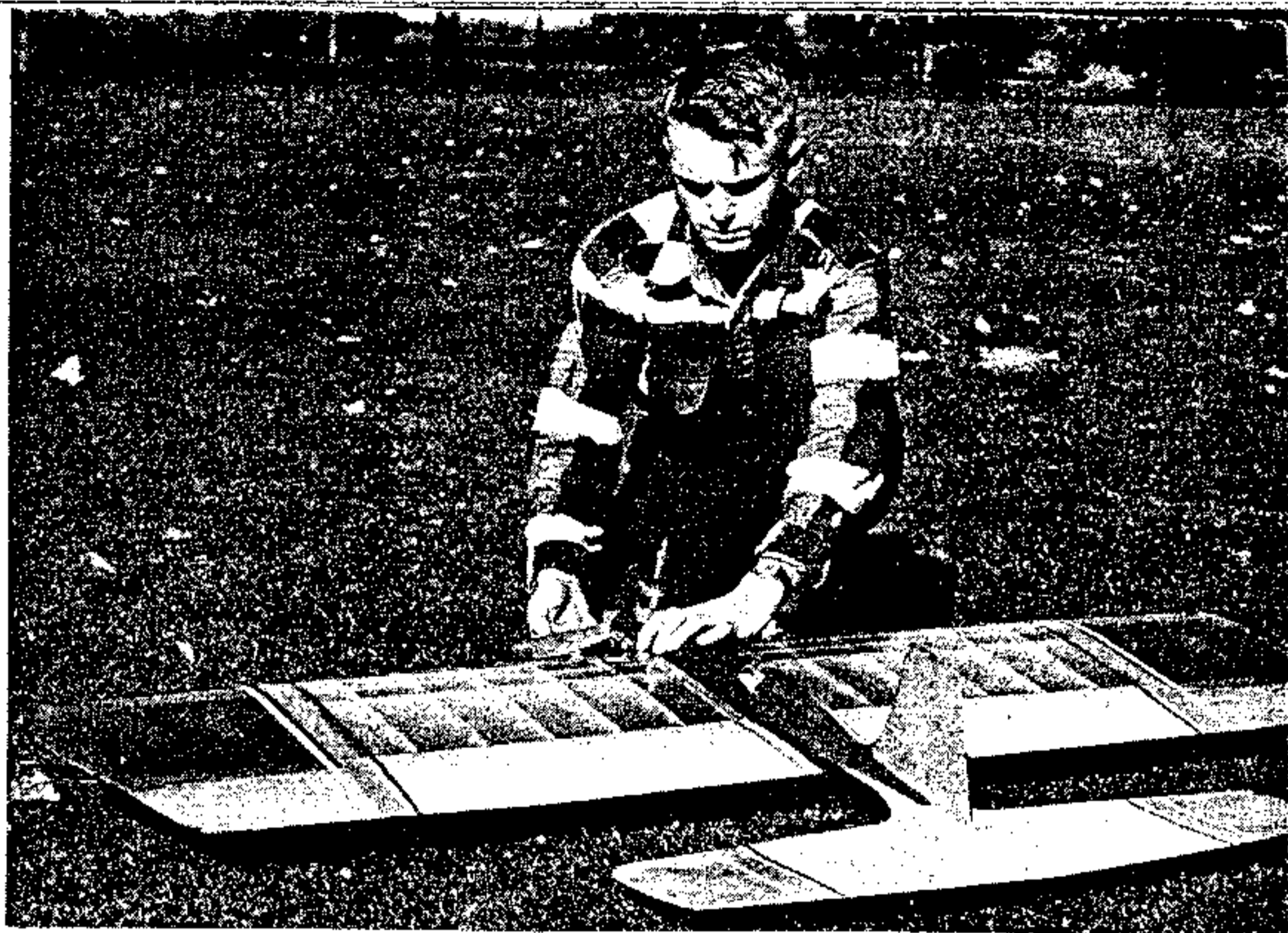


Vertical launches, drop-out launches, and maneuvers you've never done are possible for Jumbo.



For big engines use 70-100 feet of .016 line, suggests author, here cranking a .60. Always pull-test those lines on a peppy .60! And no kinks.

JUMBO . .

By CARL RISTEEN

For those moth-balled .49's to .60's here's a stunt job that really cuts capers. Has speed, smoothness, flies mighty purty pattern.

► To plunge into first things first, Jumbo was designed for high speed, smooth operation and high maneuverability unhampered by overheating and sensitivity that might mar a graceful stunt pattern.

In planning the first model, I decided to try a low wingloading, high power and good streamlining for minimum parasitic drag. Efficient controls would also be needed to avoid unnecessary drag and turbulence in tight maneuvers at high speed. I decided to experiment with larger-than-average wing flaps and elevators on the theory that, operating through lesser angles to the slipstream, they would be more efficient.

The first model was built with an extremely low weight, achieved through the use of very light wood and a skimpy finish. A thin airfoil was used along with a fairly short tail moment arm.

In flight, the model combined great speed with an incredibly small turning radius. It would not, however, maintain good line tension throughout difficult maneuvers on long lines and was too fast on short lines.

The next model included greater thrust offset, more wing counterweight, stronger wood and a better finish. A thicker airfoil was also used to provide better lift for tight turns. Consequently, this model flew much more smoothly and performed the stunt pattern with ease on 100 ft. lines. I found it possible to perform unusual stunts with this aircraft which are impossible to a normal stunt model because of higher weight and powerloading. Vertical take-offs were performed with great ease and precision, as well as drop-out launches with the model held horizontally only a few inches off the ground and released from a stand-still. Apparently, the large flaps working with the prop-wash provided enough lift to prevent the model from falling before it gained speed. *(Continued on page 49)*