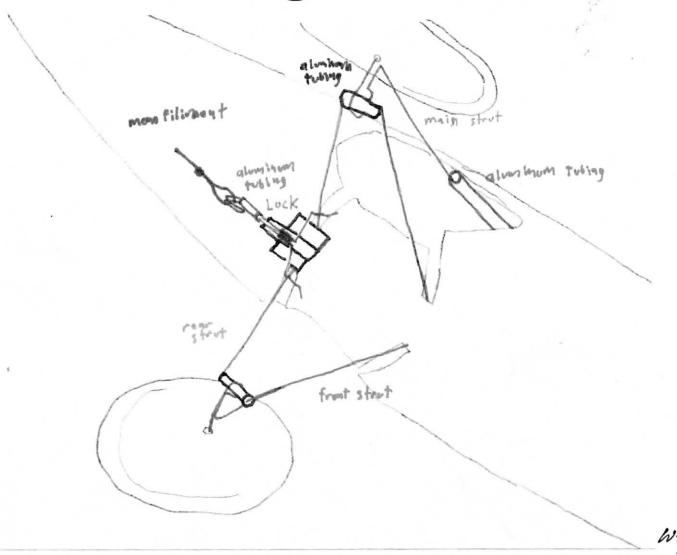
Explanation and operating instructions for the Retracting Gear of the Peanut Dayton-Wright RB-1



How the automatic retracting landing gear works:

As shown in fig. 1, the music wire struts are hinged freely via some aluminum tubing so that they can swing to and from the down and up positions. The ends of the main struts that are in the long aluminum tubing are both connected to a single piece of rubber, which is relaxed when the gear is in the up position as in fig 1 (b). When the gear is in the down position as in fig. 1 (a), the rubber is stretched between the extended main struts. Therefore, the rubber exerts a force that wants to pull the main strut through the tubing until the rubber is relaxed as in fig 1 (b). Thus the natural position of the landing gear is the up position.

Fig 1

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To keep the gear down, a "lock" interrupts the movement of the rear strut as illustrated in fig. 2. The lock slides in a piece of tubing. When the lock is slid forward, it interrupts the gear, and when the lock is

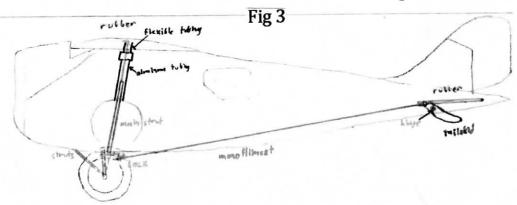
Fig 2

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slid backward, the gear is free to retract.

To control the retraction of the gear, the lock is connected to a piece of monofilament, which runs through the fuselage as in fig 3. The other end of this line is connected to the top of the tailskid. The tailskid is hinged, and a piece of rubber pulls the top of the tailskid

backward, while the weight of the model resting on the tailskid pushes the tailskid in the other direction. When the tailskid is free to pivot backward (as when the weight of the plane lifts off the tailskid) it pulls on the monofilament that is connected to the lock, thus the lock is pulled back, and the gear is allowed to retract.



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How to operate the automatic retracting landing gear:

(Before operating, if you want the wheels to stay locked (not retract by themselves on takeoff) simply unhook the loop of monofilament from the lock to "disarm" the tail-skid activated retraction)

- 1. De-tract the right hand wheel.
- 2. De-tract the left hand wheel.
- 3. Holding both the left and right wheels down by their front struts, pull the lock into place so that it interrupts the movement of the rear struts.
- 4. Manipulate the model to switch hands so that the index and middle fingers of your left hand are on the top of the nose of the model, and your left thumb is holding the lock. (holding down the tailskid with your right hand can help here)
- 5. Use your right hand to move both rear struts to the back of their "slots" if they aren't there already (they usually aren't).
- Place the tailskid of the model on the ground, and apply light pressure with your right hand so that the gear does not retract while you are lowing the front wheels.
- 7. Let go of the gear and lock with your left hand (the light pressure on the tailskid should be stopping the gear from retracting), and lower the front two wheels to the ground.
- 8. Release the prop and then the model.