



The German approach, the "Hi 20." Note bicycle landing gear and retractable strut with geared propeller.

RPM but the final drive was through a 1:2.3 gear ratio. The weight is 20.5 kgs., including the special ignition device and carburetors. Two carburetors are mounted on top of the engine and are fed from a common tank in the fuselage. Fuel consumption averages 450 grams per horsepower per hour. The propeller is 1.4 meters in diameter and of 0.84 meter pitch.

The engine and the geared propeller are fitted on opposite ends of a strut mounted on trunnions to give a pusher configuration. The propeller and gearing are at the top above the wing, while the engine is at the foot inside the fuselage. The trunnions so position the strut that slipstream hitting the top of the elevators cancels the nose-heavy characteristic of the pusher-propeller.

Through a system of levers the strut can be pivoted to the extended or retracted position by the pilot at will. The opening in the top of the fuselage was to have been sealed by a fairing flap, but this is not used in the prototype. The strut and the motor at its bottom are encased in a dural fairing which also serves as a cooling duct. Cooling air enters a reservoir through two intakes on each side of the fuselage beneath the wings.

The propeller rotating just behind a vertical slit running the length of the back edge of the fairing draws the air up past the cylinders and out the opening.

A fire-extinguisher is located in the port-wing root within easy reach of the pilot. The starboard wing-root contains the fuel petcocks. The throttle is mounted on the stick. The entire assembly was fully tested before being installed in the prototype and was run for about 12 hours in periods of from 10 to 90 minutes.

The following are the general dimensions and calculated performance figures.

|  |                     |
|--|---------------------|
| Span—14.8m                             | Speeds:             |
| Length—6.9m                            | Max.—105-110km./hr. |
| Height—1.92m                           | Cruise—85km./hr.    |
| Wing—18.7m. <sup>2</sup>               | Landing—55km./hr.   |
| Weight Empty—280kgs.                   | Weight Full—380kgs. |
| Wing Loading—20.3kgs./sq.m.            |                     |
| Initial rate of climb—0.75-1.12m./sec. |                     |
| Best gliding angle—1:20                |                     |
| Best sinking speed—0.9m./sec.          |                     |

## CANADIAN SCENE

By DOUGLAS A. SHENSTONE

George Illaszewicz of Victoriaville, Que., is, by his own account, the first glider pilot in Canada to be launched by auto-gyro. In October 1944, at Barker Field, near Toronto, designer Czerwinski's prototype Robin was out for test flights on a cold, misty day with low ceiling and very poor visibility. Walter Leavens was at the controls of the gyro and, in order to make certain the plane would not be pulled back, he left a slack of some 100 feet in the 250-foot tow rope. To quote the glider pilot, "the auto-gyro speeded up, and the rope started to straighten up faster and faster until, with a sudden jerk like a catapult, the glider left the ground, without having moved one inch forward on its wheel!" The most difficult part of the tow was keeping the rope out of the way of the horizontal rotor.

On this first attempt the tow pilot was worried about the glider, reducing his speed to almost the stalling point and turning "in a square like a square-dance," to quote Illaszewicz again. The glider pilot released at 300 feet, being unable to see either the tow plane or the airport; he made a successful landing, however.

Formation of the Canadair Soaring Club is good news from Montreal. Its 50 members are employees of Canadair Limited and include Stefan Brochocki, Silver "C", Ken Haviland, Bill Shuttleworth and Sheila Ward. F/L A. N. Le Cheminant has been invited to become an Honorary Member, as has Robert A. Neale, Canadair's Vice-President of Manufacturing.

The club has taken delivery of an SGU 1-19 from Leavens Brothers of Toronto. Plans also call for completion of the MU-13 on loan to McGill University from the National Research Council, and construction of a modified "Loudon" glider now nearing completion at the University of Toronto.

The problem of finances was faced realistically. The club raised a large percentage of necessary funds by sponsoring two dances and by setting the annual dues at \$5.00.

A large proportion of the membership has had flying

(Continued on page 14)