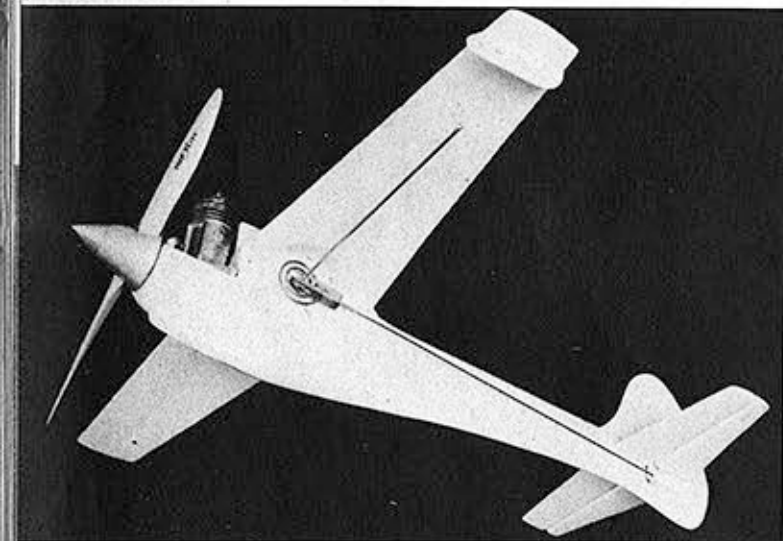


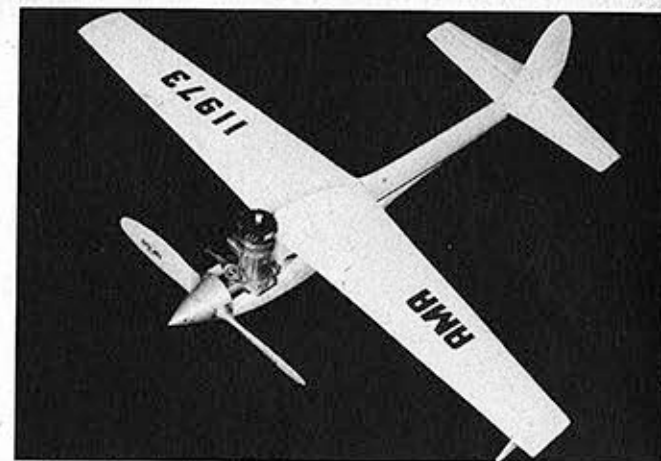
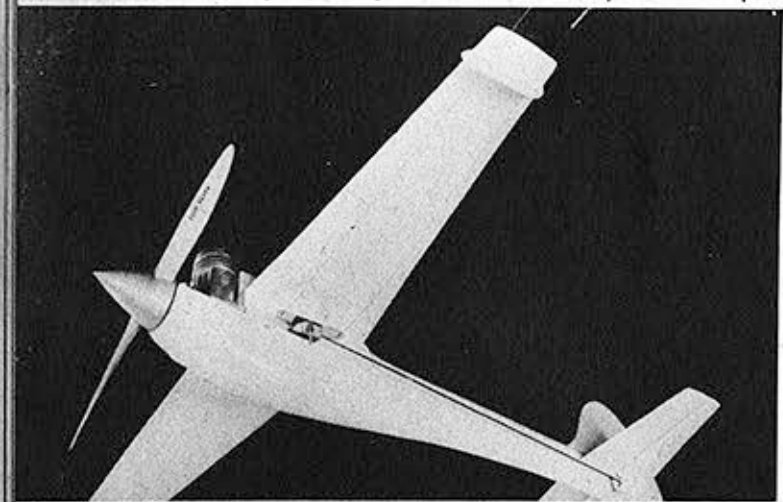


Affable Leo with Quickie Trainer, left, a Quick 60 and a jet job. Standard prop, stock Fox (or Torp, Mac, etc.), profile fuselage.



Typical Mono-Line set-up (sport, not the custom made racing cam) as mounted against the profile fuselage with an external pushrod.

Below—Identical airplane but with standard U-control arrangement of bellcrank and pushrod. Beginners should note safety sketches on plan.



So You Want to Fly Speed?

By LEO R. HOLLIDAY

First, practical speed trainer is easily built and flown. Breaks 100 mph with stock engines, props and fuels. Pen bladder tank.



Speed Master Mono-Line control unit used by Clem, Kirn, Boasley, Holliday. A system made for all classes: that is, A, B and C or jets.

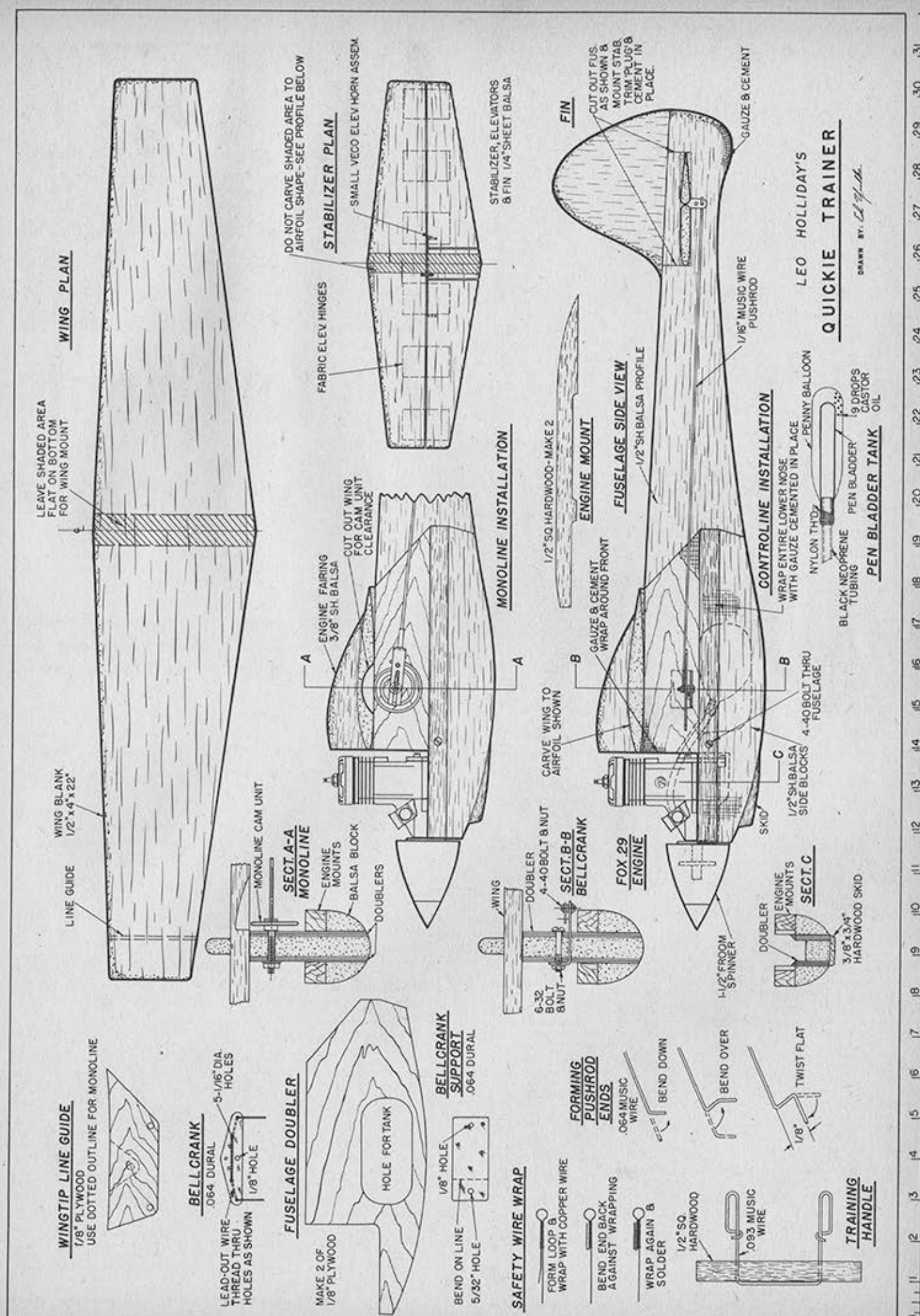
► The Quickie Trainer was designed with several objectives in mind. The first and foremost was to design a ship that is capable of bettering 100 mph, yet school the average modeler in some of the functional operations of a speed ship; also, to allow him to get acquainted with the many factors of safety that are necessary when building speed.

The one thing that can kill speed, in the eyes of the public and the sponsors of model contests, is to see an accident occur around the speed circle that could have been prevented with just a few simple safety precautions. A modeler should always check his own lines before each flight and not even attempt to fly if there is some question in his own mind that his ship may break loose.

A new set of lines costs around 75c. Stop and think for a moment how much money you have invested in your engine alone. Why take a chance on an old set of lines that you used last year?

One feature that was included in this airplane that may stymie the beginner for a moment is the pen bladder tank. This type of tank is fast becoming the standard in speed and it seems only right that it should be in a modeler's first serious attempt at training for speed. I actually used the standard Fox needle valve with the pen bladder tank and had wonderful results. You simply

(Continued on page 34)



LEO HOLLIDAY'S
QUICKIE TRAINER
DRAWN BY: *Leo Holliday*

31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

So You Want to Fly Speed?

(Continued from page 30)

close off the needle valve and inject about 3 cc, or 1 oz., of fuel into the tank, using any standard ear syringe, then hook on the pen bladder to the needle valve. Open the needle valve slightly until fuel begins to flow into the venturi and then begin to flip the prop by hand.

The engine will begin to pop after the valve has been opened just a little. Keep opening the valve until the engine begins to run just a little and quits for lack of fuel. Then open it just a bit more and the engine should start and continue to run. If you wish to replace the spraybar type needle valve with a Dooling or McCoy type, just tap the needle valve hole with a 10-32 tap. This tank set-up has been used by several of the boys for combat and they have found that they get a very fast and consistent run.

As you will note, the plans illustrate both U-control and Mono-Line type control installations. The vast majority of the modelers now fly ukie of the Jim Walker type and it may be well that in your first venture in speed, you continue to fly U-control. Many good articles have been published as to installations of this type of control. However, at this point, I think we should note the manner in which the leadout cables are attached to the bellcrank. It is not as important in the speed trainer as it will be in regular speed ships in the future. The cable is laced through the bellcrank and then wrapped at one point and soldered. This prevents possible slippage and, in the close quarters of a regular speed ship, the elimination of the wrapping and solder joints at the bellcrank will prevent many headaches in the future.

With the recent outstanding successes

of Mono-Line in speed, and since this author is completely sold on the possibilities of this type of control, it seemed only just to design this ship with an eye to eventual single-line control. Many experienced speed fliers will no doubt build this trainer solely to make the transition to Mono-Line.

The trainer was also designed to give maximum stability and ease of construction. I think you will agree, after glancing over the plans, that this is one of the easiest speed trainers to build. In fact, with only a couple of nights' work, the ship can be ready for the air, living up to its name of Quicke Trainer.

The construction of this airplane is quite simple as it is patterned after the general run of profiles. Several points should be mentioned, however. In determining the exact size of the pen bladder compartment, you should make up a pen bladder tank and fill it with 1 oz. of fuel, then outline it in the position illustrated in the plans. All pen bladders do not blow up in the same shape.

Aspiring Fiberglass experts can use this ship as an excellent experimental lab for covering parts, especially those parts for which gauze covering is indicated. Plastic-type glue was used on all glue joints requiring strength. This glue takes a little longer to set up; however, it is very nearly indestructible and is fuel resistant. The ship can be finished in one of many possible ways. One, by using nitrate dope and any type of good fuelproof or by using a fuelproof dope directly. For you future "nitro burners," you may want to test your skill with the synthetic enamels: Duco or Dulux automotive paints.

A front rotary type Fox .29 was used in the prototype. Should a young modeler de-

cide to build this as his first speed project, he could quite possibly fly it in all classes as the mounting screw holes on the Fox .19, .24, .29 and .35 are all identical. However, any of the front rotary engines on the market today will make excellent powerplants for this model. Very little alteration is necessary for rear rotary engines. However, this will possibly be the first venture for many young speedsters and the trainer will undoubtedly be more successful when the modeler uses engines with which he is more familiar.

As we said, construction is quite simple. However, some potential danger spots should be highlighted. Since most of the work in building this ship is centered around the fuselage, it is quite logical to begin construction here. First, draw off the outline of the profile on a $\frac{3}{8}$ in. piece of balsa. Do not cut out the profile until reference lines have been drawn for both the elevator and the motor mounts, keeping both at zero degree incidence. Next, secure your pen bladder tank and fill it with 1 oz. of fuel—this is sufficient for speed training flights—and outline tank in position as indicated. Then cut out the outline of the tank out of the profile. Cut the motor mounts out of stock hardwood, $\frac{3}{8}$ x $\frac{1}{2}$ in. Glue the motor mounts to the fuselage along the line indicated. After the mounts have dried, drill a hole and put a 6 x 32 bolt through both motor mounts. This strengthens the mounts considerably. Mount the engine with the spinner attached.

Next, carve the fairing blocks for the engine and the pen bladder tank. *Be sure to fuelproof the inside of the tank compartment before installing the blocks.* I used Aero Gloss fuelproof cement for this as it is very fast-drying and does an excellent job. Next, glue the $\frac{3}{8}$ in. plywood stiffeners that are sandwiched between the wing and the motor mounts on each side of the profile. Now, drill the mounting holes for the type of control you wish to use. The Mono-Line holes should be countersunk one ply on each side in order to allow the screw to extend far enough through the profile to be able to apply the nut to the opposite side. The fuselage should now be carved to shape and sanded.

The flying surfaces should now be cut out and carved as shown. The rudder and the elevator take simple streamlined sections. The wing should be carved to the airfoil indicated. Next, cement in the wing guide and gouge out the wing for the Mono-Line unit, if this type of control is to be used. Then glue the wing into place. The elevator should be hinged and cemented into place. Next, cement on the rudder. The final sanding should be made and then cover the sections indicated with gauze and rub cement into the gauze surfaces for strength. Next, paint the model your favorite color, using either a nitrated dope and fuelproofing over the dope or use a fuelproof paint, such as Aero Gloss or Dulux. The mounting bracket for the bellcrank can now be made and bolted on. Install the controls and this ship is ready to fly.

First flight should be made with stunt props and stunt fuels and should produce speeds of about 80 mph on a Fox .19 or .29. Hotter fuels may be used and smaller diameter and greater pitch props to increase the speed. A 9 x 7 Presswood Tornado with Supersonic 1,000 fuel should give speeds approaching 100 mph. After that, you're on your own, as undoubtedly the desire for greater speeds will encourage the modeler to experiment

with props and fuels in order to get the greatest speed possible. Hand-launching is recommended for this ship.

Here's hoping that introduction to this model will be the first step toward putting you in the winners' circle and keeping you there for many years to come.