Stooge #1

Ballin's "Bat" Stooge

By Ted Ballin

(Ted Ballin is the secretary/ treasurer of the Strat-O-Bats MAC, and this first appeared in their newsletter. Hence the "Bat" in the title--ed)

This is an elegant rubber winding stooge of moderate cost that is compact, light, strong, quick and easy to make.

The main element is the Bogen 3016 photographic monopod (M-P) (1), available by mail order from photographic supply houses for about $15 (see the ads in the latest issue of *Popular Photography*).

I slightly modified the M-P to make the stooge, but not to the extent that I could not use it for photography, if I chose.

First, remove the bottom leg (the third section) of the M-P by loosening the top bolt of its clamp with an 8mm socket wrench. When loose, the bottom leg will slide right out. The now two-section M-P will open to about 40", just right for a stooge.

Next, cut the nylon carrying strap away from the black Delrin lug (2) at the top of the M-P. If you do not wish to destroy the strap, drill two 5/32" holes as shown (3) in the sketch for attachment of the guy ropes.

Some of the 3016's have a rubber-like hand grip around the top of the M-P. This can be removed (as I did) or left on if you prefer. The M-P comes with an adapter nut on top to match the M-P to cameras having larger tripod sockets. Remove this and save.

Next, cut and drill the U-shaped model holder from 3/32" thick aluminum. Half-hard aluminum is preferable; I obtained mine for pennies from the Boeing surplus store (6061-T6, which is the most common alloy used in the aircraft industry).

If you fly only small rubber models like Coupe, 1/16" is sufficiently strong and can be

Ted Ballin and one of the three stooges

obtained from most hobby shops. To cut and drill the aluminum I used a portable saber saw with a non-ferrous blade and a portable power drill, but a hacksaw and a hand drill will work as well; only take a little longer.

You can vary the shape of the model holder to suit your desires, but a fairly narrow holder (4) as shown will be easier to bend, and bending 3/32" 6061-T6 ain't easy! I did it using small maple (any hardwood will do) children's blocks, a bench vise, and a very large hammer.

Do not make the bends too sharp, or you will split the aluminum! Be sure to round off the corners, file down all edges and remove flash from, or lightly countersink, the drilled holes.

Use a 1/4-20 nut and lockwasher (5) to fasten the aluminum model holder to the M-P, and torque the nut down tight. You will need to have some sort of metal stake to hold the M-P upright on the ground. An 8" spike will work, but I used a 10" common tent stake, available from most discount and sporting goods stores. (6)

For a snug fit and to prevent damage to the M-P tubing, slide a short length of plastic plumbing pipe or plastic tubing over the nail or spike as shown. (7)

Obtain about 14 feet of 1/8 braided nylon cord (from any hardware store). (8) Seal the ends to prevent fraying (with a match, or more elegantly with a heat shrink tubing), cut into two equal pieces, and tie one end of each piece to the plastic lug at the top of the M-P, or, alternatively, tie them to holes drilled in the aluminum model holder. (3) Use a non-slip knot like a double half hitch.

Cut a small piece of 1/2" to 1" thick piece of foam rubber as shown (9) to fit the bottom of the model holder to protect your model from the projecting nut. (5)

Some form of model support is useful. I made mine from materials I had on hand: a piece of 1/2 x 3/32"x approx 13" spruce glued at right angles to apiece of 15/16" x 3/32" x approx. 3 3/4" spruce (reinforce the right-angle joint as shown with a small angle-iron) (10).

Drill holes and fasten to the aluminum model holder as shown on the sketch (11) with a small round-head screw, a washer and a wing nut (6-32) slip on a short piece of 1/2" pipe insulation as shown (10).

Obtain two spikes or tent pegs to hold down the guy ropes as shown (8). I proof tested the completed stooge to 130 in-oz of torque, strong enough for Wakes and Unlimiteds.

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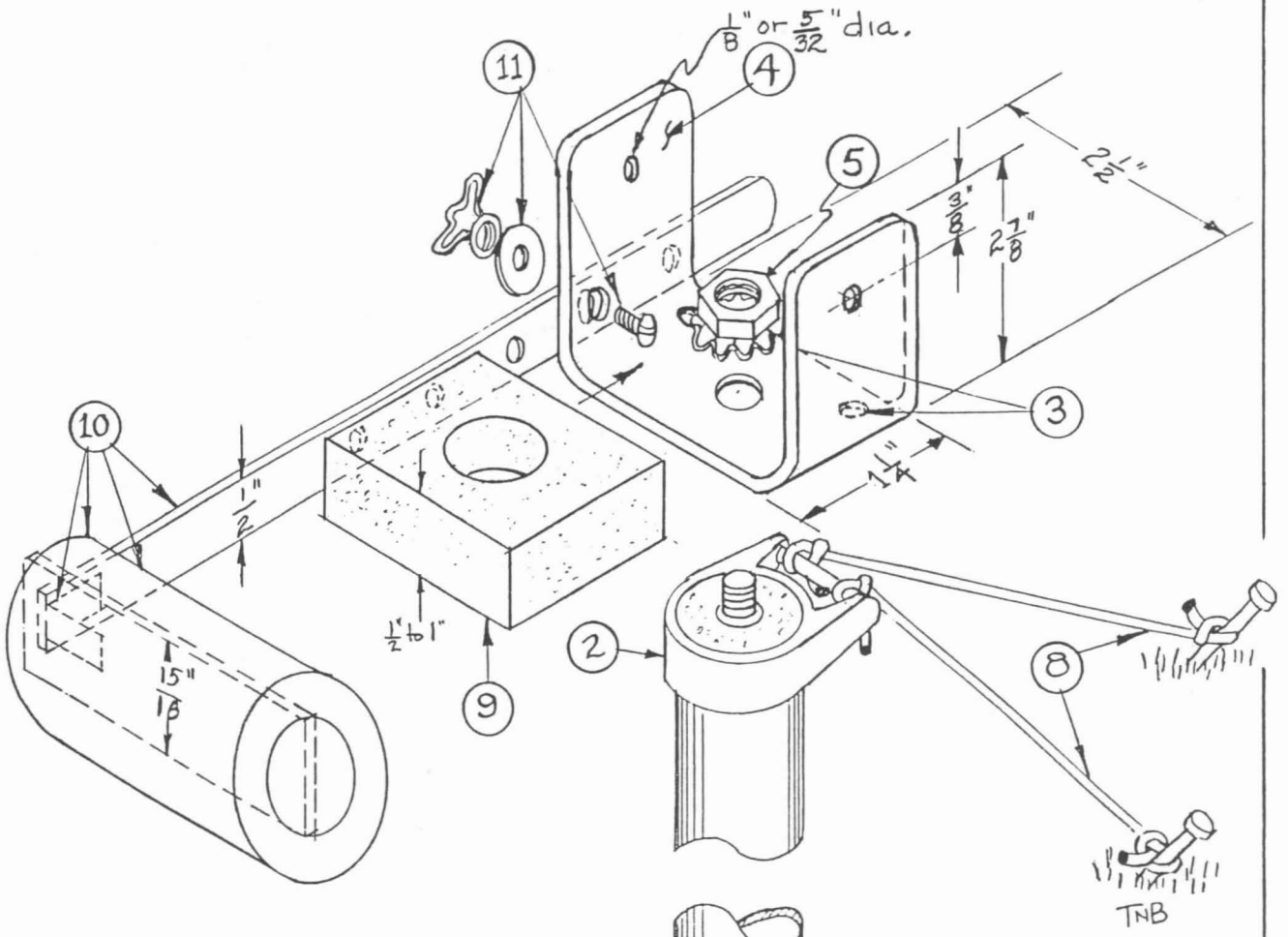
Tip

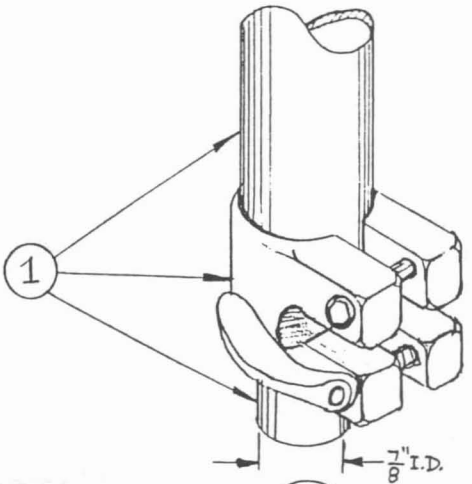
From Terry Thorkildsen

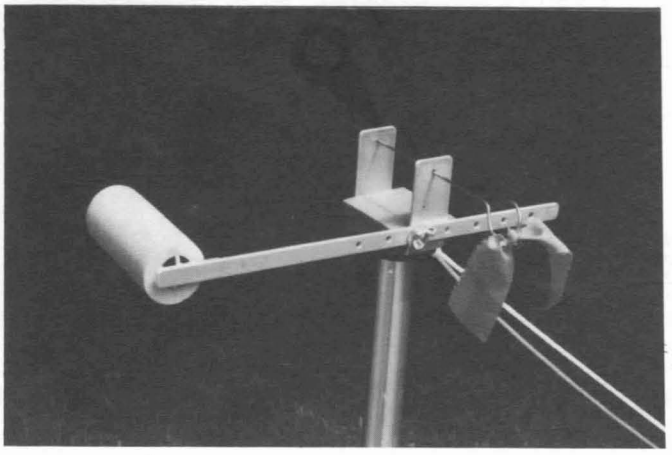
To get a brass tube to bend easily for your rear DT line, place it in the open flame of your gas stove and hold it with pliers until it gets cherry red. Remove it from the heat and let it cool, It will be annealed and easy to bend

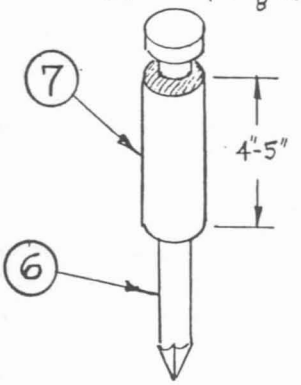


BALLIN'S "BAT" STOOGE

(not to scale)







Stooge #2

An Inexpensive Model

By George Calvert

(From the Tulsa Glue Dobbers Free Flight Group newsletter, May 1992.)

Construction

1. Drill a hole to match the broom stick through the center of the block.

2. Cut the broom stick to the length (height) that suits you.

3. Taper one end of the broom stick to a dull point. Sand the varnish off the end that you will stick in the block hole. Make sure you have a snug fit.

Coat the stick end that goes in the block with white glue and slip it into the block till the top of the block and stick are flush (even). Put it away and let dry at least overnight.

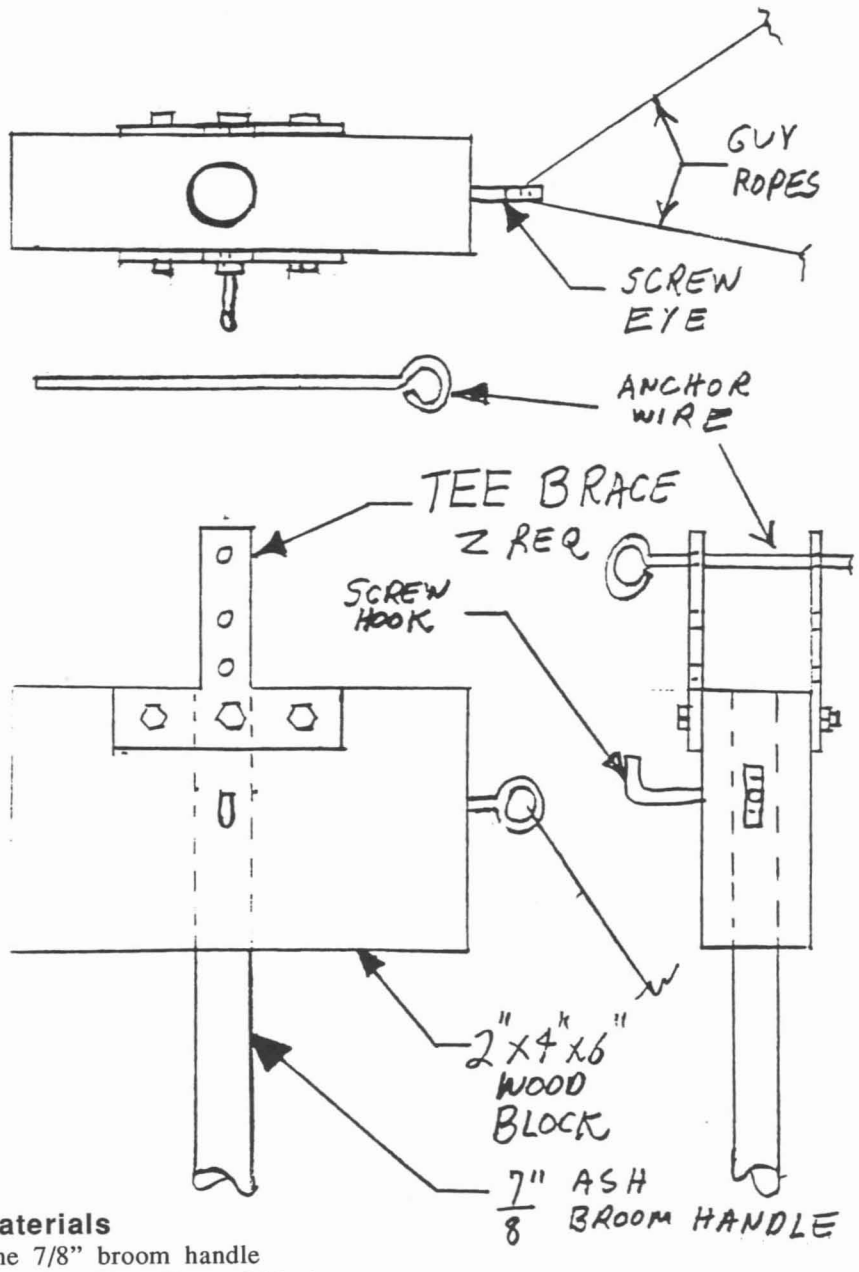
4. Mark and drill three 1/4" holes that match the Tee Braces. Make sure the center hole is drilled through the broom stick.

5. Mix up some epoxy and coat the inside of the Tee Braces. Bolt one on each side of the wood block, making sure the holes in the two upright legs of the Tee are lined up. Let epoxy dry.

6. Put the Large Screw Eye in one end of the block and tie two pieces of the cord to it for guy ropes.

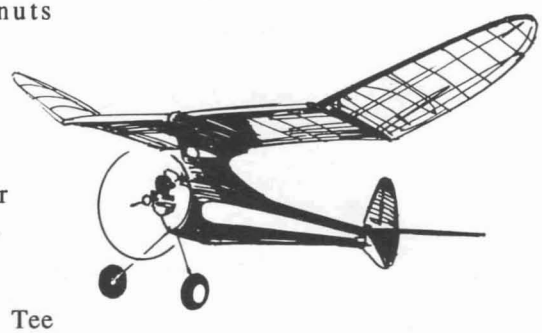
7. Put the screw hook on one side of the block. This is for hanging your winder. I laid mine on the ground, stepped on it and broke it. Hang up the winder.
8. Use a separate block of wood to aid in driving the stooge into the ground. Drive in the tent pegs, hook up the guy ropes and you're ready to wind.

(Thanks to Bob Dunham for the idea.)



Materials

One 7/8" broom handle
One 2" x 4" x 6" wood block
Two Tee Braces
Three 1/4" bolts, washers & nuts
One large screw eye
One small screw hook
6 ft 1/8" rope/cord
Two aluminum tent stakes

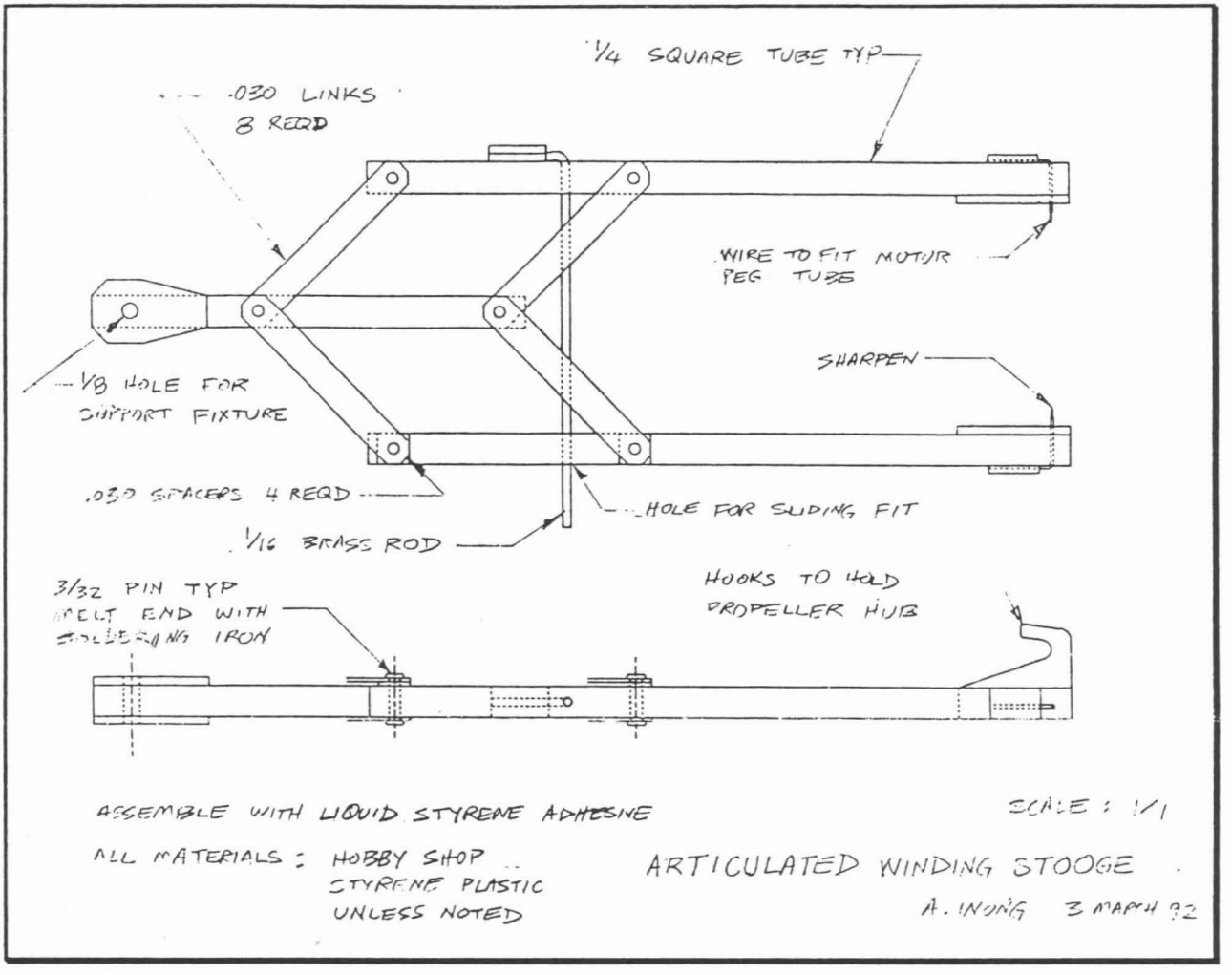


(Use an aluminum tube for the motor peg in your model. The model is anchored for winding by a 1/8" or greater wire through the holes in the Tee Braces and the aluminum motor peg.)

Stooge #3

The Indoor Model

By Alan Wong



This stooge is for indoor models and was designed by Alan Wong of the Boeing Hawks. It first appeared in the Hawks' newsletter. The original is not very big, about seven or eight inches long--CW

Tip
From Terry Thorkildsen

Footpad

Are you tired of having your timer turn to junk from the high frequency vibration generated by hot engines?

This seems to be more of a problem with the larger engines--.15 and up. If you mount a Dr. Scholl Foot and Shoe Pad behind the timer, it dampens the vibrations. It has a self-adhesive on one side which you can stick to the timer and glue the other side to the fuselage using CA glue. Make sure the hole for the timer is larger than the timer case.

You can put a triangle stock in front of the pad for streamlining.