



Diapason and Tibia ranks have also been installed in one of two chambers.

Robert M. Webber of New York is completing the organization of a new artists booking firm, New York Artists Management which will feature a limited number of concert and theatre organists. Contracts have been signed with Charles Eve, church organist, and Billy Nalle, theatre organist. Chapters interested in booking guest organists for special programs would be welcome to contact Mr. Webber. More details will be made available later on as to the address and roster of performing organists.

## Questions and Answers

Answers by Judd Walton

**Q** The organ magazine CIPHER (Vol. 1, No. 9, Oct. 1964) on page 10, stated that early and late Wurlitzers are not too sociable, which accounted for some sad-sounding home installations. The article stated that the early Hope-Jones organs (pre-1921) were A440. The pitch was then changed to International Standard of A435 in 1921. The article further stated that the pipes do not tune up too good due to the differences in pitch. Since reading this article I have heard to the contrary, i.e., that A435 was pre-1921 followed by A440 tuning. Which is correct? Why are organs tuned at A435 supposed to be tuned at 60 degrees temperature whereas A440 pitch should be tuned at 70 degrees temperature? Is tuning pipes built at A435 to A440 really a critical problem so far as the resulting sound is concerned?

**A** Organs built prior to about 1921 were tuned to A435 pitch. Those built subsequently were tuned to A440. The A435 pitch was tuned at 60 degrees and when the temperature was increased 10-15 degrees, it resulted in the pitch of the organ being raised. It is supposed that this temperature was generally used due to the problem of maintaining a more comfortable temperature in the early day churches when heating was a problem. In the middle of the week when the tuning was usually done.

It is true that the scaling of pipes built for A435 pitch and those for A440 pitch are slightly different. Thus problems can be encountered in raising the pitch from A435 to A440 because an attempt is being made to make a pipe sound at a slightly higher pitch than that for which it was scaled and built. This is particularly true in reeds, much less noticeable in flue pipes. It should be obvious that the effective resonator length should be slightly shortened to accommodate the higher pitch and on certain of the pipes in a rank some adjust-

ment may have to be made on the reed tongue and shallot, especially if the pipe happens to be adjusted to a critical point. Basically, however, there should really be no problem in raising the pitch to A440, except for some re-regulating required to even out the pipes within the rank. So far as the difference in temperature is concerned, this is not a problem as long as the pipes are tuned at the same time.

A rise in temperature will cause a pipe to raise its pitch, the air being less dense and thus vibrating faster. Individual pipes never increase in pitch precisely the same amount as the temperature increases, resulting in out-of-tuneness. Therefore, an organ should be tuned with the room temperature as near that at which it will be played as is possible to avoid the organ going out of tune.

**Q** How are some of the synthetic stops such as Saxophone, Clarinet, Oboe, 32' Resultant, derived?

**A** Synthetic stops are derived by using one or two stops of rather commonplace rank. Before explaining their composition it should be understood that synthetic stops are primarily found on small organs of six to eight ranks where it was impossible to include stops such as the Clarinet or Saxophone for economic reasons. There is no exactly set pattern on deriving synthetic stops but some of the more commonplace are as follows.

1. Oboe. This stop is derived by using an 8' String and a 2-2/3' Flute.

2. Clarinet. This stop is derived by using a Flute 8, 4, 2-2/3 and 1-3/5. The Clarinet's tone is made up primarily of odd harmonics, hence, the use of as many mutations other than unison pitch that the organ has in its normal stop arrangement.

3. Saxophone. This stop apparently has no set pattern. It has been found to contain Flute 8, Vox 8, Flute 2-2/3. In another instance the String was included at 16 and 8' pitch. In any event it appeared that an effort was made to fortify the Vox Humana rank to provide more fullness as generally found in the Saxophone stop.

4. Oriental Reed. This stop usually is found made up of an 8' String and Flute mutations to provide as much as possible a far-out reed effect. In one instance an Orchestral Oboe was included to further enhance the effect (?).

5. 32' Resultant. This stop is derived by using a 16' Bourdon and drawing the same rank at a fifth-sounding pitch, 10-2/3'. In other words, depressing middle C will also bring on the G above and the net result is a cancellation effect producing 16 vibrations per second instead of the customary 32 found at 16' low C. The effectiveness of this stop varies with the rank being used, where it is installed and whether or not

there is sufficient room to allow the wave length to generate, over 40' being required.

**Q** What are the four best choices for reed ranks on a theatre organ which is to contain 11 or 12 ranks?

**A** No specification of the flue ranks was included in this correspondence, so it must be assumed that the organ will have sufficient foundation in the flue work. This should include an Open Diapason, a Concert Flute, two or three strings, etc. (We naturally expect that one or two Tibia Clausa will be included in the spec.)

Secondly, no indication of the location of the organ was given (home, hall, etc.) Let's assume its a home job. The matter of personal preference plays a large part in this determination. Basically, however, it would seem desirable to have a Tuba or a Trumpet, most certainly a Vox Humana, and if you are to follow the pattern of factory specs, a Clarinet and Orchestral Oboe. These last two may not be pleasing to your taste, as a wide range of choice is possible. For instance, the following combinations: Clarinet and Sax; Clarinet and English horn (a British horn, however, may be too loud for some home jobs); Clarinet and Kinura; Clarinet and Krumpet; Sax and Musette; Orchestral Oboe and English Horn. The possibilities of combination with these is obvious, along with the Tuba and Vox. Basically, then, its a matter of personal choice -- and boils down to a selection of color reeds versus brass reeds, and how many of each is desirable.

**Q** In allowing for an organ installation, how much space per rank would be a safe apportionment? Would the required space vary with make and/or model?

**A** The minimum space requirement for a 3 to 6 or 7 rank organ is 72 Sq. Ft., assuming a 10' overhead clearance. Restricted overhead would necessarily add to this footage requirement. For an organ of 8 or more ranks, the minimum requirement should be computed on the basis of 10 Sq. Ft. per rank, with 15 Sq. Ft. per rank usually more than adequate for ample room to move about. Usually these figures would apply for almost any make of organ. Additional space must be allotted when extra equipment is added. A style D Wurlitzer has been successfully installed in a 6' x 10' room with an 8' ceiling, by careful planning and considerable mitring of pipes. The important factor in a successful installation is careful planning of layout before installation starts.

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