

THE ORGAN GRINDER'S

PIPE ORGAN



The pipe organ in the Organ Grinder restaurant is the realization of a dream of Dennis Hedberg to build one of the largest and finest examples of a great theatre pipe organ. Mr. Hedberg is a former engineer with the Rodgers Organ Company and one of the owners of the Organ Grinder restaurant.

The tonal design parameters for the organ are based on the two favorite instruments of Mr. Hedberg, the San Francisco Fox 4/36 Wurlitzer and George Wright's 3/30 Wurlitzer prior to its destruction by fire. The long process of obtaining the necessary components from which to build this organ began about 16 years ago. The first items purchased were the 32' Diaphones from the now demolished Liberty Theatre in Portland. The most important component was the 3/13 Wurlitzer originally installed in Portland's Oriental Theatre. This instrument was restored and maintained by Mr. Hedberg as a labor of love for many years. It is the Oriental Theatre instrument that serves as a nucleus for the Organ Grinder's pipe organ. With the exception of the blower and relay, and now the console, the entire Oriental Theatre organ is in service at the Organ Grinder.

The organ is installed in three chambers. The angled walls and ceil-

ings make the chambers perform acoustically like horns to project the sound into the dining area with much clarity.

The generous use of glass in the chamber design affords maximum visual impact. Most of the glass is ordinary plate glass but the panes along the promenade are of a special 3 laminate design engineered for safety and greater sound isolation. Because such a large area of the organ is exposed through glass windows, maintaining a constant temperature (necessary for tuning stability) is quite difficult. Twenty tons of refrigeration equipment are employed to keep the chambers and blower from overheating.

The Organ Grinder blower is a 3-stage blower powered by a 60 hp motor. The rotors spin at 1,750 r.p.m. and develop over 6,000 cubic feet of wind per minute at static pressures of 35 and 50 inches.

The quality of the theatre organ's tremulants is of utmost importance to the final sound. The Organ Grinder pipe organ has 14 tremulants.

Traditionally, wind would be carried from the regulators to the pipe chests in metal air ducts. In this installation, PVC plastic pipe and fittings are used. The white air lines running throughout the instrument have several advantages over metal

The Organ Grinder, Portland, as it appeared prior to opening in 1973. The 32' Diaphones are in the center of the picture.

air lines. Some are: ease of assembly, low internal friction and high rigidity.

The electrical wiring in a highly-unified theatre organ is staggering. Every circuit is repeated for each of the 61 keys on each manual or keyboard! Knowing the finished instrument would be nearly four times larger than the Oriental Theatre instrument, it became apparent the Wurlitzer electro-pneumatic relays could not be made to perform satisfactorily. A unique alternative was therefore decided upon.

With the generous help and cooperation from friends at the Rodgers Organ Company, a totally solid-state electronic relay and power supply was built. This system used a complex diode matrix to decide which pipe is to be played when a given key and a given stop are depressed. The complete electronic system utilizes about 26,000 diodes, 3,000 discrete transistors, thousands of other tiny components, and the equivalent of 33,000 discrete transistors in 4 integrated circuits.

Controlling the entire instrument is the console. Prior to October 1975, the console used was from the Ori-

Photos by Bill Lamb



Paul Quarino has created a large following with his theatre organ stylings at the Organ Grinder.



Jonas Nordwall was the first to be featured at the Organ Grinder Restaurant.

tal Theatre. Since the Organ Grinder pipe organ is about four times larger than the original Oriental instrument, it was necessary to completely re-layout the console in order to properly control the added ranks and percussions. Even with almost 100 additional stops and controls this console still presented the organists with severe handicaps. In December of 1973, Organ Grinder Inc. purchased the 4/26 Wurlitzer pipe organ in Boston's Music Hall Theatre. That organ is now in the Organ Grinder's warehouse in Portland. It was decided to replace the Oriental console with the much larger one from Boston. The change took place during the early morning hours of October 10, 1975. Surely some record must have been set by that event because it was unheard of to replace an organ console in 12 hours!

All other parts of the pipe organ lead to the successful performance of the premier components... the pipes. Every set of pipes in the Organ Grinder pipe organ is hand-picked for physical quality and most importantly, tone. One voice in the organ does not have pipes. The 32' Contra Bourdon is electronic and is a voice which can be produced with sophisticated electronics so convincingly that it cannot be distinguished from pipes. This voice, played in harmony with the 40 other true pipe ranks and the various percussions,

comprises the tonal resources of the Organ Grinder's pipe organ. The Organ Grinder pipe organ is now one of the largest Wurlitzers in America.

The Organ Grinder is open every day of the week which requires a staff of five organists to maintain the schedule. Nationally-known Jonas Nordwall and Paul Quarino head the roster, being ably assisted by Don Simmons, Jack Coxon and Russ Chilson.

Information for this article was taken from the Organ Grinder brochure. □

Lit up like a Christmas tree. The rows of lights on the ceiling and pillars never seem to come to an end at the Organ Grinder. Note the pleasing effect of the angular cedar planking evident especially in the balcony. Listeners are 1973 ATOS conventioners.

