A GIFT OF MUSIC

Preposterous Ass, that never read so far
To know the cause why music was ordained!
Was it not to refresh the mind of man
After his studies or his unusual pain?
Shakespeare

Excellent reasons for giving the gift of music to the object of one's affections, and surely the musical fulfillment and challenge of a lifetime are to be found in living with an almighty pipe organ.

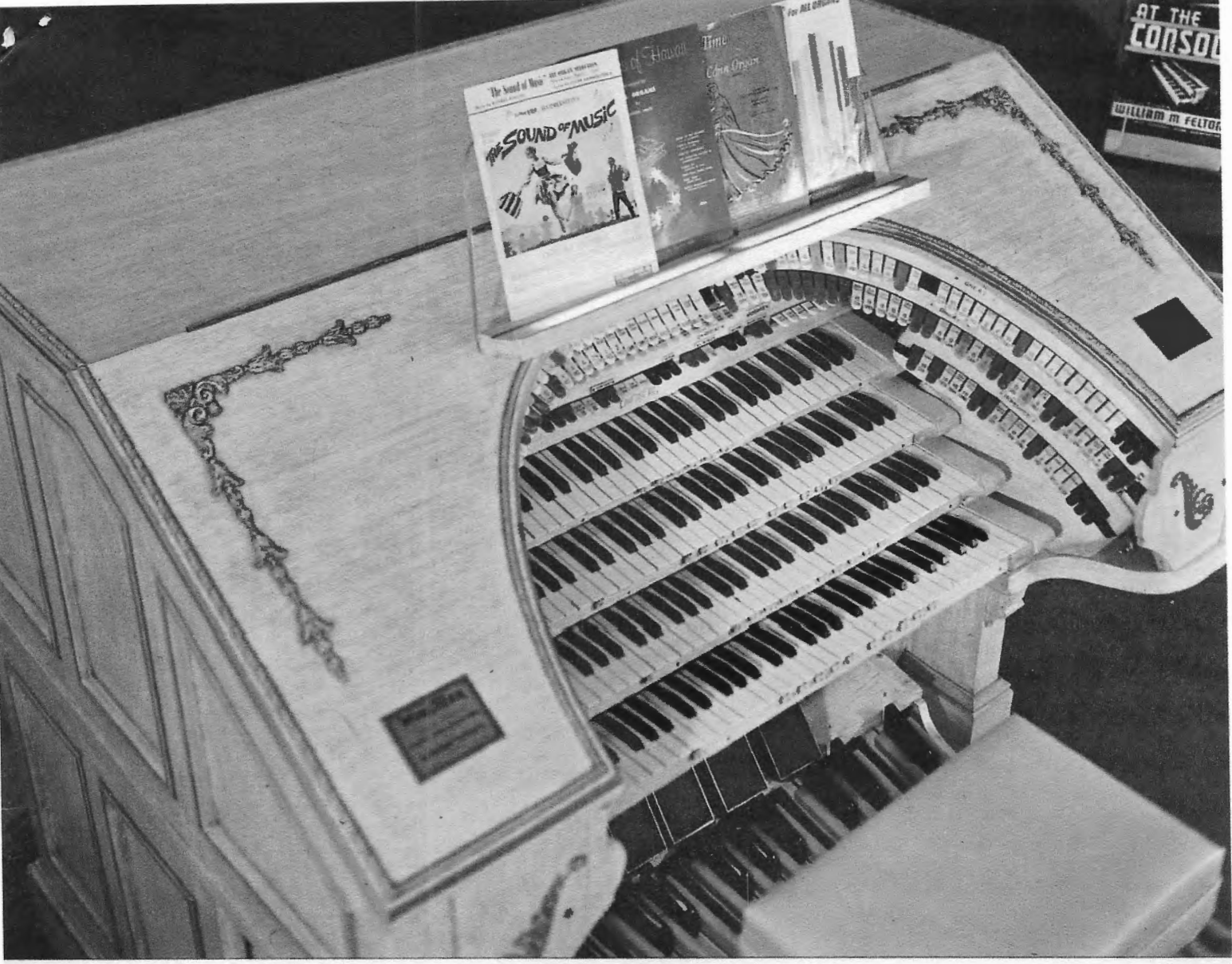
So naturally, being of sound mind, I went out and bought one. I will say it was a little difficult to wrap. It is one thing to open the package, but quite another to set it into place!

The venture was immediately declared a family project and our many sons not only became involved in the assembly but took renewed interest in their music lessons. The ensuing months of placement and construction brought into our home some wonderful people, with generous hearts and large appetites.

The romance of a Wurlitzer Theatre Organ on the following pages is really dedicated to organ enthusiasts everywhere, but to one in particular.

'Ther, let the pealing organ blow.'

Jean Vollum
Christmas 1966



THE KING OF INSTRUMENTS

Since its origins as a mechanized flute about 400 B. C., the great pipe organ has evolved into the world's most versatile and most majestic source of music. Instantly responsive and sensitive to a musician's touch, the pipe organ can create a mood of purest emotion, ranging from devotion and reverence to rapture and ecstasy. It can whisper at one moment and build to a gigantic crescendo the next. It can excite or soothe and create virtually any mood against almost any background. As its time-honored title would signify, the great pipe organ is truly the King of Instruments.

Howard's appraisal of an old Wurlitzer: "Although we have better technology and materials today, there is a unique variety of tonal textures here. Each pipe is a separate tone generator . . . not perfect tones, but pretty close . . . and it is this variety which makes the music so different and so pleasing in its own way."

A GIFT OF MUSIC

The Golden Era...

Histories of music and entertainment do not tell us of any more glamourous time than the Golden Era of the Twenties here in America. This was the age of the Silent Movies, which were generally accompanied by a pipe organ which also furnished the sound effects. During the intermission those who lived during those years were privileged to sit in palaces of splendor among acres of seats while a blue light focused on the curved console of a Wurlitzer organ rising majestically from the orchestra pit. Flying fingers playing on hundreds of ivory keys and dexterous feet playing dozens of pedals filled the theatre with glorious vibrant sounds surpassing those achieved by an entire orchestra. For, hidden in the surrounding walls, behind, below and above the glistening chandeliers and gilded cupids, were the beautifully sobbing tibias, the whispering vox humanus, and the shimmering strings as well as the crashing brass and the thundering bombardes. Also hidden from view in the basements and lofts were intricate mazes of wires, relays, blowers and other mechanical apparatus required to produce the unique combinations of sound.

No story of a mighty Wurlitzer organ would be complete, therefore, without some explanation of the background against which this unique musical instrument functioned so spectacularly for more than a decade. The American audiences loved it although they were unaware of the technical aspects behind the scenes which are a great part of the instrument's appeal to the organ hobbyists of today.

We are told that the great organists of the Golden Era performed so well that several of them became legendary personalities in their own right along with the actors and actresses of the silent movie days. Any listing of historic significance would include, for example, the names of Jesse Crawford, Lew White, Don Baker, Eddie Dunstetter, Ann Leaf, Iris Vining and Oliver G. Wallace.

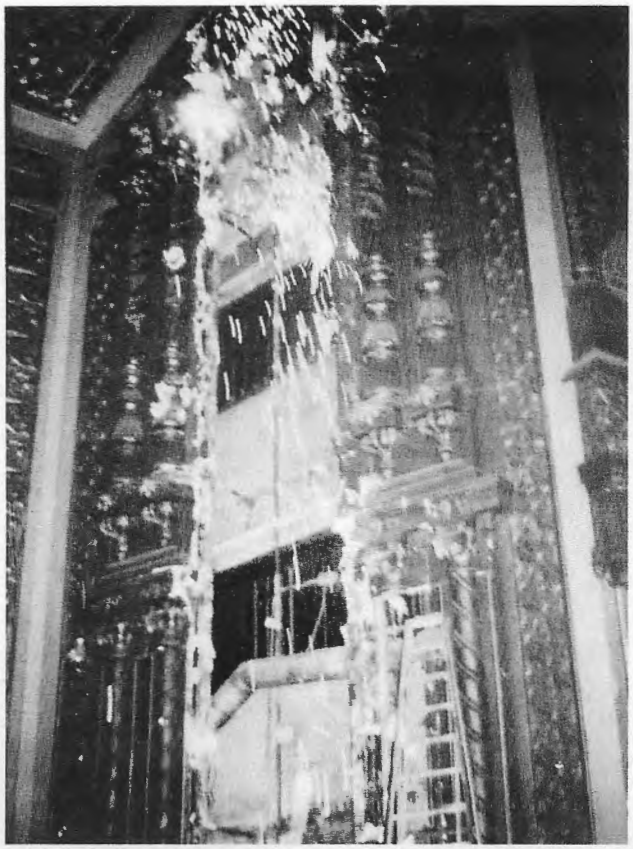
The true hero of the Golden Era, however, was the versatile instrument which organ hobbyists refer to as the Mighty Wurlitzer. As it paused at the top of its ascent there would be a dramatic moment

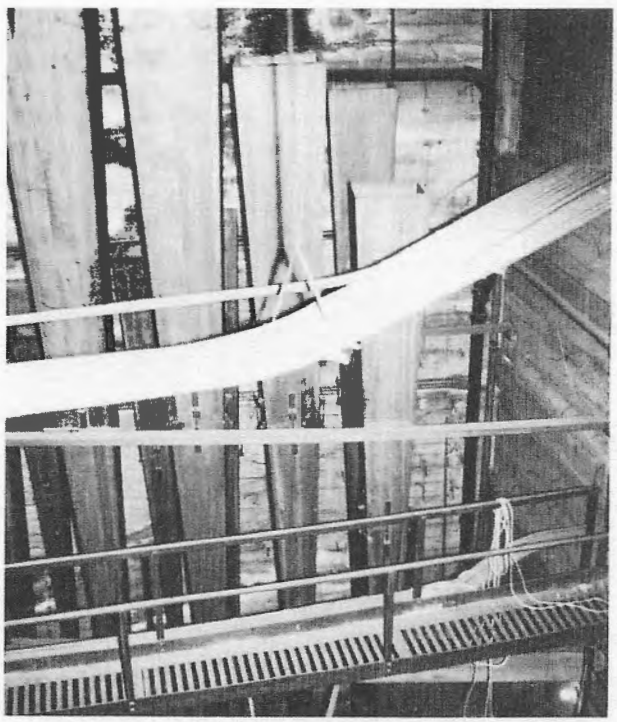
of suspense, and the organist would turn to acknowledge the gracious applause. Then, so the histories say, he would warm all the hearts in the place with some of the favorite melodies of the day. The audience could sing along during a songfest which featured a bouncing ball above the lyrics projected on the screen. Next on the program, while the admirers caught their breath, came the organist's trump-card arrangements in a sequence designed to reduce the audience to a state of ecstatic, appreciative applause during encore after encore.

The Wurlitzer Hope-Jones Unit Orchestra was created by an Englishman named Robert Hope-Jones. Today this sensitive innovator is looked upon by many as "the greatest man the organ-building world has ever seen." The mighty Wurlitzer enabled the Crawfords, Bakers and Wallaces to fill the vaulted dome theatres with the vibrant music of *Valencia, Charmaine, L'Amour-Toujours-L'Amour, Indian Love Call* or *When Day Is Done.*

Talking movies and the depression brought an end to the Golden Era. The Wurlitzers fell into obscurity and were covered with dust. The big theatres gradually became obsolete with the advent of television and the rise of suburbia which kept the patrons away from the city centers at night. Slowly but surely, however, a new generation appeared. Thousands who admired the old theatre pipe organs formed a club called the American Theatre Organ Enthusiasts. They bought up the old organs, recon-ditioned them and installed them in their homes. They held conventions, published a magazine, and soon there were chapters of Enthusiasts all over America. Such is the background against which a lady named Jean bid for a mighty Wurlitzer covered with dust in a theatre in San Francisco, a bid placed in the hope that an old theatre organ might become a "gift of music" for her husband, a modest man but a truly dedicated amateur musician named Howard Vollum.

An efficient, space age executive responsible to many stockholders for the well-being of a corporation of world-wide importance, Mr. Vollum started his career as a radio repairman. Indeed, he worked his way through college with a kit of tools with which he rejuvenated old consoles and radios.





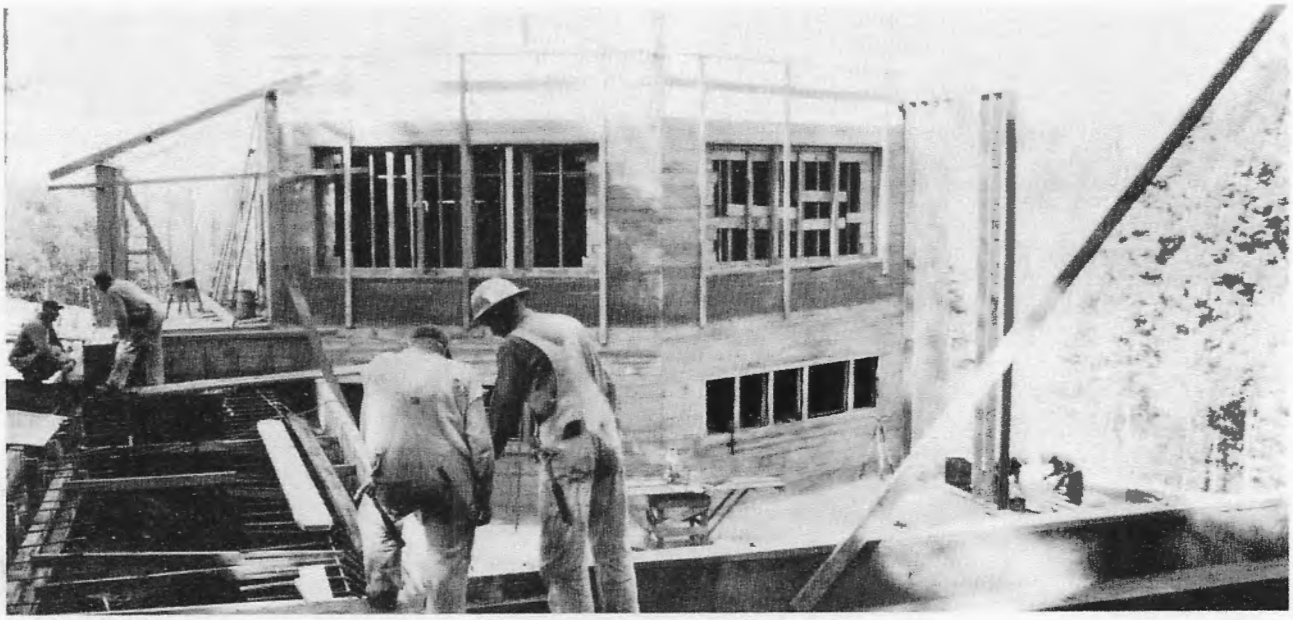
Top Right — Torch cuts steel beams which support plaster grillework. Solo and percussion shutters may be seen through the opening.

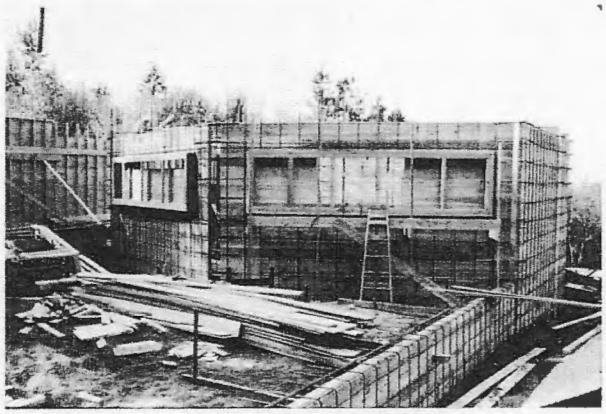
Top Left — One section of a 32 foot diaphone being lowered to the floor.

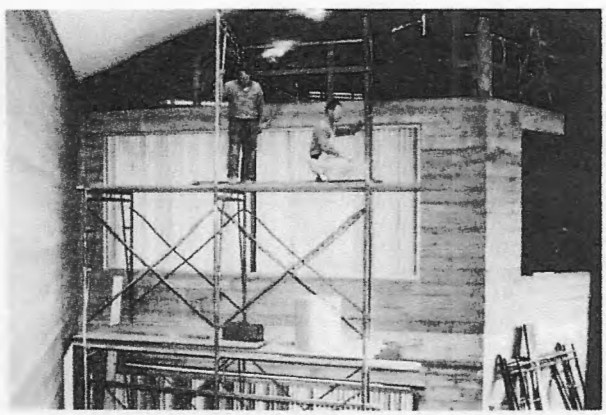
Bottom Left — The 32 foot diaphones before dismantling in the Paramount.

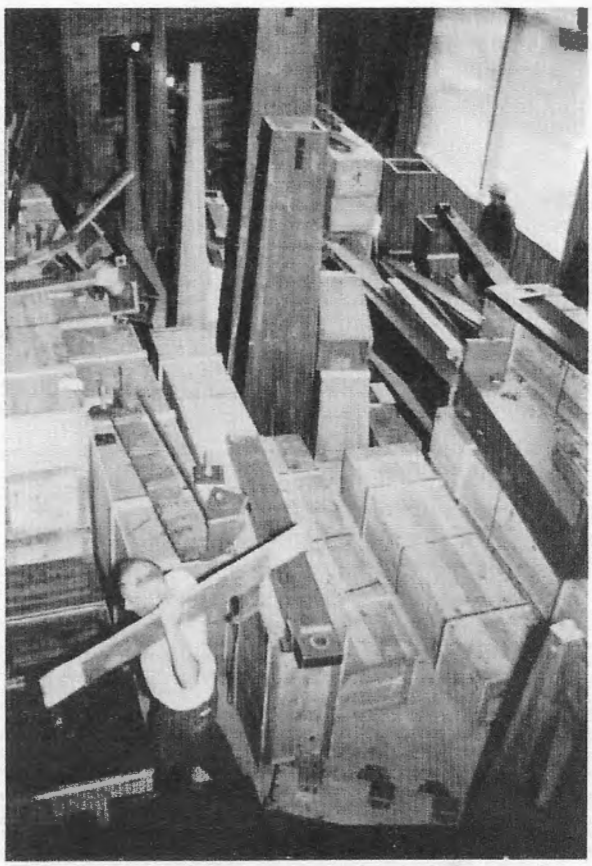
Center Right — Dennis Hedberg, left, and workmen lower the xylophone.

Bottom Right — Californian Ed Stout, who maintained the organ in the theatre, takes a last look at the console before it leaves for Oregon.









Top — Workmen checking the console balcony area after the forms were stripped away.

Center Left — Steel reinforcements and the forms in place during the construction of the Organ House.

Bottom Left — Workmen installing the adjustable louvres in front of the swell shutters which attenuate and balance the sounds from each division.

Bottom Right — The crates on the floor of the Organ House ready for sorting, unpacking and installation.

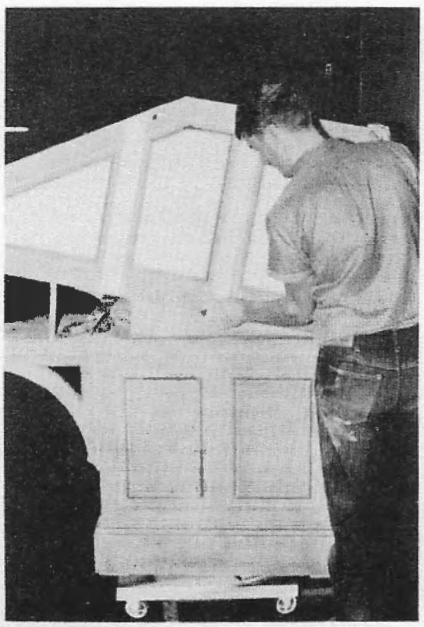
Much of the building construction was personally coordinated by Bill Hammond, president of the construction company.

Today, we are told, his face still brightens at the sound of music restored to any groupings of wires, tubes or transistors which have been malfunctioning. This record, along with his increasing fondness for the music of the great composers and symphonies, more than qualified him to play and repair his own Rodgers electronic organ which he acquired some years ago.

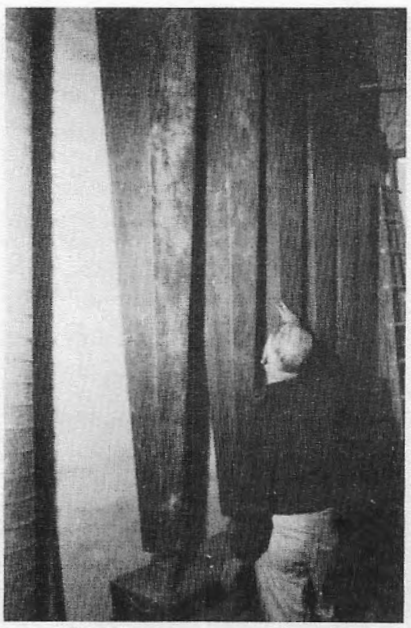
One day in the summer of 1965, Jean Vollum confided to a family friend, Andy Crow, "I wish I could think of something really nice to get Howard for his birthday." Knowing of Howard's fondness for organ music, Andy said he had just learned they were going to demolish the old Paramount Theatre in San Francisco and one of the few remaining mighty Wurlitzers would be up for bids. To secure this as a birthday gift for Howard would require immediate action, however, and some long-distance bidding which, if successful, would then require a team of men qualified to dismantle, pack, ship and reassemble this organ.

A bid was placed and there followed a period of anxious silence. Then, on the day the bids were to be opened, they called San Francisco and learned that the Paramount Wurlitzer had been sold to Jean Vollum.

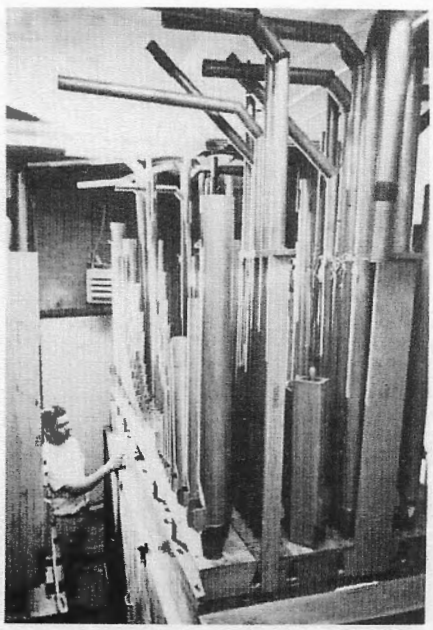
After removing the original mahogany finish, a workman applies an antique finish to the console.



Inspecting the 16 foot bombardes.



Foundation Division where most of mitred pipes are located. Howard Vollum and Bob Rickett did mitring.



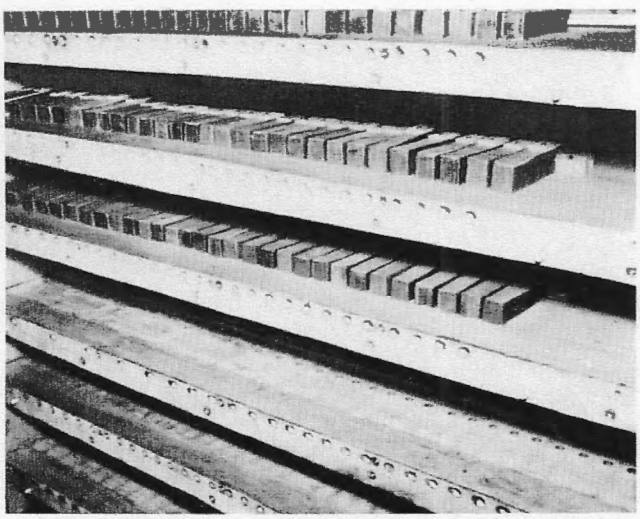
Such a secret could not be kept very long, of course, so Jean decided to announce the news to Howard. They would need his counsel in solving such problems as dismantling and packing, for the Paramount was to be demolished in ten days. Howard arranged his schedule so he could fly to San Francisco the following day.

The men and materials needed for the job included nine organ technicians; five riggers experienced in lifting and lowering large, heavy units; six laborers for removing plaster grillework; five movers to remove the organ components from the theatre and load them on trucks; one-half ton of excelsior for packing pipes and delicate units; and fifty-two wooden crates. Within ten days five truckloads of labeled crates crossed the Bay Bridge and headed north on Route 99 to the town of Hillsboro. Here, from July until December, Dennis Hedberg and his assistants rebuilt and rejuvenated the Wurlitzer.

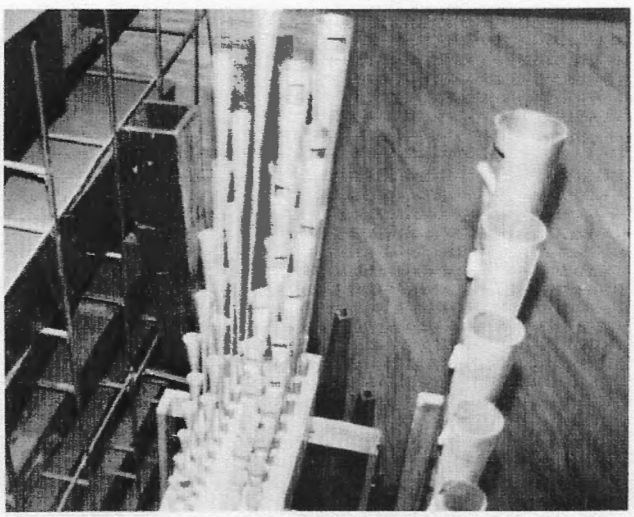
They refinished the console, re-covered all the playing keys and re-lettered the stop keys. They replaced the old D.C. motors with new 3-phase units and installed new impellers in the blowers.

Meanwhile, the architectural firm of Wolff-Zimmer-Gunsul-Frasca had been commissioned to design an organ house. The building would be a "sound chamber" with the acoustic potential to accommodate this size organ, including the thirty-two-foot diaphones. Ground was broken for the house on

Releathered power pneumatics installed in the upper sections of chest. Lower section is cleaned and ready for the balance of the units.

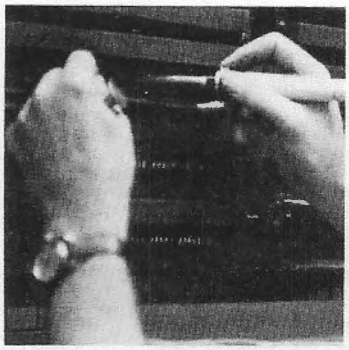


A view of the brass division showing the 8 foot English post horns and the 8 foot tuba mirabilis. The 32 foot diaphones at the left are mounted horizontally in a specially designed steel frame.



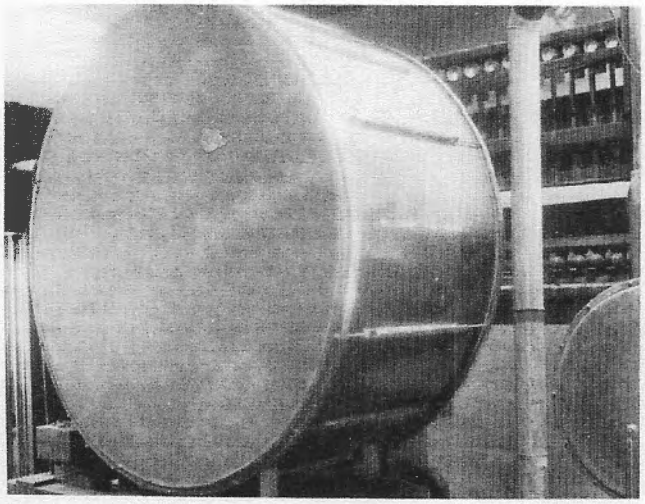
September 7. An air-conditioning system, augmented by circulating air heaters in each of the chambers, was installed to provide temperature control. All of the pipe chests with their new leather, were surrounded with sound-proof siding to keep the action and the tremolo noise to a minimum. Finally, all the walls and the ceiling were ground smooth, not plastered, for better acoustics.

With the arrival of the first load of organ components on November 15, the installation was started by Dennis Hedberg under Howard's direction. A group of Howard's organ cronies which included Bro. Andy, Bob Rickett, Doug Phillips, Andy Crowe and Bob Burke, began sorting and classifying the various parts. Many ensuing nights were spent by the group stringing cables, mitering pipes, soldering contacts and the other projects necessary to complete the installation. On December 23, the blowers started and air was supplied to the thirty-three ranks of pipes. The console arrived the day before Christmas.

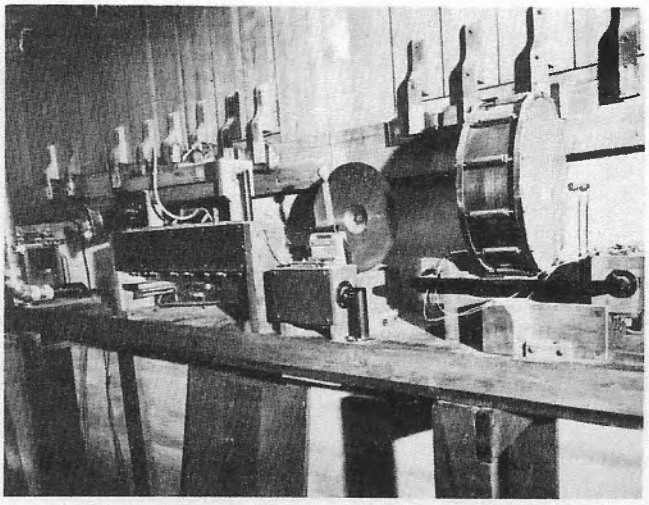


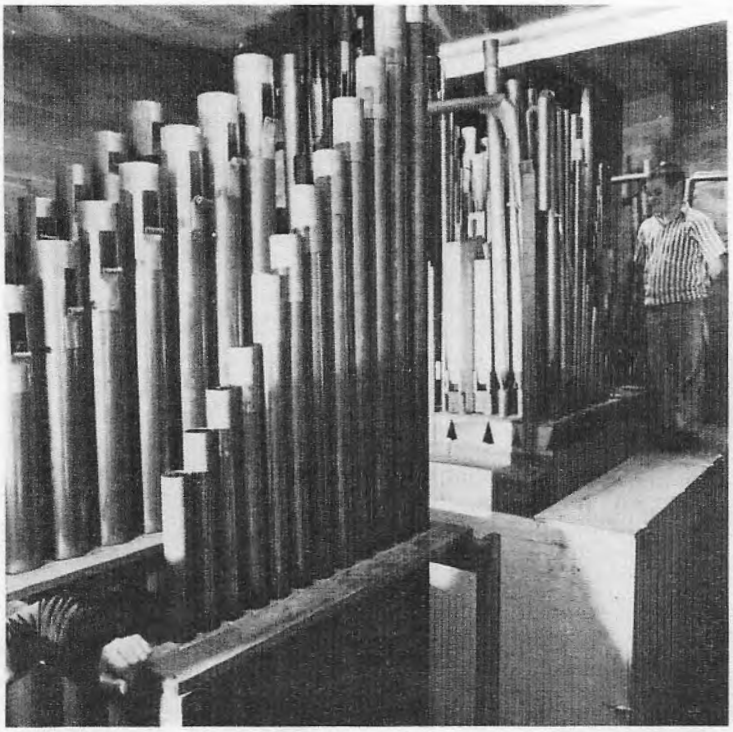
During the installation Howard complained, "This soldering is certainly a lot of work." After some friendly interrogation by his coworkers he confessed that his soldering experience was rather limited.

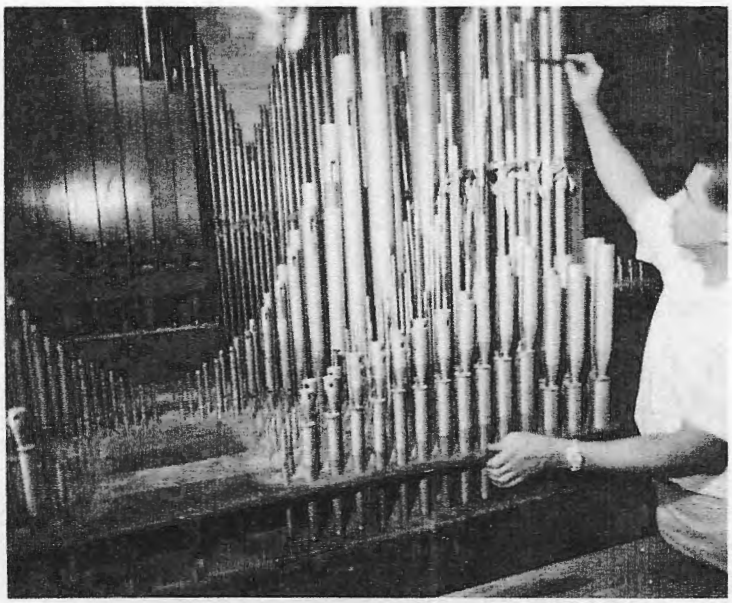
The large bass drum and the snare drum in the percussion division with parts of the glockenspiel and the xylophone seen in the background.

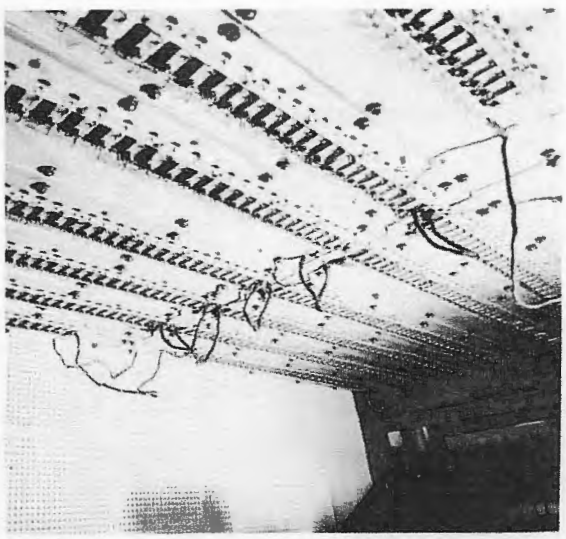


The traps and sound effects, affectionately called "the toy counter", located in the main division.









Top Left — Young Danny Vollum looks at the maze of pipes on the largest chest in the organ. This is the main division, showing the rare 16 foot clarinet pipes in the foreground.

Bottom Left — Dennis Hedberg tunes a viol pipe in the solo division by gently adjusting the tuning slide.

Top Right — A view of the relays which were a time-consuming part of moving and re-installation.

Bottom Right — The bottom of a chest, showing magnets and primary valve stems. Note the acoustical material placed around the chest to reduce the mechanical noise to a minimum.

THE PIPE ORGAN'S RESOURCES

For centuries the tonal resources of the pipe organ have been produced by a series of sets (ranks) of pipes (basically whistles) blown by wind and controlled by various types of mechanical valves. Historically, the pipes or voices fall into three categories:

1. Flues—pipes with open ends (as the name implies) with the length of the pipe governing the pitch after the sound has been generated by air passing over the lip near the bottom of the pipe. Adjustable slide tuners facilitate fine tuning.

2. Stopped—the same as flues but with an adjustable closed end for fine tuning. The principle is the same: the length of the pipe governs the pitch and the shape of the pipe governs the tone. A stopped pipe is half as long as its cousin the flue since the wind column travels the length up the pipe and is returned by the end being closed.

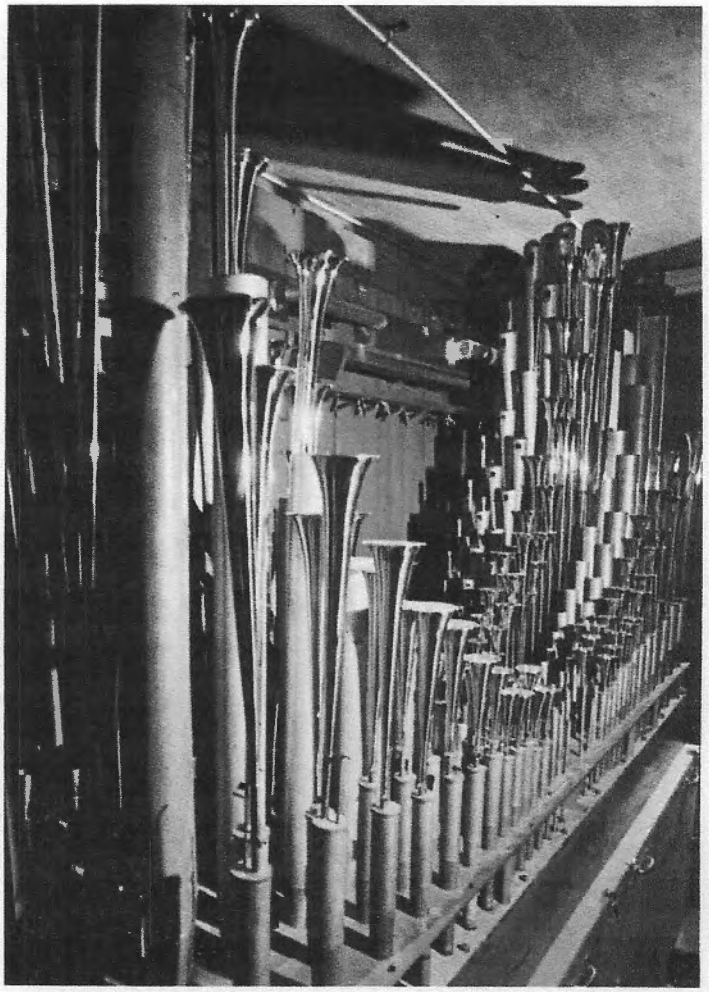
3. Reeds — sound is produced by an airstream passing over a brass reed, causing it to vibrate against a stationary shallot, pitch and tone being governed by the length and the shape of the resonator, and the position of tuning wire against the reed.

The traditional classic organ contained these three families of pipes and was built around its fundamental tone: the Diapason (a flue rank), supported by flue-type violins and flutes, a stopped pipe. Volume and stridence were added by the reeds such as tubas and trumpets. The large theatre organ contains all of these voices in great quantity but other voices were necessary to add the romantic sounds necessary for its role as an entertainment instrument as well as setting the mood for the silent movies. For these reasons such voices as Tibia Clausa, a stopped pipe; Vox Humana, a reed pipe, as well as other reed pipes such as the Brass Trumpet, Brass Saxophone, Kinura and English Post Horn were developed. These innovations plus heavier Tremolos, higher wind pressures and electrically operated valves transform the traditional pipe organ into the theatre organ.

Higher wind pressures gave greater volume and quicker response. Electric action allowed a detached console to control the pipes from a great distance and, via a system of electric relays, draw the voices from various divisions on any keyboard at various pitches. These two developments, plus the "horseshoe" console with its stop tablets operated at the touch of the finger tips, as well as the traps, percussions and sound effects, made the difference which accounts for the amazingly versatile theatre organ in contrast with the traditional church organ.

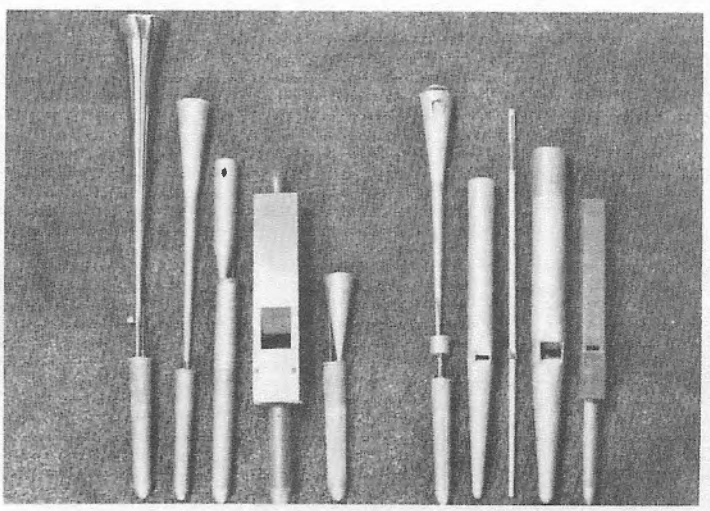
Of the hundreds of fifty or more makes of organs manufactured during the theatre era (totaling over 10,000 organs produced and sold), the Wurlitzer was the king of them all and 2500 of them were sold.

Unless exposed to a Wurlitzer by chance, a member of the younger generation may view a modern home electric organ without ever dreaming that its precursor and progenitor was the proud and mighty Wurlitzer-Pipe organ.



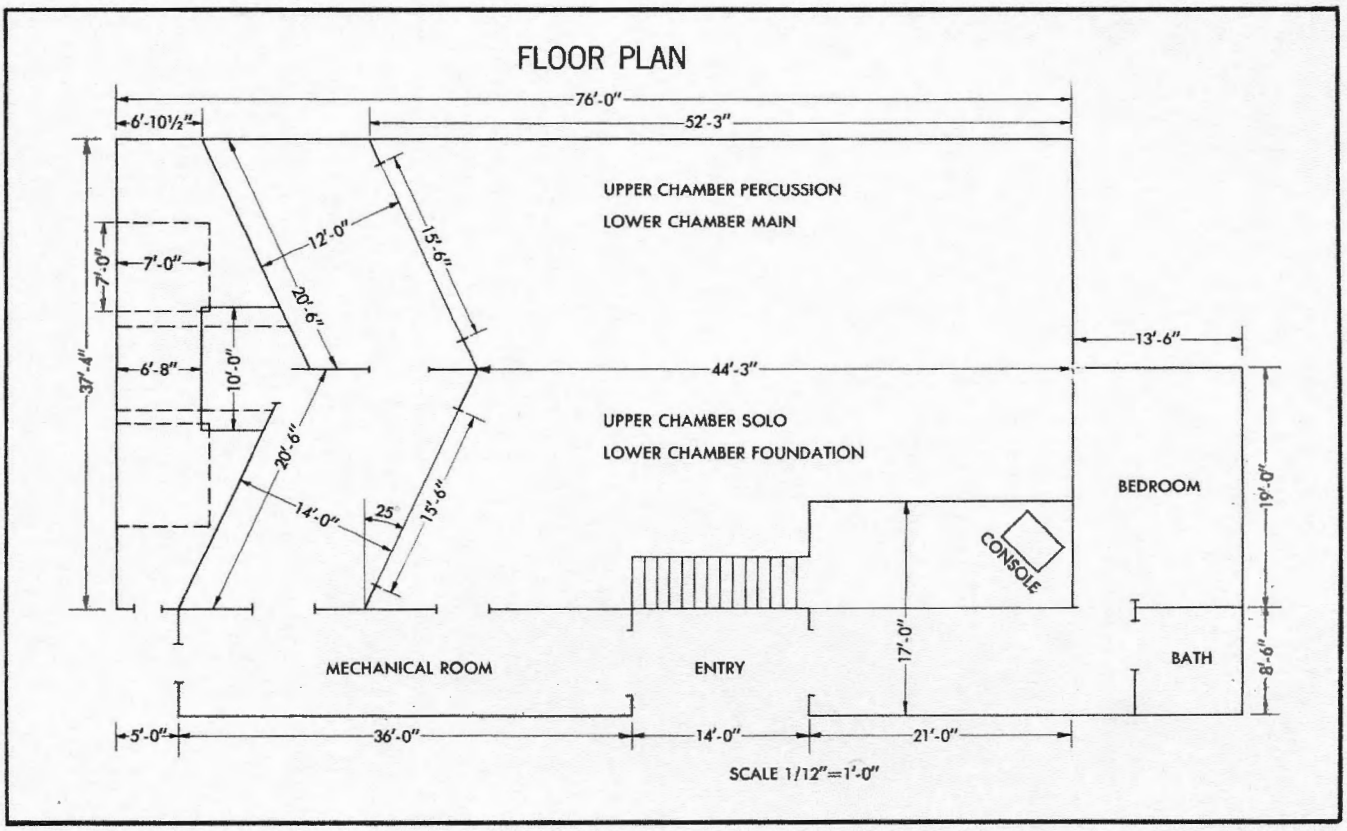
Howard observed, "That trumpet is a great sound. Add that to the tuba and . . . well, its subtle and satisfying."

(A) The pipes of a typical theatre organ include, left to right: brass trumpet (reed), English post horn (reed), vox humana (reed), tibia clausa (stopped), the basic tone of a theatre organ, kinura (reed). (B) The pipes of a typical church organ include, left to right: oboe (reed), known as oboe horn in theatre organ, quintadena (stopped metal), viol (open flue), open diapason (open flue), basic tone of a church organ, concert flute (open wood flue).



The front of the Organ House showing the entryway near the console.

Little fingers make big sounds.



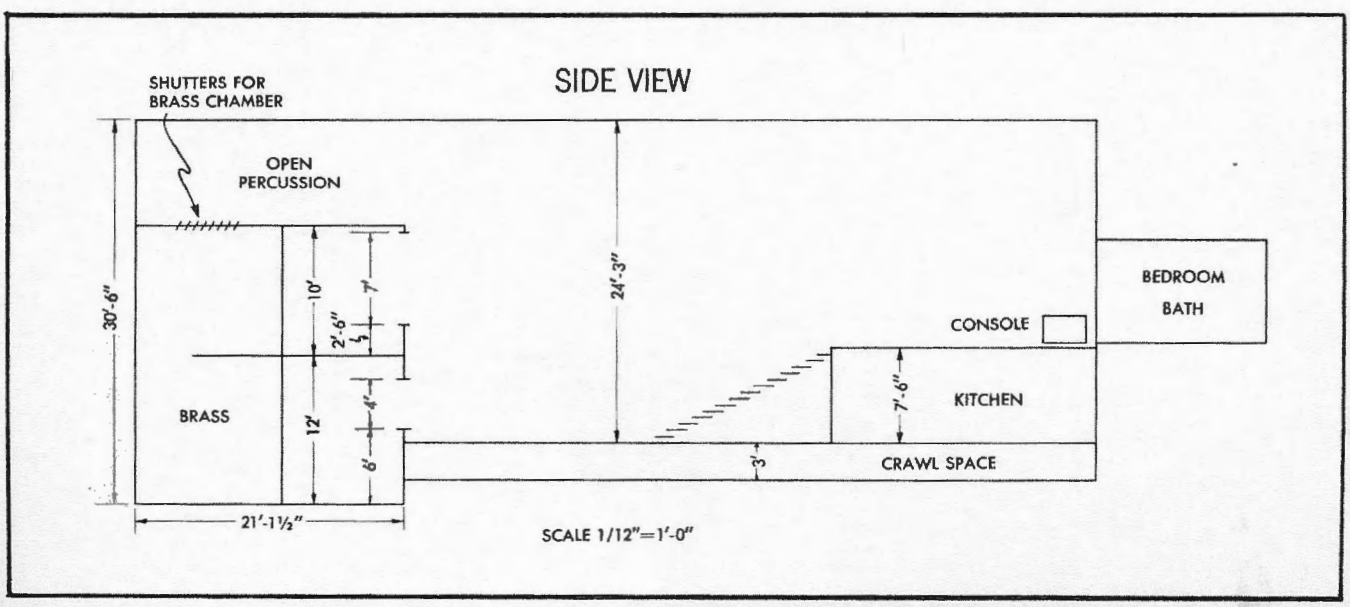
MECHANICAL ROOM

UPPER LEVEL
BLOWERS, ELECTRICAL PANELS, RECTIFIERS, SHOP AREA, RELAYS

LOWER LEVEL
RELAYS, HEATING AND AIR CONDITIONING EQUIPMENT

KITCHEN BENEATH CONSOLE IN SHADED AREA

DOTTED LINES ARE SHUTTER OPENINGS FOR BRASS CHAMBER



SPECIFICATIONS FOR HOWARD VOLLUM ORGAN

Pedal
32′ Diaphone
16′ Bombarde
Diaphone
Ophicleide
Double English Horn
Tibia Clausa
Diaphonic Horn
Clarinet
Bass String
Bourdon
8′ Tuba Mirabilis
Tuba Horn
English Horn
Octave
Open Diapason
Tibia Clausa
Tibia Clausa
Solo String
Cello
Horn Diapason
Horn Diapason
Clarinet
Cello
Flute
Flute Celeste
Piano
Pedal Octave
Accompaniment to Pedal
Great to Pedal
Bombarde to Pedal
Solo to Pedal

Bombarde
16′ Bombarde
Diaphone
Double English Horn
Tibia Clausa
Tibia Clausa T.C.
Solo String
8′ Tuba Mirabilis
English Horn
Diaphonic Diapason
Tibia Clausa
Tibia Clausa
Solo String
4′ Clarion
Piccolo
Piccolo
Xylophone
Glockenspiel
Great to Bombarde
Great to Bombarde Octave
Solo to Bombarde

2nd Touch
16′ Bombarde
8′ English Horn

Solo
8′ Tuba Mirabilis
English Horn
Trumpet
Diaphonic Diapason
Horn Diapason
Tibia Clausa
Tibia Clausa
String Ensemble
Orchestra Oboe
Kinura
Saxophone
Oboe Horn
Quintadena
Vox Humana
4′ Piccolo
Piccolo
Harmonic Flute
2-2/3′ Tibia Twelfth
2′ Tibia Piccolo
Harmonic Piccolo
Chimes
Chimes
Marimba
Xylophone
Xylophone
Glockenspiel
Sleigh Bells
Orchestra Bells

Tremulants
Main
Tuba Horn
Foundation
Tibia Clausa
Vox Humana
Solo
Solo
Tibia Clausa
Vox Humana
Tuba Mirabilis

Miscellaneous
Marimba re-iterate
Percussion Chamber Open
Marimba-Harp Coupler

Percussion

Harp	49 Bars
Xylophone	37 bars
Glockenspiel	37 bars
Sleigh Bells	25 notes
Chimes	25 tubes

Open Percussion

Piano	85 notes
Chimes	25 tubes
Xylophone	37 bars
Marimba	49 bars
Chrysoglott	49 bars

Great
16′ Ophicleide
Diaphonic Horn
Tibia Clausa
Tibia Clausa T.C.
Clarinet
Saxophone T.C.
Vox Humana T.C.
8′ Tuba Mirabilis
English Horn
Trumpet
Tuba Horn
Diaphonic Diapason
Open Diapason
Horn Diapasons
Tibia Clausa
Tibia Clausa
Orchestral Oboe
Kinura
Solo String
Gamba
Gamba Celeste
Gamba
Gamba Celeste
Saxophone
Clarinet
Viol d' Orch.
Viol Celeste
Viols
Krumet
Oboe Horn
Salicional
Quintadena
Concert Flute
Flute Celeste
Vox Humana
Vox Humana
5-1/3′ Tibia Quint
4′ Clarion
Piccolo
Piccolo
Gambettes
Gambettes Celeste
Viol
Viol Celeste
Viols
4′ Harmonic Flute
Flute
Flute Celeste
Vox Humana
3-1/5′ Tibia Tenth
2-2/3′ Tibia Twelfth
Twelfth
2′ Fifteenth
Tibia Piccolo
Harmonic Piccolo
Piccolo
1-3/5′ Tierce
16′ Piano
8′ Piano
4′ Piano
Marimba
Harp
Xylophone
Chrysoglott
Glockenspiel
Chimes
Great Sub Octave
Great Octave
Solo to Great Sub Octave

2nd Touch
16′ Ophicleide
8′ Tuba Mirabilis
Tibia Clausa
Solo String
Solo to Great
Solo to Great Pizzicato

Accompaniment
8′ Tuba Mirabilis
English Horn
Tuba Horn
Diaphonic Diapason
Open Diapason
Tibia Clausa
Tibia Clausa
Horn Diapason
Horn Diapason
Gamba
Gamba Celeste
Gamba
Gamba Celeste
Saxophone
Clarinet
Viol d' Orch.
Viol Celeste
Viols
Krumet
Spare
Oboe Horn
Salicional
Quintadena
Concert Flute
Flute Celeste
Vox Humana
Vox Humana
4′ Octave
Piccolo
Gambette
Viol
Viol Celeste
Viols
Harmonic Flute
Flute
Vox Humana
2-2/3′ Twelfth
2′ Harmonic Piccolo
Piccolo
8′ Piano
4′ Piano
Mandolin
Harp
Chrysoglott
Accompaniment Octave
Solo to Accompaniment

2nd Touch
8′ Tuba Mirabilis
English Horn
Tuba Horn
Diaphonic Diapason
Tibia Clausa
Saxophone
Clarinet
Chimes
Chimes
Glockenspiel
Solo to Accompaniment
Solo to Accompaniment Pizzicato
Great to Accompaniment Octave

CHAMBER ANALYSIS

Foundation	Pipes	Pressure	Remarks
8′ Vox Humana	61	6	
4′ Harmonic Flute	73	15	
8′ Gamba	73	15	
8′ Gamba Celeste	73	15	
16′ Tibia Clausa	85	25	1 thru 26 no trem.
		11	27 thru 85
16′ Solo String	73	15	1 thru 12 no trem.
32′ Diaphonic Diapason	85	30	1 thru 12 in Brass chamber
		25	13 thru 85 no trem.
Main			
8′ Krumet	61	10	Robert Morton
16′ Clarinet	73	10	1 thru 12 no trem.
8′ Concert Flute	85	10	1 thru 12 no trem.
8′ Viol Celeste	73	10	1 thru 12 no trem.
16′ Diaphonic Horn	85	10	1 thru 19 no trem.
8′ Viol d' Orchestra	85	10	1 thru 12 no trem.
8′ Open Diapason	61	10	1 thru 7 no trem.
8′ Salicional	61	10	
16′ Tuba Horn	85	15	1 thru 14 no trem.
Solo			
8′ Kinura	61	10	
8′ Orchestral Oboe	61	10	
8′ Oboe Horn	61	10	
8′ Trumpet	61	10	
8′ Quintadena	61	10	
8′ Saxophone	61	10	
8′ Tibia Clausa	85	23	1 thru 14 no trem.
8′ Vox Humana	61	7	
8′ Viol Celeste	73	10	1 thru 12 no trem. always plays with VDO in Solo chamber
8′ Gamba	73	10	1 thru 12 no trem.
8′ Gamba Celeste	73	10	1 thru 12 no trem.
8′ Horn Diapason	61	10	1 thru 7 no trem.
8′ Viol d' Orchestra	73	10	1 thru 12 no trem.
16′ Flute Celeste	85	10	1 thru 24 no trem. or celeste
8′ Spare	61	10	Vox will be installed
Brass			
16′ Tuba Mirabilis	85	30	1 thru 18 no trem.
		25	19 thru 85
16′ Double English Horn	73	30	1 thru 12 no trem.
		25	13 thru 73 no trem.

Total number of pipes: 2,349

Created and Produced by Graphic Arts Center, Portland, Oregon