

# TURBINE-BLADE FINISHING

**L**AST month we were able to make a brief reference to an unusually interesting new machine for finishing turbine blades. As then explained, it is an adaptation of an earlier design of machine—the work of Mr. S. A. Czarnecki of the Hamilton Standard Division of United Aircraft Corporation—used for contour-grinding of duralumin airscrew blades. The system is to strip the blades with the aid of an endless abrasive belt. Enquiries of Hamilton Standard have brought the answer that at this stage the Corporation are not prepared to release any more details; nor, incidentally, is the accompanying picture as revealing as one would wish.

It seems that for security reasons work on the development of this machine was given the name *Buckingham Project* (after the designer's home town) and the number M.1949. At first the power of the motor provided was insufficient, and it has now been found that 15 h.p. motors are required. These, together with a new oil-based coolant, have made possible the high-speed removal of stock without distortion or the setting up of surface stresses—a principal aim during the research period. An automatic feed system has now been added, and experiment (with the co-operation of Sandpaper Inc. of Massachusetts) has shown that a degree of flexibility can be achieved through the use of different types of abrasive belts. Up to  $\frac{3}{32}$  in of stock can now be removed in about fifteen minutes, and the finished product is said to be superior in surface finish to that obtained by other methods.



Checking blade-profiles, finished by the high-speed stropping process on the new machine seen in the background. In the foreground is a batch of blades awaiting finishing.

## PRODUCTION ADVISERS APPOINTED

**T**HE appointment was recently announced of three rearmament-production advisers to the Minister of Supply. One of the new posts, with the title of Deputy Controller of Supplies (Aircraft) Production, will be occupied by Mr. W. C. Puckey, M.I.P.E., F.I.I.A., who is director and general works manager of Hoover, Ltd., and is also chairman of the council of the Institute of Production Engineers. During the war he controlled 17 Hoover factories largely engaged on aircraft-component work.

Managing director of John Brown and Co., and a director of the Firth-Brown organization and its many subsidiaries, Mr. S. W. Rawson is appointed to the post of Director General of Machine Tools; while the third new appointment—that of Deputy Controller of Supplies (Munitions) Production—goes to Mr. A. G. E. Briggs, asst. managing director of Tube Investments, Ltd.

## R.A.E. TECHNICAL COLLEGE

**I**N the present 1950-51 session 548 students are attending the R.A.E. Technical College, Farnborough. In the previous session there were 438, of whom 178 were engineering apprentices, 143 craft apprentices and 117 scientific assistants. These figures were announced when, recently, the Minister of Education, the Rt. Hon. George Tomlinson, M.P., presented prizes to students.

That the year had been noteworthy for the number of successes obtained, by the students was remarked upon by Sir Frederick Handley Page, chairman of the board, who expressed the belief that a high level of technical education was of vital importance if our standard of living was to be maintained. He remarked also that, since a constant exchange of skilled technicians was desirable throughout industry, the R.A.E. College might well look beyond the needs of Farnborough.



**FIRST OF THE FLEET:** Third de Havilland Comet to be built, G-ALYP is pictured here during a test flight from Hatfield last week. This aircraft, with production-type bogie-wheel undercarriage, will be handed over to B.O.A.C. later this year, taking its place as the flagship of the world's first pure-jet airliner fleet. The first and second prototypes were built for the Ministry of Supply, although the second is being lent to B.O.A.C. for route trials. The fourth Comet, incidentally, is expected to fly in about two months.

"Flight" photograph