

BARNEY, late as usual after his lunch hour, came charging into the service department only to be brought up short by the sight of Mac, his boss, wearing something that looked like a doctor's stethoscope. The gadget was plugged into a tape recorder; and the service shop owner, unaware he was being observed, was keeping time to the rhythm on the silently moving tape with a waving forefinger.

"Well, well: If it isn't Old Doctor Kildare himself!" Barney shouted gleefully at the nape of Mac's neck, delighted at catching his employer off guard. "What's your prognosis, Doctor?"

Rather sheepishly Mac removed the apparatus from his ears, shut off the recorder, and turned on his assistant with a fierce scowl. "My prognosis," he announced menacingly, "is that if a certain red-headed Irishman does not knock off his practice of sneaking up behind people and yelling at them, he is not long for this world."

"What you got?" Barney wanted to know.

"It's a new idea in low impedance earphones. See this little housing on the back end of the phone plug?" Mac asked as he touched an object about the size of a small hickory nut sticking out of the "External Speaker" jack of the recorder. "Inside is a midget ¾" inch, six-ohm speaker. The output of this speaker goes through this flexible plastic tube to a 'Y' beneath the chin, and from there anodyzed aluminum tone arms carry the sound to both ears. The whole thing only weighs an ounce and a quarter."

"What's the good of it?"

"Well, for one thing, it can be plugged directly into the external

speaker jack of any tape recorder for personal listening. That's handy when you want to listen to a tape privately or when you want to crank up the playback level for listening to a highfidelity recording without disturbing others. Also it looks like a good unit to use when people want earphones connected to a radio. This will allow us to make a quick, easy, and safe installation. By employing a miniature closed-circuit jack, the secondary of the output transformer can be hooked across the phones when the plug is inserted, and returned to the set speaker voice coil when the plug is removed. Since there is no metallic connection between the earphones proper and the plug, there will be no danger of the wearer being shocked, even when the phones are connected to an a.c.-d.c. set.

"How's the quality?"

"The manufacturer advertises 'response from 50 to 8000 cps or better.' That does not say, of course, within what db limits this response is had. However, take a listen yourself to this recording of the 'Studies in Percussion' track by Hal Reeves that I took off *Capitol's* "Full Dimensional Sound" test record. Keep an ear cocked especially for the triangle, the tambourine, and the bass drum."

Barney adjusted the tips of the tone arms in his ears and listened carefully for two to three minutes. Then he cut off the recorder and announced importantly, "I may not have a golden ear, but those phones sound good to me. That tambourine seemed as though it were being shaken right in front of my face, and I could almost see the bass drum's stretched hide quiver as it gave that last 'whump.'"

"Not to change the subject," Mac remarked as he put the cover back on the recorder, "but never think I failed to notice you were late getting back from lunch again. What was it this time? Did you get held up with flying saucer traffic, or was it really something unusual?"

"Nope; the drugstore was just full of high school kids, and I couldn't get waited on. While sitting there, though, I really saw a demonstration of the power of advertising. Remember a while back when you couldn't turn on your radio or TV set without having a guy on it tell you all about lanolin and sheep's wool and his particular brand of hair dressing? Well, one of those high school hot shots came in and told the druggist he wanted something for his hair. The druggist asked what brand he wanted, and the kid just went 'Ba-a-a-a' like a sheep. Without saying another word the druggist reached up and pulled down the kind of hair dressing that bird on radio and TV was plugging. His message certainly must have got across!"

Mac chuckled at Barney's graphic description of the drug store scene as he said, "I'm glad you brought up the subject of advertising, for it's something I've been thinking about lately. If you're not in too great a hurry to get back to work, we might talk it over a little."

"I'll try to restrain myself," Barney murmured languidly as he collapsed on one end of the service bench.

"A fellow moved into our neighborhood recently," Mac explained, "and when he found I ran a service shop, he jumped on me all spraddled out. He says TV service advertising is strictly for the birds and that it makes no consistent sense. To prove his point, he pointed out several ads in a metropolitan newspaper. One shop harped on the expensive equipment and the advanced technical knowledge needed to do modern TV service work. On the next page another shop boasted that practically all service work could be performed right in the customer's home in a very short time.

"This guy then went ahead to say that twice he had had to call a service technician to repair his set. In each case the call was answered by a young kid who, as he put it, 'didn't look as though he were dry behind the ears yet.' This boy came in carrying a small tool box, about two dozen tubes, and a single meter—probably a v.t.v.m. In both cases he looked in the back of the set, noted a burned out tube, replaced it, and was on his way. Where was the 'expensive equipment?' this fellow wanted to know. As for 'advanced technical knowledge,' it required about as much of that as would be needed to find out which bulb was burned out in a floor lamp. According to the way my neighbor looks at it, that business about expensive and delicate instruments being needed to do TV work is a lot of hooey. So is the talk about technical knowledge. The fact that most TV repairs can be made right in the home

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Mac's Service Shop

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by a man who has not been shaving too long, using only a v.t.v.m., proves to him he is right."

"He has built up quite a case," Bar-

"He has built up quite a case," Barney observed.

"On the surface, yes; but it has a lot of holes in it. As I told him, you do not need to have a long gray beard to be a TV expert because television itself, as we know it, is hardly ten years old. Youth, with its eagerness to learn about new things, is a natural for this brand-new field. Probably the age of the youngster who fixed the set would the youngster who fixed the set would be about the same as that of the men who are designing, testing, and flying our modern jcts; and the Air Force seems satisfied with the job they are

"I also pointed out that when he called for service he was doubtless asked about the make, model, and symptoms of his receiver. Using this information the technician called information, the technician called upon his technical knowledge and his upon his technical knowledge and his rich fund of experience and probably made a very shrewd guess as to the likely cause of the trouble before he hung up the telephone. Then he consulted his service library, in which he would have invested a minimum of would have invested a minimum of \$400, to determine exactly what tubes he would need to take along for that particular job. Finally, from his array of service instruments, in which he would have invested from \$1000 upwards, he selected the one best suited to determine whether or not the set could be repaired in the home if his original guess as to the cause of trou-

ble proved wrong."

"The knowledge and equipment that a set owner sees displayed when a a set owner sees displayed when a technician makes a home call is only a very small per-cent of that at his disposal," Barney threw in. "It's kind of like an iceberg that has nine-tenths of its bulk hidden below the surface supporting the one-tenth that is in plain view."

"Exactly," Mac agreed. "At the same time I must admit my neighbor has a point in there being inconsistency in service shop advertising. When one shop talks about the expensive equipment and extensive technical knowledge needed to perform service work and another stresses how quickly and easily it can be done right in the customer's home, this is confusing to say the least.

ing to say the least.
"The inconsistency lies in the fact that two different types of service operation are being described. Abrupt set failures are usually produced by faults that can be quickly detected and corrected by a skilled technician right in the home. On the other hand, all television sets are subject to a gradual deterioration in performance as the months go by. Tubes lose a bit of their emission: condensors develop slight emission; condensers develop slight leakage; resistors change value; dirt accumulates on the tube face and on

the selector contacts; circuits drift out of alignment. The total effect of these defects is arrived at so gradually that quite often the owner fails to notice how much his reception has suffered. The only way in which the receiver can be restored to the kind of operation it had when it was new is for the

receiver to be checked over completely, using expensive and delicate instruments that cannot be lugged around in a service truck. In other words, a receiver cannot practically be kept in first-class working condition unless it makes periodic visits to a service

shop.' Mac paused for a moment and then went on. "What I am going to try to do in our advertising is to persuade do in our advertising is to persuade our customers that this is so. To get the point across, I'm going to resort to analogy. For example, to reach the women customers, I plan to say something like, 'If you are a good housewife, you sweep and dust every day; yet you still give your home a general housecleaning at least once a year. Your TV set needs a complete going over once a year, too.' For the men I propose something like this: 'If a fan belt breaks, you stop in a filling stapropose something like this: 'If a fan belt breaks, you stop in a filling station for a new one and are on your way; but every so often you leave your car at a garage for a complete check. Your TV set deserves a careful annual inspection also.' Then I'll go ahead to urge our customers to let us have their sets while they are on vacation. This, of course, will help fill in our slack summer season: but more imslack summer season; but more important, it will give us plenty of time to go over each set completely, locating and correcting every defect, and to bench-test it thoroughly-something we can't do when the customer is yell-ing for it back every hour on the

"Are you going to say this will pre-

"Are you going to say this will prevent the customer's having set failures during the rest of the year?"

"No, because no one can honestly promise that. A tube heater can open up or a condenser pop at any time. Certainly the likelihood of failure will be lessened by these annual checks, but the principal advantage to the customer will lie in the fact that the customer will lie in the fact that his set will be operating in tip-top shape. If a particular part fails, it can be replaced with confidence that this will be *all* that is needed to restore the set to perfect operation. We cannot guarantee uninterrupted reception with these annual checks, but we certainly will be able to promise *good* reception; and you know as well as I how many sets we see that produce some kind of a picture and some sort of sound but are a long, long way from providing the kind of reception they were designed to give."

Barney heaved a big sigh and slid off the bench. "And I was just looking forward to a nice long slow-business summer." he murmuned

summer," he murmured. "My deepest sympathy," grinned

Mac. "You certainly are the most au-used service shop assistant that ever "You certainly are the most absoldered a lead!"