

Octagonal Fireplace

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The first step was to calculate dimensions and angles for each piece and to lay it out on the metal. All pieces were then cut with a hand cutting torch and ground with a hand grinder for smoothness.

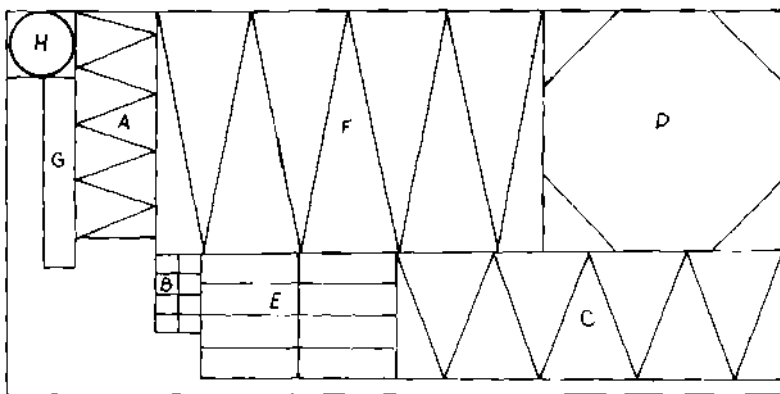
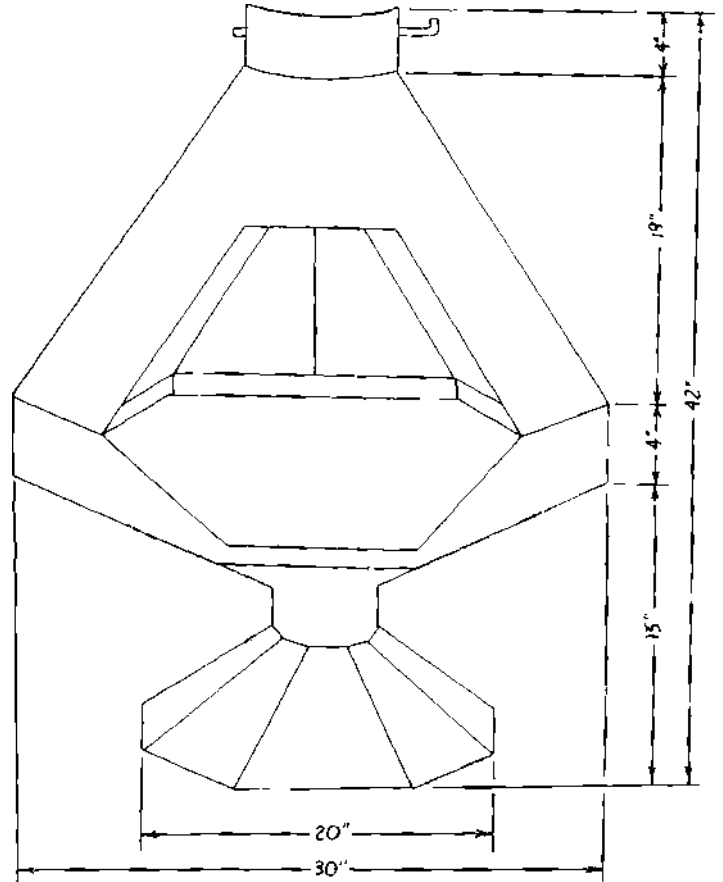
Each part; the base, stem, body, cone, and damper was separately fit together and welded. All assembled parts were then fit together and welded to form the structure. All welds were then ground for smoothness.

The opening was then cut and design of a log grate and doors were made.

The log grate was made of $\frac{3}{8}$ " square steel bar. Each of the nine pieces were cut and ground. Seven of the pieces were heated and bent with a 1" rise for the support legs and the log holders. All pieces were then fit together and welded.

The doors were made of wire mesh and 10 guage steel. The framework was made to fit the angles of the main structure. Wire mesh was then oxy-acetylene welded to the framework. Handles were then welded on and the doors were attached with hinges for easy access and opening.

The final step was painting. A primer coat was put on the entire fireplace, doors, and accessories. Then two coats of black hi-heat paint were added. The wire mesh was painted with gold hi-heat paint for accent.



LAYOUT SKETCH 4' x 8' SHEET 10 GA. METAL

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|---------------------------------------|---------------------------------------|
| PART A - BASE - 8 PIECES - 8" x 10" | PART E - BODY - 8 PIECES - 12" x 4" |
| PART B - STEM - 8 PIECES - 2 5" x 3" | PART F - CONE - 8 PIECES - 12" x 30" |
| PART C - BODY - 8 PIECES - 12" x 16" | PART G - DAMPER - 1 PIECE - 4" x 24" |
| PART D - BODY - 1 PIECE - 30" OCTAGON | PART H - DAMPER - 1 PIECE - 8" CIRCLE |

