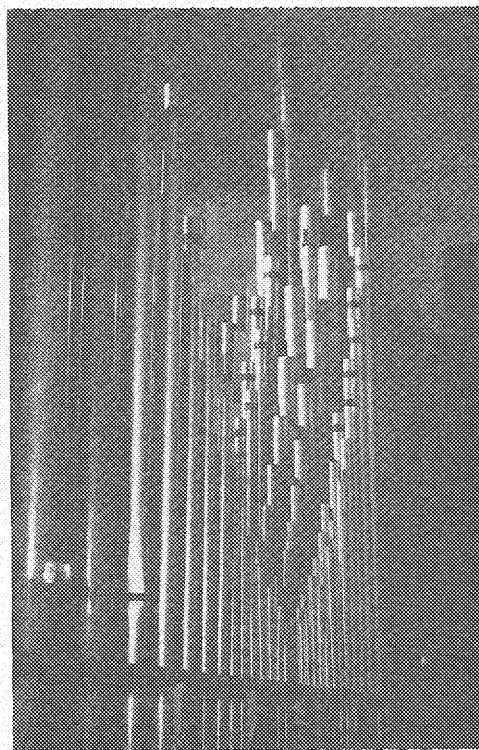


The Philosophy of Organ-Building

Why should anybody want to build
an organ? Ask the man who built one.

by HUNTER MEAD



ANY MAN WHO FOLLOWS some hobby enthusiastically is likely to be considered eccentric by everyone except other persons who pursue the same hobby.

Among hobbyists, those who become absorbed in a creative avocation are likely to seem doubly eccentric, since there is apparently no limit to the amounts of time, money, energy and space they will sacrifice to their activity.

Among creative hobbyists, amateur pipe-organ builders constitute an elite of eccentricity. They are indeed a strange brotherhood. Some are mere dreamers, who get no further toward their dream than piling up reams of specifications and stop lists. Others may acquire a rank or two of pipes which gather dust and clutter up the garage for years on end. A few bolder ones may acquire parts of chests, perhaps a discarded blower or console—but these too gather layer after layer of dust and take up even more space in the garage or cellar. Only the most glassy-eyed and monomaniacal begin putting the assorted parts together, while only those whom the gods love to the point of insanity manage to get the thing working.

The objective observer might notice that the intensity of the organ-building infatuation appears to vary directly with the number of previous financial commitments, and inversely with the square feet of floor space the hobbyist may possess to house his dream organ. Psychological compensation, no doubt, but nearly invariable: If a man owns a five-room house and has an income of two hundred a month, he plans an organ that will require three of his five rooms and will cost ten years' income; if he has eight rooms, he plans to sacrifice only two of

them to the organ and spend only five years' income, and so on. The rich, with acres of grounds and a thirty-room mansion, are usually content with an instrument that tucks nicely into one corner of their oversize living room. But, rich or poor, dreamer or doer, the true organ fans and would-be organ owners are a solid fraternity of lonely individualists who have at least their hobby to keep life worth-while.

After twenty-eight years as an organ dreamer, with endless lists of specifications and paper plans piling up in the desk drawer, I managed to get over into the active builder class. This is my story. It can be read either as a warning or as an encouragement, depending on your school of thought.

Three years ago when I bought a house, I selected one with organ potentialities. On a limited income the only potentialities I could afford were an extra bedroom adjacent to the living room and a living room just slightly larger than average, measuring 15 by 30 feet. The other very desirable feature would have been a high ceiling, but that was impossible, so it has been necessary to work within the limitations of the standard 8-foot 3-inch ceiling. It would also have been advantageous to purchase a house located on at least one acre of ground, but finances made it inevitable that I settle for the standard 50-foot lot. Fortunately the adjacent house on the future organ-chamber side was on a double lot, some 35 feet away from my dwelling.

My original plan was to wait several more years, save my money and build a new instrument. Last June, however, an unusually attractive bargain in an excellent old organ turned up, and at that moment I switched



The console is extremely compact. Waist-high, it occupies about the same floor area as an upright piano.

from the dreamer to the doer class—with less than one hundred dollars in the bank to start the doing on. First, it was necessary to dismantle the organ, and do it promptly. With the aid of a loyal crew of fellow organ-addicts and curious friends, the thousand pipes and several thousand pounds of chests and blowing equipment were moved in three days by trailer and rumble seat. Almost overnight the back yard and garage took on the appearance of vast salvage operations—an appearance which, alas, they still have after seven months of work.

By this time I realized my need for some professional help and advice. I had read most of the available books on pipe organs and had played an organ for years in modest fashion, but the sudden realization that the several tons of stuff in my back yard had to be re-assembled and modernized became terrifying. Fortunately, among my organ acquaintances there was one who had gone on to become something of a professional; he had worked under the best local men and acquired enough experience to assume general supervision of the whole project. It was also fortunate that he was willing to work part-time, as money became available, and most fortunate of all that he was willing to wait months for part of his pay.

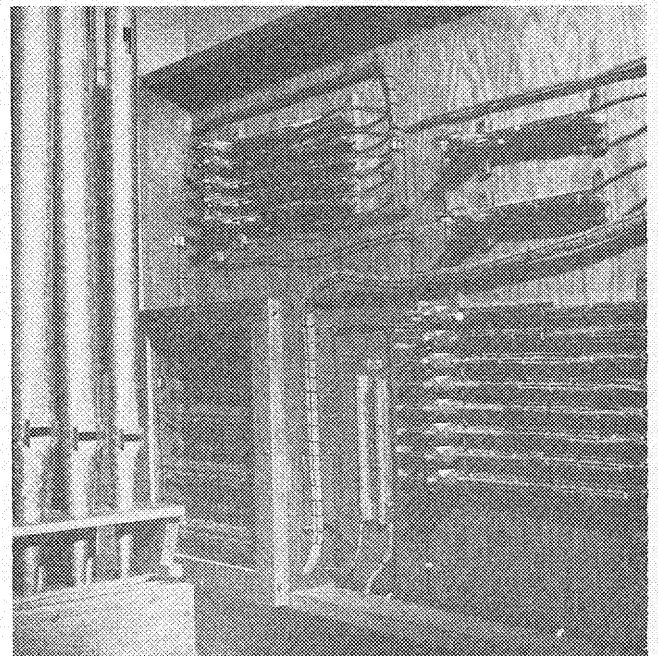
I must emphasize that without such aid and advice we would have been doomed to early and permanent failure. As every craftsman knows, there is a vast gap between book knowledge and the real thing, and it was Marvin Blake (who presently combines organ-building with attendance at Occidental College) that supplied us eager amateurs with that practical knowledge. Often his most important function has been to restrain our grandiose dreams by pointing out the difficulties and expenses we would incur if we tried to realize them.

Besides Blake's professional aid, much manpower has

been supplied by a group of simon-pure amateurs. One or two are organists, several others mere organ addicts, still others merely tolerant and loyal friends. Combined, they have contributed several thousand hours of free labor, and saved me a corresponding number of dollars. The would-be home builder who lacks such free labor and enthusiastic support has a doubly hard job, a job which I personally would never have undertaken.

Installation of an organ in an ordinary residence usually creates two great practical problems: There must be adequate foundation, and there must be adequate height. It is of course possible to go upwards by tearing out a ceiling to utilize the attic, but this leaves the foundation problem unsolved. It is also likely to produce problems of thermal insulation, and perhaps increase the problems of sound insulation. In most cases it is better to go underground. By removing a floor and excavating, both height and foundation are provided. This we did, so the first major problem was to tear out the flooring and joists of our erstwhile bedroom, together with the wall which separated livingroom and bedrooms. Then the *real* work began.

It did not require a graduate civil engineer to determine that, since we needed some thirteen feet of headroom and our ceiling was approximately eight feet high, we would have to dig plenty. Happily the floor was two feet above ground, so a pit three feet deep was indicated. For a steam shovel, an area eleven by fourteen feet to be excavated three feet is nothing; for three manual workers armed with wheelbarrow, hoe, pick and shovel it is decidedly something—particularly when you are working inside a building and the dirt has to go out through a window whose sill is two feet above the old floor level. As you dig deeper you begin to have the impression of digging a cesspool through a keyhole.



Wiring system, though only half-completed, nearly fills space that once was a clothes closet. Pedal relays (lower left) are under glass to keep them quiet. Stop-action switches are at upper left and lower right.

The organ chamber, which used to be a bedroom, is screened from the living room by vertical louvres.

Faced with a choice of using buckets or wheelbarrows up a steep ramp, we chose the latter. (One wonders if Galileo ever realized what an instrument of torture an inclined plane can be!) Twelve tons of good earth went out the window, to be hauled away by dump trailer and deposited miles to the east.

Days went by—aching, filthy, discouraging days. Then more backbreaking work shoveling sand and cement into a mixer for our slab and sidewalls. Here again we wisely called in some professional help to supervise the cement work and install the forms properly, but the gritty slave labor still required the by-this-time somewhat sobered amateurs. More than eight tons of sand and cement went in by the same window out of which the dirt had so recently gone—with costs going up by the hour.

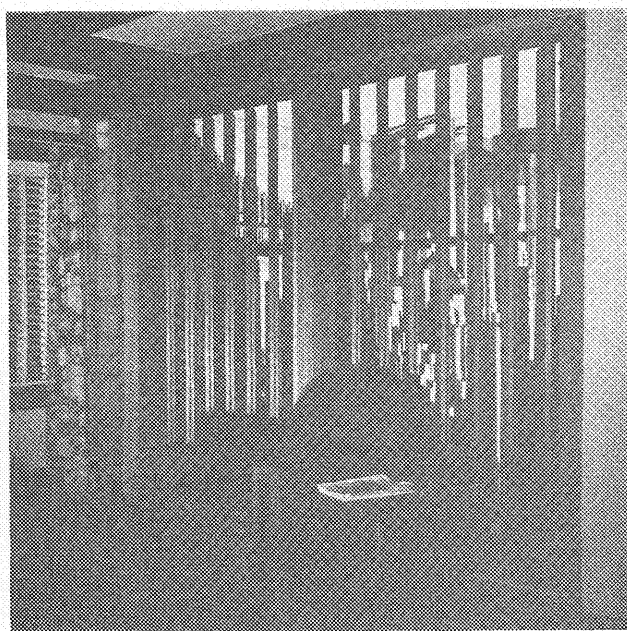
Constant use of electric fans for a week finally dried the cement sufficiently for us to work in what now began to look like an organ chamber, so we moved in to do the carpentering. All the windows were boarded up and covered with felt for insulation. Then the whole chamber was lined with pine planks backed with felt. This was a lot of work, but the results have been excellent as concerns both thermal and sound insulation.

And thus after a month of preparation, we were ready to begin installation of the actual organ. We decided that only part of the old action could be retained; much of it was hopelessly outdated, and even had it been modern there was too much wear for efficient operation. Even a relatively ageless pipe organ cannot stand 42 years of constant use (and considerable neglect) without beginning to show it. Consequently we decided to modernize most of the action, using electricity where the original builder employed pneumatic tubes and pouches.

While this decision was an inevitable one, we soon discovered that our most difficult problems would arise when we attempted to combine old action with new. Such parts of the old action as we retained were sound in themselves, and our new electric work was the best available; unfortunately there are critical points at which new and old had to be integrated, and it is at these points that most of the headaches have come. We saved money by doing what we did, but we lost weeks, not to mention much sleep and patience. In many ways it is more difficult to rebuild an old organ than to construct a new one, so we make the unqualified claim that we have built an organ. We had several large units to start with, but it has been far more of a test of skill (and character!) to utilize these second-hand units than it would have been to make our own.

All of the original pipework was retained, but we have so rearranged this that the present tonal effect has little relation to the way the organ sounded from 1907 to 1949. There are tides of taste in these matters as in all things human, and we have attempted to make our instrument conform to the best current tonal thinking. This has not been fully possible, at least for the present, but another year or two will bring us nearer this goal.

At the present time the instrument is substantially complete in terms of the 1950 edition. It will never



be fully "complete" in the sense that organs are usually completed, since there will undoubtedly be changes and experiments going on during the rest of my lifetime. At the moment it is a two manual organ of just over one thousand pipes. There are seventeen "stops" or ranks of pipes. Preparation has been made in the console and relays for adding another five hundred pipes. Since most of these will be small, they can be squeezed into the present chamber. We hope they can be added by next fall.

The next *major* expansion will necessitate remodeling the front of the house so that part of the present front porch can be utilized. This will provide space for an additional six to eight hundred pipes, but will require a new console with a third manual (keyboard). Money being what it is, we estimate 1953 for this next big push, providing neighbors, building codes and the Institute's payroll office continue to cooperate.

Since buying the original organ I have secured a second much larger instrument (the dismantling and moving of this one is a whole saga in itself) whose two thousand pipes presently clutter up basement and garage and cause the attic to sag ominously. Thus we have an inexhaustible mine for experimenting with tonal effects and enlarging the resources of the instrument as time, money and space become available.

Obviously a 50-foot lot has a limit; and we will doubtless reach that limit long before 1960. But then we can start rebuilding the present instrument with a view to improving it and utilizing our limited space more efficiently. So we are not worried about running out of work and leaving the associated organ amateurs restless and unemployed.

The question might well be raised whether this is a musical instrument or a technological curiosity we are fabricating. It is, I assure the sceptical reader, a very musical instrument. Already, competent organists have pronounced it "the most impressive and useful instrument of its size in Pasadena."

But what of the future? Well, we are all relatively young, we've (barely) got our health, the attic is full of non-functioning pipes, and there are still six rooms in the house with no organ in them. What more can man ask for in this life? The world is ours! Amateur organ builders of the world, unite! You have nothing to lose but your sanity.