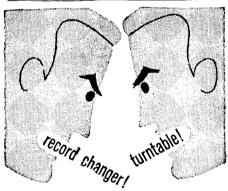




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#### HORSES FOR COURSES, SPEAKERS FOR SPACES

By JIMMY CARROLL, customer consultant for Harvey's, New York audio specialists.

UYING hi-fi is largely a matter of individual taste. Some may claim that the Boston Symphony is supposed to sound exactly the same at home as it does in the concert hall. When you stop to examine this comment it is enough to scare you. Just think of a seventy-piece orchestra in your own 15x25 living room. Physically speaking, if by some whim of the imagination this could be, imagine what would happen to your ears, or mind, especially if they were playing the "March to the Gallows" from Berlioz's "Symphonie Fantastique" or the cannonading section from the "1812 Overture."

Some realistic approach to this problem must be made by the buyer if he is to get the type of sound he wants in his home. This comment "in his home," while seemingly innocent in itself, can easily be the key to this entire condition. As there are horses for courses, so there are speakers for spaces. Let me cite an example. In upper Manhattan, to one of our newer-type apartment buildings, we recently shipped three identical hi-fi sound systems. (That is to say, a tape recorder, phono, amplifier, preamplifier, tuner plus a loudspeaker with its own cabinet.) The families who bought this equipment were somehow related, so some great discussions were gone into before the final selection was made. It seems that some previous agreement was made between themselves to buy exactly what the other would when they made their selection, so that everyone would have the same quality set when they sat down for an evening of music. Since they were friendly, they naturally visited one another often. They looked forward to enjoying one another's records and having discussions about the composition or the composer, or possibly some outstanding instrumentalist who may have pleased them.

On the surface this seemed all well and good, since as they reasoned, they lived under mostly the same conditions and wanted to spend the same amount of money and as they enjoyed similar tastes in music and had living rooms exactly the same size. Everything was thought out. Millennium was here. I particularly remem-

ber this condition, because of the chain of events that followed. The music systems were delivered and set up and everyone started playing music and getting the feel of things, as we all do with something new, and then the visiting started and record changing between the families got under way. Each family was to buy a new record and pass it along when they visited so everyone could enjoy it, and to pre-record it on magnetic tape for permanence. It took about two weeks for everything to "wear in" before we again heard from our three families in the similar apartments in the same apartment house. They then returned to our audio showroom and this is the part of their visit I remember most. I was called on to answer "how come" that three exactly the same music systems could sound so dissimilar when all units in each apartment were exactly the same as the others. Naturally this required a bit of head scratching in order to get the correct answer. The list of complaints showed that in one apartment there was a definite effect of too much bass with the normally prescribed bass and treble tone control settings when playing a phonograph record. In the next apartment, this same record with again the correct tone settings, produced an excess of highs and only a fair bass. It seemed that only the third member of this group was satisfied completely.

We brought the phonograph and amplifier part of the two systems that were offending back to our shop for examination. Our test showed them to be absolutely perfect. They could not have been more similar if they were products of the same pea pod. We decided to return these items to the new owners and make a visit ourselves to find the answer on the spot. We brought along a frequency test record, which covered a range even broader than the human ear can hear, also a special record which exposes any presence of intermodulation distortion that goes above 2 per cent. This being the approximate point where distortions below are not heard and where above would be found to be objectionable.

Our first visit was to the apartment where there was no complaint and where the sound was found to be satisfactory. Observation showed the room to be nicely balanced

"acoustically." It contained the usual sofa plus two soft chairs, a ten foot long book shelf and record bin plus a center piece credenza and two end tables. The floor was carpeted and from each wall hung a few small pictures. This room looked good and our test records plus our own listening proved it to be as claimed. We left here and proceeded to the friends' apartment directly above. Our first glance and impression gave an immediate hint as to what was occurring. This was the apartment where the high tones were said to be excessive and brittle. To describe this room as compared to the downstairs one we would have to say it looked too bright soundwise. It was the type of room where the upper frequencies travel too easily. There were no soft surfaces to act as tone balancers. The floors were asphalt tiled. All chairs were of the contemporary slender type, with thin cushions on the seats and backs only. The book shelves, although low and long, were of the open airy type resting on slim dowel legs. It was immediately obvious the incorrect choice of loudspeaker that was made for this setting. It must be remembered that our three friends had previously agreed together to buy exactly the same hi-fi components so as to enjoy the same good music even when visiting each other. An on the spot decision was made to remove this speaker and to select one where the upper tones had a designed natural roll off. Experience has shown us that when any single range of frequencies dominates the sound spectrum, through accentuation, there is a natural subjugation of the other ranges.

In this case the speaker's highs were reasonably balanced with the lows and middles (in the design), but in *this* room an echo accentuated upper frequency range that could not be adequately rebalanced even by reducing the treble control on the amplifier.

A FTER this evaluation we proceeded to the apartment where the condition of accentuation of all low notes and loss of highs were complained of. Here we found an entirely different decor condition. One entire wall had built up bookshelves from the floor to the ceiling. The opposing wall was covered with drapes. There was a beautiful looking long custom sofa measuring fifteen feet along one wall, then curved around and running an additional six feet along the other.

Again it was immediately apparent as to what should be done. We were to remove this speaker and choose one that had a designed accentuation in the upper frequency range. Our plan was to let the room acoustics itself make the final correction.

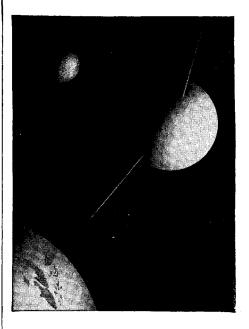
When the new speakers were delivered and installed we found the exact quality we were looking for and everyone was pleased. Naturally in a problem of this sort some talk takes place as to why one speaker and cabinet sounds well in one living room, while in another it fares poorly. Here in this example we wound up with three different speakers in the same size living rooms, because of the different acoustic values found in each room. What makes these acoustic differences is of course what should be analyzed. Audio measurements show the range of human hearing to be about 15,000 cycles wide. This band width is spoken of as being divided in three sections. The low frequency section called the "bass" covers the range from 30 to about 400 cycles. This is the range where our hearing sensitivity is the poorest and yet because of this being the "body" note section our music would be thin and hollow without them. For this reason the first measure of a good speaker should be its ability to give a good clean tight bass response. The section just above this is called the middle range. It starts where the bass leaves off and goes up to about 4,000 cycles. This is the range where our hearing is at its best. We call this the presence range. Raising or lowering the volume of this section would be the same as changing seats in a concert hall. Up front the presence may be too severe, all the way back too little. The upper range that takes over from here is called the "treble." It puts the "bite" or realism into our music. Absence of these notes causes flatness or loss of brightness in our music.

When all three sections are put together we have what is known as the natural practical hearing spectrum as applied to our living room. The loudspeaker that brings out this range should do so, smoothly and evenly. There should be no trace of "edginess" in the top range nor any "boom" in the bottom.

The cabinet this speaker or multispeaker system is put into then becomes of major importance. It should not color the sound in any way. Too light a cabinet would create a muffled sound where there was none.

Speaker systems and the rooms which house them each have their own individuality as we have seen. They should be selected with this important factor in mind. Before you buy a speaker system analyze your room and discuss it with your sound engineer, as this will have an important effect on both the price and quality of your home music system.

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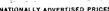
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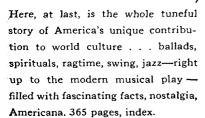
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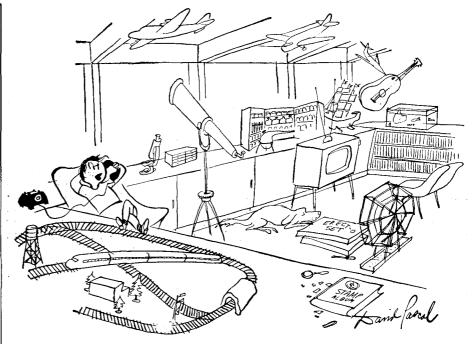
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"Oh, nothing much. I have to stay in my room. I'm being punished. How about you?"

#### **CLOUGH-CUMING REVISED**

By HERBERT WEINSTOCK

IVE years have passed since "The → World's Encyclopedia of Recorded Music" was published-and was saluted in these pages by Irving Kolodin as ". . . the worthiest effort in musical scholarship to be produced anyplace in the world in the postwar epoch." That first, fat, invaluable installment of this unique reference book was, in fact, two books bound together: the "W.E.R.M." itself, running to 739 pages over all, and the "First Supplement," another 136 pages. Closing with thirty pages of indexes of composers, arrangers, editors, composers of cadenzas, and titles of operas and other stage works, it was an astonishingly comprehensive covering of (generally speaking) all recordings of "serious" music and many of "light" music which had been made commercially available throughout much of the world from 1925 to June 1951.

Having made the requisite verbal bow to R. D. Darrell, in whose 1936 "Gramophone Shop Encyclopedia of Recorded Music," as Messrs. Francis F. Clough and G. J. Cuming wrote, "the principles and procedures of discography were laid down," the authors had gone on, in this 906-page monster, to expand their range far beyond anything previously attempted. Then, in 1953, came the second Supplement," a mere 284-page baby covering only 1951-1952. This included, as further guarantee of the entire seriousness of

the whole project, ten two-column pages in small type of "errata, corrigenda & addenda to W.E.R.M. and Supplement I" —but, alas, no index of any sort.

Now we have the "Third Supplement," 1953-1955, a 590-page small monster, again without index, but with ten pages of "errata, corrigenda & addenda" for the earlier volumes—and even for this very volume itself. Simple addition reveals that the three books have now reached the staggering total of 1,780 pages.

These are reference books, not manuals of opinion. At the very beginning, Messrs. Clough and Cuming denied having made any attempt to "classify the lists in any considered order of artistic or technical value." I confess to never having been able to discover what principle, if any, determines the order in listings of many versions of the same composition. It is not alphabetical; it is not by national origin; it does not appear to be chronological. It is, perhaps, casual, determined only by the order in which the individual items turn up in the Clough-Cuming filing system.

What these books offer cannot be located elsewhere in anything like such profusion. A typical listing gives the composer's name and dates; the title of the individual item; the voices or instrumentation; date of composition; name of performing artist or ensemble or conductor; number of record sides; record numbers for other

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