



The Amateur Telescope Maker's Page

ONE-MAN OBSERVATORY

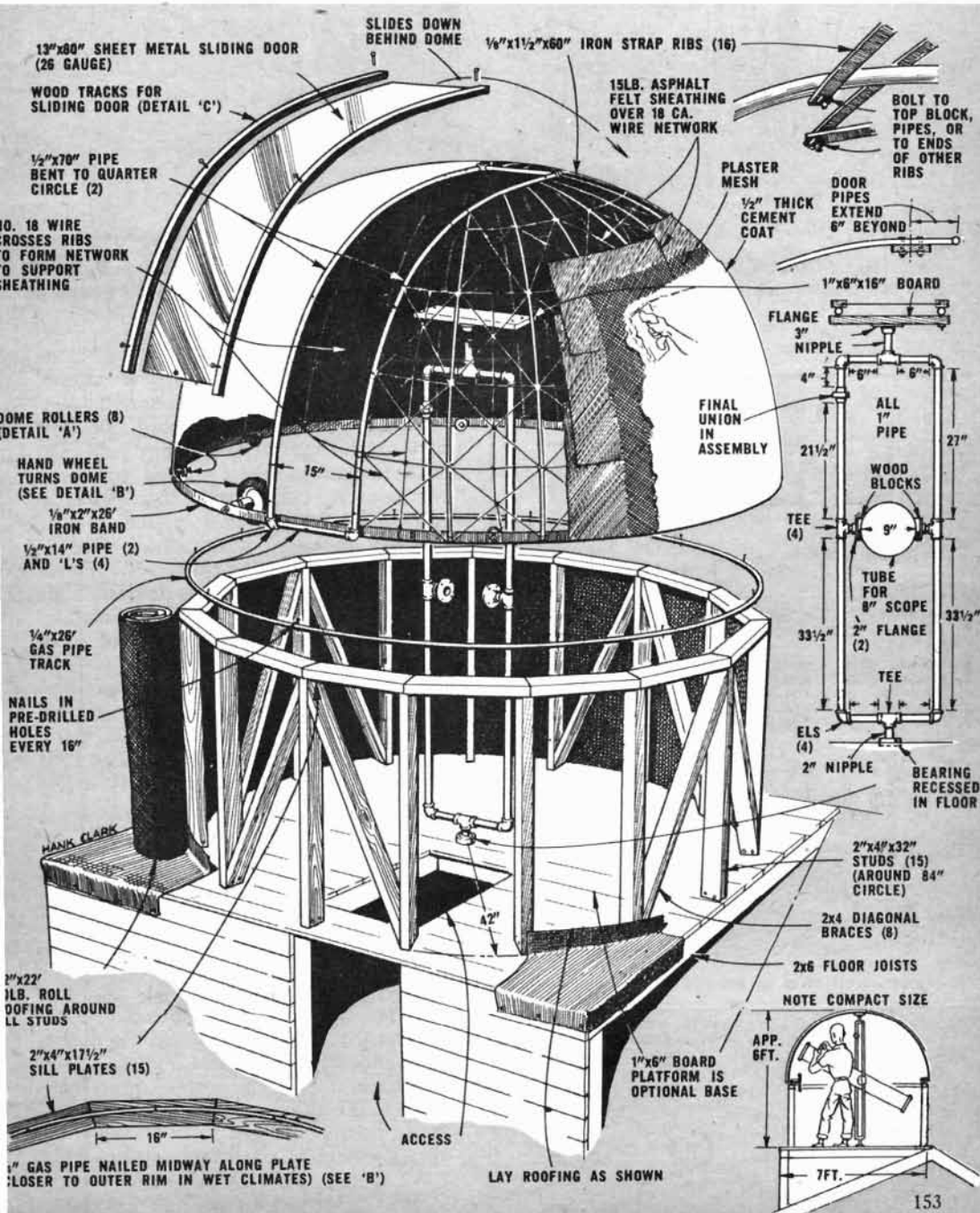
SINCE he didn't have sufficient, unobstructed observation space for viewing the sky from his backyard, Reuben H. Horn of San Luis Obispo, Calif., thought it would be a good idea to build himself a small observatory on the roof of a nearby garage. So he did. And here's how he did it:

First, he reinforced the inside of the garage to hold the added weight by means of 4x4-inch beams and braces. He then mounted his eight-inch reflecting type telescope to a yoke bolted to the top framework of the dome and which extends down to

the center of the floor. There the yoke is mounted in a ball bearing, causing it to rotate with the dome when it is turned.

The dome section has an iron band around the bottom to which are bolted

eight 1½-inch pulleys, evenly spaced. On one pulley bolt a 10-inch wheel is fastened. Turning this wheel by hand rotates the dome. The pulleys roll on a quarter-inch gas pipe that is bent in a circle and nailed to the top of the

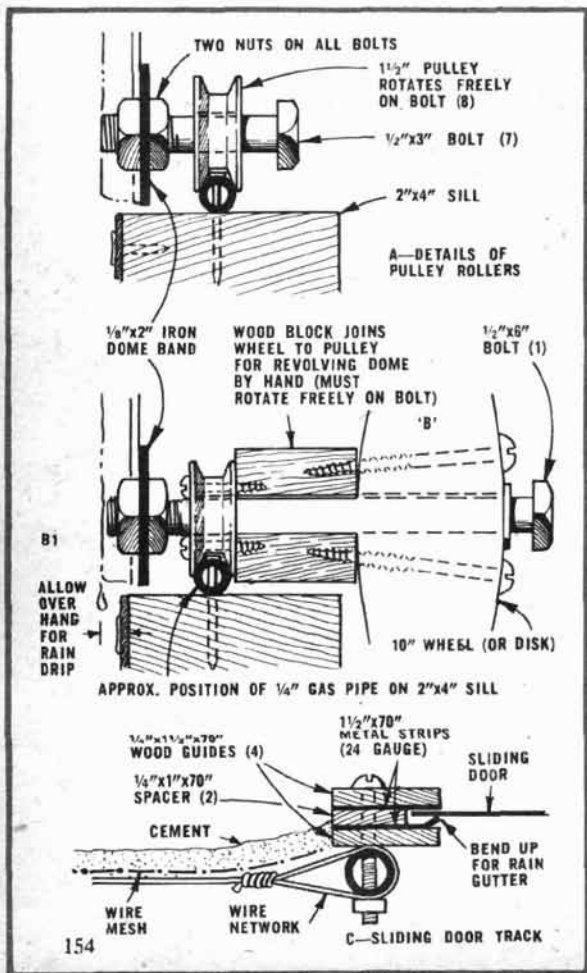




PARTIALLY COMPLETED observatory showing 2x4 framework and skeleton for dome.



DOMES is finished with a half-inch thick coat of cement. Telescope is a Newtonian.



framework which holds the dome.

The platform or floor was constructed by nailing 2x4's, spaced about one foot apart, on the reinforced garage roof. On this foundation were nailed one-inch floor boards, laid across the 2x4's, to make an eight-foot floor space.

With a piece of white chalk tied to the end of a piece of string, 42 inches long, an 84-inch circle was drawn. This circle was used as a sort of template, marking where the 2x4 uprights were placed and nailed.

The quarter-inch gas pipe was then nailed to the center of the framework, as shown in the drawing. This track should be centered on the 2x4's so that the dome will rotate easily on its eight pulleys.

Dome Construction

Two-inch steel or iron strips, 1/8-inch thick and shaped to a circle, were bolted together about 12 inches apart, bent to a quarter-circle and in turn fastened to the top plate.

After the dome framework was finished, No. 18 wire was wound around each strip, all the way around the dome, spaced about ten inches apart. This strengthened the framework and also helped make the paper under the metal lath lie flat.

Small pieces [Continued on page 191]