



PACER AMBULANCE: The Piper Pacer may now be modified to carry out ambulance duties. By using a lightweight litter, the Pacer can carry a patient, a nurse, and the pilot. The litter is loaded through the left hand rear door with the foot placed on the right front seat after the back has been removed. The head of the litter rests on the back of the rear seat.

The material to be auctioned has been assembled over a period of 30 years by the Aeronautical Library Service of New York, and consists of books, pamphlets, documents, photographs, prints, paintings, periodicals, reports, all depicting the development of aviation from the earliest times.

Over 500 separate lots will be offered featuring such rarities as Lilienthal's "Birdflight as a Basis of Aviation" in various editions; a complete set of James Means Aeronautical Annals, the first comprehensive compilation of aviation data; the earliest scientific works on the problems of air resistance by G. Eiffel; and volumes by such air pioneers as Langley, Manley, Wise, Berget, Chanute, Maxim and others.

STANDARD AERO ENGINE

Last month, as part of an article titled "New Life to the Aircraft Industry", a summary of the activities of various firms connected with the aviation industry was listed under the heading "The Aircraft Industry, What It's doing . . . Its prospects". In compiling this summary, the name of Standard Aero Engine Limited of Winnipeg was inadvertently not listed with the engine companies expected to receive more overhaul work as a result of increased military activity.

The staffs of the Aeronautical Library Service and the Swann Auction Galleries have prepared a special auction catalog listing and describing each of these volumes in detail and explaining how the auction of 500 lots will be conducted. For those who cannot attend the auction in person, bids-by-mail will be received and executed with the same consideration as if the mail-bidder were present. Copies of this auction catalog containing full details and instructions will be sent on request. Write to Aeronautical Library Service, 117 West 48th Street, New York City.

Jet Starting

Improved starting qualities for jet engine combustion systems are expected to be effected by a combined igniter-fuel injector now in the process of development at Avro Canada.

Normally combustion systems have a series of supply jets which direct fuel into vaporizer tubes leading into the centre of the combustion chamber. Since these tubes extend into the flame zone, the fuel inside them is vaporized before combustion, thus giving better mixing with the air. In form, these vaporizer tubes resemble walking sticks, the crook on their ends serving to eject the vaporized fuel upstream

into a region of stable flow for better mixing with the air.

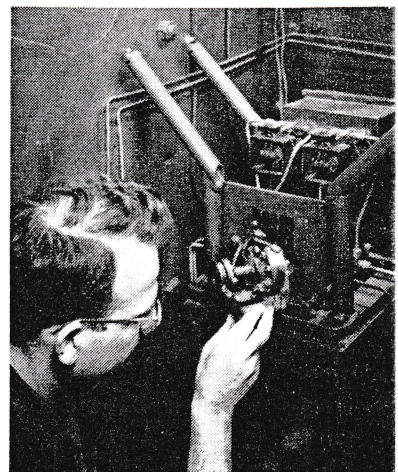
In the Avro Canada starting system designed by F. D. M. Williams, an igniter and an auxiliary injection jet are mounted centrally in the baffle by which the vaporizer tubes are supported. By this construction a flame from the auxiliary jet is provided for lighting up, and this flame will play on the vaporizer tubes, furnishing the heat necessary to vaporize the fuel before the normal combustion and self-vaporizing process has started. Once started, the process is self-sustaining and the igniter and the auxiliary jet may be turned off.

Long Way Down

An experimental parachute jump from an altitude of 42,449 has been made by USAF Captain R. V. Wheeler. The mark, which is a new record for the USAF was attained during recently completed tests of a new automatic-opening parachute.

The jump was part of a series of fourteen to test the new parachute-opening device, which is pre-set to open a parachute automatically after a flier has fallen from a rarefied atmosphere of high altitudes to a level where there is sufficient oxygen to sustain life.

Twelve of the fourteen tests were



MICROROCKET: This tiny rocket motor, on which Saul Wolf of the M.I.T. research staff is completing routine adjustments, is helping chemical engineers develop better fuels for rockets in a USN-sponsored program at the Massachusetts Institute of Technology. Though it operates on the same principle and with the same high efficiency as full-size rockets, this so-called "microrocket" uses far less fuel and makes experiment much less costly.