

Aviation News

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AUGUST 2, 1943

50 CENTS



General Henry H. Arnold, Commanding General U. S. Army Air Forces—An exclusive photo taken for the 36th Anniversary of the Army Air Forces observed on August 1. See story page 10.

NEWS HIGHLIGHTS

New Plan for Vigorous Air Chamber: Industry committee proposes extensive changes in national trade association's organization.



Separate Air Force Reports Persist: High officials concede plan is being discussed seriously in government and military circles.



More and Bigger Gliders Are Ahead: Production reaches new high, with maximum output scheduled early next year.

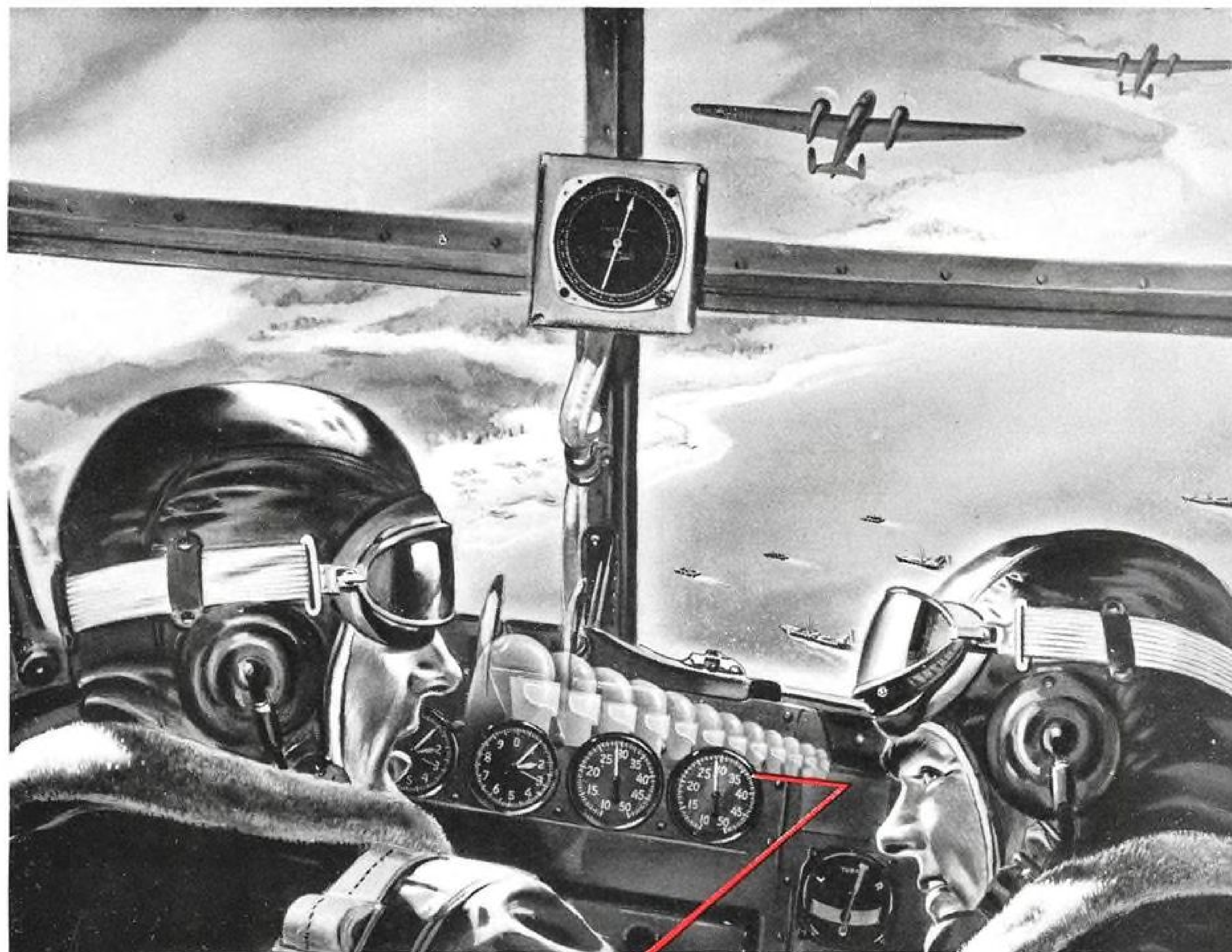
Airlines to Set Up Clearing House: Central bureau to handle inter-line financial accounts proposed by Air Transport Assn.



Precision Bombing Gains Stature: Sicilian, Italian, and European campaigns verify AAF's theories of pinpoint attacks.



United to Join Airlines Committee: Lone domestic hold-out to sign up with other companies for private foreign routes.



"THE INVISIBLE CREW" puts Superhuman Life Into Every U.S. Fighting Machine

TO ANY PILOT, his plane is alive. He calls her the "Susy Q" or the "Mary Ann." It's the same with ships, and tanks. They all have a special kind of life. And to put this superhuman "life" into mere machines is a job for "The Invisible Crew."

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BACK UP OUR BOYS...BUY WAR BONDS

THE AVIATION NEWS

Washington Observer

THE United States was never closer to realization of a Separate Air Force than late last week as this column was written. The subject has been alternately hot and cold for years. But this time it may "take."

It is a subject everyone in Washington talked about privately, but nobody would say anything publicly. The persistence of the subject this time is giving it strength. It won't be downed. Highly placed officers in the Army seem convinced that the White House, for the first time in the many years of controversy on the subject, is leaning heavily toward unification of all our various air forces.

In the midst of these reports several significant changes were made among high air posts in the Army and the Navy. Maj. Gen. George E. Stratemeyer, Chief of Air Staff, has been succeeded by Maj. Gen. Barney M. Giles. Stratemeyer, in the meantime, is given "an undis-



GILES



STRATEMEYER

closed assignment of extreme importance." If a Separate Air Force is created, General Arnold in all likelihood would head it. Some observers think it logical that Gen. Stratemeyer, in turn, might become head of the Army division of the Force.

Over on the Navy side, where airmen have been vainly trying to get an airman on the chiefs of staff, a move was made in that direction with the designation of Vice Admiral John Sidney McCain as Deputy Chief of Naval Operations (Air) in the Office of the Chief of Naval Operations. Most Navy airmen are not as happy over prospect of a Separate Air Force as are their opposite numbers in the Army. One of the reasons stems back to organizational detail, a problem the Army is in better position to meet than is the Navy. Another is that it would be largely an Army show. The whole story will be told publicly before long.

Reports are gathering momentum that Charles E. Wilson, WPB Executive Vice-Chairman, is leaving the Board about Sept. 1. Wilson won't confirm it. Incidentally, Wilson and WPB Chairman Donald Nelson seem to be hitting their stride with WPB operating more smoothly than it has in weeks.

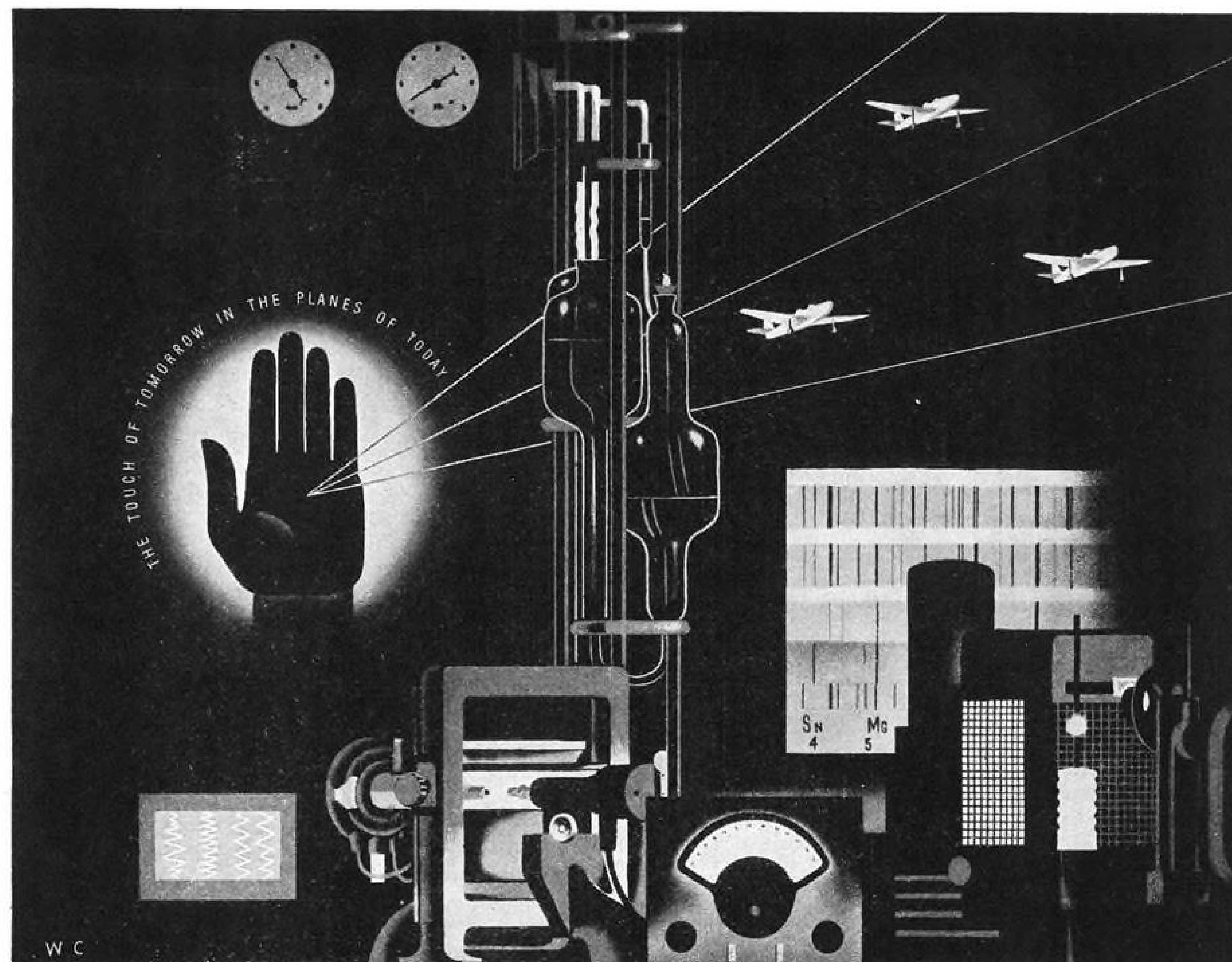
Wilson's next trip to aircraft factories around the country, to bolster what appeared for a time to be lagging production, is still up in the air. The date of departure and the plants he will visit have not yet been decided. He had planned to carry his plea for production to individual plants after a check of production figures, showed some lag.

Good news from the fighting fronts means more headaches at WPB, and Donald Nelson is taking extraordinary steps to avoid complacency and overconfidence which might harm the war effort. He told his staff that "We are still a hell of a way from Berlin, and that's where we're going."

Radar, one of our most closely-guarded secrets, has gone back on the "secret list" and War and Navy Departments are refusing to pass stories or advertisements which involve Radar. Chief reason is that too much information was being given out piece-meal, manufacturers were revealing plant locations which had been restricted, and there was a rush to get on the Radar bandwagon.

The Office of War Information is preparing a report on the performance of our warplanes—the second on this subject. It should be cleared and released in a few weeks. The next report on the OWI agenda will be on the Air Service Command, an organization which has done a tremendous job with a minimum of fanfare and publicity.

Air, rail, highway and water transportation men are awaiting with mixed emotions the release of Senate hearings on the long-discussed proposal for the integration or coordination of all the country's transportation systems. Hearings have been held on the proposal to set up a dozen or so regional systems, each with a coordinated set-up of all types of transportation involved in the area served.



Organizing Atoms for a Better Aircraft Engine

A visitor at the Ranger plant once remarked: "Scratch a Ranger engineer and you'll find a scientist!" In creating the Ranger in-line, air-cooled aircraft engine, Ranger engineers began by concerning themselves with the very atoms of which its metal alloys are composed. They made use of scientific instruments and techniques unexcelled anywhere in the world in scope and precision. And the same advanced metallurgical and chemical laboratory facilities are today guarding the quality of Ranger materials in the rush of war-time production. Spectroscopic, chemical and X-ray analyses of materials and finished parts are as much a part of Ranger production as milling machines, turret lathes and grinders.

All Ranger engines are put through the

acid test of actual operating conditions in scientifically equipped test cells. Ranger's experimental test cells can simulate flying conditions in temperatures as low as -70°F . and at altitudes up to 40,000 feet. Some of Ranger's tests on auxiliary devices are not duplicated anywhere in the aviation industry. In Ranger's "flying laboratory"—a tactical war plane fully equipped with scientific test instruments—pilots and engineers daily add new knowledge to all that has been discovered before.

While thousands of Ranger engines are turning in a remarkable record in the planes of the United Nations, Ranger engineers persist in researches which will make even more readable news tomorrow . . . except in Axis newspapers.

"ON THE BEAM"

"The independence and liberty you possess are the work of joint councils and joint efforts, of common dangers, sufferings and successes."

—Geo. Washington's Farewell Address

Buy U. S. War Bonds and Stamps

RANGER AIRCRAFT ENGINES

Division of Fairchild Engine and Airplane Corporation • Farmingdale, Long Island

Even the most non-air-minded members of Congress are beginning to take an interest in the future of aircraft production and airline operation. Consequently it would be a good idea for executives in both of these branches of aviation to keep an eye on even the most obscure congressman when he starts talking aviation. Lots of them are having aviation ideas these days—some of them based on most superficial knowledge—but one of them may come up with an idea which will strike public—and more important at the moment—political fancy.

Congress has gone home—at least collectively—but some publicity-minded legislators stay in Washington even during the almost unbearable hot weather. The reason: Because newsmen seeking congressional reaction on current developments can get only to the ones in town. Consequently, don't pay too much attention to congressional reaction to events during the next few weeks. A few exceptions should be made, of course.

There are persistent indications that Mexico is planning to call a meeting of CAPA—Permanent American Aeronautical Commission—in the near future to discuss aviation problems not directly connected with the war. The State Department's Tom Burke, U.S. delegate, has had no official confirmation. CAPA has been inactive since the war started.

The two or three day July 4 holiday taught WPB and Army production men here a lesson. Warnings will go out to all plants to watch their step on Labor Day. WPB was hard pressed to find a day when unit production of aircraft was as low as it was on July 5.

High Washington officials are eager to point out to newsmen the reason for large stocks of completed materiel in warehouses along the eastern seaboard and elsewhere. They admit these stocks up until a month or so ago were in some cases huge. But they also want the public to try to realize how fast these stocks will go down as more shipping becomes available and as our troops move on into Europe. For example, a stock of aircraft engines could disappear entirely within a few months. This engine supply, in crates, does exist.

WPB is anticipating postwar criticism of its program in the construction of too many war plants and too much war equipment. High WPB

officials are perfectly willing to face this criticism, however, if lives are saved by over-production.

Top WPB officials say that the airframe industry has sufficient plant space at present to take care of need for probably the next year, but some additional construction can be expected for aircraft engines, despite the good job the manufacturers already are doing.

Little publicized, but of great import, is a WPB move to review the entire Army-Navy war production program, including airplanes and ships. WPB officials freely concede that in wartime the Army and the Navy should have too much rather than not enough of any needed material, but as one official said, they shouldn't have "too much, too much." It is privately predicted in Washington that the war production program will undergo important changes in coming months.

There is now no foreseeable cessation in demand for airplanes, ships, radio, and radar, according to high government production officials. They see no possibility of the demand for planes falling off as was the case in tanks. There is always the possibility that the enemy may turn up with a revolutionary type plane which might out-fight our best. Most top officials doubt that the enemy can pull this trick, but the possibility is always present.

In this connection special interest attaches in the notation of Dr. George Lewis' survey trip announcement from NACA that special problems concerned with high-speed aircraft will be studied. For example, tremendous problems arise as maximum speeds get beyond 450 mph. with propellers. It would not be beyond possibility that we are already approaching the 500 mph. speed and must make special effort from now on to overcome attendant engineering difficulties. We will have to beat the enemy at this job.

Most top-flight engineers in Washington reflect a coolness toward the glider for any purposes but those of war, with its necessary waste and expense and lack of the economy element. One authority said the other day that "so far we have seen no arithmetic that makes sense which would point to the glider as an important transportation aid on long flights in the foreseeable future." Most authorities expect that the powered aircraft of the future with great improvements in economy of operation will lead the way in cargo and passenger transport.

A Heavy Duty Lever Switch you can literally Kick Around

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Nickel plated bronze springs have spun-in heavy duty contacts. Their flexible arrangement, with either locking or non-locking action, has made this Mossman No. 4101 Lever Switch extremely valuable in such applications as Radio Transmitters, Signal Systems, Lighting Systems, Aircraft Electrical Controls, and Airport Lighting and Signalling.

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2. Contacts are spun into nickel plated phosphor bronze springs. Ample wiping action of the heavy duty contacts insures clean contact surfaces, and provides rapid liberation of heat and resultant efficiency with longer life.

3. Spring contact pile-up insulators are triple XXX Bakelite wafers assembled under pres-

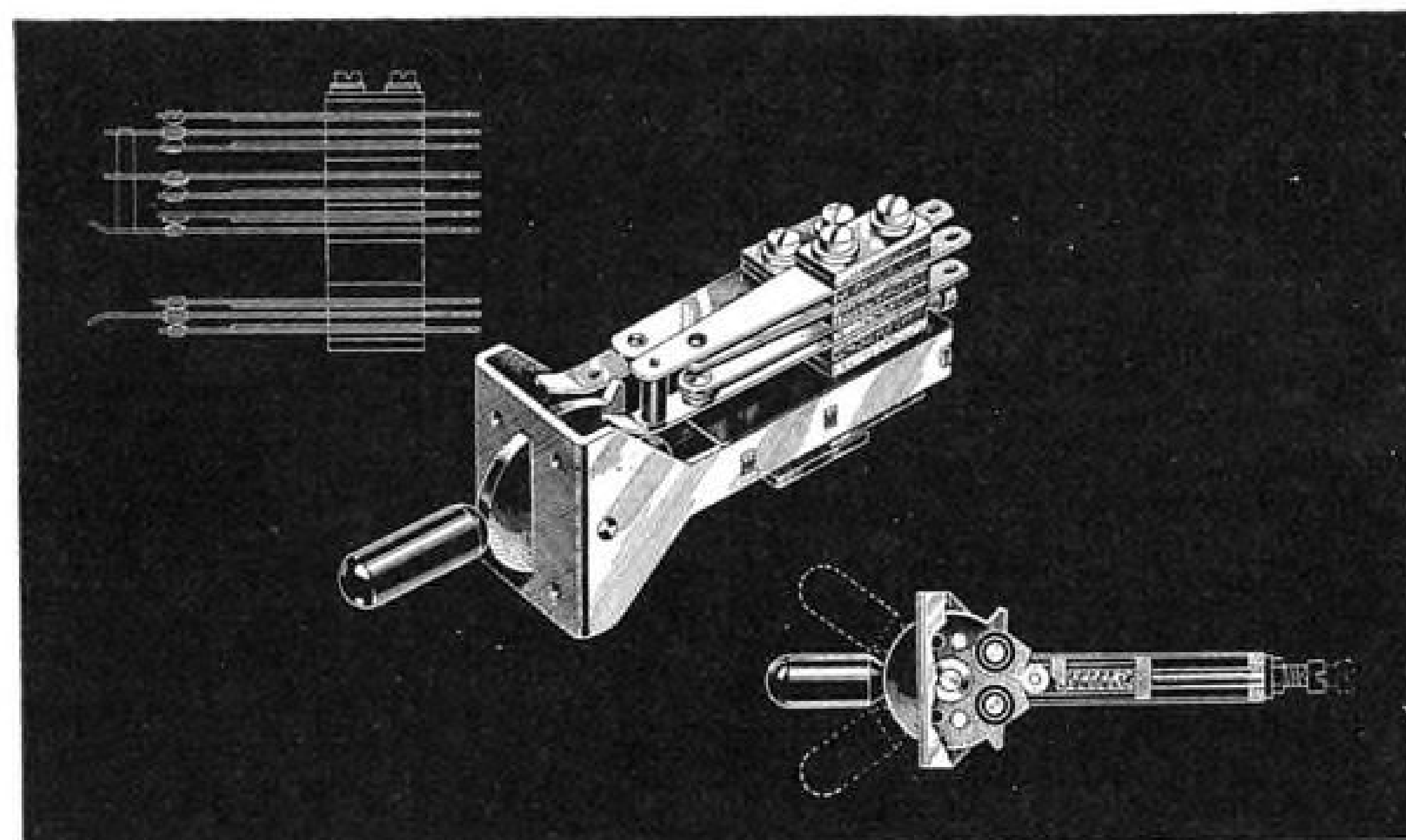
sure to insure against distortion. Edges are coated with Bakelite varnish. All insulation specifications conform to the highest standards.

4. Stops are set into the latch plate to effect locking, non-locking and no-throw positions. Lever action can be supplied with change from two-position to three-position; also from locking to non-locking, and vice versa.

This Mossman No. 4101 Lever Switch is one of a line of precision electric components which includes many types of heavy duty multiple circuit lever switches, turn switches, push switches, plug jacks and special switching components.

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AVIATION NEWS

August 2, 1943

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About AVIATION NEWS

AVIATION NEWS herewith makes its appearance to fill the need for a timely and authoritative presentation and analysis of aviation developments. Its purpose is to serve those key executives and officials who, in order to soundly plan and develop our aviation future, must keep pace with swift moving aviation events and their significance.

As publishers of *Aviation*, America's oldest aeronautical magazine, we have been acutely conscious of the broader needs for information created by the continuing expansion of the aviation industry. This first issue of AVIATION NEWS marks the beginning of a complete information service to meet clearly defined war and postwar requirements. *Aviation*, edited by Leslie Neville, will continue to serve its over 40,000 paid subscribers in all branches of the industry—the designers, engineers and builders; the men who operate, and maintain our air supremacy. *Air Transport*, edited by Fowler Barker, which will make its initial appearance in September, will serve the highly specialized needs of the air carrier.

THE HIGH AMBITION of AVIATION NEWS is to become indispensable to the men who have developed our aeronautical leadership and who are molding our aviation future. Completely, yet tersely, it tells the week's aviation news. Nothing irrelevant is included; nothing really important is omitted. AVIATION NEWS will go beyond reporting news events. It will interpret their significance; their relationship to other facts. The saving of the reader's time will always be a requirement.

Publisher of AVIATION NEWS is George W. Pfeil, publisher of *Aviation* and *Bus Transportation*. Robert H. Wood, well known aviation news editor and analyst, will direct the seasoned editorial staff with headquarters in

Washington. Scott Hershey, formerly manager of the Information Department of the Aeronautical Chamber of Commerce, is Managing Editor, with Blaine Stubblefield on special assignments; Merlin Mickel, Transport Editor; Mary Pauline Perry covering war agencies; Scholer Bangs, Pacific Coast Editor. Editors are also located in New York, Detroit and Chicago, with correspondents in other strategic centers throughout the U. S. and abroad.

THIS PUBLICATION has a swift publishing schedule. Editorial forms close Thursday of each week and the publication mails Friday.

Economies in paper usage which we have put into effect make it possible for us to render the additional services represented by AVIATION NEWS and *Air Transport* within our reduced paper quota as established by the WPB.

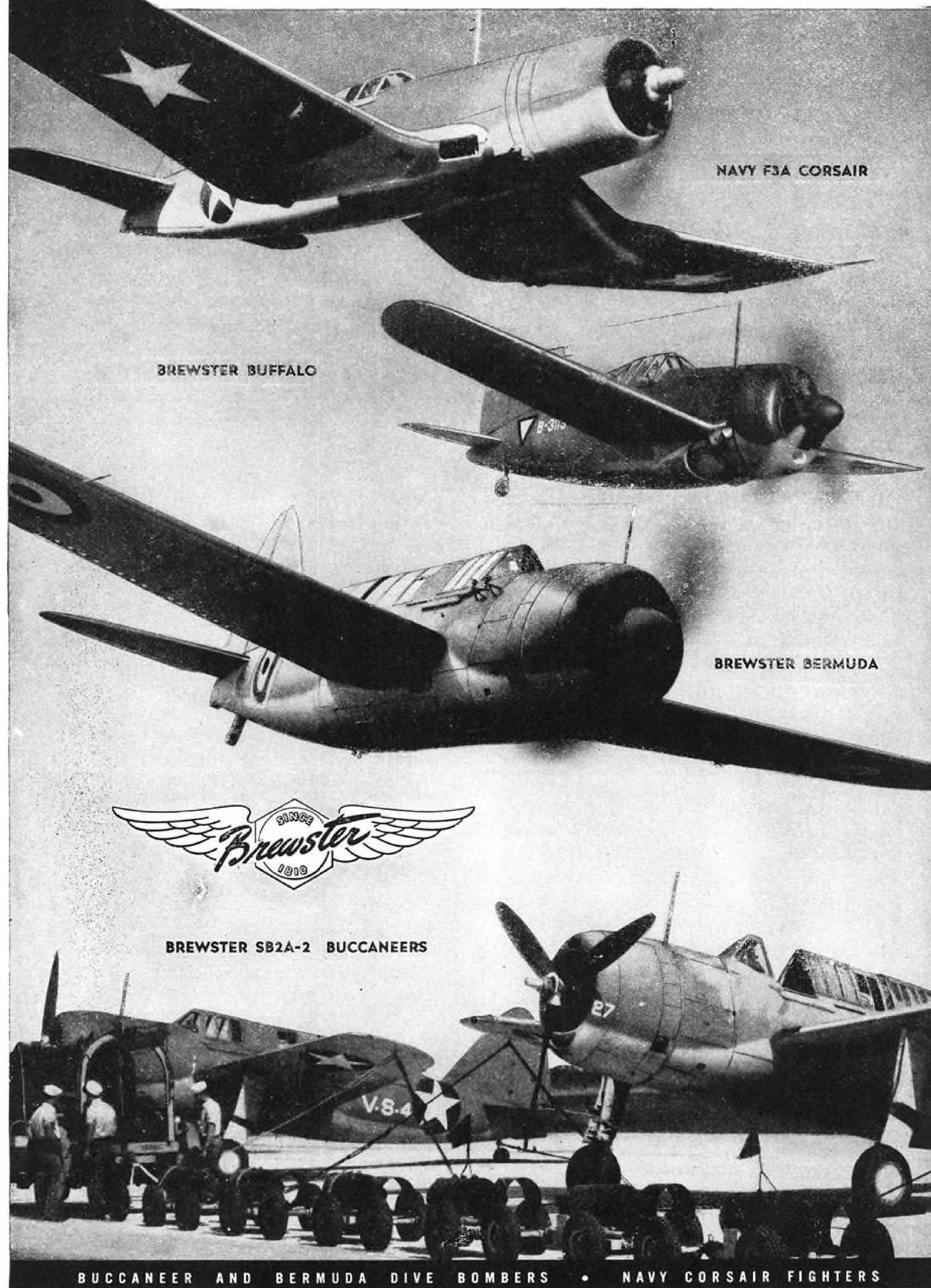
AVIATION NEWS builds upon the foundation of the twenty-two specialized McGraw-Hill publications, each a recognized authority in an essential field. Besides *Aviation*, these include *Business Week*, *American Machinist*, *Factory Management & Maintenance*, *Electrical World*, *Bus Transportation*, *Electronics*, and others.

It is press time for the first issue of AVIATION NEWS. We hope you like it and with each succeeding issue find this to be the invaluable service which we have as our prime objective.

James H. McGraw, Jr.

President, McGraw-Hill Publishing Company, Inc.

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NAVY F3A CORSAIR

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BUCCANEER AND BERMUDA DIVE BOMBERS • NAVY CORSAIR FIGHTERS

Aviation News

VOLUME 1 • NUMBER 1

MCGRAW-HILL PUBLISHING CO., INC.

AUGUST 2, 1943

Industry Executives Backing Plan for Vigorous Air Chamber

Rejuvenation of National Trade Association expected to become effective in near future. Need urgent in face of numerous industry problems.

The aircraft manufacturing industry which last spring set upon its own trade association—the Aeronautical Chamber of Commerce—and rendered it almost impotent and mute—is now going to revitalize the organization and some aviation executives say not a minute too soon.

Backers of the plan hold that the need for a strong, alert, vigorous national trade association for the industry is obvious. They contend that it is particularly so at a time when the industry is beset by multitudinous problems, the solution of which will determine the industry's future and destiny.

► **Key Men on Committee**—The committee, named by the Board of Governors to work out a plan for a revitalizing transfusion, met in New York July 27, to hold its second discussion of the situation. The committee members, J. Carlton Ward, Jr., president, Fairchild Aircraft Division; J. Story Smith, vice-president and secretary, Jacobs Engine Co.; R. H. Deetjen, assistant to the president of Aviation Corp.; Charles Marcus, vice-president of Engineering, Bendix Aviation Corp.; Henry W. Cohu, Washington representative of Northrop Aircraft, Inc.; and James P. Murray, Boeing vice-president and eastern representative, and President of the Chamber, ex-officio, are agreed on a general plan, and only details remain to be worked out.

► **Manhunt**—The committee is on a still hunt for at least two key men to handle the proposed expanded Chamber program. It is seeking an aggressive administrator with a knowledge of the industry and the workings of Washington byways and an equally well-qualified man to set up and direct a public relations department.

► **Organization Set-up**—Current plans call for a member of the industry

as President of the Chamber and with an executive head to actually direct the Chamber's affairs. The public relations department was abolished in the reorganization of last spring with a special admonition in the program that the Chamber not engage in advertising or publicity activities. This was at a time when most other trade associations were expanding their advertising and public relations programs.

Also abolished last spring was the so-called Special Projects Department which handled, among other things, labor relations. This was at a time when it was obvious that manpower would become the industry's biggest headache.

► **Need for Chamber Widespread**—Just as the first moves in last spring's reorganization came from the West Coast, so too was that area the origin of moves for a revitalization program. However, there were Chamber members in all parts of the country who were always convinced of the necessity of having a strong trade organization.

The moves which culminated in the appointment of the committee now working on the new program started about two months ago. The revitalization plan is not an overnight idea, and the committee is anxious to get it into effect as soon as possible.

The two principal obstacles to immediate action are finding the proper personnel to carry out the new program and to arrange for the increased financing which the program will necessitate.

► **On Restricted Basis Now**—The Chamber at present is operating on a restricted basis, with a budget only one-fourth of that of the previous year, and consequently any enlargement of the program will necessitate a change in the assessment set-up. This would involve

some difficulty since the Chamber's fiscal year does not end until October 31. Members of the committee, however, want the new program effective long before that. It is likely to be considered by the Board of Governors some time this month. Money, it is reported, is no object. ► **Postwar Gets Rebuff**—Included in the revitalization program is a plan to strengthen and enlarge the Chamber's Economic Development Department which is engaged in postwar planning. Chamber mem-



Insignia Troubles: Decision to revise insignia on all U.S. warplanes to improve visibility brought wails. Navy men complained because the Army walked away with all the advance publicity. Many pictures like that at top gave impression only Army planes are affected. Photo people wailed that all their plane pix become obsolete. More wails came from Army and Navy camouflage officers who are under constant orders to make planes hard to see. Navy is compromising with the latter groups by making the emblem gray instead of white on top of the wings. Bottom shot shows how Navy tried to improve old emblem with a white outer circle before the official revision.

bers, eager to get official government views on the postwar picture, received a rebuff from their speakers at a recent postwar luncheon, Under-Secretary of War Patterson and Under-Secretary of Navy Forrestal. The Under-Secretaries not only declined to discuss postwar aviation prospects, but indicated that their listeners should confine

their thinking and activities to war production.

This incident, plus the recent Truman report which was pretty rough on some aircraft manufacturers, pointed up further the necessity for a united, vocal organization which can take an effective part in important decisions and plans now being made for the industry.

Army Air Forces Observe 36th Birthday Anniversary

Started Aug. 1, 1907; first "military" flying machine acquired Aug. 2, 1909. Officer and two enlisted men were nucleus.

Just 36 years ago—Aug. 1, 1907—the Aeronautics Division, Office of Chief Signal Officer, U.S. Army, was officially set up for the study of aircraft.

And in that act the mighty 'round-the-world Army Air Forces of today had its beginning. One captain and two enlisted men were assigned to the division at that time. Today, nearly 2,000,000 men—expertly trained pilots, bombardiers, radio operators, navigators, and technicians—comprise the most powerful air force the world has ever seen.

Heading this vast Air Force is Gen. H. H. (Hap) Arnold, one of the Army's first three military pilots and the AAF's first four-star general. As a second lieutenant, General Arnold learned to fly when it was an historic event for an airplane to push a mile into the sky.

► **"Wright Flyer" Accepted**—Just two years almost to the day after the Aeronautics Division was set up—on Aug. 2, 1909, the United States Army acquired its first military airplane from the Wright Brothers. On that day, at Fort Myer, Va., just across the Potomac from Washington, an Aeronautical Board which had been appointed to examine the "Wright Flyer" decided to purchase the fantastic flying machine after it had been put through certain tests, including its ability to fly more than an hour carrying pilot and passenger. Today, this airplane is hidden in a secret storage plant for the duration, removed from public exhibition at Smithsonian Institute.

While Aug. 1 is the birthday of the Army Air Forces, it was originally only an unimportant sub-division of the Signal Corps, highly

interesting to a few, but skeptically regarded by most. It was far removed from the powerful AAF with a status of equal importance with other combined combat arms of the Army.

► **Risked Their Necks**—Instead of thousands of warplanes in every category which have established our aerial supremacy on every battlefield, it was then only one flimsy "aeroplane" and a handful of courageous men with vision who were willing to risk their necks by taking the contraption into the air.

The "Army Air Force" of Aug. 2, 1909, was a biplane with a wing spread of 36 feet, 4 inches, and a wing area of 406 square feet. The crate, empty, weighed 740 pounds. Two light pusher-type propellers mounted in the rear were driven by chains from a small gasoline motor. The landing gear consisted of two runners, or skis, and the flying machine was launched from a monorail, by means of a 1,400 pound weight dropped from a tower in the rear.

► **Arnold Was Pioneer**—Among the pioneers was young Lieut. Arnold, now Commanding General of the Army Air Forces. He never lost faith during those trying years, and it is to General Arnold and other men like him that the nation owes its gratitude for an Air Force which is daily striking terror into the hearts of the enemy around the world.

During those trying days there was another group of aviation pioneers who must share in the observance of this 36th birthday of the Army Air Forces—the aircraft manufacturers who, cooperating with the Army, kept on building those contraptions against a background of jeers and catcalls from men of lesser vision.

The AAF celebrated its birthday by blasting the enemy from the skies over every battlefield of this global war.

Wheeler Protests

Senator Wheeler, Democrat of Montana, has joined advocates of separate air and surface transport. In a recent interview, the chairman of the Senate Interstate Commerce Committee declared it is "completely wrong" for railroads and inter-ocean steamship operators to attempt to participate in postwar aviation development.

He expressed the view that railroads should be taken out of the bus and truck business, should not enter water transportation operations, and should not own air facilities.

Airport Projects Held Unnecessary

WPB won't permit resumption of construction.

Manpower and equipment are as vital in the building of airports as materials, according to WPB officials, who do not envision reinstating many of the CAA airport projects they stopped last January.

In January, 42 CAA airport projects were canceled by WPB. Seven of these projects had been withdrawn from the program by CAA and the sum of \$26,020,323 had been appropriated for the construction of the remaining 35 projects.

WPB reinstated nine projects at the request of the Army or Navy totaling a sum of \$5,835,848, leaving 26 of CAA's projects canceled.

However, CAA again reviewed their program and decided that 12 of the 26 airports were unnecessary to the war effort, so if WPB officials decide to reinstate CAA's proposed airport projects only 14 locations will be affected. Expense for the airports CAA dropped from the program amounted to \$6,225,000.

CMP Working Well

Both industry and WPB report further improvement ahead.

CMP—the much-discussed Controlled Materials Plan—which was viewed with some skepticism by industry when first announced, and which was the target of considerable criticism, appears to be operating beyond expectations.

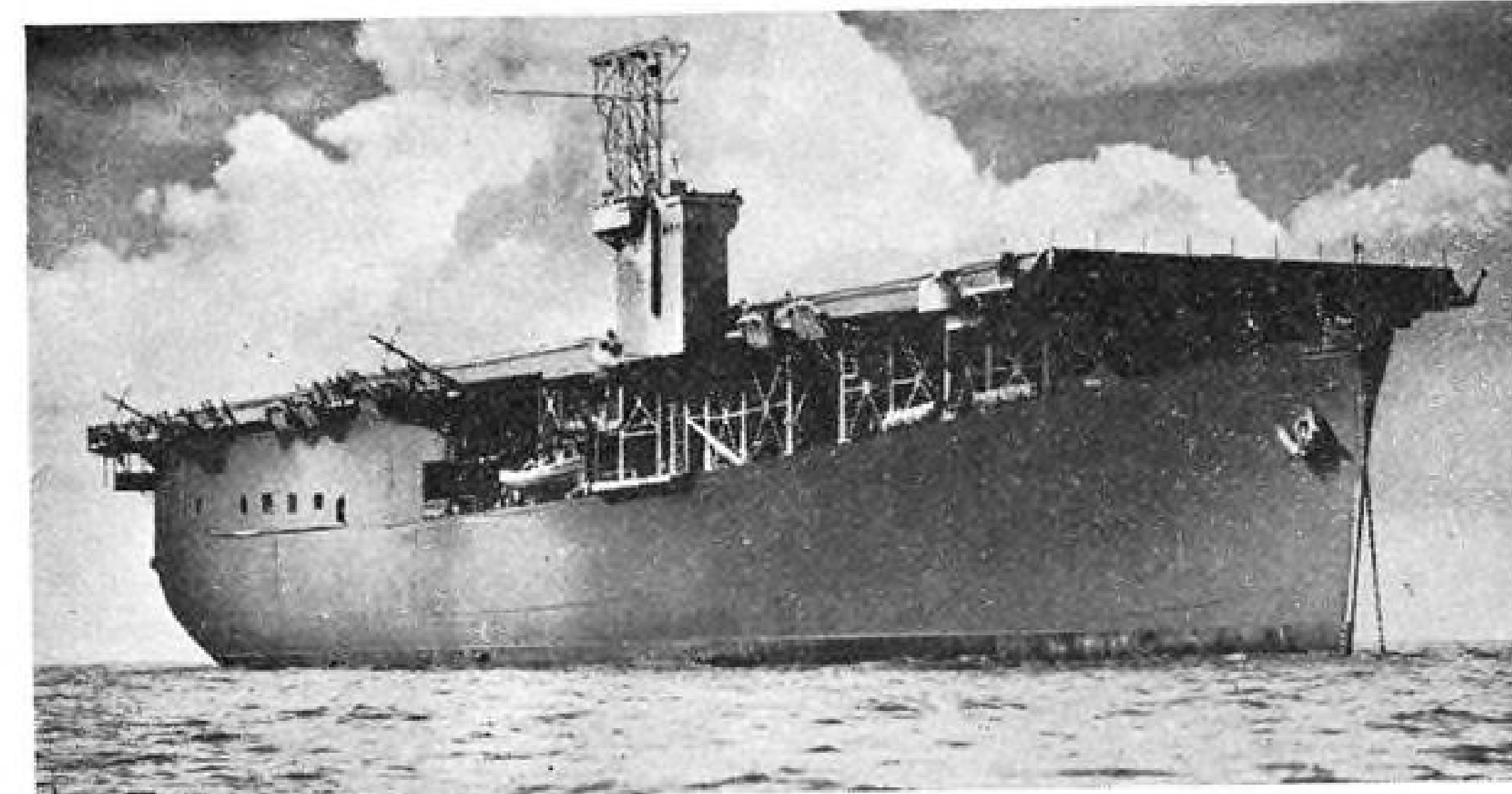
That doesn't mean that there aren't still some "bugs" that have to be eliminated, but both members of industry and War Production Board officials concede that it is operating well, all things considered, with improvement on the way.

► **Fewer Kicks**—A WPB official said that there had been fewer complaints in the last three months about inability to obtain materials than in any previous corresponding period.

On both the government and industry sides of the fence is a hope that the program will be left alone and given an opportunity.

Beech on Exchange

Beech Aircraft Corp. (BCX) is now listed on the New York Stock Exchange tape. Its first sale was at 14 points.



"Woolworth Carrier": The U.S.S. Charger, typical of scores of aircraft carriers being turned out for the Navy in mass production scale. When its keel was laid it was intended to be a merchantman.

U. S. Carrier Fleet Multiplies; Already Outstrips Britain's

Navy's complement estimated at 50, and growing monthly at record pace; many are conversions from merchant vessels.

The U. S. is building up a force of baby escort carriers at a monthly rate which would have been unbelievable a year ago. Our carrier strength already exceeds that of Britain.

The Navy admits that "dozens" of auxiliary or escort carriers are going to sea against enemy subs, for vital patrol work with convoys, and to ferry short-range aircraft from the U. S. to foreign ports. We probably have 50 carriers already at work. Two years ago we had seven carriers, eleven were building, and the program was 18 in all. We have lost only four so far in this war, according to official announcements.

► **"Carriers Doomed"**—Martin—Authorities like Glenn L. Martin give the carriers short lease—only till long-winded future planes can hit any spot on earth from home base. The farthest point from any point in the world is only 12,500 miles. We have designs in the works now that can make it. However, the carriers are our only available answer to today's problems.

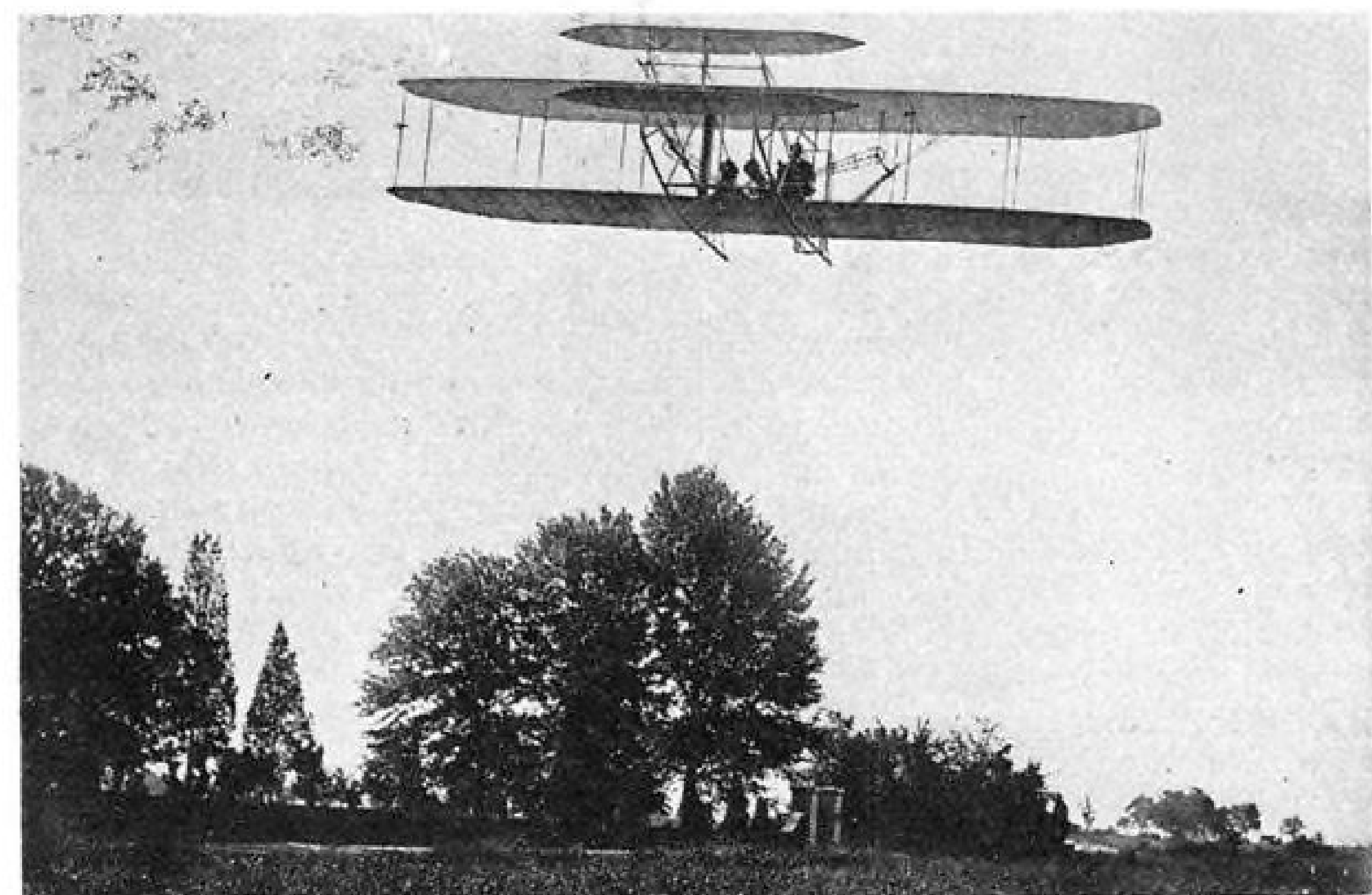
An escort carrier is slower, smaller, and less armored than a fleet carrier. Escorts originated in 1941 when the Navy directed the Maritime Commission to convert one of its 12,000-ton C-3 merchant designs to a flat top. Most auxiliaries now are converted C ships or produced by the Kaiser yards as carriers, so designed from the keel up.

► **Enemy Always Reachable** Auxiliaries carry forces of aircraft large enough to patrol large areas surrounding convoys. Equipped with catapults, they transport fueled-up combat planes to combat range.

► **Baby Escort Carriers**—These "Woolworth" carriers, as they are called, are equipped with flight decks, hangar decks, and machine shops, like fleet carriers. They have elevators, and can give complete overhauls to their brood planes. They carry the Grumman Avengers and Wildcats, Vought Corsair F4F, and presumably Douglas Dauntless A-24s, plus deliveries to the front of any kind of planes that can take off from their decks, including fighters.

► **Scored at Attu**—An auxiliary carrier did a beautiful pinch-hit job in the conquest of the Aleutian island Attu. When low overcast prevented the nearest land-based air support from coming into the fight, the little carrier lurked in the fog and did the job, sending out quick warnings when weather threatened to hide the ship entirely.

Some time ago naval authorities discussed the question of building fleet carriers smaller, so as not to have so many birds in one nest. It was agreed that, though the big carrier is more vulnerable, its greater defensive and striking power more than offsets that disadvantage. Jap carriers are about half the size of ours, carrying around 40 planes.



AAF on the Wing: Here is the prototype of the first "military" aircraft acquired by the U.S. Army on August 2, 1909. The place is Fort Myer, Va. The pilot is Orville Wright.

NACA Expert to Push Study of Aircraft Design Problems

Dr. George Lewis assigned task of visiting plants; concern rising over slow progress of new planes.

Concern over the solution of design problems involved in new types of aircraft is indicated in the decision of the National Advisory Committee for Aeronautics to have Dr. George W. Lewis, its Director of Aeronautical Research, make an immediate survey.

He will assay present status of aeronautical research and development and recommend the steps necessary to accelerate the solution of some design problems.

► **New Lab. Working 3 Shifts**—Dr. Lewis started his series of conferences July 27 in Seattle. He will confer with designers and engineers in various aircraft plants and will also visit the committee's new Ames Aeronautical Laboratory at Moffett Field, Calif. The 500 men and women of this laboratory are now working three shifts.

► **New Types Lacking?**—It has been pointed out that the United States has been at war for more than a year and a half and has yet to introduce in combat a really new war-

plane. There have been improvements of previous designs, true, but not an all-new plane, although there are several on the way—some very close to combat, others not nearly so far along.

► **New Fighters & Bombers**—New fighters are on the way whose firepower and fighting abilities are actually terrifying. New bombers, too, are in the offing and our military men say they feel fairly confident that the enemy is not ahead of us in any phase of aeronautical development.

It is not that we can't beat the enemy with the planes we have, because we can, but at the same time it would shorten the agony of war if we had some new ones. And it should not be overlooked that almost every proven airplane is from five to six years old.

► **Ultimate Attack on Japan**—Attention is naturally being given to long-range planes for the inevitable and ultimate attack on Japan, when we are ready for it.

Still, the fact that the NACA deems it necessary to make "an immediate survey" is significant.

► **Hunsaker Cites Teamwork**—At the same time, Dr. Jerome C. Hunsaker, NACA Chairman, emphasized that "there is splendid collaboration between aircraft manufacturers and the three research laboratories of the NACA." He added that "this in large measure is responsible for America's development of aircraft of superior performance to those of the enemy."

"But," said Dr. Hunsaker, "there are difficult problems growing out of the recent increase of airplane speeds beyond 400 miles per hour which must be solved as quickly as possible."

Gen. Giles Becomes Chief of Air Staff

Succeeds Gen. Stratemeyer as second in command, AAF.

Maj. Gen. Barney M. Giles, formerly Assistant Chief of Air Staff for Operations, Commitments and Requirements, has been named Chief of Air Staff, AAF, succeeding Maj. Gen. George S. Stratemeyer.

Gen. Stratemeyer, Air Staff Chief since June, 1942, has been given "an undisclosed assignment of extreme importance" the War Department announced.

► **Next to Gen. Arnold**—Gen. Giles now becomes second in command of the Army Air Forces to Gen. H. H. Arnold. It is significant that his background and experiences lie chiefly in positions concerned with materiel and maintenance and posts as engineering officer.

He is not a West Point graduate, having entered the regular Army in 1920 after serving overseas as a flying officer in the last war. His training assignments in this country have included bombardment groups and heavy bombers to which the AAF have been converting much of the nation's plane production.

► **More Top Air Staff Changes**—Additional changes on the top air staff include the appointment of Brig. Gen. Edwin S. Perrin as Deputy Chief of Air Staff, replacing Maj. Gen. Thomas J. Hanley, Jr., who has become Commanding General of the Southeast Air Force Training Center, Maxwell Field.

Gen. Perrin, who was in Cairo in 1941 as Military Air Observer in the Middle East, will serve with Brig. Generals Laverne G. Saunders and William E. Hall, as Deputy Chiefs of Air Staff under General Giles.

Content Law Bars Rail-Air Combine

Assert Sherman and Civil Aeronautical Acts do not permit granting applications.

A. C. Wiprud, Chief of the Transportation Section of the Anti-Trust Division, Justice Department, and Tom C. Clarke, Chief of the Division, will intervene in bus and railroad petitions to CAB for air and helicopter routes because they assert the law does not permit granting of the applications.

► **To Show Violations**—Hearings will start in August and Justice will attempt to show that the petitioners are not following the Sherman Act or the Civil Aeronautics Act of 1938 into which much of the anti-trust act was written. No surface carrier can own or operate an airline except as auxiliary or supplemental service, it is said.

Justice feels that an established surface carrier would operate an airline only to protect its revenue, not to develop an airline, and that is against monopoly and subsidy laws of the Sherman Act.

Hoe Output Up

The War Production Board has disclosed that the R. Hoe Co. of New York City has more than \$10,000,000 in contracts for "badly needed" plane parts, engines and Navy gun mounts, and has reached a capacity rate of \$2,000,000 a month. The firm was working on a \$12,000,000 contract last November to make 90-mm. recoil mechanisms at the rate of 500 a month, when the cut-back order reduced the number to 240 a few months ago.

Ecuadorian Here

Gen. Ricardo Astudillo, commander in chief of the Ecuadorian army and air force, has taken residence in Washington as head of Ecuador's military missions. He will be a member of the Inter-American Defense Board. General Astudillo arrived by plane from Miami.

Manufacturers Discuss Forming 'Personal Aircraft' Association

Rotary vs. fixed-wing Differences in forefront at Chicago meeting; Aero Chamber affiliation urged.

The proposal by Dwane L. Wallace, president of Cessna Aircraft, for organization of an "Association of Personal Aircraft Manufacturers," has met with a generally good reception from the 15 major airplane and helicopter manufacturers to which he sent letters of inquiry.

The preliminary meeting July 31 in Chicago was expected to disclose just how well these postwar competitors can get along on a mutual benefit project. Differences between manufacturers of fixed wing and rotary wing craft are bound to be present.

► **Murray Proposes**—James P. Murray, Boeing vice-president and president of the Aeronautical Chamber of Commerce, after hearing of Wallace's proposal, wrote Wallace and suggested that the place for such an organization was within the Chamber structure. Murray further suggested that Wallace, as a Chamber member, had not only the right but the obligation to propose any changes in the Chamber set-up which would better serve the interests of the personal plane manufacturers.

► **Wallace Replies**—Wallace in his reply cited, among other things, the



GUNNERY TRAINER:

Soon to go into full-scale production is this sleek advance gunnery crew trainer, called the Gunner, by Fairchild. It is made predominantly of wood—Duramold—a Fairchild developed process. The fuselage and wing covering and all fixed tail surfaces are of Duramold. The Gunner is powered by two Ranger in-line, 12 cylinder air-cooled engines, each with a take-off of 520 hp. and a cruising rating of 450 hp. It has a wing span of 53 feet, gross weight of 11,287 pounds, and is 37 feet, 7½ inches in length.

Coast Aircraft War Production Council, told the public in a statement.

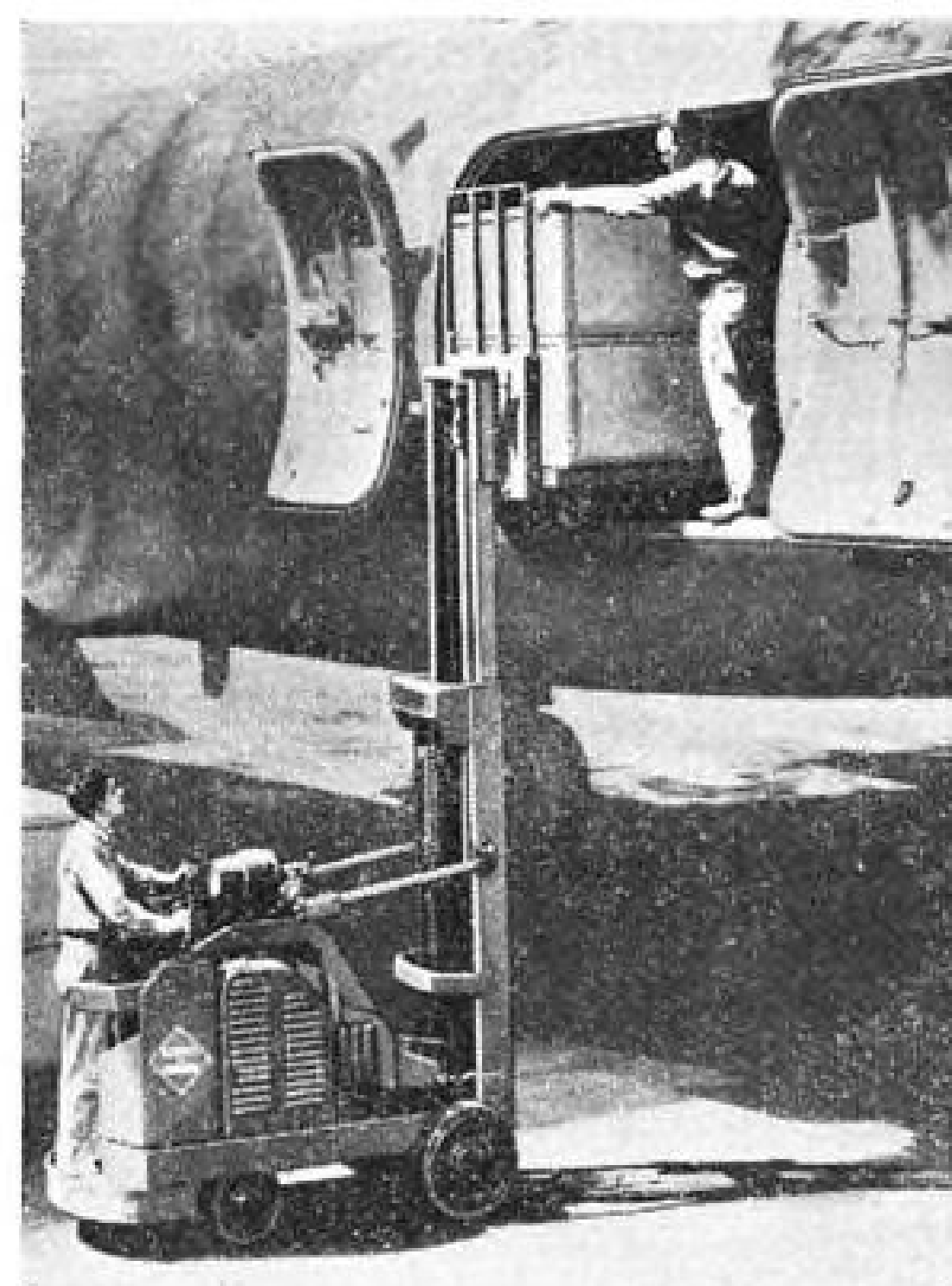
Ward is also president of Fairchild Engine & Airplane Corp., and in recent years was on American aviation missions to France and Great Britain.

► **Equipped for Global Warfare**—Asserting that "the Allied Nations are equipped for global aerial warfare to a degree unknown to our enemies," he described the *Flying Fortress* as "our most potent offensive weapon in the air," but pointed out that it, like *Warhawks*, *Aircobras*, *Lightnings*, *Marauders*, *Mitchells*, *Wildcats*, *Avengers*, *Catalinas* and others, were prewar developments.

"Had it not been that for two years our Allies bought equipment in this country and allowed us to perfect our weapons," Ward stated, "we would have been found with most of these weapons absent when Pearl Harbor cracked down on us."

He stressed the necessity that the government, after the war, do its best to keep aircraft companies in healthy condition.

► **Combat Tests Needed**—"What the Government should do is continue to have design competitions and continue to procure operating quantities of the planes selected in the competitions," the Council head asserted. "I don't mean it should procure enough of the planes for a war-basis air force, but it should get enough to subject them to the tactical exercises which will test their quality under battle conditions and



NEW CARGO LOADER:

Minutes saved on the field add miles in the sky with this application of a power industrial truck to the loading of a C-54 Douglas Skymaster. The Elwell-Parker Electric Co., Cleveland, devised this modern method which requires only two men to raise or lower a half-ton of freight.

lead to further developments."

It is doubtful, he said, that the aviation industry's peacetime operation will take up even a tenth of its wartime productive facilities and employment. He said that he was unconvinced that the national Ad-

ministration would permit the industry to store up reserves to help it meet the curtailment peace will bring.

"I don't believe," Ward asserted, "that we can be protected except by acts or directives of Congress."

FEDERAL DIGEST

DPC Approves New Contract For Bell Vermont Plant

OPA, NLRB actions relating to aircraft industry are summarized for the week; Consolidated Vultee gets funds.

Defense Plant Corporation has announced execution of a new contract with one aircraft manufacturer and an increase in five others.

The new one, with Bell Aircraft Corp., Buffalo, N. Y., will provide facilities in Vermont at a cost of approximately \$2,000,000. Another contract with Bell has been increased to provide additional facilities costing \$450,000 at a plant in New York. The over-all commitment for the latter is \$22,500,000. **Contracts Increased**—An increase in one contract with Ford Motor Co., Detroit, will provide additional plant facilities in Michigan at a cost of approximately \$3,400,000, resulting in an over-all commitment of approximately \$86,850,000.

Consolidated Vultee Aircraft Corp. also will receive additional facilities at a plant in Louisiana at a cost of \$5,550,000, with an over-all commitment of \$11,350,000.

DPC has increased its contract with General Motors Corporation, Detroit, for \$860,000 in new facilities at New Jersey plants. The over-all commitment is \$8,000,000.

★ ★ ★

► The OPA ruling that all catalysts sold for use in manufacture of synthetic rubber, aviation gasoline and toluene from petroleum are exempt from price control has become effective.

★ ★ ★

► National Labor Relations Board has ordered production and maintenance of the St. Charles, Ill. plant and "satellite" plants of Howard Aircraft Corp. to hold election within 45 days of July 16 to vote for or against representation by International Assn. of Machinists.

Collins Radio Co. will hold election within 30 days of July 14 so that production and maintenance

employees may vote for International Brotherhood of Electrical Workers, AFL; for Radio Union (unaffiliated); for Collins Radio Union (unaffiliated); or for none.

The board has certified the UMW-CIO as the representative for production and maintenance employees of Fairchild Aircraft Division of Fairchild Engine & Airplane Corp.

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► OPA announces provisions by which employees in war plants and other industrial establishments with transportation committees may surrender unused supplemental rations to that committee, rather than to War Price and Rationing Boards, when employment is terminated.

Loening At NACA

Grover Loening, for many years a prominent figure in aviation, has been named chairman of the Subcommittee on Helicopters for the National Advisory Committee for Aeronautics. Loening is Consultant on Aircraft for the War Production Board and for a short time, at least, will retain his offices at WPB.

Knight Dies

Forty-two-year-old Montgomery Knight, leading authority in helicopter design and director of the Daniel Guggenheim School of Aeronautics of the Georgia School of Technology, is dead after an illness of several months. Before going to Georgia he was connected with the Aeronautics Department of Massachusetts Institute of Technology and later was head of the atmospheric wind tunnel section of the National Advisory Committee for Aeronautics at Langley Field, Va.

Schools Face Disaster; New Contracts Needed

New impetus required in War Training Service if civilian owned schools operated by Army & Navy under CAA are to survive.

New impetus must be injected into the War Training Service if the civilian owned schools, operating for the Army and Navy under the supervision of the Civil Aeronautics Administration, are to survive.

Courses in the schools training pilots for the Army under the Enlisted Reserve Corps will be allowed to lapse when the schools have completed their present contracts. Not all the schools working under these contracts will have to close, however, since many will be converted to train the Army's 10-hour pilot program which will continue.

► **Pilot Peak Near, Then Replacements**—Officials say that the Navy's training program is being curtailed, although the schools will not be immediately affected. "In several months," according to one official, "the Navy will reach its peak load of pilots and then training will be purely for replacements."

Until this curtailment becomes effective the Navy will continue with advanced and non-combat training in WTS schools. CAA estimates unofficially that some 30,000 cadets a year will be trained for the Navy and about 14,000 cadets a month will complete the ten hour course before entering Army schools.

The Enlisted Reserve Corps has 7,000 cadets who will complete their training before schools change to the 10-hour Army program.

► **Planes Lacking for Private Training**—Although WTS school operators are using some 6,500 planes in the program, they cannot use any of this equipment for private training. Some schools operate both WTS contract schools and civilian training schools.

Figures show a 50 percent reduction in the number of WTS schools since the beginning of this year. However, officials point out that most of the schools which have closed were small, training as few as 10 or 15 students, so that the over-all picture is not accurate if rated as a 50 percent reduction.

► **R. McLean Stewart, Executive Director of War Training Service**, is completing an inspection trip to WTS schools. He is due back at his desk in Washington this week after traveling to Chicago, Minneapolis, St. Paul, the West Coast, and Dallas.

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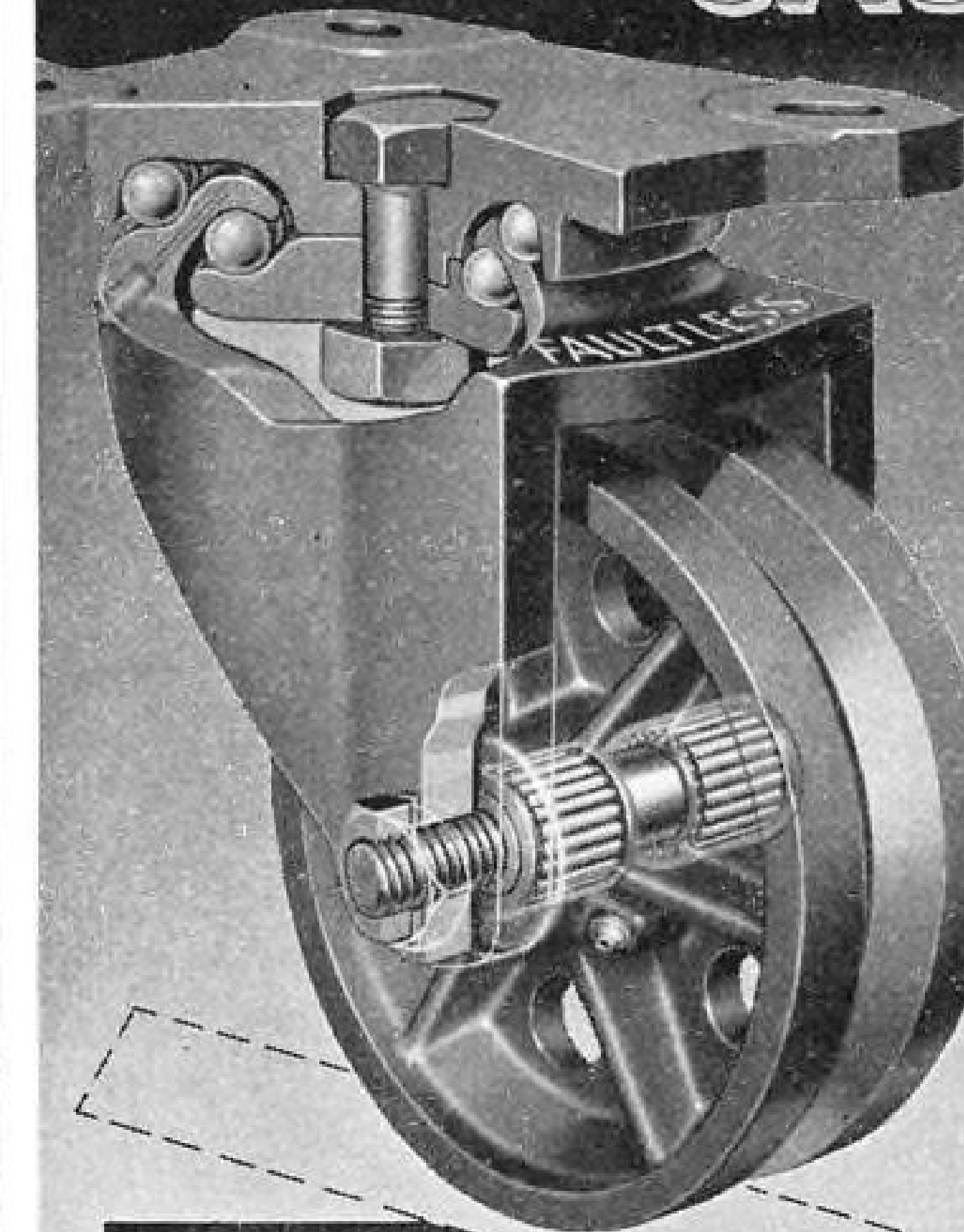
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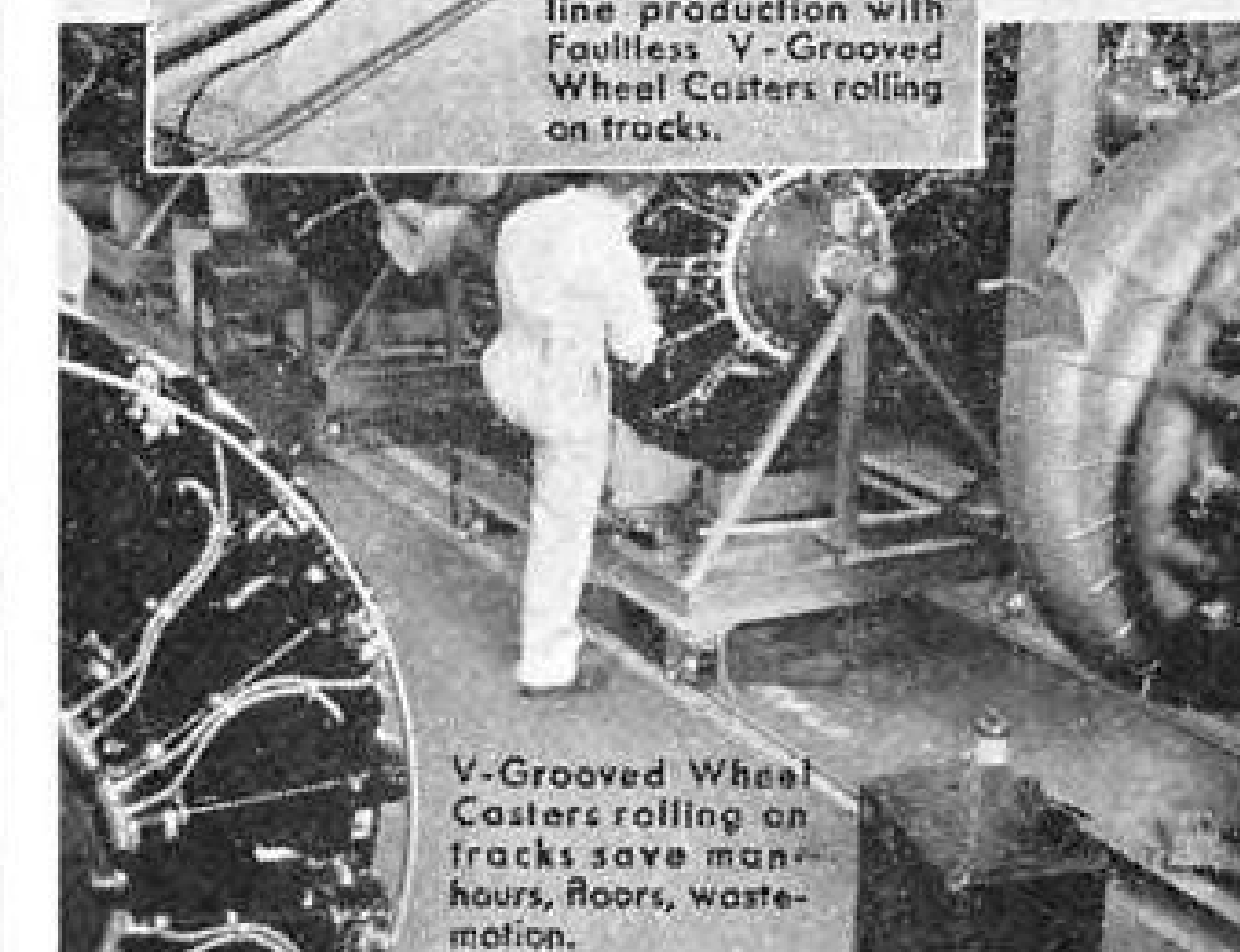


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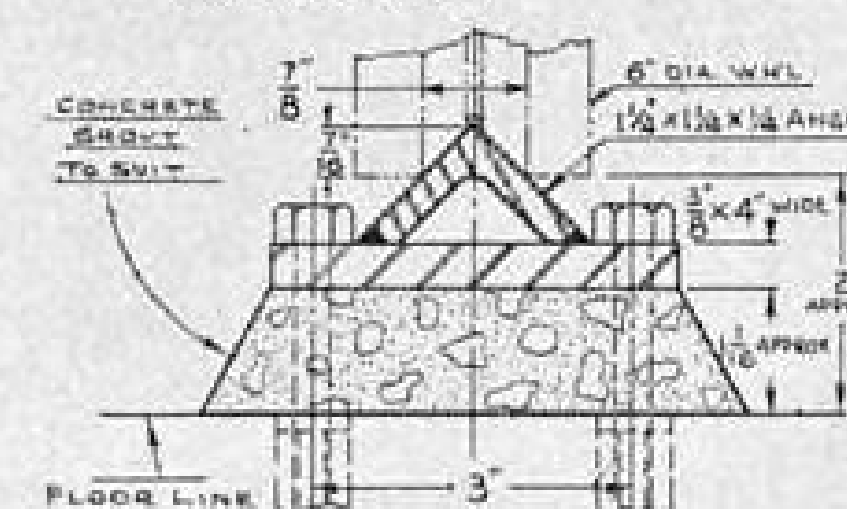


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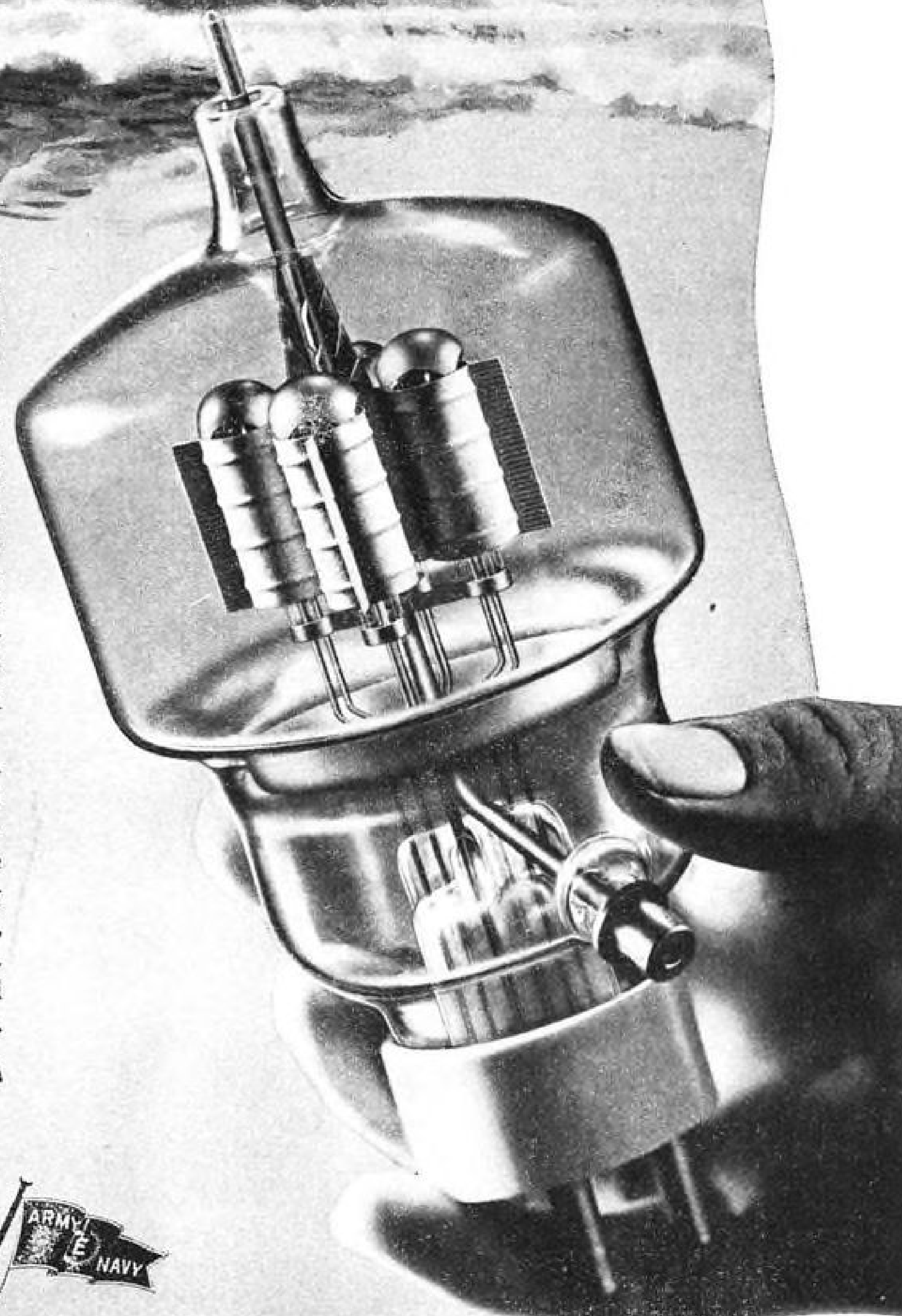
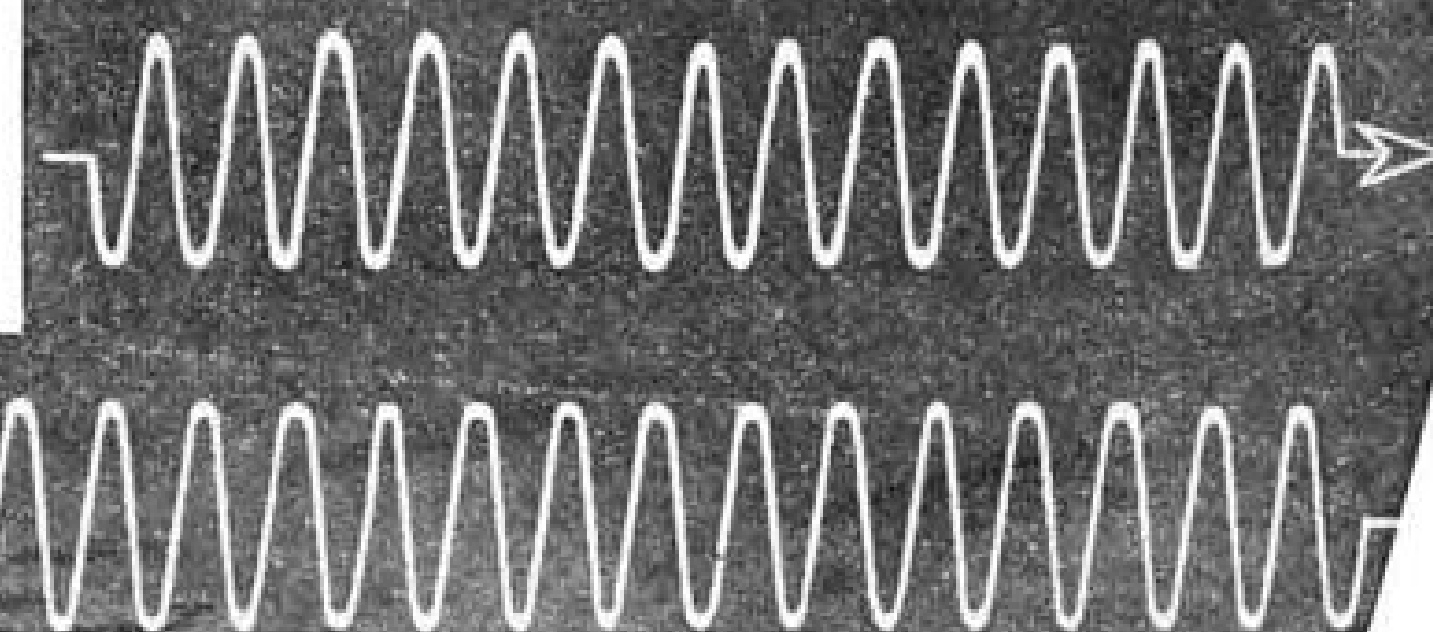
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THE AIR WAR

COMMENTARY

High Level Precision Bombing Wins New Laurels in Air Action

American planes being equipped with devices which permit bombardier to control flight over target areas.

Minimum altitude bombing, popularly termed skip bombing, has captured the imagination of the public, and as a matter of fact is a highly effective technique. Proved once and for all in the battle of the Bismarck Sea, it has been successfully used in the Mediterranean, and also adapted for land operations. It is here to stay and will see further development.

► **Shot in the Arm** —However, high altitude precision bombing, an American air power fundamental, has had a shot in the arm during recent weeks that appears likely to greatly increase its value as a war-winning technique. A year ago the Army Air Forces were on the defensive everywhere. There were nowhere near enough *Fortresses* or *Liberators* to go around, nor trained crews to operate them. Hitting the targets at the bombardier schools and in the operational training bases was one thing, but hitting the real thing in theaters, with the skies full of enemy fighters and flak, was a different story.

The problem was to keep the bomber steady enough so that the bombs could be dropped right on the target, and reduce the run so that the airplane could start evasive action at the first possible moment, return to base and live to bomb another day.

► **Control Over Target** —Naturally details are secret, but the main idea is that certain equipment is being added to American heavy bombers in all theaters whereby the bombardier himself is able to control the flight of the plane over the target area. Hitherto he has had to communicate with the pilot. This takes care of the steadiness.

Other techniques have been developed whereby the bombardier is able to pre-set the bombsight to conform to conditions to be encountered over the target, with only a final adjustment or two to make at

the psychological moment. This reduces the normal bombing run to about 20 seconds. It takes half a minute for the fastest anti-aircraft outfit, using radar equipment, to get a shell to explode on a bomber 20,000 feet in the air. In the precious few seconds differential, after the bombs are dropped, sharp evasive action can be started.

► **Direct Hit** —In the process of instructing crews in this new technique, a bridge in Burma which the boys of the 10th Air Force in India had been trying to get for months was hit smack on the nose on the first run with the new equipment.

It has been a big factor in the increased effectiveness of the American raids on occupied Europe. A few days ago announcement was made that Brig. Gen. Frederick L. Anderson was appointed chief of the 8th Air Force Bomber Command (recently renamed Strategic Air Force).

General Anderson last year was Director of Bombardment on the Air Staff, having previously organized the first United States bombardier instruction school. He is reported as highly enthusiastic about this new aid to precision bombing.

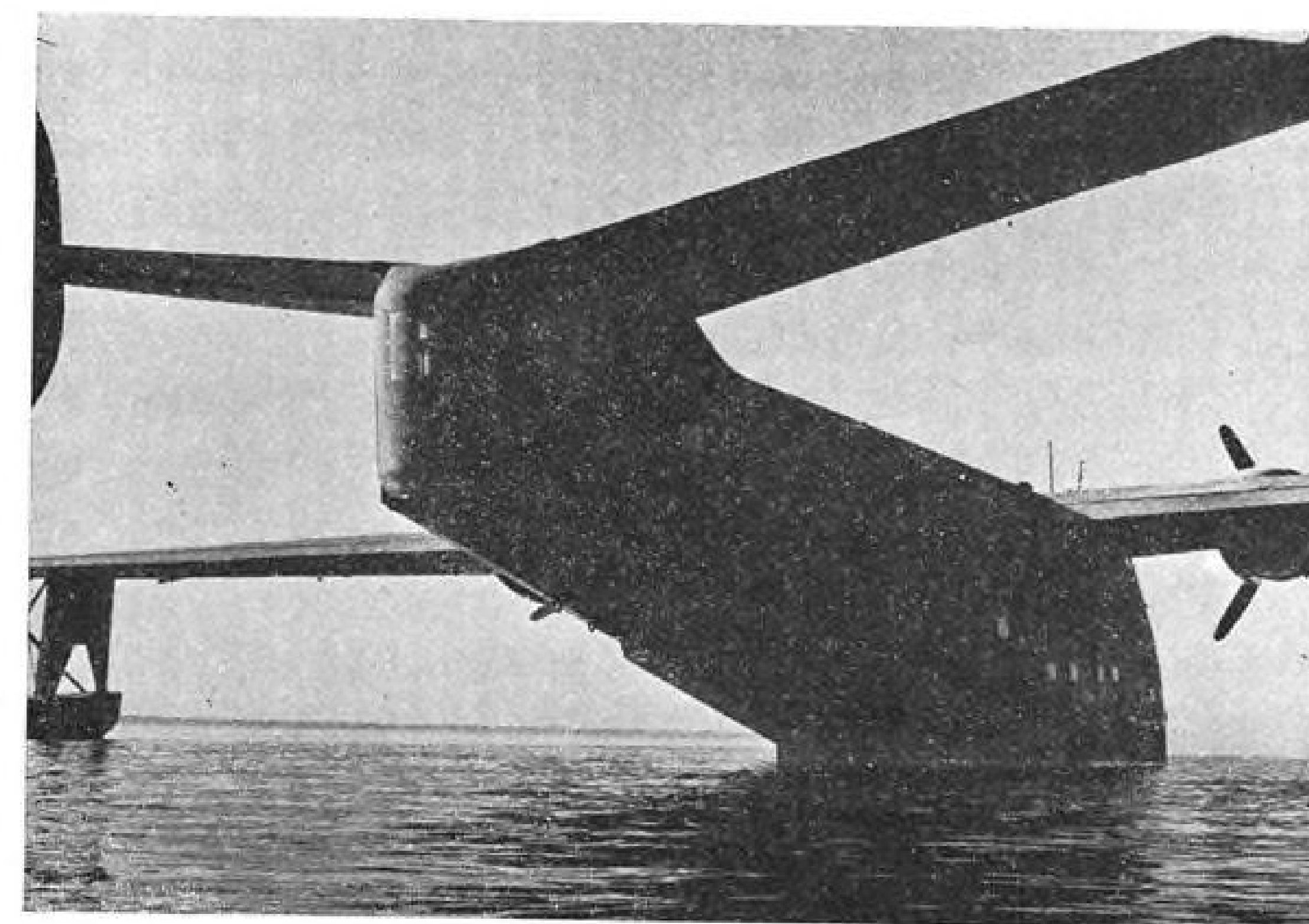
► **Pin-Point Bombing Pays Off** —Precision bombing is paying off heavily in various other theaters. The accuracy in Tunis and Bizerte was little short of amazing. Pantelleria, Rome, Rabaul, Canton—around the world pin-point bombing is changing the course of the war.

AIR WAR REVIEW: Portent of coming events was the attack by Army *Liberators* on Paramushiro, northern base of the Japanese archipelago, the outfield of the Nips' home grounds.

There was another howl of pain from the Axis when *Flying Fortresses* of our 8th Air Force flew more than 1,200 miles to blast Norway—targets being the important Axis sub base at Trondheim and metal works near Oslo. Surprised in broad daylight, the Nazis' anti-aircraft fire was light; 17 Nazi interceptors were shot down. One of our planes failed to return.

RAF and Greek bombers withered enemy installations and troops on Crete in another daylight surprise attack to add to Axis confusion. Seventeen of our ships are missing in this, the largest raid yet on that target. Hamburg was blasted again.

In the combined Pacific theaters distances embraced by MacArthur's



Unpublicized Transport: Startling view of one of the Naval Air Transport Service's Consolidated "Coronado" four-engined flying boats, probably the least publicized transport in operation.



Atlantic Patrol: Navy Grumman "Avenger" torpedo planes and a speedy sub-chaser are shown in training off Florida for joint action against Nazi under-sea

raiders and for world-wide sea patrol. Although primarily a torpedo plane, the "Avenger" also operates as a bomber.

offensives are breath-taking. From Soerabaya, Java, blasted by *Liberators* while the overconfident Nips basked in brilliant lights, to Guadalcanal in the Solomons is 3,000 miles. All through this strip our air forces struck during the week, strafing Makassar on Celebes Island, three bases on Timor, and ranging the New Guinea coast, New Britain, and the Solomons.

► **The sensational fight** of Battleship X against a swarm of Jap dive bombers several months ago in the Pacific fighting zone made a profound impression on those Washington admirals who are responsible for battleship armament. The test ship was loaded with temporary installations of anti-aircraft guns and knocked down all of the Japs before they reached their target. Result may be that some heavy guns will be removed from battleship decks completely and replaced by hundreds of small anti-aircraft muzzles. Such ships would be important defenses for accompanying aircraft carriers, while the carriers could furnish protection for the escort in case an enemy heavy cruiser or capital ship approached.

► **New Liberator reinforcements** are flying to Chennault's 14th (China) air force in increasing numbers. When all airports are deemed suitable for the big ships you can expect the headlines the Japs dread. The ratio of *Liberators* is also rising in the South Pacific arena.

► **Maj. Gen. Chennault's** Headquarters in China report the Japanese pilot supply continues to decrease. In addition, *Zeros* recently shot



Eliminated: The RAF's practice, begun during the height of the submarine menace, of placing "Suicide Hurricanes" aboard merchant ships has been discontinued, now that so many escort carriers are available. Pilots took off by catapult if a sub was spotted at sea. Only hope for the pilot after the flight was to crash into the sea near his ship and be rescued.



High Altitude Plus Precision: Hundreds of Boeing Flying Fortresses like this B-17F, together with Consolidated Liberators, are making the critics of high altitude precision bombing eat their words.

down apparently have been out of the factory only a few weeks.

► **They're using P-38 Lightnings** for about everything in this war, including the fighting purposes for which they were originally built. Latest use is for photographic reconnaissance over Sicily. Col. Elliott Roosevelt says the P-38 pilots furnished nearly 80 percent of the intelligence of movements in Sicily. First interpretations of returned films are made 40 minutes after the pilot lands.

► **Acting Secretary of War** Patterson disclosed that Allied air superiority over Sicily was as high as ten planes to one—the results of which are obvious.

► **Troop Carrier Command** pilots in New Guinea have amassed record totals of combat flying hours and missions, with 1,000 hours of combat not unusual.

NAVIGATOR

AIRCRAFT PRODUCTION

Aircraft Output Shows Upturn, But Not At Levels Scheduled

Gain is gradual, with over-all seven months' picture considerably below expectations of Washington officials.

Output of aircraft, which had settled on a disconcerting production plateau for two months or more, began to show a gradual upturn the latter part of July which will lift July production above previous discouraging estimates.

While June production in units was barely over May's announced 7,000 plus, the middle-of-July estimates brought frank concern to War Production Board officials, the Army, the Navy, and the industry. After running along behind June production, the July output—shortly after mid-month—caught up with June output for the same period, and will exceed the June figure. This took some of the furrows out of worried brows, but not all of them, because the over-all picture for the first seven months of the year was not up to expectations.

► **July under 8,000**—Before the disappointing June figures were compiled, it was the general hope that July production would begin approaching 8,000, but the actual production will not be close to this figure. The production slump perplexed WPB and aircraft builders as well.

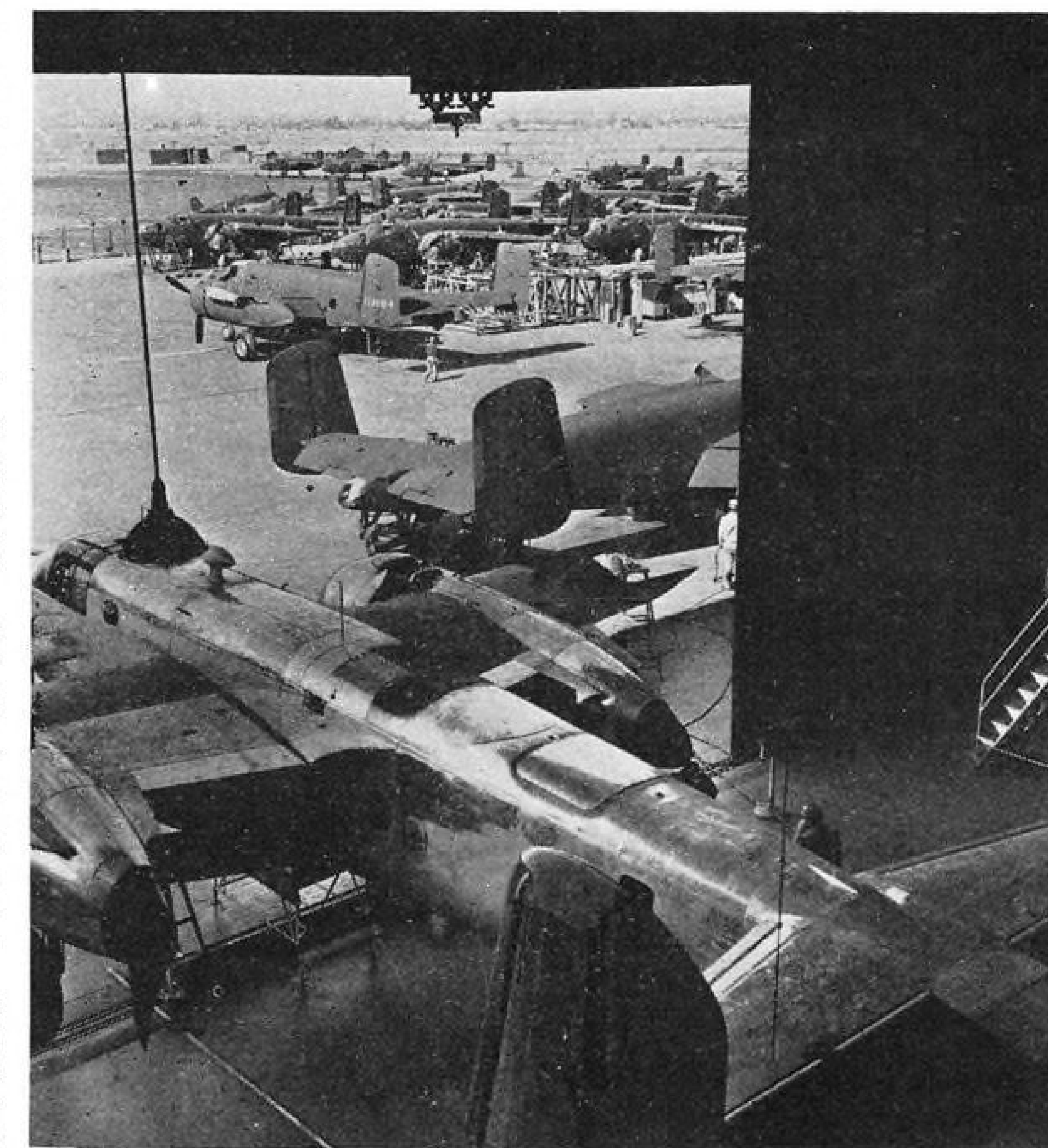
Aluminum—which long had been one of the toughest problems—was definitely licked. There was no lack of materials—a problem not entirely solved but pretty well in hand—and there was daylight ahead even in distribution. And while manpower is beginning to be a serious problem, it was not a major item during the slump period, and even the absentee rate, in most cases, was down.

► **Holiday Slump**—Part of the falling off for July was due, of course, to the Fourth of July week-end, which cut deeply into schedules. The output for July 5 was one of the lowest daily productions in weeks.

Men responsible for production looked for an answer. The lag was ascribed variously to the summer dog-days, manpower shortage, the coal strike with resulting bad psy-

chology, cutbacks in some items, and a wave of optimism.

Some observers in Washington were of the opinion that President Roosevelt made an unfortunate selection of words when he referred to the Sicilian invasion as the beginning of the end. The general good news from the fighting fronts undoubtedly added to the lag.



Billy Mitchell Bombers: Here's another B-25 rolling out the doors from the assembly line of the North American Aviation plant at Inglewood, Calif. Sister ships on the flight ramp are undergoing final check-ups, painting, and flight tests. In addition to Mitchells, this plant produces the P-51 Mustang fighter plane.

► **Patterson Outspoken**—It was well known in Washington and industry circles for weeks that production was off and finally Under Secretary of War Patterson said out loud what everybody had been saying quietly.

Then came a flood of official warnings against overconfidence. WPB Chief Donald Nelson made no effort to conceal his concern. Navy chiefs at a specially staged news conference warned against foolish optimistic talk and Vice Admiral Frederick J. Horne, Vice Chief of Naval Operations, went so far as to say that our navy and military men were planning for battles which might have to be fought in 1949. Everywhere, there were official predictions of a long war.

► **61% of Quota Due by End '43**—Lieut. Gen. Brehon Somervell told 1,500 war plant executives in Chicago that to meet assigned 1943 quotas the aircraft industry would have to build during the last half of the year 61 percent of the planes

MAKE THEM MORE AND MORE AUTOMATIC

★★ TO INCREASE THEIR FIGHTING POWER



White-Rodgers automatic temperature modulation equipment relieves pilots for greater concentration on fighting power by providing completely automatic control of:

1. Engine cowl flaps (both air and liquid cooled)
2. Oil cooler shutters or flaps.
3. Cabin temperature (both super-charged and normal)
4. Carburetor air temperature.

Upon request, engineering data will be furnished to manufacturers requiring controls for the above or other temperature control applications.

WHITE-RODGERS ELECTRIC CO.

SAINT LOUIS  MISSOURI

CATALINA PBV, PATROL BOMBER
OFFICIAL PHOTOGRAPH COURTESY U. S. NAVY



Airacobras Are on the Way: *That's bad news for the Axis, which more than once has wished that the consistently good production of Bell Aircraft would fall off. This picture at Bell shows why more and more Airacobras are reaching fighting fronts all over the world.*

scheduled for 1943. At the same meeting, C. E. Wilson, WPB vice-chairman and chairman of the Aircraft Production Board, predicted a long and stubbornly fought war and warned that the enemy's strength should not be underestimated.

If the combined efforts of production chiefs has its effect, the in-

dustry still may come fairly close to meeting the working or "realistic" schedule, now in its fifth revision, and by the end of the year production should be 9,000 planes a month.

Peak production, variously forecast to be reached from January to March of next year, probably will not be reached until mid-1944.

Gull Wing Explained

Reason for design explained by Vought engineers

The inverted gull wing design of the Vought Corsair has always piqued the curiosity of laymen and stimulated discussion among aeronautical engineers. There is, of course, as there is for everything in airplane design, a reason, or reasons.

One of these reasons, the manufacturer announces, has to do with the propeller on this highly effective Navy fighter. The Corsair is built around the 2,000-hp. Pratt and Whitney engine, which required a propeller with a diameter of more than 13 feet.

► **Needed Deck Clearance**—The engineers at United Aircraft's Chance Vought Division wrinkled their brows over the long, heavy landing gear which would be necessary. It would be difficult to retract

into the wing. This orthodox gear, they figured, would be necessary to enable a propeller of such size to swing clear of the deck.

They came up with the inverted gull wing with a light gear that fits into the apex of the V angle. This, they told early skeptics, would save weight and provide clearance for the propeller. And, they pointed out, the design permits the wing to stem from the fuselage at a perfect right angle—a position, they held, that was most efficient aerodynamically speaking.

Douglas Plant Opening

World's largest cargo plane plant opens at Chicago, July 30.

Set for July 30, in Chicago, Douglas dedicates its new plant and will fly for the first time, the first C-54 Skymaster built at this plant which will build cargo planes exclusively.

Constructed of wood to save critical materials, and solely designed and tooled for the assembly, at first, of C-54 Skymasters, the Chicago plant is scheduled to produce great numbers of these four-engine air giants for high-speed transportation of vital arms and supplies to battlefronts.

The big structure will have its own airfield, with four main runways. Cost of the layout was \$33,000,000. Officers at the plant are John D. Weaver, plant manager, John C. Buckwalter, assistant manager, and James S. Farra, administrative executive.

Hundreds Join Cessna Post War Plane Plan

Priority delivery system for family air cars wins customers.

Nearly a thousand persons already are arranging for delivery after the war of their own personal airplanes through the unique priority delivery plan publicized and advertised by Cessna Aircraft Co. of Wichita, Kan.

► **\$750,000 "Earmarked"**—These people, according to Cessna President Dwane L. Wallace, have "earmarked" more than three-quarters of a million dollars in War Bonds under Cessna's plan.

The program is simple enough. It works like this: Cessna assigns a temporary priority number to anyone listing with them the serial number of as little as a \$25 bond. A permanent number is assigned when the listing of serial numbers and denominations of War Bonds reaches \$500. The average initial registration thus far has been \$800.

Cessna, like other aircraft manufacturers, is now engaged entirely in military production, turning out twin-engine Bobcat bomber-pilot training planes and personnel transport planes for the Army Air Forces.

► **"Buy, Fly and Use"**—Looking to the future, Cessna first announced a post-victory "Family Car of the Air" more than a year ago, emphasizing in their advertising that the plane was one that the average person, without any previous experience in flying, will be able to buy, fly, and use.

The success of the campaign, for which Cessna received a citation from Secretary of the Treasury Morgenthau, is obvious in the more than three quarters of a million dollars in War Bonds earmarked for the purchase of personal planes.

Stout Designs Peacetime Air Cars

Studies postwar possibilities for Aviation Corporation's giant system of aircraft production plants.

The giant Aviation Corp., making searching studies of postwar outlets for its widespread aircraft and accessories plants in the midst of war production, recently set up a Stout Research Division of Consolidated Vultee, headed by William B. Stout, aviation pioneer and inventor. Stout is working on three family airplanes for postwar production.

► **3 Models Postwar Flying Cars**—The *Aerocar* is a "flying automobile—more car than plane, designed for family tours and trips. A second design is a roadable airplane, more plane than car, for distance flights and short runs on the ground. Third is the *Helicab* (Helicopter), for commuters.

Special interest is attached by the industry to anything Bill Stout has a hand in, because in the past 20 years he started the first passenger flight service in the country, designed the first all-metal commercial and transport planes, participated in development of the famous old Ford tri-motor, and has a lot of space in the aeronautical Who's Who.

► **Easy riding at 70 mph**—Stout proposes a three-passenger flying car with four wheels and folding wings for light duty. Weight about 1,500 lb., with a standard 60-inch tread; speed 60 to 70 mph. on the road with standard automobile tires.

The roadable plane, also having four wheels, will weigh only 800 lb.,

have a 30-ft. wingspread, a range of 400 mi., and enough strength for light delivery service.

► **Uses Road in Emergency**—Stout places much emphasis on load capacities of new materials and structures. These airplanes, he says, can wait at ports for storms to pass, or keep going along the road.

From two to five persons can be accommodated in the *Helicab*, which will have a rounded transparent plastic nose. It will be about 25 ft. long, 6 ft. wide and 8 ft. high, with a 33-ft. rotor. The fuselage is of light steel and dural, sheathed with a new plastic. With a conventional 125 hp. engine, two passengers and baggage, it will weigh 1,700 lb.

Stout is working on a simplified method of changing the blade angle. He believes that electronic devices can be used to avoid collisions and that almost anybody who can drive an automobile can operate a *Helicab*.

T. P. Wright Forecasts Plane Peak in 1944

ARCO chief says change orders are being held down.

Coordination between the Army and Navy and civilian plane producers, coupled with increasing standardization of aircraft types, augurs a smooth production flow

from the present time forward, says T. P. Wright, director of the Aircraft Resources Control Office.

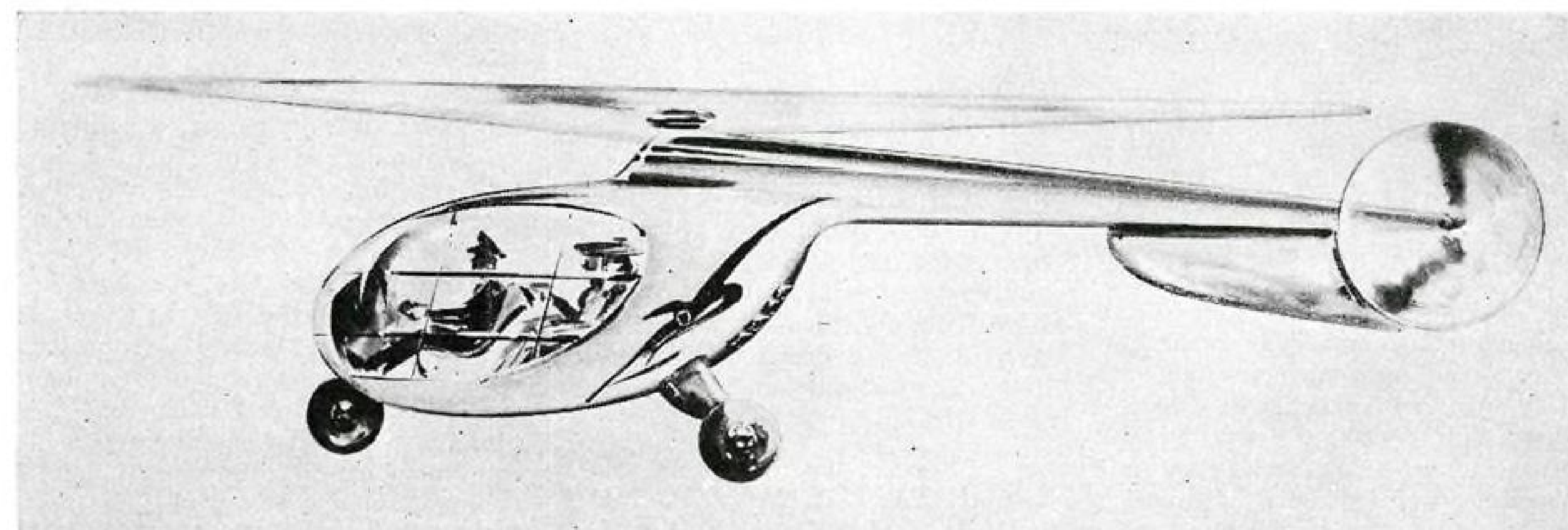
Wright says ARCO, claimant agency for the Army and Navy program, has effected such coordination. Engineering changes are being held to a minimum, and then are made only at Army or Navy request.

► **Emphasis on P-51, C-46, C-54**—Special emphasis now is being placed on North American's P-51 *Mustang*, for fighters; the Curtiss-Wright C-46, for cargo; and the Douglas C-54, another cargo ship coming off the line at a new Chicago plant scheduled to open July 30.

While the industry will not meet its "theoretical" schedule of 12,000 planes next December, the working schedule, now in its fifth revision, will be met. New W-5 schedules are being received by manufacturers. Wright estimates that peak production will be reached in mid-1944, instead of in December.

► **Manpower Main Headache**—Manpower remains the tightest item for meeting schedules. The director pointed out that the program has so advanced that problems no longer concern one chief material, such as aluminum, but rather consist of countless small "bottlenecks" that arise daily.

As claimant agency, ARCO goes to the War Production Board Requirements Committee for materials for the Army-Navy war program. After allocation to ARCO by WPB, the supply is allotted to manufacturers by the Aircraft Scheduling Unit. Producers obtain delivery through the WPB's Controlled Materials Plan.



Family Helicopter: Everybody is discussing helicopters these days. The talk ranges from a determination to fly one to the economic aspects of a plane which possibly will affect our way of living, perhaps pushing the suburbs further away from cities, even as did the automobile. Some see the helicopter as the air taxi

of the future; others as a handy machine to have in the back yard. Here is the conception of the *Helicab*, designed by aviation pioneer W. B. Stout, famed inventor who now heads the Stout Research Division of Aviation Corporation's Consolidated Vultee Aircraft. Stout also proposes a roadable plane and an aerocar.

NEW

G-E RADIO-NOISE FILTERS

for Aircraft



Available in ratings of 25, 50, 100, and 200 amp, d-c, at 50 volts

They provide excellent noise suppression—especially from 200 to 20,000 kc

THESE filters help immeasurably in providing the high-fidelity radio reception so important in aerial warfare. They attenuate radio-noise voltage on aircraft electric systems (on circuits with such equipment as generators, amplidynes, inverters, and dynamotors). They are particularly helpful in systems where open wiring is used to save weight.

FEATURES

- High attenuation characteristic results in excellent noise reduction
- Compact and lightweight (For 100-amp rating, shown at left, approx 2 1/5 lb, measuring approx 5 by 4 by 2 1/2 in.)
- Can be mounted readily in any position
- Operate efficiently over a wide temperature range (— 50 C to 50 C)
- Comply with U.S. Army Air Forces specifications, including the stringent requirements as to vibration and acceleration

★ ★ ★

FOR FURTHER DATA Ask your G-E representative for Bulletin GEA-4098, or write to General Electric, Schenectady, New York.



Attenuation characteristic of G-E 100-amp filter compared with Air Forces Specification 32331A

GENERAL ELECTRIC

Edison in Aeronautics...

The hundreds of products and developments for aviation that have risen from research at Thomas



A. Edison Industries cannot all be cited. Many cannot be specifically mentioned. But we want you of the Aviation Industry to know that our products are performing in your industry in such a way and in such numbers that we

feel you will want to know more about us now and later.

Intricate techniques, highly specialized machinery and personnel long-time trained by Thomas A. Edison in making unique electrical control devices and instruments naturally led the Edison Industries to the manufacture of Edison Aircraft Instruments which have earned top performance records, are used in practically every Army and Navy plane.

The Edison Ratio Type Electrical Thermometer

has only about half the weight of earlier types

... complete absence of hairsprings simplifies maintenance.

Gage Units Edison Engine combine in one case an electrical oil temperature indi-

cator, an oil pressure gage, and a vented fuel pressure gage. Edison glass-sealed switches

literally carry their own atmosphere, operate exactly as they did on the

ground while up 30,000 and 40,000 feet! Con-

ventional electrical switches and relays, in low

atmospheric pressures, carry only a fraction of their normal capacity.

Edison manufactures Electrical Resistance Ther-

mometer Bulbs that are in first demand by aircraft manufacturers.

Their brazed, one-piece construction makes them absolutely leak-

proof. Their in-built mechanical strength assures easy and safe installations ... rigid standards of

accuracy and fast response time assure excellent service. Please do not hesitate to investigate the

availability of development facilities here. Let us know your needs—perhaps we have some answers

to questions that have puzzled you.



Thomas A Edison

INCORPORATED

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MANUFACTURERS OF EDIPHONES (FOR BUSINESS DICTATION) • EDISON ALKALINE BATTERIES • EDISON PRIMARY BATTERIES • EDISON STARTING, LIGHTING AND IGNITION BATTERIES • EDISON SPARK PLUGS AND MAGNETOS • EDISON MINERS' CAP LAMPS • MEDICAL GASES • INSTRUMENTS • WOOD PRODUCTS • AND COUNTLESS NEW WAR PRODUCTS WHICH CANNOT BE NAMED

Success of Sicilian Campaign Accelerates Glider Program

10,000 by end of '43. U.S. production at all-time high with peak planned for early '44.

The startling success of the American airborne division in the Sicilian invasion will be followed by new orders for probably thousands of additional troop-carrying gliders.

► 10,000 by End of '43—Production of 15-place gliders is already at an all-time peak in the U. S. and if present progress continues, even without new contracts, the nation will attain an annual rate of nearly 10,000 by the end of the year. In one month recently output averaged nearly 150 big gliders a week.

Manufacturing, training, and operational developments with the 15-place Waco GG-4A, used in combat for the first time in Sicily, have been so successful that gliders carrying twice the load are likely to be ready for tests before long.

► Reveals bigger gliders—Richard C. du Pont, Special Assistant to Gen. Arnold, freely admits that "There are larger gliders under development. ... We have only just made a beginning."

Only a few eight-place trainers are still being delivered. All others are the Waco. One was towed across the North Atlantic recently, and two others were towed by two planes for a record 1,243-mile non-stop hop late in July.

► 15 Firms Building Gliders—About 15 contractors are building complete gliders. Only one, Ford, is also manufacturing planes. Ford's Iron Mountain, Mich., plant is at present the nation's No. 1 glider producer by a wide margin, with Gibson, Pratt-Reed, General, Waco, Commonwealth, and Northwestern the remaining major manufacturers. Ford has made numerous changes in construction, and its monthly output is over 100.

► More Licensees—other Waco licensees in production are G. & A., Ward, Laister-Kauffmann, Ridgefield and Timm. Trainer or experimental builders include Babcock, Bristol, Robertson, and Schweizer.

Piper, Aeronca, and Taylorcraft shared equally an experimental order from the Army for more than 500 engineless light planes, adapted for glider training, but these firms have produced no other gliders since this order ran out early this year.

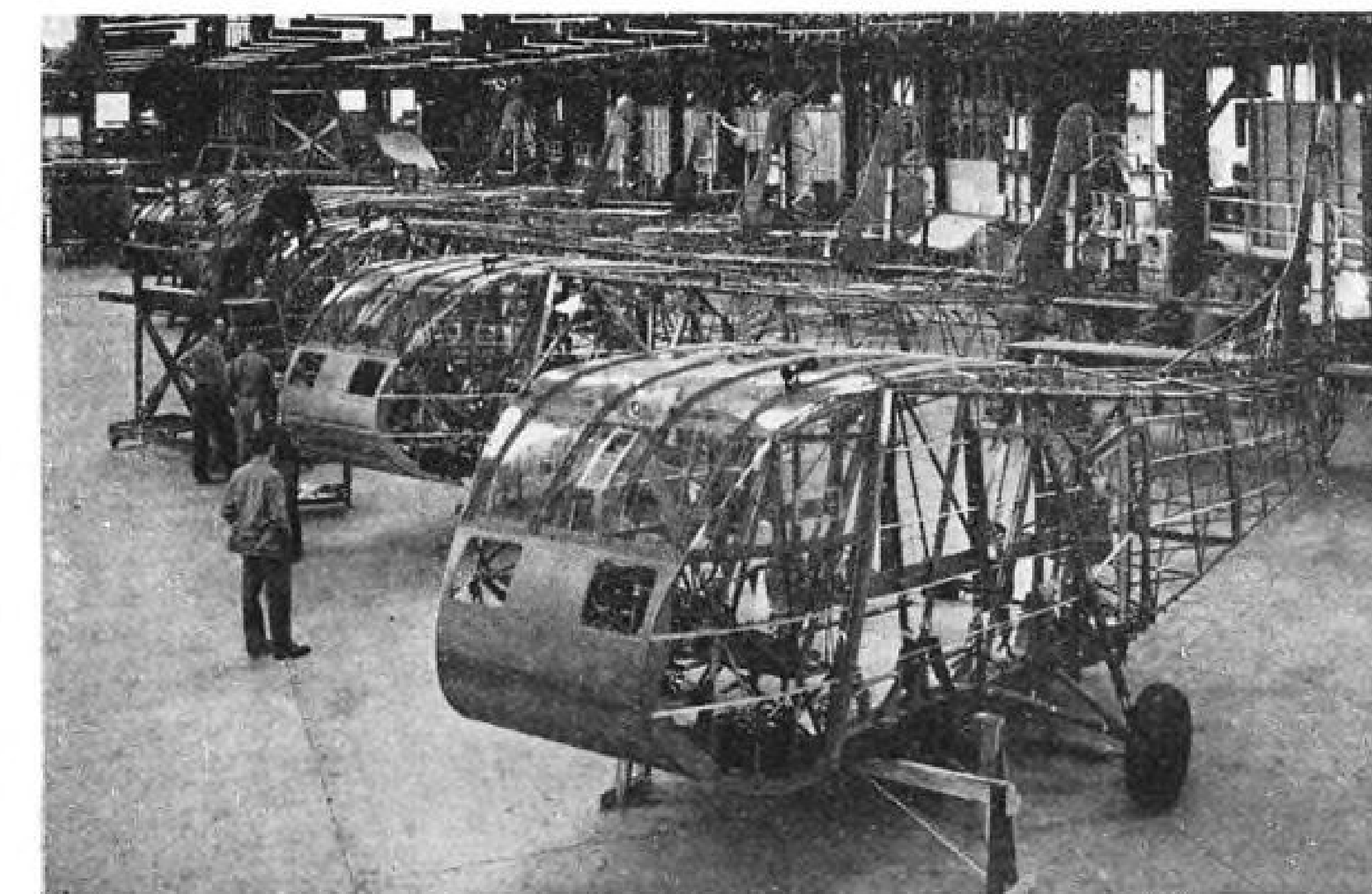
► Program Launched in '41—Three small gliders delivered in December, 1941, to the Army by Frankfort and Laister-Kauffmann

started the national program. Waco's first CG-4 was delivered in April, 1942, and five months later this model was being built by six other firms. November saw about 600 ships—about half of them small trainers—but December dropped off severely.

Reason for this was the Army's decision to switch completely to the 15-man glider. This played hob with the AAF's glider pilot training program because only a fraction of (Turn to page 28)



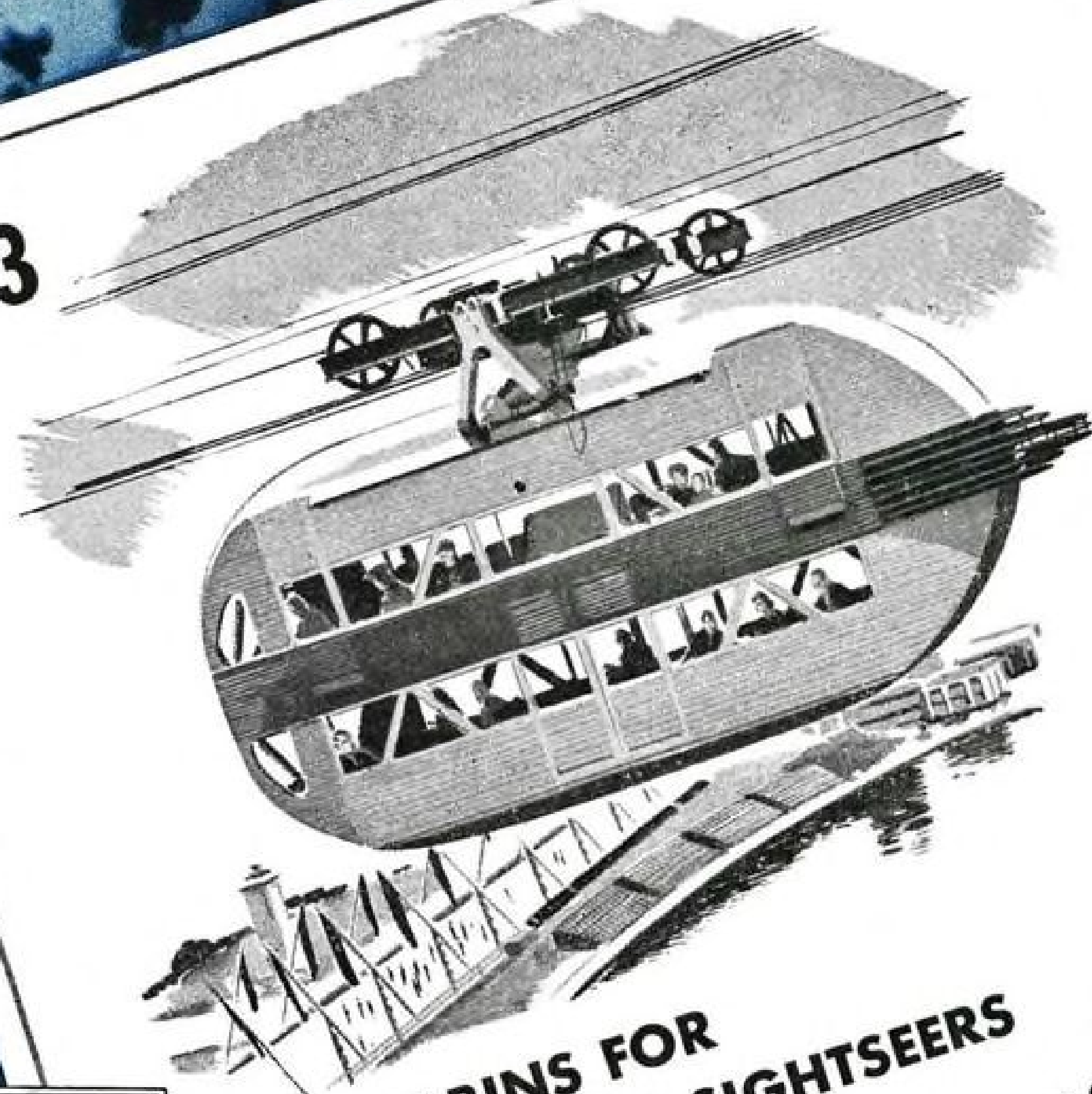
How They Did It: To our airborne troops goes a large part of the credit for the successful operations during the opening days of the invasion of Sicily. In this photo, taken in Africa, are some of them in the final training stage for those operations, unloading a jeep from a Waco glider.



Glider for Invasion: Need a new refrigerator? This is one of the reasons you can't have one. This Gibson Manufacturing Co. warehouse at Greenville, Mich., used to be full of refrigerators. But our airborne troops need transportation, and Gibson is now making CG-4A Waco gliders, with production steadily on the upgrade.

Trail Blazing in the Skies

1933



SKY CABINS FOR WORLD'S FAIR SIGHTSEERS

The cars of the famous Sky Ride at the Chicago Century of Progress 1933-34 were built by Goodyear Aircraft Corporation. While these cars operated on the monorail principle, suspended from overhead cables, the relatively large number of passengers carried made imperative a construction that combined high strength with minimum weight. Calling upon its experience in building America's largest all-metal aircraft structures, Goodyear fabricated these cars from light duralumin alloys. And it is a matter of record that they carried many thousands of passengers without accident.

HOW GOODYEAR AIRCRAFT CORPORATION SERVES THE AIRCRAFT INDUSTRY

1. By constructing subassemblies to manufacturers' specifications.
2. By designing parts for all types of airplanes.
3. By re-engineering parts for mass production.
4. By extending our research facilities to aid the solution of any design or engineering problem.
5. By building complete airplanes and airships.

1943



FLIGHT CABINS FOR WORLD WAR BOMBERS

During 1943 Goodyear Aircraft has been producing cabin and flight-deck subassemblies for one of America's largest four-motored bombers. Into these units were compressed all the skill and metal-working technique Goodyear has amassed in nearly twenty years' practice in handling light alloy metals — a background that includes pioneer development in both heavier and lighter than air. Our nation profits from this today in Goodyear's mass-production of U-boat-hunting airships and the swiftest of all Navy fighters, the Corsair.

GOOD YEAR
AIRCRAFT

the original number of pilots would be needed. Cancellations of contracts for small ships and weeks of hesitation by military authorities to convert plants to the big models put the youthful glider industry in a panic. Also, the first program had been unrealistic in setting astronomical goals of 2,000 or more gliders a month for the baby industry, most of whose members were small, inexperienced firms. It further dictated that contractors who were also building powered planes must not allow their aircraft work to lag. Result was that Boeing and Cessna pulled out, although the latter turned out 500 Wacos first.

Other firms had difficulties perfecting their small prototypes and those which did perfect them suffered the same fate—cancellation of orders—because the Army didn't want any more eight-place ships.

► **Great progress in '43**—The glider industry was reborn, however, and has made remarkable progress this year. Almost every month has shown an increase in production over the preceding month. Present plans call for the production peak in the first quarter of 1944.

Decision as to the number of super-gliders which will be built and the number of companies which will be brought into the program depends on flight tests of the new Waco. The Army also must decide whether to build up two or three

types of varying size or concentrate on one.

► **U. S. beats German design**—Glider-veteran du Pont, who has the authority of an assistant chief of air staff or a brigadier general, even though he is a civilian, says, "We've gone ahead of the Germans in glider development. . . . We are not only able to retrieve gliders (by pick-up methods) after they have landed, which the Germans are not, but we have also equipped our gliders for blind flying."

The Wacos also can carry oxygen apparatus.

► **Towed at 120 mph**—Waco officials say their CG-4A can be towed at 120 mph. or glide at 38 mph. without stalling. Fully loaded, its weight is about 8,000 pounds, or 15 men fully armed and equipped, two of whom act as pilot and co-pilot. An alternate load is a quarter-ton truck with four men as crew and two men as extra crew, plus extra equipment.

Or, the CG-4A can accommodate a standard 75-mm. howitzer with gun crew of three plus glider crew of two, along with ammunition and supplies.

► **Navy Interest Lags**—Only a few gliders have been built for the Navy, and so far, Navy officials have shown little interest in building up a glider corps.

"The use of gliders (in war) is completely practicable and has tre-

mendous potentialities," du Pont says. "It suddenly takes aviation away from airports and makes any small field a potential landing or take-off airport."

Hard-headed commercial airmen agree the glider may be practicable in war, which ignores expense. But they doubt if it will be economically profitable until further wartime experimentation has been completed.

Brewster-Miranda Dispute Settled

Export representatives of company to receive \$500,000 in commissions.

Settlement of a case involving Brewster Export Corp. and Brewster Aeronautical Corp., under which the export firm will receive \$500,000 from the latter, has been approved in New York State Supreme Court.

► **Waived Claims**—The \$500,000 represents part of about \$2,300,000 the export company claimed as commission under export contracts. The company waived claims to \$1,800,000, due eventually on completion of contracted foreign deliveries.

The action was brought by Brewster Aeronautical and a group of minority stockholders against Alfred J. Miranda, Ignacio J. Miranda, F. Wm. Zelcer, and Brewster Export.

► **Commissions of \$385,000**—The Mirandas, who control the export corporation, were allowed to keep \$385,000 paid in commissions to the Hayes Aircraft Accessories Corp., also controlled by them.

Under the agreement, the export firm's contracts as foreign agents for Brewster Aeronautical will be cancelled; the Mirandas will give up the Brewster name. Commissions of \$2,800,000 already received by the export firm, will be retained.

Tread Landing Gear

Wright Field testing new caterpillar gear enabling planes to land on rough ground or sandy fields.

The new gear is a development by the Firestone Tire and Rubber Co., whose officials say that the new tread uses about the same amount of rubber that would go into a regulation airplane tire, but that it gives the plane from four to eight times greater contact area on the ground.

Many of the "air bases" used by our warplanes around the world on the fighting fronts are little more than clearings in the jungle or desert, and landings have been a problem in some areas.



BIG DOORS FOR BIG CARGOES

It won't be long before the airlines will be flying these Douglas C-47 transports for the Air Transport Command, ferrying men and cargo. Or the Army itself may use them to tow gliders and carry equipment to the fronts. These ships await wing installation at the Long Beach plant of Douglas Aircraft Co.

plane talk

ELECTRICAL
DEVELOPMENTS,
IDEAS,
APPLICATIONS FOR THE
AVIATION
INDUSTRY

IN BOMBSIGHT STORAGE and maintenance, it has been a serious problem to keep dust from filtering into the delicate mechanism. This is now being solved by use of PRECIPITRON—the Westinghouse Electric Air Cleaner. It traps minute air-borne dust particles that filter through mechanical-type air cleaners.

★ ★ ★ ★

FOR SERVICE PLANES, sleeve bearing and new type antifriction bearing pulleys are now approved. Wider use of these types of pulleys for their particular applications has materially relieved the delivery pressure on aircraft pulleys.

★ ★ ★ ★

HIGH-FREQUENCY HEATING is finding two increasingly important applications in the aircraft industry. (1) Induction heating for faster, more uniform heat-treating of metal parts. (2) Dielectric heating for speedier and improved fabrication of plywood planes and plastic parts.

For detailed information on Westinghouse equipment for these applications, write for new booklet B-3261.

★ ★ ★ ★

FOR TESTING OPERATION OF GUN TURRETS, fuel pumps, and other power-driven equipment while on the plane, RECTOX Engine Starters are finding wide use at maintenance depots. Advantage: power is supplied for testing operations without drawing on the plane's battery or generator.

★ ★ ★ ★

IMPORTANT THERMOSTAT APPLICATIONS for aircraft: (1) Battery heaters are being used in connection with a thermostat, to maintain battery at safe, uniform temperature regardless of ambient temperature. Units can be built directly into the battery—sizes available for any shape or size of battery. (2) Fire Detectors: these thermostats are located at numerous points throughout the plane. Should a fire occur at any point, a signal light is immediately lighted in the cockpit, warning the pilot of danger.

★ ★ ★ ★

FOR DATA ON WESTINGHOUSE EQUIPMENT for the Aviation Industry, write Dept. 7-N for new booklet B-3255.

J-94581-A



Westinghouse

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.
PLANTS IN 25 CITIES • OFFICES EVERYWHERE

Aircraft Parts from America's New Source of Aluminum

To the aircraft industry, Reynolds means complete Service in Aluminum. Reynolds mines its own bauxite, processes the ore into finished aluminum and then carries the service through to the final vital operation—*fabricated parts for planes.*

Reynolds was the first to produce high grade metal from lean domestic ore and was the first aluminum company to fabricate finished airplane parts.

Now Reynolds is mining more bauxite than was mined in the entire country before the war, converting it into hundreds of millions of pounds of aluminum for aircraft. The Parts Division in Louisville, expanded 40 times, has thousands of workers and batteries of machines on 24-hour schedules.

Scrap from fabricating operations (average 30 percent)

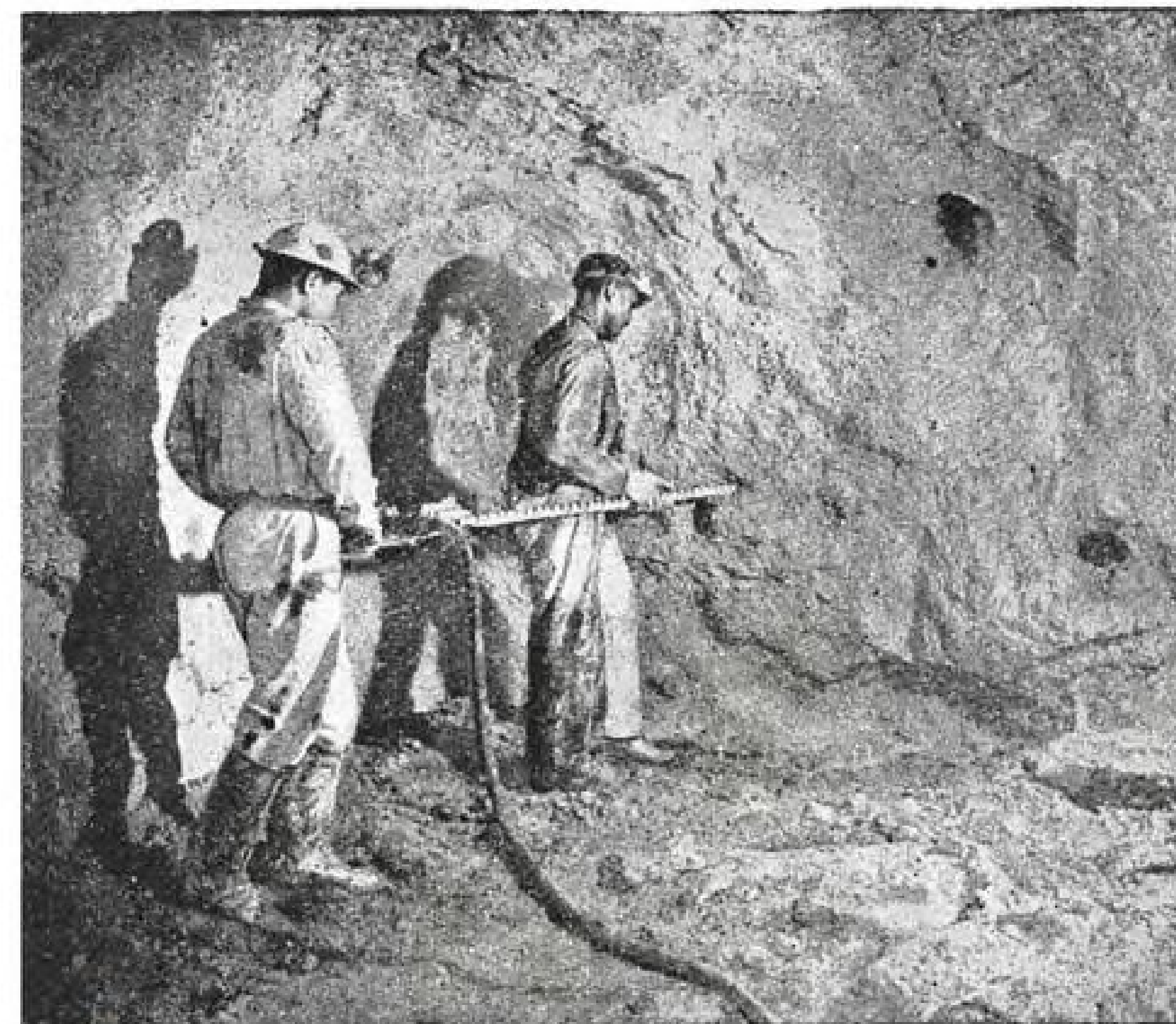
stays at Reynolds plants, where it is put right back into production. This eliminates scrap headaches for aircraft manufacturers... *saves manpower, plant space, freight facilities...and keeps inventories down!*

The foresight and courage that created America's New Source of Aluminum has developed the aircraft industry's new source for finished parts. Reynolds Sales Engineers are available throughout the United States.

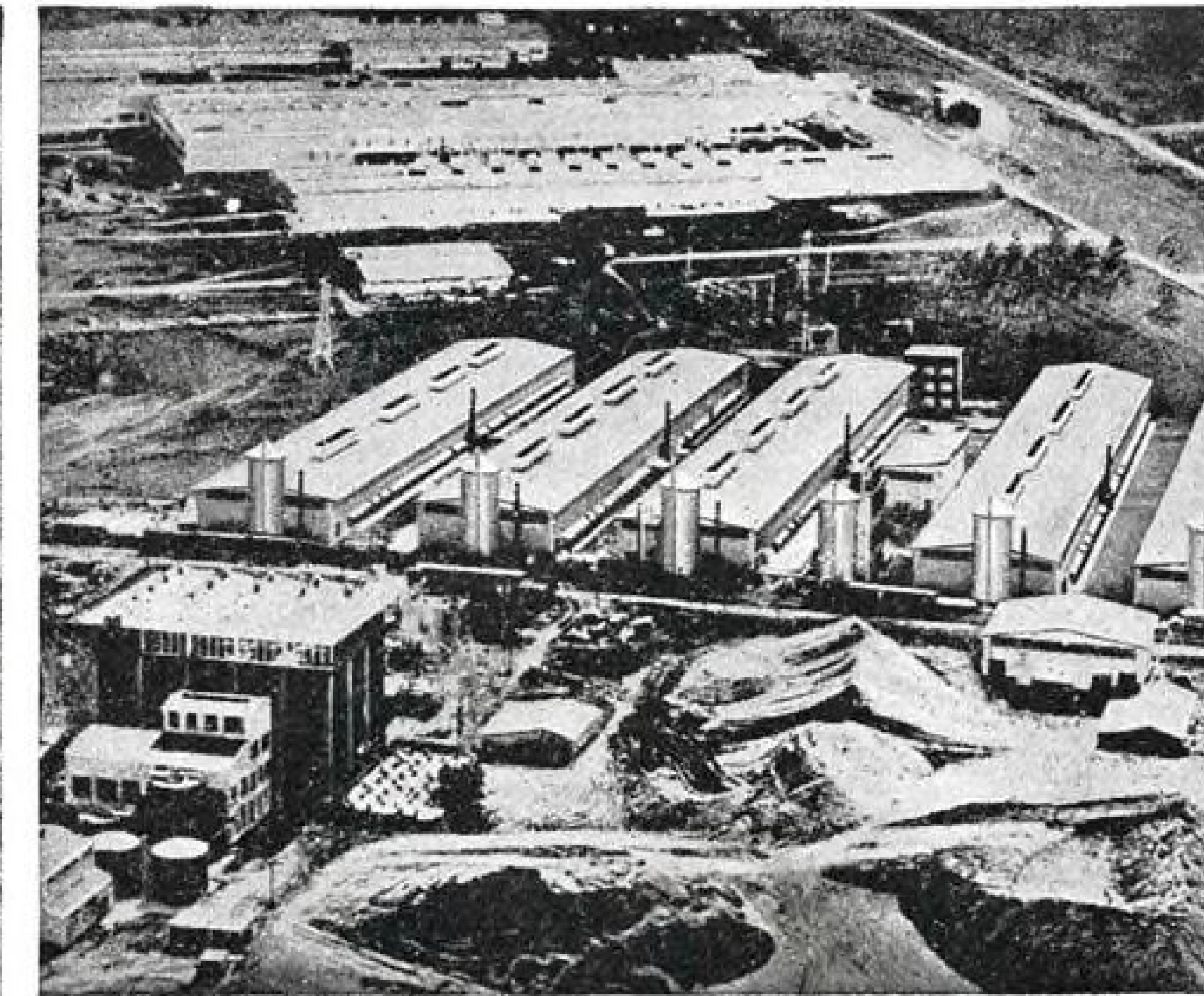
REYNOLDS METALS COMPANY • PARTS DIVISION • LOUISVILLE • KY.

AMERICA'S NEW SOURCE OF ALUMINUM

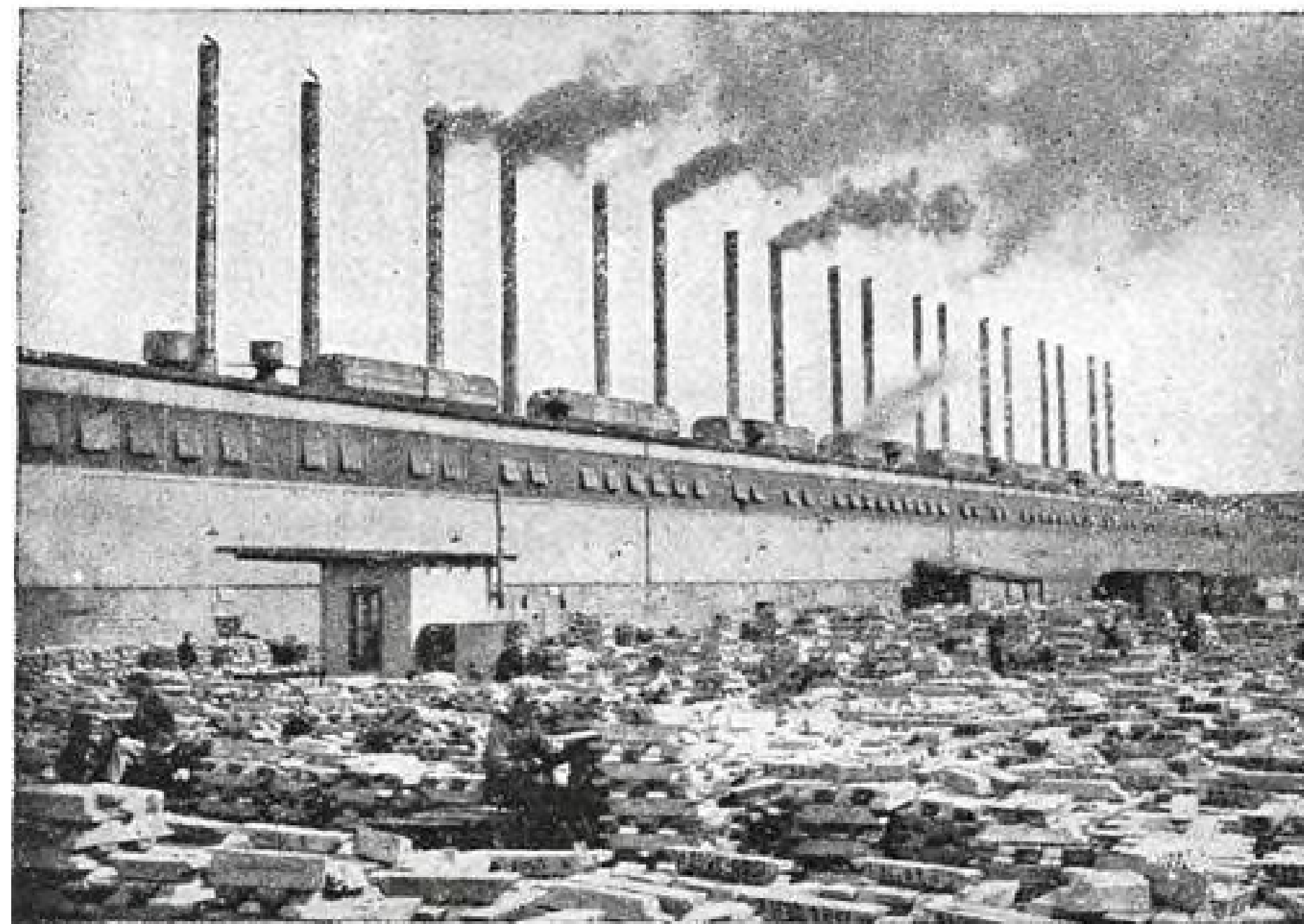
**INGOT • SHEET • EXTRUSIONS • WIRE • ROD
BAR • FORGINGS • TUBING • FOIL • POWDER**



1 Reynolds Aluminum and finished parts start in this Arkansas bauxite mine. Reynolds mines more bauxite than was ever mined in the U. S.



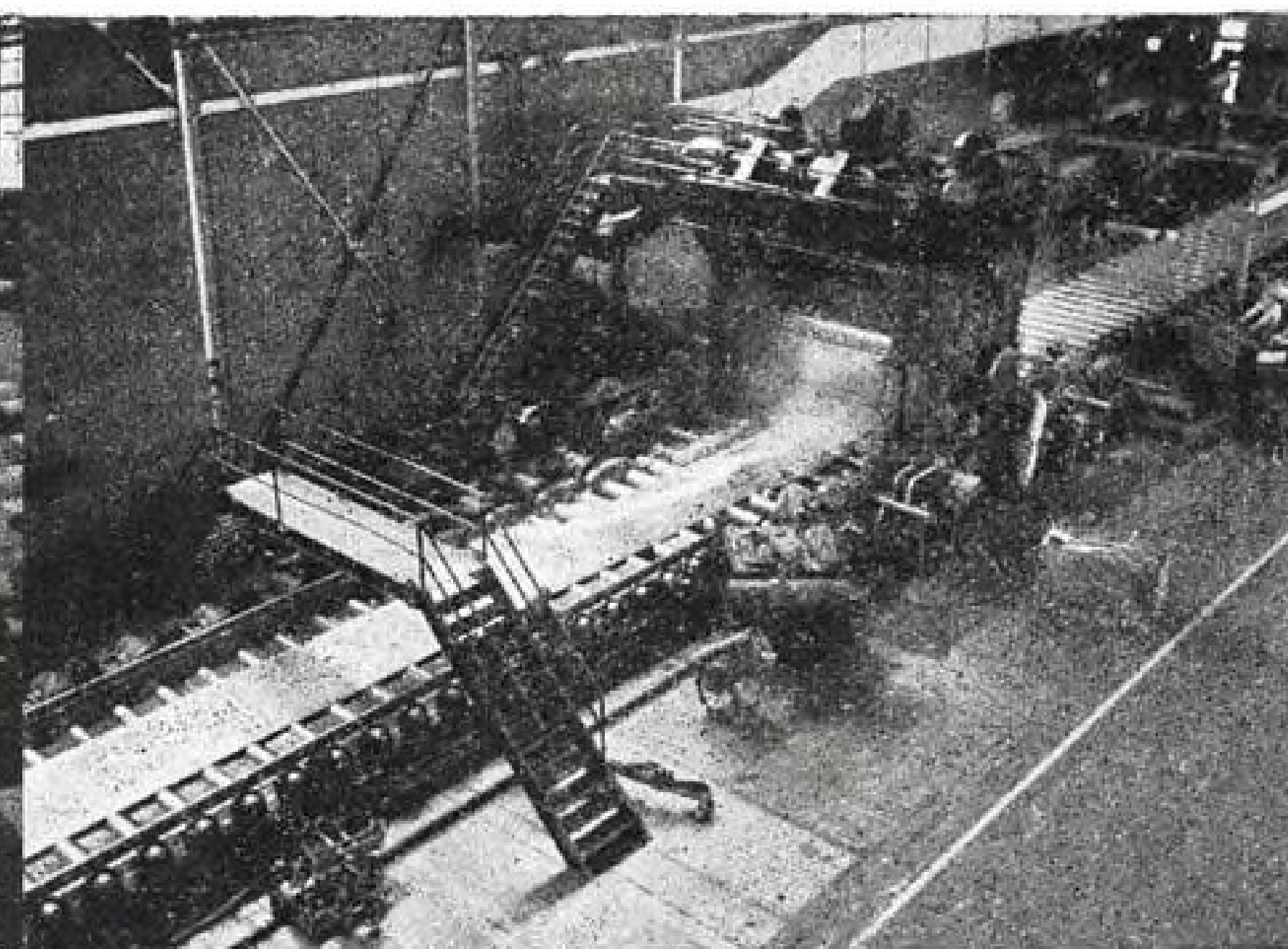
2 Reynolds refines bauxite into alumina; reduces alumina into aluminum; aluminum is cast, alloyed and fabricated into sheet and rod.



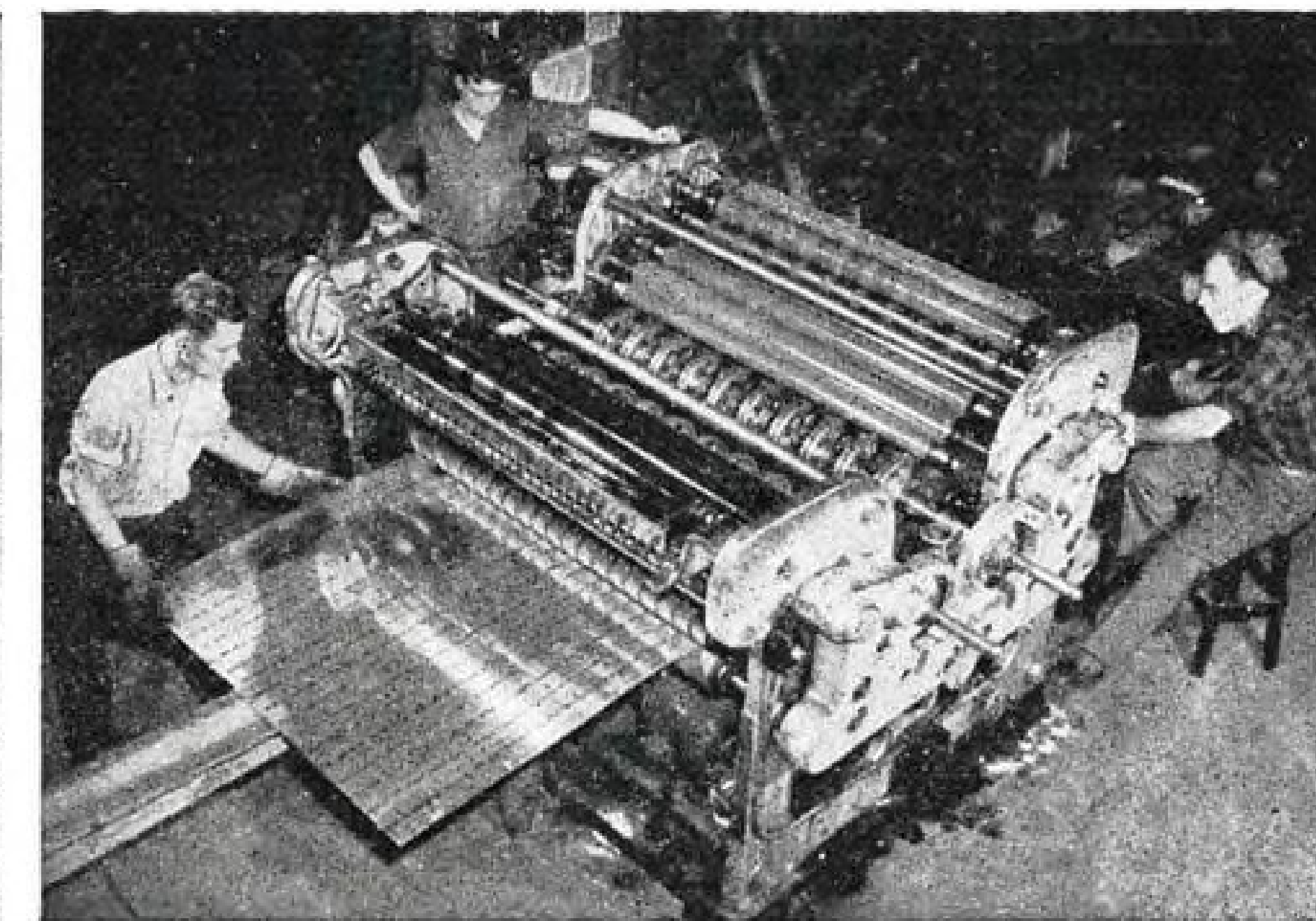
3 Aluminum ingots, outside Alabama plant, are fed into remelt furnaces with alloying metals. Resulting alloys are cast into billets.



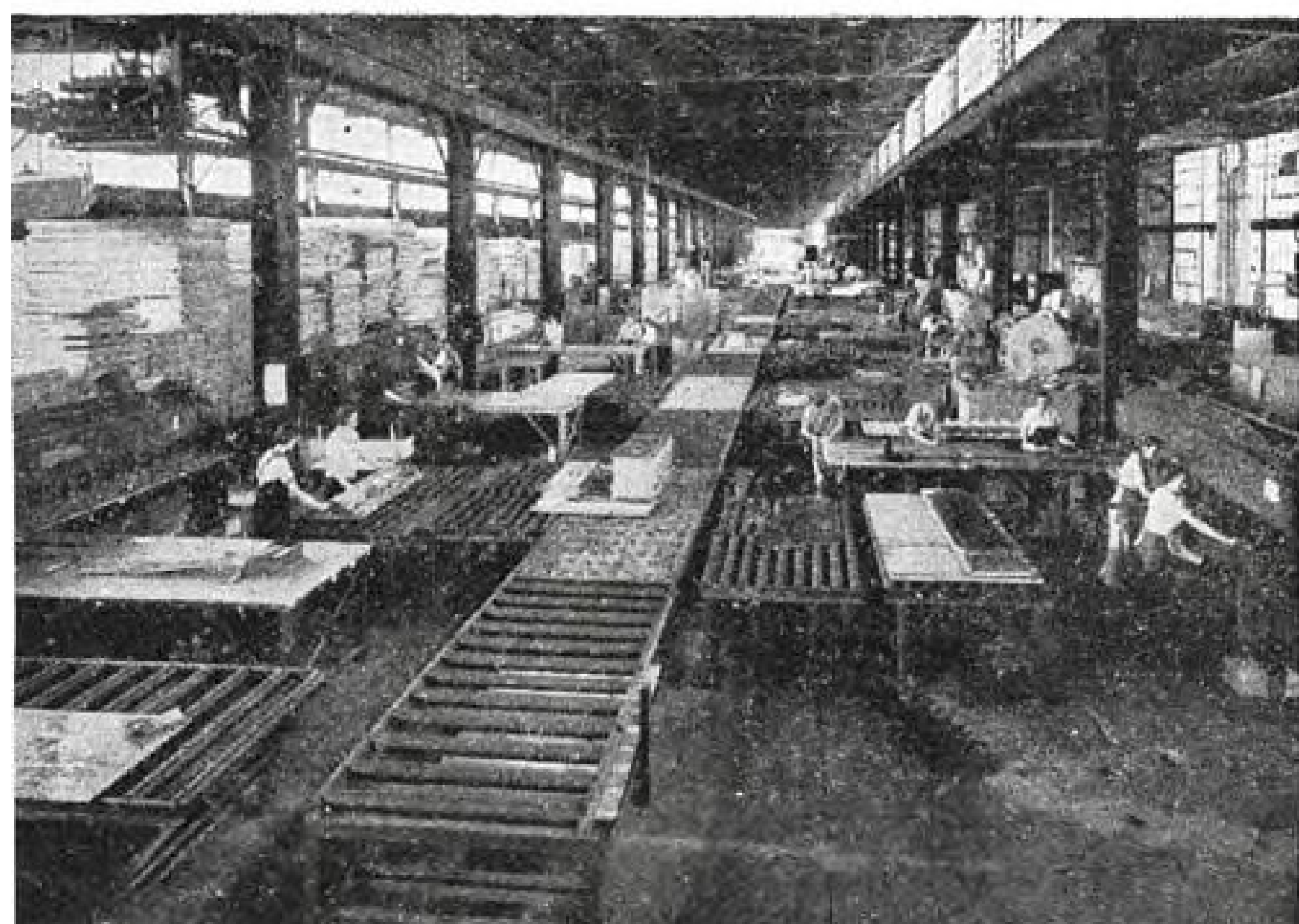
4 Reynolds rolled aluminum alloy forging stock, tested and inspected, ready to be forged into aircraft propellers.



5 Reynolds huge "4-high" hot mill, rolls billets under tremendous pressure into long ribbons of gleaming aluminum alloy sheets.



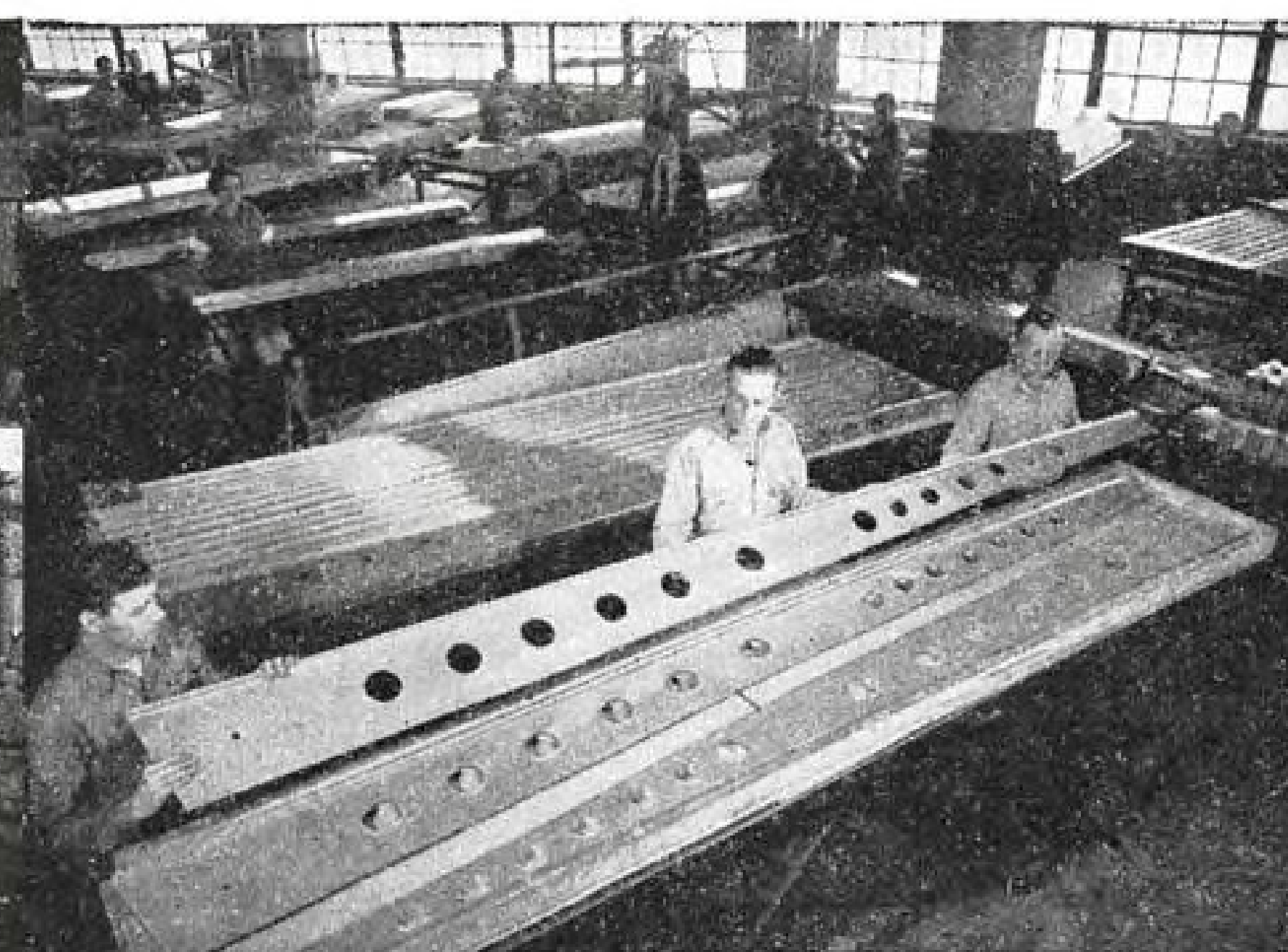
6 First automatic stenciling machine in the Aluminum Industry, developed by Reynolds, permitting closely printed alloy, gauge and temper lines to insure precise identification.



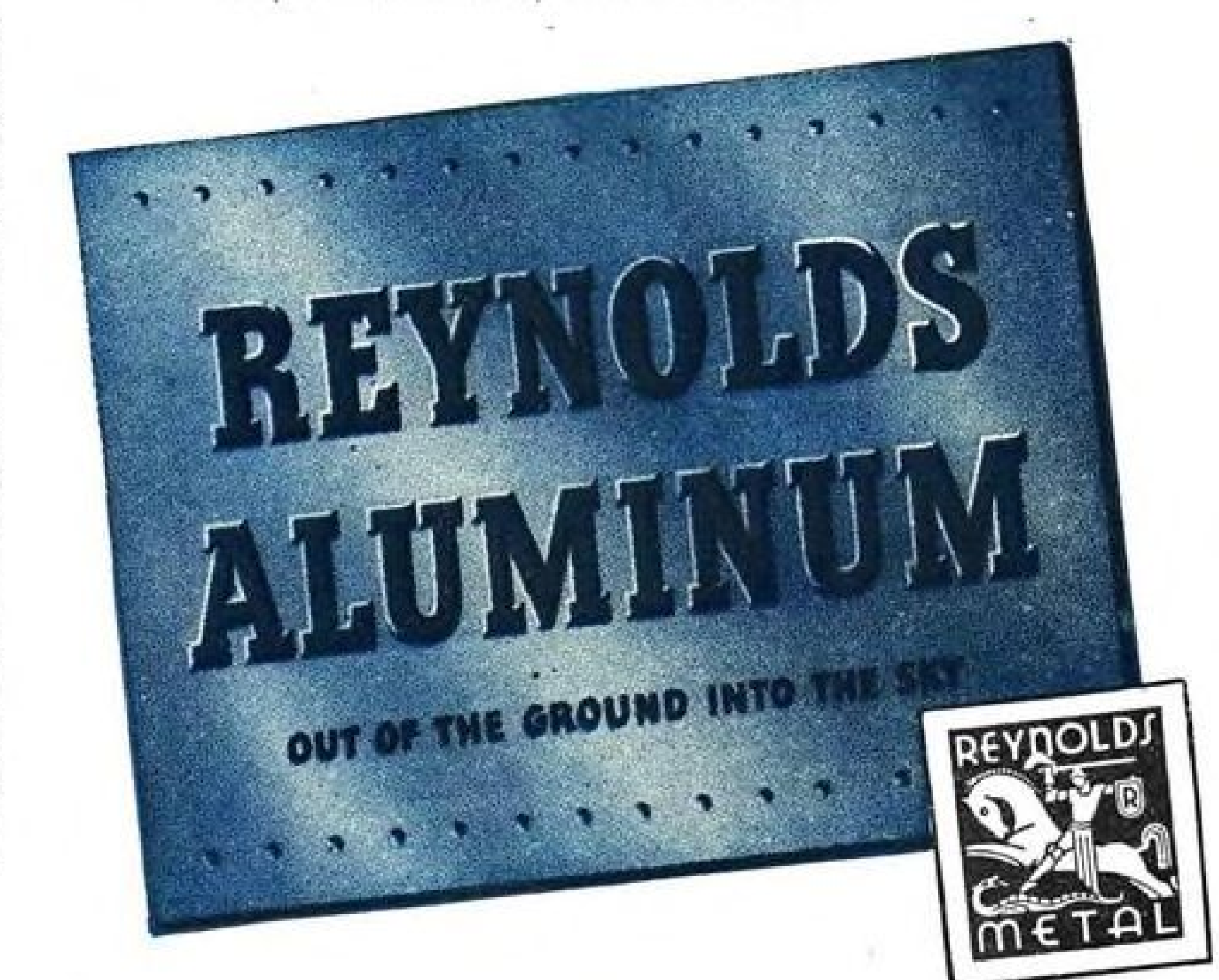
7 Reynolds Parts Division Shearing Line, capacity 4,000,000 lbs. of sheared skins monthly. All skins Navy inspected.
(No Scrap Problems)

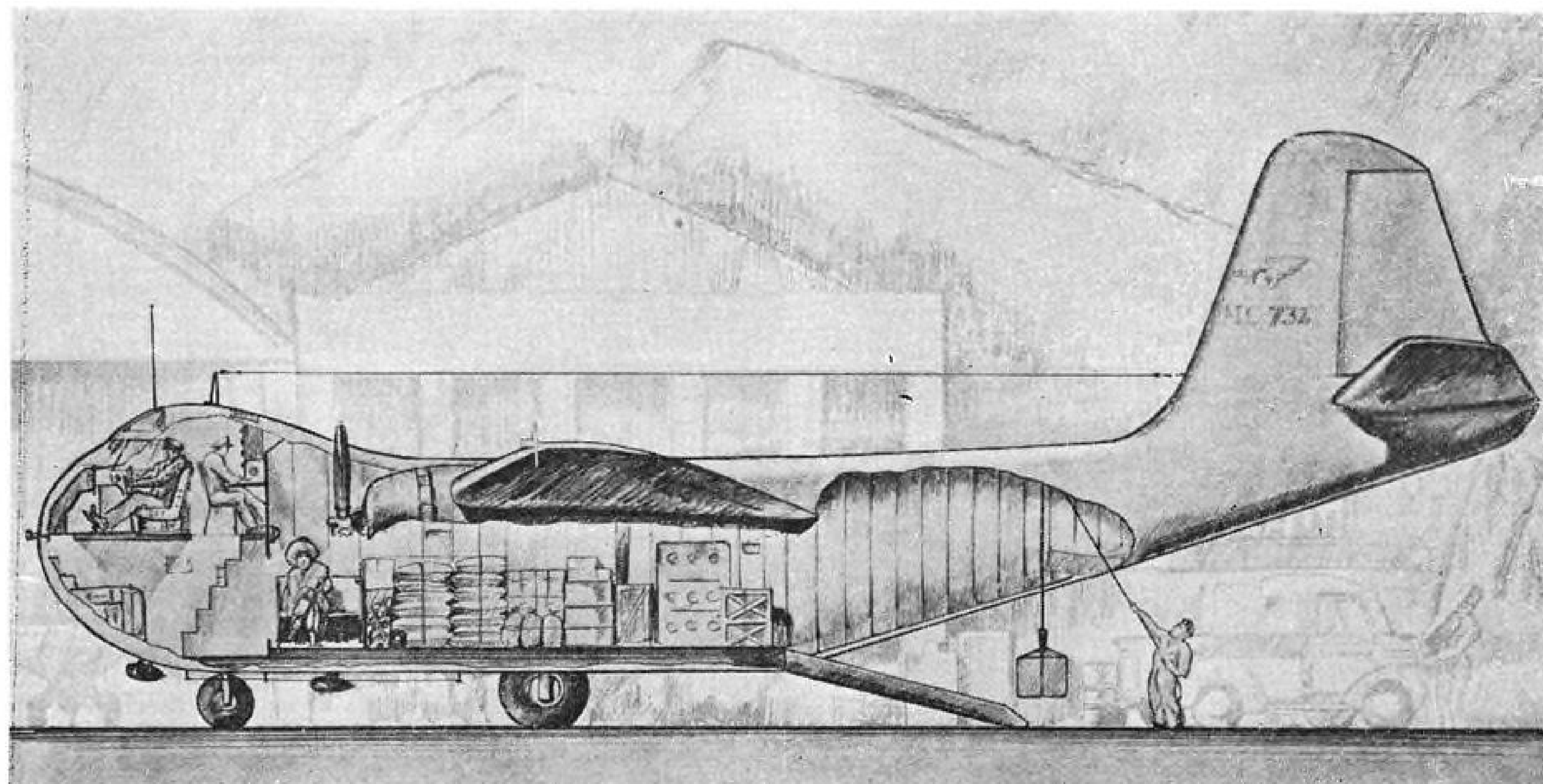


8 Reynolds Router and Stock Drill Department, section of the 250,000 sq. ft. expansion of the Parts Division in Louisville.
(No Scrap Problems)



9 Inspection of finished parts—blanked, formed, heat treated, anodized, zinc chromate primed, ready for aircraft assembly lines.
(No Scrap Problems)





TAXI CARGO CARRIER:

Revolutionary design for a high-efficiency cargo plane which was prepared originally by Defense Supplies Corp. experts to operate in and out of small airports in Central and South America. A plane somewhat simi-

lar, of all welded stainless steel, will begin coming off the assembly lines of Edward G. Budd Manufacturing Co. by the end of this year. Gross weight is more than 20,000 pounds.

Big Firms Gain

Douglas, Beech, Sperry, and General report progress.

New gains were reported last week by aircraft and equipment manufacturers.

Douglas Aircraft Co. predicted a doubling of its gross sales on a fiscal year basis. Now delivering \$100,000,000 worth of combat and cargo planes a month, according to R. V. Hunt, vice-president, gross sales for the year ending next Nov. 30 are expected to be more than a billion dollars. The previous fiscal year saw a sales gross of \$501,000,000. Hunt said that less than a third of one percent would reach stockholders, most of the earnings going to taxes.

► **Lowest U. S. Absenteeism**—Another doubling was reported by Beech Aircraft Corp., where production in the first half of the 1943 fiscal year was greater than the entire 1942 fiscal year. President Walter H. Beech reported continuation of an experimental and developmental program to aid present and postwar output. During April, he said, his company had the least absenteeism of all aircraft manufacturers in the United States.

A new peak in shipments by Sperry Corp. was noted by Thomas A. Morgan, president, at a board meeting where a regular 75-cent

dividend was declared. Morgan, explaining that the directors did not increase the size of the dividend because of working capital requirements, said earnings for the first half of 1942, when the shipment record was set, had not been finally determined. They will, however, be higher than the first half of last year when net income was \$2,394,237, or \$1.19 a share.

► **Cargo and Troop Gliders**—H. J. Maynard, Jr., president of General Aircraft Corp. reported meanwhile at a stockholders' meeting that the corporation now is one of the leading cargo and troop-carrying glider manufacturers for the armed forces.

U.S. Forbids Delay In Renegotiation

Won't permit firms to await Congress action; gross hits at methods.

Renegotiation agencies of the War and Navy have been warned that they are not to permit contractors to seek to postpone renegotiations in the hope that Congress may amend the Renegotiation Statute.

► **War & Navy Issue Statement**—Joint instructions to that effect were issued by Under Secretary of War Patterson and Under Secretary of Navy Forrestal, after they had received reports that "certain con-

tractors are seeking to delay or postpone renegotiation" pending a possible change in the law.

The joint order stated that "whenever a contractor is delaying renegotiation for this reason, the case should be immediately referred to the Under Secretary of War or Navy for final determination of the amount of excessive profits realized or likely to be realized by the contractor under his contracts.

► **Says Renegotiation Weak**—Meanwhile, a fundamental weakness of the present method of renegotiation was described by Robert E. Gross, president of Lockheed Aircraft Corp. as "the contention of the government that it cannot recognize the need for postwar conversion reserves."

"If free enterprise is to discharge its responsibilities in helping to rebuild the world—and it must," Gross declared, "then it must be allowed to build adequate reserves.

His comments were made in connection with a report that the sales of Lockheed and subsidiaries during the first six months of 1943 amounted to \$330,000,000, double the output of Lockheed-Vega during the same period of last year. Gross said the profits shown on the books were "to a degree meaningless" since the price of products delivered to the government had not been renegotiated.



JAP CONCENTRATIONS PHOTOGRAPHED —at 400 m.p.h.



Tucked in the belly of the Navy's Corsair is an aerial camera, cradled snugly in a Robinson camera mount. The plane flashes over a Jap base; photographs a ship concentration.

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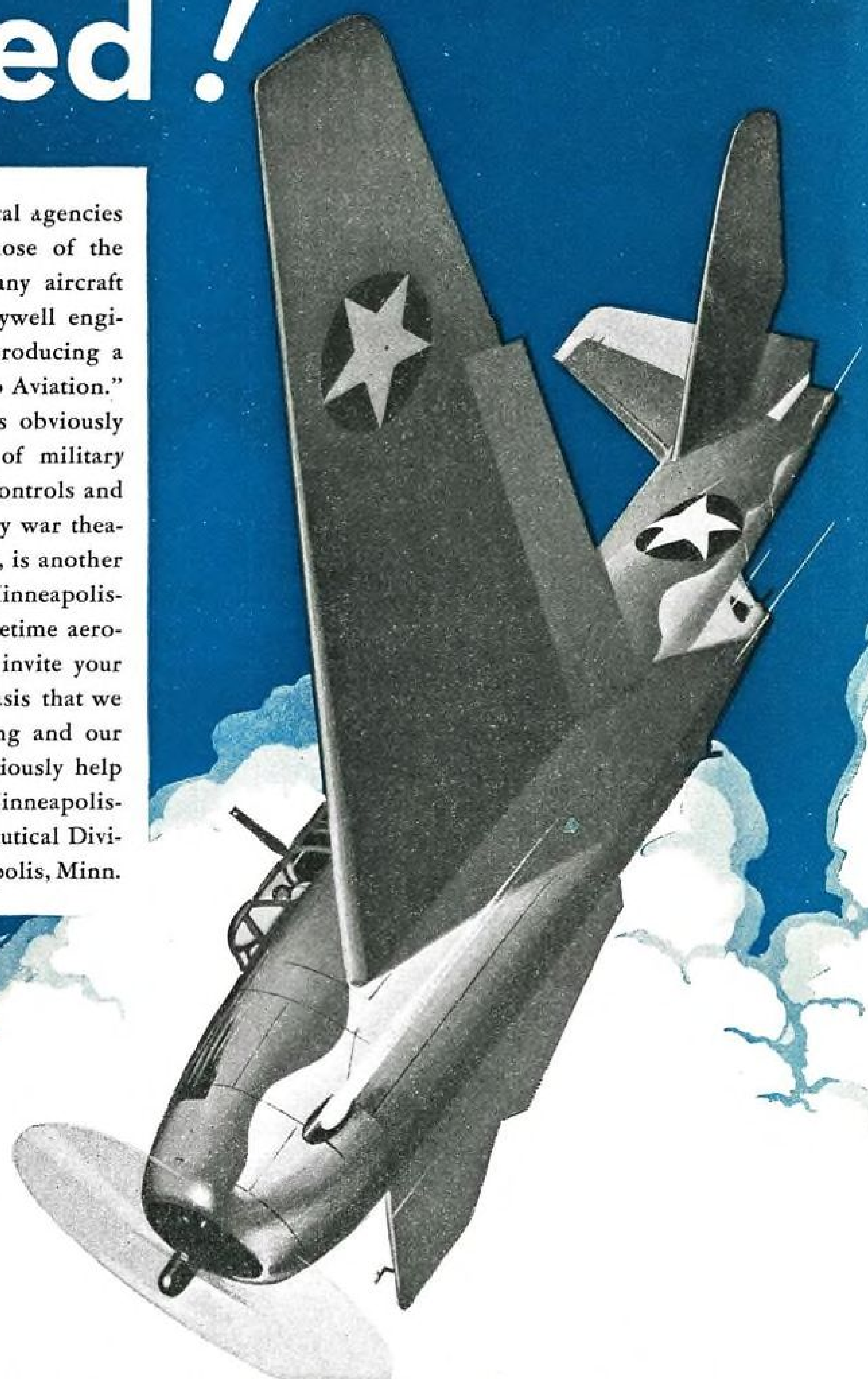
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MINNEAPOLIS-HONEYWELL

AERONAUTICAL INSTRUMENTS



TRANSPORT

CAB Examiners Preparing To Handle Flood of Route Cases

Emphasis to be placed on faster schedule rather than changes in procedure; more than 200 applications in.

The Civil Aeronautics Board will rely on increased tempo under its present methods, rather than procedural changes, to loosen the jam of cases that confronts it, CAB sources say.

► **Route Problems**—Route cases are the big headache. In addition to proceedings in which some action has been taken, more than 200 applications have been received, and 30 to 40 letters a week ask how new applications should be filed.

The long-range solution most apparent lies in expansion of the examiners' staff—there are now 14 examining positions—and this already is under consideration. In fact, unofficial conferences with the Budget Bureau have been held and there is little doubt that Congress will be asked, next year at the latest, to provide more money for administration of the Civil Aeronautics Act, with this end in view.

► **Face Tough Schedule**—The board's examiners face a punishing schedule if they are to keep up with their duties this coming fall, winter, and spring. Sentiment in this group appears to be that pending cases, aside from those placed in active status by the board, can be handled under present procedure, although expedited where reasonably possible.

Route cases on file cover new services, extension of existing lines, and pickup applications, services for cargo only, and foreign and overseas requests.

► **Hard Nuts**—Some of the hard nuts in this collection already have been set tentatively for hearing. One is a consolidation of ten applications for routes from New York to Boston, probably Sept. 8. The controversy over Panagra's sought-after Miami terminal, involving the issue of control of the company, may be presented in New York Sept. 15. Investigation of the general problem of pickup lines, for which nearly 30 applications have been filed, is scheduled for Sept. 28. The board

also has notified Universal Air Freight Corp. that it will proceed in the near future on its application to become an interstate carrier of air freight, a matter expected to bring to the fore the whole problem of air express.

► **Anti-Monopoly Safety Value**—In addition to new route cases, in many of which the Department of Justice has intervened as a precautionary anti-monopoly move, the board's examiners must handle all rate cases. The toughest of these have been assigned and are being heard as time permits.

CAB examiners don't just step into the job and start examining. On the contrary, at least six months are required to specialize their legal ability and focus it on their new duties. With men in all lines hard to get, the problem of obtaining candidates for the exacting work re-

quired by board standards may be expected to prove doubly difficult. This task of finding likely prospects will fall to C. Edward Leasure, chief examiner.

► **One Man Per Case**—The heavy program ahead of the examiners will mean that what manpower the division has must be utilized sparingly. Thus the practice of having two examiners attend important cases will gradually be abandoned and one man will be assigned to each case. Consolidations will be effected when feasible. Pre-hearing conferences, which have speeded preliminaries in a number of instances, will continue. But what one examiner has called the "brake of careful consideration" will not be sacrificed.

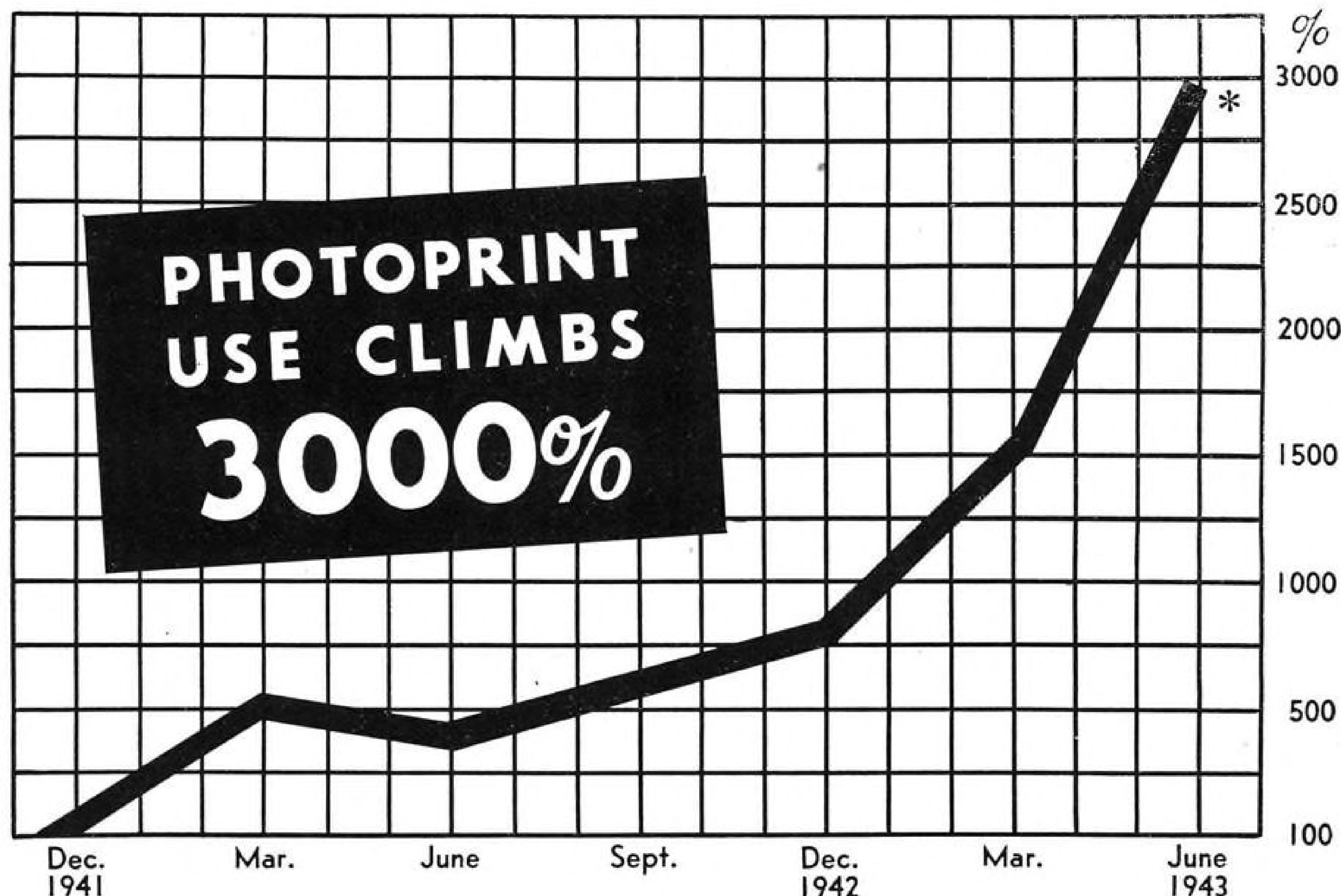
► **Longer Routes Foreseen**—In eight proceedings involving 19 applications, prehearings were held before the order was issued in December, 1941. These will be assigned for hearing in the fall, probably September and October. Late autumn may see conferences on cases involving extensions to existing routes in the United States and Alaska.

Probably spring will be here before the examiners get to applications for local and pickup services, although by that time the investigation of the feeder line situation should be completed.

The assumption is that applications for foreign routes will retain an inactive status until the war is over.



Headaches Coming: With more than 200 new route applications pending, these Civil Aeronautics Board examiners are looking forward to a busy winter season. Left to right, they are: Vincent L. Gingerich, Berdon M. Bell, T. L. Wrenn, Chief Examiner C. Edward Leasure, Assistant Chief Francis W. Brown, Ross I. Newmann, F. A. Law, Jr., Lawrence J. Kisters, H. K. Bryan, and J. Francis Reilly. Not shown are William J. Madden, Albert Beitel, and Barron Fredricks.



FLYING PHOTOPRINTS SPEED AIRCRAFT TOOLING IN THESE LEADING PLANTS

Photoprint departments are in operation at Consolidated, Brewster, Briggs, Douglas (Long Beach), Fleetwings, General Motors, Goodyear, Interstate, Ryan and Vought-Sikorski. New installations are now being made at Douglas' Santa Monica and El Segundo plants, American Aviation, and Willys-Overland.

*Installations not yet completed are not reflected in these figures.

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U. S. Must Plan Post War Disposal Of Military Transports . . . Pogue

Market will be glutted for long period, CAB chairman says, urging orderly disposition of production facilities.

L. Welch Pogue, chairman of the Civil Aeronautics Board, warns of serious consequences unless the nation plans now for the disposition of the vast air transport fleet and production capacity which we will have at the end of the war.

► **Consequences**—Speaking before the Los Angeles Aviation Forum, July 28, Pogue said that if there is no planning, and the surplus aircraft on hand at the end of this war are simply peddled to the highest bidder, we may be reasonably sure of the following consequences:

"1. A vast and costly defense reserve will have been wasted.

"2. The transport aircraft market will be glutted for years to come.

"3. The capacity to manufacture and develop transport aircraft will suffer a blow from which it will take years to recover."

► **Market Saturation**—Pogue noted that the lack of a well worked out plan for coping with the surplus aircraft problem "would doubtless result in the government's following the traditional policy of knocking down all surplus equipment to the highest bidder with the consequent saturation of both domestic and foreign markets."

The CAB chairman rejected the indiscriminate dumping of these aircraft on the foreign market as unwise. He pointed out that surplus aircraft might be scrapped as an alternative to dumping, and added:

► **Costly Liquidation**—"Of course, some aircraft would need to be preserved to take care of the immediate and pressing needs of the United States and foreign carriers.

... Scrapping would have the advantage of cleaning up the situation so that the available market would be preserved. It would have the obvious disadvantage of liquidating a very large and costly fleet of transport aircraft which might serve for awhile as a valuable war reserve or an instrument in the maintenance of peace for a number of postwar years."

► **Survey Advised**—Pogue suggested that "a careful, on-location survey of all war transport aircraft, in the light of various considerations of cost and value, should be undertaken as a first step in any postwar

surplus air transportation arrangement or plan, in order to determine what equipment is not worth reconditioning or salvaging."

He urged the setting up of adequate machinery now to handle the surplus aircraft problem and suggested that we can anticipate a period of from two to five years before new types are available for the market.

► **Cross Section Representation**—Pogue said it was the view of the CAB that the instrument for carrying out along this line the provisions and intent of the Lea Bill, now pending in Congress, should be a corporation, the board of directors of which should include representatives of the War, Navy, State, Treasury, and Commerce Departments, and the CAB.

He asserted that any postwar planning which does not provide for aggressive, practical application in the factories of this country just as soon as the war program permits "is a form of self-delusion."

► **Postwar Surpluses**—"I have faith that, if this problem can be worked out in harmony with the requirements of war production," Pogue said, "our American manufacturers and airline operators need have little concern for the competition from postwar surpluses of war transport aircraft."

Speaking a few days earlier in Denver, Pogue discussed the signifi-



CAB Chairman: L. Welch Pogue, the capable, well-informed chairman of the Civil Aeronautics Board, is on a tour of the west spreading the gospel of aviation and its future.

cance of air transportation and emphasized that "development in air transportation is not over."

► **Strong Yeast**—"As a nation we cannot afford to grow lax here," he added. "It is vital to our people and the world that the geyser of progress accompanying the war should not wholly subside. We must continue to depend upon the strong yeast of competition to keep us growing in this vital field."

On Aug. 3, Pogue was scheduled to discuss "Merchandising By Air," before a meeting at Oklahoma City, sponsored by the Oklahoma City Chamber of Commerce and the National Aeronautic Association.

Pogue's western tour called for an address at Tulsa, Okla., sponsored by the Tulsa Chamber of Commerce, Aug. 4, on "Air Service to Small Cities."



ON THE BIG BOARD NOW:

When "PCA" flashed across the ticker tape of the New York Stock Exchange recently officials of the line were on hand to greet Exchange President Emil Schram (center). The PCA men are, left to right: Robert Wilson, vice-president; Ray Lochiel, treasurer; C. Bedell Monro, president; J. H. Carmichael, operations vice-president.

Airlines Policy Committee Expects More Members Soon

United and American Export may join other domestic lines which urge free competition and Private Ownership in post-war international operations.

As the Airlines Committee for United States Air Policy continued discussions last week of plans to further its plans for international operations, there appeared a growing likelihood that United Air Lines would become a signatory to the five-point policy statement.

► **United Only Holdout**—When that statement was issued in mid-July, United was the only holdout among the principal domestic operators. Pan-American Airways and American Export Airlines, operating from U.S.A. on an international status, also failed to sign.

Members of the committee, selecting its name after the policy announcement, voiced a "continuing hope" that all non-signers would join.

"We hope all certificated carriers will be members," said Chairman S. J. Solomon, president of Northeast Airlines.

► **United's Reason**—When the policy statement was made public, with its 16 signers, United's president, W. A. Patterson, issued an announce-

ment saying United had declined to go along because of refusal of its request that his line would not be barred from giving serious consideration to jointly financed and operated routes.

As further meetings were held, however, there was indication that United would sign without this condition. Solomon said at the policy press conference that it was his understanding United was not objecting to the statement, but "just asks time for additional thought."

► **To Meet with F.D.R.**—Meanwhile the airline heads still expected to discuss their plan with President Roosevelt. An earlier appointment was canceled.

Solomon announced that the committee would open an information office to keep the public informed on progress of the plan.

► **World-wide Policy**—In their policy statement, the lines affirmed their belief in free competition, private ownership, federal encouragement of a sound world-wide air-transportation system, world-wide freedom

of transit in peaceful flight, and acquisition of civil and commercial outlets.

Members of the Policy Committee besides Solomon are: O. M. Mosier, vice-president of American Airlines; Paul H. Brattain, vice-president of Eastern Air Lines; Croil Hunter, president of Northwest Airlines; C. Bedell Monro, president of Pennsylvania-Central Airlines; Jack Frye, president of Transcontinental & Western Air.

Safety Bureau Halts Rulings

CAB foresees great changes pending war's end; advises pilots have voice in new rules.

The Safety Bureau of the Civil Aeronautics Board, certain that navigational developments, increase in flying, and difference in equipment will change the air picture after the war, is calling a halt on new regulations.

► **Pilot Views Asked**—Not only does the bureau feel that the many pilots who have gone to war should have a chance to express views before new rules are declared, but attempts are being made to cut the number of present regulations.

In studying the future outlook, cognizance is being taken of military flyers who will want to go into private or commercial flying after their combat duties are over.

► **From War to Commerce**—Many of these pilots, points out Director Jesse W. Lankford, obtained jobs on big ships—bombers and cargo planes—with the idea of being ready after the war to pilot commercial planes.

"There will be a long period of time, at best," he says, "when hundreds of boys eager to get into big ship flying cannot be accommodated." There is no doubt that these pilots, to get into routine regulated flying, will have to take written examinations on civil air regulations.


► **Every Man's Air**—Another difficulty is expected after the war because of the instantaneous shift in emphasis from wartime "risk flying," where the air belongs to everybody, to more cautious peacetime operations.

The bureau is fearful, too, lest returning pilots accustomed to high-powered planes with extra maneuverability forget themselves in slower commercial craft, and have accidents.

► **Large Scale Private Flying**—Thought is being given to the possibility of postwar private flying.



Not Carving Up Globe—Yet: Airline officials and representatives study opportunities for international air transportation at a policy announcement press conference. Left to right: Buell Patterson, publicity director, American Airlines; MacDonald Bryan, director of public information, National Airlines; Croil Hunter, president, Northwest Airlines; Paul H. Brattain, vice-president, Eastern Air Lines; J. J. O'Donovan, vice-president, Pennsylvania-Central Airlines; Jack Frye, president, Transcontinental & Western Air; S. J. Solomon, president, Northeast Airlines, and chairman of the Policy Committee; Clinton Hester, newly appointed attorney for Chicago and Southern Air Lines; Harry R. Stringer, vice-president, All American Aviation.



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Railroad Hits at Justice Dept. Interference in CAB Applications

Kansas City Southern says intervention requested by anti-trust division is without justification or authority.

The Department of Justice petition to intervene in new route proceedings which have been filed with the Civil Aeronautics Board by five surface transportation companies has brought sharp and early response from one of the applicants. **►No Justice**—Kansas City Southern Transport Co., Inc., and Kansas City Southern Railway Co., who filed one of the applications, said in a reply to the department's petition that there is "no justification and no authority" for the proposed intervention, and asked that the petition be denied.

Other applicants in whose cases the department seeks to intervene are Greyhound Corp., Keeshin Air Freight, Pan Atlantic Steamship Co., and Universal Air Freight.

►Anti-Trust Laws—Kansas City Southern's reply maintained enforcement of the anti-trust laws was not involved, since no violation was "involved herein, nor contemplated." It contended the depart-

ment has "no justifiable or other interest in this proceeding," and "is not a party designated by law or the rules of the Civil Aeronautics Board as having a right to intervene in proceedings of this character."

►Says No Violation—Declaring they could not obtain the authority sought without having proved that public convenience and necessity require the proposed service, the Kansas City Southern maintained that if such a certificate is issued, subsequent exercise of the authority would not violate the anti-trust laws.

"It is obvious," the reply stated, "that, to the extent public convenience and necessity would justify applicants' proposed operation, said federal anti-trust laws give way to the requirements of public convenience and necessity and to the provisions of the Civil Aeronautics Act."

Finally, the reply pointed out that the CAB is the "only governmental

body appointed by law and informed by experience to deal with such matters" and had its own public counsel "likewise informed by experience and conversant with the fundamental principles of transportation economics and law" to contribute to it.

The department had averred that the applications raised a question "whether competition of independent airlines will be so restrained that" surface carriers "can establish a monopoly of air transportation."

Rail Men Mum On Monro Charges

Association official admits lobbying complaint is "delicate" subject.

Official silence from the railroads greeted the well publicized Boston speech in which C. Bedell Monro, president of Pennsylvania-Central Airlines, asserted a rail lobby is menacing the air transport field.

It was learned, however, that the situation is to be discussed at a meeting of directors of the Association of American Railroads, although there was no indication whether the association would take public cognizance of Monro's charge.

►Touchy Situation—R. V. Fletcher, vice-president in charge of the organization's law department, describing the matter as a "very delicate" one, said he planned to talk it over with the board. He added that he was "not sure the railroads have a definite policy," and ventured that no official comment would be forthcoming, at least before the directors' meeting.

►Postwar Projects—Fletcher heads the association's committee for the Study of Transportation, a group that has devoted most of its attention to postwar problems. L. F. Whitmore, Boston & Maine Railroad, is chairman of a sub-committee on air transportation.

Monro said he had received no word of comment from the railroads on his speech. A few letters that asked about his "dastardly attack," the PCA president asserted, came from individuals "supposedly not connected" with railroads.

►Horizontal Monopolies—Monro told the Aeronautic Association of Boston the "increasing efforts of surface carriers to force their way into the air transport field" if successful, "could not fail to stultify aviation's progress through what might be termed 'horizontal monopolies.'" Associates have urged him to

stress the same theme in a speech Aug. 3 before a Chicago Engineers Club luncheon, where he is to talk on international airway planning, the policy declaration of domestic airlines on world-wide air routes, and his company's proposal for a Seadrome route to Europe, which was filed with CAB recently.

Airlines Plan Clearing House

Inter-company transactions of U.S. and Canadian carriers proposed.

A clearing house for inter-airline transactions in North America will be established by the first of next year, under present plans.

Limited at first to operations of Air Transport Association members in the United States, Canada, and Alaska, the new central bureau may become the nucleus for a hemisphere finance system with world-wide implications.

Pending inauguration of the plan, studies of the broad problem of foreign exchange have been deferred. Canadian exchange will be translated into American dollars.

►Long Discussed—The central bureau plan has been the subject of on-and-off discussions virtually since the airlines began operations. About six months ago it began to take con-



BEATING CARGO STOWING PROBLEM:

A four-engine Air Transport Command plane is loaded for a secret destination. To points within the Western Hemisphere alone, ATC is now flying more than a million pounds of cargo each week, and if the war continues into 1944, its routes probably will be ten times as long as the combined routes of all the world's prewar air lines.

crete form. Its fundamentals have been approved by the Airline Finance and Accounting Conference of the ATA and the association itself.

Expectations are that legal details of incorporation and other preliminaries will be completed, equipment obtained, and the bureau set up for operation before another six months have gone by. Tentative name selected is Airlines Clearing House, Inc. Headquarters probably will be in New York City.

►Designed to Expedite—Designed to expedite at the outset settlement between the lines on transactions involving passengers, refunds, and excess baggage, the bureau will be established with a view to eventual inclusion of additional services.

Among these would be the billing of governmental agencies for tickets issued against government transportation requests; assumption of responsibilities for developing proration schedules under local and joint passenger tariffs; research useful to analysis of interline ticketing procedures, and development and standardization of uniform tickets and revenue accounting procedures.

►How Lines Benefit—Sponsors of the new system say that savings to the lines will accrue through elimination of the long checking processes necessary monthly under present methods. Cost to the lines will vary, dependent on several factors, of which the number of their transactions is one.

(Turn to page 44)



SOUTH AMERICAN VISITOR:

Joaquim Pedro Salgado Filho, Brazilian air minister, inspected the model Washington national airport recently with his party and members of the Brazilian Embassy staff. They were guests of William A. M. Burden, special aviation assistant to the Secretary of Commerce, at a luncheon at the port, and conferred with officials of the Civil Aeronautics Administration and Civil Aeronautics Board. Shown, left to right, are F. A. Richards, chief aircraft communicator at the airport, Burden, Capt. Luiz Sampalo, Air Minister Filho, and Carlos Martins, Brazilian Ambassador.

Lost, Hungry Pilots Urged to Eat Bugs

Bugs are good to eat and—what's more—they're nourishing. Bear that in mind if you run short on ration points. Or a landing in the desert may teach you to like lizards, snails, and beetles.

These dietary hints come from a new pocket-size manual entitled *Survival*, put out by the Air Lines War Training Institute at Washington. It's 116 pages of information for aircraft crews forced down in any isolated spot and carries the inside dope on how to live off the land, build shelter, travel, guard against disease, injury and death.

Eddie Rickenbacker, in a foreword, calls the compilation "splendid and comprehensive."

Clever drawings enliven the pages, but there is a deadly serious tone in the plain words of the text.

"Caution never made a sissy out of anybody," says the brief preface. "A forced landing anywhere

is a challenge to your survival."

"If you're not choosy (says *Survival*) you can nibble away all day long on bugs. They won't hurt you. Some of them taste very good, like nuts. Grasshoppers, locusts, and crickets all provide nourishment.

"The white grubs that rustle around in rotten logs are considered quite a treat by old-timers. Just pop them into your mouth. One famous Borneo explorer kept marching them at the bridge table after he got back to Australia. The girls screamed, but he soon had them eating grubs out of his hand.

"Termites are also a delicacy. They live in big, cone-shaped houses, sometimes hard as rock. Hack them open, eat both termites and eggs."

The book was written and compiled by Felice Swados, formerly medicine editor of *Time Magazine*.



"Will it be Jobs or Apples, Mr. Kaiser?"



"I hope that you are one of those who'll see to it that none of us will be selling apples on the street when this war is won," the young soldier said to Henry Kaiser.

WHAT BETTER ANSWER than Mr. Kaiser's inspiring words to the graduating class of Washington State College . . .

"Our tools and machines are wearing out; our substance is being consumed; our transportation system creaks and groans; our highways are inadequate; our people lack safe and comfortable housing, perhaps by millions of units. *There is demand enough in sight to keep every productive force in America working to capacity for 25 years.*"

May we shake your hand on that, Mr. Kaiser?

The building of the new America is going to be done by courageous, venturesome men. Men who are "self-starters."

The job is going to be done by lots of men in lots of ways . . . some great, some seemingly small. By the man who pours a concrete ship in three days. By the man who designs a portable radio to fit your hip pocket. By the man who discovers a way to simplify so prosaic a product as a door lock.

The job is going to be done by men quick to visualize all that these new developments portend . . . to adapt them to other products and businesses . . . for more jobs and better living for more people. *Men whose vision and enthusiasm will make them missionaries for the new.*

And where do you find such men?

This news-picture magazine of science and industry, **POPULAR SCIENCE** Monthly, serves 700,000 of them. Some are presidents. Some are engineers. Some are electric welders. One of them may be Henry J. Kaiser.

Their common denominator is not title, nor income, nor any of the conventional yardsticks. It is a *state of mind*. Whether they're established leaders, or young men on-the-way-up, they have a mental-mechanical-inquisitiveness that makes them want to know *how things work*.

They're tomorrow's pacemakers . . . and if you, or your product, or your company plan on having a part in that tomorrow, we recommend you start talking to them today.



Pacemaker Henry J. Kaiser with a 14-foot model of one of his famous Liberty ships.

president and assistant to the president of Curtiss-Wright Corp. Williams has been on leave from Russell Manufacturing Corp. to Consolidated Vultee since early 1942. Formerly he was vice chairman of the Board of Vultee Aircraft, Inc., and after the merger of the two companies became assistant to the chairman.

Harold G. Fitzpatrick, formerly assistant manager of the Chase National Bank, 45th Street branch, New York, has been appointed comptroller of the Jordanoff Aviation Corp. A member of the New Jersey Bar and graduate of John Marshall College, he also studied accountancy at City College of New York.

The Jordanoff company prepares aviation books and technical aviation manuals used in the instruction of Air Force flyers and maintenance members.

J. W. Hennen, former assistant manager of the New Orleans Division of Consolidated Vultee Aircraft Corp., has been named Nashville manager.

Major Lester D. Gardner has been elected chairman of the council of the Institute of Aeronautical Sciences.

Other officers are Bennett H. Horschler, executive vice-president (succeeding Major Gardner), and George R. Forman, assistant to the president.

Milo McCammon, formerly production manager of Bendix Products Aircraft Division, Bendix Aviation Corp., has been promoted to assistant general production manager of the Bendix Products Division. A graduate of Purdue University, McCammon was supervisor of production planning at the Hudson Motor Car Co. in Detroit before joining Bendix Products in 1941 as supervisor of job assignment.

Rex B. Beisel, formerly acting general manager of the Stratford Division of United Aircraft Corp., has been elected general manager of the Chance Vought Aircraft Division.

R. J. MacMahon has been promoted to manager of the Allentown Division of Consolidated Vultee Aircraft Corp. He has been connected with the San Diego Division.

Through reorganization of the engineering department of Hamilton Standard Propellers Division, United



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Aircraft Corp., Charles B. Conwell, former project engineer, has been designated senior engineer, and five assistant engineers have received the following promotions: Edwin D. Eaton, to administrative engineer; Murray C. Beebe, to chief development engineer;

Thomas B. Rhines, to chief production engineer; Glenn T. Lampton, to chief experimental engineer; and Charles M. Kearns, Jr., to chief research engineer.

Miss Hazel Brooks, Supervisor of Stewardess Service for American Airlines,



wears a coveted ruby-set pin presented to her by the airline for "unusual meritorious service since July, 1937, in teaching and exemplifying the highest standards of stewardess service." The honor, the Award of Merit, is rarely bestowed. Miss Brooks, Cincinnati-born and a graduate of Christ Hospital, joined American Airlines as a stewardess.

Lester J. Holoubeck, for the past 15 years in charge of testing and general inspection of aircraft on the Pacific Coast for CAA, has been appointed chief pilot in charge of flight operations at Lockheed and Vega.

In organizational changes at Sperry Gyroscope Co., Inc. Hugh Willis has been appointed to the position of general sales manager, Walter S. Titus has general plant manager, and Carl F. Frische to chief research director. Prior to his new appointment Willis was the company's chief research director in charge of the Garden City, Long Island, laboratory, where he specialized in the development of Radar equipment for the detection and ranging of aircraft. Before joining Sperry, Titus was vice-president in charge of manufacturing at International Business Machines Corp. Frische has been with Sperry since 1933 and for the past year has had complete charge of research engineering, working full time on developments for the armed services.

American Airlines, Inc. has appointed H. Read Cooley its New York publicity representative.



Associated with American since February, 1940, Cooley has been traffic representative and manager of the Buffalo ticket offices. Before joining the New York staff, Cooley was traffic representative of the Boston office.

Don Rasmussen, formerly of the Fort Worth division of Consolidated Aircraft Corp., has been appointed chief of materials of the Louisville Division.

Elmer C. McLeod, veteran test pilot and flight operations chief, has been named assistant chief pilot for Lockheed and Vega.

Paul Hugh Waldman has been made

liaison representative at Wright Field for Ryan Aeronautical Co. Waldman has been the company's field service representative.

Robert S. Hogueland, newly appointed assistant to L. M. Reed, personnel director, Transcontinental & Western Air, Inc., comes to the company from his native town, Kansas City, where he practiced law. After receiving an A.B. from Oberlin College and an LL.B. from the University of Michigan, he joined the Employers' Mutual Liability Insurance Co. of Chicago. He is a member of the Missouri Bar Assn., the Lawyers' Assn. in Kansas City, and Phi Delta Phi fraternity.



Col. Frederick W. Castle, former assistant to the president of Sperry Gyroscope Co., has received the Army's Air Medal for "exceptionally meritorious achievement while participating in five separate bomber combat missions over enemy occupied Europe."

Included among recent promotions at Bell Aircraft Corporation are the following: Deith F. DeLong, to chief planning engineer; Dale W. Henline, to chief inspector, Niagara Falls plant; Harold Green, to coordinator of engineering changes; Charles Wilson, to supervisor, personnel placement; Albert F. Turner, to chief of inspection; and Ralph Fawcett, to chief of planning engineering.

Jack Adams, publicist and journalist for 20 years, has assumed the publicity directorship of the Western Region of American Airlines, Inc. Until his airline appointment he was director of the news bureau for a California shipbuilding company. He has also been assistant publicity director for the California and Pacific International Exposition at San Diego, where he had complete charge of all pictorial work.

Ann M. Da Costa, supervisor of Western Air Lines' insurance department, says that absenteeism, Big Bad Wolf of other phases of the war program, doesn't bother the airlines. In fact, her records disclose minimum of "days off" for injury or illness. In addition to handling employees' insurance claims, Miss Da Costa, only woman known to hold her position with an airline, keeps a check on several million dollars worth of policies. She started her career with a Los Angeles underwriting firm, later became manager of the insurance department of the California Bank, and resigned to join Western Air Lines.



TELLING THE WORLD

(Aviation News each week in this column will tell something about unsung public relations officers and advertising men who are telling the world about the men and women who are making the nation's warplanes.)

► FAD, plant publication for employees of Fairchild Aircraft Division of Fairchild Engine and Airplane Corp., Hagerstown, Md., published monthly since February, 1943, has become a weekly. Format was changed to tabloid size and stock is of such a quality as to reproduce 100-line screen halftones. James A. Wales, Jr., is editor-in-chief, with J. Hardee King as editor.

► A new Universal Picture starring Deanna Durbin and Joseph Cotten has scenes actually filmed in the Vega plant at Burbank, Calif., with some excellent shots of production of B-17 and Ventura bombers. Miss Durbin and Cotten are cast as workers on the Vega production line.

► William Key, former city editor of Atlanta Constitution, is now well established on the Pennsylvania Central Public Relations staff in Washington with Director Ray Bell. A newsy mimeographed publication called PCAirviews is a new project of the department, designed to keep the busy men and women who ride the line informed of doings in aviation.

► Fleetwings Arrow, published for employees of Fleetwings, Division Kaiser Cargo, Inc., with Paul Biklen as editor, has appeared in a bright, new form.

► The Army Air Forces, with cooperation of Aircraft War Production Council members, East and West Coast, is doing a new half-hour radio show weekly, each program featuring a company.

The first program, July 19, featured Bell Aircraft. The program of July 26 featured Boeing and the Flying Fortresses. Other companies will be represented in alphabetical order down through the list. The program may be heard on most Mutual network stations at 7:30 p.m. (eastern war time) on Mondays.

► Leo Schoenfeldt has accepted a position with the radio division of Bendix Aviation Corporation as assistant marketing director. Before going with Bendix he was with General Electric.

► Ziff-Davis Publishing Company has added Henry Lars Bart, writer and editor of aviation publications, to its staff as Eastern editorial representative of Flying Magazine. His offices will be in New York.

► The Commercial Research Division of the Curtis Publishing Company has published the results of a comprehensive study of the future of aviation in a report, The Aviation Industry.



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1943 Airlines Earnings Will Lag Behind Last Year's Record

By ROGER WILCO

HIGH TIDE in airline earnings for some time to come was probably established during the first half of this year. For the balance of 1943 the domestic air carriers will be hard pressed to maintain their gains.

During 1942 the 16 domestic airlines reported aggregate net earnings, after all taxes and charges, of about \$13,200,000. It is highly unlikely that this mark will even be approached this year.

Despite the excellent showing of the first half, earnings are now being tempered by a number of factors.

Current results are now being compared with the upsurge in earnings which got under way in July of 1942. However, the same operating conditions no longer prevail.

Operative for many months now is the sharp reduction in mail compensation ordered by the Civil Aeronautics Board for most of the air carriers. The new rate, established at 0.3 mil per pound mile—representing a service rate—will take its toll of the previous level of mail revenues.

Further, effective July 15, the carriers instituted reduced tariffs for their passenger and express business. Operating at capacity, this measure will not attract additional business. Such gains will come when more planes become available.

Moreover, existing contracts with the Army covering manifold activities have been revised on a less favorable basis to the airlines. These services, in the past, augmented airline earnings; in addition to contributing to profits, certain normal overhead burdens were also absorbed.

To many of these carriers, a certain portion of these "lost" revenues, in any event, would have been paid out in the form of excess profits taxes. Significantly, however, this merely calls attention to the limiting factor on airline earnings as exercised by excess profits taxes.

In looking at 1942 results, it will be found that reported profits were substantially bolstered by the gains

resulting from the sale of planes and other equipment. This year, airline earnings will be almost completely devoid of such "other income."

Air transport equities, partly as a result of the excellent earnings of the immediate past, have recorded the best gains of any industrial group in the securities market. For example, as compiled by the Securities and Exchange Commission, the index of airline stocks has risen more than 32 percent from the start of the year to mid-June, 1943. The market has only advanced 23 percent during the entire period.

For a longer range view it is startling to observe that since January, 1939, to June of this year the air transport index has gained more than 142 percent—by far the greatest rise of any one industrial group.

This strong upward trend has been sustained by far more potent forces than good earnings.

Identified as a growing industry, the airline group has far more popular acceptance, and earnings have a tendency to be capitalized more liberally by the investing public. This becomes particularly true with the market inclined to view the end of the war in sight and thus favoring those issues with a peace flavor. By contrast, the aircraft issues as war stocks have been decidedly weak.

There have been increasing indications, however, that air transport equities may have outreached themselves. Market values for many of the lines are from two to three times the company's net worth or actual investment. For example, at April 30, 1943, the net worth of Penn-Central Airlines aggregated about \$3,800,000. Yet, based at recent highs, the market evaluated the company at more than \$8,500,000. These spreads ordinarily are without import—providing the trend of earning power can support the market value. PCA earned \$408,055 during 1942. Of this amount, \$369,725 in net income before taxes was contributed by profits on the sale of equipment. In effect, 58 percent of

the carrier's earnings came from non-operating sources. In other words, the "normal" earning power of the company is being capitalized at more than 50 times last year's results—a liberal measure.

A number of astute market observers have expressed the belief that airline equities are now consolidating their gains and may have difficulty in entering new high ground. The market action supports this view as prices have declined in relation to the rest of the market.

Ask Stock Retirement

Ralph S. Damon, on the eve of his resignation as president of Republic Aviation Corp., advised retirement of that firm's outstanding second preferred stock at \$10 a share if it could be arranged. The same basis retired 25 percent of the issue at an earlier date.

His letter to stockholders, in which he resigned to return to American Airlines as vice-president and general manager, said Republic's production rate had increased nearly 100 times since May 1, 1941.

Damon reported floor space and orders backlog had increased 10 times and personnel expanded eight times during his time in office.

The letter disclosed that Damon is keeping his common share holdings in Republic.

Braniff Plan

Braniff Airways stockholders will vote Aug. 19 on increasing common from 400,000 to 1,500,000 shares. T. E. Braniff, president, said the company may use part of any newly authorized shares as a dividend.

Budd Dividend

The first preferred dividend paid by Edward G. Budd Manufacturing Co. of Philadelphia since November 1930 has been declared by Budd directors on the company's new \$5 preferred shares. Over a period of two months, the dividend is payable Sept. 1 to holders of record Aug. 21 on shares outstanding on that date.

The company has reported for the quarter ended June 30 a net profit of \$500,058 after federal taxes of \$2,196,000. For the comparative 1942 period, net profits were \$995,046, and income and excess profits taxes \$3,843,400.

For the first six months of 1943, after \$4,880,000 for taxes, the net was \$1,189,456. Net was \$1,823,819 and taxes were \$7,213,700 for the first half of 1942.



THE DETROIT FREE PRESS— Pound Saved in Plane Is Worth \$2,000

The light metal-wise aviation industry is making practical application of the maxim about a penny saved, and has even paraphrased it to read: "A pound saved is \$2,000 additional earned."

A pound reduction in weight in a plane like the DC-3 increases revenue during its operating life approximately by \$2,000. This lesson in flying thrift was given by L. T. Miller, of the Glenn L. Martin Co., Baltimore, at the SAE National Aeronautic meeting in New York Thursday.

Mr. Miller, in his speech reported in the above news item, pointed out the value of weight saved in a commercial plane. "When military operation is considered," said Mr. Miller, "the result can be even more staggering."

BOOTS AIRCRAFT NUTS, fabricated from sheet metal and having all the tensile strength of machine nuts, weigh appreciably less than competitive nuts. In many instances, they have only 1/3 the weight. In actual use they save up to 65 pounds per airplane.

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It escorts bombers... guards them from above... though they fly at 35,000 feet or more.

The P-47 Thunderbolt has everything it needs to do this job... speed over 400 m.p.h.... heavy fire-power... turbo-supercharger... 2,000 horse-power engine... pilot protection... other items too restricted to talk about.

Reports from the fighting-fronts indicate that the Thunderbolt is doing... superbly... just what its designers, Republic engineers and the U. S. Army Air Forces, intended it to do.

It is helping America win supremacy in the stratosphere... the critical battlefield of today's war... the sky-road of tomorrow.

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