

Organ Building

John Fesperman

Making a pipe organ involves a striking variety of skills. A feeling of community inevitably develops among organ shop workers because each depends upon the work of the others, and each knows that no two completed instruments will ever be exactly alike. In some instances, the signatures of all who worked on an instrument will be found inside the organ, indicating the flesh-and-blood involvement of each person from start to finish.

It all begins at the chief organ builder's drawing board, where the location of every pipe must be precisely shown, and each moving part described. It continues with the cabinetmaker who constructs the windsheets and the paneled case; with the pipemakers who cast molten metal into sheets to be planed, hammered and formed around mandrels to make the pipes; with the keyboardmaker; and with the carver whose work is then gold-leafed to decorate the front of the case. In addition, hundreds of intricate mechanical connections between the keyboards and the pipes must be made, all by hand, and the bellows, which holds a large reserve of wind, must be constructed. It is only when the instrument is assembled for testing that all those craftsmen can see the total result of their many months of labor, as woodworking, engineering, metalworking, and the trained ear of the "voicer"—who regulates each pipe—come together.

Despite the complexity of the final product, many organ shops are quite small, employing perhaps only a dozen workers. Working in close quarters, always under the direction of the chief organ builder, each craftsman becomes a part of the whole, cooperating with his peers and sharing tricks of the trade. The result



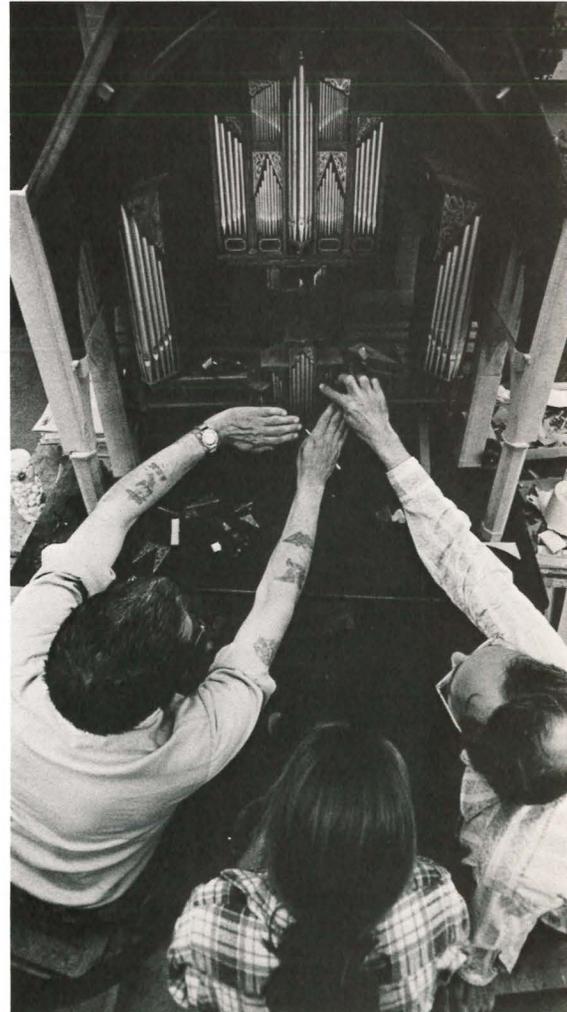
Voicing Tools owned by Barbara Owen, voicer at C. B. Fisk, Inc.

Top to bottom, *proportional dividers, cutup knife (large), open pipe (string-tone), stopped pipe (chimney flute), hammer, toe hole gauge, cutup knife (small), lip tool ("butter knife"), Languid depressor ("cow foot"), lip tool ("butter knife") edgewise, tuning iron.* Far right: *3 toe cones, and nicking tool.*

is an *esprit*, a sense of pride in the end result.

Pipemaking and the voicing of pipes are perhaps the most fascinating aspects of organ building. During this year's Festival of American Folklife, organ builders, gathered in the Hall of Musical Instruments of the National Museum of History and Technology, will give daily demonstrations of these processes, from the hammering of the planed metal through the forming and voicing of the pipes themselves.

Design model made by Chuck Nazarian for C. B. Fisk, Inc., organ for House of Hope Presbyterian Church which is an early 20th century Gothic-revival church. For most Fisk organs, a model is made before any shop drawings are prepared. Photos by Tom Byers for the Smithsonian.



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