



(6) The "Baby Ace", available as kit from Ace Aircraft Mfg. Actually "Ace" is former Corben Sportplane design which appeared in 1923; needless to say, new "Ace" has been "modernized". Numerous kits of single-place "Baby Ace" and two-place "Jr. Ace" being built by members of Experimental Aircraft Association. Frank J. Spoler's (he's from Elyria, Ohio) shown here is an outstanding example. Cost was \$950 and nine months time; he says next one should require less time. Empty weight 573½ lbs; gross 825. Cruising speed 95 mph on 65 hp Lycoming; stalling speed 40 mph.

(7) Instrument panel and cockpit of "Baby Ace."

(8 & 9): Juhani Heinonen, Finnish aero engineer, desiring inexpensive aerobatic sport plane designed HK-1, had it built at Jami Soaring School. Prototype cost \$3,500 powered by Czech Walter "Mikron" III 65 hp engine. 5 diameter two-blade wood prop; 13 imp gallon fuel capacity. Span 22½'; wing one-piece all-wood construction at-

tached to fuselage by four bolts. Main spar is I-section. Slotted ailerons fabric covered; split flaps alclad sheets and dural torsion tube. Aspect ratio 6.8; wing section at root NACA 643A418; at tip NACA 631A412. Root chord 4' 5"; tip chord 2'. Wing has 5 degree dihedral, 3 degree incidence at root. Wing area 75 sq. ft.; aileron area 7.4 sq. ft.; flap area 10.1 sq. ft.

Fuselage plywood covered all-wood structure with four longerons, straight-side frames. Fin integral with fuselage. Tail all-wood; rudder and elevators fabric covered. Elevator fitted with adjustable trim tab. Seats pilot under rearward-sliding Perspex canopy; steel tube crash pylon safety feature. Luggage compartment 5 cu. ft. behind seat.

Length 17½'; height 6' 10". Empty 550 lbs; gross normal 880 lbs; 795 lbs aerobatic. Wing loading aerobatic 10.5 lbs/sq. ft.; power loading 12.2 lbs/hp. Maximum speed 135 mph; cruising 115; landing 47 mph; range at economic cruising 430 miles. Take-off distance over 50' obstacle 900 ft in still air; rate

of climb over 800'/min.

Reading clockwise from lower left are 1) switch; 2) clock; 3) speed indicator; 4) compass; 5) variometer; 6) fuel and oil pressure; 7) oil temperature; 8) rpm's; 9) turn indicator; 10) altimeter.

(10 & 11): AIR PROGRESS "COVER" PLANE. "Little Toot" is name George Meyer of Corpus Christi gave to his biplane. Took almost 6 years to design and build; Meyer was able to fly "hands-off" during first flight. Fully aerobatic with good stall characteristics, recovering immediately when pressure is released from stick. Fuselage is metal monocoque from rear of cockpit, tube-truss forward; metal cowling. Tail surfaces all metal, fully cantilever. Wings have spruce spar, wood ribs, fabric cover. Cessna gear. Top 127 mph; cruises 110; climbs at 1000'/min. Span 19'; length 16½'; 123 sq. ft. Upper wing swept back 8 degrees; lower wing straight with 3 degree dihedral. 90 hp Continental fitted; Lycoming 135 hp is next. George will make plans available at \$50 per set.

