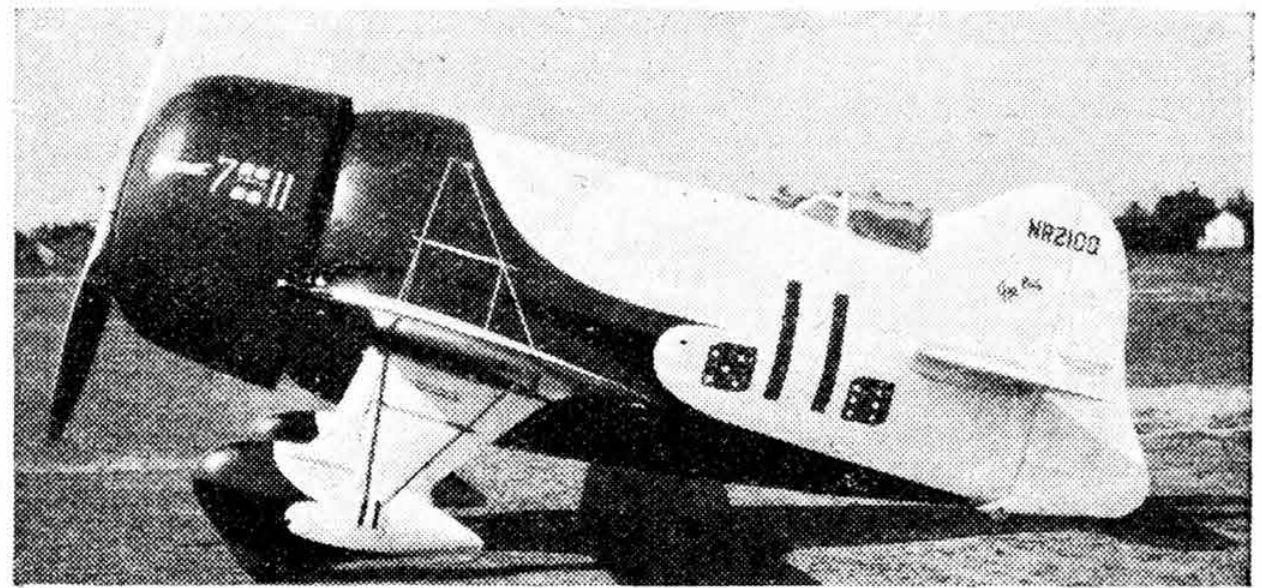
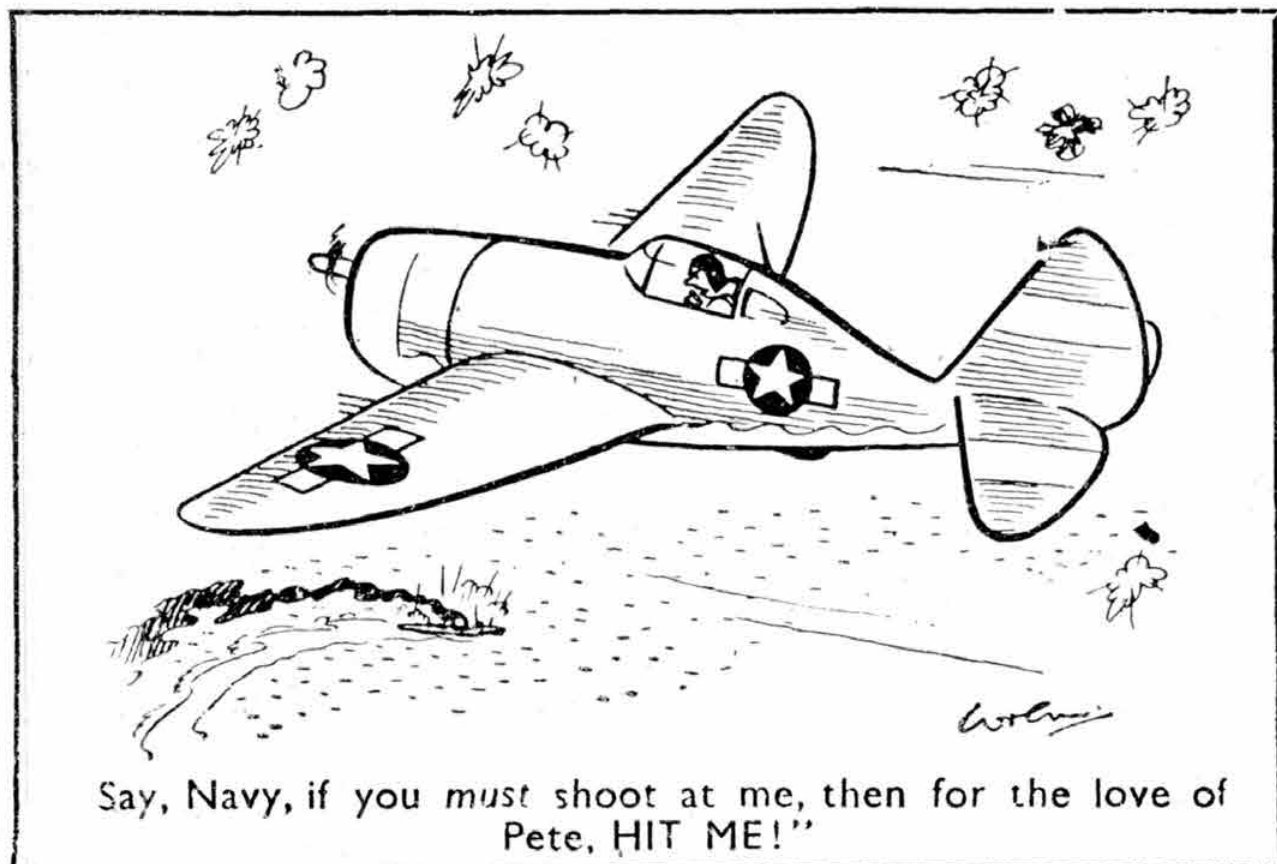
I AM INTERESTED to see from your issue of Oct. 22 that your correspondent Mr. Eric Sargent still advocates the use of medium bombers in favour of heavy bombers in our bombing offensive. Seeing that, as Mr. Sargent mentions, I am the person who "severely criticised" his points in favour of his advocacy at the time (Dec. 12, 1941, and Jan. 9, 1942) I would like to say something on the subject again.

Your correspondent favours the medium bomber because of its supposed greater speed. At this point I would like to point out that the Mosquito and the numerous fighter-bombers are not medium-bombers, the use of which he is advocating. These can be described as high-speed light bombers, which admittedly have proved their worth in action and have been successful in attacks on small moving targets and those of a highly strategic nature where the element of surprise given by high speed was essential and where the small load of bombs carried would have the desired effect if hits were scored.

They meet with little success against very large "area targets" where only systematic plastering of the target with large loads and swamping the defences produces the right result. To return to the point, the aeroplane to which your correspondent refers in particular in his original letter is the Martin Marauder, which has a maximum speed of some 274 m.p.h., barely faster than the heavy bombers figuring in the news at the time. When it is used on operations now it has to be escorted by fighters in exactly the same way as heavy bombers, and where do its advantages over the heavy bomber lie? Its disadvantages are obvious.

Mention has been made recently of the time when Allied air superiority will be so great that the enemy's defences will be completely saturated and neutralised. Then our heavy bombers will be able to roam over Germany at will. What a pitiful waste it would be if at that time we had relinquished heavy bombers in favour of medium bombers—rather like digging a huge hole with spoons instead of spades.

W. B. RICHARDSON.



A MISNOMER.—The Doolittle Gee Bee racer which won the Eleventh National Air Race in America in 1932. It also took the World's landplane speed record in that year. By comparing this photograph with that which appeared in THE AEROPLANE of Oct. 1 the difference between the rudders of No. 7 and No. 11 may be noticed as mentioned by our correspondent below.

The Gee Bee Racers

I HAVE NOTED your article on the Gee Bee racers in your issue of Oct. 1 with great interest. Very few people in the United Kingdom ever became acquainted with the extent to which air racing was developed in the United States prior to the outbreak of hostilities.

I should like to point out that the aeroplane shown in the illustrations of your article as the Super-Sportster of 1932 was not the aeroplane flown by Jimmie Doolittle, nor was it the aeroplane which held the World's Speed Record. The aeroplane flown by Doolittle did not have such a large rudder area below the tailplane and its identification number was NR.2100.

In addition to the aeroplane you mention, the Granville Bros. produced a racer in 1930 which was fitted with an in-line engine, although the characteristic design was the same as the other types produced. This aeroplane was flown by Florence Klingens-Smith at the 1930 National Air Races and it was during one of the events that Miss Klingens-Smith crashed and was killed.

The Gee Bee racers mark an episode in American aeronautical history which should not be forgotten, and although they and other types were fundamentally unstable and dangerous aircraft, there is no doubt that they paved the way for later types of fighter aircraft which were produced for the Army Air Corps, such aircraft as the Boeing P-26 and the Consolidated P-30. Most of the aeroplanes produced for air racing during this time were entirely sponsored by amateurs and private venture, with the result that a flock of unorthodox types were produced with many new schemes and appellations. Such names as Matty Laird, Fokerts, Wedell-Williams, Brown, Benny Howard, Steve Wittman bring to mind the aeroplanes concerned.

In 1936, however, Michel Detroyat attended the National Air Races with a Caudron racer which was equipped with a Renault engine of approximately 400 h.p. This aeroplane, in competition with Col. Roscoe-Turner flying a Wedell-Williams (1,200 h.p. P. and W. Twin Wasp), romped home to win, breaking the speed record for this event. As the Caudron was an aeroplane which had been backed by the French Ministère de l'Air the result was not surprising.

We in this country never saw nor are likely to see in the future such air racing as took place in those days in the U.S.A., and although many people referred to these events as "Roman Holidays," there is no doubt that they served the purpose of encouraging interest in aviation.

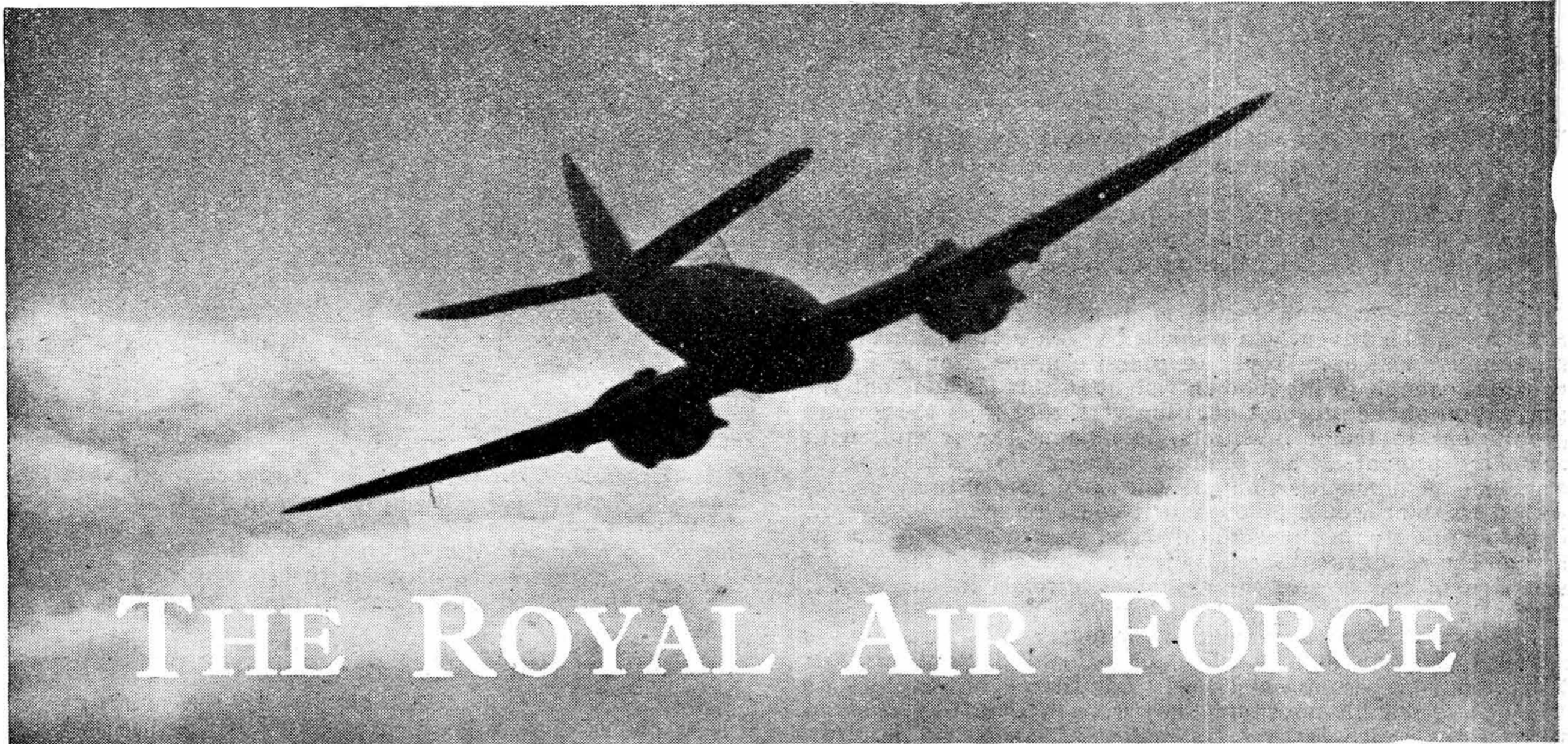
L. S. WIGDORTCHIK

The Air Age

MULTITUDES OF people will, in the post-War period, no doubt be carried through the air with the greatest of ease. Much has already been planned as regards routes and aerodromes. Many rules, regulations and working instructions will have to be framed and put into operation to control all movements with the greatest precision.

Many "avenues" will have to be "explored" to ensure as far as possible safety and supervision of the passengers; such as:—Parachutes; folded as umbrellas for each person; overalls, two-piece garments of battle-dress outline for men and women; return fares, to be prepaid and evidence of other funds being available if required; permits and passports with portraits and finger-prints for passing any State frontier or area defined by latitude or longitude; and strict examination of things personally carried and of all luggage. This last essential because of the tendency of people "to commit the oldest sins in newest kind of ways."

J. H. WAGSTAFF.



CAT'S EYES.—A Bristol Beaufighter I climbs into the darkness from a night-fighter station.

THE ROLL OF HONOUR

THE 297th, 298th, 299th and 300th Casualty Lists were published by the Air Ministry on October 20, 21, 23 and 27. They contain the names of 1,184 R.A.F. officers and airmen, including those of 392 mentioned in previous lists as missing or missing believed killed and now presumed or reported killed in action or on active service or prisoner of war.

The lists include 145 killed in action or on active service, 76 died or died of wounds or injuries received in action or on active service, 32 wounded or injured in action or on active service and 539 missing or missing believed killed in action or on active service.

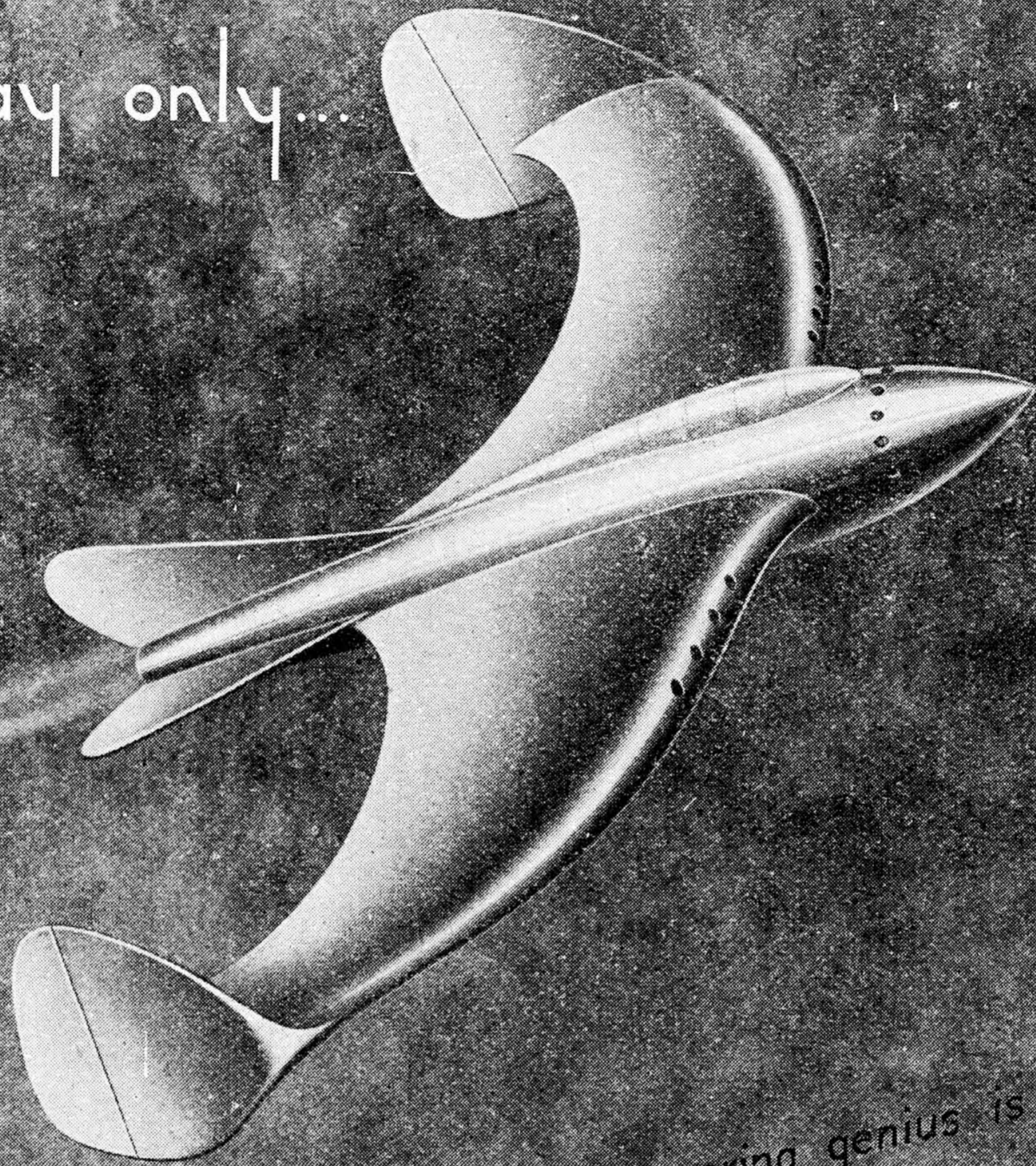
The total R.A.F. casualties officially reported since the War began is now 59,426.

The 297th, 298th, 299th and 300th Casualty Lists are:—

ROYAL AIR FORCE		Killed in Action	
2209008	Sgt. E. Causer.	1359999	Sgt. L. G. Powell.
118060	F/O K. Arthur.	1315036	Sgt. P. Sandover.
1282309	Sgt. L. J. V. Cotton.	1071533	Sgt. A. M. Templeton.
138148	P/O M. H. Davies.	1119267	Sgt. J. R. Walker.
1332987	Sgt. P. A. Fricker.	1319418	Sgt. G. B. Wilkinson.
46396	F/L D. C. Moon.	1510347	Sgt. D. B. Yates.
134679	P/O T. D. O'Boyle.	1000318	Sgt. J. L. Chariton.
576165	Sgt. W. G. Onion.	615248	Sgt. H. T. Cheetham.
131009	F/L A. R. Short.	1022463	Sgt. H. Clarkon.
139622	P/O F. Street.	754975	W.O. H. R. Cox.
1396247	Sgt. E. A. White.	48379	F/O T. H. Follett.
1287499	F/Sgt. J. W. Burton.	1090020	Sgt. G. Gray.
138785	P/O R. E. Chesser.	1207582	Sgt. K. Holmes.
1259732	F/Sgt. J. R. Coster.	111235	F/L C. L. Johnson.
1196620	Sgt. C. E. Crampton.	1334012	Sgt. D. Johnson.
125507	F/O J. F. H. Erwin.	1108118	Sgt. E. Jones.
1673319	Sgt. L. P. Fannan.	115277	P/O G. B. H. King.
132378	F/O N. P. Gardner.	1288699	Sgt. F. H. Lukey.
62311	F/L A. C. Griffin.	1333607	Sgt. J. Nicholson.
45199	F/L C. S. Crossey.	1110184	Sgt. J. B. Robertson.
1316791	F/Sgt. J. C. McOlinken.	1239964	Sgt. D. Sims.
1336498	Sgt. F. H. Merritt.	1198362	Sgt. F. R. Thompson.
134375	F/O D. G. Mitchell.	1177310	F/Sgt. T. A. Vaux.
1130155	Sgt. G. E. Oliver.	656098	F/Sgt. B. J. Ward.
657043	F/Sgt. N. B. Pickford.	656220	Sgt. R. E. Webb.
749904	Sgt. W. N. Pitts.	642287	Sgt. S. F. Wells.
1190686	Sgt. J. Poole.	1586443	Sgt. R. H. Bambury.
148478	P/O C. A. H. Silvester.	1378175	Sgt. W. D. Bowen.
1338702	Sgt. G. F. W. Tilt.	139206	P/O R. S. Burgher.
51121	F/O G. N. Wilkinson.	1214849	Sgt. D. B. Care.
		1334417	Sgt. A. T. Carpenter.
		1193709	Sgt. T. J. Cox.
		1065732	Sgt. G. R. Dickenson.
		139218	P/O G. Farmer.
		657022	Sgt. E. J. Frith.
		542498	Sgt. G. Henderson.
		1579656	Sgt. A. R. James.
		42007	F/L W. J. R. Kirk.
		61283	Act. F/L D. H. S.
			Lonsdale.
		1028939	Sgt. N. T. McMaster.
		123834	F/O J. E. Mason.
		124949	F/O H. L. Meller.
		1152974	Sgt. J. I. Morris.
		119014	F/O W. O. Peacock.
		642436	Sgt. J. Peak.
		1253689	Sgt. A. T. Rillet.
		106859	P/O J. R. W. Roe.
		996559	Sgt. R. C. Saunders.
		1289965	F/Sgt. W. E. Smith.
		1334611	Sgt. A. D. Smitherman.
		1343848	Sgt. W. Stewart.
		1028724	Sgt. P. J. Turner.
		1214692	Sgt. J. Wilby.
			Previously Reported Missing, Now Presumed Killed in Action
		1269014	Sgt. H. C. Adkins.
		1311746	Sgt. L. G. Alexander.
		1430574	Sgt. D. Alford.

1098639	Sgt. R. Allan.	1310056	Sgt. J. Williams.
106529	F/O D. J. Appleton.	1384301	Sgt. F. Wood.
748927	Sgt. E. Bance.	1132141	Sgt. E. A. Yates.
105192	P/O K. Bannerman-Pillai.	1375544	Sgt. D. Buchanan.
		80421	F/L A. R. Chaplin.
754583	Sgt. J. L. E. Barden.	631115	Sgt. F. P. Crawford.
1385600	Sgt. H. A. Bastick.	142572	P/O J. Dickinson.
41982	F/L F. B. Bassett.	1187011	Sgt. J. J. Gadd.
1395027	Sgt. T. W. Brock.	1315144	Sgt. L. J. Gait.
116940	F/O A. N. Bulpitt.	632517	Sgt. J. J. Gallimore.
948084	Sgt. F. R. W. Checketts.	1035756	Sgt. J. H. Harris.
1324101	Sgt. A. J. Cover.	1240536	Sgt. D. G. Heath.
1377041	Sgt. P. B. Copp.	634581	Sgt. H. E. Hendon.
1030470	Sgt. L. Cox.	1385055	Sgt. C. N. Judd.
1204001	F/Sgt. R. W. Davison.	122723	F/O F. R. Leonard.
778128	Sgt. W. E. Debeurier.	605412	Sgt. R. T. Luepke.
644404	Sgt. P. S. Fisher.	1380447	F/Sgt. G. McD.
1264837	Sgt. R. W. Goffin.		MacKinnon.
568519	Sgt. G. Guerrier.	129636	P/O B. E. Morgan.
1217158	Sgt. D. V. Gwilliam.	76465	S/L E. D. J. Parker, G.C., D.F.C.
1109208	Sgt. C. E. Hagan.		
1538483	Sgt. K. Hall.	1189810	Sgt. C. G. Parr.
1147706	Sgt. J. H. Halliwell.	1177071	Sgt. H. Pateman.
1225093	Sgt. E. G. Harrold.	1585059	Sgt. P. H. Pearce.
1425545	Sgt. H. B. Hill.	984566	Sgt. D. T. Pitman, D.F.M.
1379644	Sgt. R. Hordon.		
85250	F/L R. A. Jackson.	655703	Sgt. E. T. Port.
1380526	Sgt. J. C. Jacques.	128958	P/O F. A. Read, D.F.C.
1293092	F/Sgt. J. Kiernan.	1164473	F/Sgt. H. A. Roberts.
103831	P/O O. T. P. King.	563012	Sgt. R. Sawyer.
128589	P/O A. W. Lane.	915124	Sgt. A. E. Sedin.
1354876	Sgt. R. F. Lillywhite, D.F.M.	1536441	Sgt. J. Slater.
		1263058	Sgt. J. E. Smith.
1291991	Sgt. E. C. Mantell.	1038690	Sgt. F. W. Stanners.
634701	Sgt. S. A. Miller.	109381	F/O L. E. Stockwell.
1310478	Sgt. H. J. Naylor.	1290986	Sgt. C. R. Stoward.
1189941	Sgt. R. G. Oliver.	126506	P/O M. R. Symonds.
1310464	Sgt. W. K. D. Page.	1167270	Sgt. K. A. Wait.
1330740	F/Sgt. H. A. Ross-Thomson.	1061883	F/Sgt. J. D. Walls.
		1375146	Sgt. E. C. Webb.
1380702	Sgt. F. Saunders.	1320645	Sgt. W. F. R. Webb.
954437	Sgt. R. Skelton.	120755	P/O N. K. Adams.
656636	Sgt. T. E. Thompson.	108626	P/O W. H. Baker, D.F.C.
986255	Sgt. I. C. Traill.		
1457095	Sgt. S. D. Wall.	657240	F/Sgt. W. C. Burr.
524640	Sgt. C. A. Weymouth.	47131	P/O P. S. Champion-Jones.
1437991	Sgt. R. Williams.		
130147	P/O C. K. Wood.	1332233	Sgt. F. J. Cherry.
80194	P/O S. R. Young.	1187719	Sgt. C. L. Davies.
134011	P/O J. A. G. Anscumb.	1047277	Sgt. S. V. Deed.
47840	F/O A. D. Bell.	1584029	Sgt. H. C. Dent.
701008	Sgt. R. J. Benn.	1397293	Sgt. G. W. Dillon.
1380886	Sgt. S. J. Berry.	1018429	Sgt. J. Donald.
1380060	Sgt. W. H. Bevan.	1338700	Sgt. R. E. Dutton.
109906	Act. F/L A. Breaky.	130102	F/O W. N. Eales.
778785	Sgt. A. M. Coakey.	1334954	Sgt. L. F. Eastoe.
1383580	Sgt. G. A. F. Couzens.	1021309	Sgt. G. Form.
1339128	Sgt. J. H. Dyer.	83117	F/O J. Francombe.
1001414	F/Sgt. C. E. Gray.	111254	F/O G. D. Garrod.
1172809	F/Sgt. S. H. Greene.	964652	F/Sgt. P. N. Goalby.
804158	Sgt. A. V. D. Hines.	129450	P/O V. N. Gwyer.
1316546	Sgt. B. C. D. Holmes.	1148932	Sgt. G. Jennings.
1394757	Sgt. E. H. Holmes.	1181778	F/Sgt. G. D. Kirkby.
1202313	Sgt. J. W. Layton.	643724	Sgt. C. J. Lee.
1108568	Sgt. A. C. McBay.	909501	Sgt. R. S. V. Lewis.
50661	P/O J. McCormack.	1476073	A.C.2 L. H. Mallinson.
1167372	Sgt. A. E. Mackrill.	130463	P/O D. G. Mercer, D.F.C.
1135821	Sgt. A. R. Maddison.		
141709	P/O W. R. Major.	777923	Sgt. T. Miller.
1040912	Sgt. A. Marshall.	1114271	Sgt. A. Morgan.
547242	Sgt. K. Marshall.	116960	Act. F/O E. G. Nichols.
936753	W.O. C. S. Maxfield.	73008	F/L M. G. Olley.
1312077	F/Sgt. F. J. Miles.	541922	Sgt. J. L. Organ.
1238469	Sgt. C. Naylor.	950301	Sgt. R. S. Otter.
122229	F/O F. A. S. Patterson.	144037	P/O L. Powell.
1043274	Sgt. G. Pettinger.	1319652	Sgt. A. B. P. Rumsey.
1188032	F/Sgt. J. A. Rowley.	127266	F/O E. H. Scott.
1380795	F/Sgt. A. W. Simpson.	573650	Sgt. T. Shepherd.
1178924	Sgt. C. N. Stansbury.	106561	Act. S/L E. R. Simpson, D.F.M.
1377653	Sgt. N. Van Gelder.		
1360578	Sgt. J. Vosper.		

Not for Today only...



but as long as Aeronautical Science advances and engineering genius is required

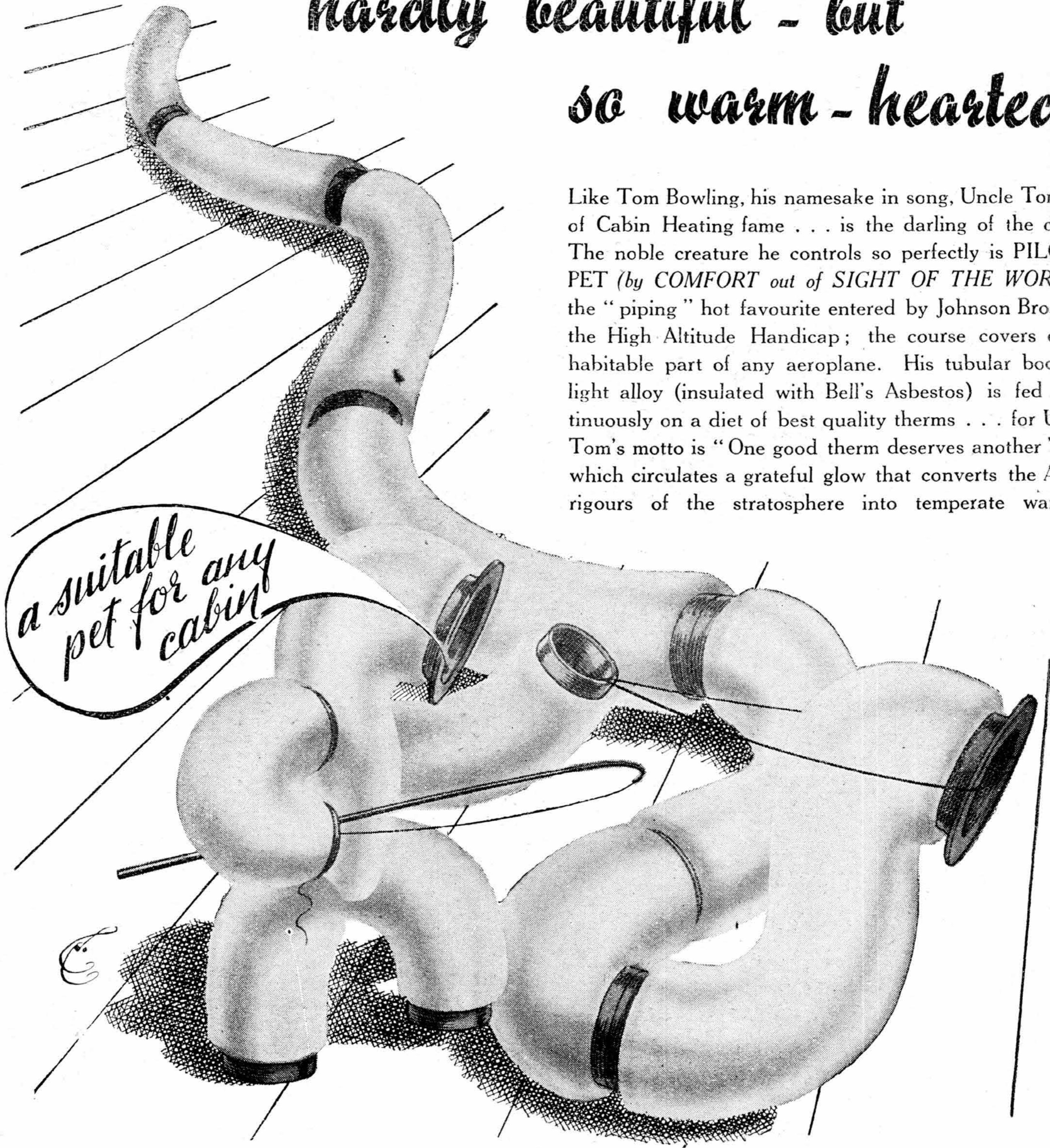
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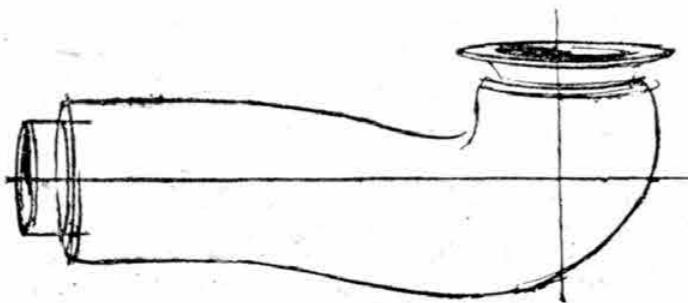
Like Tom Bowling, his namesake in song, Uncle Tom . . . of Cabin Heating fame . . . is the darling of the crew! The noble creature he controls so perfectly is PILOTS' PET (by COMFORT out of SIGHT OF THE WORLD), the "piping" hot favourite entered by Johnson Bros. for the High Altitude Handicap; the course covers every habitable part of any aeroplane. His tubular body of light alloy (insulated with Bell's Asbestos) is fed continuously on a diet of best quality therms . . . for Uncle Tom's motto is "One good therm deserves another" . . . which circulates a grateful glow that converts the Arctic rigours of the stratosphere into temperate warmth.



a suitable pet for any cabin

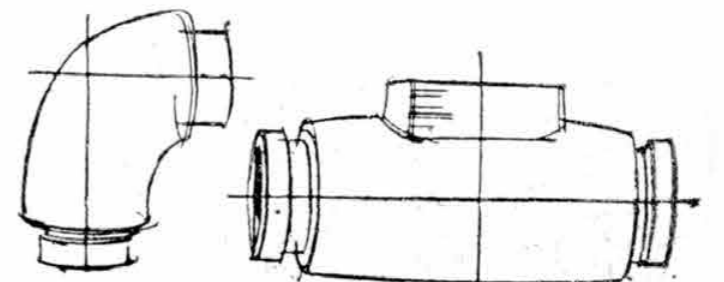
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Stamford Hill
660 1-2-3-4.

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Mayfair/GJ4

Aus.400404 F/O S. C. E. Abbott, D.F.C.
 Aus.404312 F/O C. T. Enright.
 Aus.407522 F/Sgt. P. H. Morphett.
 Aus.415909 Sgt. E. C. Thompson.

Wounded or Injured on Active Service
 Aus.412961 F/Sgt. J. A. Heaven.

Died of Wounds or Injuries Received on Active Service
 Aus.419503 Sgt. W. Shapcott.
 Aus.408859 F/Sgt. F. J. Matthews.

Previously Reported Missing, Now Reported Prisoner of War
 Aus.403033 P/O C. O'Connell.
 Aus.404486 Act. F/L H. D. M. Ransome, D.F.C.

ROYAL CANADIAN AIR FORCE Killed in Action

J.8832 F/O J. P. Custance.
 R.87343 Sgt. D. F. Newcombe.
 R.118136 Sgt. P. V. O'Brien.
 R.163707 Sgt. C. A. Reist.
 R.161867 Sgt. O. A. Bettridge.

Previously Reported Missing Believed Killed in Action, Now Presumed Killed in Action
 R.97434 Sgt. J. E. Cloutier.
 R.16383 P/O D. M. Crozier, D.F.M.

R.106063 Sgt. C. B. Featherstonough.

J.8127 F/O R. Harvie.
 R.126316 Sgt. L. C. King.
 R.74326 F/Sgt. J. A. Moore.
 R.108696 Sgt. R. W. Rea.
 R.69401 Sgt. J. W. Smith.
 R.67735 W/O L. O'N. Weakley.
 R.117584 Sgt. A. W. Wilson.
 R.108258 F/Sgt. E. L. Darlington.
 R.55402 Sgt. J. E. S. Sasseville.
 R.92640 Sgt. W. McB. J. Stark.
 C.157 W/O S. S. Blanchard.
 J.11240 F/O G. J. Cory.
 R.95497 F/Sgt. F. C. Duncan.
 R.130109 F/Sgt. J. H. Eveline.
 J.11443 P/O P. W. Jeanneret.
 R.93461 Sgt. A. Longwell.
 R.103759 F/Sgt. W. F. Topping.
 R.91408 F/Sgt. K. W. Tutton.
 J.7347 P/O J. A. Arbuckle.
 R.77131 Act. W.O. T. B. Barnhill.

R.107152 Sgt. M. A. Harper.
 R.107026 Sgt. E. G. Lacinia.
 R.79109 Sgt. L. J. Lafleur.
 R.124691 Sgt. R. G. MacDonald.

Previously Reported Missing, Now Presumed Killed in Action

R.79608 Sgt. D. M. Brackenbridge.
 J.10179 F/O G. Cherniuk.
 J.15838 F/O C. G. Cumming.
 R.90254 F/Sgt. W. A. Dobson.
 R.76371 Sgt. C. C. D. Fraser.
 R.117691 Sgt. J. E. R. Giguere.
 R.104769 Sgt. H. E. Heath.
 R.102653 Sgt. H. D. Lewis.
 R.82621 Sgt. W. H. Lough.
 R.94982 F/Sgt. D. W. Smith.
 R.83273 F/Sgt. J. G. R. Tough.
 R.91319 Sgt. F. J. Belanger.
 R.76460 F/Sgt. R. P. Campbell.
 R.77992 Sgt. B. A. W. Coutts.
 R.110435 Sgt. M. R. Crocker.
 R.69265 Sgt. R. Dempsay.
 J.10667 F/O E. J. F. Dunand.
 R.102350 F/Sgt. H. G. Dyer.
 R.84029 F/Sgt. G. F. Fargher.
 R.98467 Sgt. E. F. Fournier.
 R.91860 F/Sgt. G. J. Hutchinson.
 R.93290 Sgt. E. C. Lawrence.
 R.69500 F/Sgt. H. M. Magder.
 R.67910 F/Sgt. D. H. Watt.
 J.16785 P/O R. G. Caldwell.
 R.67557 Sgt. A. D. Cherkinsky.
 R.65419 F/Sgt. A. McK. Dickie.
 R.87380 Sgt. J. Fearnside.
 J.17091 P/O E. A. N. Foster.
 J.10365 F/O A. N. Jarvis.
 R.90733 F/Sgt. S. Jeffries.
 R.102165 Sgt. A. P. Larson.
 J.16658 P/O H. B. Minnia.
 R.92418 F/Sgt. L. A. Parker.
 J.15388 P/O I. F. Preston.
 R.83220 Sgt. C. J. Eggleton.
 R.102761 Sgt. F. J. Gallagher.
 J.15735 P/O G. H. Kelly.
 R.106236 Sgt. A. Mortimer.
 J.16080 P/O A. J. Parkyn.
 J.3257 Act. F/L V. F. Patterson.
 R.74910 F/Sgt. J. V. Rounsefell.
 R.10251 W.O. C. N. Vaiequet.

Wounded or Injured in Action
 J.10876 F/O J. B. Pringle.
 J.22090 P/O J. Grudzien.

Missing Believed Killed in Action
 R.80915 F/Sgt. C. P. Fitzpatrick.
 R.54227 W.O. E. A. McD. Grange.
 J.13595 F/O L. P. Therlault.
 J.17776 P/O C. W. Webb.
 J.14771 P/O R. E. Clark.
 R.149761 Sgt. T. J. Driscoll.
 R.124303 Sgt. D. A. Wood.
 R.129865 F/Sgt. W. H. Davey.

Missing

J.22479 F/O M. E. Balkam.
 J.18377 P/O J. M. L. Bouvier.
 J.17675 P/O R. Bradley.
 R.106507 Sgt. C. A. Brown.
 J.18248 P/O S. F. Chudzik.
 J.6032 F/O I. L. Colquhoun.
 R.114897 Sgt. G. R. Connor.
 R.111753 Sgt. J. W. Dally.
 R.148364 Sgt. H. P. Gaudry.
 J.18380 P/O K. G. D. Gawthrop.
 J.5555 F/O S. M. Heard.
 R.137382 Sgt. R. C. Jordan.
 R.157559 Sgt. T. Y. Kirkham.
 R.108441 F/Sgt. J. P. C. Lapointe.

J.18274 P/O J. M. Lewis.
 J.16764 P/O D. R. C. McDonald.
 R.177950 Sgt. W. L. McKinnon.
 R.104073 Sgt. P. O. McSweeney.
 J.17836 P/O O. A. O'Leary.
 J.18462 P/O F. J. Piper.
 R.82532 Sgt. J. I. R. Renaud.
 J.10704 F/O G. C. Robinson.
 R.123638 Sgt. I. S. Rothstein.
 J.13018 Act. F/L D. D. Shuttleworth, D.F.C.

R.10395 Sgt. D. Thorton.
 R.90824 Sgt. R. Urquhart.
 R.146066 Sgt. G. S. Walter.
 R.122571 Sgt. L. M. Banks.
 R.89348 Sgt. J. A. Box.
 R.58998 Sgt. W. J. Breen.
 R.156384 Sgt. J. G. Brislan.
 R.102903 Sgt. C. B. Cahill.
 R.100605 Sgt. W. L. Cogger.
 R.90569 F/Sgt. W. Craig.
 J.26605 P/O T. Dos Santos.
 J.21265 Act. F/L G. W. M. Fanson.

R.176127 Sgt. R. A. Fraser.
 R.149420 Sgt. W. E. Hogarth.
 J.16792 P/O M. W. Howard.
 J.18390 P/O L. W. Kerr.
 R.74333 F/Sgt. F. H. Leaver.
 R.146475 F/Sgt. J. A. Leighton.
 R.147416 Sgt. T. B. Liffman.
 R.99282 F/Sgt. A. C. McLennan.
 R.129404 Sgt. D. J. McNeill.
 R.134206 Sgt. E. R. Marks.
 J.15643 Act. F/L F. P. Marsh, D.F.C.

R.76838 Sgt. E. Munsterman.
 R.128648 Sgt. M. B. Murphy.
 J.14181 F/O D. H. Orr.
 J.17303 P/O F. W. R. Parlee.
 R.98423 Sgt. L. C. Patrick.
 R.126066 Sgt. C. P. Pierce.
 R.101308 Sgt. H. C. Ritchie.
 R.103625 Sgt. J. Robertson.
 R.63606 Sgt. J. F. Sheridan.
 J.18388 P/O H. M. Smith.
 J.21729 F/O F. P. Wilson.
 R.127863 Sgt. C. H. Witheridge.
 R.107929 Sgt. S. G. Young.

Died of Wounds or Injuries Received on Active Service
 J.6029 Act. F/L B. A. MacDonald.

Died on Active Service

R.86951 L.A.C. R. A. McMaster.
 R.104349 L.A.C. C. E. Martell.

Missing Believed Killed on Active Service

R.130972 Sgt. A. G. McKenzie.
Previously Reported Missing, Now Reported Prisoner of War
 R.97650 Sgt. L. R. Fadden.
 R.64681 Sgt. L. C. McCracken.
 R.92596 Sgt. J. F. Selman.
 R.73769 F/Sgt. K. T. P. Allan.
ROYAL NEW ZEALAND AIR FORCE
Previously Reported Missing Believed Killed in Action, Now Presumed Killed in Action
 NZ.413710 Sgt. C. D. Lamont.
 NZ.412219 Sgt. F. J. Franklin.
 NZ.414380 F/O D. R. Bannerman.
 NZ.405740 F/Sgt. G. K. Ross.
 NZ.414354 Sgt. R. J. Steed.
 NZ.40645 P/O A. E. Coates.
 NZ.413277 Sgt. E. J. Outen.
 NZ.413121 Sgt. D. S. Proctor.
 NZ.412363 Sgt. J. W. Stuart.

J.21541 P/O W. Bray.
 J.18329 P/O L. G. E. Burnett.
 J.17643 P/O J. G. Castle.
 R.181120 Sgt. A. Davidson.
 J.14885 F/O R. C. Day.
 J.26607 P/O D. C. D. Duboulay.
 R.65162 Sgt. G. W. Fraser.
 J.21735 F/O A. J. Gibson.
 J.15655 F/O F. A. Harman.
 J.9188 F/O W. E. Hinchcliffe.
 R.143622 Sgt. J. A. C. Holmes.
 J.18087 P/O G. McL. Johnston.
 R.130254 Sgt. E. E. S. McCulloch.
 J.20912 P/O P. J. A. Magson.
 R.94772 F/Sgt. L. A. Mallory.
 R.112570 Sgt. A. Menzies.
 R.151487 Sgt. J. A. Miller.
 R.188003 Sgt. F. G. Painter.
 R.103717 Sgt. D. H. Pearson.
 J.13021 F/O W. L. Shaw.
 J.18379 P/O J. Williams.

Killed on Active Service

R.164031 Sgt. F. Belcourse.
 R.186823 Sgt. R. H. Chisnell.
 J.21361 P/O A. T. Duke.
 R.140533 Sgt. G. W. Holditch.
 R.103555 Sgt. F. D. Johnson.
 R.161470 Sgt. J. C. Roulston.
 R.159957 Sgt. J. Taylor.
 R.128687 Sgt. J. W. Cumming.
 J.22526 P/O P. M. Hetherington.
 R.139366 Sgt. W. G. Hill.
 R.176010 Sgt. E. A. Loppe.
 R.199556 Sgt. D. M. Martin.
 J.5836 F/L W. J. Smith.
 R.156015 Sgt. H. D. Tushingham.
 R.10130 Sgt. B. E. Bell.
 R.66066 F/O F. W. Holcombe.
 J.24024 P/O H. J. Ibbott.
 R.116235 Sgt. J. A. Mawson.

Wounded or Injured on Active Service

J.24133 P/O G. E. Vance.
 J.4695 F/L J. P. Calder.
 J.22784 F/O D. H. Crumb.

Died of Wounds or Injuries Received on Active Service

J.6029 Act. F/L B. A. MacDonald.

Died on Active Service

R.86951 L.A.C. R. A. McMaster.
 R.104349 L.A.C. C. E. Martell.

Missing Believed Killed on Active Service

R.130972 Sgt. A. G. McKenzie.

Previously Reported Missing, Now Reported Prisoner of War

R.97650 Sgt. L. R. Fadden.
 R.64681 Sgt. L. C. McCracken.
 R.92596 Sgt. J. F. Selman.
 R.73769 F/Sgt. K. T. P. Allan.

ROYAL NEW ZEALAND AIR FORCE

Previously Reported Missing Believed Killed in Action, Now Presumed Killed in Action

NZ.413710 Sgt. C. D. Lamont.
 NZ.412219 Sgt. F. J. Franklin.
 NZ.414380 F/O D. R. Bannerman.
 NZ.405740 F/Sgt. G. K. Ross.
 NZ.414354 Sgt. R. J. Steed.
 NZ.40645 P/O A. E. Coates.
 NZ.413277 Sgt. E. J. Outen.
 NZ.413121 Sgt. D. S. Proctor.
 NZ.412363 Sgt. J. W. Stuart.

NZ.411473 P/O D. J. Tottman.

Previously Reported Missing, Now Presumed Killed in Action

NZ.411854 Sgt. N. Bruce.
 NZ.40410 P/O J. McCulloch.
 NZ.403556 Sgt. L. E. Moss.
 NZ.413307 Sgt. T. A. Murphy.
 NZ.404585 Sgt. W. J. Veysey.
 NZ.405364 F/Sgt. L. E. Bell.
 NZ.404574 F/Sgt. E. A. Sisson.
 NZ.411113 Sgt. G. C. Wilson.
 NZ.41389 Sgt. K. H. Yeoman.
 NZ.412467 Sgt. A. F. Badcock.
 NZ.404894 F/Sgt. L. D. Clark.
 NZ.39993 Sgt. R. T. Cottrell.
 NZ.411493 F/Sgt. D. D. MacLean.
 NZ.404925 F/O T. D. G. Murray.
 NZ.412732 Sgt. N. A. Plummer.
 NZ.405551 Sgt. E. Waters.

Previously Reported Missing, Now Reported Killed in Action

NZ.402240 F/O E. W. Barr.

Previously Reported Missing Believed Killed on Active Service, Now Presumed Killed on Active Service

NZ.414727 Sgt. B. Moore.

Wounded or Injured in Action

NZ.416669 F/Sgt. P. D. Sim.
 NZ.416676 F/Sgt. T. A. Wilson.

Missing Believed Killed in Action

NZ.413439 F/Sgt. L. D. Lory.

Missing

NZ.415524 F/Sgt. L. F. English.
 NZ.415069 F/Sgt. H. Harries.
 NZ.417085 F/Sgt. J. R. Mayo.
 NZ.41350 P/O R. J. Mosen.
 NZ.415426 F/O H. I. Spiers.
 NZ.42113 F/Sgt. J. L. Talbot.
 NZ.416114 F/Sgt. J. L. Hendry.
 NZ.411459 F/Sgt. H. S. Shepherd.

Killed on Active Service

NZ.417194 F/O L. N. Buttimore.
 NZ.417208 F/Sgt. S. R. Greer.
 NZ.415280 F/Sgt. W. Andrew.

SOUTH AFRICAN AIR FORCE Killed in Action

205752 Lt. F. A. Handley.
 206453 F/Sgt. V. P. Roberts.
 103273 Lt. R. A. Simpson.
 279641 F/Sgt. K. O. Shepperson.

Previously Reported Missing, Now Presumed Killed in Action

279180 Lt. T. A. Simpson.

Missing

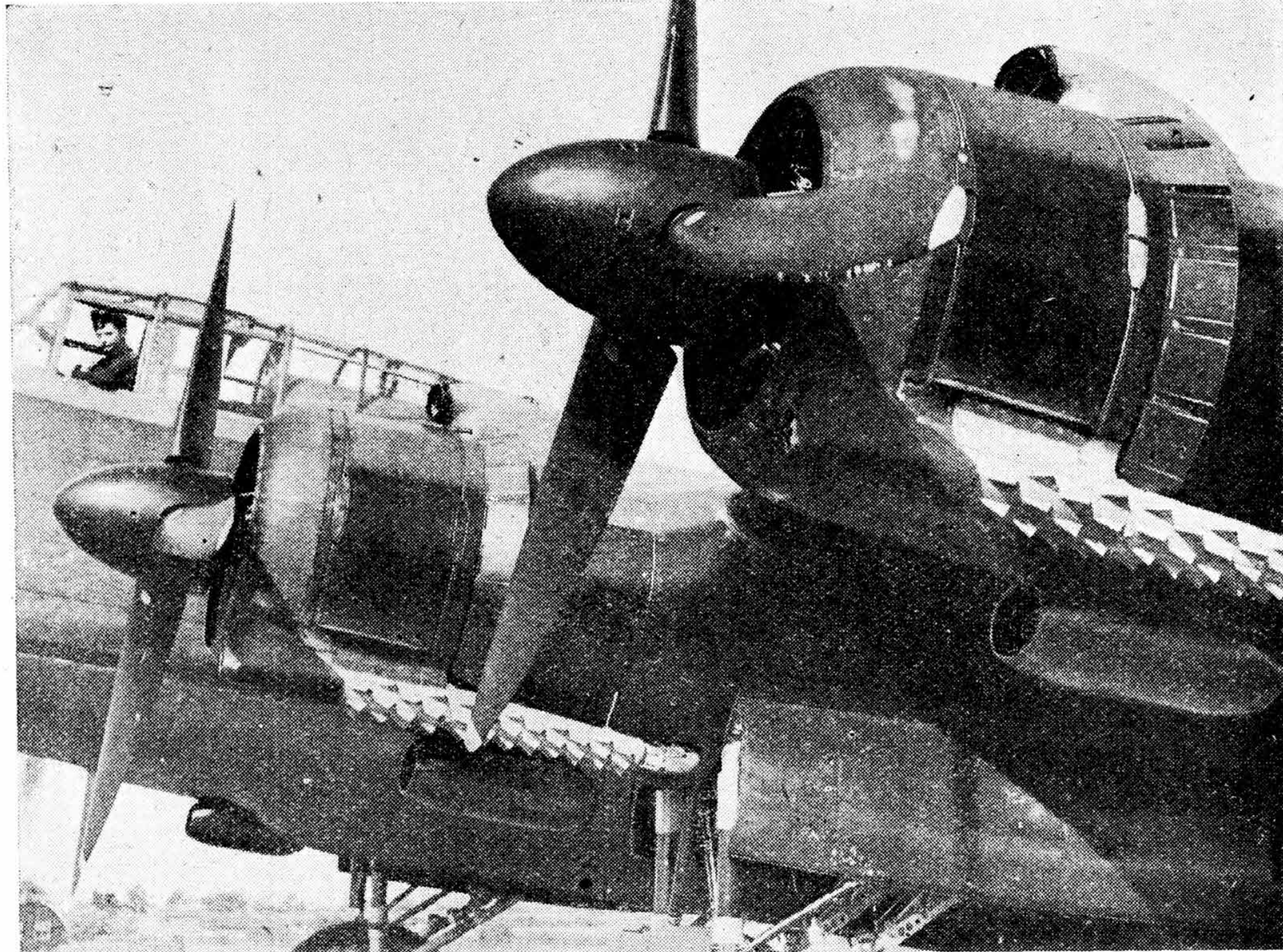
67918 Capt. P. Daphne.
 206426 F/Sgt. M. J. Jonker.
 542415 Act. Air Sgt. E. E. Lambert.

Wounded or Injured on Active Service

336244 Air Mech. P. R. Searle.

Killed on Active Service

206645 F/Sgt. J. F. Blair.
 542281 Act. Sgt. B. Phelan.
 7001 2nd Lt. J. Robinson.
 190128 Lt. J. B. Yeats.
 207650 Air Mech. Q. E. Cullis.
 5226 Air Mech. L. W. Ackermann.



["Aeroplane" photograph

PORT POWER.—The two port 1,600 h.p. Bristol Hercules motors of an Avro Lancaster II. The bulged bomb doors can be clearly seen.

ROYAL AIR FORCE AWARDS

HIS MAJESTY THE KING has approved the following decorations awarded in recognition of gallantry displayed during air operations over the North Sea, over enemy-occupied Europe and over the Mediterranean battle area:—

Commander of the British Empire

Group Captain: W. H. Garing, D.F.C., R.A.A.F.

Officer of the British Empire

Act. Squadron Leader: T. M. Scott, R.A.A.F.

Member of the British Empire

Flying Officer: R. G. Beaton.

Distinguished Service Order

Act. Wing Commanders: Patrick Burnett, D.F.C., R.A.F.O., No. 9 Squadron; C. R. Caldwell, D.F.C., R.A.A.F.; E. W. Deacon, D.F.C., No. 35 Squadron; Macdonald Hodges, D.F.C., No. 161 Squadron.

Squadron Leader: David Vernon, R.A.A.F. Flight Lieutenant: C. F. Rawnsley, D.F.C., D.F.M., R.A.F.V.R., No. 85 Squadron.

Act. Flight Lieutenants: J. A. Broadley, D.F.C., D.F.M., No. 161 Squadron; Dudley Marrows, D.F.C., R.A.A.F., No. 461 (R.A.A.F.) Squadron.

Flying Officer: D. M. Johnstone, R.A.F.V.R.

Second Bar to Distinguished Flying Cross

Squadron Leader: R. W. McNair, D.F.C., R.C.A.F., No. 421 (R.C.A.F.) Squadron.

Bar to Distinguished Flying Cross

Act. Squadron Leaders: G. L. Howitt, D.F.C., R.A.F.V.R., No. 85 Squadron; J. L. W. Wagland, D.F.C., R.A.F.V.R.

Act. Flight Lieutenant: F. A. Aikman, D.F.C., R.C.A.F., No. 154 Squadron.

Distinguished Flying Cross

Group Captain: N. H. Fresson, No. 97 Squadron; Wing Commanders: K. R. J. Parsons, R.A.A.F.; F. F. Rainsford, R.A.F.O., No. 115 Squadron; J. M. Whyte, R.A.A.F.

Act. Wing Commander R. L. Bowes, R.A.F.R., No. 44 Squadron.

Squadron Leaders: A. D. Grace, No. 277 Squadron; G. W. Savage, R.A.A.F.

Act. Squadron Leaders: R. J. Bennell,

R. S. Gunning, D.F.M., No. 88 Squadron; N. R. Mansfield, No. 156 Squadron.

Flight Lieutenants: D. H. Blomeley, No. 605 Squadron; W. G. Brinn, D.F.M., No. 88 Squadron; Geoffrey Goodman, No. 29 Squadron; H. S. Hartley, R.A.F.V.R., No. 102 Squadron; L. N. McCaig, R.C.A.F., No. 426 (R.C.A.F.) Squadron; P. M. Paull, R.A.A.F.; R. H. Roe, R.A.A.F.; B. J. Thwaites, R.A.F.V.R., No. 85 Squadron.

Act. Flight Lieutenants: A. S. Cook, D.F.M., R.A.A.F., No. 156 Squadron; T. H. Dargavel, R.A.F.V.R., No. 102 Squadron; J. R. Heap, R.A.F.V.R., No. 65 Squadron; G. A. Mason, R.A.F.V.R., No. 129 Squadron; Harry Tamblyn, R.A.F.V.R.; Peter Whittam, R.A.F.V.R., No. 57 Squadron.

Flying Officers: A. M. Alexander, R.N.Z.A.F., No. 75 (N.Z.) Squadron; K. H. Becroft, R.N.Z.A.F., No. 218 Squadron; Allan Brodie, R.A.F.V.R., No. 40 Squadron; H. G. M. Brown, R.A.A.F.; W. P. Clemo, R.A.F.V.R., No. 85 Squadron; T. E. Dodwell, R.A.F.V.R.; R. B. Hesselyn, D.F.M., R.N.Z.A.F. No. 222 Squadron; P. P. A. Hopton, R.A.A.F.; J. T. Kearney, R.A.A.F.; K. N. McDonald, R.A.A.F.; F. J. Magee, R.A.A.F.; J. N. Marr, R.A.A.F.; Joseph Patient, R.A.F.V.R., No. 139 Squadron; Francis Shield, R.A.F.V.R., No. 418 (R.C.A.F.) Squadron; R. L. Westinghouse, R.A.F.V.R., No. 680 Squadron, P. D. White, R.A.F.V.R., No. 90 Squadron.

Pilot Officer: J. F. Bassett, D.F.M., R.A.F.V.R., No. 158 Squadron; Arthur Beevor, R.A.F.V.R., No. 214 Squadron; Anthony Bird, R.A.F.V.R., No. 61 Squadron; James Bowman, R.A.F.V.R., No. 102 Squadron; F. W. Cosens, K. A. Crankshaw, D.F.M., R.N.Z.A.F., No. 156 Squadron; S. F. Garland, R.C.A.F., No. 40 Squadron; H. S. Gifford, R.A.F.V.R., No. 57 Squadron; Harry Gowan, R.C.A.F., No. 45 (R.C.A.F.) Squadron; L. J. Haynes, R.A.F.V.R., No. 432 (R.C.A.F.) Squadron; T. G. L. Irwin, R.A.A.F., No. 157 Squadron; L. W. J. King, R.A.F.V.R., No. 57 Squadron; H. A. Litherland, R.A.F.V.R., No. 50 Squadron; A. W. Lowe, R.N.Z.A.F. No. 90 Squadron; W. E. McCrea, R.A.F.V.R., No. 57 Squadron; D. A. Messingham, R.A.A.F.V.R., No. 23 Squadron; H. R. V. Walkup, R.A.F.V.R.,

No. 9 Squadron; H. J. A. Wright, D.F.M., R.A.A.F., No. 156 Squadron.

Warrant Officer: R. J. Clark, R.A.F.V.R., No. 100 Squadron.

Act. Warrant Officers: R. F. Denton, R.A.F.V.R. (now Pilot Officer), No. 90 Squadron; S. G. Johnson, R.N.A.F., No. 218 Squadron.

Air Force Cross

Squadron Leader: G. H. Purvis, R.A.A.F.

Conspicuous Gallantry Medal (Flying)

Flight Sergeants: R. J. Foss, R.A.F.V.R., No. 224 Squadron; J. V. Russell, R.C.A.F., No. 15 Squadron.

Sergeant: O. N. Jones, R.A.F.V.R., No. 100 Squadron.

Distinguished Flying Medal

Flight Sergeants: A. M. Clark, R.A.A.F., No. 104 Squadron; B. I. J. Morris, R.A.F.V.R., No. 40 Squadron; James Oxenburgh, R.A.F.V.R., No. 158 Squadron.

Act. Flight Sergeants: D. M. C. Silverman, R.A.F.V.R., No. 156 Squadron; M. J. E. Stoneley, R.A.F.V.R., No. 156 Squadron.

Sergeants: Harry Aspinall, R.A.F.V.R., No. 61 Squadron; Fred Bamber, R.A.A.F., No. 461 (R.A.A.F.) Squadron; Harold Bennett, No. 100 Squadron; E. J. C. Barnett, R.A.A.F.; S. R. Didsbury, R.A.F.V.R., No. 605 Squadron; M. W. Dilks, R.A.F.V.R., No. 224 Squadron; D. A. Ferme, R.A.A.F.; James Geddes, R.A.F.V.R., No. 434 (R.C.A.F.) Squadron; P. J. Hayward, R.A.F.V.R., No. 40 Squadron; Eric Heap, R.A.F.V.R., No. 101 Squadron; H. A. Kirkhouse, R.A.A.F.; E. J. Kemish, R.A.F.V.R., No. 61 Squadron; Bernard Kendrick, No. 61 Squadron; William Leary, R.A.F.V.R., No. 61 Squadron; J. H. Mallan, R.A.F.V.R., No. 467 (R.A.A.F.) Squadron; A. N. Pearce, R.A.A.F., No. 461 (R.A.A.F.) Squadron; M. C. Schulz, R.A.A.F.; R. W. C. Suddens, R.A.F.V.R., No. 90 Squadron; H. D. S. White, R.A.F.V.R., No. 35 Squadron; D. L. Wilkie, No. 156 Squadron; A. E. Winn, R.A.F.V.R., No. 158 Squadron.

Act. Sergeant: R. F. Cox, R.A.A.F.

Corporal: J. P. L. D'Arcy, R.A.A.F.; V. N. Knowles, R.A.A.F.; J. A. McWade, R.A.A.F.

British Empire Medal (Military Division)
Flight Sergeant: John Incersole, R.A.A.F.

EXTRACTS FROM THE LONDON GAZETTE

Air Ministry, May 28, 1943.

ROYAL NAVAL VOLUNTEER RESERVE

ROYAL AIR FORCE REGIMENT.—Flg. Off. K. W. J. Robertson to be Flt. Lt. (temp.) Jan. 1942. Plt. Off. (prob.) E. S. Gosnell to be Flg. Off. on prob. (war subs.) Sept., 1942.

WOMEN'S FORCES

WOMEN'S AUXILIARY AIR FORCE.—Asst. Sec. Offs. (prob.) to be Sec. Offs. on prob. (war subs.):—Oct., 1942: D. B. K. Cowan, Nov., 1942: M. A. Smith, P. M. Bedworth, N. J. Blood, U. M. Moore-Dillon, M. T. Steele, H. T. Worrall, E. L. Henderson, Dec., 1942: M. M. Lewis, M. J. Tuck, H. C. C. Caller, S. P. Chapman, J. M. Corrigan, M. M. Foulger, D. W. Hilton, J. Mansfield, B. E. Day, M. H. Powell, R. G. I. Weigall, G. L. Bradwell, M. M. Coughlin, E. McDonald, M. H. Windridge, O. M. Beck, D. M. Fraser, H. L. H. Gwennap-Moore, I. Hawker, M. F. McGregor, S. Eastwood, M. S. Taylor, Jan.: M. E. Boulton, I. M. Turner, T. L. Osborne, I. S. Miller, E. M. Turner, D. E. Allen, M. J. M. Bebb, W. F. Condy, J. Green, J. E. Little, K. M. Snodgrass, J. M. Thackray, B. E. Clarke, K. D. Jones, B. I. Milum, M. H. Nixon, A. J. Tossell, M. E. Ellis, M. E. Morris, Mar.: D. L. Atkinson, D. L. Baker, J. B. Bayley, B. J. Bangay, B. R. Bradford, I. K. Butterfield, L. Courtney, C. Crews, C. K. Daniels, M. Dodgson, D. C. Evans, M. Hodgson, A. N. Howgate, E. J. Hughes, M. D. P. Humphries, F. M. Ingram, M. T. Jeffrey, M. E. Johnston, D. M. Jones, R. M. Kite, J. Levell, H. M. E. Macpherson, B. K. Marsden, M. J. Mason, M. A. Moller, G. M. Morris, N. M. Neale, J. G. Norton, R. Overton, R. R. Room, C. M. R. Sage, B. M. Sanderson, D. E. Smale, S. J. Mark, M. D. Squire, M. Stables, M. L. Stone, M. Strange, H. Talbot, E. P. Tayler, M. C. White, A. S. Wright, J. B. Adams, J. F. Appleyard, E. Balfour, P. O. Bennett, M. B. Brittan, E. L. K. Burley, D. J. Charrington, U. V. Chaloner, J. Chandler, J. B. Chapman, C. E. Charlton, J. E. Dew, D. Dickson, E. W. Penney, K. B. Gibson, D. M. T. Gillman, F. Graham, D. E. Hamilton, H. H. Hamilton, J. M. Holdstock, R. Hunter, N. T. Jackson, D. P. Keevil, M. La Touche, M. Long, N. E. Malins, D. B. Marshall, B. Masters, S. A. Morris, R. Bennett, P. G. Richards, M. Robins, E. E. A. Sharpe, D. E. S. Sinecock, C. C. Stone, C. D. Thridgould, F. I. Williams, J. P. Williams, M. E. Alexander, M. H. M. Bence, J. Bodie, K. E. Bowen, J. M. Brent, U. S. Brodie, J. Y. Brooks, F. W. Buchanan, B. J. Bullough, B. I. Cave, M. K. Chatterton, E. W. Cleaver, D. V.

Collis, A. E. V. Cobbett, B. H. Crawshaw, A. C. P. Davenport, E. M. Ellis, M. C. Gane, P. M. S. Garrett, A. M. Glass, G. G. Hall, E. M. Hart, B. Hill, R. Hill, R. M. McAlpine, D. McGee, D. L. Macready, M. S. Manduell, R. Mc. L. Mann, O. A. A. Mapham, C. E. May, S. E. Mollov, A. L. Morris, H. G. Naylor, S. Newcomb, P. Norman, L. M. Palmer, D. K. Powlett, J. S. Price, W. M. Rance, M. Rayner, M. M. Robertson, M. E. Robinson, P. K. Rogers, A. M. C. Russell-Murfit, A. H. Scott-Noble, K. Scrimgeour, J. M. Scupham, M. J. Stewart, J. M. Tanner, K. Taylor, K. E. Townsend, H. K. Ward, M. K. B. Wetherell, E. J. Wilkins, M. L. Worrall, M. Young, M. I. L. McAlpin-Marchant, E. M. Benson, M. M. Bewick, H. M. Bradford, C. M. A. Briggs, C. Chandler, G. H. Croucher, E. H. E. Dick, B. Edrich, M. C. Ferguson, B. Garrow, J. Gelardi, J. N. Gilbert-Carter, B. J. Hammond, M. P. Makin, S. D. Mason, B. Mill, E. B. D. A. Moll, M. M. Morgan, J. I. Raby, E. M. Rolleston, J. E. Slingo, B. S. Storrar, M. V. Stuart, B. K. Thornely, C. B. Thornton, M. Tifford, D. M. Mc. L. Veitch, R. M. Walker, J. B. Williams, J. F. Woodworth, J. E. Davidson, E. H. L. Alderson, P. M. K. Allengame, M. S. Beeston, E. J. Borlase, M. A. Browning, B. E. M. Card, K. J. H. Cooper, J. M. Davies, M. I. Mustard, Y. H. Foxley, D. M. Gaze, M. Gaskell, F. H. Green, M. A. Gregg, F. J. E. Hankin, S. A. Holden, M. E. Howard, D. E. Horrell, E. G. Adair-Lewis, P. H. L. Lewis, J. A. Martin, K. M. V. Merriman, I. L. Millett, B. P. Morton-Herbert, C. Moynham, B. A. O. Matheson-Pink, B. E. Nicholson, M. Phillips, M. M. Refoy, M. P. Risk, H. L. Robison, H. S. R. Rogers, V. M. St. Ludger, E. M. Scott, E. M. Simpson, B. L. Soutter, J. C. Campbell, E. J. Trigg, S. G. M. Tyrell, B. Uren, E. M. Waters, M. E. Webb, D. A. Willis, E. M. Wilson, M. P. Wilson, Apl.: W. M. Gordon-Brown, S. de Burgh, R. L. Chambers, J. E. Baker.

Air Ministry, June 1, 1943.

ROYAL AIR FORCE

GENERAL DUTIES BRANCH.—To be Plt. Offs. (temp.) on being employed with the R.A.F.:—Apl.: J. C. Eveleigh, Lt. R.T.R., A. R. D. Pugh, Lt. R.A., D. S. Smith, Lt. R.A., C. I. Walter, Lt. R.A., H. E. G. Wells, Lt. R.A.
To be Plt. Offs. on prob. (emergency):—Wt. Offs.: Nov. 1942: A. A. Argent, Jan.: S. C. Readhead, K. P. Roberts, D.F.M. Feb.: R. W. Ward, Mar.: J. D. Christian, P. S. Hampson, Temp. Wt. Off.: Feb.: R. H. Jenkins, Flt. Sgts.: Dec., 1942: W. H. Cotterell, D.F.M., H. G. D. Pawsey, Jan.:

Norman Sherriff, H. L. Mellor, T. C. Latham, Feb.: P. H. McKenna, W. H. Cheek, Mar.: J. H. Hollingworth, W. J. James, L. F. Harper, Apl.: G. H. Nicholson, Act. Flt. Sgt.: J. C. Goodson, Sgts.: Nov., 1942: G. B. Sutherland, Jan.: R. W. Brewster, Feb.: A. J. Tucker, R. T. Hoyle, J. P. Allan, Mar.: James Filson, J. L. Whiteley, Apl.: F. C. Milton, G. W. Stewart, John Burdon, J. J. Devan, C. H. Francis, R. E. Manvell, F. S. Pearce, Cpls.: Mar.: G. K. Bushell, P. J. Southgate, Ldg. Acm.: Feb.: J. T. Haughton.
Flt. Lt. (temp. Sqn. Ldr.) J. M. N. Pike to be Sqn. Ldr., Dec., 1941.

Flg. Off. L. F. Waern is transf. to the Admin. and Spec. Duties Br. May.

Flt. Lt. F. W. Snell, D.F.C., takes rank and precedence as if his appt. as Flt. Lt. bore date Dec. 19, 1941. Reduction from Sept. 4, 1942.

Gp. Capt. (temp. Air Cdre.) J. L. Vachell, M.C., is placed on the ret'd. list on account of ill-health and retains the rank of Air Cdre. May.

Flg. Off. R. H. Hughes, D.F.M., is cashiered by sentence of General Court Martial, Mar. 11.

AMENDMENT.—The notifn. of Oct. 13, 1942, concern. K. E. Slack should have appeared under the R.A.F. and not the R.A.F.V.R. and his number is as now stated.

TECHNICAL BRANCH.—To be Flg. Offs. on prob. (emergency):—Wt. Offs.: Apl.: P. J. Eustace, Bertie Lock, A. S. Lucas, Alexander Smith, B.E.M.

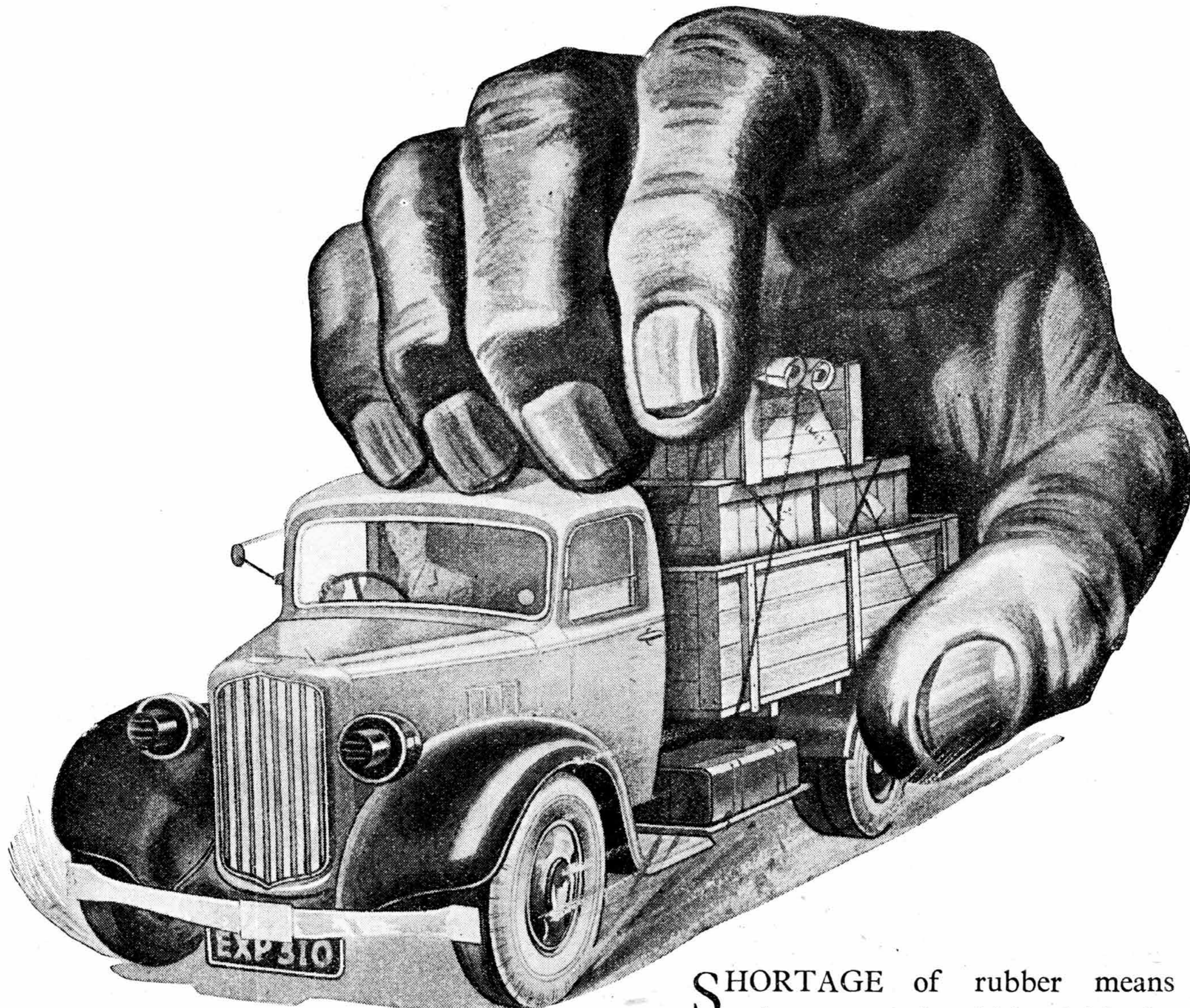
To be Plt. Offs. on prob. (emergency):—Wt. Offs.: Apl.: A. F. Plant, D.F.M. Flt. Sgts.: P. W. K. Crisp, D.F.M., E. E. Dashper, D. R. Doughty, D.F.M., R. A. Foster, L. R. H. King, J. W. Naylor, Sgt.: R. A. Farmer, Cpl.: F. R. Pope.

To be Act. Plt. Offs. on prob. (emergency):—Wt. Offs.: Mar.: A. C. W. Booth, Apl.: Alfred Bonny, J. T. Letley, B.E.M., D. T. Robinson, Act. Wt. Off.: H. W. Adams, Flt. Sgts.: E. H. Andrews, Eric Barrett, George Brown, G. C. Clarke, E. J. W. Collins, Thomas Crow, H. J. F. Dudeney, D. P. Dunn, V. E. C. Forster, R. A. Harwood, J. H. Howard, G. E. F. Johnson, R. J. King, T. W. Lennard, John Mawdsley, L. C. Rogers, J. W. C. Smith, H. A. J. Steedman, F. E. Swain, T. S. Wilson, Sgts.: E. J. Cashman, D. E. Hastwell, Arthur Jefferson, W. M. Philipps, W. J. Tuft, J. G. Woods.

Flt. Lt. (temp. Wg. Cdr.) M. Dawnay to be Sqn. Ldr. Mar., 1941.

ADMINISTRATIVE AND SPECIAL DUTIES BRANCH.—To be Flg. Off. on prob. (emergency):—Wt. Off. Apl.: V. C. Terry.

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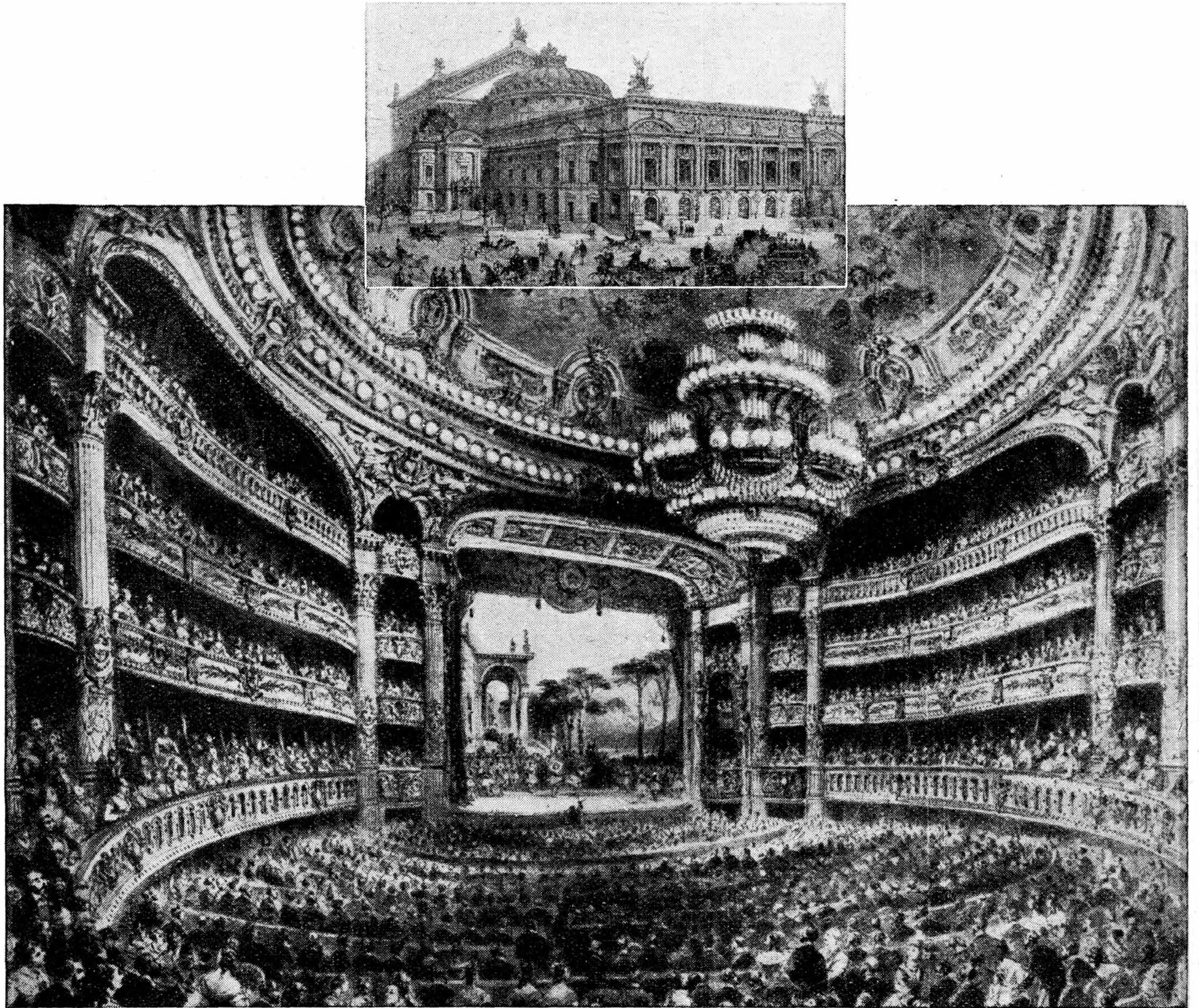
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2. LABOUR SAVING DEVICES.
3. WORK IN BLACK-OUT AND AT WEEK-ENDS.
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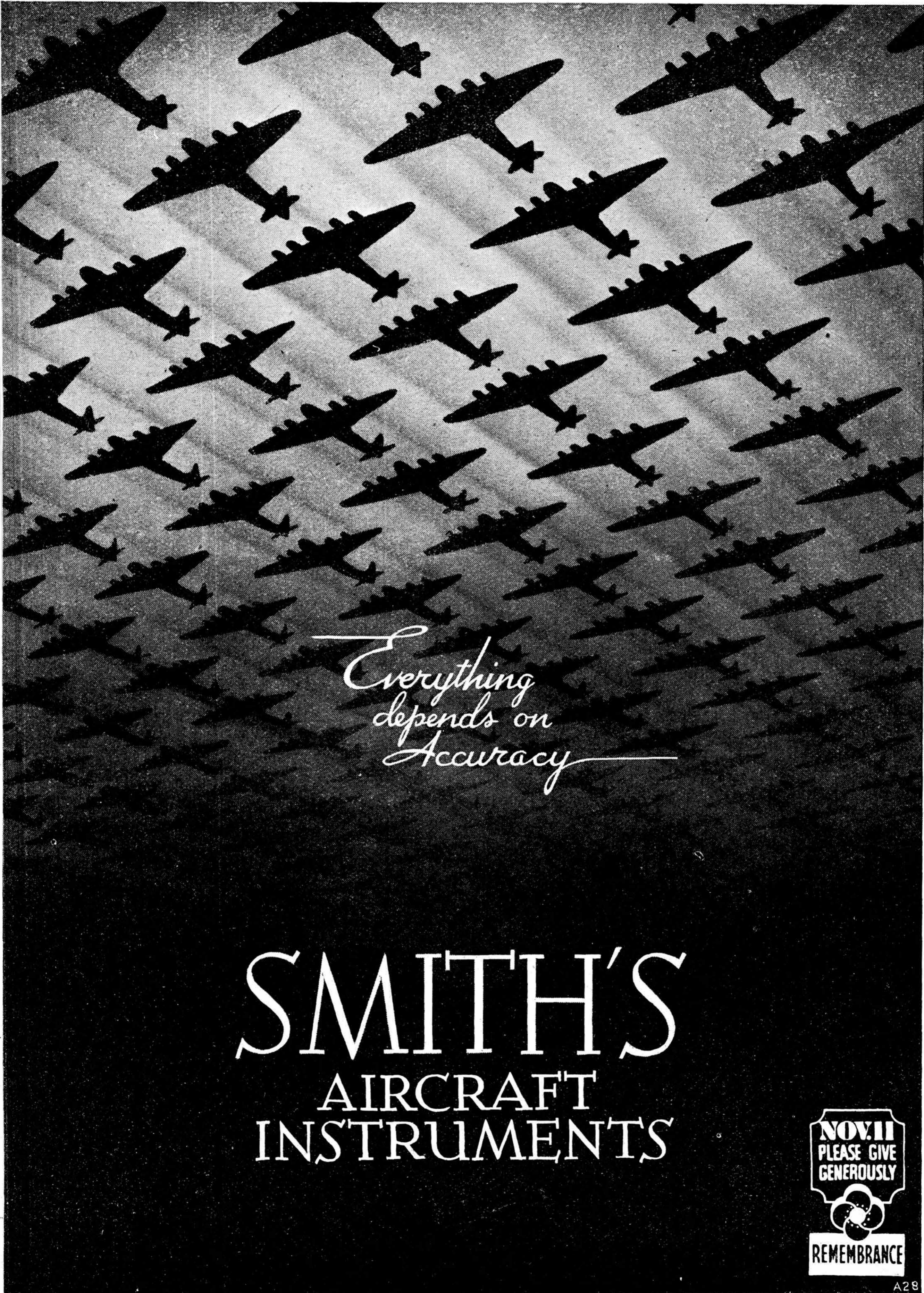
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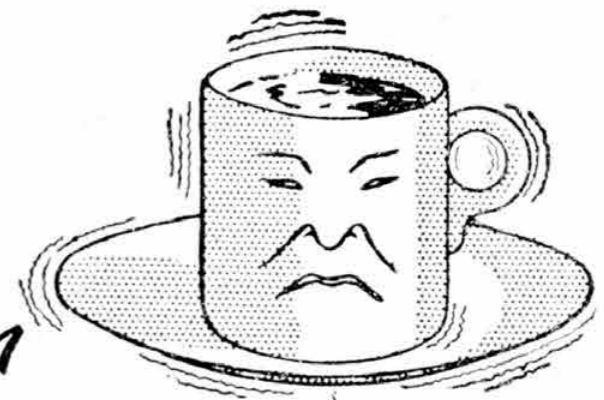
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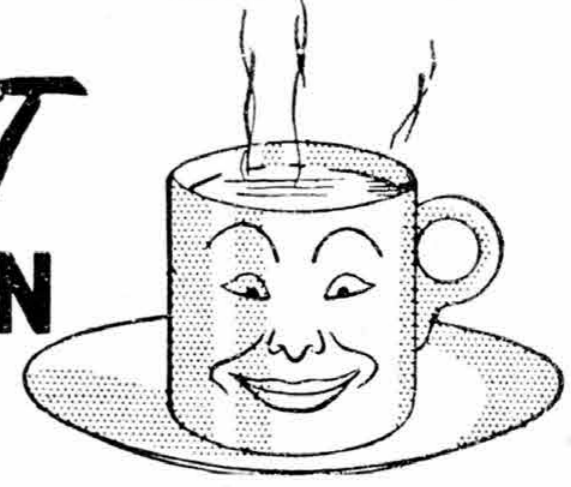
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on production*



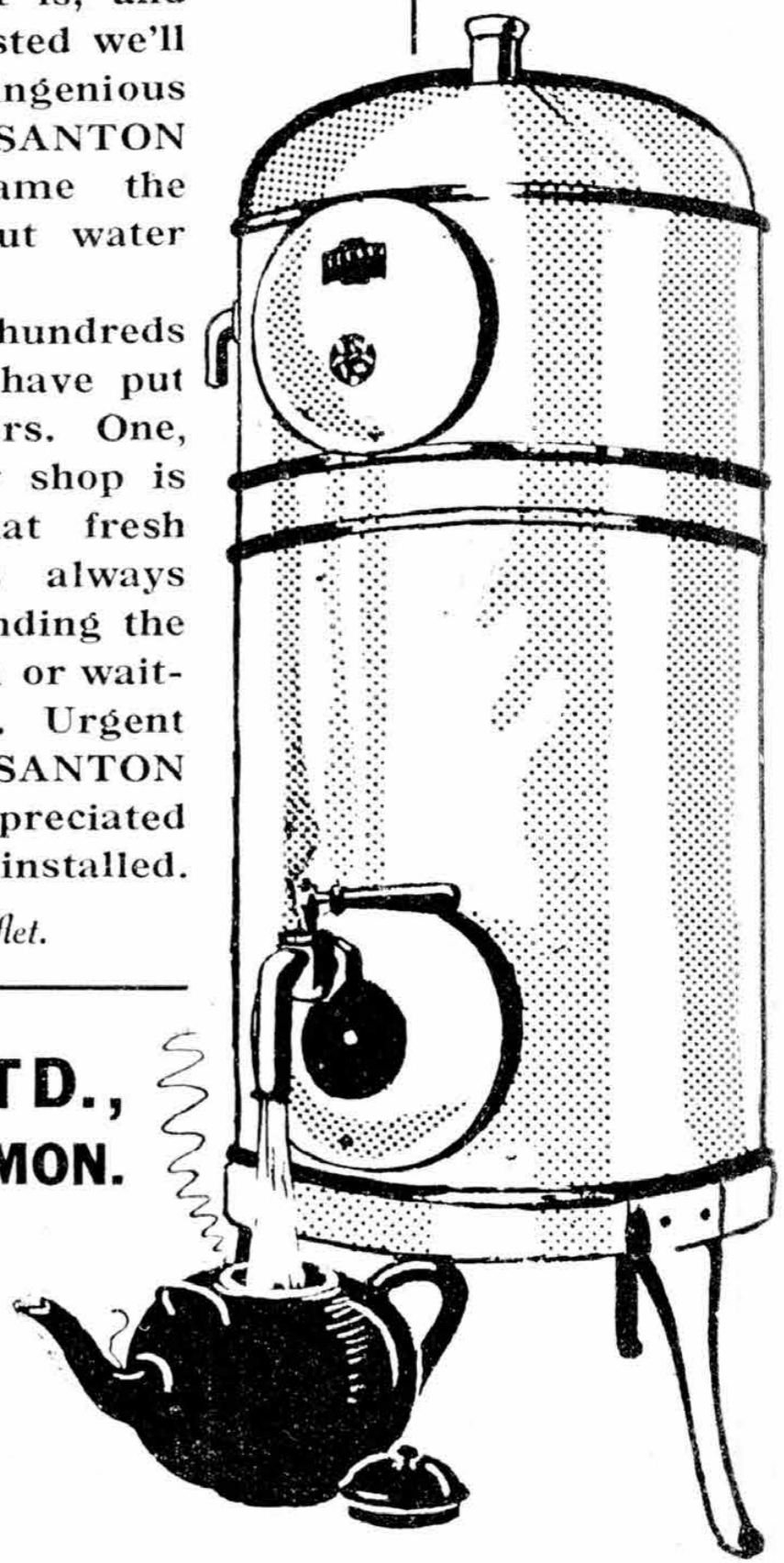
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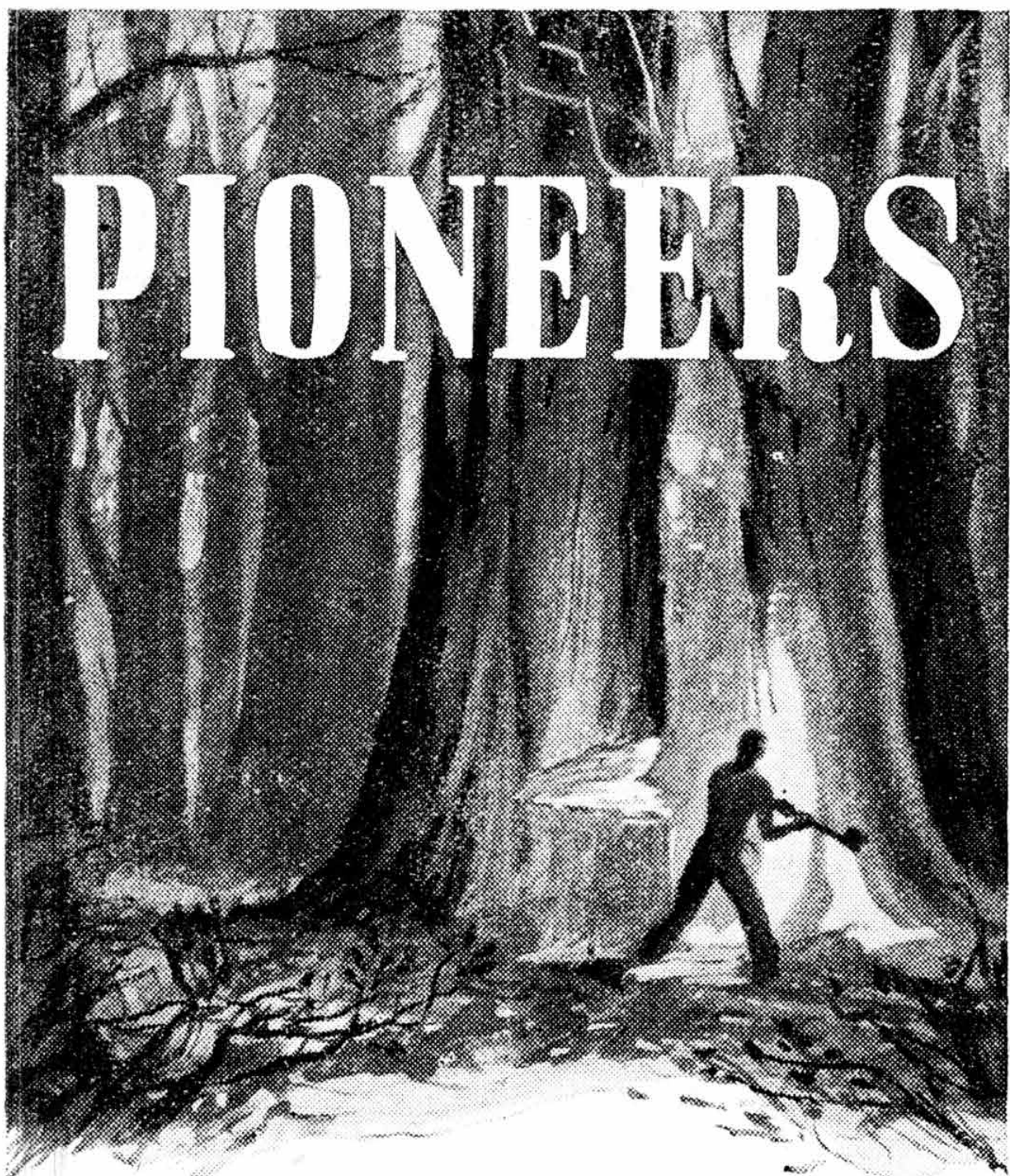
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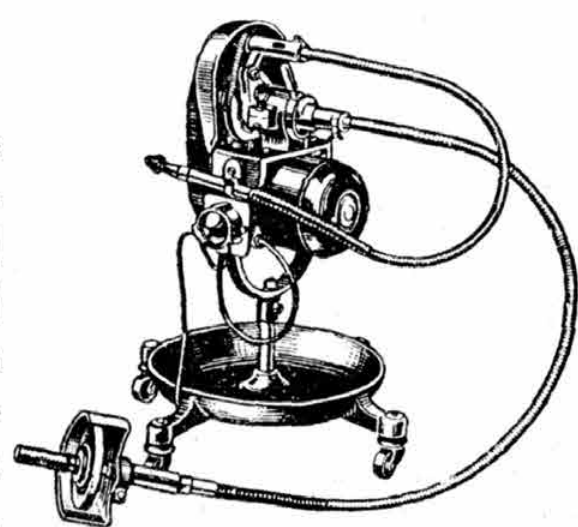
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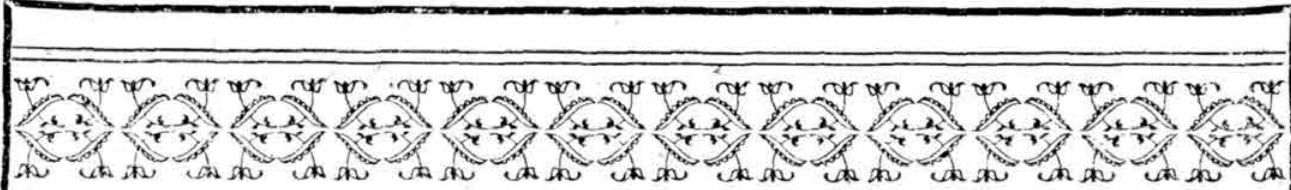
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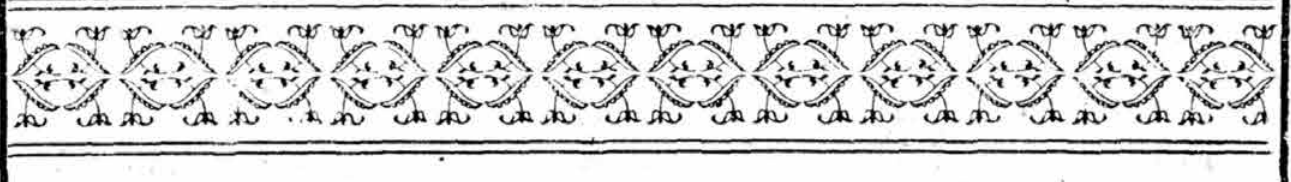
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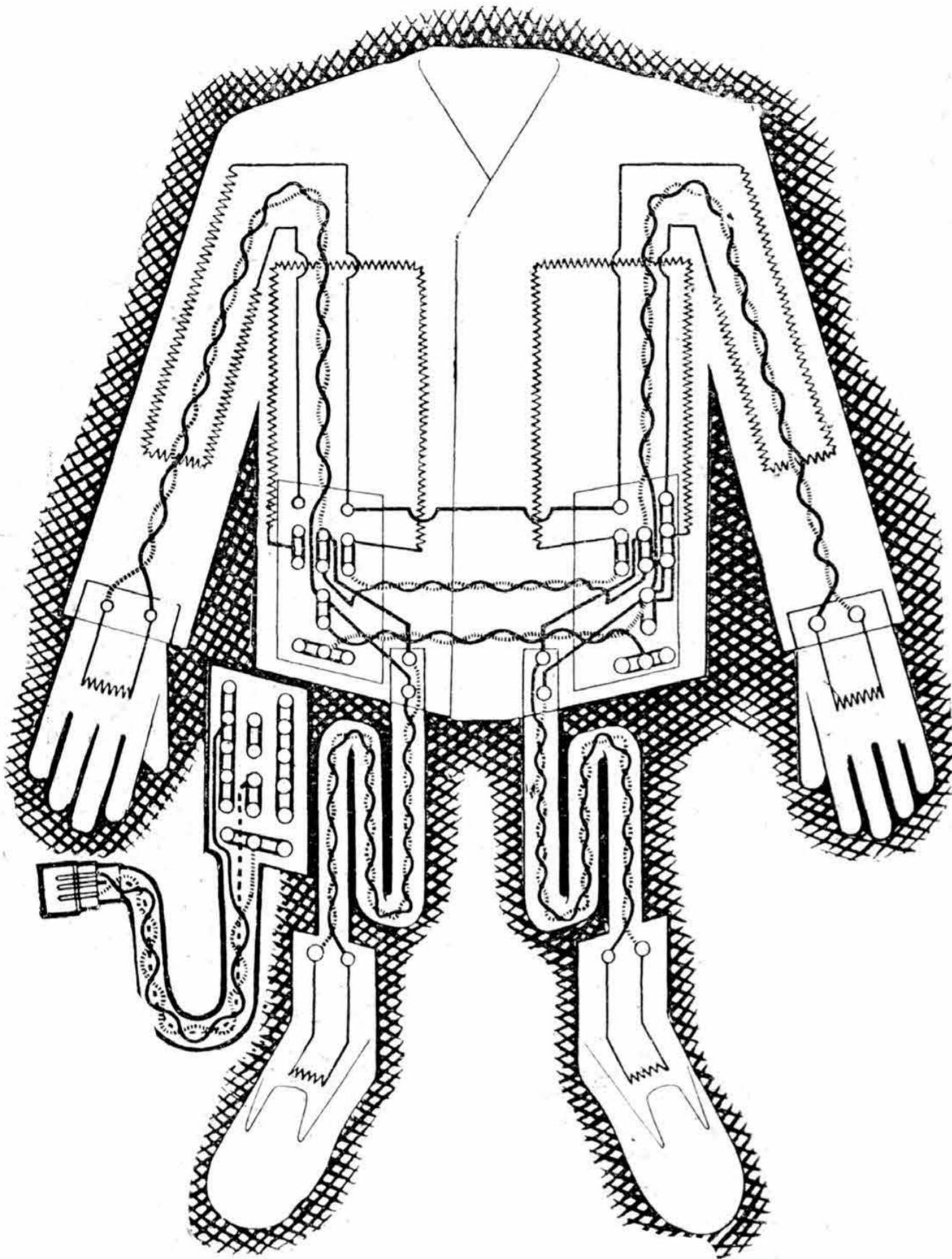
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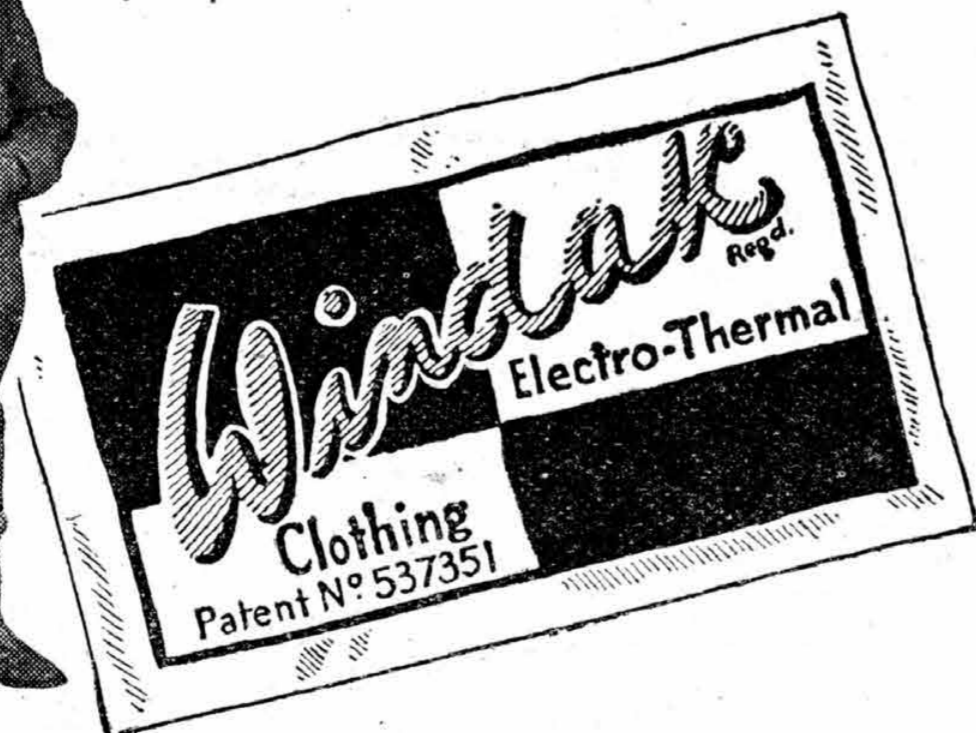


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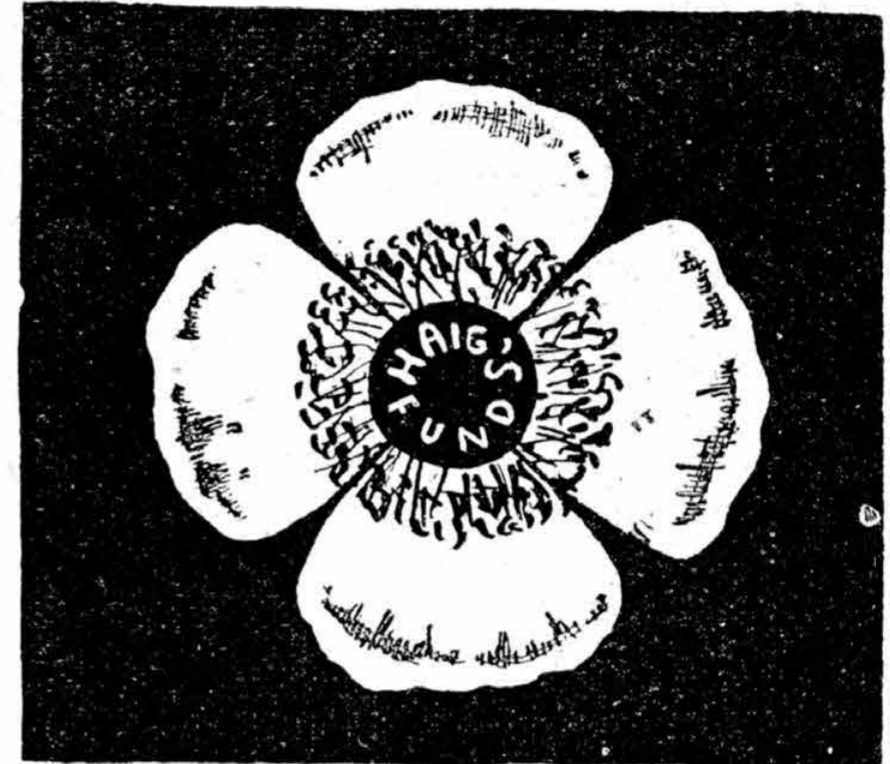
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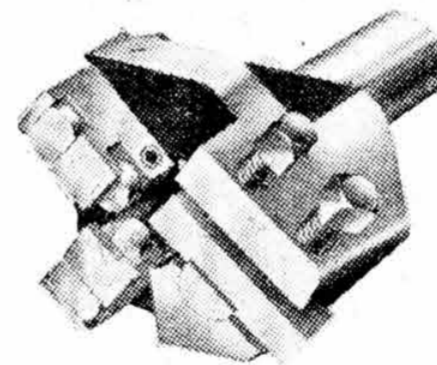
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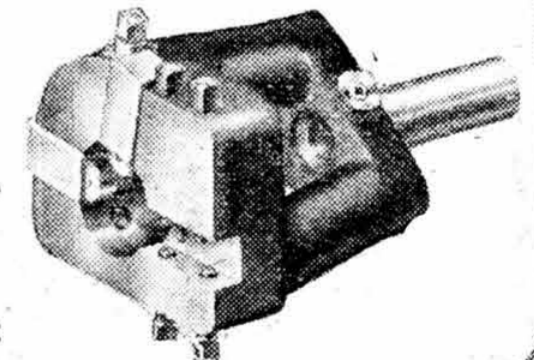
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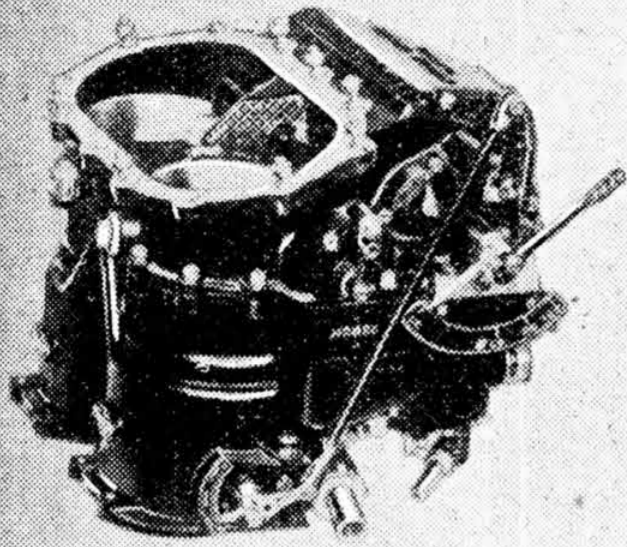


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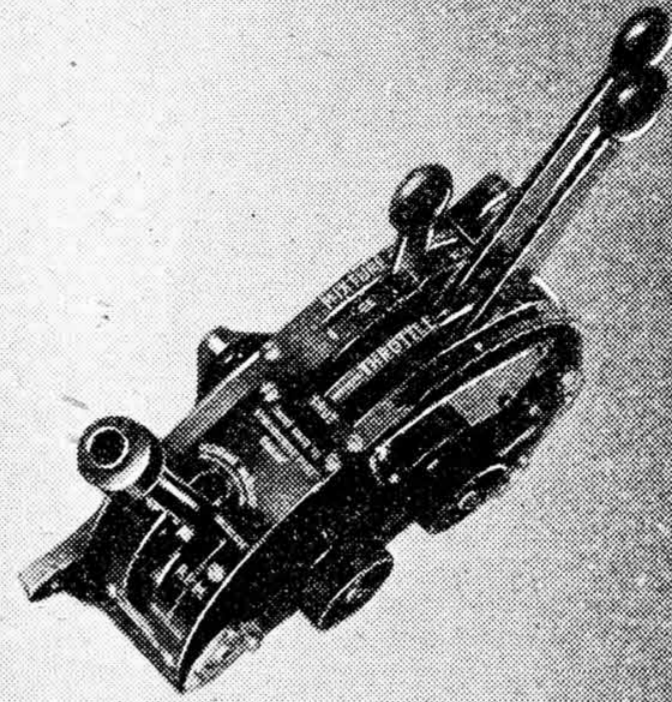
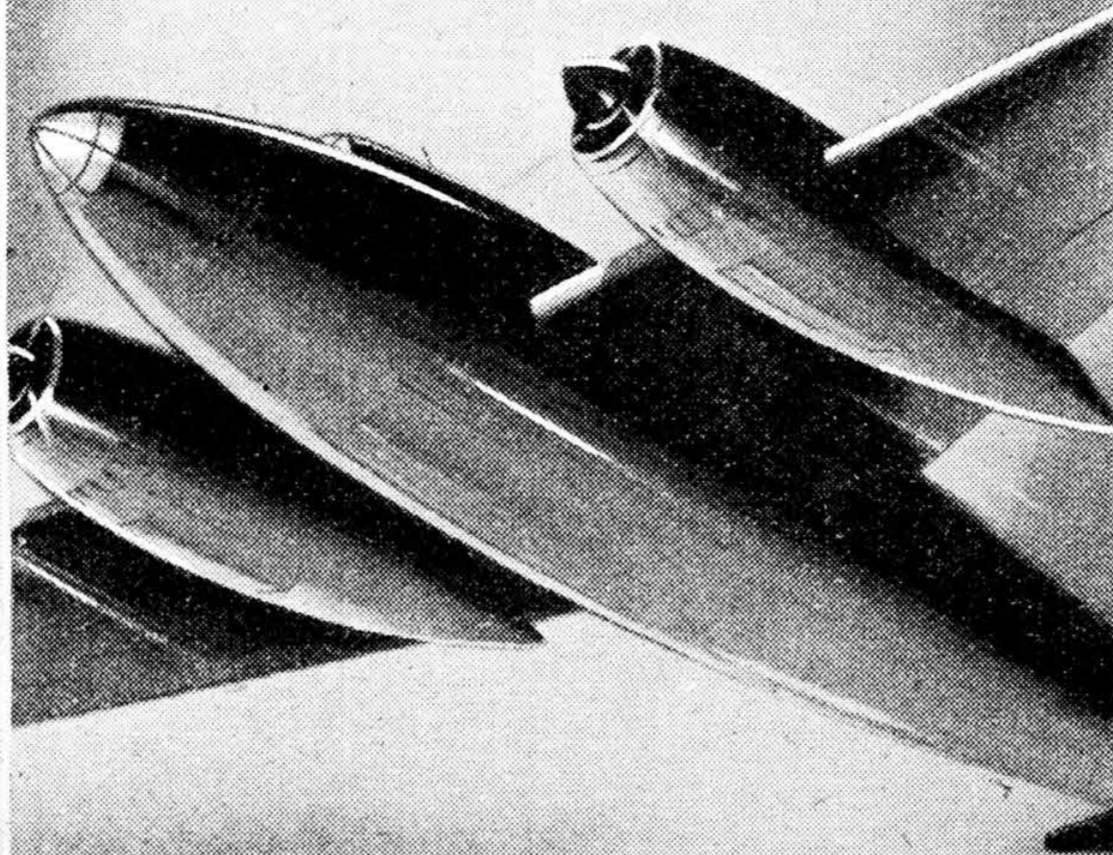
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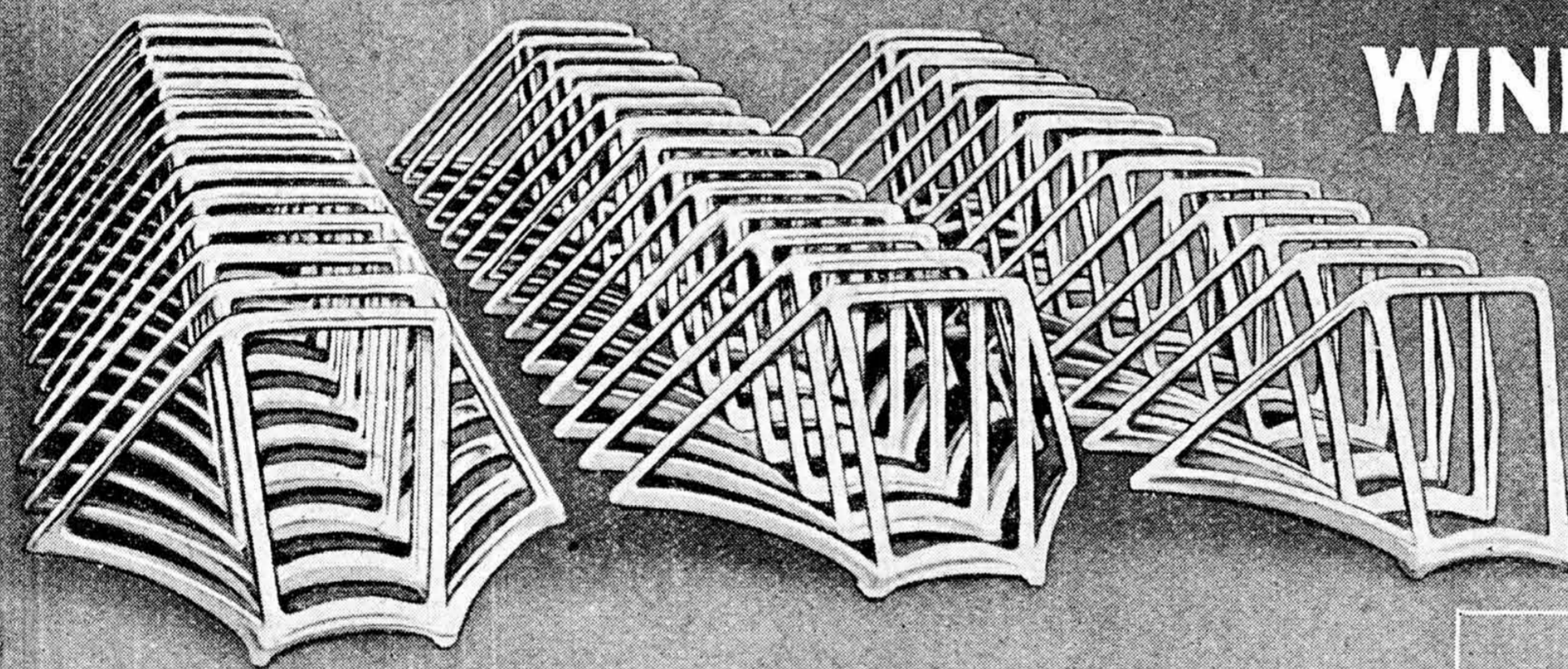
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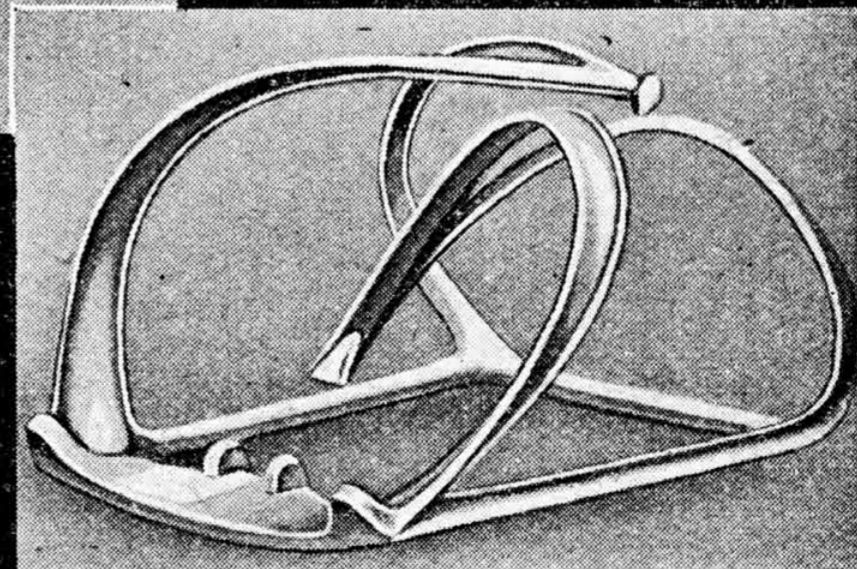


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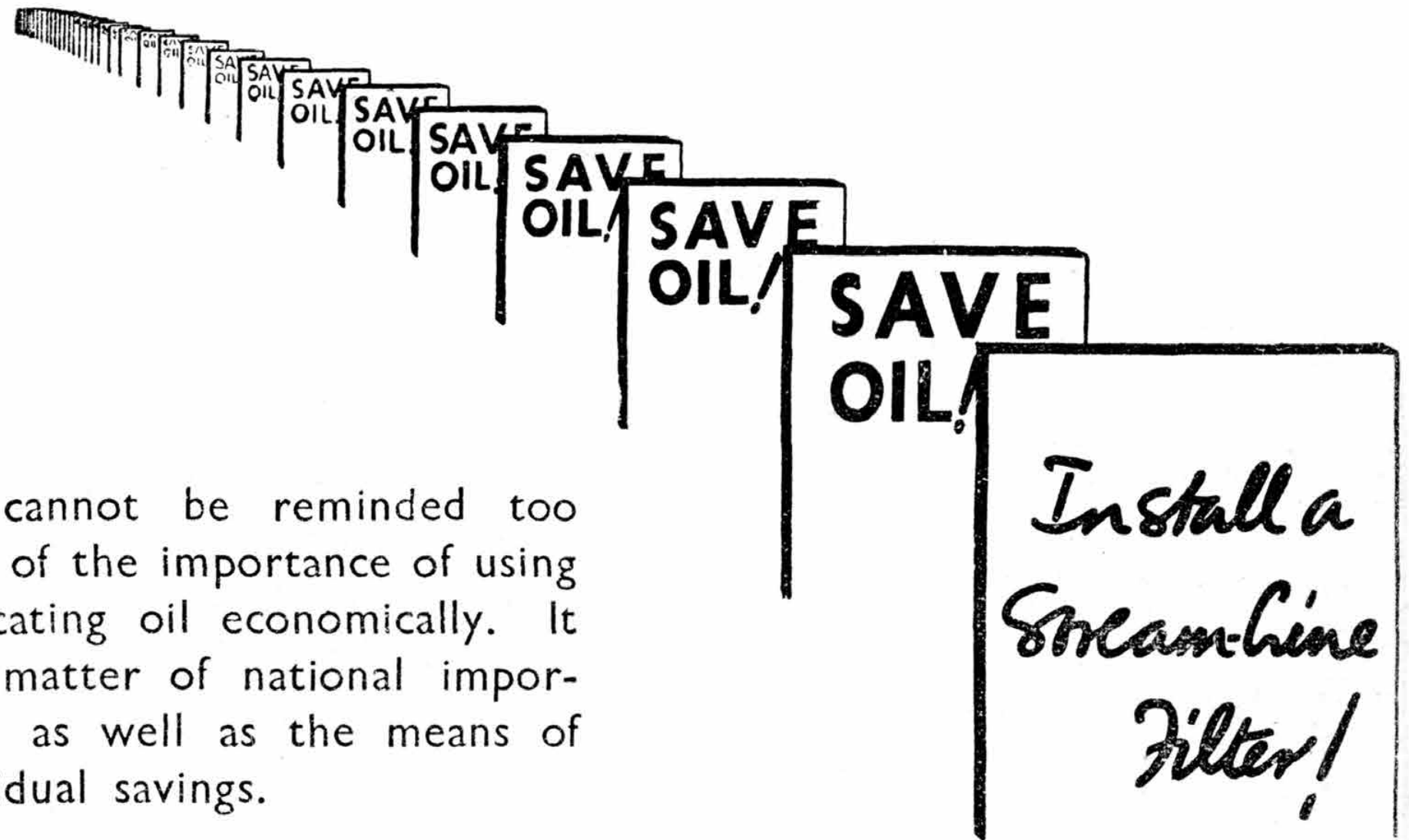
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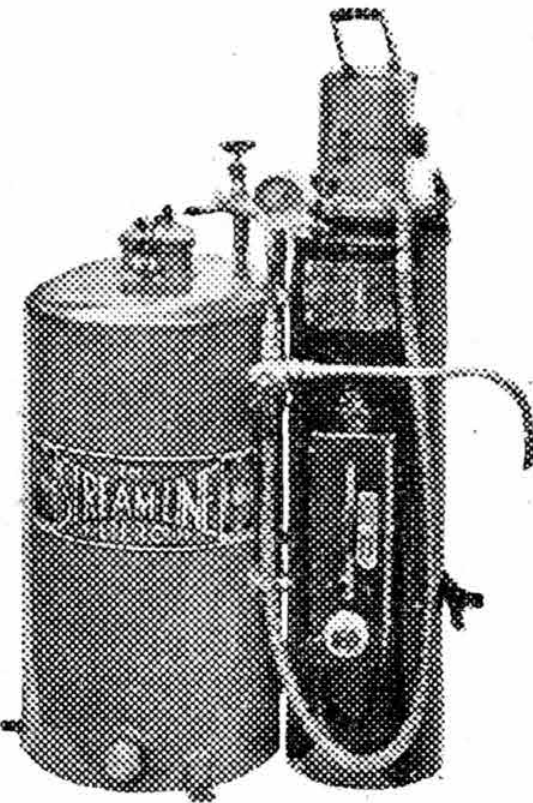
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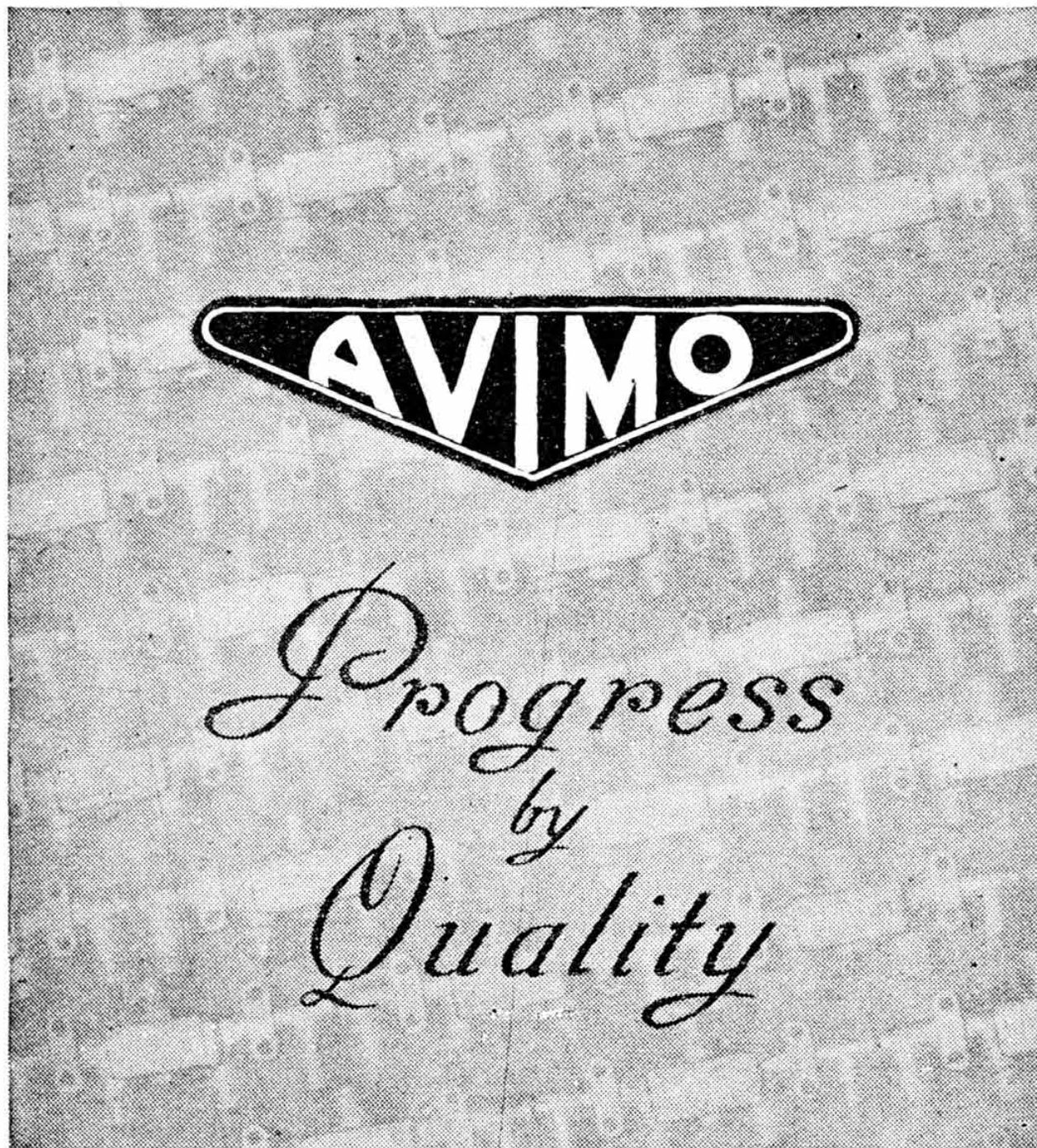
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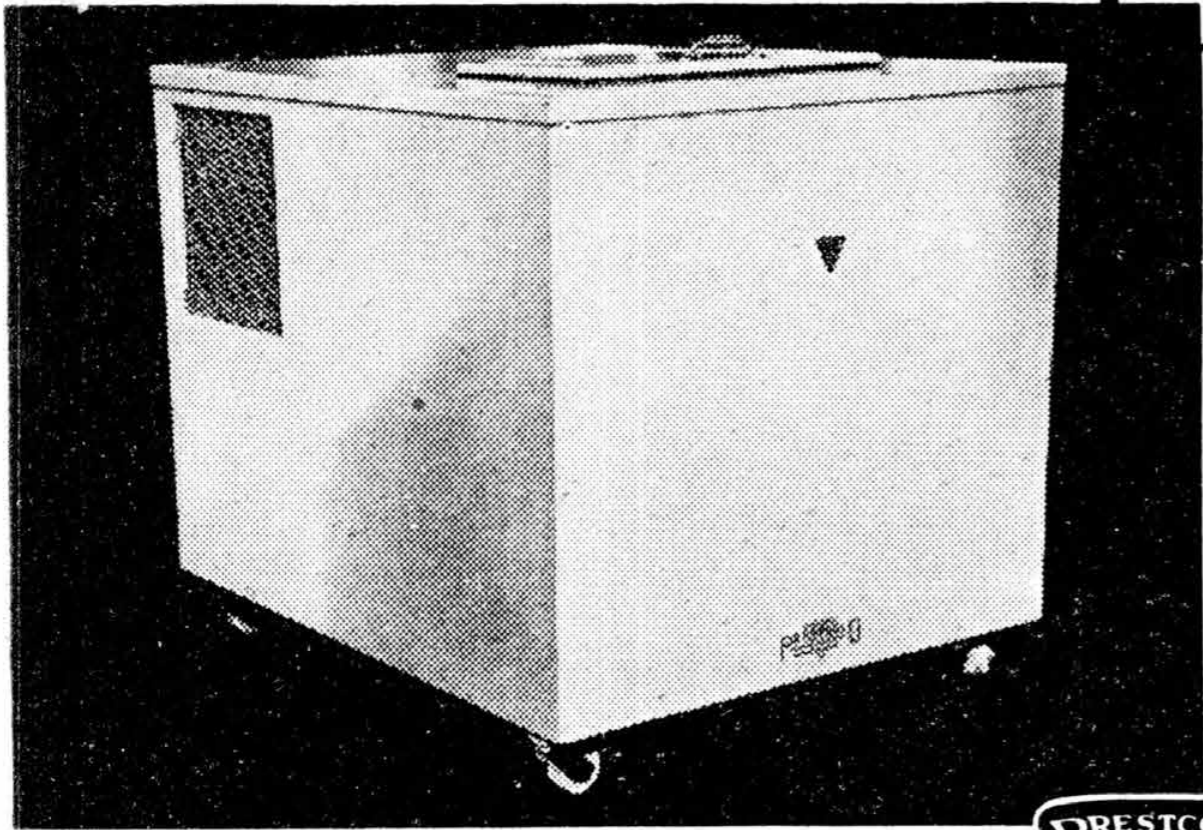
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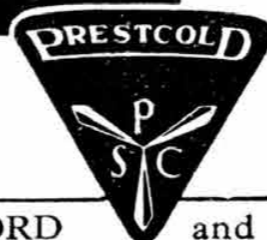
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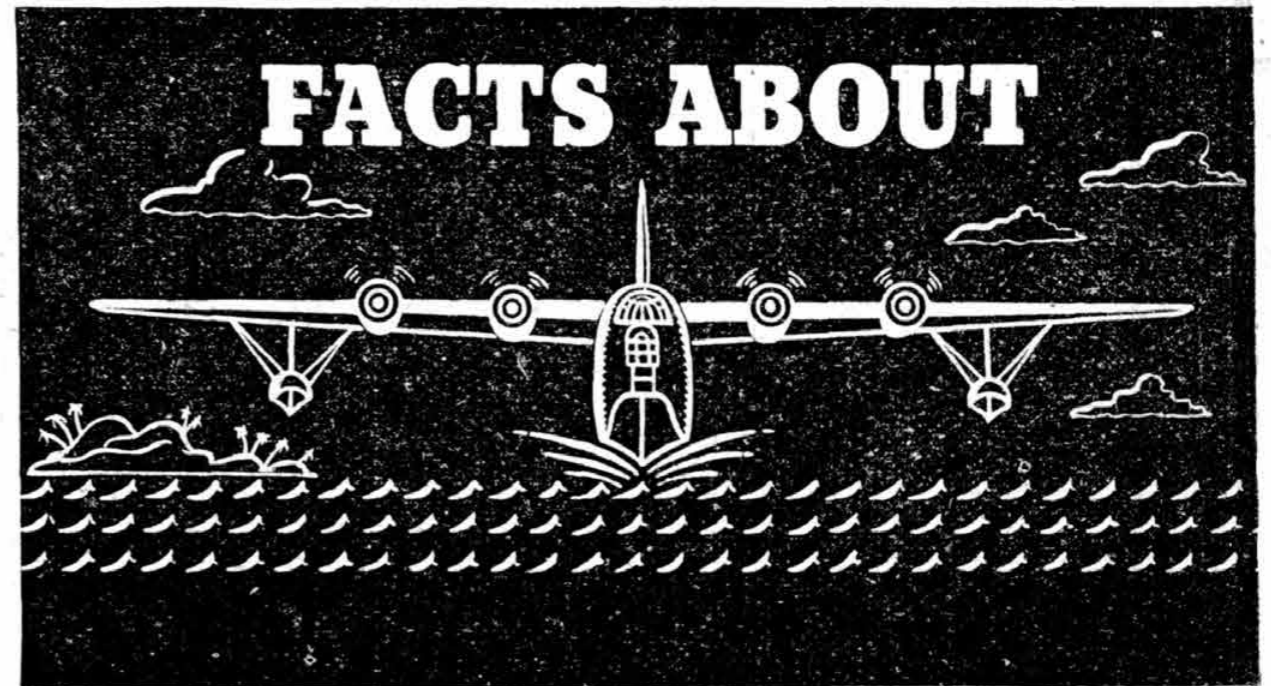
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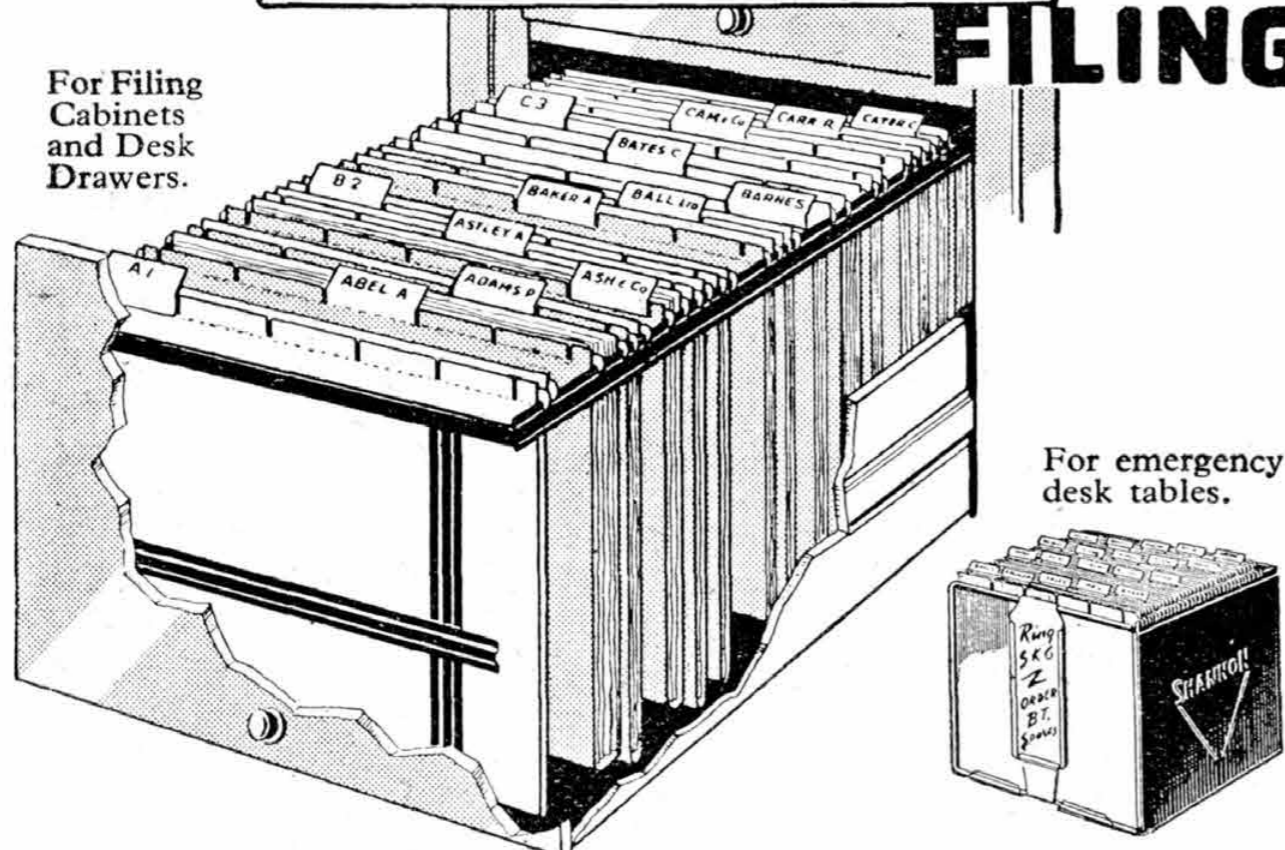
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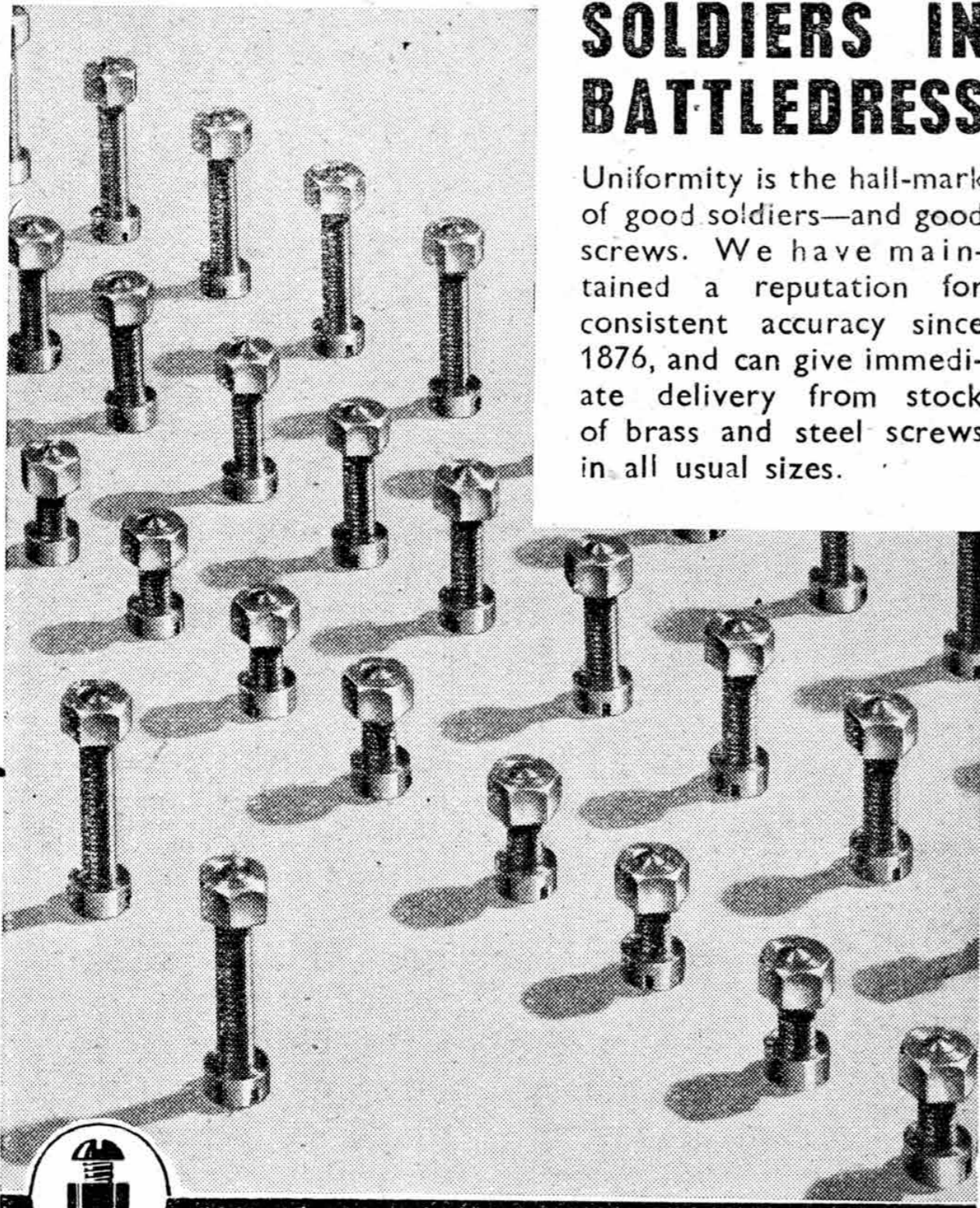
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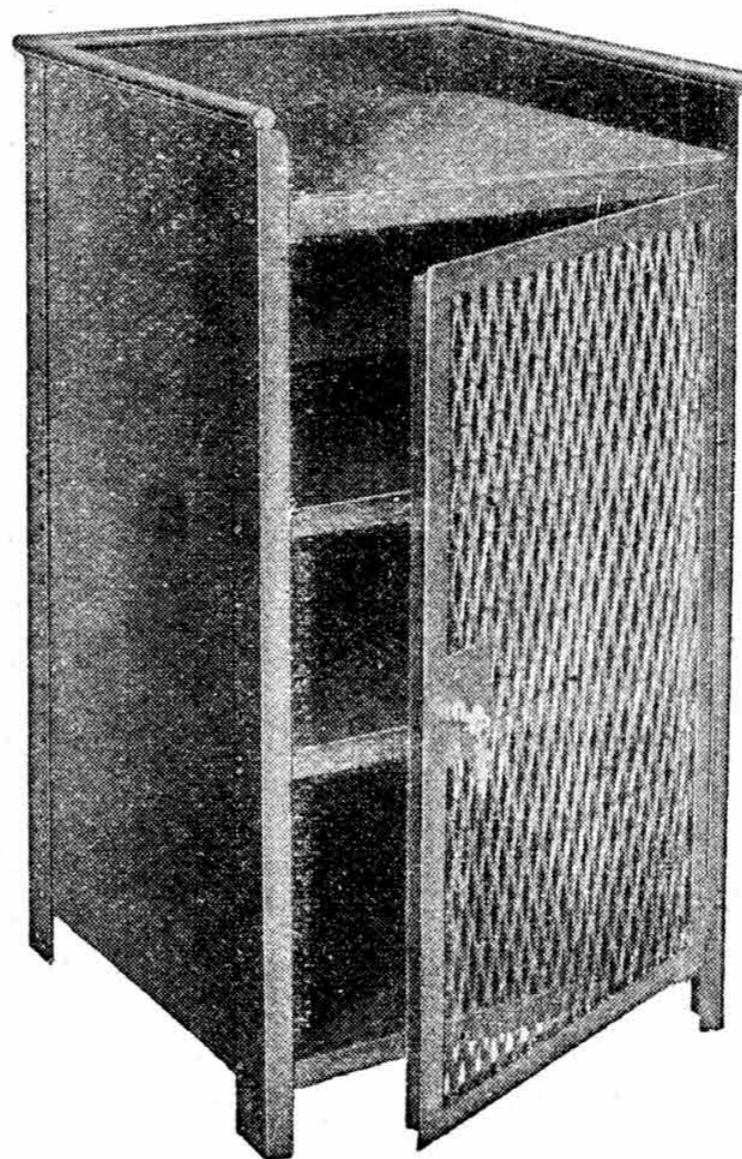
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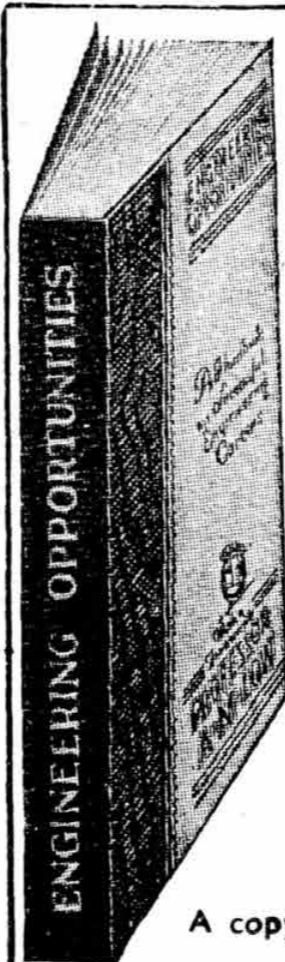
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