## THE ACOUSTICAL CONSULTANT

## **Project Series**

by R.J. Weisenberger

Here is an experiment with results so obvious that test equipment should not even be required to verify the results.

I am sure anyone who has ever voiced a 16' Wurlitzer tibia is familiar with the results one gets when turning the butterfly valve in the foot of the pipe.

As the valve is gradually opened the pipe will begin to sound a weak fundamental, and as the valve is opened further all tone production will stop and only a quiet rush of air will be heard.

As the valve is advanced still further the tone will build in intensity, pitch and harmonic development until a stable condition is reached—this is when the pipe is considered to be properly voiced. (Those who would disagree at this point should forget the rest of the experiment.)

If the valve is opened still further the third harmonic will increase in prominence until the pipe sounds more like a quintadena than a tibia.

Some still insist vehemently that low pressure pipework inherently possesses a greater degree of harmonic development than high pressure pipework of similar scaling can attain. Those who believe this should perform the following experiment:

Take a familiar pipe and then build two additional pipes identical to it in all respects with these exceptions;

Pipe "A" to have its cut up reduced by  $\sqrt{2}$  (approx. 30%) from that of the reference pipe. This will be the low pressure pipe.

Pipe "B" to have its cut up increased by  $\sqrt{2}$  (approx. 40%) from that of the reference pipe. This will be the high pressure pipe.

The low pressure pipe should be found to voice properly at ½ the pressure of the reference pipe, while the high pressure pipe will require twice the pressure of the reference pipe before it can be properly voiced. For this experiment to be valid the blower must be capable of delivering

whatever this pressure might be, after regulation.

All three pipes will be found to perform in a similar manner to the reference pipe at their respective pressures with these exceptions:

The low pressure pipe will be somewhat softer (approx. 6db) than the reference pipe with its pitch flattened.

The high pressure pipe will be somewhat louder (approx. 6db) than the reference pipe with its pitch sharpened.

The tonal quality of all three pipes will be found to be similar, if not identical if they were all properly voiced. If they weren't, this experiment will prove nothing.

If there still should be some who are not convinced after this experi-

ment, they could have these three pipes subjected to extensive waveform analysis by an acoustical engineer. For the tests to be truly conclusive, do not build just one scale and tonal family of pipes, but build a good representative cross section of scales and tonal families each containing the three test pipes. (When building open pipes using ears, the relative size of the ears must remain proportional to the size of the mouth as ears definitely have an influence in performance — the same is true of the harmonic bridge in pipes that utilize it.)

Even after having been presented with authenticated facts, there may be some die-hards who will persist in clinging to the myth that low pressure pipework is inherently superior to that of higher pressure, regardless of scaling.

When these biased opinions are dispelled with facts, the theatre pipe organ concept may be seriously considered by builders who would have otherwise totally ignored it. If I can make this point felt, I'll feel I'm beginning to accomplish what I started out to do.

## Closing Chord

James F. Boyce found his life's work at the age of twelve: he wanted to be an organist. He died at home on December 31, 1980 only hours after playing at the weekly organ demonstration at the Kennedy Center for the Performing Arts in Washington, D.C.



James F. Boyce.

Best known for his 4/34 Wurlitzer nightly appearances at the Alexandria (Virginia) Arena, Jimmy was also organist of St. Christophers Episcopal Church in Springfield, Virginia, staff organist at the now razed Virginia Theatre, and, above all, a teacher. His infectious, uptempo, bouncy style of playing complimented classic ability developed at Peabody Conservatory.

He was a charter member of the Potomac Valley Chapter and gave generously of his time and talents over the years to further the chapter's many projects. Jimmy loved the theatre organ and was always willing to play chapter concerts, organ demonstrations for school children and silent movies, or to assist in organ removals, installation and maintenance. Three theatre pipe organ records and his compositions, "Tango In Time," "The Alexandria March," "Charlie's Walk"

and "On Broadway" attest to his ability and dedication.

It was little known that he had suffered from a heart condition for several years. He died at 52.

Harold Turner, long-time staff organist at WGN radio and TV in Chicago, died of cancer in his Long Grove, Ill., home on December 10th, 1980. He was 72.

Born in Nebraska, Turner received his music degree from the University of Nebraska. He later studied with Marcel Dupre in Paris and with Stanley Chappell in London.



Harold Turner. Chicago organist.

Mr. Turner was hired as staff pianist at WGN in 1934. Following service in the Navy band in World War II, he returned to WGN as staff organist in 1945. By that time the original Wurlitzer organ had been rebuilt by Kimball into a 3/10. Turner followed the tenures of Preston Sellers, Len Salvo, and Edna Sellers at the WGN console. He remained as staff organist until his retirement was forced by a management shakeup in the WGN "family" in 1976. He broadcast a 30-minute program called Pipe Dreams every Sunday morning until his retirement. Turner's musical signature, Johnny Mercer's "Dream," played on rolling tibias, opened each show, along with a bedroom-baritone-voiced announcer who named the musical selections.

In addition to his radio and TV work, Mr. Turner was for more than 25 years, the organist and choir

director at First Presbyterian Church of Wilmette.

Mr. Turner is survived by his wife, Barbara; a son; a daughter; three grandchildren; and two sisters. A memorial service was held at the Long Grove United Church of Christ on December 12th.

## NEWS FROM DOWN UNDER

by Douglas T. Smith

The ears of Australian theatre organ concert-goers are still ringing from the exciting sounds presented by Jonas Nordwall during his recent concert tour during September-October 1980.

Down here in Australia, the organ world definitely received an injection of exhuberance, as Jonas went from city to city, playing mostly on the local chapters' theatre pipe organs with one or two electronic presentations where pipes weren't available.

One "extra" concert, a dusk recital at the Sydney Town Hall Grand Organ, brought forth sounds that we

have not heard for many a long year. Apart from a major cipher during the Bach D Major, the organ responded magnificently to such items as "Pomp & Circumstance No. 4," "War March of the Priests," "Toccata" by Gigout and an outstanding arrangement from Star Wars.

Jonas' final Australian concert at the Marrickville Town Hall 2/11 Wurlitzer can only be described in a word . . . superb. The condition of the organ can also be described with the same word. Following a day of concerted tuning, balancing and finishing, the organ sounded like 25 ranks instead of 11, and behaved itself perfectly.

Jonas was obviously completely at ease with the instrument, its condition being due in no small measure to his advice and efforts. The programme content was again superb, something for everybody. Oldies, an Irving Berlin selection, current pops, classics, "Mephisto Waltz" and "Sabre Dance" to name a few.

The arrangements, registrations and presentations were without peer, with one of our well known senior organists commenting that he had never heard such a range of tone colours from this organ before.

Words can't express how much we have appreciated all the help and advice Jonas has given us in many ways, and how good it is to have such a great guy to get along with. I sincerely hope that it won't be too long before we can get him down here again to help weave a little magic for us all.



