

Peanut **LOCKSPEISER LDA-01**

By JOHN WALKER . . . An "It went thataway instead of thisaway" flying machine, this month's Peanut is certainly quite a bit out of the rut. Originally designed for a Campus CO₂, it's easily adapted to rubber power.

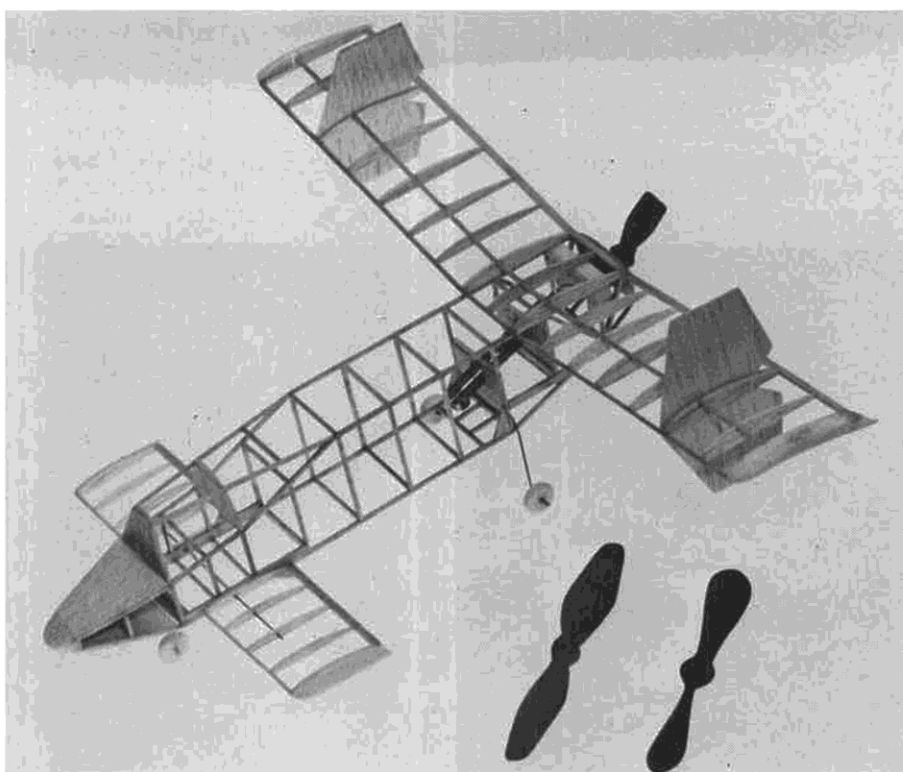
- The Lockspeiser is an unusual aircraft that has been under development in the United Kingdom for a number of years. The craft has a canard layout with the wing mounted high on the aft end of the box-like fuselage. The plane is a 7/10th scale version of the planned production version, making this model a scale model of a scale model.

The Land Development Aircraft (LDA) has been described as an "aerial Land Rover" (flying Jeep for you who do not know a spanner from a wrench or bonnet for a hood).

Since making its first flight in August, 1971, the LDA has undergone many changes. It was originally fitted with three wire-braced rudders and a four-wheel undercarriage. The 85hp Continental has been replaced by a 160hp Lycoming engine. Hoerner tips have replaced the square tipped wing and canard.

The production "flying utility truck" will have a span of 13.4m and be powered by a 360hp O-540 engine.

The model is a copy of the aircraft seen at the 1975 Paris Airshow. One-half of the plane was camouflaged, with the other half in civvies. The model shown is fully camouflaged.



Bones of the Lockspeiser reveal traditional structure in spite of the unusual configuration. The author's model is powered by an old Campus CO₂ engine.

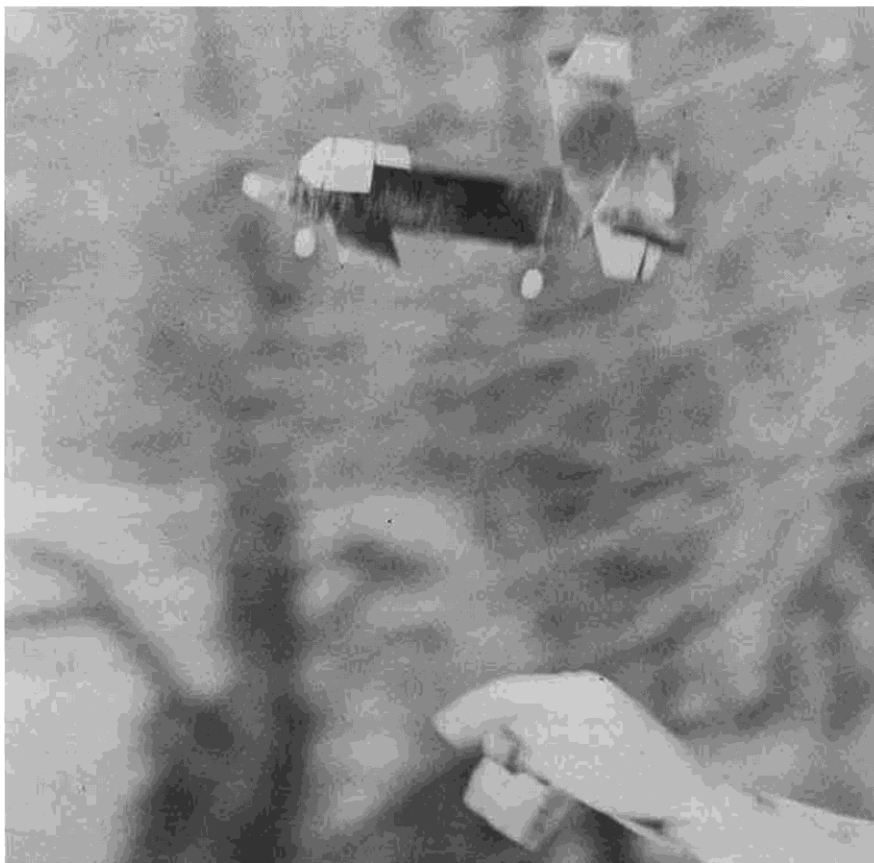
For some time now, we have been trying to come up with an unusual model for an old Campus A-100 compressed air engine. The Lockspeiser seemed to fill the bill. The engine operates equally as well in either direction, and, being mounted in the rear, there was little chance of damaging the engine.

Construction is straightforward and simple. If you don't just happen to have a Campus A-100 (a Bill Brown gem of more than 25 years ago) the fuselage size is ample for rubber power. The fuselage is framed of 1/16 sq. balsa. On the wing, two closely-spaced ribs on each wing half permit the rudders to be installed after the wing has been covered. We cut the rudder portion from the lower fin to make the installation of the rudder easy. Carefully replace the rudder with Hot Stuff, and you cannot tell that the piece was cut away.

The plans show only one-half of the canard (small forward wing). This should create no problem, because they do not become right or left canards until the tips are installed. One thing while mentioning the tips. They should be carved from very light balsa and the extreme rear portion of the tip strengthened after carving by applying a drop or two of Hot Stuff and allowing it to penetrate into the soft wood.

Since we could find very little information on balancing canards, we had to "guesstimate" the CG. But to hedge our bet on a properly trimmed model, a section of 1/8 OD (1/16 ID) soft aluminum tubing was fitted into the fuselage. A section of 1/16 OD tubing was fitted into each canard with approximately 1/2 in. projecting from the winglets. After the model was covered, the small diameter tubing was cemented into the tubing in the fuselage (no adhesive on the end rib, please). This permitted us to increase or decrease the canard angle of incidence until the model was properly trimmed for flying.

The model was covered with lightweight tissue and was given two thinned



PHIZZZ! The little canard is off and running. Yes, Matilda, the little wing goes in front!

coats of plasticized clear dope after the tissue was tightened with rubbing alcohol. Color was applied in a mist coating, using spray enamel from the days when the younger son built model cars.

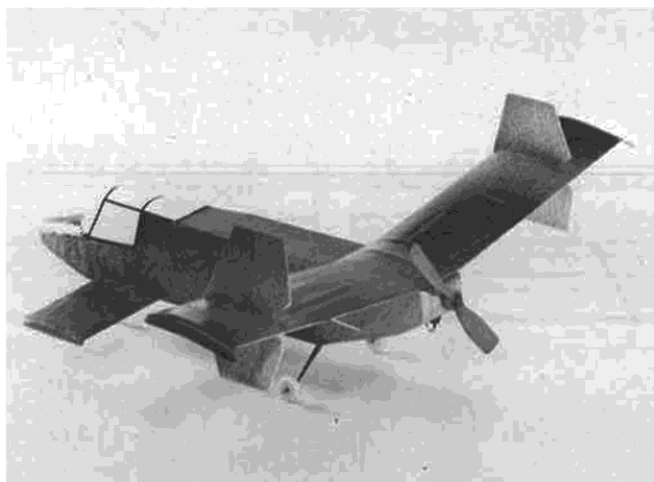
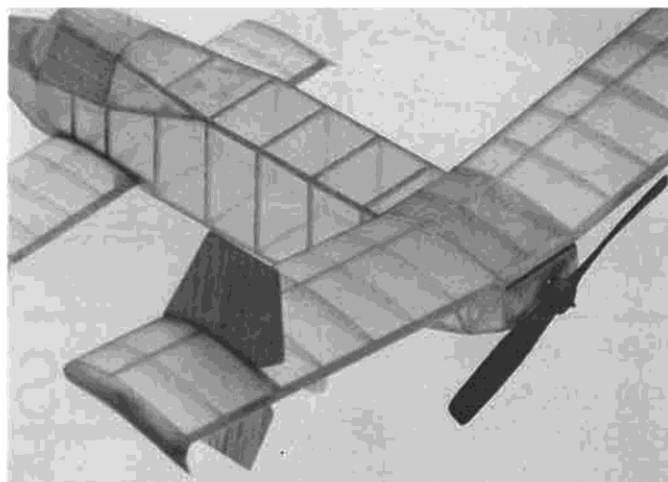
The wind screen can be fabricated from thin transparent plastic. If you plan to attach the plastic to the model with Hot Stuff, Zap, etc., try the adhesive on a small section of the plastic first. We found that some plastics disintegrated (not dissolved) when the adhesive was used.

By the way, if you coat your hands with DuPont's PROTEK (a product that might be described as an "invisible

glove" when applied to your hands) there is little chance that you will glue yourself to the model when using Hot Stuff, Zap, etc.

Flying results were quite satisfactory after the model was trimmed. We made the mistake of locating the air tank a bit too far to the rear of the model. Clay had to be added to the nose to correct this.

For rubber power, either carve a pusher prop or cut down a plastic prop. REMEMBER, the model flies TAIL FIRST. The amount of rubber needed will depend on the weight of your model. ●



Rear three-quarter view of model in its natural covering and with the camouflaged finish. Conversion to rubber power is easy, and the long fuselage will allow a large loop of rubber for sustained power flight.