

Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

OCT. 8, 1945



Navy's New Grumman F8F Bearcat: Combining light weight and high maneuverability, which characterized Jap planes, this rugged fighter is reported as the fastest conventionally powered airplane. Speed is more than 400-mph. at sea level, much faster at critical altitude. Its climb is better than 5,000-ft. per minute; power is from a Pratt & Whitney 2800C driving a four-blade Aeroprop propeller. Delivered too late for combat, the Bearcat saw operational duty in the Pacific.

Surplus Disposal Reorganized With Symington Control

Wholesale quickening of procedures seen with veteran businessman at head of newly created administration.....Page 7

Extra Airports Necessity At All Major Air Terminals

Industry, CAA officials assert rising proportion of instrument approaches will force nationwide addition of new "bad weather" fields.....Page 39

Potential Lightplane Sale Bar Seen In Financing

Federal Reserve regulation prohibits use of trade-in allowance toward down payment on planes but allows it for automobiles.....Page 31

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Aircraft industry share in production of airborne weapons seen largely dependent upon final determination of jurisdiction.....Page 10

Railway Express Adjustments Asked By Airlines

Group believes air carriers have been deprived of sizeable revenue through Agency's power to enforce and interpret contract terms.....Page 18

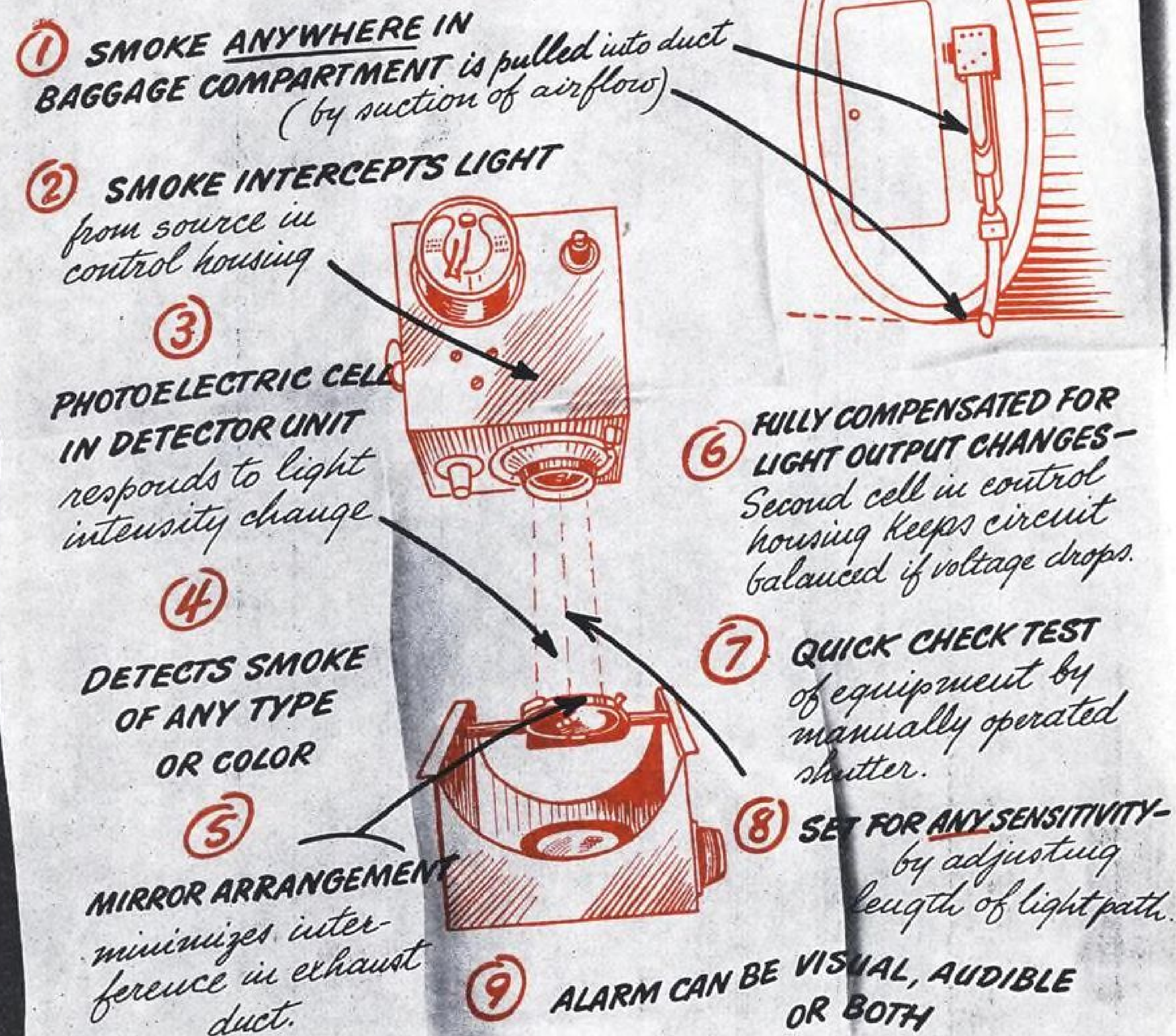
Seven U. S. Lines Get C-54's As Surplus Agency Allots 40

Record domestic apportionment of the big transports sends dozen to PCA while Netherlands government gets 14.....Page 42

IMMEDIATE Smoke Detection

For airplane baggage compartments

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THE AVIATION NEWS

Washington Observer



STILL "SECURITY"—The end of the war did not end the Army's desire to control public information. In line with other disquieting indications that the military would like to continue some phases of censorship is the fact that the AAF is reported seeking in procurement legislation, broad authority for the Secretary to tell aircraft manufacturers what they shall or shall not make public.

PLANT DISPERSAL—Army Air Forces at the moment appears to be modifying its insistence on widespread peacetime subcontracting as a method of achieving aircraft plant dispersal. Trend now is toward keeping procurement legislation and policies elastic enough to make possible a switch from peace to war production without having to wait for a declaration of war, passage of a war powers act, etc. AAF will still, however, emphasize the desirability of subcontracting.

CAA-CAB REORGANIZATION—Information as to Presidential ideas for reorganization of the Civil Aeronautics Authority, if any, has not yet been relayed to key members of Congress. However, Senator Pat McCarran's Judiciary Committee is readying a bill authorizing government reorganization which the Senator indicates he hopes Mr. Truman will use to establish the Authority as an independent agency. Under the proposed bill, the President could transfer CAA-CAB to the Interstate Commerce Commission. During the 1940 Congressional fight over placing them under the Department of Commerce, Mr. Truman, then a senator, supported an independent Authority.

NACA DECLASSIFICATION—National Advisory

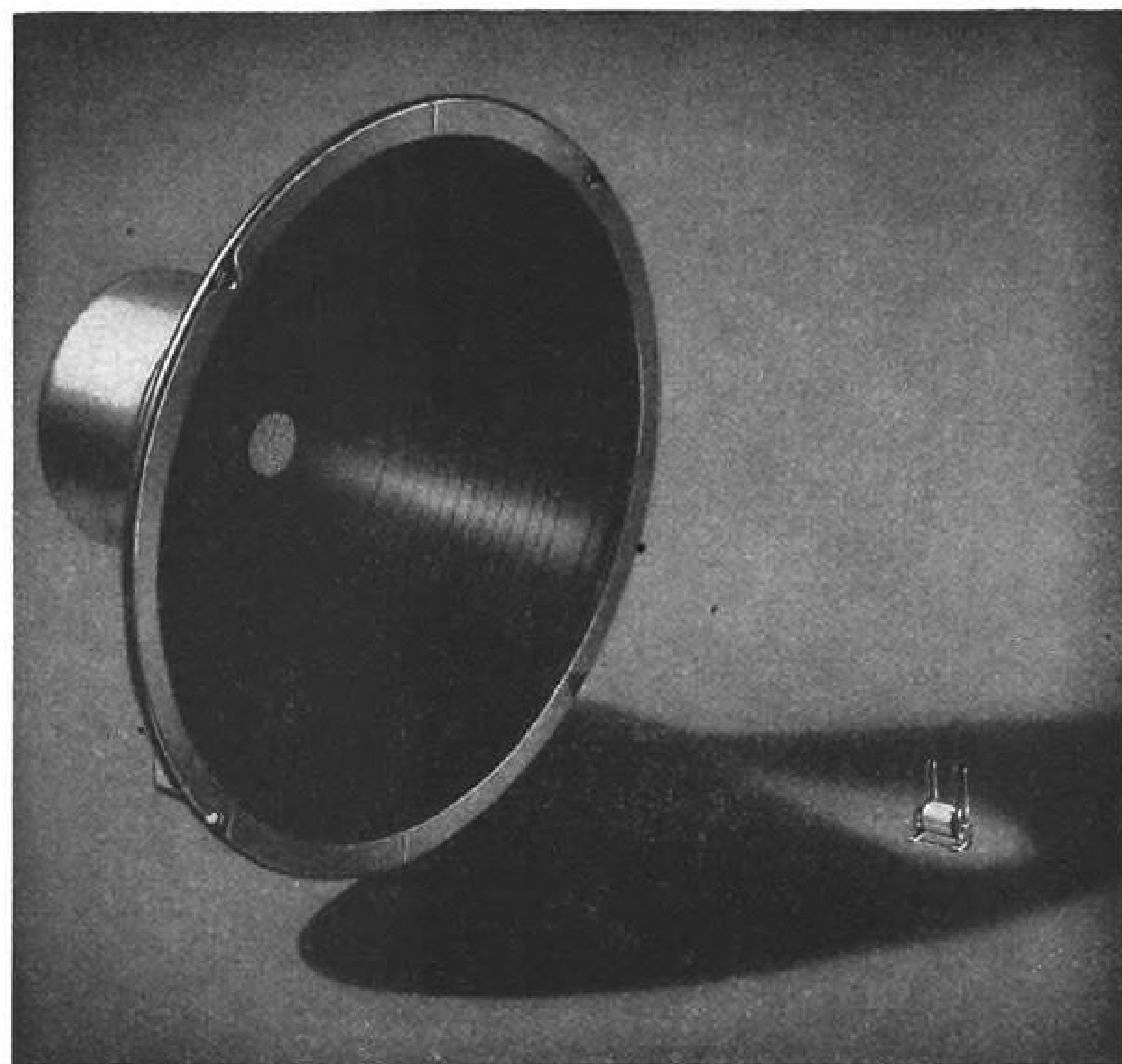
Committee for Aeronautics, one of the war's most tight-lipped agencies, is now beginning to talk. More than 300 NACA technical reports and notes written since wartime security classifications restricted them from general availability, recently have been declassified. In general they cover research in aerodynamics, aircraft structures, aircraft power plants and aircraft operating problems of a scientific nature. These publications will be made available throughout the aviation industry to technical libraries and educational institutions.

'UN-CAMOUFLAGE'—Complaints are reaching the Army from aircraft companies on the question of "un-camouflaging" plants. The Army made contracts with various plants whereby they were to shoulder the expense of camouflaging when there was fear of enemy air raids. Contracts specified that the Army, also, was to bear the expense of restoring the plants to the original condition. Now, several manufacturers are complaining the Army is backing out, pleading lack of funds for removing paint, eliminating window and skylight blackouts. Manufacturers, anxious to get back to peacetime conditions and appearance feel that they have been left out on a limb.

NAVY SCRAP—The Navy's ambitious program to provide a heavy torpedo bomber, TBY *Seawolf*, for the carrier force, is being concluded with sale of TBY fuselages to a kitchen utensil manufacturer for conversion into pots and pans. Not a single TBY got to the fleet, the contract having been terminated well in advance of the end of the war. Sale of the fuselage as scrap for kitchen ware virtually completes disposition of scrap from the big Allentown, Pa. plant of Consolidated Vultee.



First post-war Ercoupe, completed last week



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News at Deadline

To Survey Reconversion

Aircraft reconversion problems and policies will be surveyed by the aviation subcommittee of the Senate's Mead Investigating Committee at hearings this week, with leading East Coast aircraft manufacturers as witnesses. Lawrence D. Bell, Bell Aircraft; Rex Beisel, United Aircraft; G. W. Vaughan, Curtiss-Wright; Leroy Grumman, Grumman Aircraft; Glenn L. Martin, The Glenn L. Martin Co.; Alfred Marchev, Republic Aviation, and J. Carlton Ward, Jr., Fairchild, have been invited to testify. While reconversion will be emphasized, attention also will be given to government peacetime procurement policies and aircraft research and development.

Basic Naval Policy Set

While the size and nature of the Navy's peacetime air arm is being threshed out between the admirals and members of the Naval Affairs and Appropriations committees in closed sessions, the basic post-war naval aviation is reported and procurement policy is reported authoritatively to be, in effect: 1. Production of new aircraft limited to support the basic post-war navy as shown in confidential plans. 2. Attrition replacement based on peacetime factors. 3. Production of new and improved types gets first emphasis. 4. Existing types to be produced only so long as is necessary to apply the post-war Navy until new types are available. 5. Peak manufacturing rates for new models limited to that required to replace older types based on attrition and obsolescence and not on the basis of complete replacement as soon as possible.

UAL Seeks New Route

The proposed merger of Mid-Continent and American Airlines drew fire last week from United Air Lines, which announced it would apply to Civil Aeronautics Board at once for routes to link Minneapolis-St. Paul, Kansas City and St. Louis to its own transcontinental route. The move is necessary, UAL said, to offset the threatened loss of its connections with Mid-Continent for traffic from these cities.



▶ AAF has placed an order with Northrop for a photo reconnaissance version of the *Black Widow* which will offer marked performance improvements. Full production is anticipated by February. Meanwhile, AAF is losing interest in Howard Hughes' F-11 photo ship.

▶ Peak delivery of Fairchild's C-82 will be 8 monthly instead of 12 previously scheduled, although AAF at present expects C-82 work to continue until November 1947.

▶ With termination of production contracts at General Electric, Allison remains the only AAF producer of jet engines, turning out GE-designed units for Lockheed P-80s.

▶ To eliminate conversions, the Navy is asking aircraft contractors to deliver complete ready-for-the-fleet planes now that pressure of wartime schedules is off. Navy commissioning units will remain functioning only temporarily.

▶ Although an official report is not completed, evidence indicates that the pilot brought down the Eastern airliner which crashed recently in the Southeast because of fire which started in the rear of the cabin and spread forward. Potentially dangerous contents of passenger hand baggage and coats, especially belongings of returning GIs from battle areas, has caused some discussion among airline officials.

▶ Southern Aircraft, Dallas, is readying a twin-engined executive transport, Model 11, to sell at more than \$25,000, with cruising range of about 800 miles. Company's smaller plane of revolutionary design probably will be unveiled soon. The firm will start a line of non-aviation products, including light-weight metal kitchen equipment.

▶ Prototype of the post-war version of the Beech twin-engined Model D18S will be flying any day now. It is hoped production will reach one a day this fall. The company indicates orders of almost 200 for this popular executive and feeder transport, accommodating 4, 5, or 6 passengers. Unit cost will be about \$60,000. Production of the D17, single-engined biplane, will be resumed on a limited scale, with the 450 hp. Pratt & Whitney plant.

▶ The decision which North American officials reach on whether to use General Motors' new 200 hp. liquid-cooled engine in the projected North American 4-place personal-business plane will play a major part in any production plans for the new power plant. From the standpoint of GMC, which has a large minority holding in North American, the new plane would be an excellent medium to introduce the engine. Low cost per horsepower, estimated by one company engineer at \$4 in quantity output, is another argument for marketing.

▶ Coast & Geodetic Survey has dispatched 5 groups to survey locations and heights of obstructions within 3 miles of every airport to be used soon by 4-engined airliners operating under the transport category requirements. The airlines, however, have asked CAA to arrange for additional survey parties as soon as possible.

▶ Rohr Aircraft Co., near San Diego, may enter the personal aircraft market with a 2-place model now in mockup. The company recently merged with International Detrola. The mockup was begun after consideration of a variety of aircraft design proposals including both conventional and powered gliders.

▶ Hawker-Siddeley Aircraft (British) plans to use its recently purchased Victory Aircraft Ltd. factory at Toronto to make aircraft and new types of turbine power plants, which would be marketed in North America and for export. The parent company is sending a team of engineers to Canada.

▶ The factory of Boeing Aircraft of Canada Ltd. at Sea Island, Vancouver, has been turned over to War Assets Corp. as surplus. Employment, once 10,200, is less than 1,000.

▶ Canadian Car & Foundry is closing down its *Helldiver* line. It has been producing about 30 SBW's (Canadian Car designation) a month.

SPEED STRESSED

Surplus Disposal Reorganized As Symington Assumes Control

Wholesale quickening of procedures seen with veteran businessman at head of newly created administration; directives expected to emphasize elimination of industry "perils," movement of items this year.

A wholesale speeding up of surplus property disposal, with new and definite directives issued to disposal agencies, is seen in the offing following the swearing in last week of W. Stuart Symington, St. Louis, Mo., businessman, as sole administrator of surplus property.

Although Symington's greatest job and, consequently, perhaps greatest interest will be in consumer goods, first effects of the sweeping reorganization which created the Surplus Property Administration could be felt in the aviation field.

► **Trends**—Four items comprise the principal aviation surpluses: aircraft, engines and parts, plants, and tools. On all four, the new

administrator has expressed ideas pointing toward the following:

► **Aircraft** — Types suitable for civilian use must be moved on best possible terms, but sales are paramount; combat types should be scrapped, wholesale if necessary, without too much concern for salvaging.

► **Engines and parts** — Relatively little can be sold for aviation use; speedy determination must be made of other possible markets, followed by salvaging and scrapping if necessary; engine surplus must not be permitted to imperil normal trade.

► **Plants** — Less rigid sale and lease terms; better treatment of wartime lessees.

► **Tools** — Retention of present pro-

cedures much as they are, as tools seem to be moving satisfactorily; quicker removal of tools not desired by plant operators.

Overshadowing practically all of Symington's utterances on the surplus problem is one impelling desire: **SPEED**—movement of the majority of items during the business reconversion period, which he seems to feel will be drawing to a close about the first of the year.

Along with this is his apparent belief that disposal of surplus plants can be a substantial aid to reconversion. He does not fully approve of the terms being offered to date by the Reconstruction Finance Corp., disposal agency for plants. Former head of the Emerson Electric Co., Symington knows the plant situation first-hand. His organization operated in two government-built plants, but could not agree to RFC's original terms for continued use of the facilities.

► **Buyer Aid** — More lenient arrangements for purchasers, and greater speed, are expected to feature orders Symington shortly will send to disposal agencies.

With supreme authority over surplus disposal, Symington will move toward making the present act more effective, rather than to



PART OF AAF OCCUPATION FORCE:

This array of Boeing Flying Fortresses, lined up on an air field in Germany, is part of the U. S. occupa-

tion air force. These planes, about 350, were flown from England to do aerial duty.

Sikorsky First

— IN PRODUCTION — IN THE SERVICES

Sikorsky helicopters, first to roll off a helicopter production line, were the only ones to see active military service. In addition to training hundreds of pilots in the U.S.A.A.F., the Coast Guard, the U. S. Navy, the R.A.F. and the Royal Navy, Sikorsky helicopters were in action in England, Alaska, China, Burma, India, the Philippines and on Army floating repair bases in the Southwest Pacific.

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NACA INDUSTRY CONSULTING COMMITTEE:

First meeting of the Industry Consulting Committee, established by the National Advisory Committee for Aeronautics (AVIATION NEWS, Sept. 24), named J. H. Kindelberger, president of North American Aviation, chairman, and H. M. Horner, president of United Aircraft, vice-chairman. Around table, members are, left to right: Beverly Howard, Hawthorne School of Aeronautics; Vannevar Bush, NACA; William A. M. Burden, assistant secretary of commerce; L. A. Bell, president, Bell Aircraft; William Littlewood, American Airlines; Admiral L. B. Richardson, NACA; Dr.

George W. Lewis, NACA; Theodore P. Wright, Civil Aeronautics Administrator; Gen. B. W. Chidlaw, AAF; Kindelberger; C. Bedell Monro, president, PCA; Robert E. Gross, president, Lockheed; Jack Frye, president, TWA; Horner, and W. T. Piper, president, Piper Aircraft. Background: T. L. K. Smull, NACA, engineering secretary of the committee; E. R. Sharp, NACA; Col. D. N. Putt, AAF; Capt. Robert S. Hatcher, Bureau of Aeronautics; Grover Loening, NACA; John F. Victory, NACA, and Paul H. Kemner, AAF.

ask Congress for amendments. He believes time is so short for maximum disposal that the best plan is to continue utilization of disposal agencies, with their trained staffs, rather than seek Congressional sanction for an independent agency.

While not desirous of any immediate changes in the law, Symington has already moved drastically to shake-up the existing system. Five administrative branches have been set up. They are:

► **Capital and producers goods** — under which come all aviation surpluses — headed by David H. O'Brien, who has been in charge of aircraft; consumer goods, headed by Merritt C. Penticoff; operations, headed by Col. G. E. Monson; economic research, headed by Dr. Raymond T. Bowman; public information, headed by Lt. Col. John M. Redding. The latter post assumes greater importance than that previously filled by a director of information, with Col. Redding on a policy-making level.

Another key point in Symington's program is simplifying the exercise of priorities by those eligible. This will be in charge of a new deputy administrator, James J. Wadsworth.

Initial result on aviation of SPA's creation likely will be in the matter of scrapping. RFC has broad authority to proceed in this respect, but has been delayed by operational problems, chiefly, and according to some sources, by lack of funds. SPA is expected to move

on both fronts; assisting in the solution of who will scrap and how, and, if necessary, asking funds from Congress to reimburse RFC for scrapping expenses.

► **Risks Vs. Ideas**—Some top officials at RFC are represented as being wary of scrapping, fearful of its political aspects. SPA executives, on the other hand, are willing to risk Congressional disfavor in the carrying out of their ideas.

Pilot, Aircraft Listings To Be Resumed

Publication, sale and distribution of airman's and aircraft certificate lists of the Civil Aeronautics Administration will be resumed soon, after a four-year interruption.

Formerly issued by the old Aeronautical Chamber of Commerce, the lists were put up for bid recently by the CAA, with Haddaway Reed Publishing Co. of Dallas, Tex., offering the top sum of \$10,000.

► **Printing Plan**—Two series will be issued. About 30,000 certificated aircraft will be listed by types and owners, with monthly supplements thereafter. The first pilot list will include about 180,000 names, by states, with subsequent supplements monthly. A student pilot list will be prepared later.

George Haddaway, one of the partners of the new company, is editor of *Southern Flight* magazine. Robert B. Reed, of San Angelo, Tex., is publisher.

Aviation Clinic Unit Shaping Programs

A committee under the chairmanship of John E. P. Morgan, executive director of the Aircraft Industries Association, is working on a program for the National Aviation Clinic to be held at Oklahoma City, Nov. 19-21, and which will be opened by President Truman.

Invitations have been sent to each of the United Nations to send representatives to take part as observers. Voting delegates will be limited to 98, half of whom will represent the various divisions of the aviation industry, and half the public. The public generally, federal and state officials and others may attend the Clinic as consultants and observers and participate in its activities.

► **Session Leader**—William R. Enyart, president of the National Aeronautic Association, will preside at general sessions of the Clinic, all of which will be held in the Oklahoma House of Representatives chamber.

President Truman, in accepting the invitation to address the opening session of the third annual Clinic, commented that "in the global war which ended with the unconditional surrender of our axis foes aviation came into its own. It underwent a complete evolution in the six years that lay between the beginning of the war and the collapse and capitulation of Japan. We are looking

now to the future—a future of peace during which aviation will achieve its greatest development and expansion and play a role of incalculable importance."

Stanley C. Draper, head of the Clinic Executive Committee announced the following committees: ► **Resolutions:** Dudley H. Dorr, Hale & Dorr, Boston attorneys, chairman; Glen B. Eastburn, manager, Aviation Department, Los Angeles Chamber of Commerce, vice-chairman.

► **Program:** John E. P. Morgan, Aircraft Industries Association, chairman; William P. Redding, National Aeronautic Association, vice-chairman.

► **Credentials:** James R. Graham, United States Aviation Underwriters, New York, chairman; William P. MacCracken, general counsel, National Aeronautic Association, vice-chairman.

► **Public Relations:** Merrill C. Meigs, vice-president, Hearst Corp., chairman; Edgar T. Bell, secretary - treasurer, Oklahoma Publishing Co., Oklahoma City, vice-chairman. The public relations activities will be divided into three divisions including newspapers, James Strebig, aviation editor, *Associated Press*; radio, Leonard C. Reinsch, station



BRITISH AUTO TRANSPORT:

Hint of one possible peacetime use for some of Britain's larger converted warplanes or new transport models, came last week with this picture, reprinted from the English air publication *The Aeroplane*. Shown are three Austin automobiles being loaded into an Avro York. According to the car manufacturer, in conjunction with the plane builder A. V. Roe Co., use of the big bombers as a means of shipping small autos to South Africa and other overseas points is now being investigated with an eye to extensive operation as soon as equipment becomes available. The load of three Austins, it is claimed, can be lashed and ready for flight within a half hour and delivered without dismantling.

WSB, Atlanta, and publications; Otis Peabody Swift, *Time Magazine*.

Rolls Royce Enters Canadian Market

English engine firm establishes North American office at Montreal; peacetime use of jet units stressed.

In a significant move of particular interest to engine manufacturers in the United States, Rolls Royce Ltd., of England, has set up a North American technical office at Montreal and plans a service organization throughout Canada to service engines used by the RCAF and commercial aircraft in the Dominion.

Rolls Royce has also set up a major stores department at Montreal and plans to open a plant for servicing and overhauling at Montreal. J. D. Pearson, chief of technical services for the company, said it was not planned for the immediate present to manufacture the engines in Canada, it being more advantageous to ship them from Great Britain. Canada, incidentally, has no aircraft engine manufacturing facilities.

► **Jet Plans**—Of particular interest was the indication that Rolls Royce is basing much of its Canadian plans on peacetime use of its jet propulsion gas turbine engine, the *Derwent*, which powered

the RCAF Gloster Meteor, the only allied jet propelled aircraft used in combat in the European theater.

The company is working in conjunction with the Canadian government's Turbo Research Ltd., Toronto, the Royal Canadian Air Force, and with Trans-Canada Air Lines, with a view to having a share in Canada's commercial aviation.

Location of the service plants will depend largely upon RCAF decisions and requirements. Canadian-built *Lancasters*, *Spitfires*, *Mosquito* and *Lincoln* war craft were powered with the Rolls Royce *Merlin* engine, built by Packard Motor Car Co., Detroit.

Air Power League Job Plan Expanded

Program of The Air Power League to assist employment in civil life of aviation veterans of the armed forces has enrolled charter members in 19 states, thus far operating informally through connections with business organizations in their communities.

Offers of assistance for veterans were in response to a letter to charter members from Charles E. Wilson, league president, who said that most combat airmen who will be released from the Army and Navy are young as years go and that a great many of them have never been employed, entering the service directly from school.

Guided Missile Supervision Swings Toward AAF, BuAer

Aircraft industry share in production of airborne weapons seen largely dependent upon final determination of jurisdiction; ordnance departments of both services persist in demands for control.

Army Air Forces and the Navy's Bureau of Aeronautics appear to be gaining headway in their efforts to control procurement and production supervision of guided missiles and similar airborne weapons, instead of having these functions go to the ordnance departments of the Army and Navy.

The tug-of-war between airmen and ordnance men is of particular interest to the aircraft industry. With the airmen having jurisdiction over new weapons of this type, the aircraft industry would share heavily in development and production work, a situation which probably would not occur if the jurisdiction was entirely in the hands of ordnance.

► **Vague Difference**—However, the line between aerodynamics and ballistics, in this case, is so vague that policy determination in this matter is likewise hazy and an arbitrary line will have to be drawn somewhere between the airmen and the ordnance men.

Both the Army and Navy have been beset with difficulties in this regard ever since the robot bombs and their like made their first appearances. At the Navy it was the Bureau of Aeronautics on one side and the Bureau of Ordnance on the other. At the Army it was AAF and ordnance.

It is the view of airmen in the services that all airborne weapons that are wing-borne, or their equivalent, should be designed and developed by the aircraft industry. This view is not unanimous in either the War or Navy departments, where ordnance men contend they should have an important role in the development of these new weapons — many of which are still in the "paper and think" stage.

► **Arguments** — The new airborne weapons fly through the air so BuAer and the AAF contend they should have jurisdiction. But, they have no pilot, so BuOrd and ordnance people in the War Department hold they are within their jurisdiction.

Behind the whole question is a

matter of basic policy which the War Department has yet to settle, although it appears that the AAF will have a lion's share of jurisdiction, with some smaller part remaining with ordnance.

It is understood that the Navy, however, has taken direct steps in the matter with the issuance of a directive, but the AAF, publicly at least, merely says that it is logical that the responsibility for the procurement and development of such weapons should come under their jurisdiction. Beyond that, the AAF does not commit itself publicly, but privately the feeling is strong. There is also the natural desire not to antagonize Congress which is going to be asked for appropriations to develop these devices.

► **"Decision"** — A real controversy existed in the Navy for some months over jurisdiction, or cognizance, as the Navy calls it, of the new weapons. The dispute finally was resolved in one of the sesquipedalian directives which makes the Navy impervious to understanding. The directive is understood to state, in effect, that on those guided missiles depending upon aerodynamic features for sustained flight, BuAer shall have cognizance and on those dependent upon mere thrust for flight, BuOrd shall hold.

AAF thinking, still not in directive form, is that those weapons which are self-propelled or launched from the air should be under the AAF and those fired from the ground or propelled by other force or charge, should come under ordnance.

Interim RCAF Planned

Organization of a volunteer Canadian interim air force to serve for two years, presumably during which the size and nature of the permanent Royal Canadian Air Force will be decided, has been announced at Ottawa.

The interim force, under present plans, would sign up to Sept. 30, 1947, at present active service

pay and allowances. Applications for the force are being examined carefully since it is expected that most of the interim force will make up the permanent organization. Size of the interim force was not disclosed.

NAA Names Four To Head Regions

New appointments aimed at clinching association's claim to top aviation promotion role; services expand.

Four regional representatives to coordinate activities in the field have been appointed by the National Aeronautic Association, effective Oct. 15.

Lt. Col. Don C. Johnston, Des Moines, Iowa, a Civil Air Patrol wing commander, is in charge of the northwest section of the country; John McKee, Bemidji, Minn., private flyer, the southeast; Don Seevers, former airline pilot and Washington representative of the Feeder Airlines Association, the southwest. Representative for the northeast has been chosen, but his name is being withheld pending his completion of personal business.

► **Plane Tour** — After a one-week indoctrination period at the Washington headquarters of NAA, the men will begin covering their territories by car. When available, lightplanes will be used exclusively under an arrangement whereby it is hoped to promote greater use of personal aircraft.

Aim of the new NAA move is both to expand recruitment of members, and to widen NAA service to an increasingly air-minded public. In the post-war period that has been freely predicted to be the era of aviation's greatest expansion, NAA is seeking to lock up its claim of being the strongest organization devoted to promotion of aviation.

While the oldest association of its kind, founded in 1922 as the successor to the Aero Club of America, organized in 1905, NAA has undergone several complete changes of character. Of late, it has begun to concentrate on public education in aviation, with emphasis on landing facilities, private flying, air defense, and model aeronautics.

Results indicate that perhaps the successful formula has been found:

► In a little more than a year,

number of chapters has more than doubled.

► Inquiries on all phases of aviation, from all segments of population and not just members, are running 20 to 30 a day, with 5,200 received already this year.

► Advice of the "airport consultation service," staffed by noted and experienced engineers and other authorities, is constantly being sought by states and municipalities.

► Foreign aviation observers, both government and private, practically without exception turn to NAA for advice on what to see and where to go in this country.

NAA is reluctant to talk about number of members, which is believed to be approaching 20,000. Instead, officials speak in terms of service rendered, which can be impressive. It has a staff of 137 speakers for public gatherings. Acting as a clearing house of information, NAA has distributed about 100,000 pieces of literature in approximately a year. Most of this consists of pamphlets originally issued by other organizations.

ANLC Abolition Has Slight Affect

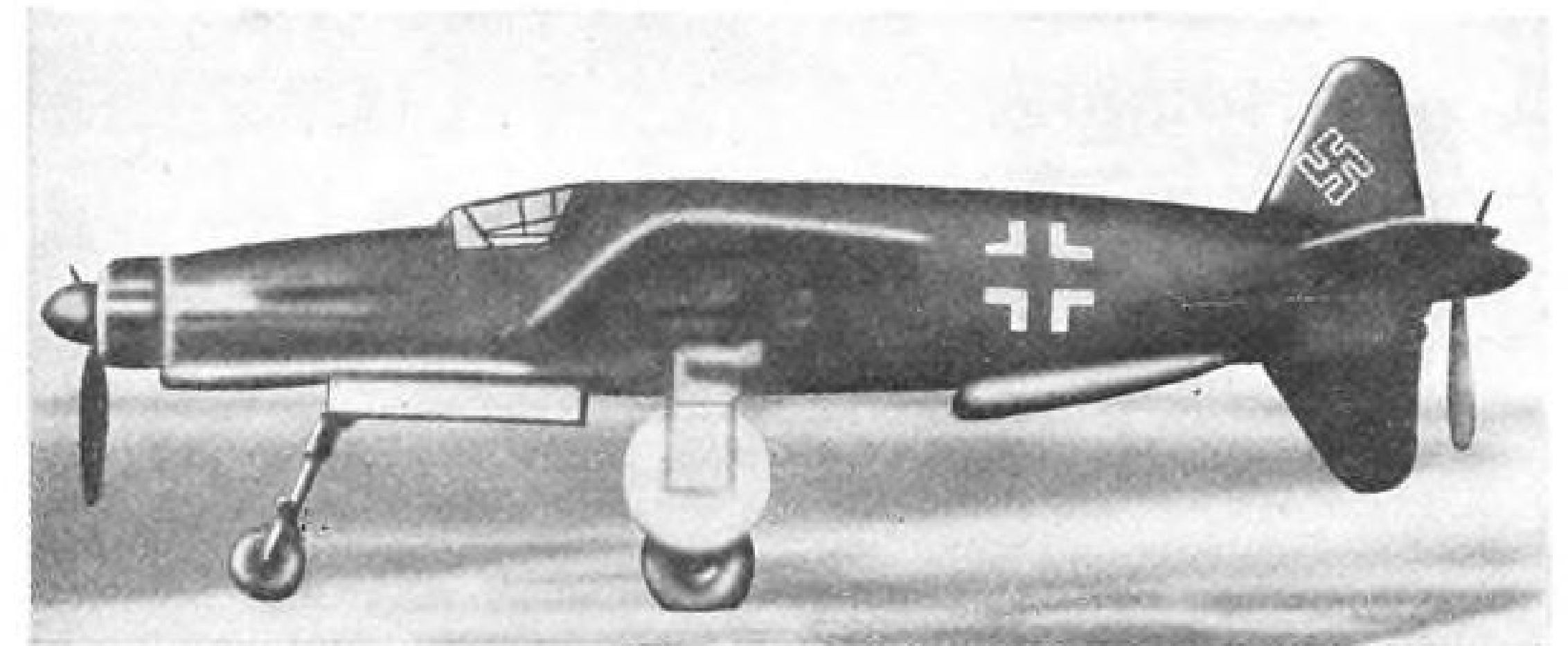
Shift of functions to State Department leaves overseas surplus disposal virtually unchanged.

Little immediate change is expected in procedures and methods of overseas disposal of aircraft and parts as a result of the abolition of the Army-Navy Liquidation Commission and transfer of its functions to the State Department.

The Executive Order effecting the switch retains in force the former authority for the Army and Navy to assign personnel to overseas disposal, but now they will be detailed to State.

Actual absorption of ANLC into State will not take place for some time, it is predicted, as the latter department is fully engaged in its own reorganization and in taking over the Office of War Information and other functions recently assigned it.

► **Staff Grows** — Meanwhile, ANLC is proceeding to enlarge its overseas staff to facilitate disposal. Col. Melvin Hall, former assistant chief of staff of the Ninth Air Force, now on inactive duty, will be in charge of aircraft disposal in Europe, with his headquarters in Paris. He will be assisted by a small field staff. John D. Ahlers, formerly in Latin America for the



NOVEL NAZI ENGINE PLAN REVEALED:

Similar to our own newly-announced Douglas XB-42, (AVIATION NEWS, Sept 17), in that power for the rear propeller is fed through an extension shaft from an engine in the fuselage, this Dornier 335A fighter-bomber is pictured publicly for the first time in the above British Air Ministry photo. Unlike the side-by-side engine arrangement to power the American ship's tail-mounted, counter-rotating props, the German plane uses a tandem arrangement to drive one propeller in the nose and another in the cruciform tail. The nose prop's engine is mounted ahead of the pilot while the second powerplant is installed behind. Versions of the plane carried one and two persons. (For further discussion of extension shaft powering, see Production section.)

Fairchild Airplane and Engine Corp., will handle aircraft for ANLC in Rio de Janeiro.

Latest ANLC report, as of August 31, shows total surplus declarations received of \$426,703,823. The majority has been salvaged, amounting to \$274,195,494 for aircraft, and \$115,516,189 for parts. Planes and parts sold total \$1,907,863. Aircraft costing \$25,856,919 remained on hand on that date, but the bulk of this amount consisted of 64 C-109's in England, which are valued at \$22,053,504. Eventual sale of these is considered doubtful as they are tankers converted to carrying only gasoline and oil.

One of the major stumbling blocks in ANLC's path—and also one of the principal reasons for the transfer to the State Department—is the desire to receive payment in dollars. Few of the European countries have dollar reserves, and even those are wary of using them until there is a determination of U. S. financial policy toward its Allies.

United Aircraft Shifts Top Financial Positions

A realignment of United Aircraft's accounting and financial personnel has been announced by Frederick B. Rentschler, chairman, incident to which the board elected Joseph F. McCarthy, now controller, to the new office of finance chairman and also elected William R. Robbins, general

accountant, to the office of controller. The office of general accountant was discontinued. McCarthy continues as chief accounting and financial officer. Robbins will have immediate responsibility for all accounting and financial matters of the corporation and its subsidiaries, under McCarthy's general supervision.

AVIATION CALENDAR

- Oct. 6-14—Detroit International Air Show.
- Oct. 8-14—Fourth Michigan Aviation Week.
- Oct. 12-13—Soaring Society of American Motorless Flight Conference, Polytechnic Institute of Brooklyn, N. Y.
- Oct. 15—Interim Council, PICAQ, at Montreal.
- Oct. 15—Civil Aviation Legislative Council, Meeting, Statler Hotel, Washington, D. C.
- Oct. 16—International Air Transport Association, Annual Meeting, Montreal.
- Oct. 17-18—CAA Non-Scheduled Aviation Advisory Committee Meeting, Denver.
- Oct. 25—Institute of Aeronautical Sciences, Meeting, Washington, D. C.
- Oct. 25-26—Institute of Navigation, Meeting, Hotel Lexington, New York.
- Nov. 1—SAE Southern California Section, Aeronautical Meeting, Los Angeles.
- Nov. 5-6-7—National Association of State Aviation Officials, Annual Meeting, Coronado Hotel, St. Louis, Mo.
- Nov. 6-7—Society of Automotive Engineers National Fuels & Lubricants Meeting, Mayo Hotel, Tulsa, Okla.
- Nov. 17—National Aeronautic Association Board of Directors, Meeting, Washington, D. C.
- Nov. 19-20—Tenth Annual Meeting of the National Aircraft Standards Committee, Aircraft Industries Association, Chicago.
- Nov. 19-21—Third National Aviation Clinic, Oklahoma City.
- Nov. 26-27—National Aeronautic Association—Joint Private Flyers' Conference, Statler Hotel, Washington, D. C.
- Dec. 10-11—Aviation Distributors and Manufacturers Association, Hotel Statler, Cleveland, Ohio.
- Dec. 13-14—Airline Finance and Accountant Conference, Dallas.
- Dec. 16-17—International Aviation Day, El Paso.
- Dec. 17—Institute of Aeronautical Sciences, Wright Brothers Lecture, Washington.
- Dec. 17—Award of Robert J. Collier Trophy, auspices of National Aeronautic Assn. Place to be announced.
- 1946
- Jan. 4-5-6—All-American Air Maneuvers, Florida Air Races.
- Jan. 11—Cleveland (Ohio) Aircraft Show.

Avco's Holdings Listed For CAB

Inquiry to determine if corporation has financial control of AA spotlights extensive investment and manufacturing interests.

Aviation Corp.'s extensive interests as a holding and manufacturing company have been spotlighted by a stipulation filed in Civil Aeronautics Board's investigation to determine whether the corporation holds financial control of American Airlines, Inc.

The stipulation was one of two signed by John H. Wanner, public counsel, for CAB, and R. S. Pruitt as vice-president and general counsel for Avco. The other waived an examiner's report, the filing of briefs, and oral argument—an action which placed the case directly before the Board.

► **AA Interest**—Information on Aviation Corp.'s interests shows it owning a 22.28 percent common stock interest in AA through holdings of 287,538 shares out of a total of 1,290,567.69 common shares outstanding on July 31, 1945.

With approximately 17,680 shareholders, the next largest stockholder was a Boston investment firm—Bishop & Co.—with 19,000 shares recorded in its name.

However, the stipulation points

Avco Expansion

Expansion of Aviation Corp., outside the aviation field is emphasized in the firm's new contract to purchase the controlling interest in New Idea, Inc., manufacturers of a wide range of farm machinery and implements.

Victor Emanuel, chairman of the board of Avco, said that under terms of the purchase Avco will acquire in excess of 50 percent of New Idea's 272,000 outstanding shares at \$30 a share under agreement with the four managing officers of the company. Upon consummation of the transaction, a similar offer will be extended to all other shareholders for a 30-day period. Both transactions will be for cash and will involve a total commitment of \$8,160,000 if all shares are tendered. New Idea has manufacturing plants at Coldwater, Ohio, and Sandwich, Ill., and warehousing properties at eastern and midwestern points.

out that 50,000 of the outstanding shares of AA common stock are reserved for exercise of a purchase option held by C. R. Smith, chairman of the board of AA.

► **Trust Deposit**—Aviation Corp.'s holdings in AA have been deposited under a trust agreement with Jesse H. Jones, which expires six months after the end of the national emergency (provided under supplemental trust agreement dated March 30, 1944).

Likewise, in Pan American Airways Corp., Aviation Corp. is the largest single shareholder with an 8.32 percent common stock interest through the ownership of 510,131 shares. With around 23,643 stockholders, PAA has as its second largest holder the investment firm of Merrill, Lynch, Pierce, Fenner & Beane, who hold 118,227 shares in the firm's name, or about 2.97 percent.

Aviation Corp. also holds a 29.6 percent common stock interest in Consolidated Vultee Aircraft Corp. and owns 20 percent of the outstanding common stock of Roosevelt Field.

► **Operations**—Aviation Corp.'s operating units include: Northern Aircraft Products Division—manufacturers of airplane engine parts; Lycoming Division—manufacturers of aircraft engines for trainers; Republic Aircraft Products—manufacturers of high precision aircraft engine parts; American Propeller Corp.—manufacturers of hollow steel propellers; and Spencer Heater Division—manufacturers of shipping and tank parts, boilers and heaters.

In addition, Aviation Corp. has a controlling interest of 59.3 percent founder's stock, or 20.7 percent equity, in New York Shipbuilding Corp.—manufacturer of cruisers, aircraft carriers, landing boats, etc.; a controlling interest of 60.8 percent in American Central Manufacturing Corp.—manufacturers of kitchen sinks, steel cabinets, and wartime producers of bomber wings and Jeep bodies, and a controlling interest of at least 88 percent in Crosley Corp.—manufacturers of household appliances.

Cartwright, Ellington Join Republic Aviation

Ken Ellington, who has been manager of the Aircraft Manufacturers Council, Aircraft Industries Association, eastern region, New York, has been named director of public relations of Republic Aviation

End of APB

The last business of the Aircraft Production Board has been transacted and APB has turned the job of directing the joint Army-Navy aviation program over to the Aeronautical Board.

The production agency dissolved itself and its executive and administrative branches—Aircraft Resources Control Office (ARCO) and Aircraft Scheduling Unit (ASU). The Aircraft Production Board played a major role in directing the production of 275,558 aircraft of all types between Pearl Harbor and VJ Day and is praised by WPB Chairman Krug as "one of the most outstanding and successful examples of coordinated Federal activities developed in this war."

tion Corp., Farmingdale, L. I. Col. H. H. Cartwright, recently returned from active service in the European-Mediterranean war theaters has been appointed assistant to Republic president Alfred Marchev.

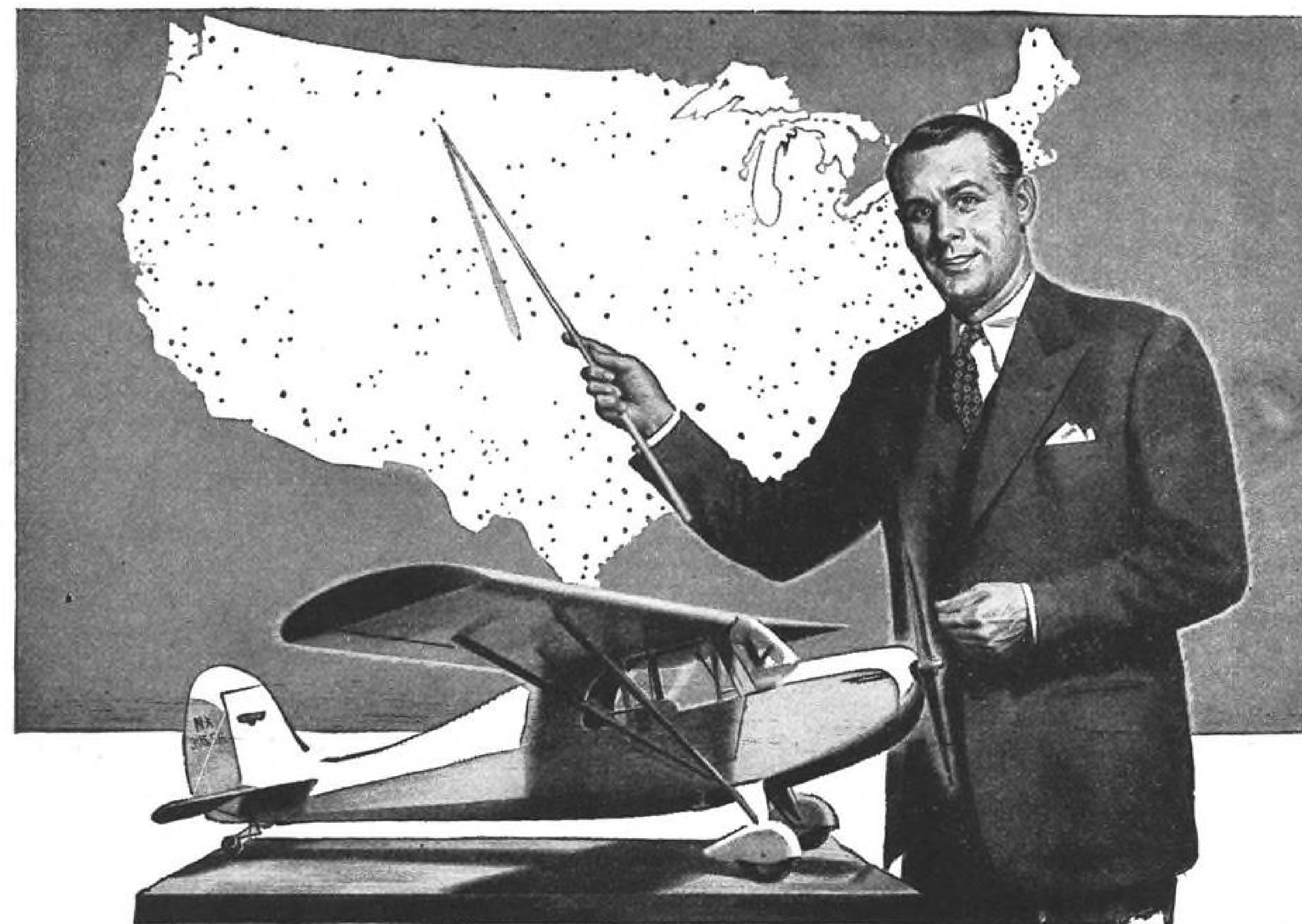
Loss Carry-Back Tax Rule Uncertain

Excess profit levy seen ending; aircraft industry virtually alone in stand for application of losses to war years.

Major aircraft industry interest in the "transitional" tax bill, it is indicated, will be in a continuance of the loss carry-back provisions, and the dropping of the excess profits tax.

Work on the bill began last week as Secretary of the Treasury Vinson submitted recommendations calling for repeal of the excess profits tax, and for retention of the carry-back for only one year longer, rather than for at least two years as desired by the industry.

► **Lone Effort**—On the loss carry-back, the aircraft industry is practically standing alone against both the Treasury Department and other segments of American industry. This feature of the present tax code merely provides that losses incurred in an unprofitable year—for example, 1946—can be carried back and be applied against profits of a wartime year. Treasury opposes the continuance beyond 1946 of the loss



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carry-back for three main reasons: 1. what is termed the political view that Congress never wants to give money back; 2. it "invites knavery," by possibly encouraging unscrupulous taxpayers to juggle their books; 3. it creates a tremendous administrative problem in that the Treasury cannot close its books finally for a period of years.

On the other hand, the Treasury is favorable to an extension of the loss carry-forward section of the present code. This, while possibly helpful to the aircraft industry, is not as definitely beneficial as the carry-back, industry circles feel. The future is uncertain, it is pointed out, while the industry knows it made profits in the past.

► **Other Industries** — Somewhat conversely, that is also the reason the aircraft industry is supporting continuance of the carry-back while other industries show little interest. By-and-large, civilian industry can look forward to increasing profits after the first one or two post-war years. A loss carry-forward possibly would serve those industries better than a loss carry-back.

Arctic Weather Bill Pushed In Senate

Legislation directing U. S. participation in the development of an international basic meteorological reporting network in the Arctic region has been recommended to the Senate by its Commerce Committee.

The bill, introduced by Sen. Owen Brewster (R-Me.), provides for joint action by the Weather Bureau and the State Department, working in cooperation with airlines, to promote the establishment, maintenance and operation of a network of weather reporting stations in the Arctic.

► **Program Outlined**—A tentative plan for weather service development in the region, drawn up by the Weather Bureau, calls for a \$1,600,000 program, involving ten stations over 500 miles of blank land masses. It was qualified, in testimony before Senate Commerce, however, that this plan is now being worked over by representatives of the State Department, Coast and Geodetic Survey and the Weather Bureau.

Russia, Norway, and Denmark now have 240 weather stations in the Arctic region, according to in-

formation submitted to Senate Commerce.

It was also disclosed that the Massachusetts Institute of Technology has undertaken an independent project to determine weather development for the Arctic.

Four Air Firms Change Top Posts

Wright Aeronautical, Friez Instrument, ERCO, TWA, list shifts in key executive and managerial positions.

Strengthening personnel lines for renewed peacetime efforts, three manufacturers and one transport company late last week announced changes in top executive and managerial positions.

► **Raymond W. Young**, chief engineer of Wright Aeronautical Corp. since 1940, has been appointed vice-president of engineering of that company. With Wright Aero since 1925, Young directed development of the Cyclone 18, first engine to attain 2,000-hp., and predecessor of the 2,200-hp. Cyclone. Lately, he has been working on gas turbine development.

► New general manager of the Friez Instrument Division of Bendix Aviation Corp. is **Leroy D. Kiley** who has been executive assistant to the vice-president in charge of engineering. He will concentrate on the Baltimore firm's program of reconversion to civilian production.

Prior to becoming associated with Bendix four years ago, Kiley was president of the Columbia Oil Co. in Washington, D. C., and the Mitchell Oil Corp., of New York City. He was a World War I air force pilot. After VE-Day, he was loaned by Bendix to the AAF to assist in a survey of Germany's technological developments.

► **Engineering and Research Corp.**, Riverdale, Md., manufacturer of the *Ercoupe*, has revealed the appointment of **George F. Ryan** as director of sales for the spin-proof lightplane. He has been head of sales and service for the *Ercoupe* in New York. Harry Agerter will continue as sales manager.

► **Clancy Dayhoff**, who has been western director of sales and service for Transcontinental & Western Air during the war, has resumed his former duties as director of the western news bureau of TWA at Los Angeles.

Associated with TWA for many

years in public relations work, Dayhoff now has replaced Leonard Kimball who succeeded Leo Baron as chief of TWA's publicity.

Gen. Fritz Joins AA

L. G. Fritz has been elected vice-president of American Airlines in charge of operations. Hugh L. Smith, his predecessor, remains with AA as vice-president on special assignments.

Fritz went on active duty with



L. G. Fritz

the AAF in April, 1942, and was chief of operations of the Air Transport Command, as a colonel, until September, 1943, when he was assigned to the North Atlantic wing as commanding officer. In June, 1944, he was promoted to Brigadier General. He served as commanding general of the North Atlantic division of ATC since its activation in August a year ago. Before the war, he was operations vice-president for TWA.

All American Reelection

Officers and directors of All American Aviation were reelected at a recent annual meeting. Stockholders voted to fix capital stock at one million shares of common stock with \$1 par value per share.

Officers are Halsey R. Bazley, president; Harry R. Stringer, vice-president; Charles W. Wendt, vice-president-treasurer; Edward E. Minor, Jr., vice-president-manufacturing; William B. Moore, vice-president-operations; Austin M. Zimmerman, secretary and general counsel; Harry S. Fries, assistant treasurer; Walter C. Gebelein, comptroller, and David L. Miller, assistant secretary.

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LABOR *and* MANAGEMENT MEET— for PEACE or CIVIL WAR?

THE prospect of a knock-down and drag-out fight in the automobile industry does not augur well for the reconversion outlook, which upon every other score is bright. Any widespread outbreak of the type of industrial warfare which now threatens will disrupt, more thoroughly than anything else on the horizon, an orderly transition to a peacetime economy.

It is doubly unfortunate that there should be a general tightening of union and company battle lines upon the eve of the Labor-Management Conference, which on November 5th will convene at President Truman's direction for the purpose of "working out by agreement means to minimize labor disputes." If the current work stoppages occasioned by industrial conflicts should increase rather than diminish between now and November first, the Conference atmosphere hardly promises to be favorable to a dispassionate examination of basic issues.

Yet the shadow of the threatened industrial storm that hangs over the Conference only serves to emphasize the importance of reaching satisfactory agreement upon two problems with which such a Conference might deal. The first is that of determining what machinery shall be used for settling disputes upon which employers and workers have reached an impasse. The second, and more far-reaching, is that of arriving at some common understanding upon the major issues which commonly lead to irreconcilable disputes.

Settlement of Wartime Disputes by the War Labor Board

During the war the first problem was handled largely by machinery centered in the National War Labor Board. Supported by general adherence to patriotic pledges by labor leaders and employers not to resort to the use of economic force against each other during wartime, and backed up on rare occasion by use of the President's power to seize plants for war purposes when its orders were not obeyed, the Board managed, by what amounted to compulsory arbitration, to settle the nation's wartime labor disputes with relatively little economic loss.

But it can scarcely be claimed that the War Labor Board did much to resolve the issues from which disputes grow. Indeed, the fact that it was available to issue orders in cases which the Secretary of Labor certified as likely to "lead to substantial interference with the war

effort", resulted in the conversion into full fledged disputes of many disagreements which would otherwise have been settled at a local level in the course of collective bargaining. Meanwhile, local collective bargaining machinery which should have been doing most of this work was neglected, and will need thorough reconditioning even to be brought back to its prewar level of effectiveness.

With V-J Day came an abrupt change in the status of the War Labor Board. One of its main props, labor's "no strike pledge", was promptly withdrawn. It could no longer rely on the President to use his power to seize plants for war purposes to force obedience to its orders. Consequently the Board agreed that it would accept new cases only if both parties to the dispute stipulated in advance that they would abide by the Board's findings, that it would clear its dockets of old cases as rapidly as possible, and that it would then go out of business, leaving to the Labor-Management Conference the question of what should take its place in the postwar period.

What Shall Take the War Labor Board's Place?

The immediate and pressing task of the Labor-Management Conference is to agree upon machinery for settling industrial disputes in the peacetime economy.

Neither management nor labor wants the continuation of compulsory arbitration to which they submitted as a necessary war measure. But it must be clear to everyone that if any substantial proportion of the disputes that inevitably arise are settled by resort to strikes and lock-outs, economic anarchy will result. Not only will it be impossible to achieve the high levels of output and employment that have been set as postwar goals, but it is questionable whether our economy could survive. The only alternative to compulsory arbitration under government auspices is for management and labor to demonstrate their ability to effect a peaceable resolution of their differences without it.

The most obvious need is to set up local machinery at the grass roots where disputes originate. That is where most of them should be settled by local negotiation and, when that fails, through voluntary submission to mediation or arbitration under terms of reference to which the parties agree. Many issues, which at plant level are relatively simple in character, are blown up to formidable dimension and complexity when they are passed along

the line for decision in Washington. The centralizing process is one that frightens everyone connected with it because it focuses attention upon the possible importance of precedents established by a decision, rather than upon resolving satisfactorily the particular dispute at hand.

Unquestionably, some Federal machinery must be provided which may be called upon in cases where the size or implications of a threatened dispute clearly run beyond local jurisdiction. That will mean the thorough revamping of conciliation and mediation machinery which exists, but which has grown rusty through disuse while compulsory arbitration was the order of the day.

At least, this involves a complete overhauling of the United States Conciliation Service with a noteworthy strengthening of its personnel. There may be wisdom also in recently advanced suggestions for the creation of a board of arbitration to act in cases voluntarily submitted by the parties concerned, and for boards of inquiry to make reports upon the merits of disputes in which the public interest is concerned. But there is valid ground for questioning what appears to be the common assumption that such machinery should be located in the Department of Labor. It belongs neither there nor in the Department of Commerce. For the work which such agencies are called upon to perform, both the appearance and fact of complete impartiality are essential to effective performance. Assurance of impartiality will not be fostered by placing them in a department specifically charged by Congress with the task of advancing the interests of wage workers.

Resolving the Issues Over Which Disputes Arise

It may be, as many think, that the forthcoming Labor-Management Conference cannot effectively handle any problems beyond the procedural ones suggested above. If that is true, its agenda probably should be restricted to planning the reconstitution of collective-bargaining and dispute-settlement machinery, in view of the urgent need for putting it in working order.

But either in this Conference, or in subsequent ones, there will have to be an attempt to reach a reasonable measure of labor-management accord upon certain basic issues over which most industrial disputes originate. The best of machinery can be swamped if disputes are generated in ever-increasing number.

Most important of such issues is that of the fair determination of wages. There is clear need for reaching agreements at least upon the major factors on which such determination should rest. It seems evident that if we are ever to hope to reach the high levels set and generally accepted as postwar goals, we must harness economic incentives to promote production efficiency. That means that workers, as well as management, must be given a genuine stake in increased productivity. No universal formula is possible, but we should be able to agree upon general principles for dividing returns derived from improved performance in output between workers and investors, and consumers in the form of lowered prices.

Again, since unionism is here to stay, general accept-

ance by management of the principle of collective bargaining would save innumerable disputes which are concerned more with the method of negotiation than with the concession sought. Few in management still question the validity of the collective bargaining process as such, but there are many matters to be resolved of which the question of the open shop, the union shop, or the closed shop is merely a conspicuous example, upon which there is wide divergence of conviction between and within labor and management groups.

On the management side, there is sincere concern about the intent or ability of union leaders to exercise responsible control that assures compliance with contractual obligations. Wild-cat strikes are of sufficiently frequent occurrence to give substance to this distrust, and union discipline seldom has been administered in a decisive or effective fashion. The prospective rivalry of three competing labor organizations of national scope gives management little confidence that a bargain made and kept in good faith with any one of them provides assurance against work stoppages.

All of these matters, and many others, need thrashing out between management and labor, with the view of arriving at as large a measure of specific and detailed agreement as can be achieved. The greater the area of such agreement, the smaller will be the area for disputes that must be handled by settlement machinery, or put to the final test of force.

Peace or Civil War in Industry

The Labor-Management Conference is of major importance to national welfare. It is important even if it restricts its objectives to the procedural problem of how industrial disputes are to be handled.

It can make an even larger contribution if it lays the groundwork for an attempt to reach working agreements upon such policy issues as have been cited above.

Neither management nor labor can afford to lend anything less than their best intelligence and effort to an attempt to arrive at common understanding. Success will mean that we have a genuine chance of reaching new levels of economic well-being. Failure will mean industrial civil war, in which the casualties will be high. One almost certain casualty of such a war will be the principle of collective bargaining, since the Government can scarcely refrain from establishing compulsory arbitration if sufficient breakdown occurs.

It is to the vital interest of both management and labor to demonstrate that they can responsibly control themselves.



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Railway Express Adjustments Asked By Airlines' Committee

Group believes air carriers have been deprived of sizeable revenue through Agency's power to enforce and interpret contract terms; retroactive income assessment, improvements, thorough reorganization recommended.

Declaring there are grounds for believing the airlines have been deprived of substantial revenues because interpretation of Railway Express Agency contract and enforcement of its terms have been left solely within the Agency's discretion, the Airlines' Committee on Audit Survey of REA has adopted formal recommendations to obtain equitable adjustments to air express accounts.

Under the present Air Express Agreement, which demands accurate cost accounting, the committee concluded that the airlines have been placed at a disadvantage by the size, complexity, and decentralization of the Agency. Nothing short of a thorough reorganization to achieve precision in accounting and adequate internal controls would make it possible for the Agency to discharge its obligations as the contract provides, the committee said.

Contract Requirement — But, even then, the Airlines' Committee emphasized, a "cost-plus" contract would be undesirable because of the Agency's peculiar freedom from competition, lack of responsibility for profits and losses to its railroad owners and probable expense associated with the cost accounting demanded.

The survey of REA and the study made by Ernst & Ernst (AVIATION NEWS, July 2) indicates there have been errors "large and small" affecting the revenues of the airlines. While the committee said in its report that "nowhere" was there a suggestion of bad faith, it noted that "subordinate personnel, left uninstructed as to the application of such vague concepts as 'out-of-pocket costs' have naturally tended to favor their employer in matters requiring judgment."

The committee said, however, that the airlines were in a posi-

tion to take a firm stand, insisting upon both retroactive adjustments and future improvements in accounting and control methods.

New Terms—"But from a longer viewpoint," the committee cautioned, "the solution must be found in new contractual terms clarifying the method of computing payments to the agency."

The Airlines' Committee determined its report on REA should be treated as follows:

1) It should be submitted to Air Cargo, Inc. with copies to all stockholders. 2) Air Cargo, Inc. should be requested to refer all recommendations requiring action to such appropriate committees as may be deemed necessary. 3) Those recommendations requiring decisions of policy, together with the conclusions of the committee, should be directed by Air Cargo, Inc., to the attention of the directors of the Air Transport Association.

The Committee directed for immediate action the following:

► Immediate steps should be taken to obtain equitable adjustments to the air express accounts.

► The Agency should be directed to discontinue immediately the uncertainty which exists in connection with the computation of fixed cost-per-hour.

► The Agency should be directed to discontinue immediately the uncertainty which exists in the computation of per-shipment costs and then adhere to its own instruction.

► The Agency should immediately discontinue the uncertainty that exists in connection with the assignment of exclusive vehicles and any formula adopted should be adhered to regardless of the benefits to either party.

► The Agency should discontinue the uncertainty that exists in connection with the breaking point

as between air and rail expense on combination business.

► In order to help accomplish the foregoing, REA should establish a Standard Practice Manual for use by all supervisory personnel and other employees in connection with its conduct of the air express business.

► The Agency should discontinue the practice of charging vehicle costs for clerical work and under no conditions should REA charge the pool with any such expense incurred at the direct request of any airline. Expense in connection with such requests should be assumed by the airline responsible.

► The Agency should discontinue the practice of charging vehicle costs for overlap time, school time, meal time, etc.

► Refund practices should be made standard throughout the Agency.

► A standard policy should be adopted with respect to retroactive adjustments and full disclosure made of all such items.

► The Agency's method of reporting gross revenue should be altered and expanded.

► The equity of pro-rating expense as between PAA and domestic air express on a shipment basis should be questioned.

► The Agency's revenue distribution costs should be revised.

► The Agency should take such steps as will result in the establishment and retention of accurate records.

► The Agency should take such steps as will result in consistency of practice, improvement of its internal control in general, and permit its accounting department to exercise further control.

The committee also made a number of other recommendations for action after further industry consideration, including a change in the basis of claim apportionment, new methods of revenue allocation, and the reduction of revenue apportionment expense through the adoption of standardized mileages.

Nashville Airport Bonds

The City of Nashville, Tenn., has sold a \$300,000 airport bond issue to a syndicate headed by Harris Trust & Savings Bank, of Chicago, at a split interest rate covering a period of 25 years. The bid was 3 percent on \$35,000 in bonds expiring in 1946, 1¼ percent on the remainder expiring in 1949 through 1970.

PERSONNEL

Allison Modification Unit Fills Four Top Posts

Allison division of General Motors Corp., has announced four personnel appointments at the Weir Cook Airport modification center in Indianapolis.



Burton T. Hulse, (photo) becomes chief test pilot for the XB-39 Allison powered version of the B-29. He was formerly with Curtiss-Wright Corp. in Buffalo and Columbus. William O. Watson is assistant director, installation engineering section. Joseph R. Salzman is superintendent of Plant 10 manufacturing operations. Max Gallop becomes superintendent of inspection and Alex Noble, chief installation engineer.

War Department Aide Shifts To C & S Post

Lt. Col. N. Henry Josephs, until recently special consultant to the Undersecretary of War, has been appointed executive assistant to Carleton Putnam, president of Chicago and Southern Air Lines.

Putnam's announcement said he resigned from the War Department to accept the airline post, where he will be assigned to special projects, the first dealing with cost control throughout the C & S organization.

Laigh C. Parker, until this week a colonel in the Army Air Forces, is resuming his former position as traffic manager of Delta Air Lines. Serving as chief of staff of the Air Transport Command's European Division, Colonel Parker was awarded both the Bronze Star and the Legion of Merit for meritorious service, chiefly in establishing air transport service in support of military operations in the European and Mediterranean areas. He has been traffic manager of Delta since 1934, and became vice-president and a director in 1939.

Alvin P. Adams, formerly a vice-president and director of the Fairchild Engine and Airplane Corp., has resigned to devote full time to the management of his various west coast interests. Adams' company, Adams and Associates, will serve in

the capacity of West Coast representative of the various activities of Fairchild. Adams will have with him **William C. Rockefeller**, well-known aeronautical engineer and consultant; **A. A. Boon Hartsinck**, formerly with the U. S. offices of the Royal Dutch Airlines, and **Moschelle Howard**, formerly of Consolidated Vultee Aircraft Corp.

L. R. Crandall Named To C-W Directorate

Curtiss-Wright Corp. has announced election of Lou R. Crandall as a director. Crandall is president of the George A. Fuller Co., and an officer and director of several other companies. He fills the vacancy on the board created by the recent death of Charles W. Loose, who was vice-president and director.

John B. Macauley (photo) has been appointed director of engineering research for Ethyl Corp. to succeed **Earl Bartholomew**, who becomes general manager of research laboratories. Macauley has been chief of applied research for Pratt



and Whitney Aircraft for the past two years and formerly was chief of the engine laboratory of the Chrysler Corp.

Philip C. Wagner, formerly vice-president of Parks Air Transport, Inc., and secretary-treasurer of Parks Air College, Inc., has resigned those positions. Wagner was director on the board of each organization and also was on the board of Parks Aircraft Sales & Service, Inc. The announcement did not disclose the executive's future plans.

Cyril C. Thompson, vice-president of public relations for United Air Lines, has resigned. Thompson was in the airline business for twenty years and was with United for seventeen. He was a director of the Airlines War Training Institute, and is a director of the National Aeronautic Association.

Joseph A. Medernach, formerly chief of the Air Transport Division of the Foreign Economic Administration, has joined Moore-McCormack Lines, New York, as head of their trade development bureau. During the war it was the responsibility of the Air Transport Divi-



UAL VICE-PRESIDENT:

Col. Ray W. Ireland, whose election as vice-president, administration, of United Air Lines, has been announced. Colonel Ireland will be honorably discharged as deputy chief of staff, Air Transport Command. He has been on leave from United.

sion of FEA to screen and recommend to the services commercial and certain government export and domestic passenger and cargo air priorities connected with the war effort.

Ted Ning, formerly a senior engineer with American Airlines, and **Jerry Martin**, former instructor in the air transportation department of the University of Texas, have joined the Fairchild Aircraft Division, to assist in sales promotion of the C-82 Packet.

PCA announces the following personnel changes: **Maj. Fred C. Klein**



(photo), former traffic manager, has been appointed PCA regional traffic manager in Washington. On military duty since 1942, Major Klein had been commanding officer of the

ATC's regional air priorities control office in Pittsburgh. **Lieut. Col. Melvin C. Garlow** has returned to duty as a PCA pilot and is based in Detroit. **James H. Lopeman** has been named district traffic manager in Cleveland.

W. Gordon Wood has been appointed assistant traffic manager for Trans-Canada Air Lines, with headquarters in Winnipeg. Wood has been an Air Observation Pilot with the Royal Canadian Artillery. Before joining TCA, he served with Pan American Airways.

PRODUCTION

Extension Shaft Power Plan Offer New Design Possibilities

Removal of engines from aerodynamic surfaces through use of well tested transmission lines believed answer to many problems facing large plane developments; Allison experiments offer radically new powerplant installations.

By ALEXANDER McSURELY

Transmission of propeller power from liquid-cooled engines submerged in an airplane's wing or fuselage, by means of an extension shaft, appears likely to become increasingly important in large airplane designs of the next few years.

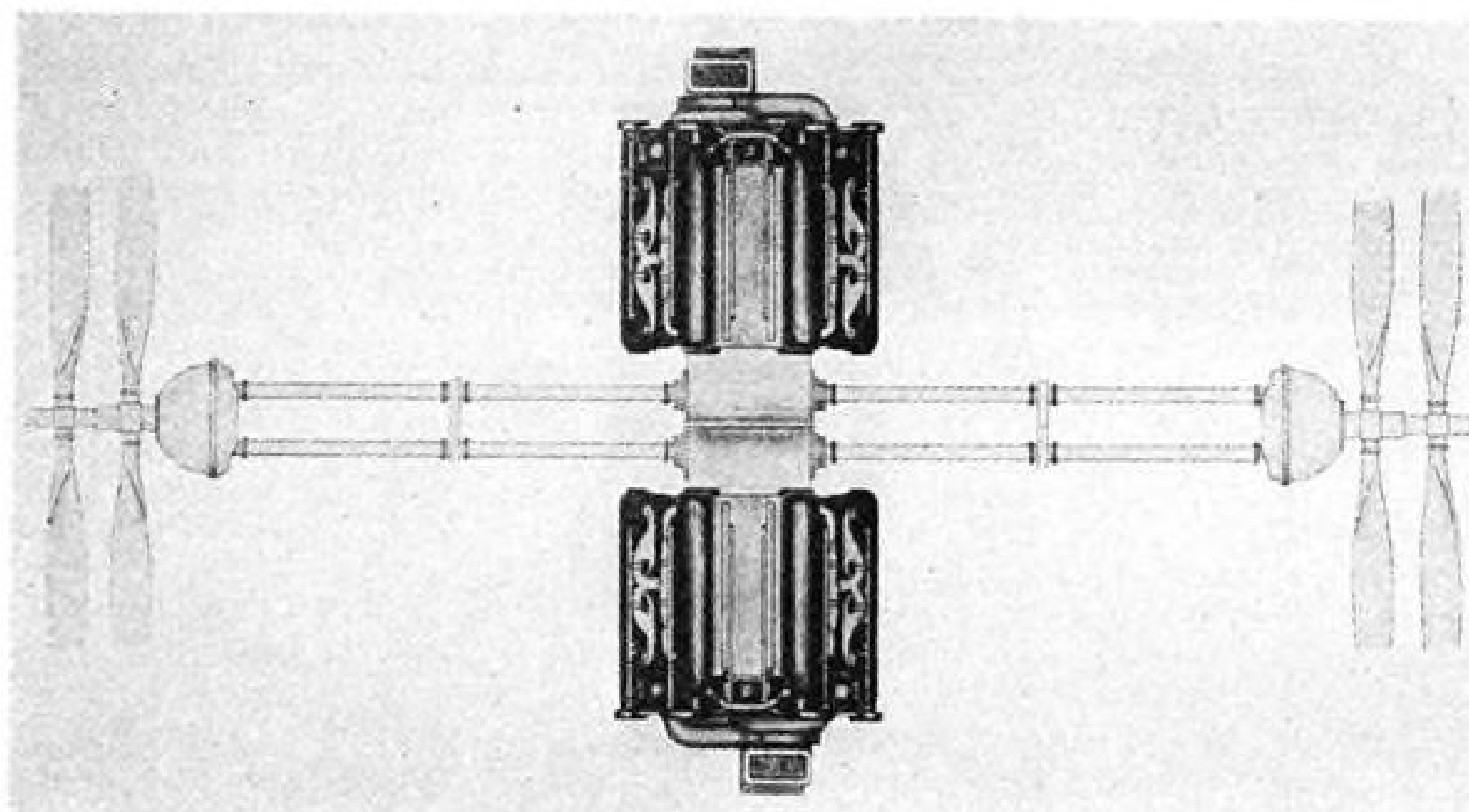
Most interesting recent example of the extension power shaft use in a new design is the Douglas XB-42 "Mixmaster" bomber and the DC-8 Skybus, commercial version with identical power arrangement.

► **Engine Plan**—These planes use two Allison -1710 engines, mount-

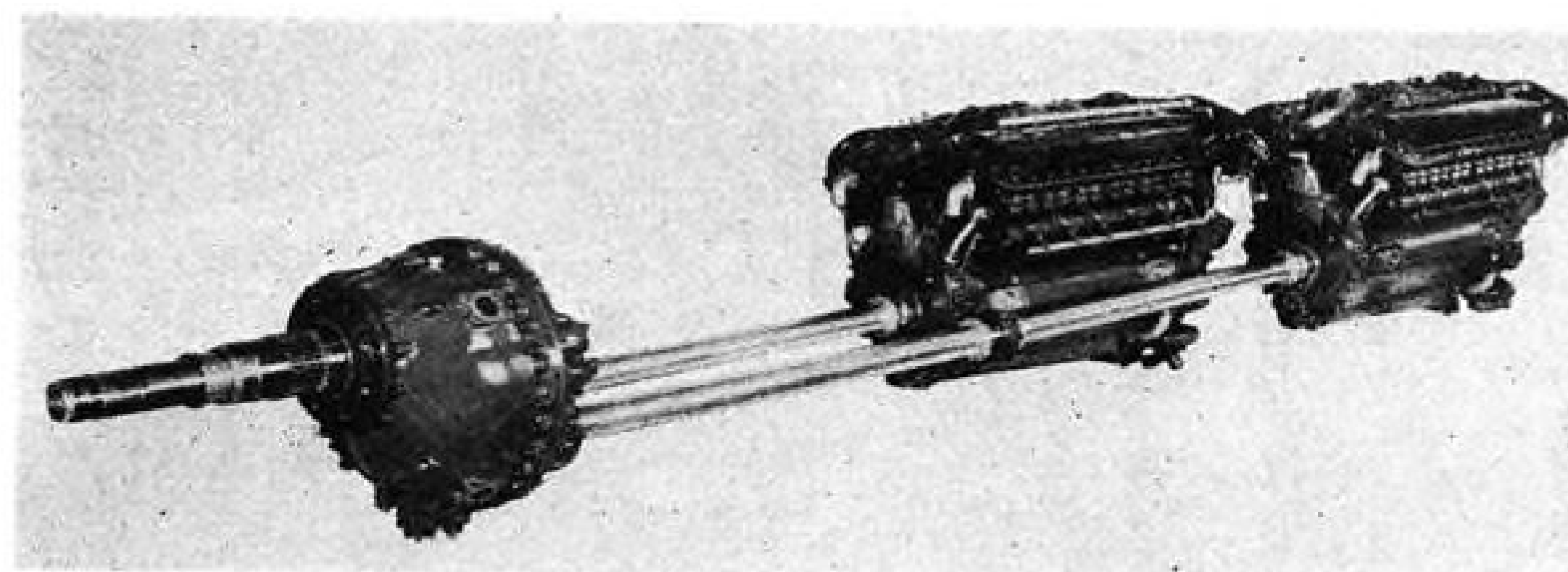
ed in the fuselage behind the cockpit, to drive counter-rotating propellers at the tail, by means of extension shafting running the length of the airplane (AVIATION NEWS, Sept. 17).

By this novel arrangement, the Douglas design eliminates the need for mounting engines in the wings, thereby eliminating engine nacelles and permitting the entire wing to maintain a smooth aerodynamically useful surface.

It is estimated that the design saves 25 percent of the total drag factor of the airplane, by making the nacelles unnecessary.



Two V-3420 engines to drive pusher and tractor propellers



Two V-1710 engines in tandem

Allison Bid

Extensive new flight testing facilities of Allison Division, General Motors Corp., at Indianapolis municipal airport, indicate that the organization is making a strong bid to hold its place as a leading aircraft engine manufacturer. The new flight test hangar and facilities, on a 42-acre site south of the airport, are directed by Don R. Berlin, head of installation engineering.

Currently, flight tests are being made with the XB-39, Allison-powered version of the B-29 Superfortress. The company has also purchased a surplus B123 bomber for use as a flying test stand for Allison engines. The new facilities may provide opportunity to flight test some of the new engine extension shaft arrangements, which company engineers have designed.

► **'Fastest'**—Radiators for cooling the liquid-cooled Allison engines are mounted in the leading edge of the wings near the root. The bomber version is credited with a top speed of 410-mph., making it the first bomber in the 400-mph. class to be announced by the AAF.

Engineers of the Allison engine division, General Motors Corp., have done considerable experimenting with the use of extension shafts in many arrangements with their engines; all with a view to eliminating drag by submerging the engines at remote locations from the propellers.

Earlier arrangements of Allison powerplants with extension shafts, were found in fighter planes developed by Bell Aircraft Co.: the twin-engine pusher "multi-place fighter" the XFM-1 Airacuda, and the better known P-39 Airacobra and its later development, the P-63 Kingcobra.

► **Perfect Record**—An interesting sidelight on the experience with shafts in these planes is the report by Allison that, despite the unconventional shaft arrangement, there is no record of any case of shaft failure in any of the hundreds of Bell P-39 and P-63 fighters which were built with the engine buried in the fuselage behind the pilot. An extension shaft ran from the engine through the bottom of the cockpit to a gearbox and propeller in the plane's nose.

The General Motors experimental fighter XP-75, which used the Allison V-3420 engine, also had a

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INCORPORATED
TETERBORO, N.J.

COWL FLAP ACTUATOR DATA

26-VOLT DC--SPLIT FIELD SERIES WOUND

1/6 HP--INTERMITTENT DUTY @ 1080 RPM

DUTY CYCLE: 1 MIN. ON--10 MIN. OFF

TOTALLY ENCLOSED--MAGNETIC BRAKE

WEIGHT--3.5 LBS.

MAXIMUM DIMENSIONS--7 1/4" X 4 1/2" X 3 1/4"

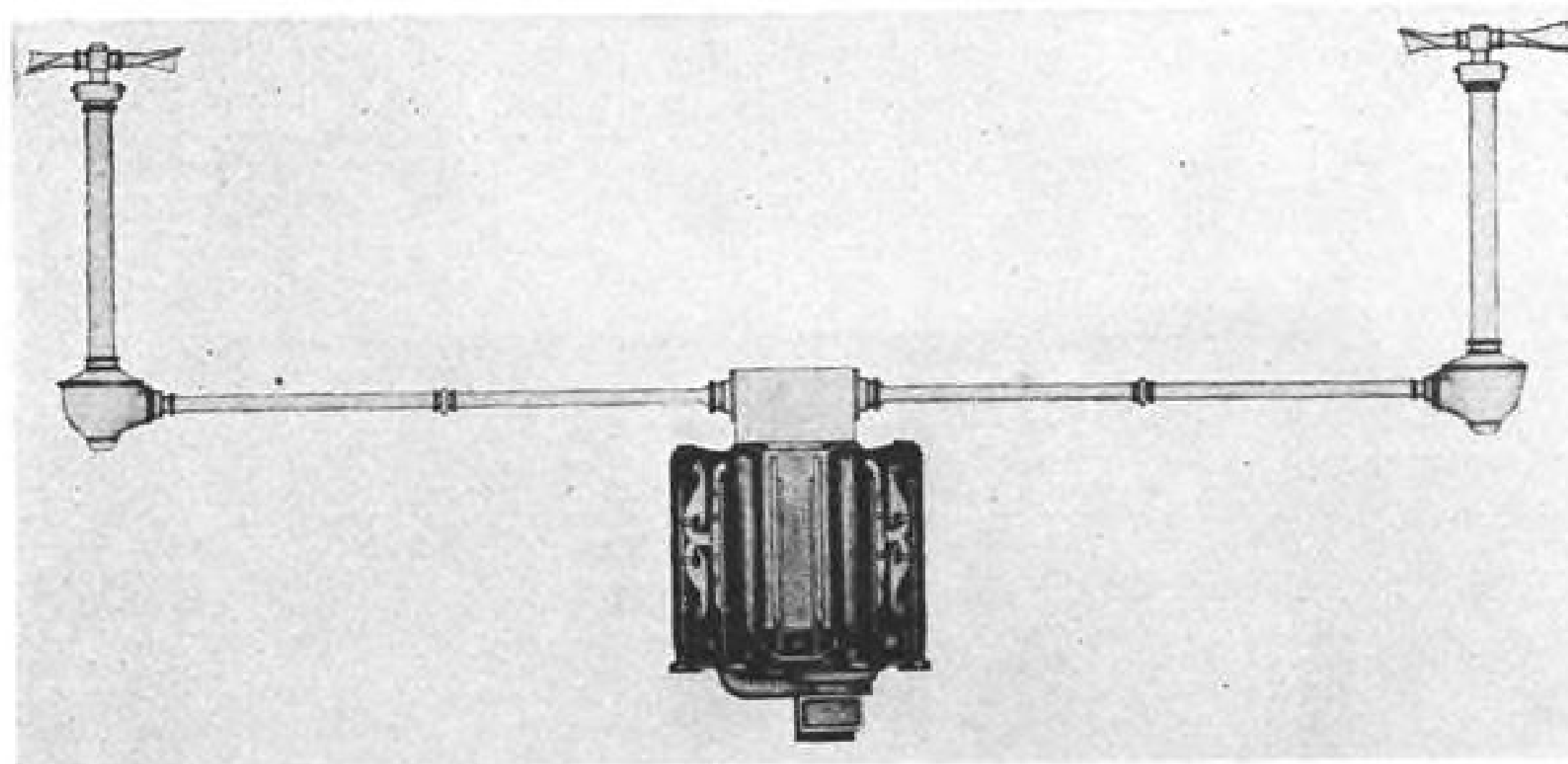
Linear Actuating Power

- generates maximum 1/6 hp for 60 seconds
- limit switches at both travel limits
- self-contained brake for precision travel
- thermo-protected to prevent burn-out

The EE-1730 motor is usable for a wide variety of shutter actuation; available for installation with angle or Tee drives, flexible shafts or jacks of any length or stroke in correct screw ratio, with proper type mountings...

Air Associates' wide experience in the design, engineering and manufacture of electric motors is available now to help solve your design and production problems... particularly those involving intermittent operation motors of high performance with low weight, and similar electrical requirements.

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INCORPORATED
TETERBORO, N. J. . . BRANCHES: CHICAGO, DALLAS, LOS ANGELES . . .
ENGINEERS AND MANUFACTURERS OF AIRCRAFT SPECIALTIES . . .
SUPPLIERS OF ALL TYPES OF MATERIALS TO THE INDUSTRY SINCE 1927



V-3420 engine with "right-angle" shafts

similar engine placement and turned a six-blade dual rotation propeller with extension shafting.

Studies by Allison engineers have gone well beyond these developments into combinations of engines, shafting and gear boxes which offer a wide range of flexibility in design.

► **The Versions**—Among these are:

► A tandem arrangement of two V-1710 engines, in which the extension shaft of each engine independently drives one of a pair of counter-rotating propellers through an outboard reduction gear assembly. The combination has the power output of a V-3420 engine, with the advantage of twin-engine reliability as it permits full feathering of either propeller and continued operation of the other engine. (See illustration.)

► Another arrangement places the V-3420 engine in the fuselage opposite the wing roots and uses two sets of bevel gears in a housing mounted on the front of the crankcase. Each set of gears carries power from one of the "double" engine's crankshafts. Extension shafts are driven from both sides of the bevel gear housing and extend out through the wings to reduction gear assemblies. Other shafts carry the power at right angles from the assemblies to propellers mounted either as tractor or pushers. This arrangement makes the powerplant easily accessible and requires only a slender wing nacelle to accommodate the reduction gear and shaft. (See illustration.)

► Probably most elaborate of the suggested arrangements places two V-3420 units, mounted in opposed positions, presumably in the wing of a huge plane, larger than any yet flying. Allison calls this a DV-6840 engine, and it would drive, by extension shafts, two

contra-rotating sets of propeller blades, one pusher and one tractor. Since the V-3420 engine rates more than 3,000-hp. this would make the double arrangement a 6,000-hp. power source or, assuming a pusher-tractor arrangement in each wing, 12,000-hp. for the plane. (See illustration.)

There seems no reason why several of these 6,000-hp. installations might not be used in the wings of a very large plane, if the power was required.

In considering these arrangements it should not be forgotten that Allison is no longer manufacturing the V-3420 engine, which was a military development, and never came into wide-spread use. However, the V-3420 engine actually was developed by "putting together" two of the V-1710 engines, and most of the parts were interchangeable between the large and small powerplants, so that in many of the arrangements where one V-3420 engine is used, presumably the arrangement could be altered to use two V-1710 engines, and provide equal power.

It is known that Rolls-Royce, in England, has done some experimenting with liquid-cooled engines in use of extension shafts,

Surplus Storage

Rates for storage and maintenance of surplus items and plant sites awaiting disposal have been exempted from price control by the Office of Price Administration.

The exemption applies to contracts entered into by the Reconstruction Finance Corp. for the storing and safeguarding of surplus property. Services under the contracts vary so widely, OPA states, that separate ceilings would be necessary for each contract.

but it is understood that their experiments have not been as extensive as those by the American company.

New Plane Fuels Hike Engine Rating

Esso Marketers introduce new gasolines to permit power boosts without adding weight or size.

A new line of aviation gasolines, designed to increase permissible power and lower engine maintenance costs are being introduced by Esso Marketers.

R. C. Oertel, manager of aviation sales, said Grade 80, designed for the engines of private planes, is a clear gasoline with a full 80 octane rating that is obtained without the addition of tetra ethyl lead.

► **Protected Benefit**—This type of fuel, which was unavailable before the war, will reduce top cylinder maintenance, Oertel said, and allow designers of small engines to improve performance without increasing engine size and weight. He said it will also provide added protection against detonation for private plane engines now in use that were built to use 73 octane gasoline.

Grades 91 and 100, the gasolines used largely for commercial and military operations possess new qualities heretofore unavailable, with higher permissible takeoff power and lowered lead content the prime factors.

Fairchild Camera Plans Non-Aviation Expansion

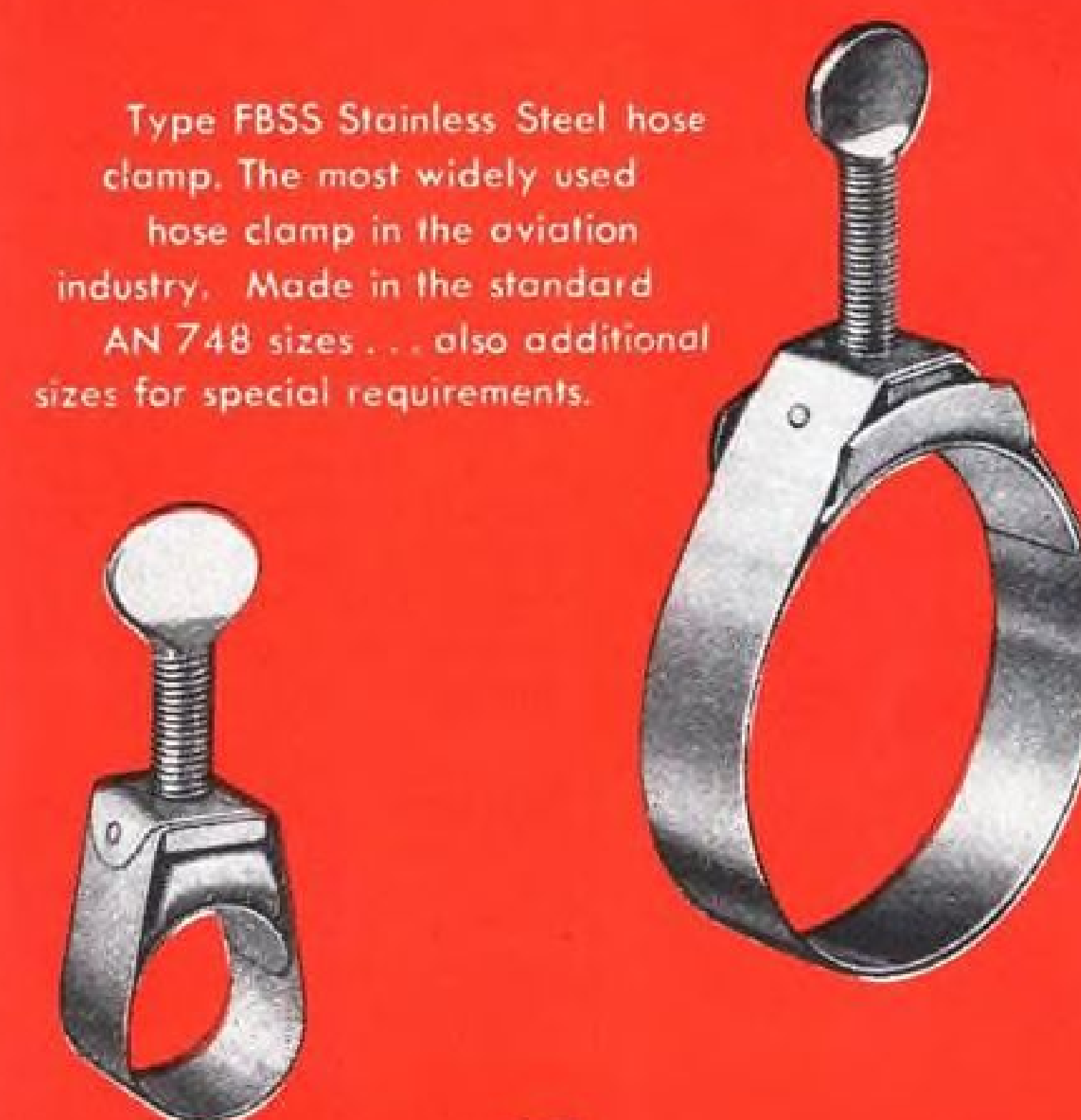
Fairchild Camera and Instrument Corp., long one of the leading military and commercial aviation suppliers, intends to develop a large non-aviation business, according to vice-president C. A. Harrison.

In an address marking the company's twenty-fifth anniversary, Harrison stated that the firm will bring out a complete line of sound equipment for use of radio stations, schools and colleges. Before the war, Fairchild's non-aviation business was merely a sideline. However, Harrison said, "it is my belief that we can secure half as much business from this line alone as we secured from all lines in the years immediately preceding the war."

For Utmost Dependability.. WITTEK Aviation HOSE CLAMPS



Type WWD Stainless Steel worm-drive adjustable hose clamp. Made in eight sizes to cover the entire range of applications.



Type FBSS Stainless Steel hose clamp. The most widely used hose clamp in the aviation industry. Made in the standard AN 748 sizes... also additional sizes for special requirements.



Keep Buying Victory Bonds

WITTEK
MANUFACTURING CO.
4305-15 W. 24th Place, Chicago 23, Ill.

Aviation
HOSE
CLAMPS



Dependability has been recognized by the Wittek Manufacturing Company during its 25 years of hose clamp manufacturing experience as a foremost requirement in any hose clamp design. Wittek assures this dependability by the selection of basically sound designs... the use of high-grade materials and the application of good workmanship. Today Wittek offers two distinctly different hose clamp designs—each of which meets the requirements of Specification AN-FF-C-406 A.

TYPE WWD—an adjustable worm drive hose clamp made of stainless steel and designed to take full advantage of the superior physical properties of that material. Note the compact streamlined housing... the hardened one-piece thumbscrew—PLUS a new exclusive Wittek feature—an inner band of Stainless Steel accomplishing the two-fold purpose; (1) protecting the hose from the serrations in the outer band, and (2) distributing the load uniformly to provide greater strength and superior sealing characteristics.

TYPE FBSS—an improved Stainless Steel version of Wittek's basic FB design—now incorporating a bridge extender—in all sizes. This is the most effective hose clamp for all applications where an adjustable clamp is not necessary.

Hose Clamps for all requirements, made by Wittek—specialists in hose clamps and their applications.

Scott

TAIL WHEEL ASSEMBLY

MODEL 3-24B

STEERABLE - FULL SWIVEL

AUTOMATIC

Builders of light airplanes seeking a service-tested tail wheel assembly will be interested in these features of the CAA-approved Scott Model 3-24B. Simplified, automatic mechanism; Needle swivel bearings; Heavy-duty bracket; Positive action arm assembly; Drop forged single arm fork; High-strength aluminum alloy wheel castings; Timken grease-packed roller bearings; Felt grease seals; Tight dust caps. Complete data on request.

SPECIFY AS "Standard"

Scott

AVIATION CORPORATION

204 ERIE ST. LANCASTER, N. Y. U. S. A.

ESTABLISHED 1932




SPB 'Reserves'

In an attempt to speed up disposal of surpluses, Surplus Property Board has directed disposal agencies to set up reserves to supply priority buyers. Formerly, other customers had to wait for more than 30 days in order that holders of priorities could have first choice.

Quantities of reserves to be maintained will be decided by disposal agencies on the basis of previous experience. Smaller War Plants Corp. will assist in determining size of reserves to be held for veterans and small business. Agencies are required to review and adjust reserves periodically to avoid stockpiling.

Luscombe Output Centers At Dallas

Luscombe Airplane Corp. has announced plans to concentrate all its airplane manufacturing in its two Dallas, Texas, plants, discontinuing its aircraft activities at Trenton, N. J., where the main plant was formerly located.

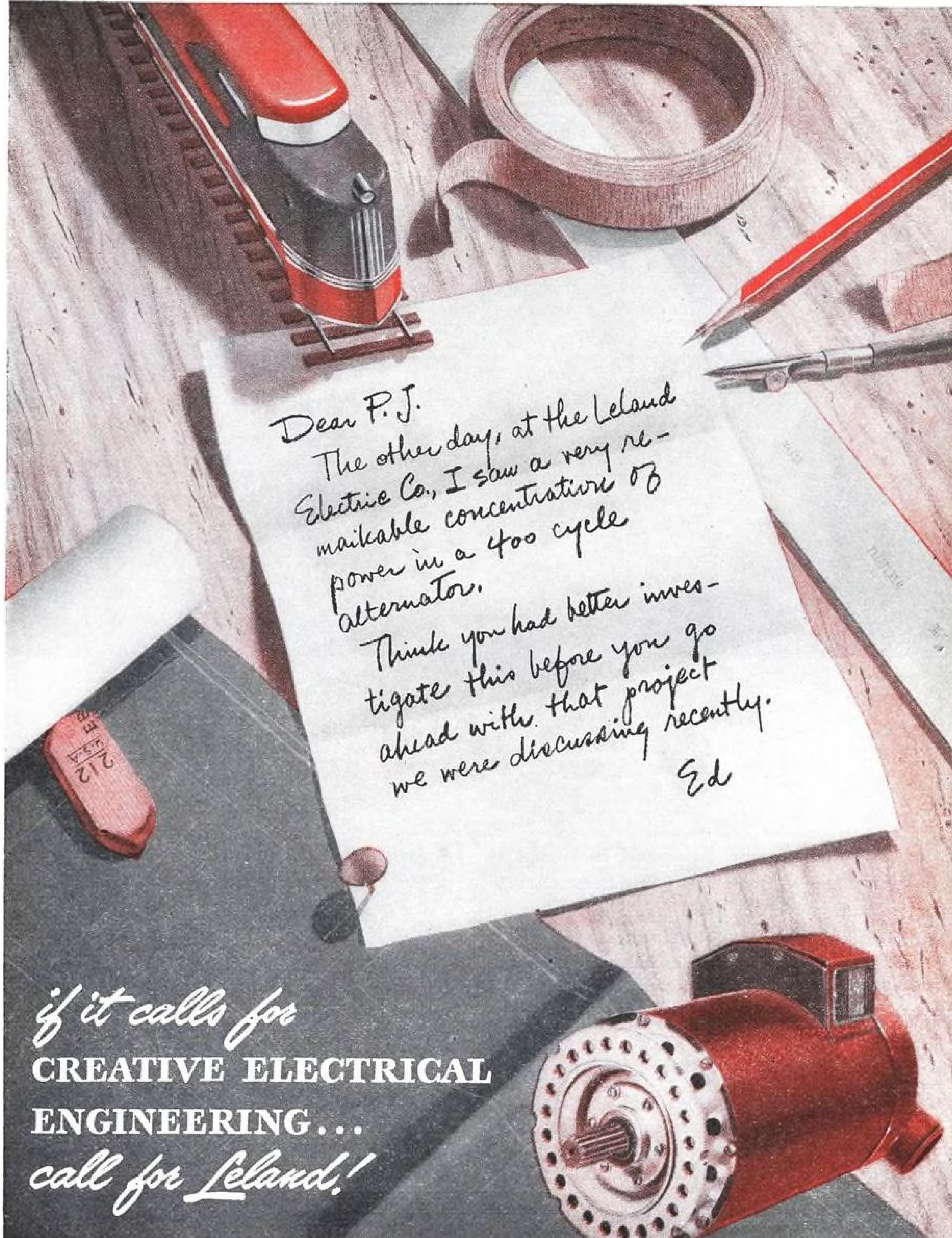
Leopold Klotz, president, said that four new Luscombes had already been completed in the assembly plant at Garland, near Dallas, where a line is now in operation. Machine shops and executive officers are in a downtown Dallas plant, with production offices and others scheduled for the suburban plant now nearing completion.

► **\$1,000 Planes** — The company, which was one of four lightplane builders to sell more than 1,000 personal planes before the war, expects to produce 1,000 new planes before the end of this year.

First Luscombes to be produced resemble closely the prewar all-metal Luscombe *Silvaire* which in 1940 set a speed record of 118-mph. for planes in its class.

Swedes Tour Air Plants

The commanding general of the Swedish Air Force, Lt. Gen. B. G. Nordenskiöld, is making a study of the aircraft industry in this country. Accompanied by Maj. Gen. Nils O. Soderberg, he is touring AAF installations and production centers as a guest of the air forces. Brig. Gen. Patrick W. Timberlake, chief of staff of the U. S. Eighth Air Force, is conducting the 22-day tour.



Dear P. J.
The other day, at the Leland Electric Co., I saw a very remarkable concentration of power in a 400 cycle alternator.
Think you had better investigate this before you go ahead with that project we were discussing recently.
Ed

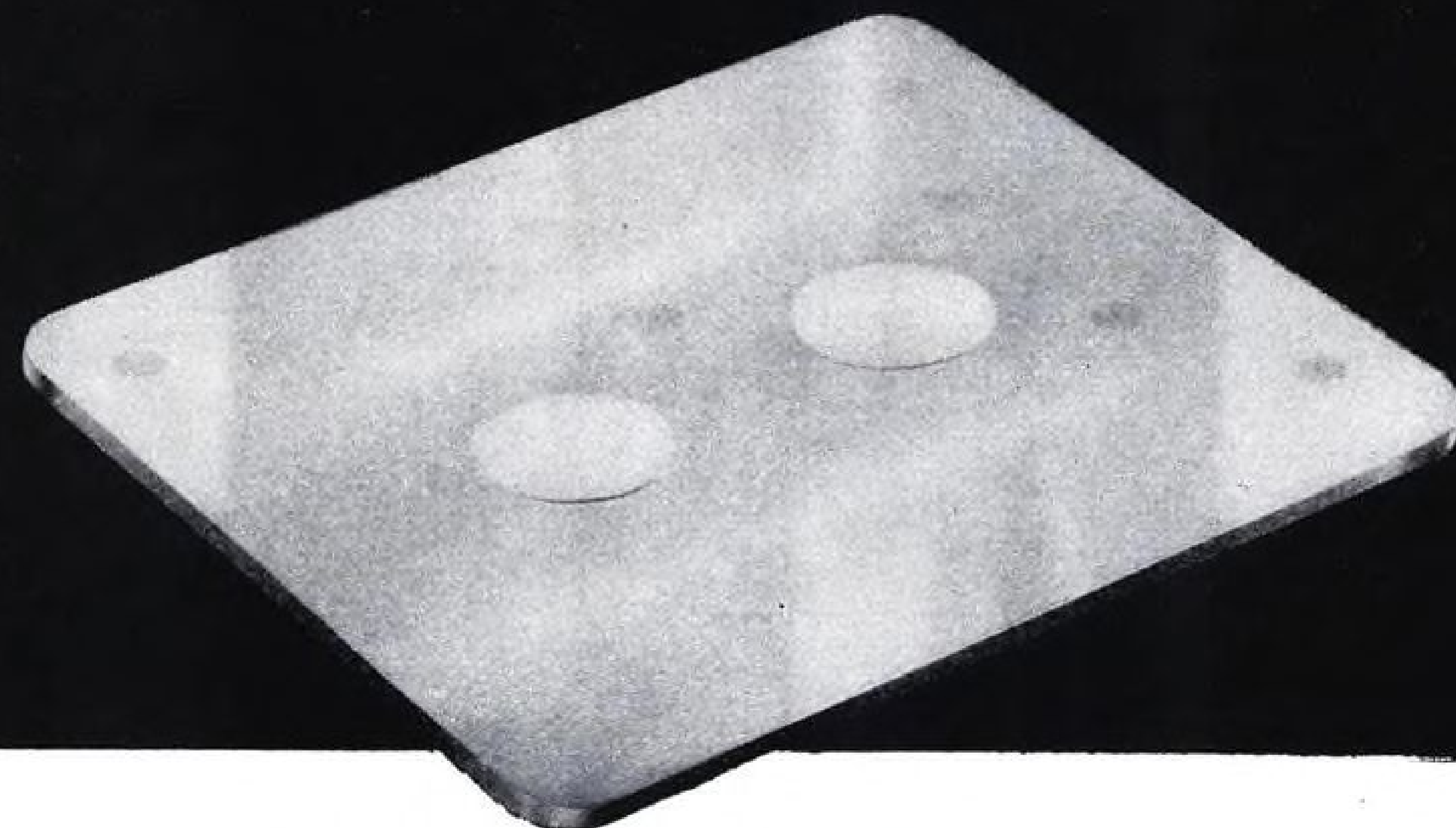
if it calls for
CREATIVE ELECTRICAL
ENGINEERING...
call for Leland!

Motors, Generators, Motor Generators and Voltage Regulators

THE Leland ELECTRIC COMPANY

DAYTON, OHIO • IN CANADA, LELAND ELECTRIC CANADA, LTD. ... GUELPH, ONTARIO

NEW HARTWELL PUSHBUTTON LATCH



Waterproof and Airtight

Complete flushness achieved in latest addition to Hartwell line of flush latches

You have to look twice to see the new Hartwell Pushbutton latch when it is installed. The only exposed parts are the recessed, completely flush, circular trigger button and close button.

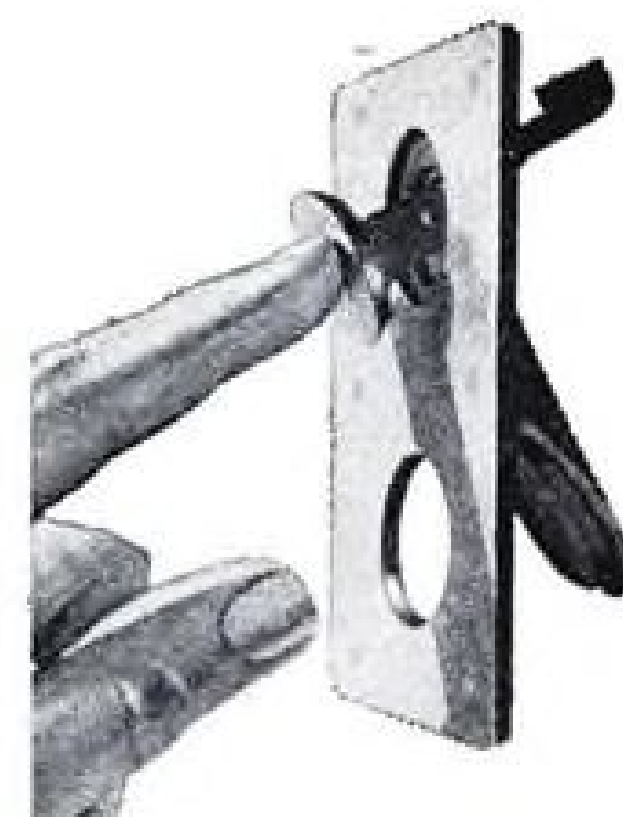
Finger-tip pressure opens and closes the latch! Due to its unusual design, it is water and airtight. The higher the pressure of either fluids or gases, the tighter the seal.

The toggle action of the latch, assisted by a torsion spring, assures a positive lock in either the open or closed position. Though small—it weighs approximately 1 oz.—the Pushbutton latch withstands normal loads.

For an absolutely flush surface, fluid or gastight seal, get the Hartwell Pushbutton latch. Hartwell also makes these trigger-action, flush latches: *Standard*, *Heavy Duty* (1,000 lb. load) and *Utility*.

Uses for New PB Latch

Aircraft: Exterior—inspection and access doors that must be either waterproof or aerodynamically smooth. Interior—galley cabinet doors and baggage compartment doors, even where used in pressurized cabins. *Marine:* Small hatches, inspection, cleanout and access doors. *General:* Cleanout and inspection plates on processing equipment; junction boxes; metal cabinets.



Single source for 779 different
production parts and tools

HARTWELL
AVIATION SUPPLY COMPANY

3417 Crenshaw Boulevard, Los Angeles 16, California
Dallas, Texas • Kansas City, Kansas

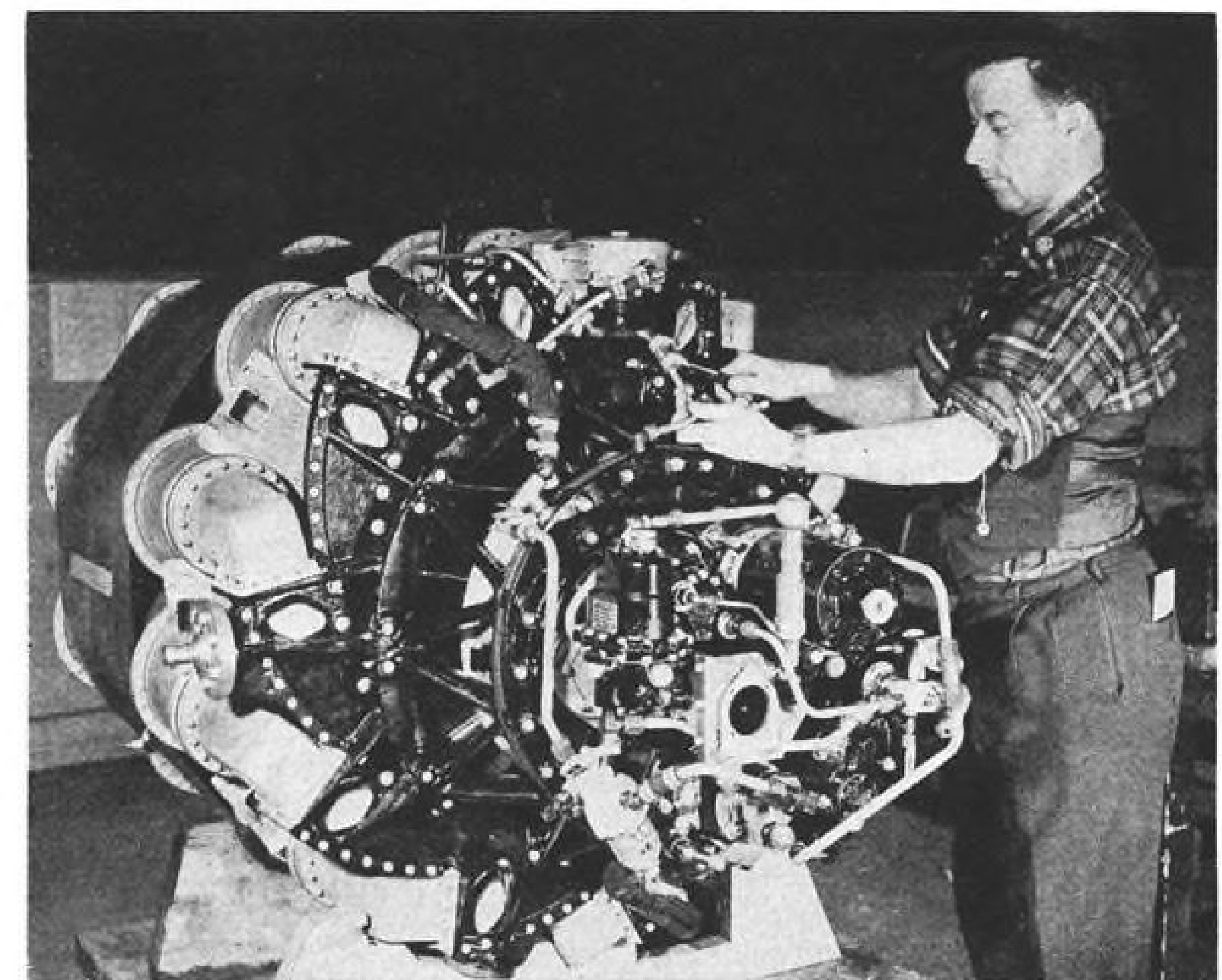
Plant Status

Negotiations for the following large airframe and engine plants are reported, by the Reconstruction Finance Corp., to be in an advanced stage. Listed is original construction cost for plants named.

Aviation Corp.	
Williamsport, Pa.	\$4,396,000
Consolidated-Vultee	
San Diego, Calif.	23,755,000
(2 plants)	1,009,000
Miami Springs, Fla.	2,079,000
Allentown, Pa.	6,178,000
Curtiss-Wright Corp.	
Buffalo, N. Y.	47,578,000
St. Louis, Mo.	24,954,000
General Motors Corp.	
Melrose Park, Ill.	125,636,000
Trenton, N. J.	11,599,000
Cleveland, Ohio	26,901,000
Indianapolis	87,072,000
(2 plants)	1,559,000
Republic Aviation Corp.	
Farmingdale, N. Y.	28,767,000
Wright Aeronautical Corp.	
Paterson, N. J.	45,262,000

Two or more prospective purchasers have expressed interest in the following plants, according to RFC.

American Propeller Corp.	
Toledo, Ohio	\$12,396,230
Bell Aircraft Corp.	
Buffalo, N. Y.	23,843,595
Boeing Aircraft Co.	
Wichita, Kans.	28,314,079
Curtiss-Wright Corp.	
Columbus, Ohio	31,720,096
Indianapolis, Ind.	28,038,250
Caldwell, N. J.	9,986,082
Kenmore, N. Y.	5,389,577
Louisville, Ky.	13,943,664
Douglas Aircraft Co.	
Los Angeles	14,074,316
Santa Monica	8,723,577
(2 plants)	636,639
Higgins Aircraft, Inc.	
New Orleans, La.	31,100,033
Jacobs Aircraft Co.	
Pottstown, Pa.	21,917,955
Lockheed Aircraft Corp.	
Burbank Calif.	8,816,300
(3 plants)	8,778,634
	3,457,694
North American Aviation, Inc.	
Kansas City, Kans.	15,313,300
Grand Prairie, Tex.	34,507,327
Inglewood, Cal.	10,413,316
Northrop Aircraft, Inc.	
Hawthorne, Calif.	670,176
(2 plants)	4,163,318
Republic Aviation Corp.	
Evansville, Ind.	14,517,439
United Aircraft Corp.	
Hartford, Conn.	58,279,909
(2 plants)	355,846
Bridgeport, Conn.	1,113,234
Stratford, Conn.	6,127,868
Wright Aeronautical Corp.	
Paterson, N. J.	39,762,719



FIREBALL JET POWERPLANT:

This type of General Electric jet propulsion engine teams with a conventional Wright Cyclone in generating power for the Navy's new Ryan Fireball fighter. The technician here is working on a fuel line on the front of the engine. In the Fireball the engine is housed in the fuselage between the cockpit and tail.

Merger Reports Denied

Recurring rumors in the industry and in financial circles of a Curtiss-Wright and Lockheed merger have been termed "just rumors" by Guy W. Vaughan, Curtiss-Wright president. In making the statement to stockholders, Vaughan reported the company in sound financial position, disclosed that Curtiss has a contract for 10 Commando transports with Eastern Airlines and is negotiating for more business of this type. He indicated that the company has made no plans to enter non-aviation fields. He commended that the personal plane market does not seem particularly profitable at this time.

Aero Parts Co. Sold

The Aero Parts Manufacturing Co., of Wichita, Kans., which during the war held major subcontracts with Boeing, Cessna and Curtiss-Wright, has been purchased by the U. S. Challenge Co., Batavia, Ill., and will be converted to the production of farm equipment.

Dr. Henry M. Garsson, president of Challenge and the U. S. Engine and Pump Co., said the Wichita operation will employ 500 at the outset and 2,000 when production

schedules are attained. Operations will begin within 10 days. During the war, Aero Parts employed up to 2,500 persons. It was one of the first companies to be cutback and has been out of operation since last April.

Contract Appeal Chief

New chairman of the Contract Settlement Appeal Board of the Office of Contract Settlement is Edward J. Dimock, New York attorney, editor of the *American Bar Association Journal* and a member of the faculty of Yale Law School. He succeeds Robert S. Stevens, who has been recalled to his post of dean of the Cornell University Law School.

The board hears appeals from war contractors disputing the findings of contracting agencies in the settlement of terminated war contracts.

Bendix Income Report

Net income of \$10,376,643, or \$4.90 per share, for the nine months ending June 30, 1945, has been reported by Bendix Aviation Corp. The net is slightly less than three percent of sales and other income. For the similar period the preceding year, Bendix net was \$12,159,486, or \$5.74 a share.

AIR FORCES

COMMENTARY

Radiation Laboratory Record Forecasts Electronic Advances

Wartime success of cooperative scientific enterprise at MIT kept nation ahead in radar research.

"This is a physicists' war."

These words by Dr. James B. Conant, president of Harvard University and one of the top-drawer figures in America's "scientific high command," were not spoken toward the end of the conflict, when millions of men and women, in and out of the armed services, knew something at least of radar, the proximity fuse, atomic energy, rockets, etc.

► **Foresight**—They were uttered in 1940, shortly after the creation of the Office of Scientific Research and Development of which Dr. Vannevar Bush, former chairman of the National Advisory Committee for Aeronautics, was director.

The words fell largely on uncomprehending ears, but it is safe to say that as we go farther into

the new age that is dawning and realize from practical experience some of the wonders of electronics, atomic power, etc., their essential meaning will be more clearly grasped, and the need for this country to maintain an adequate research program more generally appreciated.

One of the most fruitful of the cooperative scientific enterprises in this country, and one which admittedly played a most vital part in the Allied victory, was the Radiation Laboratory, located at, but not a part of, the Massachusetts Institute of Technology, Cambridge.

► **'Star' Staff**—Started in October, 1940, after the visit of a British scientific mission headed by Sir Henry Tizard, Radiation Lab at

war's end had a budget of \$4,000,000 per month, with a staff of scientists and engineers comprising an estimated 20 percent of the nation's top-rank physicists.

Operating under the general supervision of the Radar Division of the National Defense Research Committee (part of OSRD), Radiation Lab was the Allied spearhead of a huge international cooperative research and development enterprise aimed at providing its fighting forces with the most advanced radar equipment which they required to do an effective job.

This involved not only cooperation with British and American ground, sea and air forces, but with scores of government, university and industrial laboratories, and with a couple of hundred prime manufacturers and thousands of subcontractors which turned out some two billion dollars worth of radar sets based directly on Radiation Laboratory research.

► **Top Task**—Its main assignment and the chief reason for its existence was the development of microwave radar of 3,000 megacycles and up, in the ultra-high frequency field.

In the billion-cycles-per-second range it had been found that the radio pulsed beam could be much more highly concentrated, the returning "echo" much more clear and the resolution much more exact and distinctive.

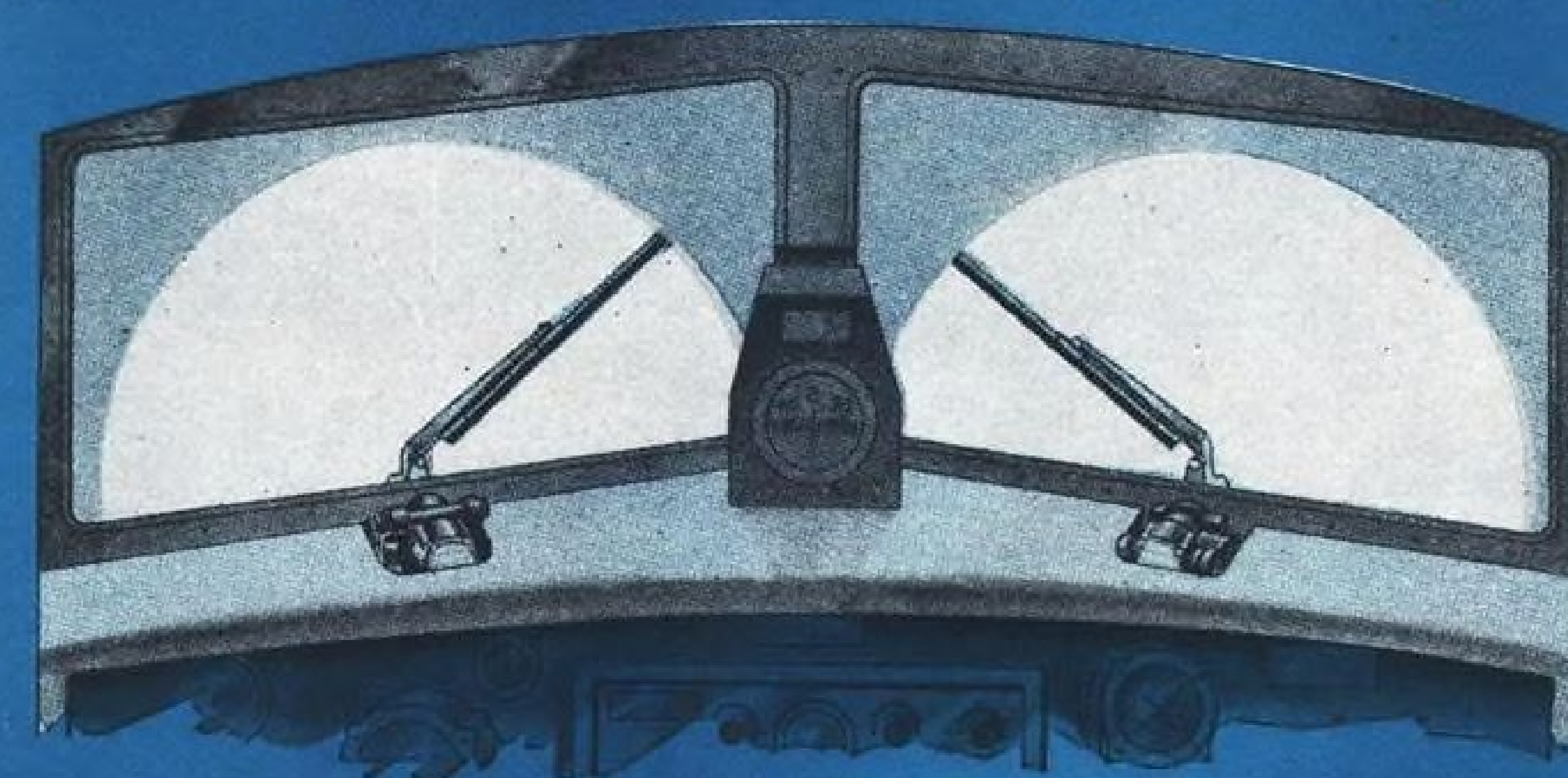
At the start of the war nearly all the great nations had a certain amount of early, long-wave radar, but what kept the Allies so far ahead of their enemies was the development of microwave radar, the practicability of which was largely based on the British-developed cavity magnetron, brought over in the summer of 1940 to NDRC's "Microwave Radar Committee," of which Alfred L. Loomis was chairman. A few weeks after the British visit, this committee blossomed out into the Radiation Laboratory, and Dr. Lee A. DuBridge, Professor of Physics and Dean of the Faculty at the University of Rochester, was selected director.

► **Radar Role**—This is the general background to be considered in connection with the development of almost any of more than 100 types of radar equipment used during the war, many of which can perform highly useful and in some cases almost revolutionary peacetime functions. —NAVIGATOR



Laboratory Warriors: Three of the men who played important parts in waging and winning the "physicists' war" are shown above at the Radiation Laboratory at MIT. E. G. Bowen (seated), member of a British scientific mission which brought the first cavity magnetron, heart of many new radar developments, to the laboratory in 1940, is being shown an American built copy by Radiation Lab Director Lee A. DuBridge, left, and Assistant Director I. I. Rabi, Nobel Prize winner.

Marquette Aircraft Wipers



For Clear Vision

● Pilots and co-pilots of our Army and Navy aircraft, as well as our airlines, fly behind Marquette Aircraft Wipers. Today these wipers are considered standard equipment. Their contribution toward safe flying is acknowledged.

While automobiles have had windshield wipers for years—and who would think of driving without them?—the advent of aircraft wipers has been recent.

It was first thought wipers could not be applied to aircraft. Many airplane windshields are

curved; airspeeds are terrific as compared to the automobile; and for many other reasons, plenty of doubt existed.

Now this doubt has been eliminated. Our wipers, both hydraulic and electric types, prove every day their value in hazardous weather. They are in use all over the world.

These wipers, initiated prior to the war at the request of our commercial airlines, will again be available for commercial installations after the war.

On Army Aircraft

C-60	C-87	A-34	B-17
C-47	A-20	A-35	B-24
C-53	A-24	B-15	B-29
C-46	A-25	B-34	B-32
C-54	A-26	B-25	B-19
C-69	A-29	B-26	

On Navy Aircraft

PBM	PV	R5C	JRF
PBY	P2V	R4D	JRM
PB2Y	R5O	R5D	PB4Y

On Airlines

All American Aviation, Inc.	Inland Air Lines, Inc.
American Airlines, Inc.	Mid-Continent Airlines, Inc.
American Export Airlines, Inc.	National Airlines, Inc.
Braniff Airways, Inc.	Northeast Airlines, Inc.
Chicago and Southern Air Lines, Inc.	Northwest Airlines, Inc.
Colonial Airlines, Inc.	Pan American Airways, Inc.
Continental Air Lines, Inc.	Pan American-Grace Airways, Inc.
Delta Air Corporation	Transcontinental & Western Air, Inc.
Eastern Air Lines, Inc.	United Air Lines, Inc.
Essair, Inc.	Western Air Lines, Inc.
Hawaiian Airlines Limited	

The **Marquette** METAL PRODUCTS CO.
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PRIVATE FLYING

Potential Lightplane Sale Bar Seen In Financing Limitations

Federal Reserve Board regulation prohibits application of trade-in allowance toward down payment on planes but allows it for automobiles; forthcoming availability of personal aircraft centers industry attention on needed revisions.

By WILLIAM KROGER

With many of the production problems overcome, and new aircraft well underway, lightplane manufacturers are beginning to express concern over another potential bar to widespread sales; Regulation W of the Federal Reserve Board, which controls consumer credit.

The regulation was originally issued in August, 1941, but amended the following Spring, when there were few airplanes going into the civilian market. Under it, purchase of an airplane of less than 1,000-lbs. useful load must be financed with one-third of the price down, the balance payable in not more than 12 months. A trade-in cannot be applied toward the down payment.

Meaning—Accordingly, the value of the trade-in is first deducted from the purchase price, and the down payment is one-third of the remainder. In practice, this means the buyer is paying considerably more than one-third down. For example, if the price of an airplane is \$2,000, and the trade-in allowance \$800, the down payment must be \$400, or one-third of \$1,200. But actually, the purchaser, by putting up his old airplane, is paying \$1,200 down.

By contrast, trade-in allowances of automobiles can be part of the down payment under Regulation W. If that were true for aircraft, the \$800 allowance used in the example above would be ample to cover the down payment. Another discrepancy in Regulation W is that maximum time for payment for automobiles is 15 months, as against 12 for aircraft.

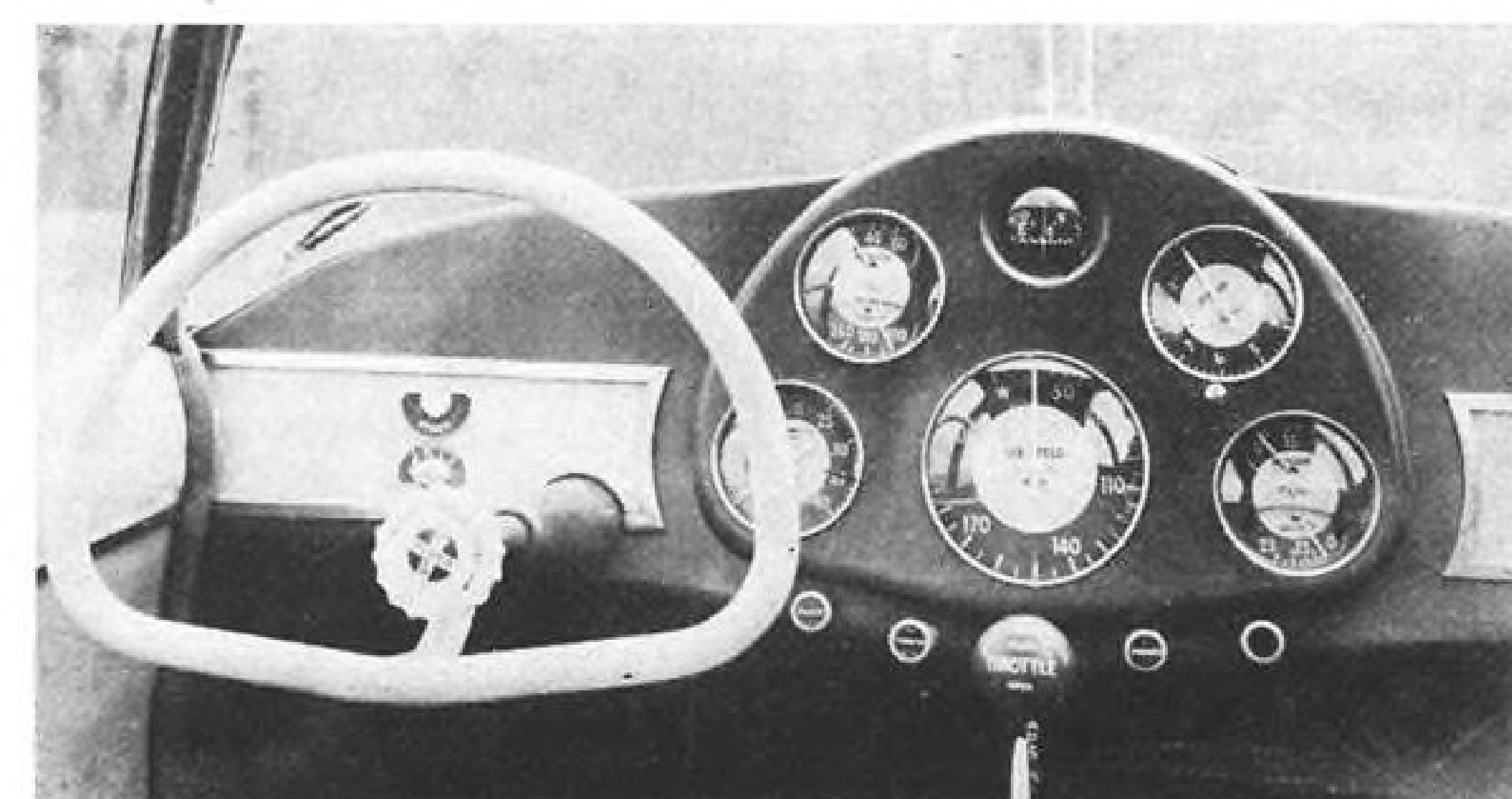
While the war was in progress, little attention was paid to Regulation W, due to the lack of planes to sell. Now, however, the forthcoming availability of new planes is focusing attention on the trade-in aspect.

Surplus Factor—There have been approximately 12,000 surplus airplanes sold, the majority in the lightplane category. Presumably, a great many purchasers of these desire to use them as trade-ins on new aircraft. General feeling is



CUSTOMER APPEAL:

For roominess, ease of entrance, and other customer appeal requirements lacking in many of today's personal planes, the experimental Piper Skycoupe, whose production future is still clouded, offers some forceful design pointers. Above: Wide doors on both sides permit entrance from ground level without undue contortion. Below: Instrument panel with easy-to-read automobile type dials, starter button, trim-tab knob attached to wheel, has eye-appeal and makes the plane easier to fly.

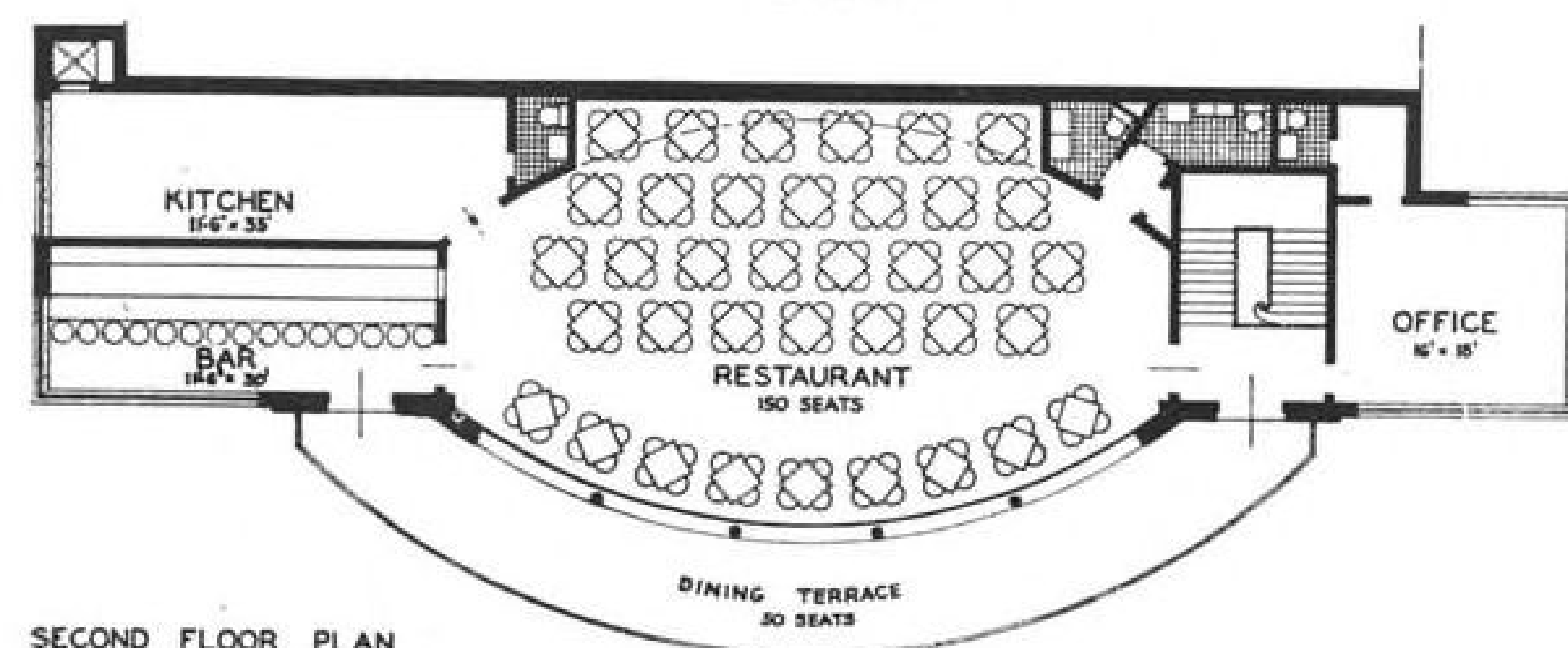
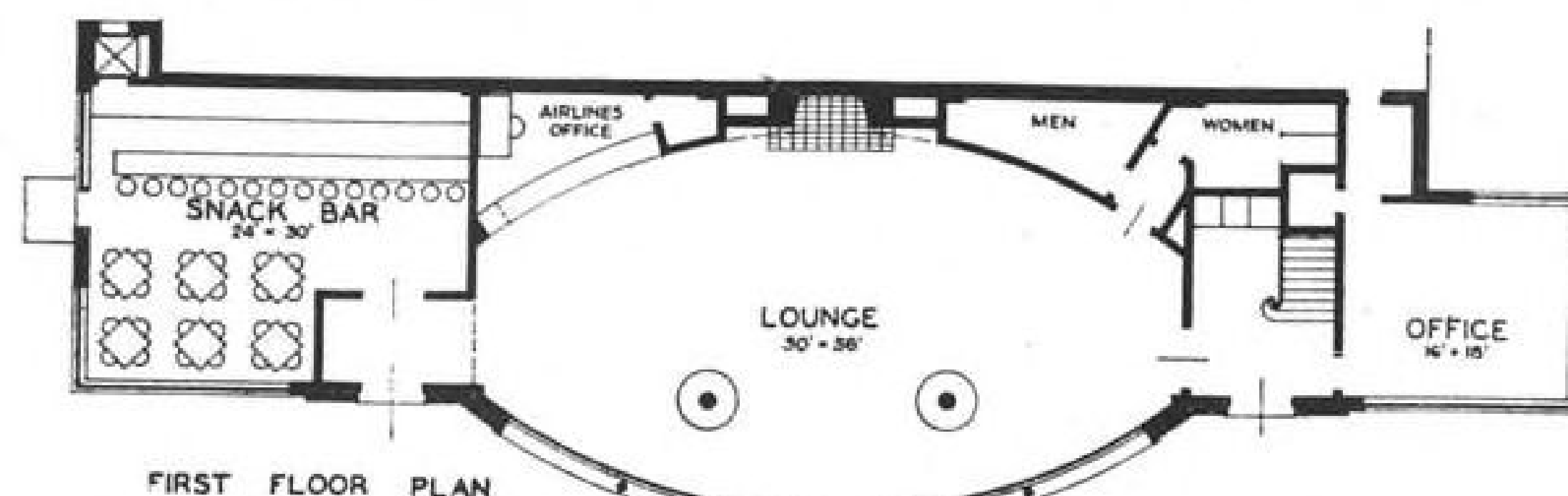
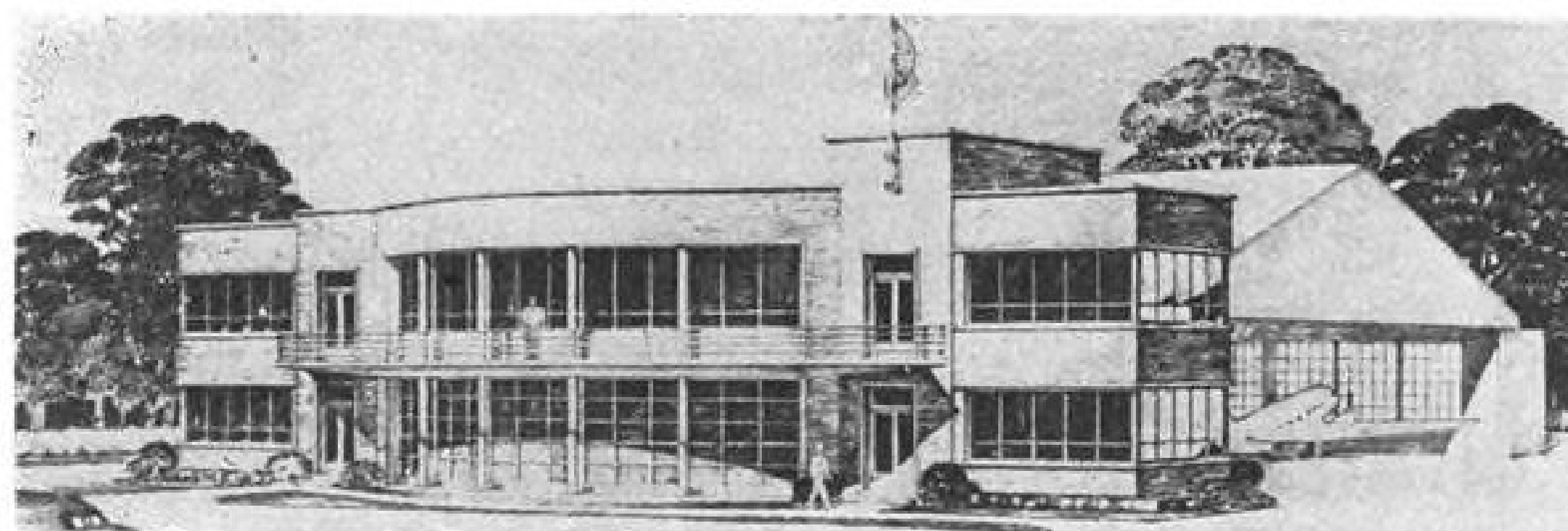


that Regulation W will have a retarding effect.

Federal Reserve Board maintains it does not want to stop the sale of any commodity, and in the past has moved promptly when its regulations seemed to point in that direction. Last July, it exempted from control all aircraft above the 1,000-lb. useful load classification to pave the way for sales of transport planes and the larger types of family aircraft.

Federal Reserve sources unofficially indicate that all aircraft may be removed from Regulation W control after the first of the year.

Handling Haze—The entire financing problem for lightplane purchasers is hazy. Manufacturers in general are divorcing themselves from it, and leaving it up to their distributors and dealers, although furnishing information on the plans available. Similarly,



Architect's drawing and floor plans of Robinson operations building to be built at Teterboro Airport.

many producers feel the trade-in problem is one for distributor-dealer determination.

Complicating the picture is the lack of standard valuation on used aircraft—the reason given by the Federal Reserve Board for its original ban on the use of trade-in allowances for down payments. There is one "blue book" guide to aircraft prices, but the extent of its use is indeterminate.

An additional factor is that while there is broad agreement on the "one-third down, balance in 12 months" formula for new air-

Sales Shape

Indications that the first post-war models of light aircraft are nearing normal channels of trade are growing stronger. First Taylorcraft was recently delivered to the Dayton, Ohio, Airplane Sales Corp., while the first J-3C Piper Cub, for use as a demonstrator, has been received by the Hawthorne Flying Service at Columbia, S. C.

craft, the down payment runs considerably higher for used aircraft, often up to 50 percent. One fact responsible for this is that all chattel mortgages carry credit insurance, and insurance on the principal sum in a used aircraft purchase generally becomes prohibitive when the amount of the loan exceeds 50 percent of the purchase price.

Top Canadian Air Club Buys 14 Tiger Moths

The Toronto Flying Club, one of the Dominion's largest private flying organizations before the war, has turned to purchase of surplus military planes as a solution to its equipment problem despite the looming availability of new lightplanes. Latest purchase by the club was of 14 De Havilland Tiger Moths.

Future plans of the group call for purchase of three surplus Cessna Cranes, twin-engine transports. Purchases are made through the Royal Canadian Flying Clubs Association which buys from the

government's War Assets Corporation and resells to the 23 Canadian clubs after getting the ships into flying condition. Price is cost plus overhaul charges.

Field Expanding As N. Y. "Portal"

Robinson Aviation moves to Teterboro airport; full private flying facilities planned for metropolis-bound pilots.

A major move in expanding the Bendix Airport, Teterboro, N. J., into a personal aviation "portal" for New York City, took shape last week as Robinson Aviation, Inc., revealed plans for a private flying base there with terminal facilities that touch every need of the individual pilot and non-scheduled operation.

According to C. S. Robinson, president, the entire operations of the aviation enterprises bearing his name, will be moved to the field where the former Fokker Aircraft factory has been leased for maintenance and storage space.

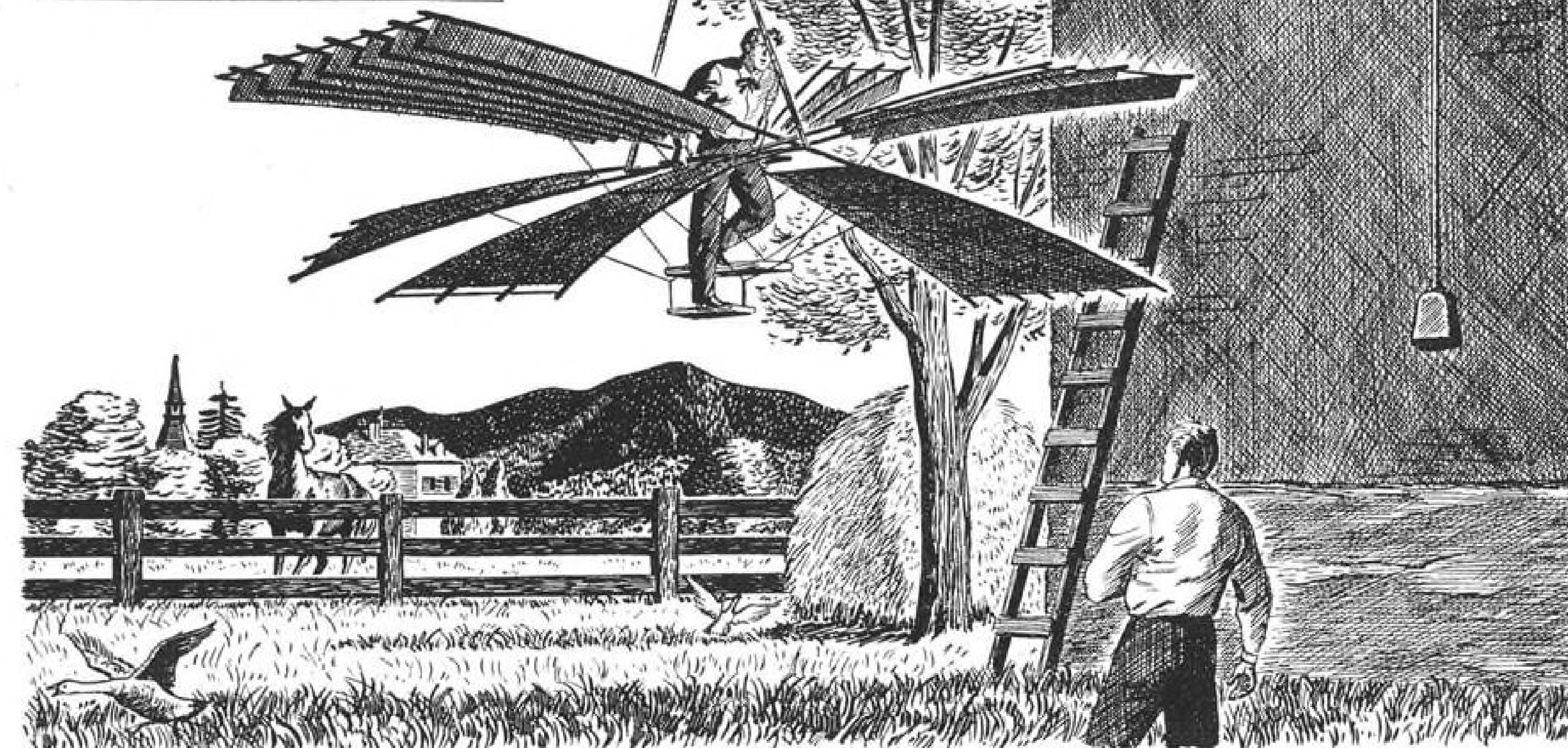
Varied Features—A modern operations building will highlight new construction planned. Included will be terminal facilities for the recently formed Robinson airline; providing non-stop Ithaca to New York service, accommodations for other private plane pilots and their passengers, a pilot lounge for visiting pilots and those based at the field.

Special attention will be paid the needs of many businessmen expected to use aircraft as a fast, convenient method of transportation to Gotham appointments. With the heart of New York City only a half hour from the field, by car through the Lincoln Tunnel, a standby taxi service will be maintained by agreement with a local company.

Stenographic and telephone facilities will be made available for the flying businessmen at the terminal while a restaurant and snack bar will top off the conveniences. Limited service will start in November prior to full operation upon completion of the construction plans.

Route Convenience—The airport is located so that planes flying from any section of the country, except due east from Long Island, can reach it without passing over the "skyscraper" area of New York and without plotting cir-

The German Otto Lilienthal built the pedal-driven ornithopter pictured here (1867). He rigged it by pulley to a counterweight, and thus was able to measure his Lift, which he found only half the total needed to raise man and machine. When later models also proved unsuccessful, Lilienthal set out on his more famous glider research—constantly seeking data he hoped would help him perfect the ornithopter.



In a barnyard, LILIENTHAL LEARNED HOW TO MEASURE THE LIFT OF WINGS

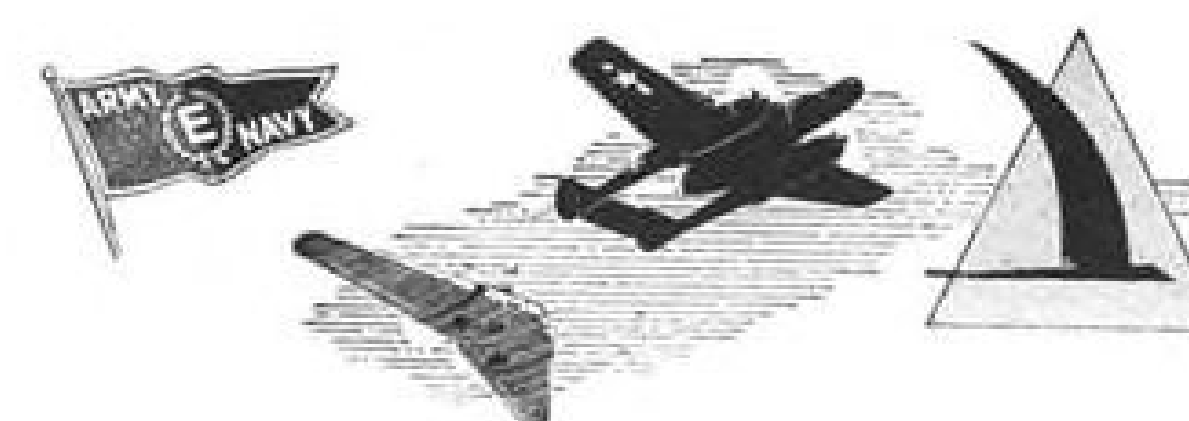
In aviation there is a battle not yet finished. It is man's struggle to increase the useful force of air around a wing, and to reduce the friction of air against a plane's surfaces. It is the continuing battle of *Lift* versus *Drag*.

During the past twenty years, the victories in this battle have been many, a notable number scored by Northrop. Toward Drag-reduction, for example, Northrop pioneered the monocoque fuselage in 1927. Multicellular, internally-braced wings and wing fillets for monoplanes came from Northrop in 1929. And, in 1932, Northrop introduced the first split

flaps to increase Lift in take-offs and landings.

The years 1935 to 1941 brought other Northrop advancements: The first double-split dive flaps . . . heliarc welding of magnesium for lighter, smoother construction . . . the first retractable ailerons. And the first successful all-wing airplane, the Northrop *Flying Wing*, which housed everything inside the wing.

What next in the battle of Lift versus Drag? Many of the answers will come from Northrop, from plans already set to create both more efficient propulsion and planes of still more advanced design. Northrop Aircraft, Inc., Northrop Field, Hawthorne, Calif.



NORTHROP

Creators and Builders of the *Black Widow* P-61 Night Fighter and the *Flying Wing*



Air Delivery At Deadwood Dam: Johnson Flying Service of Missoula, Mont., the only bidder, again has been awarded the government contract to make twice-a-month air deliveries of food and mail to snowbound Ole Overlie, superintendent of Deadwood Dam, Idaho (left). In previous years Penn Stohr (right), known as a "mercy flyer" in the Northwest, made the deliveries for Johnson, but he has been transferred, and Bill Yafey and Bob Fogg, other Johnson flyers, are expected to make the delivery runs this year.

cuitous courses. Located inland, it is less affected by sea fog and is free of the smoke haze prevalent over the metropolis.

Part of the leased plant space will also be used for the manufacture of Robinson Vibrashock mounts and other accessories.

Object of the new effort is to "see to it that those people who take up private flying and buy airplanes will remain permanent customers of aviation and will not, as in the past, give up flying after one or two years due to inadequate types of service available."

Snowbound Post Served By Plane

Ole Overlie, superintendent of Deadwood Dam, 150 miles north-east of Boise, Idaho, near the center of the Cascade Mountains' most primitive area, will get his groceries and mail by air again this winter.

Award of the air delivery contract to Johnson Flying Service, of Missoula, Mont., the only bidder, and the previous contractor, has been announced by the Department of Interior Bureau of Reclamation.

► **Isolated**—Overlie and his wife are isolated at the reservoir throughout the winter except for the semi-monthly plane deliveries of mail and food, and his short-wave radio communication with other Bureau of Reclamation stations.

The aerial delivery is no easy

job, since it calls for setting the plane down on a small airstrip at the edge of the lake or with skis on the lake itself, when it is frozen. In past years, Penn Stohr, known as a "mercy flyer" in the Northwest, handled the contract for Johnson, and sometimes dropped food and mail by parachute when thawing conditions made ski landings impossible.

This year Bill Yabey and Bob Fogg, Johnson pilots, will perform the delivery service. Stohr has been transferred. Before plane

Storm Recovery

Sixty hours after most of the private planes in the Miami, Fla., area were destroyed by fire at the hurricane blasted Richmond naval airbase, where haven had been offered, flight training was resumed at Chapman Field, Embury-Riddle base.

Two planes which had remained in a Chapman Field hangar and miraculously escaped serious damage, were being used. First replacement planes were flown into the field four days after the Sept. 15 disaster and others are following.

► **Loss**—Embry-Riddle reported its pilots alone had flown 12 company, 30 privately owned, and 40 government surplus planes to the Richmond airbase where hundreds of light-planes were destroyed in the hurricane and subsequent blaze.

service was started, Overlie used to get his supplies by dog team delivery. He is usually snowbound at the reservoir for about seven months, and has been at the dam 12 winters. He is stationed there to keep the gatehouse for the 165-foot high dam from freezing, and in the summer regulates the flow of water from the reservoir, for irrigation.

Kentucky Aviation Shaken By Dispute

A complete change in the aeronautics set up in Kentucky has resulted from a dispute between Gov. Simeon S. Willis and the State Aeronautics Commission, over funds for promotion of aviation.

The argument began when Albert Near, commission secretary, and Carl Ulrich, director of aeronautics, charged they received only evasion and vague promises from the governor in response to urging that he grant \$35,073 from his emergency fund. In answer, Willis fired the entire commission. Ulrich, an appointee of the commission, resigned.

► **Airport Key**—Focal point of dissension is the airport situation in Kentucky. With only 23 airports in the state, as of the first of this year—seven of which were used by the Army, Navy, or CAA—Kentucky ranked last in the nation from standpoint of landing facilities per area and population.

Ulrich asserted he wanted the emergency funds to plan increased airports, and claimed the failure to get them gave the commission "little hope of getting federal funds for state aviation promotion." In rebuttal, the governor pointed out that federal funds are not yet available and that in addition he had no legal authority to grant the money requested.

Goodyear Club Grows

Goodyear Aircraft Corp.'s "Wingfoot Flyers' Club" now comprises all but two of the top company executives and department heads, with D. L. C. Hatch, chief of the hospital staff, recently becoming the 37th member to solo. Eight others are taking flight instruction.

The club, composed of Goodyear personnel, owns six planes: Cub, Luscombe, Taylorcraft, Ercoupe, Stinson 105 and a Fairchild. A new hangar for the planes is nearing completion at the Akron airport.

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PRODUCTS OF RESEARCH... SKILL... EXPERIENCE

First New *Ercoupe* Delivered; Performance Boosts Announced

Immediate sales seen limited only by production as orders pour in; top speed raised to 122-mph. with 75-hp. engine; footbrake installation, electric starter increase ground handling ease.

The first post-war *Ercoupe*, complete with 75-hp. engine, electric starter, footbrake, improved insulation, and other modifications, but still essentially the same airplane as its pre-war spinproof sister ships, rolled from the assembly line at Riverdale, Md., last week.

It was flown by Fulton M. Moore, Chicago manager for Parks Aircraft Sales and Service, to Chicago, for delivery to Marshall Field & Co., where it will be displayed in the store's new aviation department.

► **Speed Hike**—New specifications announced for the *Ercoupe*, show that the increase of 10-hp. in the powerplant has increased the cruising speed from the pre-war 105 to 110-mph. and the top speed from the pre-war 117 to 122-mph.

Rate of climb on the new plane is 750-ft. per minute as against 700-ft. on the pre-war model, and service ceiling has been boosted to 14,000 from 13,000-ft.

Useful load is now quoted at 510-lbs. as opposed to 535 in the

pre-war model, due to the extra weight of engine, starter and generator, so that gross weight remains the same as pre-war; 1,260-lbs. Cruising range drops 50 miles, to an even 500 miles, also due presumably to the extra weight. But since it is generally agreed that a 500 mile trip is as much as most lightplane flyers will want to undertake without a stop, this change is not important.

► **Ground Aid**—The footbrake installation, in approximately the same location on the cockpit floor as a footbrake would be in a car, is expected to provide additional ease in ground handling. And, it is in addition to the hand parking brake which remains just below the throttle at the bottom of the instrument panel, as on the pre-war plane.

The tricycle landing gear with steerable nosewheel, spinproof characteristics, excellent visibility and all-metal structure, of the pre-war plane remain unchanged.

One other change in the *Ercoupe* is a redesign of the canopy, to re-

tain visibility but to make it more efficient in operation and provide more protection against the sun by use of tinted transparent panels. Three sliding panels are now used instead of two in the canopy opening.

► **Sale Horizon**—With *Ercoupe* orders accompanied by cash payments already reportedly topping the 10,000 mark, and with department store sales and advertising campaigns running in New York and Chicago, as well as a dealer organization patterned after automobile merchandising lines, the *Ercoupe's* sales for many months to come may well be limited only by the quantities that can be produced.

Military Schools Adopt Air Courses

Kansas academy joins CAP in novel air corps training plan; new institution stresses civil flying.

Emphasis on aviation education in primary and secondary schools has picked up impetus in the new academic year, with some stress being placed on military aviation courses, as well as civilian flight training.

An example of the former is St. John's Military Academy, Salina, Kans., which has joined the Civil Air Patrol, and launched aviation training under the direction of members of the AAF. Lt. Col. J. Howard Wilcox, Kansas wing commander of CAP, and Col. R. L. Clem, superintendent of the military school, announced the cadet corps has been formed into a CAP cadet squadron, with 90 of the school's 110 students eligible to participate.

► **Concept Change**—The new program means a change in the school's concept from an infantry school to an air corps academy. Maj. Fred Spencer, director of ground training at Smoky Hill Army Base, Salina, has been named coordinator of education at St. John's.

On the civilian phases of air education, a departure from previous forms of aviation teaching is apparent in the establishment of the Atlantic Air Academy, Rye Beach, N. H. While this, too, is a military school, with the students wearing uniforms adapted from those of the AAF, it will specialize in civil aviation.

Although a college preparatory school, the Academy will concen-

trate on aeronautical subjects in all four years. In the first year, a student will study, among other subjects, air geography; in the second year, courses will include study of the civil air regulations. Meteorology and various phases of aeronautical science are to be taught in the upper grades.

► The new school got off to a "flying start" with students being flown by airline from New York City.

Shoe Firm's Plane Saves Money, Time

Plans to buy a larger plane in addition to the Cessna Bobcat five-passenger, twin-engine plane recently purchased, are being studied by the Freeman Shoe Corp., Beloit, Wis., as a result of time saving accomplished by the plane in making executive trips.

R. E. Freeman, company president, reported that, heretofore, company executives had been unable to make many extended trips for conferences with dealers or salesmen because of the travel time consumed.

► **Usage Proof**—Since the purchase of the Cessna, from military surplus, and its conversion as an executive planes, the time saving factor provided has been beyond expectations.

Addition of a second plane is expected to make it possible to increase still further the range and speed of the company's executive travels to marketing points throughout the country.

The Freeman executive plane experience is indicative of one of the most wide-open markets for non-commercial transport planes in the immediate post-war period. Business utility of privately-owned or company-owned planes is expected to make them plentiful soon after such planes are back on the market in larger quantities.

Mountain AAF Base Opening To Civilians

Mile-high Bishop, Calif., Army airbase soon may be opened to private flyers and give sportsmen from San Francisco to San Diego air access to some of the finest hunting and fishing grounds of the high Sierra range.

Runways are hard and long, built for high-altitude emergency landings of heavy bombers.

► **Clubs Allowed**—Army objections



"Shoe" Plane: A five-place Cessna Bobcat, purchased by the Freeman Shoe Corp., Beloit, Wis., from military surplus, has been converted for civilian commercial executive use, and is proving a time and money saving asset to the company, according to R. E. Freeman, president. Left to right: Hal Housholder, (pilot); A. W. Cadwell, R. E. Freeman, H. T. Cary and R. B. Freeman, company executives.

to opening the field to private flying softened last week, under the prodding of Congressman Clair Engle, and as a result the runways have been opened to the Eastern Sierra Flying Club and the Inyo-Mono Soaring Association. Glider enthusiasts believe the site may prove to be one of the best in the country for thermal soaring, and may attempt to bring to Bishop a national soaring meet. Previous national soaring contests have been held at Elmira, N. Y.

Air Contest Staff Enlarged By NAA

In anticipation of an increase in attempts to establish new aviation records, and also in view of the resumption of the leading air meets, the Contest Board of the National Aeronautic Association is recruiting new timers and officials.

As United States representative of the Federation Aeronautique Internationale, the world governing body of aviation, NAA supervises all attempts in this country to set new official national or international records.

► **Depletion**—Pre-war staff of Contest Board officials numbered approximately 70. Many are either still in the armed forces or unavailable for other reasons, so the number has dropped to 30.

Under the chairmanship of Dr. George W. Lewis, of the National Advisory Committee for Aeronautics, the board has begun to redraft qualifications for timers. In general, these are expected to be a knowledge of FAI regulations; knowledge of installing and removing the necessary barographs and other devices placed in aircraft before record trials; knowledge of how to use the instruments employed in timing.

CPTP Resumption In Balance Now

Resumption of the CAA's Civilian Pilot Training Program will depend on the fate of a request for a \$3,250,000 appropriation to cover the program's costs during the first six months of 1946. The request was submitted last week to the Bureau of the Budget.

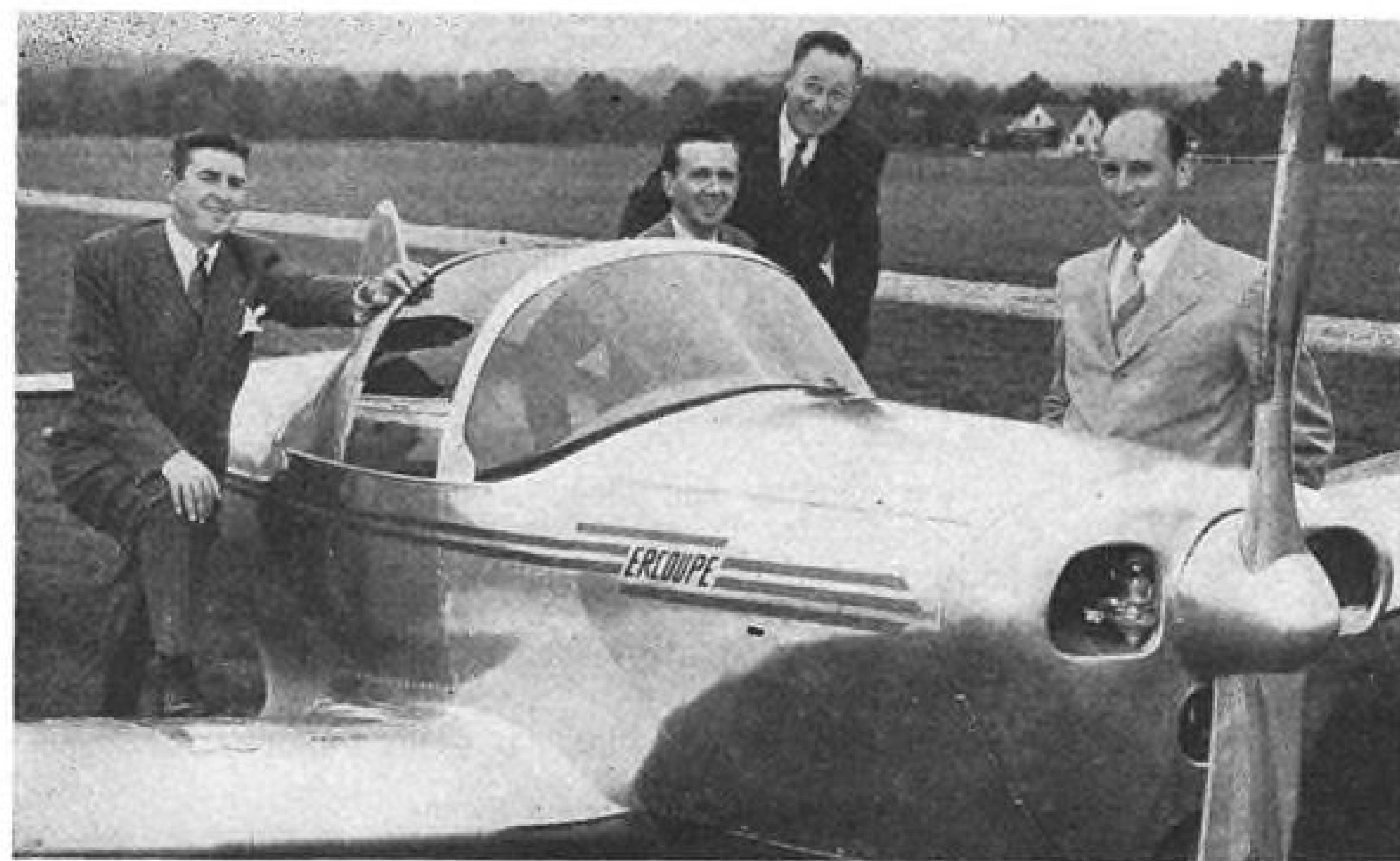
As outlined, the post-war CPTP would follow essentially the pre-war plan under which the Federal government financed training of flight students recruited through educational institutions, with the actual flight training provided by aircraft base operators under government contracts.

► **Possibility**—If the program is approved by Congress it is expected to make possible the training up to private pilot status, of approximately 15,000 student pilots.

The plan is set up under the same pre-war arrangement of a Federal grant of 75 percent of the flight training cost, with the remaining 25 percent being paid by the individual student and the sponsoring educational institution. The request is limited to six months because Congressional authorization for the program expires June 30, 1946.

CAA officials are eager to get the program reinstated as soon as possible, since it is believed that the program will have its best opportunity for continuing, if it is a going concern at the time the question of its re-authorization comes up before Congress.

► **Support**—Aviation industry interests and backers of air power for national defense are expected to give full support to the reinstatement of the program before Congress, in view of the record of CPTP-trainees and later War Training Service trainees in the AAF and naval aviation.



Erco Officials: Three key officials of the Engineering & Research Corp., Riverdale, Md., start Fulton (Skeeter) Moore, on his way to Chicago with the first post-war Ercoupe. Moore, Chicago manager for Parks Aircraft Sales & Service, Ercoupe midwestern distributor, flew the plane to deliver it to Marshall Field & Co., for display in the giant Chicago department store. Left to right: George Ryan, newly appointed vice-president in charge of sales; Moore (in plane); L. A. Wells, Erco president, and Fred E. Weick, vice-president in charge of engineering.



Aerial Hookup: Possibilities for emergency landing stations or "backyard" landings for light-planes are seen in the AAF's Brodie cable system for "landing" Grasshopper liaison planes, shown here in a Wright Field demonstration.

Cable Landing Rig Fits Civilian Role

A "Buck Rogers" method for landing lightplanes by hooking them on overhead cables while in flight, disclosed at Wright Field, Ohio, by the Air Technical Service Command, has interesting future possibilities for civilian uses. Emergency landing stations in spots where even a small landing strip would be impossible or prohibitive in expense, or even "backyard landings" in places too small for orthodox landing methods would be logical future developments.

► **Jungle-Born**—Known as the Brodie system, the new cable landing procedure was developed to permit liaison planes to land in jungle areas or other spots, otherwise inaccessible for airplane landings. Resembling in some respects the arresting gear method of landing aircraft on carriers, and still more the method of "hooking on" Navy fighters to dirigibles which was done in the early 1930's, the procedure requires a hook built into the top of the plane's structure. Pilot of the plane makes contact with a trolley arrangement on the cable with his plane's hook, while flying at slow speed, and the plane is quickly brought to a halt and angled down the trolley to the ground. AAF technicians say planes can take off from the cable arrangement with equal ease.

Briefing For Private Flyers and Non-Scheduled Aviation

Hancock College of Aeronautics at Santa Maria, Calif., has consolidated with the University of Southern California as a department of the University. Capt. Allan Hancock, who founded the school 17 years ago, will continue as director of the department. The Hancock school, one of the ATS group, trained more than 8,000 aviation cadets during the war period (including eight of the Doolittle Tokyo raiders). The first of such consolidations to be reported among the larger flight training schools, the merger indicates a new way for the larger universities which have not yet developed big aviation programs to catch up, partly at least, with schools like Purdue University which have been developing flight training programs for years along with other integrated courses.

WHICH WAY, SHERIFF?—A light plane figured in the capture of a couple of auto thieves recently, near Clayton, N. M. John Wheatley, of Clayton, took off in his Taylorcraft with the sheriff, to pursue the car thieves who had about an hour's start. Wheatley soon passed the speeding car but maintained altitude to avoid suspicion and flew several miles ahead along the road, and landed on the open range. The rest of the story follows the orthodox pattern: the sheriff halted the car thieves on the highway and took them into custody.

REOPEN AIR COUNTRY CLUB—Aviation Country Club, near Hicksville, L. I., one of the first and most successful aviation sport centers in this country, which has been closed during the war, is preparing to reopen. Howard Gundrey has been named as manager of the country club's airfield. Gundrey was formerly secretary of Gillies Aviation, which operated the field pre-war. Founded in 1928, the Long Island club was one of the first aviation organizations which offered its members such facilities as a swimming pool, tennis courts, dining room, tap-room, and limited hotel room accommodations.

FLYAWAY CLUB—Piper Aircraft Corp. is studying possibilities of starting a Flyaway Club among private pilots throughout the country. Members would agree to ferry planes from the Lockhaven, Penna., plant to various distribution points in exchange for the cross-country flights and experience gained, and expense money. Membership would be limited to pilots with sufficient experience to be capable of handling the planes under all ordinary conditions. The plan would be an outgrowth of, and supplementary to, the Employees Ferrying Clubs now operated by the Piper company.

NOISE MUFFLER—Reduction of noise factor in private flying, admittedly one of the most serious drawbacks to greater public acceptance, is expected to be one of the first projects to be investigated by the National Advisory Committee for Aeronautics as a result of the tour which Grover Loening, NACA consultant, is making among personal plane manufacturers. Loening, flying a Stinson *Voyager*, has already visited many of the plants, and will prepare a special report on his recommendations for NACA technical studies to improve personal aircraft, on his return to Washington.

FIVE SEABEES—Republic Aviation Corp., hopes to have its first five "Seabee" amphibians (revised model) out on display among its distributors and dealers sometime this fall. But it does not plan to make any deliveries for customers until next spring. Meanwhile, the company is tooling for an even larger production than it had first scheduled as a result of the large flow of orders from individual customers and from dealers and distributors. The revised "Seabee," with 185-hp. engine and with wider cabin providing more comfort and room for its back-seat passengers, will still sell for below \$4,000 as was originally announced. The actual price probably will be about \$3,995.

—Alexander McSurely

Wichita Airport Blaze gar at Wichita, Kansas, last week destroyed 30 planes and the hangar, for an estimated damage toll of \$500,000. Twenty-five of the planes were privately owned.

TRANSPORT

INSTRUMENT FLIGHT TREND

Extra Airports Seen Necessity At All Major Airline Terminals

Industry, CAA officials assert rising proportion of instrument approaches will force nationwide addition of new "bad weather" fields; total effectiveness of revolutionary all-weather techniques believed dependent upon action.

By BLAINE STUBBLEFIELD

Continuously rising proportion of instrument approaches probably will require extra airports for use during bad weather at all major terminals, in the opinion of some CAA and industry officials. Instrument approach and various degrees of stacking increased rapidly in 1943-44, due to military operations, more pilots learning the technique, and more airplanes in use. Rapid expansion, particularly in the transport category, will more than offset the decline in military flight.

► **Traffic Aids**—All the new aids to traffic acceleration, including Civil Aeronautics Administra-

tion's local-range approach system, VHF radio in communications, speedy teletype ground lines, and radar for terminal traffic control, will be effective. But, in the opinion of CAA and some airline traffic men, they will not obviate the need for "bad weather" fields.

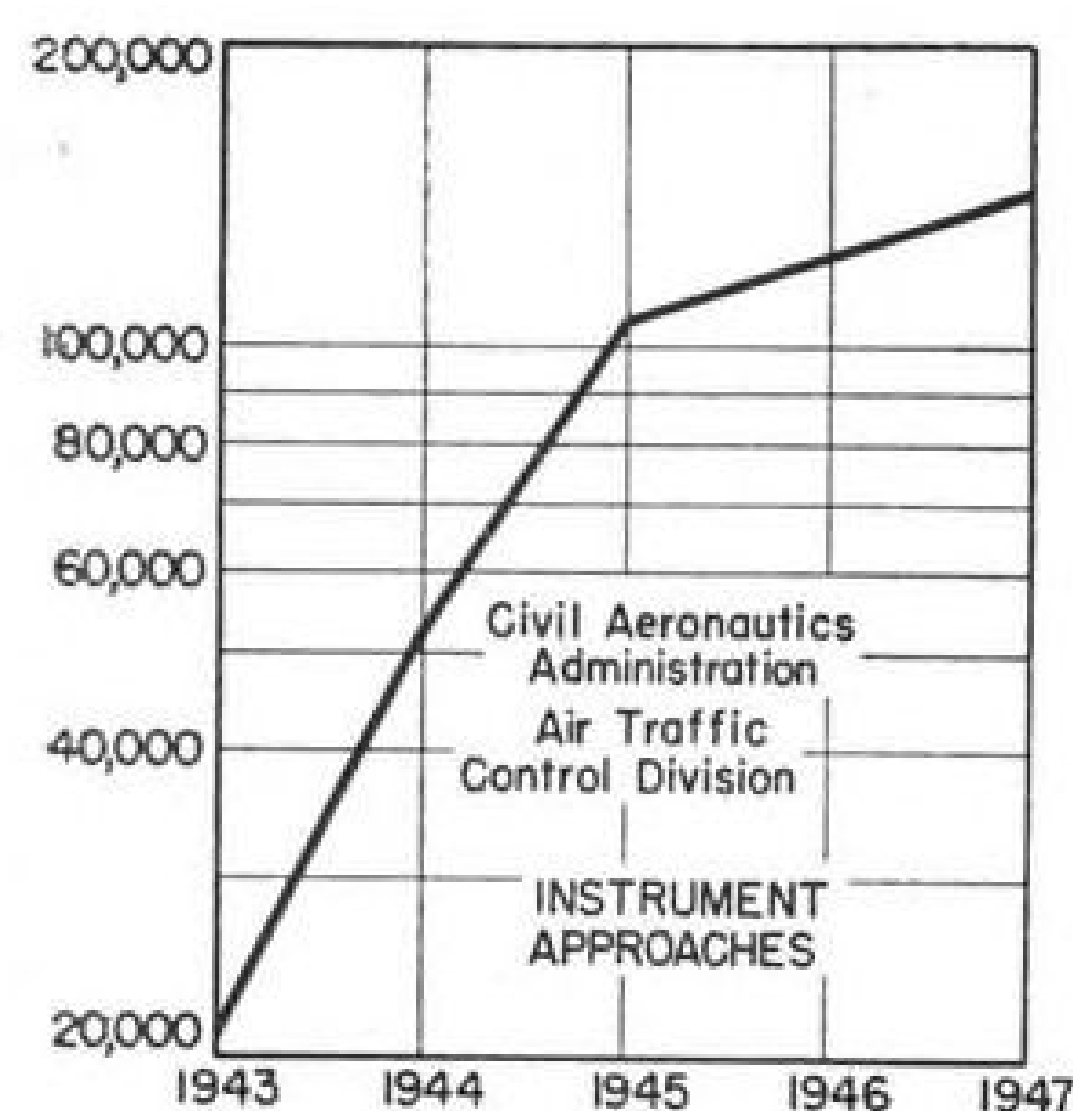
This means that extra investment will be necessary in fields that will be needed over and above those required to handle expansion. Bad weather prevails only a small portion of the time in most regions, and it is hoped a way can be found to utilize such standby ports when they are not needed for instrument approaches.

Hervy Law, manager of Washington's National Airport, stated recently that instrument control is needed there about 20 percent of the time and that the Capital should have two more airfields to handle its traffic in bad weather, even though the present port could take double its present load in fair weather, (AVIATION NEWS, May 14). National Airport is owned and operated by the government, is convenient to official

Instrument Approach And Delay Time

Number of instrument approaches and total delay time in July for 23 domestic traffic control centers, and two in Alaska, are shown on the following table from CAA's Air Traffic Control Division. Each center covers a considerable area, The Washington center, for example, includes Baltimore, Md.; Richmond, and Roanoke, Va., and other points. Flights in bad weather, however, know in advance that other trips are stacked ahead of them at destination, so many spend their delay time on the ground before the start. If this were accounted for, the picture would be five to 10 times worse than it appears here. Also, July has better than average weather. These figures do not reflect CAA's new instrument approach system, which thus far is used only by the military, the airlines not as yet having their airborne equipment.

AREA	INSTRUMENT APPROACHES					TOTAL DELAY TIME				
	Airline	Army	Navy	Non-Scheduled	TOTAL	Airline	Army	Navy	Non-Scheduled	TOTAL
Albuquerque.....	32	14	18	1	65	:32	1:06	:12	:00	1:50
Anchorage.....	10	79	18	4	111	:31	2:01	:16	:10	2:58
Annette.....	48	31	29	2	110	:43	:45	:36	:01	2:05
Atlanta.....	244	154	12	1	411	2:08	6:40	:27	:00	9:15
Boston.....	164	51	15	3	233	4:36	1:35	:22	:00	6:33
Chicago.....	149	41	9	0	199	13:40	2:09	:43	:00	16:32
Cincinnati.....	126	59	13	4	202	2:01	6:34	:00	:05	8:40
Cleveland.....	203	37	18	6	264	3:49	2:56	1:03	:00	7:48
Denver.....	44	13	0	0	57	:52	:38	:00	:00	1:30
Detroit.....	90	11	1	1	103	8:59	1:18	:00	:09	10:26
Fairbanks.....	5	56	3	0	64	:15	1:17	:00	:00	1:32
Fort Worth.....	163	87	21	4	275	10:10	17:04	1:52	:07	29:13
Great Falls.....	0	2	0	0	2	:00	:00	:00	:00	:00
Jacksonville.....	46	65	10	3	124	:30	2:29	:04	:00	3:03
Kansas City.....	58	23	8	0	89	:00	:06	:00	:00	:06
Los Angeles.....	369	294	251	1	915	10:47	18:52	12:50	:00	42:29
Memphis.....	147	90	2	0	239	4:46	6:57	:00	:00	11:43
Miami.....	4	2	2	0	8	:06	:00	:00	:00	:06
Minneapolis.....	63	27	0	0	90	2:04	1:12	:00	:00	3:16
New York.....	656	159	16	15	846	133:00	17:57	:55	1:38	153:30
Oakland.....	226	161	334	0	721	4:21	5:58	16:53	:00	27:12
Pittsburgh.....	494	30	5	11	540	4:12	:07	1:11	:32	6:02
St. Louis.....	28	20	4	1	53	:39	:32	:00	:00	1:11
San Antonio.....	51	107	17	29	204	:43	1:17	:54	1:42	4:36
Seattle.....	102	106	50	6	264	:04	1:58	:25	:03	2:30
Washington.....	398	114	128	5	645	26:34	8:20	7:18	:00	42:12
TOTAL.....	3920	1833	984	97	6834	236:02	109:48	46:01	4:27	396:18



Instrument Increase: This curve, produced from CAA data, shows the increase in number of instrument approaches at fields within the U. S., beginning in 1943. From the present to the end of 1947, the curve is based on estimates. It includes military, scheduled and non-scheduled flight. Increase in civil aviation will more than offset the decline in military operations, thus the rise continues through the indefinite future, though at a more moderate rate than in 1943-1944.

observation, and probably will serve as a traffic laboratory.

► **Schedule 'Ceiling'**—Main result of stacking is low schedule performance and loss of patrons. It puts a ceiling on reliability of air services. It is believed that the improved aids soon to be in use, plus extra airports, will result in nearly 100 percent schedule performance. But the cost, especially of the airports, and the problem of surface transit between them, is not an attractive picture at this time.

Bad weather fields should not be "alternate" fields, say CAA spokesmen. There should be no need for changing the destination of planes in flight.

Not only the weather but current trends back to convenience scheduling (to please passengers who nearly all want to leave, on New York-Chicago for example, at 5 p.m.) will aggravate stacking. If schedules could be scattered all around the clock, the problem would be much easier—but they can't. Contributing also to terminal jams will be the faster planes of a few months hence.

► **Plane Size**—One partial remedy not much discussed thus far is big airplanes. Doubling the size of the airplanes, for example, would halve the number of traffic movements (departures figure impor-

tantly in total delays). Thus the merit of frequent trips with smaller planes may have to be re-evaluated on many routes.

The experts get a gleam in their eye when they talk about radar. They want traffic controllers to be able to see those arriving and departing craft. In the "soup," pilots can report their positions only with reference to the various electronic fixes they pass, and that's not good enough. Location with radio compass is not fast enough for approach procedure. Technicians say they probably soon can give the towers equipment with which they can scan a 30-mile radius.

Chances are that airborne radar will scan only a frontal segment, for a while, possibly also downward for true altitude. Universal coverage seems farther in the future, due to weight and cost. Some of the bolder observers theorize that with adequate radar, airplanes can go anywhere, without much traffic control, but those responsible for safety are more cautious.

► **Time Saver**—Radio VHF communications will be a big time-saver too. Much repetition of messages on low frequency, due to static, wastes time. Time used up by persons working in the control procedure is what stacks the planes.

The automatic teletype for ground line communication can take multiple simultaneous messages, and is many times faster than human hands and voices. It will eliminate most of the delays that have bottlenecked surface

Radar Landings

First public demonstration of the Gilfillan radar landing control unit was given before 200 Southern California airline and airport officials at Los Angeles Airport recently.

Throughout the afternoon an Army plane was "talked down" in a series of simulated "blind" landings.

► **Future Plans**—Army equipment, requiring the use of a five-man crew at the radar controls, was used. Gilfillan Bros., Inc., Los Angeles radio manufacturers before the war, plan a three-man mobile RLC unit for general airport use, and have designs for permanent installations as part of the control tower landing aids of major airports.

communications on heavy routes.

Automatic position reporting probably can be accomplished in the early future. Electronic fixes can be spaced all along a route. As the plane flies through them, a transmitter is actuated by a code for each position, which is automatically sent to the base and automatically posted. Such a gadget can also give a speed reading, and it can make advance speed calculations on past averages.

► **New Hope**—With equipment now in sight, CAA hopes that 100 to 150 airplanes can be put over a section of route per hour—which would be four or five times better than now—and it hopes for instrument approaches at the rate of one per minute, instead of the present national average of about 10 minutes.

Industry Meetings On Air Policy Set

Unsettled points of Chicago parley to get manufacturers' consideration with emphasis on airworthiness requirements.

Plans are being made for industry conferences in Washington at which representatives of various phases of aviation will discuss matters of basic U. S. air policy left unsettled at last year's International Civil Aviation Conference at Chicago, and dealing particularly with such technical items as airworthiness requirements.

U. S. representative on the airworthiness requirements subcommittee of the Air Navigation Committee of the Provisional International Civil Aviation Organization, now meeting at Montreal, is Charles F. Dycer, of Civil Aeronautics Administration's flight engineering division. The first subcommittee meeting on Chicago document dealing with technical annex G, airworthiness requirements, probably will be held at Montreal late this year or early next.

► **Date Proposal**—In the meantime, there is hope that the first conference on U. S. policy may be held about Nov. 1, with representatives of the Air Transport Association, Aircraft Industries Association, Aircraft Owners and Pilots Association, Army and Navy, CAA and Civil Aeronautics Board present.

The real work of PICAQ began last week in Montreal as its two

main technical committees, air transport and air navigation, opened meetings to draw up international standards necessary for rapid development and efficient operation of world air transport.

Urgency of their tasks was emphasized by Dr. Edward P. Warner, president of PICAQ's Interim Council and former vice-chairman of CAB, in welcoming the delegates at first meetings of the committees.

► **Conversion** from military to civil aviation is taking place, he pointed out, and if standard regulations for international flying are not agreed on, non-standard action will be taken to meet the need.

As the two committees began discussions, preparations were made for initial meetings of the various subcommittees which will study and recommend on special aspects of overall problems.

► **Officials**—Chairman of the 13-member Air Navigation Committee is A. R. McComb, Australian delegate to the Interim Council. The Air Transport Committee of 14 members is headed by Dr. F. H. Copes Van Hasselt, delegate of The Netherlands.

The U. S. is represented in the navigation unit by Commander Paul Smith, while Col. Gerald Brophy, Council delegate, is also on the transport committee.

Other states which sent delegates to the Air Navigation Committee include Belgium, France, Iraq, Eire, New Zealand, United Kingdom, El Salvador, Czechoslovakia, Canada, Spain and Brazil. The same nations are represented on the Air Transport Committee, with the addition of Switzerland.

Examiner Rebukes Caribbean, National

Holding National Airlines and Caribbean-Atlantic Airlines almost equally responsible for willful violation of the Civil Aeronautics Act, a CAB examiner has recommended denial of acquisition of control of Caribbean-Atlantic and, in an unprecedented move, suggested an investigation of the carrier to determine whether it is fit, willing, and able to furnish the service for which it is certificated.

In a sharp report adversely critical of the transaction, Examiner Ferdinand D. Moran found that National has "held and exercised" physical control of Caribbean-Atlantic since Apr. 10, 1945, the date of an acquisition letter



PRESIDENTIAL GIFT TO DE GAULLE:

This is the C-54, marked with the Cross of Lorraine and the French colors, that President Truman recently presented to General de Gaulle. Pictured at Washington National Airport, the former Army plane has made two trips between France and the U. S. with high French officials. De Gaulle himself has not used it. On his visit to Washington, the general flew in an Avro York presented to him by the British Government, in August, as his personal plane.

of agreement between the two presidents, and "has held the power to control" since May 15, when more than 80 percent of Caribbean's stock was turned over to National. The denial termed acquisition "inconsistent with the public interest."

► **Denial Basis**—Recommendation for a divestiture order was based also on other factors which Moran said precluded approval of the merger. Principally among them were lack of economically feasible integration of widely separated routes and excessive purchase price.

Indicative of the examiner's apprehension over the situation—which might be reflected by the board if it accepts his recommendations—is this statement:

"The attitude and conduct of the management of both companies concerning this transaction are not conducive to the best development of the industry and should be rebuked. If an air carrier is permitted to acquire another air carrier such as here, the door is wide open for similar violations by other carriers."

► **Equipment Lease**—The examiner advised approval of an equipment leasing agreement between the two companies.

AA Overseas Official

Terrell C. Drinkwater, vice-president of American Airlines, in charge of route development, will also be vice-president of American Airlines Overseas, Inc., formed by AA as a successor to American Export Airlines, which it recently acquired. Drinkwater has been stationed at Washington for some time and will continue to maintain his headquarters there.

Services Changed By Seven Airlines

New service changes, most of them effective Oct. 1, have been reported to the Civil Aeronautics Board by the airlines, as follows:

► **American**—Added two round trips daily between New York and Los Angeles via Detroit, Chicago and Oklahoma City; added non-stop daily flights between New York and Chicago, Tulsa and El Paso, and Bristol (Va.) and Lynchburg, and resumed service at Douglas, Ariz.

► **Braniff**—Added one round trip daily between Houston and Galveston on its extension of AM 15 from Houston to Dallas.

► **Continental**—Added one round trip daily between Denver and Kansas City via Hutchinson, Kans., one round trip daily between Denver and Tulsa via Hutchinson, and resumed service at La Junta, Colo., and Garden City, Kans.

► **Northwest**—Added one round trip daily between New York and Boston, bringing the total to 15, and deleted one round trip daily between Boston and Portland, and Bangor and Presque Isle, Maine.

► **Mid-Continent**—Suspended service at Huron, S. D., due to airport conditions.

► **TWA**—Added a nonstop daily flight between Detroit and St. Louis.

► **Pan American**—Temporarily suspended its weekly flight between San Juan and Port of Spain; eliminated its weekly round trip between San Juan and Paramaribo, and suspended service at Point a Pitre, Guadeloupe, and Fort de France, Martinique.

Seven U. S. Lines Get C-54's As Surplus Agency Allots 40

Record domestic apportionment of the big transports sends dozen to PCA while Netherlands government gets 14; only other foreign award is four to Swedish line.

Twenty-two Douglas C-54's, including the largest single group yet to go to a U. S. airline, were allotted to domestic airlines last week by the Surplus Property Administration in the second allocation of this type of plane.

► **Domestic**—As a sequel to the 20 C-54E's previously allocated to the three U. S. international carriers, Pan American Airways, (8), Transcontinental & Western Air, (6), and American Airlines System, (6), the latest disposition was as follows: C-54 basics—12 to Pennsylvania-Central Airlines; C-54B's—two each to American, TWA, United Air Lines and Western Air Lines, and one each to Delta Air Lines and Northwest Airlines.

► **Foreign**—PCA's record domestic allocation of 12 was exceeded, however, by an allotment of 14 C-54A's to the Netherlands government. Four C-54B's went to A. B. A., Sweden.

The allocation, 18th by SPA and the predecessor Board, disposed of 49 surplus transports, including the 40 C-54's. Five DC-3 type planes, all C-53's, went one each to General Motors Corp., Eastern

Airlines, Northwest, PCA and TWA. A sixth was allocated to Iberia Airline, Spain. Three Lockheed Lodestar C-60's went one each to TACA Airways, the News League of Miami, and Air Carrier Supply Corp.

The current batch of ships brings to 298 the number of Douglas transports allocated from surplus to domestic and foreign operators; 210 domestically. The agency disclosed that additional allocations to foreign lines are being considered and probably will be announced soon.

► **Parts Ready**—Arrangements have been made by RFC whereby parts for the surplus C-54's will be declared surplus directly from Army stock as needed.

Incidental to the surplus announcement, it was learned that C-47's, cargo version of the DC-3, have been removed from allocation, and are available in surplus for general acquisition.

Canada Link Sought

Eastern Air Lines is seeking extension of its system to link Latin American gateways with other major U. S. and Canadian cities through one-company integrated trunk line service.

EAL has requested certification by the Civil Aeronautics Board for a route from New York City to Montreal and Quebec, Canada, via Poughkeepsie-Kingston, Albany-Schenectady-Troy, and Lake Placid-Saranac Lake, N. Y.; and Rutland, Montpelier-Barre, and Burlington, Vt.

Jacksonville Case Closed

The Civil Aeronautics Board last week denied a petition of Eastern Air Lines for reargument and reconsideration of the Board's decision granting National Airlines non-stop service between Jacksonville and Miami on AM 31. Significantly, the Board issued a supplemental opinion that reviewed the history and meaning of route authorizations and clarified their scope and description.

Non-Stop Trend Pushed By Lines

Eight carriers take first step toward more extensive direct route privileges; file consolidated applications.

First procedural step toward more extensive non-stop privileges is being taken by at least eight airlines through applications for route consolidations on file with the Civil Aeronautics Board.

Proposing integration of existing routes into single new routes, are:

► **American Airlines**—AM 18, AM 23, AM 4.

► **Braniff Airways**—AM 9, AM 15, AM 50.

► **Continental Air Lines**—AM 43, AM 60 and AM 29, AM 43.

► **Eastern Air Lines**—AM 10, AM 40.

► **Northeast Airlines**—AM 27 (except foreign segments), AM 65, 70.

► **Northwest Airlines**—AM 3, AM 69.

► **Transcontinental & Western Air**—A M36, AM 61 and AM 2, AM 37, AM 44, AM 61, AM 67.

► **United Air Lines**—AM 1, AM 62, AM 66.

Action on only one of these proposals has yet been taken. American's was the subject of a recent prehearing conference. Petitioning to intervene in the case are EAL, Northeast, and TWA. Eastern points out that granting of AA's application would enable American to operate non-stop between Boston and points south of New York-Newark, thereby gaining a better competitive position over EAL for traffic between such points. Eastern's certificates for AM 5 and AM 6 require flights serving Boston to originate and terminate at points south of Richmond, Va., or west of Charleston, S. C.

Northeast alleges that granting American's consolidation would "prejudge" its own application for routes between Boston and Washington and New York-Newark and New Orleans. A "predetermined advantage" would accrue to AA, Northeast says, if American's proposed merger with Mid-Continent Airlines and extension of AM 23 from Nashville to New Orleans were approved prior to hearing in the Middle Atlantic case.

28-Passenger DC-3 Begins AA Service

Seating arrangement in the 28-passenger DC-3 which American Airlines placed in service Oct. 1, between New York and Boston on three daily round trips, was designed and built by AA engineering and overhaul personnel.

Cabin interior was lengthened by reduction in size of the forward compartment. In contrast with the usual 21-passenger DC-3, with a single row of seats on one side of the aisle and a double on the other, this plane has two double rows. Aisle and seats have been narrowed.

► **Passenger "Chores"**—Passengers take care of their own luggage, an interesting departure in view of a recent statement by C. R. Smith, chairman of American's board, that air travelers will have to carry their own luggage and buy meals if fares are to come down to 3 cents a mile. Box lunches were to be served on the 28-passenger plane. A baggage compartment has been provided back of the stewardess' station for heavy luggage, and overhead racks are installed for hand luggage. The ship is being used on some regular and some new flights between the two points.

Regional Feeder Case Outlines CAB Concern

The Civil Aeronautics Board, during oral argument in the Rocky Mountain area case last week appeared primarily concerned with length of the trial period of certification, cost to the government in main subsidies, and feasibility of serving small communities located closely together with the plane types proposed by most of the applicants.

First of the regional feeder line proceedings, this case carries examiner's recommendations for temporary certification of Ray Wilson, Inc., of Denver, for two routes connecting Denver and Grand Junction, Colo., via intermediate points and a long route between Salt Lake City and Albuquerque; Summit Airways, Inc., of Laramie, Wyo., for a route from Billings, Mont., to Cheyenne, Wyo., with an additional loop to serve four communities in western Wyoming, and several additions to the Western-Inland system (AVIATION NEWS, June 4).

Great Lakes Hearing Spotlights AA Testimony

Testimony by Charles A. Rheinstrom, American Airlines traffic vice-president, in the Great Lakes area route hearings, started last week at Indianapolis, brought hours of cross examination from attorneys for United Air Lines and Transcontinental & Western Air.

Rheinstrom told Civil Aeronautic Board examiners William F. Cusick and Richard Walsh, in support of one of the choice routes to be allotted by the Board between Cleveland and St. Louis via Indianapolis, that award of the route to American, also sought by United and TWA, would give Indianapolis through international air service to both Canada and Mexico.

► **Added Charge**—Objections by other airlines seeking permits for similar routes were that East-West transportation would not be shortened materially by the proposed American service, and that AA actually was attempting to establish a new transcontinental route.

Baltimore Terminal Status Before CAB

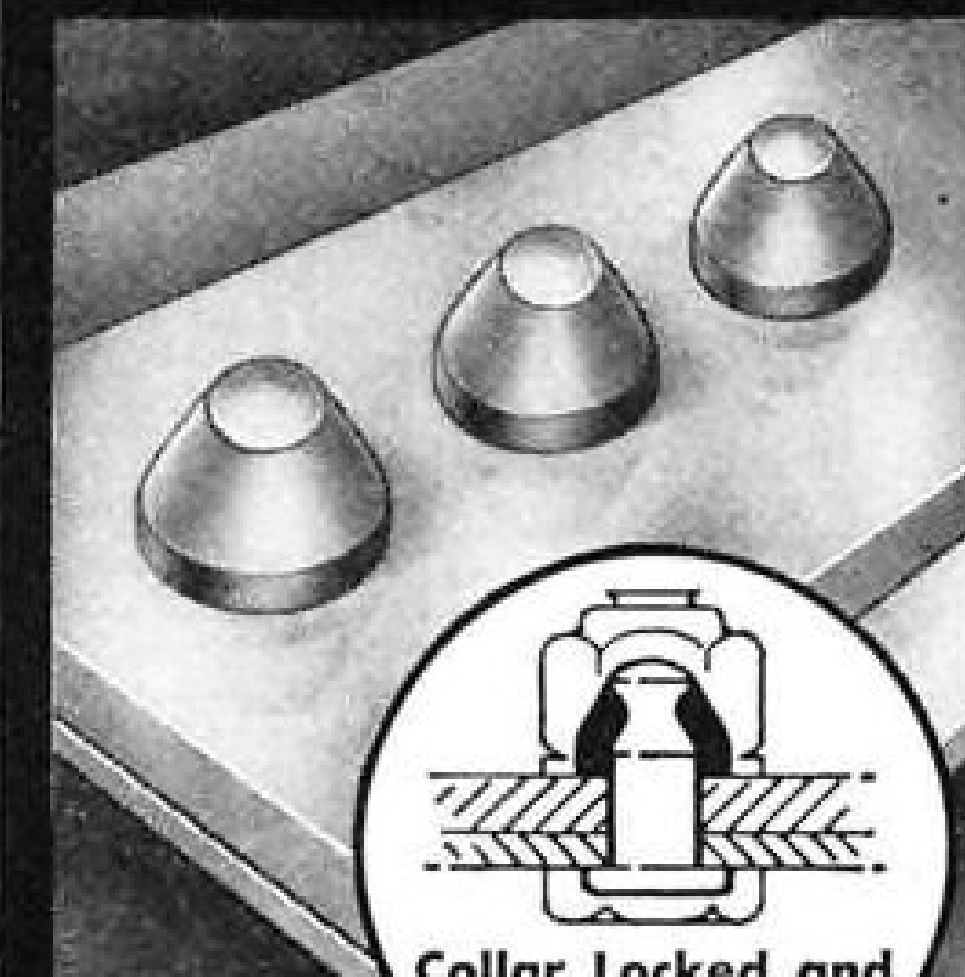
The question of Baltimore's designation as a co-terminal on North Atlantic routes rests with the Civil Aeronautics Board. Examiner's report, briefs, and oral argument were waived following a recent hearing.

Principal supporters of Baltimore's application for the designation were Maryland Sen. Radcliffe and Tydings and Reps. D'Alesandro and Fallon; Gen. Julian L. Schley, executive director, Baltimore Aviation Commission, and Charles H. Buck, chairman, State Aviation Commission of Maryland.

► **Denial Danger**—The witnesses contended that denial of the city's application would be permanently injurious to its attempt to maintain competitive standing among North Atlantic ports. Furthermore, they pointed out, Baltimore has a number of diversified industries, strong community of interest with Europe, a large passenger and traffic cargo potential, and advantages of having been a trans-Atlantic air terminal.

Plans have been made for purchase of 2,500 acres about eight miles south of the center of Baltimore for an airport.

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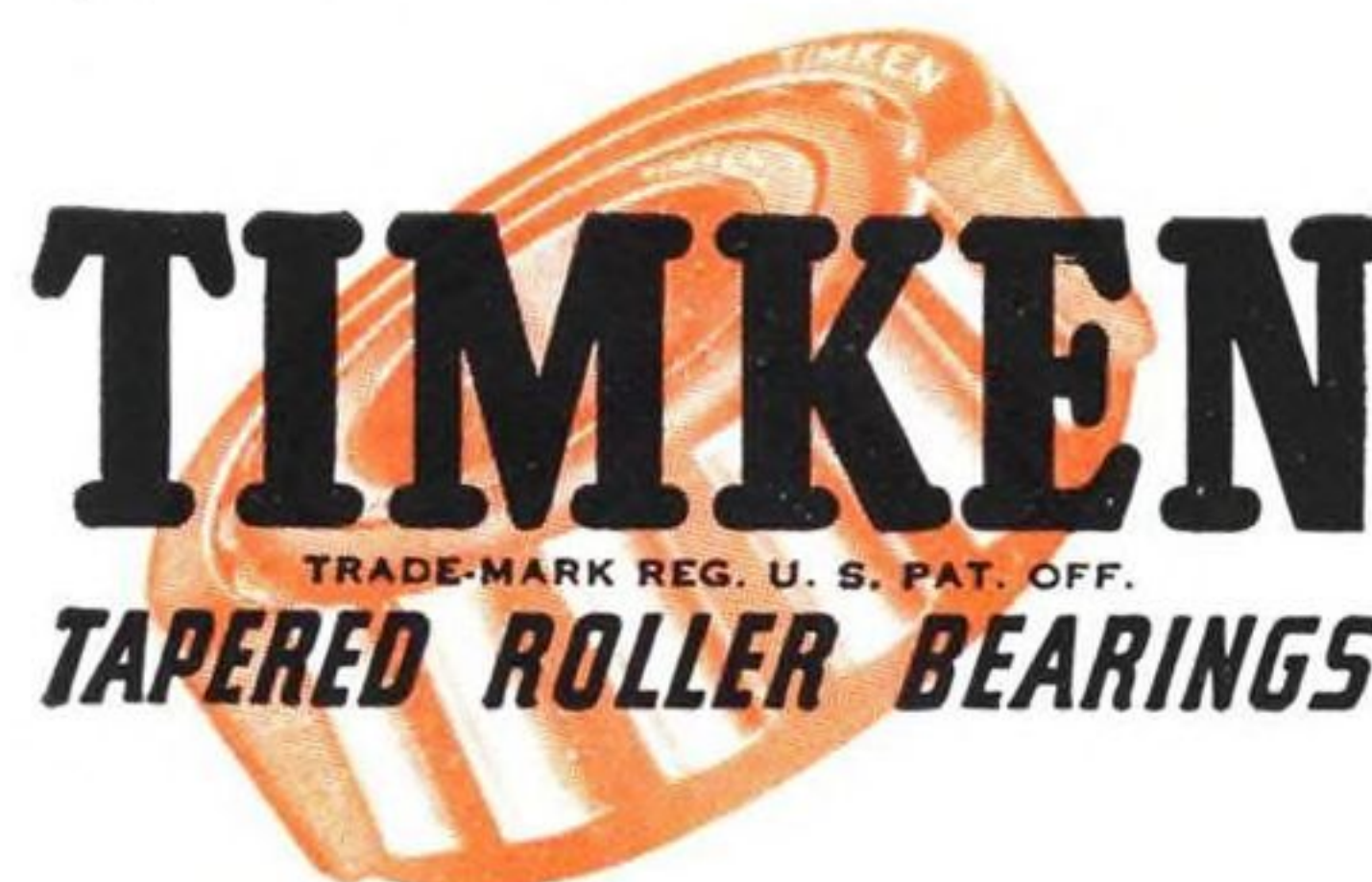
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