

3RD

Have you ever wondered what to do with scraps of body tube that are too good to throw away but also too short to really build much of anything? This design by John P. Childs of Rockaway Beach, New York may suggest one or more variations to which you may put such an assortment of tubing to good use. Test your "plumbing" ability and your ingenuity in devising an ignition system to give reliable twin-engine starting in this arrangement. Appearance?? Here is exercise of your design abilities--but consider that just a few short years ago, the rocket hardware now in use was thought to be "way out".

John's design is awarded 3rd. place-not entirely for the unusual design but for its ability to stimulate new ideas and encouragement to try something different.

Considerable instructions were included on the various construction steps for this bird-but to stimulate thinking, we have included just the drawings and pattern needed to build this model. How the tubes are to be tapered - - - how to get a 4" wide fin from a 3" x 9" sheet of balsa - - - that's your decision. Here are a few clues:

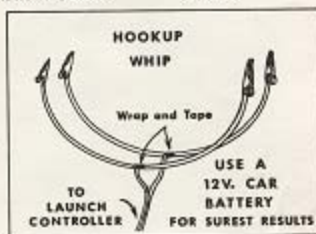
The 2 BT-20Js are used as single engine mounts. The C/G with engines in place is marked. Drawings are not full size but all necessary dimensions are included. (Fins are made in 3 parts.) Use 1/2A engines in first flights, A.8-3 engines for sport flying. DO NOT USE SERIES II ENGINES. Launching lug placement and short length help keep this bird under control if one engine fails to start. Torque of the one engine operating will bind the bird on the rod. Be sure the launching lug is well cemented to the body tube. Use a Tilt-a-Pad with a wide stance and secure each leg with a brick or stone. Standard launchers will tip over should only one engine start.

The small photo of a single engine test seen at right, shows the extreme forces which make extra launching precautions necessary.

"THE FLYING WHY"

PARTS

- | | | |
|---|-------------------|---------|
| 3 | Nose cones | BNC-40D |
| 1 | Nose cone | BNC-30N |
| 3 | Body tubes | BT-40 |
| 2 | Body tubes | BT-20J |
| 4 | Sheet balsa stock | BFS-20 |
| 2 | Engine blocks | EB-20A |
| 2 | Screw eyes | SE-1 |
| 1 | Shock cord | SC-1 |
| 1 | Launching lug | LL-2B |
| 2 | Parachute kits | PK-12 |



For additional safety, place the bird on the pad so that the "Y" faces you at the launch controller. Do not allow any one to stand closer than you to the pad.

