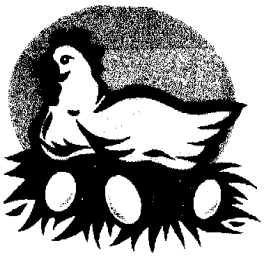
CAMPING AND OUTDOORS EXTRA

A FUN OUTDOOR ACTIVITY

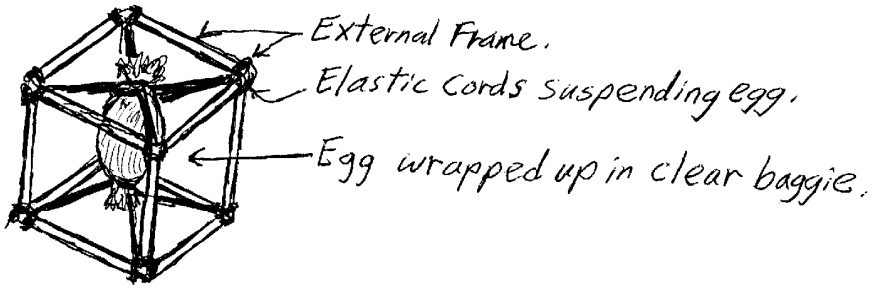
THE EGG DROP



Objective: Make a container for one egg to be dropped at one or more specific heights without breaking.

Rules:

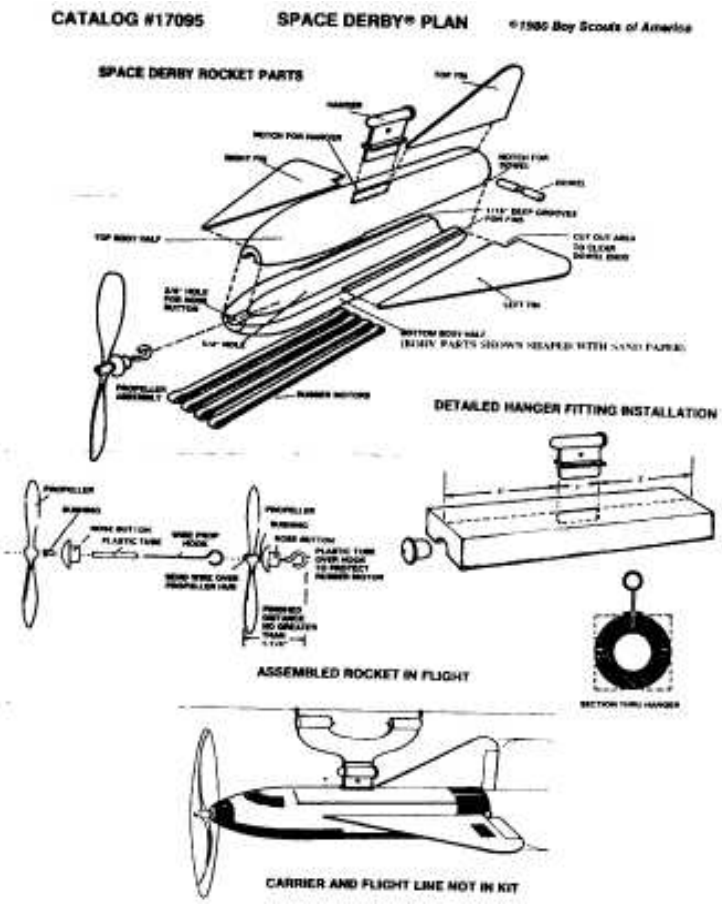
1. Egg will be a medium size raw egg provided at the time of the drop by the pack.
2. The container will be a maximum size of 10 inches square.
3. No external devices may be used (such as parachutes, springs, etc.)
4. The container will be accessible so egg can be put in at time of drop, and so egg can be examined after each drop.
5. The height of drop will increase each round. Only eggs that have not broken open or have cracked but are not leaking will continue to the next height. A new egg should be put in each time the container is dropped.
6. Scoring should be: 3 points each drop if egg is not cracked. 2 points each drop that egg is only cracked. 1 points if egg is cracked and leaking. No points if egg is smashed. Of course the winner is the one with the most points.
7. Minor repairs may be made between each drop for those containers that qualify for additio



DERBIES EXTRA

THE SPACE DERBY KIT

"Read complete instruction and review the plan to identify the various parts of the kit."



This is the first line on the instruction sheet. Too many people, boys, dads, or whoever, have a phobia when the word 'instruction' is presented. I agree that there are some things on the sheet that could be better. But you have to read them if you want to know how to build the rocket right.

HELPFUL HINTS: The rocket halves are usually made of two different pieces of balsa wood, one harder than the other. Before gluing them together, use some sandpaper and clean up the balsa inside. Some halves have slivers that will catch on the rubber bands as they try to unwind. Making the center larger allows for better unwinding, BUT there is a problem. If you make the center bigger, you will have to cut off the hanger so it doesn't hang down in the rocket and catch on the rubber bands.

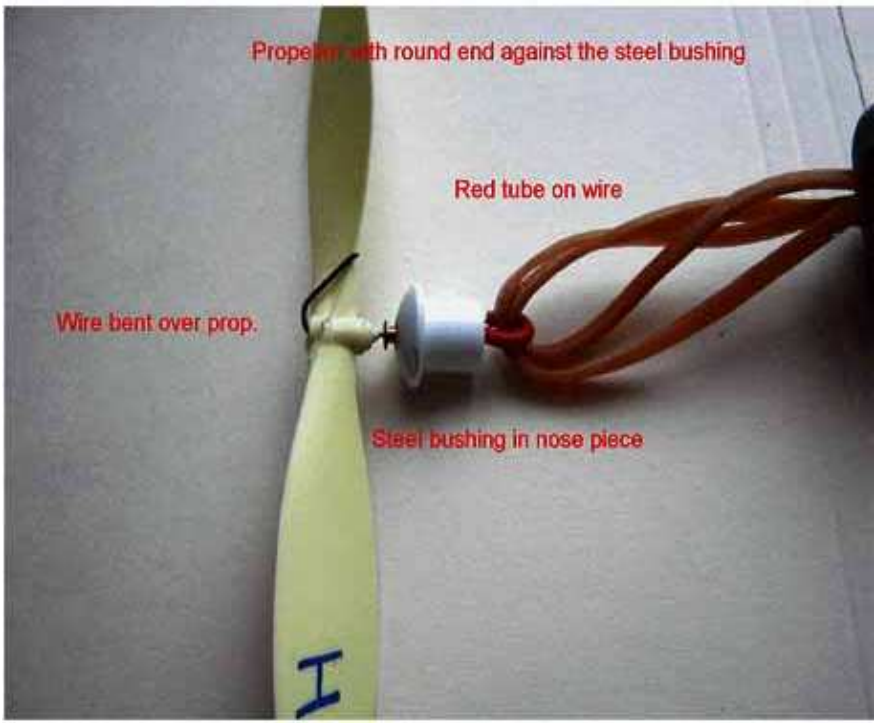
Also, when the hanger is pushed into the rocket, it sometimes pushes a big piece of balsa wood with it. It usually will hang down and catch the rubber band and slow it as it unwinds. Look inside to see if any such piece is there, and again after you have wound the rocket a few times. It sometimes comes loose after rubber band knots have hit it.

Center the hanger on the rocket. We have had to cut several propellers down, just because the hanger was too far forward and the prop hit the launcher. Balance the hanger to get the best performance out of your rocket.

Now for the propeller assembly. Here the kit's instruction could be clearer, but again, too many times, the instructions are not followed. When the rocket is unpacked, make sure all the pieces are there. There is a little steel bushing that is easily lost, and the rocket just will not fly without it. Take the wire and slip the little red piece of plastic tubing down over it. It doesn't go around the loop in the wire very well, but <u>must</u> go all the way. If not, you will be breaking rubber bands continually. An easy way to put it on is assemble the complete propeller assembly, take the wire with a pair of pliers, hold the wire, and push on the propeller. The red piece just slips on around. Next comes the nose piece, and then the steel bushing. The instructions are not always clear on this part. One end of the Propeller is rounded, the other flat with a notch. <u>The rounded end goes against the steel bushing</u>. The flat edge of the propeller is out front.

(Space Derby continued)

The notch is used to bend the wire over. Due to wear, I prefer to bend the wire over until it catches the side of the prop. **Do not glue the nose into the rocket.**



With the long rubber bands that now come with the kits, shortening the wire is common. But do not shorten it so much that the loop is up inside of the nose. This causes two problems. One is changing a rubber band if it breaks, the other is more on performance. That is, the rubber bands will knot in the nose piece and will not allow the wire to turn at any speed until most of the rubber band has unwound.

On the instructions picture it says “Notch for dowel”. If the back of the rocket is not notched, the white plastic dowel will spin along with the propeller.

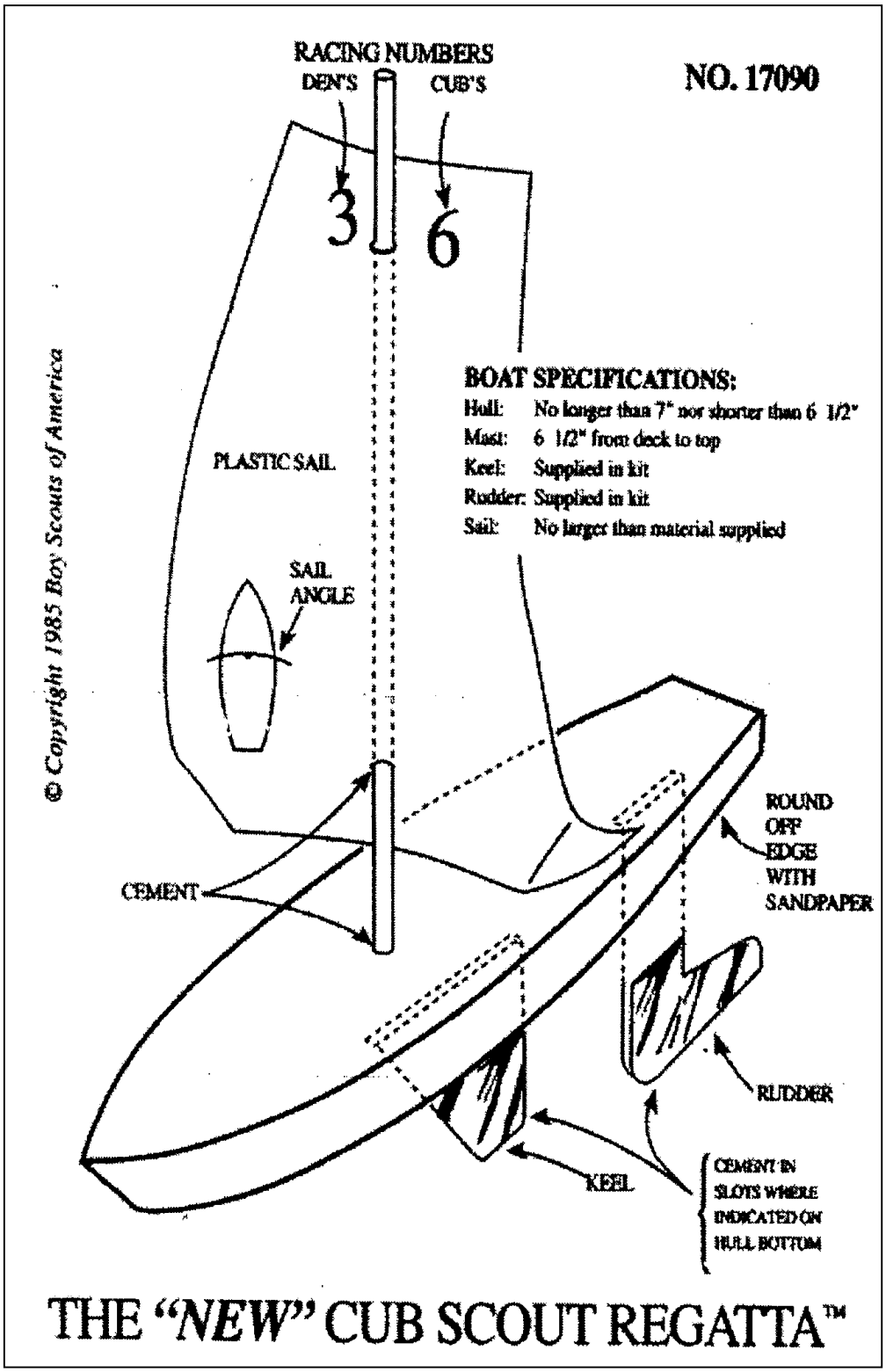
Most of the kits now come with rubber bands that are too long. The Rubber band kits you get for spares are also too long by about a half inch. If you have the boys manually winding up their rockets, don' t have them start counting until the end dowel will hold itself to the back of the rocket and not be loose after a few winds have been put on the rubber bands. It is also common now for the back dowel to fall out when the rocket has finished unwinding. Keep an eye out for them as they hit the floor.

Sometimes the rocket hanger will come loose during the race. A quick easy way to get the rocket back up and running (better than hot glue) is to just stretch a rubber band around the hanger, under the rocket, and back around the hanger. This may damage some of the fins, but it only takes a few seconds to do.

Most tracks are set up to be about 40 feet long. The longer the track the more rubber bands you will break trying to get to the other end. Some rockets are light, and some are heavy, just because of the wood you get. However, sanding and working out your design should take care of this. Start with two rubber bands. <u>Only if you must,</u> use three. Three rubber bands puts more pressure on the propeller and steel bushing. If the rocket is heavy, three may be the answer. But with three rubber bands, there are larger knots in the rocket. We also see more broken rubber bands with three.

(Derbies Extra Continued)

RAINGUTTER REGATTA EXAMPLE

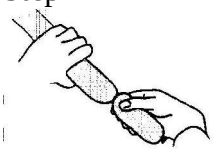


CREATIVE BALLOONING EXTRA

Basic Dog

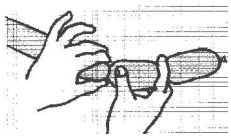
Inflate the balloon, leaving 6 inches uninflated.

Step #1



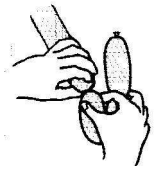
Pinch and twist a 5-inch bubble

Step #2



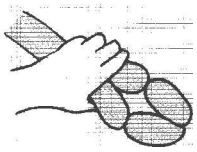
Hold first twist with fingers, while pinching and twisting a second 5-inch bubble.

Step #3



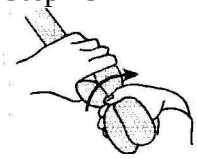
Pinch and twist a third 5-inch bubble.

Step #4



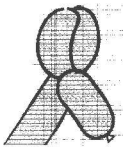
Fold balloon between the second and third bubbles

Step #5



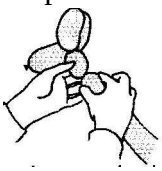
Squeeze the bubbles together and twist completely around to lock the bubbles together

Step #6



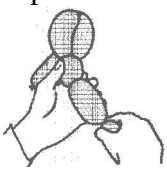
Your basic dog should look like this.

Step #7



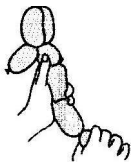
Pinch and twist, completely around, a 2-inch bubble for the dog's neck.

Step #8



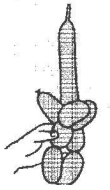
Pinch and twist, completely around, a 3-inch bubble for the first front leg.

Step #9



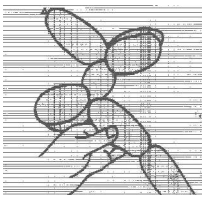
Pinch and twist, completely around, another 3-inch bubble for the second front leg

Step #10



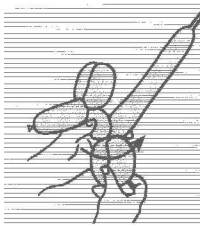
Fold to place the front legs beside each other

Step #11



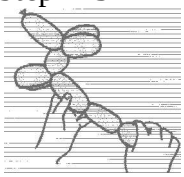
Twist and lock the front legs together

Step #12



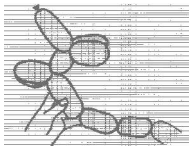
Pinch and twist, completely around, a 5-inch bubble for the dog' s body

Step #13



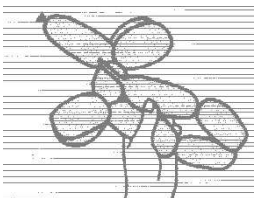
Pinch and twist, completely around, a 3-inch bubble for the first rear leg

Step #14



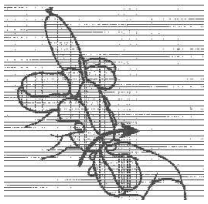
Pinch and twist, completely around, another 3-inch bubble for the second rear leg

Step #15



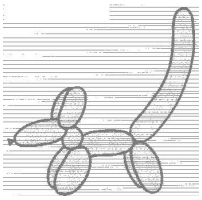
Fold to place the two rear legs beside each other

Step #16



Twist to lock the rear legs together

Step #17



Your basic dog is now complete.

TIN & METAL EXTRA

PIPE CHIMES

Pipe chimes can be made from two ten foot lengths of 1/2" galvanized conduit pipe or copper pipe. For best results, use a pipe cutter to cut the pipe. Cut the pipes to exact measurements. An 1/8" off will change the pitch. Use a drill press, if possible, to drill the holes in the top of the pipe. Drill about a 1/16" hole in the top of the pipe for hanging the pipes.

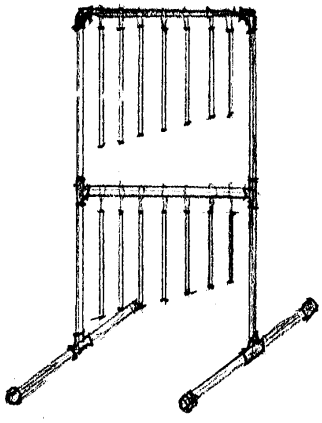
Build a frame out of PVC sprinkler pipe or wood. Use fish line or dental floss to hang the chimes, or just have two cubs hold the pipes on a broom stick or dowel. Or, you can hand out a pipe to each cub and have a bell choir. This would be GREAT for the Showman Activity Badge. Strike the pipes with a large nail or butter knife or other metal implement.

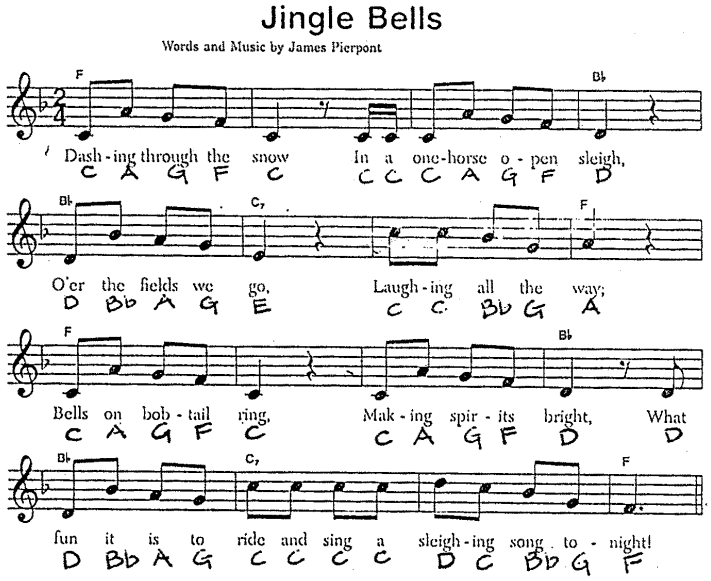
FIRST OCTAVE

Note	Pipe Length
A	13"- 6/8"
B flat	13 - 3/8"
B	13"
C	12 -5/8"
C sharp	12 - 1/4"
D	11 - 7/8"
E flat	11 - 1/2"
E	11 - 1/4"
F	10 - 7/8"
F sharp	10 - 5/8"
G	10 - 1/4"
A flat	9 - 7/8"

SECOND OCTAVE

Note	Pipe Length
A	9 - 5/8"
B flat	9 - 3/8"
B	9 - 1/8"
C	8 - 7/8"
C sharp	8 - 5/8"
D	8 - 3/8"
E flat	8 - 1/8"
E	7 - 7/8"
F	7 - 5/8"



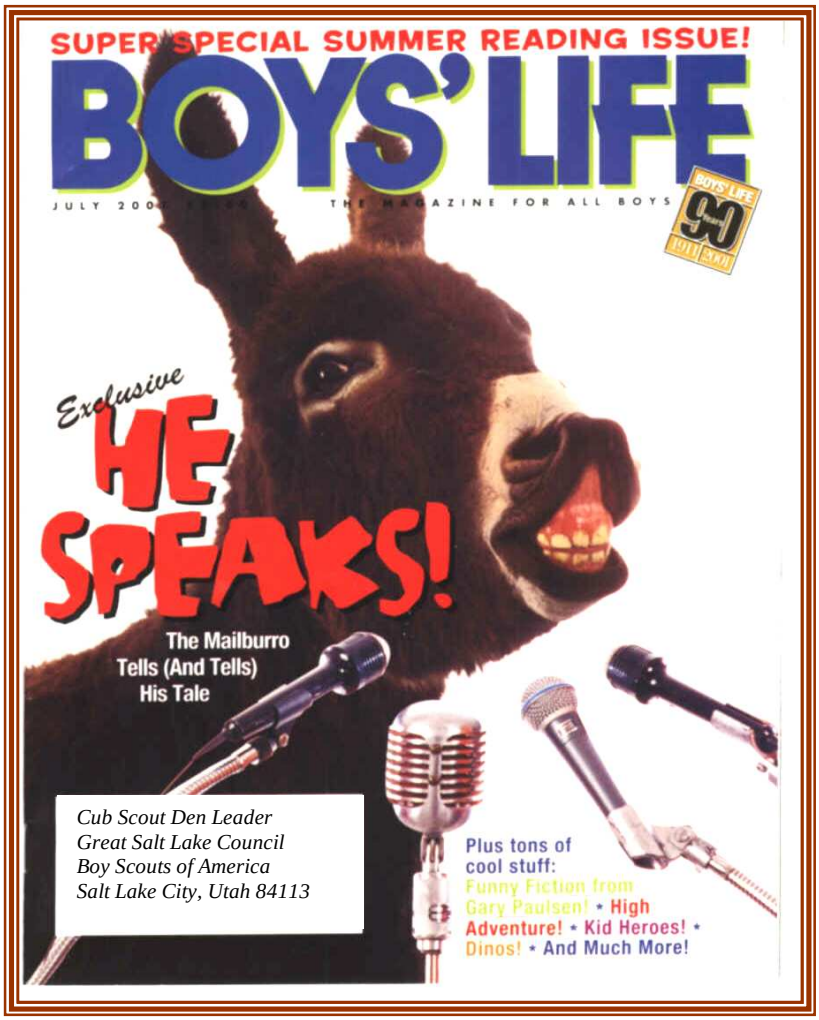


More Pipe Chimes instructions and songs on the January Midway page.

LEADERS & BOYS,

Get A Life!!

Are you using one of your greatest resources?

Does every boy have BOYS' LIFE? How about every leader? It has lots of fun activities for boys, and lots of leader helps, too.

Take the time, especially at Rechartering, to make certain every boy and leader has the opportunity to get Boys' Life. Often, a boy just needs to be asked. Give them a chance!