

The Steel Arena, or "Big Cage" a portable cage set up in the Center Ring for wild animal acts was invented in the late 1880's by the Hagenbecks. Constructed of steel bars it comes in 10 to 20 sections which are fastened together to make 40 ft. diameter cage. Bulky and heavy, it is quite a task to get erected and torn down, which has to be done twice daily. When first introduced the cage was set up after the performance had begun. This didn't work out any too well as the time used in setting up interfered with other acts going on at the time. The audience has a tendency to watch the men set up this cage rather than the acts going on in the two outer rings. Today the Arena is already set up and the show opens with the "Cat" act. This isn't the perfect solution as the cat act is usually one of the best and most thrilling acts of the show and anyone in show business knows that the best acts should come towards the end of the performance. But it is impossible to leave the cage up as it interferes with other acts, taking up quite a lot of space, so the rule is, get the cat act over and the cage down and out of the way!

Let's start by making one of the sections. (Although this is in HO, I think it would Work in other scales as well.) We begin by making the basic frame as in Fig. 1. This is 6 by 15 ft. with horizontal bars every three feet. I

constructed mine from wire, about the same size as wire used in making paper clips. Trace a full size drawing of the frame on a piece of scrap wood and with a small file scope the lines deep enough so the wire will lay in the grooves. Cut the pieces to size, and lay in the grooves and solder together at each joint. See Fig. 3. Be sure and get all pieces at right angles to each other so as to make the frame absolutely square. Each piece can be held in place by pressing down with a small block of wood until the solder flows in. Don't use your fingers unless you want them burned. I will not go into the techniques a of soldering, assuming that each of you know how, and if you don't know you had better learn as there is an awful lot of soldering to be done in a project such as this.

After your frame is completed and all joints securely soldered, we are ready to put on the bars. Do not remove the completed frame from the scrap wood but leave it laying in the grooves. Next take a rather long piece of smaller wire, about the size of carpet thread. (By the way, if you know some one who works for the telephone company perhaps he can get you a piece of discarded cable, which contains hundreds of strands of wire just right size. This is what I used.) Drive a small nail into the edge of your scrap lumber on each end.

Steel Arena in "HO" Scale

DATE: None

SCALE: HO

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Circus Model Builders

Drawn By
Unknown

DRAWING NUMBER

#0132

Start by securing your length of wire to this nail, and start winding the wire around and around the board lengthwise so that each wrapping is parallel to the side of the frame. Wrap it tight, spacing about six or eight scale inches apart, making sure that they are all straight and even with each other and the outside frames. When finished secure the end of the wire to the nail in the other end. Now, with your soldering iron flow a stream of solder along each horizontal bar making sure that each bar is secure. It does no make much difference on the four middle bars, but on the top and bottom each individual vertical bar must be secured or they will come loose when filing off the excess solder, which can be done with a small file or an electric hand grinder. Remove by cutting the wires with a wire cutter and after removing from board trim all bars even with top and bottom of frame. Clean up with file or hand grinder. (See fig. 4) Make 18 of these frames.

The other two frames are made the same way except one has a small door at the bottom to permit the entrance and exit of animals through the chute to cages. The other frame contains the escape door into the escape cage. The escape cage is a smaller cage about 5 by 5 by 10 ft. which is fastened to the larger cage in front of the escape door. See Fig. 5. The escape cage has three sides only as the main cage makes the fourth side. The door from the escape cage to the outside is located on one of the side pieces, not in front. As for these doors they can be made to operate but in such a small scale it really isn't necessary.

The chute or tunnel is made up of smaller cages, about 3 by 5 ft., strung together to make a passage from the cages to arena. The lions and tigers enter and leave the arena through this tunnel. It can be either long or short, as some shows extended it clear out to the "back yard" where the cage wagons were kept but other shows brought the wagons into the Big Top, See Fig. 7, The escape cage and tunnel are constructed in the same manner as the main arena.

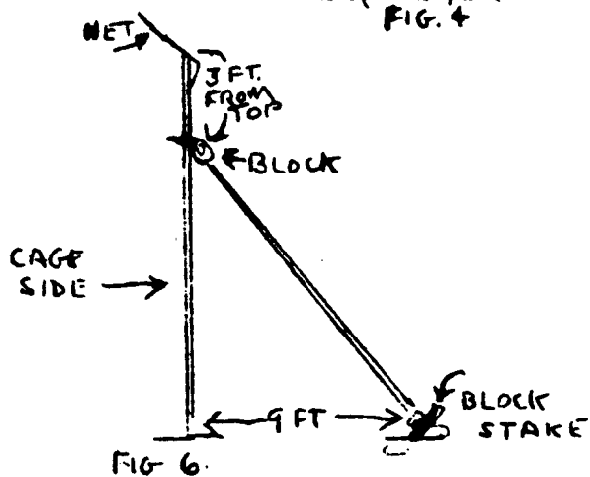
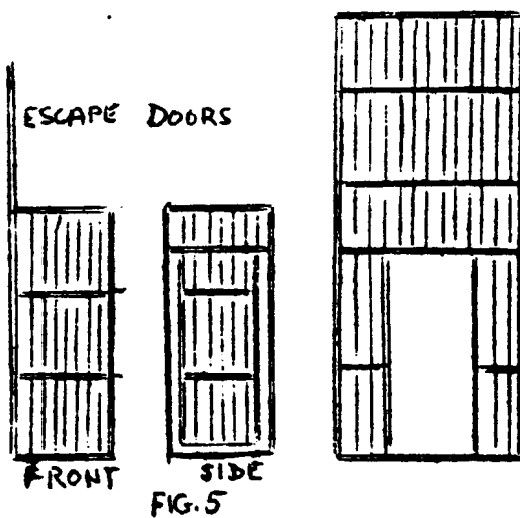
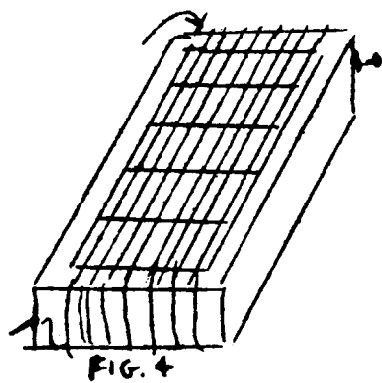
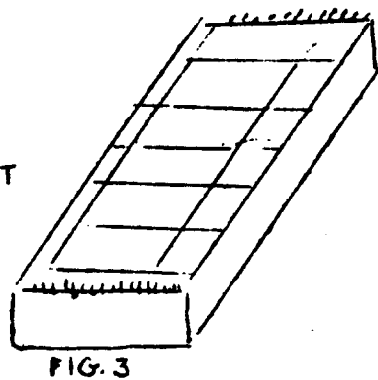
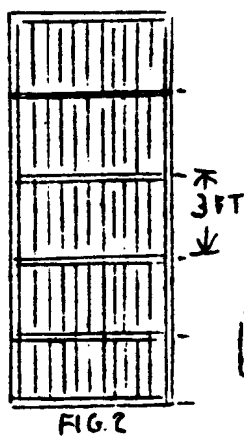
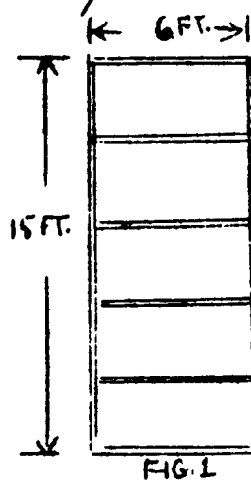
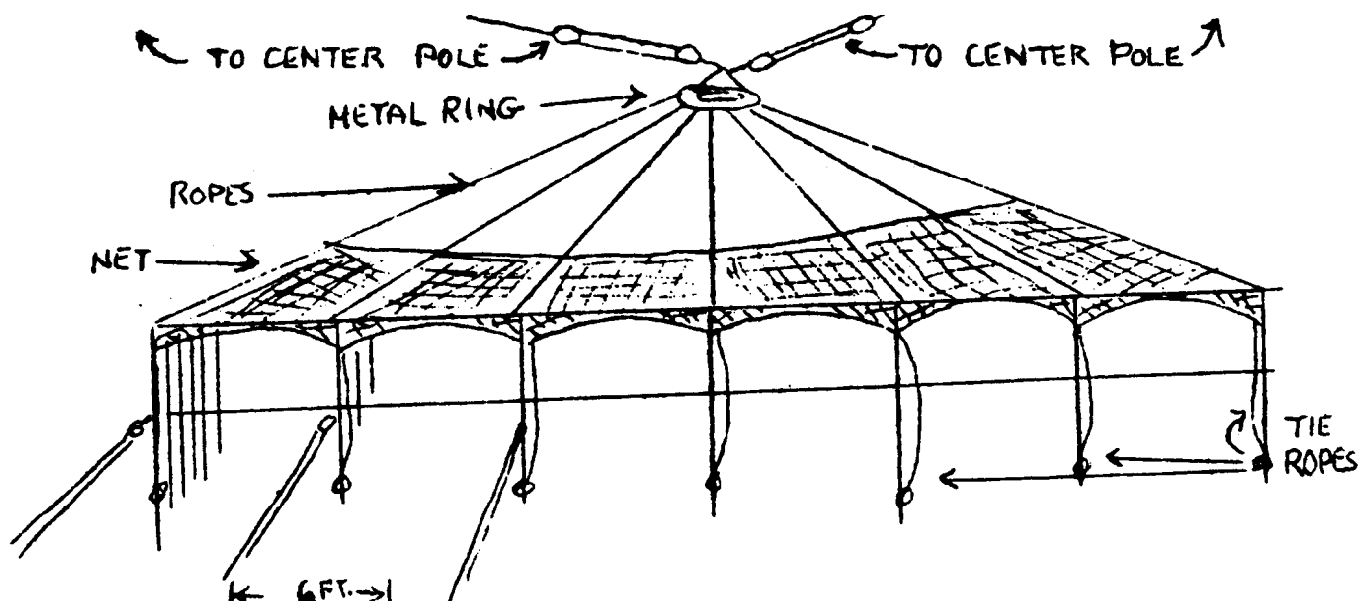
After all twenty frames are completed wire them together top and bottom with fine wire, formed into small loops. This makes a rather limp circle and in order to stiffen it and give it strength and to keep it lined up in a perfect circle it has to be guyed out. This is done with block and tackle, each block and tackle is attached to the outside of the arena at each intersection

where the frames are joined together, about three feet from the top. The other end of the rope is tied to the stake line, which is 9 feet from the cage. There are 19 of these "braces." See Fig. 6. Paint entire assembly dull black.

There are very few Cats that can jump 15 ft, but some of the perches upon which they sit in the act are very near the top of the 15 ft. high cage, and one of these unpredictable lions might take a notion to jump from his high perch over the top and try to escape. You can imagine what a panic this would cause. So some means had to be devised to keep the "Big Cats" from doing this, and it is done by stringing a strong net over the top of the arena. I tried various means of duplicating this net, by tying strings together, using a hair net, etc., without much success. I finally hit upon the idea of having my mother crochet one for me. This works pretty well, although it is slightly out of scale. The way to do this is to cut a piece of goods; muslin will do, into a circle 35 scale ft. in diameter. Then have your wife, girlfriend, mother or someone, (You surely know someone who can crochet!) crochet a simple link design around the edge of this circular piece of goods, much like putting a fancy edge on a doilies, Make it about 5 scale ft. wide, After the crocheting is all done take some glue and touch each thread with a drop of glue where it joins on to the goods. After glue is dry cut the piece of goods out from the center and you will have a circular net with a hole in the middle. Tie pieces of black carpet thread to the outer edge of the net, spacing them about 6 ft. apart. Leave each piece long enough to hang down over the outside of the cage and be tied to one of the bars. Attach threads to the inner edge of the net, at the hole in the middle, and make these long enough to reach to the metal ring above the arena. This metal ring is strung to the top of the tent by a rope on each side which runs through a pulley at the bale ring on each center pole on each side of the arena, and down to the base of the pole. When these ropes are pulled tight it stretches the net into a cone over the top of the arena, and the ropes tied on the outer edge of the net which run down to the bars on the cage keep the net from pulling off the cage. See illustration.

I leave it up to the reader as to whether he wants to leave the cage empty or fill it with cats arid perches.

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