

Your Guide *to* **HEARING** **HAPPINESS**



BOOK ONE




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YOUR GUIDE TO HEARING HAPPINESS


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INTRODUCTION




There never was a more reliable instinct than the one which prompted you to open this little booklet. For if you were not convinced, deep down inside, that somehow better hearing could be yours, you wouldn't have bothered to start reading.



But you *are* convinced that there's hope for your hearing. Moreover, there's every reason why you should be so convinced.



In the vast majority of cases, hearing loss is loss or weakening of only part of the total hearing. The chances are very good that far more remains of your natural hearing than you have lost.



This remaining natural hearing (your



“residual” hearing, doctors call it) is one of your truly priceless possessions. It is the solid foundation on which your future hearing happiness will be erected.

Whether your goal will be easy to achieve or not, however, is going to depend on other things beside residual hearing—on the strength of your desire to hear again, on your willingness to trade old hearing habits for new, on your ability to rise (if need be) to the challenge when an occasional obstacle seems to present itself.

Your road to hearing happiness has started with your desire and determination to hear again. Along the way you will meet a specialist who will make a “picture” of

your hearing on a graph. If you are able to use an aid, you’ll hear considerable about something called “auditory training.” And all through this training, you will find yourself hearing better, more clearly, more comfortably. And more naturally.

In a few short weeks, this careful scientific guidance will bear fruit. Sound “lights” will become distinguishable from sound “shadows.” The tonal foreground will advance; the background will recede. Everything will fall into its proper place, just as it does with normal listening people. You will have achieved what you set out to achieve: the hearing happiness you knew from the start could be yours.



YOUR HEARING

The other day, downtown, you had just stepped off the curb at an intersection when something happened and you pulled quickly back. A moment later you crossed safely to the other side and went on about your business.

What happened was so ordinary that you scarcely allowed it to interrupt your train of thought at the time. A motorist had sounded his horn; you heard and heeded the warning. Nothing more than that.

Actually, a long and surprisingly complex series of events had taken place. A sound was made and sent traveling through the air. It was picked up by an odd-looking flap of flesh, passed to a chamber occupied



... what is it like?

by some curiously-shaped bones, fed into a “snail shell” filled with liquid, and finally sent on to your brain. You heard the sound, interpreted it and took appropriate action. Total elapsed time: about one second.

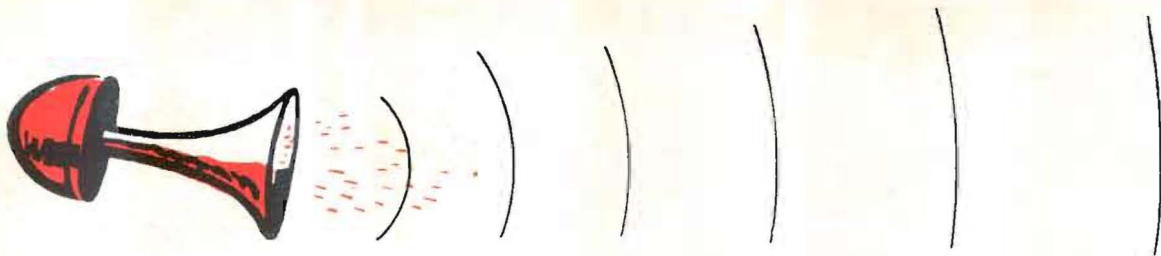
If anything had gone wrong, at any point in the process, you might be lying in a hospital bed instead of reading this. It's a perilous world we live in, but luckily we're usually warned in time. Most warnings reach us through our ears—a fact we generally take for granted. Yet precisely how it happens is one of science's most fascinating stories.

Let's go back to that motorist. He pushed a gadget on his steering wheel, thereby closing an electrical circuit. The current

vigorously vibrated a diaphragm. This was the actual beginning of the horn sound.

The vibrating diaphragm, beating against the air, set up similar vibrations (or waves) which immediately traveled outwards from the automobile in all directions. We cannot, of course, see these sound waves, yet they are real, because air is real. Some air molecules are closely packed by the auto horn vibrations, while others are more widely separated. These alternate variations of density travel—much like the waves that spread in circles when a pebble is tossed into a quiet lake. When the fleshy cup of your outer ear intercepted some of these outward traveling sound waves, the hearing process had begun.





(At this point, we'll simplify things by narrowing the sound down to a single sound wave and follow it into only one of your ears.) The wave continued to travel through the short canal that leads straight into your head. But at the end of this canal, it struck a little disk of tightly stretched, pearl-gray membrane that walled off the outside world from the mysterious mechanism of your inner ear. It struck this disk like a drumstick striking the taut skin of a kettledrum. And the disk (your "eardrum") did exactly what you might expect. It vibrated in tune with the sound wave.

Now a lot of things began to happen fast. A tiny bone, somewhat resembling a hammer, in contact with the vibrating ear-

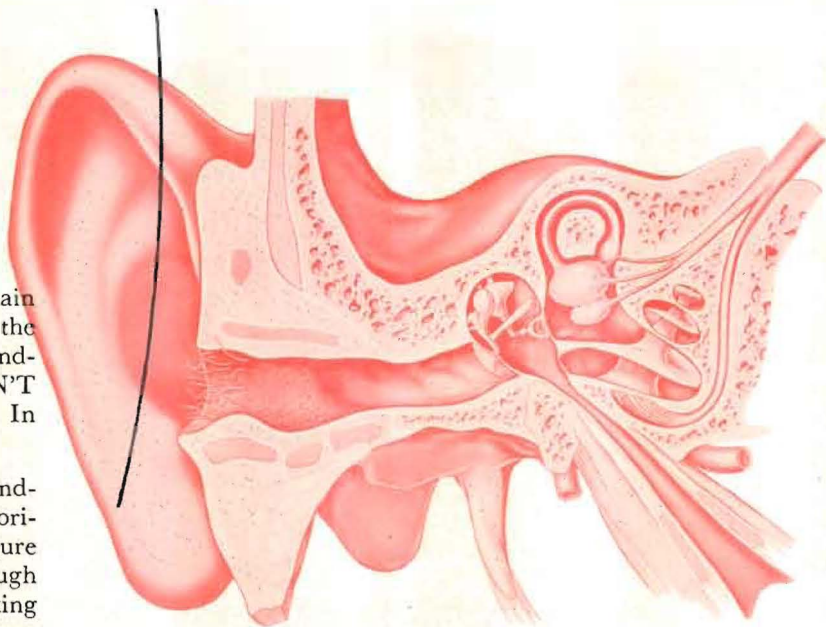
drum, also started to vibrate. Next, another little bone, a sort of "anvil", picked up the vibration from the "hammer" and tossed it to a third bone, shaped this time like a minuscule stirrup. The "stirrup" then passed it on to the thick liquid inside a coil of bone looking more like a snail shell than anything else.

Lining this "snail shell" were thousands of sound-sensitive, hair-like nerve endings. When the tiny "stirrup" bone communicated its vibration to the liquid in the "snail shell," these nerve endings were agitated.

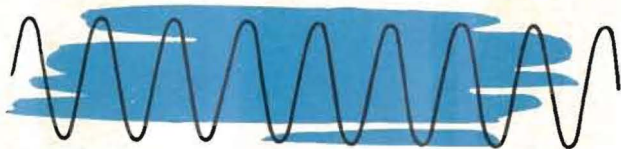
That sound wave has really gone places. It has entered your outer ear, passed through the canal, vibrated your eardrum

and the little hammer-anvil-stirrup chain of bones. It has shaken the liquid in the "snail shell" and agitated some nerve endings. **AND YOU STILL HAVEN'T HEARD A THING!** But you will. In practically no time at all.

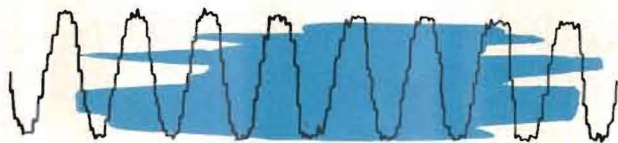
There are quite a few of these nerve endings in that "snail shell." Some authorities say 23,000; others think the figure is closer to 40,000. In any case, though all of them are vibrated by the shaking fluid, not all of them respond. Only those "tuned" to the kind of vibration shaking the liquid can pick it up. It's something like your radio, which selects only one station at a time. And this takes us back, momentarily, to the auto horn itself.



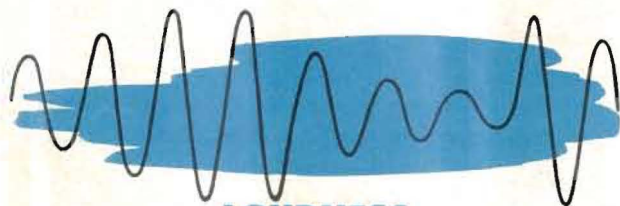
Inside view of ear . . . Note the "hammer-anvil-stirrup" bones, semicircular canals, "snail shell," etc.



PITCH



COLOR



LOUDNESS

Almost every sound has three main elements: pitch, intensity and "color." Pitch (sometimes called "frequency") determines whether the sound is high, like a squeak, or low, like the rumble of thunder. A sound's intensity measures its loudness or softness. Another thing, most sounds are complex; that is, they are really combinations of two or more simpler sounds. This gives them their "color," the quality that makes it possible to tell a violin from a flute, or Jack Jones' voice from Jim Brown's.

The sound produced by that automobile horn had a certain pitch, a certain intensity, and its own particular "color." The vibration it sent through the air corresponded exactly to this pitch, intensity and

“color.” Your eardrum had to vibrate in that manner also, and so did those little bones in your middle ear, not to mention the liquid in the “snail shell” deep inside. Then at last you were ready to do some actual hearing.

The nerve endings sensitive to the pitch, intensity and “color” pattern set up by the original sound-source (the auto horn) sent a message to the hearing center of your brain. *Then* you experienced the sensation of hearing—the sensation of pitch, of tone-color, of loudness.

Automatically your experience interpreted the sound. The pitch and “color” told you that you had heard an automobile. Your sense of its loudness told you how close

it was. Your experience also told you that it was *too* close. So you hastily stepped back to the curb and let the vehicle whiz past before starting out again to cross the intersection.

All this, as we have mentioned, took place in approximately one second.

Here are a few more ear facts, just to complete the picture . . . Your outer ear is a sort of funnel, a “sound-trap” that picks up hundreds of vibrations in the air. It also serves to keep out water, bugs and other undesirable intruders. The wax, a natural secretion from the walls of the canal, lubricates the canal, captures bits of airborne dust and discourages insects, which do not care for its characteristic





bitter flavor.

With the middle ear, we really begin to encounter some tiny and delicate structures. The hollow itself is no larger than a hazelnut. And those three bones ("hammer, anvil and stirrup") together are scarcely larger than a carpet tack.

Opening into this middle ear is a tube, the other end of which leads to the throat. This is the Eustachian tube. Doctors believe its job is to equalize the air pressure on both sides of the eardrum. This protects your eardrum from powerful sound waves that might otherwise destroy it.

The Eustachian tube opens whenever you swallow or yawn, thus admitting air to the middle ear. It often becomes swollen when

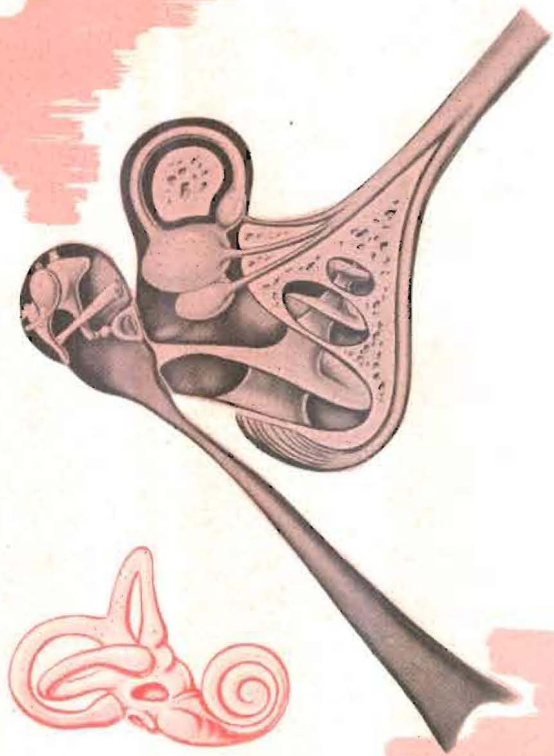
you have a head cold, which is one reason colds sometimes affect your hearing.

That coiled bone of your inner ear (the "snail shell") is, of course, the true ear, your real organ of hearing. But there is also another little bone formation here that should be mentioned: three connected "semicircular canals," liquid-filled and arranged something like a distorted pretzel. This is your organ of balance. The way the liquid lies in these curls of bone tells you whether or not you are right side up. Head colds sometimes disturb the action of this leveling instrument. The result: dizziness.

Thus we have a pair of natural "telephone receivers" in our heads. They pick up

sound waves, transmit them through a series of membranes, bones and liquids, and turn them into nerve impulses, which we are made aware of and which we interpret in an intelligent manner—or try to, at any rate. Basically simple, this arrangement, like most of nature's machines, is wonderfully complicated in its details.

All of which brings us to a few of the things that can cause these receivers to weaken, deteriorate, or break down altogether. Of this much you can be sure—by and large, a hearing impairment will be less severe, the nearer to the outside its point of origin. Troubles of the hearing nerve are often serious, while those of the outer ear usually affect your hearing not at all.





How much

The four most publicized diseases in the United States are tuberculosis, infantile paralysis, cancer and heart trouble. Yet twice as many Americans suffer from impaired hearing as from all four of these dread diseases combined.

Few are aware of this startling statistic. Hearing defects are usually a personal matter. The public that so nobly supports every appeal to overcome polio and cancer would undoubtedly respond as quickly if the true effects of a hearing loss on the social and economic life of an individual were as widely publicized.

But hearing defects are not spectacular, like a polio epidemic. They don't kill like cancer or coronary thrombosis. Nor do

NEW hearing can YOU expect?

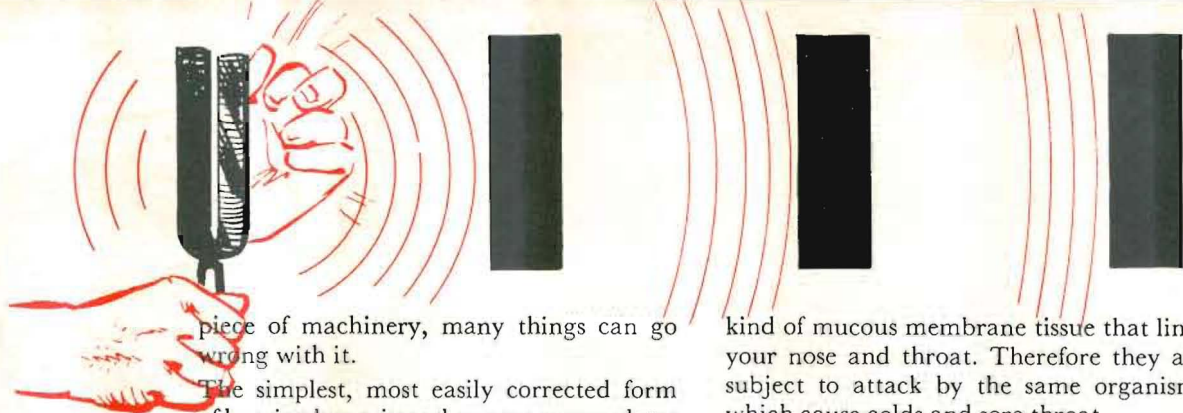
hard of hearing folks waste away pathetically, like a consumptive. Only you who have recognized and taken steps to conquer your impairment know the train of effects that can follow in the wake of a hearing difficulty. They range all the way from mere annoyance to dire mental and physical distress. Unless the condition is recognized, frankly admitted and cared for, an entire way of life can be drastically changed.

The gratifying ray of light is this: for most hard of hearing persons, such tragedy can be avoided. Medical science daily learns more and ever more about hearing loss. The great technologies of electronics and acoustical engineering provide better and

ever better ways to overcome it. And all these scientific gains are given the promptest possible—and the widest possible—circulation by the international MAICO organization, with offices and authorized Technicians in all parts of the world.

It is vital, of course, to know something about hearing loss— hearing loss in general and your own in particular. Such knowledge will immeasurably increase your chances of winning the hearing happiness you know, instinctively, can be yours. For the hearing you hope to gain depends on your type of hearing impairment.

Hearing loss is merely a symptom of breakdown or imperfect adjustment in the delicate ear mechanism. Like any fine, complex



piece of machinery, many things can go wrong with it.

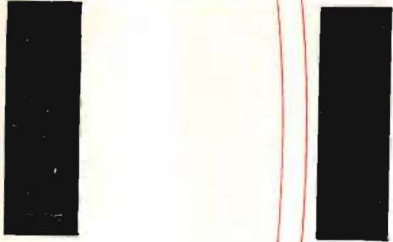
The simplest, most easily corrected form of hearing loss arises when wax accumulates in a hard, tight plug in the outer-ear canal. Such a plug can cause substantial hearing loss; with its removal, full hearing is usually restored. (Only a physician, incidentally, should be entrusted with the removal of impacted wax or, indeed, with the treatment of any sort of ear ailment.)

More serious are conditions affecting your middle ear, home of the tiny hammer, anvil and stirrup bones that conduct sound waves through to the snail shell of your inner ear. The chamber (and the Eustachian tube as well) are lined with the same

kind of mucous membrane tissue that lines your nose and throat. Therefore they are subject to attack by the same organisms which cause colds and sore throat.

Germs travel from the nose and throat through the Eustachian tube. You experience buzzing sounds, earache and impaired hearing. Usually these "ear colds" clear up, like any other cold, though sometimes their effects linger—and sometimes they may be chronic. If your middle-ear infection can be cleared up, the deafening it produced will more than likely disappear with it.

Probably the most difficult middle-ear condition to deal with is *otosclerosis*. This condition, usually inherited, results from ab-



normal bony growth at the "window" where the stirrup-bone makes contact with the "snail shell" of the inner ear. Sound waves still enter, but they are no longer freely communicated to the liquid in the "snail shell"—they rapidly fall off in intensity. By the time they arrive at the inner ear, they have become mere ghost-sounds. The resulting hearing loss is serious.

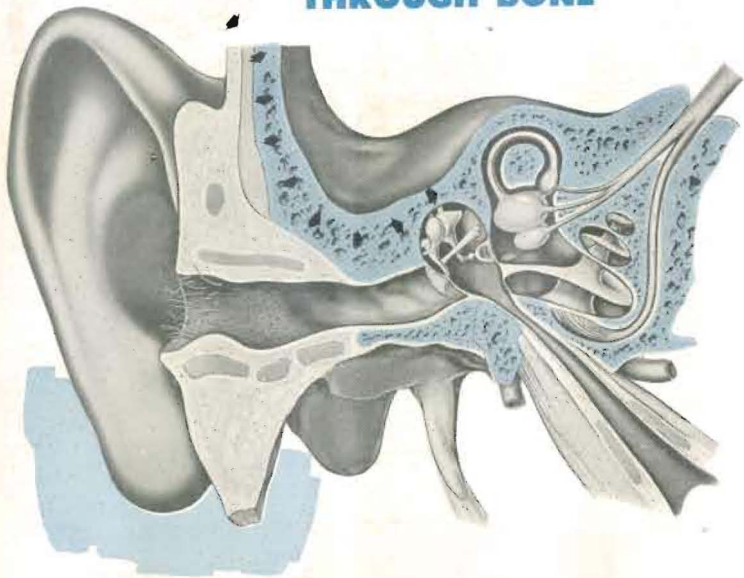
Surgeons have devised an operation, *fenestration*, to overcome otosclerosis. They cut a new "window" in the bony wall between the middle ear and inner ear, to replace the now-useless old one. Sound waves thus strike upon the inner ear directly. Fenestration has proved quite successful in a good number of cases, though



COMMON CAUSES OF HEARING LOSS



PATH OF SOUND CONDUCTION THROUGH BONE



medical authorities believe it is still too soon to evaluate it fairly.

Hearing losses arising from these outer- and middle-ear conditions are called *conductive* losses. Sound vibrations are not being conducted to the organ of hearing in the inner ear. To feed suitably amplified sound from a hearing aid usually overcomes such conductive hearing loss satisfactorily. The amplified sound can be passed into the ear canal directly, or the vibrations can be applied to the mastoid bone (located directly behind the ear). This bone, an excellent sound-conductor, carries the waves to the "snail shell," bypassing the middle ear altogether.

The other main group of hearing losses

are the nerve or *perceptive* losses. These are the most serious and the hardest to provide correction for. They arise from defects in the ultra-sensitive inner ear and even in the vital auditory nerve itself.


In perceptive deafness, the sound waves enter the ear and proceed normally through the canal, eardrum and chain of little bones. They even vibrate the fluid in the "snail shell." But the hairlike nerve endings no longer respond to the vibrations. Or if they do, something further along the auditory nerve has broken down.

Illnesses like meningitis, scarlet fever, typhoid and influenza sometimes cause perceptive deafness. The hearing nerve is especially sensitive to the toxins of various

infectious diseases. Poisons from infected teeth, tonsils or kidneys may also affect it. Drugs can produce perceptive hearing loss —narcotics like nicotine and alcohol, and even medicines such as quinine, streptomycin and aspirin, if used excessively.

Nerve deafness also seems to be a normal and natural result of the aging process in many persons, though the reason isn't clearly understood. Conductive hearing loss tends to occur in younger people, but in one who has enjoyed excellent hearing throughout youth and most of maturity, hearing loss (if he experiences any at all) is likely to develop in the inner ear.

Actually, hearing loss usually arises from a combination of two or more of these var-



ious causes. Thus your case may be extremely easy to diagnose, or it may be extremely complex.

A thorough test of your hearing is the logical first step toward rehabilitation. A remarkable electronic instrument, the audiometer, is used. Quickly and with surprising accuracy, it tells your doctor or MAICO Technician many things—the probable nature and location of your hearing loss, how much hearing you have left, the type of aid you can most profitably use, and approximately what kind of hearing you can reasonably expect from it.

These audiometric test results are charted on a graph called an audiogram (see Chapter Three). By glancing at this “pie-

ture” of your hearing, the specialist knows the exact intensity (measured in units called “decibels”) at which you begin to hear sounds of varying degrees of pitch. He calls this your “hearing threshold.” The audiogram also tells him which intensities produce discomfort—your “threshold of pain.” These tests use so-called “pure tone” manufactured electronically inside the audiometer.

There are speech tests, too. Standardized lists of words and sentences are sent to your ears at various intensities. Do you have trouble with high-pitched consonants (distinguishing, for instance, among words like *fin*, *skin* and *thin* ? Or do you fail to distinguish low-pitched vowel sounds, as

in such words as *rube* and *robe*?

Whatever your difficulty, these tests give the answer to a very important question—is your hearing “socially adequate”? Socially adequate hearing means the ability to hear ordinary conversation without a hearing aid, as well as sermons in church and motion picture dialogue. A person with a uniform hearing loss of 30 to 35 decibels is generally regarded as being on the social adequacy border line. Such a loss, according to a leading authority, Dr. Hallowell Davis, “may serve as a fair indication of when a hearing aid is probably needed.”

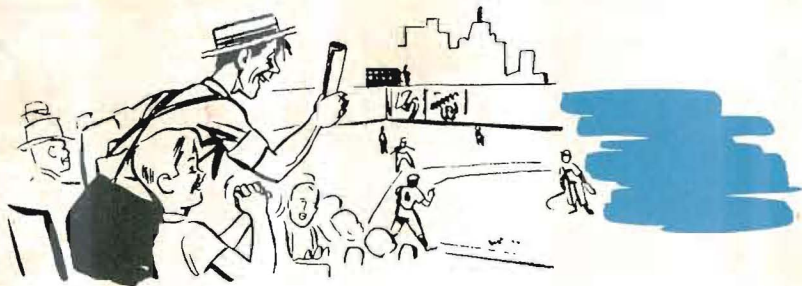
Who can be helped by a hearing aid? The answer, fortunately, is: **NEARLY ANYONE WITH A HEARING LOSS.** Those





whose auditory nerve cells or the nerve cells inside the "snail shell" have gone completely dead cannot at this time be helped. But they are a minority. Most hard of hearing people are only partially deafened. In your own case, for example, how much a hearing aid can do for you will depend on several things . . .

Is your hearing loss mainly perceptive? Mainly conductive? Is it mild or severe? Is the impairment general over the whole frequency (pitch) range, or do you lose only high-pitched (or only low-pitched) sounds? Another thing—what is your own attitude toward returning to the sound-world? How long has your hearing been impaired? Will you be willing to do your



part in making your rehabilitation the success it can be?

A hearing aid may bring you the world of sound with nearly 100 per cent naturalness. Or it may not. Everything will depend on the nature of your hearing loss.

If your impairment is largely conductive, is fairly moderate (say, around 35 decibels), and is uniform at all levels of pitch, an aid will restore your hearing almost exactly as you remember it. (A MAICO hearing aid, for instance, can deliver sound with less than 4 per cent distortion.) But should you have severe inner-ear losses, it may be that the power needed to fully restore the lost part of your hearing will drive the aid past your pain threshold.

This means that the aid cannot be used at full power, and so, in a sense, your hearing will be *a new kind* of hearing, perhaps a bit strange at first. But it will be intelligible hearing. And it will always be *comfortable* hearing.

We are going to look a little closer at this important matter of *new* hearing in Chapter Four. Meanwhile, it is enough to note, with Dr. Davis, that in our time "the arts of electronic amplification and electro-acoustic engineering have made it possible to deliver as much sound as the ear can tolerate. We can therefore say," he concludes, "that a hearing aid should deliver sounds loud enough to be heard easily and without discomfort."

DOING SOMETHING ABOUT IT



In one respect, your first audiogram is your most important. There will be others—a whole series, in fact—but this one tells where your hearing stands *now*. It gives your MAICO Technician or ear specialist a practical notion of where to start in providing you with correction.

No, he won't stick a mold in your ear and an aid in your pocket—just like that! This audiogram is not a *full-length portrait*; it is more like a blueprint, the starting point in bringing you, not just any kind of hearing, but your best hearing—as individually yours as your voice or your smile.

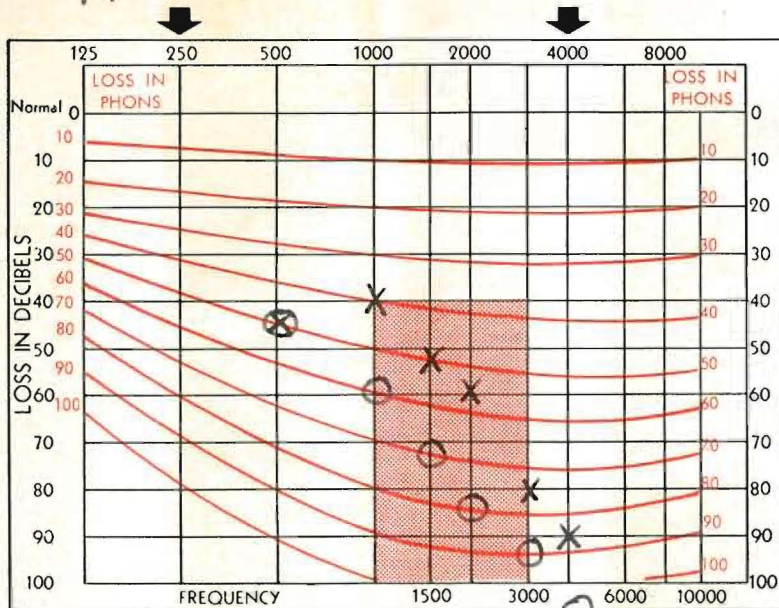
To learn more about what happens next, turn the page. . .

DATE 2/8/51 BY DMS

MAICO AUDIOGRAM

MRS.
GERTRUDE
REVERE

NAME



| OCTAVE FREQUENCIES | | | | |
|----------------------|-------|----------|--|-------------------------------|
| A M A % HEARING LOSS | | | | |
| RIGHT EAR | | LEFT EAR | | 631.4 58.6 690.0 86+ |
| 7.9 | 500 | 7.9 | | |
| 21.5 | 1000 | 10.2 | | |
| 35.8 | 2000 | 25.7 | | |
| 38.0 | 4000 | 14.8 | | |
| 90.2 | TOTAL | 58.6 | | |

| | | AIR | BONE | BONE with MASK G |
|-----------|------|-----|------|------------------|
| LEFT EAR | BLUE | X |] | 1 |
| RIGHT EAR | RED | ⊙ | [| 1 |

Remarks: INSERT FOR LEFT EAR



Your one great hope now should very properly be: that a hearing aid will be able to help you. If you are among those fortunate enough to be able to use one of these remarkable instruments, you may now look forward to one of the most rewarding periods in your life: the weeks during which you learn to use your new MAICO correctly. For you may encounter some strangeness at the very beginning. (In the next chapter, we'll discover how this can sometimes arise.)

It's hard to recall the time when we learned to perform our most fundamental skills: walking, talking, reading. We have forgotten, for the most part, the thrills attendant upon our success. But now, once more

you will taste of this sense of triumph . . .

Observe, on the next page, that you will wear your MAICO for limited periods of time at first. Very little the first week, about enough to give you a *slight* impression of what this new-hearing business is all about. Never fear—the listening schedule will be increased during succeeding weeks. Your speed in approaching “unrestricted use” (see note at the bottom of the page) will depend mostly, as we saw in Chapter Two, on your impairment.

But your ultimate success—and *this is of the greatest importance*—will depend on your patience and cooperation. Solid progress means everything here. Speed alone may spell defeat.



YOUR PERSONAL HEARING PROGRAM

as determined by your Maico Technician is as follows:

DURING THE FIRST WEEK

wear your MAICO 1/2 hours in A. M.

wear your MAICO 1/2 hours in P. M.

DURING THE 2nd WEEK

wear your MAICO 1/2 hours in A. M.

wear your MAICO 1 hours in P. M.

DURING THE 3rd WEEK

wear your MAICO 1 hours in A. M.

wear your MAICO 2 hours in P. M.

DURING THE 4th WEEK

wear your MAICO 2 hours in A. M.

wear your MAICO 3 hours in P. M.

↙
● In your individual case, unrestricted use of the instrument should not be attempted before 3/15/51 unless your progress and satisfaction is such that your schedule is approved for advancement by your Maico technician.

●
**SCHEDULE
OF VISITS
WITH YOUR
MAICO
TECHNICIAN
DURING
REHABILITATION**

| DATE | TIME | INITIALS |
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MAKE HASTE SLOWLY

The next chapter will give you a broad, general clue as to what will be going on as your MAICO Technician* jots his initials on the form opposite this page. You may be a trifle shocked at first. "Will I have to go down there *all* those times?" you are asking yourself, perhaps.

You may not have to, of course. But human ears are enormously complex, and the human beings they belong to are even more complex. The most serious error you could make, early in your rehabilitation, would be to try to hurry things faster than

(*should you travel or move during this time, you'll find a qualified MAICO Technician within easy access, wherever you may go.)

they can naturally go.

There's many a deafened person moping at home—with a hearing aid lying useless in his dresser drawer upstairs—simply because he tried to run ahead of himself.

Your MAICO Technician will know your pace. If you're wise, you'll try to get a sense of it, too . . . that will help you greatly. If progress seems a little slow at first, don't let it worry you. The best learning is always slow, for that's the learning with *stay-ability*. And that's the only kind of learning worth having, in the long run . . . Now turn the page, to see *why* such an extensive rehabilitation course may be desirable.





NOW . . . GET

The last war, which brought different things to different people, brought to a certain Air Force pilot a sudden new life—the life of total deafness. No world of sound for him. Back home after his discharge, he tried every hearing aid on the market. Nothing even faintly resembling a sound came through to his consciousness. True, one of them, the most powerful of the lot, produced a slight tickling sensation. But a tickle isn't a sound. Who would waste time over a tickle?

The answer is: that Air Force pilot! And his time wasn't wasted, either. Not by a long shot.

Sounds picked up by the aid were amplified to maximum sharpness and sent crashing into his deadened hearing apparatus.

INTO THE HABIT OF HEARING

The tickle, he noticed, varied with the variations of the incoming sounds. By shrewd, careful study of these tickling sensations, he eventually was able to identify speech patterns. No, he couldn't hear them—he could only *feel* them. But presently, after long months of hard, purposeful effort, he learned once more to understand what people were saying.

He had won back communication. Though his hearing was gone, possibly forever, he had refused to stay locked up in the silence of his handicap.

How much easier it is for folks who are merely hard of hearing! Snap the receiver to your ear mold, adjust the volume to a comfortable level, and there are the sounds of the world: the voices, the noises,

the music, the thousand-and-one evidences of human activity in full sonic variety.

It isn't *quite* that simple, of course . . .

Your hearing happiness (we saw in Chapter Two) will depend partly on your type of hearing loss and partly on your own attitude toward this *new* hearing of yours. You may be among the fortunate ones whose hearing loss is moderate and uniform. Learning to use your aid will be no harder than learning to use a telephone.

But let us consider the case of Mr. Jones (that's not his name, of course). His hearing loss is far more severe; also, he has been living in his world of silence for a good many years.

Mr. Jones' relatives have an inspiration



one fine morning and present him with a bright, shiny new hearing aid. Mr. Jones thanks them kindly, puts it on, turns up the volume control and—ouch! A couple of days later, the aid finds its way into Mr. J.'s dresser drawer, and there it stays.

What went wrong?

In Mr. Jones' case, it was like coming suddenly out of a dark movie house into blinding sunlight. He was deafened, we'll suppose, to low-pitched tones. The aid amplified so that he heard them clearly and naturally. But it amplified high-pitched tones equally . . . and Mr. Jones didn't need to have *them* built up. The result was a blast that nearly knocked the poor gentleman over. He could scarcely wait to get the receiver off and soothe his

aching ears with the old familiar silence.

At this point, let's spell it out in capital letters:

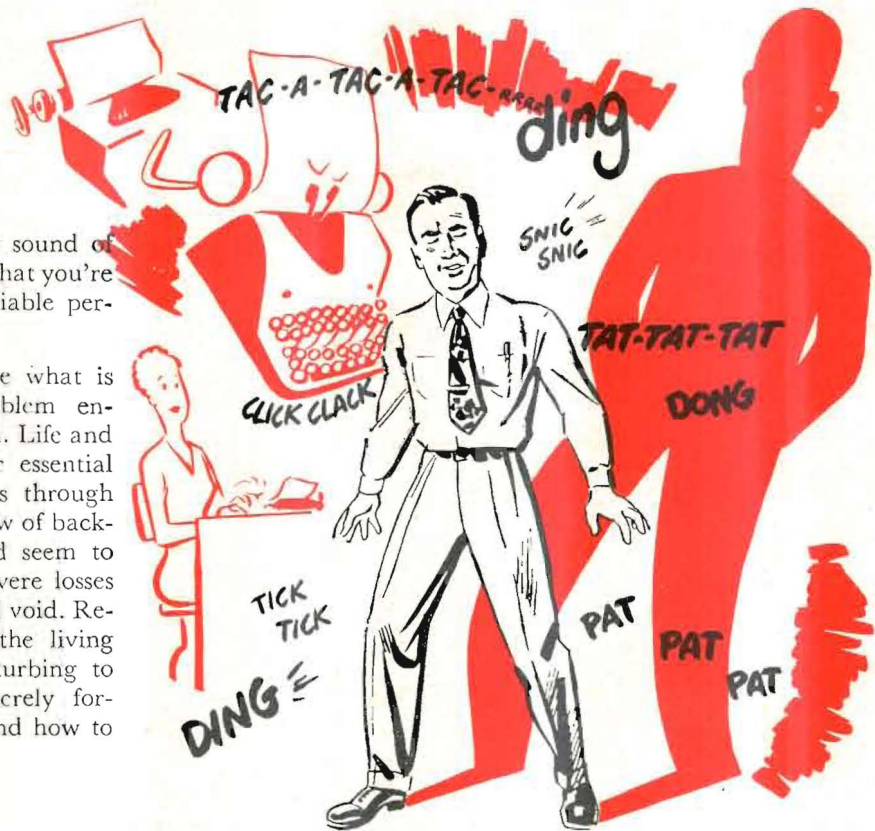
YOUR ROAD TO HEARING HAPPINESS LIES THROUGH NEW HEARING HABITS, DEVELOPED THROUGH THE CORRECT USE OF YOUR HEARING AID.

Clearly, Mr. Jones had been grossly misinformed. You buy an apple and eat it. You buy a hat and wear it. You're given an aid and presto! you hear again. At any rate, that's what *he* thought.

Have you been long without hearing? If so, don't be surprised at what happens the first time you're confronted with the busy noises of daily life. Typewriters may sound like a machine gun battery. As you walk

across the floor, the unfamiliar sound of your own footsteps may suggest that you're being followed by a giant—amiable perhaps but still gigantic.

Such “background” noises pose what is probably the commonest problem encountered in using a hearing aid. Life and the things of life project their essential *livingness* into our consciousness through sound. Without the constant flow of background noise, the world would seem to “go dead.” Yet people with severe losses gradually come to accept a tonal void. Replacing it too suddenly with the living sonic background is oddly disturbing to them. Actually, they have merely forgotten what it sounded like—and how to ignore it.






To be sure, everyone wants to hear naturally. But no hard of hearing person should expect to hear the voices of his friends completely isolated from this rich, murmurous, *natural* background.

If you have lived long with silence, your ears are bound to be "tender." Loud sounds that normal-hearing folks take in their stride will probably shock you, as they shocked Mr. Jones. Stranger yet, you may find that memory will play tricks on you. As your natural hearing declined, you gradually (and quite unconsciously) established new ways of interpreting what you heard. *You had to do this.*

In a person, for instance, losing his hearing for high-pitched sounds, the *sh* in *shoe* be-

comes fainter and fainter. Presently he can hear no difference between *shoe* and *who*—they both sound like *oo*. At first, he manages somehow to understand which is meant. He takes the words preceding and following into account—and generally only one of the words will make sense in the context. This happens with hundreds of different words until, at length, he has developed his own, highly individual way of hearing.

Actually he is progressively losing touch with word-sounds *as they really are*. For this reason, more and more confusion enters his hearing until (after a series of absurd and embarrassing errors in conversation) he finally realizes that he has become very hard of hearing, indeed.



The simple fact is: such a person has forgotten what words really sound like, with vowels and consonants all in their proper places. He is actually no longer ready for normal-type hearing. His present hearing habits will have to be *unlearned* . . . and that will require a little time and practice.

These are a few reasons why some hard of hearing people in the past have not found their way back to the wonderful world of sound. These facts were known to hardly more than a handful of hearing experts. Now, however, ear physicians and hearing aid technicians are alive to the fact that using an aid calls for training.

Many (such as the authorized MAICO Technician) are now set up to furnish, as part of their regular professional service,



as much auditory training as you may need to set you securely on the road to hearing happiness.

Working from the audiogram, your MAICO Technician will develop a guidance program specifically designed to your particular hearing needs. You will be protected from the shock of loudness. The "gain" will be adjusted so that the maximum output of the aid will fall short of your pain threshold. Training will "toughen" your ear. You will be able to tolerate louder and louder sounds.

There will be practice in listening to words spoken against a conflicting background of meaningless, even disturbing, noise. Eventually, you will learn to hear only what you

want to hear, and ignore the rest.

Most important, your hearing habits will be reconstructed. If your old ways of listening had become adjusted to the lack of certain sounds, you will learn to readjust when these long-lost sounds return to you through your MAICO. If your impairment is such that only part of your natural hearing can be restored, training will help you learn to interpret what you hear to your greatest advantage.

Can you ever expect your hearing to be 100 per cent natural again? Probably not. Maybe only 90 or 80 per cent. Maybe only 60 per cent. But it will become more and more *natural sounding* to you, the more accustomed to it you become.

You may think voices somewhat harsh at first. But you will understand what they are saying, and they will be talking to you at a comfortable level. Presently you will take their quality ("color") for granted. Even before you realize, you will accept them as you hear them. They will sound, to you, as they ought to sound . . . in other words, natural, *to you*.

Thus you will have achieved the goal toward which you have been steadily moving. With the help of your scientific MAICO program, you will have won your way to the hearing that is clear, comfortable and satisfying to listen to.



The Person



The more familiar you become with your MAICO and the more closely you work with your MAICO Technician, the better your progress in gaining the exact hearing help you seek. But there is something more to remember: **YOU ARE NOT ALONE!** Literally tens of thousands of folks like you have also found the MAICO way to hearing happiness.

Unthinking persons might say that members of such a group have nothing in common but their handicaps. Such a notion, of course, is neither constructive nor intelligent. What you do have in common with everyone who wears a hearing aid is this: the experience of having refused to accept the handicap of a hearing loss. Because of

You Can Never Be . . .

that, you can never be correctly regarded as a person with a handicap.

Another thing: once you wear a MAICO hearing aid, you automatically share in a vital, continuing MAICO research program. This research constantly brings to light new knowledge about scientific as well as practical day-to-day aspects of hearing. Each new discovery or advance brings new and better ways to make your hearing ever more natural, comfortable and enjoyable.

Where do these discoveries and advances come from? One thing you can be sure about: they are not conceived in a vacuum. They are not all the findings of scientists and laboratory technicians.

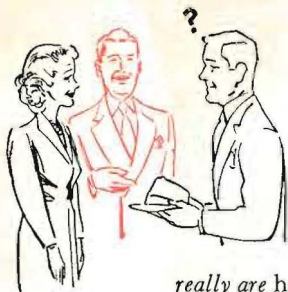
THEY BEGIN WITH YOU!

Sometimes directly through the suggestions of folks like you, or from a study of their audiograms, or through analyses of their hearing progress. Practically all research projects of the MAICO laboratories have started as suggestions from the people best qualified to make such suggestions: the users of MAICO hearing instruments.

Every hearing aid user has a vital stake in this research system. Without your ideas, gained from personal experience in using the aid, any program to provide continuous improvement in your hearing could proceed only at a snail's pace.

As you become more accustomed to your aid, it is fascinating to observe those who





really are handicapped . . . men and women who refuse to admit their hearing loss. You can learn much from them, and at the same time give them the hope that will one day start them, too, on the road to hearing happiness. For in them you will recognize the kind of life you have left behind.

Take the lovely wife of a business acquaintance, for instance. She always has that strained, worried look in her eyes. She hopes so valiantly that no one will notice her hearing impairment. Sometimes she irritates others, but you can understand what really is going on in her mind and heart—the reluctance she feels even to admit that something ought to be

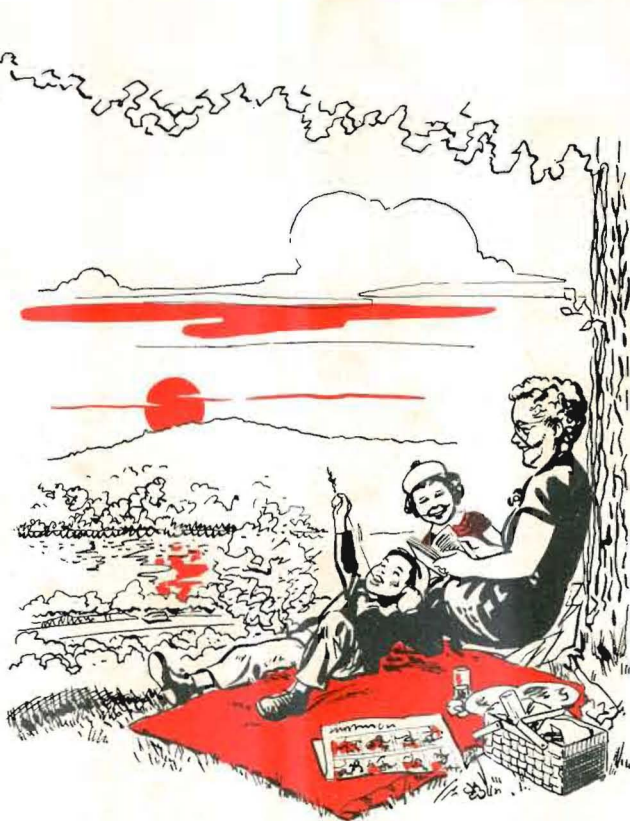
done. That “something” seems strange and unfamiliar to her, and so she hesitates. Her hesitation may last for years! How valuable your own experience in solving this same problem would be to her.

Or consider the bookkeeper in the office across the hall. Sometimes he wears his aid—and then, again, sometimes he doesn’t. You may have wondered why before, but now you’d have little difficulty in guessing the reason. He simply has never learned the correct use of his instrument. It may be improperly adjusted, or the ear mold may have lost its fit. A pity that he doesn’t enjoy the advantage of regular appointments with a MAICO Technician.

How important it has been, having a

skilled specialist to help you over the rough spots! And how lavishly it is paying off now. The satisfaction you have already gained from your new hearing, however, is only a hint of greater satisfaction lying ahead. The scope of your activities will continue to grow and broaden. Each new activity will bring experiences that add to your confidence. Naturally, and with youthful self-assurance, you take your rightful place in every group.

And all because, from the very start, you never thought of yourself, or let yourself become, a person with a handicap, different from other happy and well-adjusted people. Because you knew, deep down inside, that you could, that you would, enjoy hearing happiness.



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HEARING SCIENCE ADVANCES THROUGH MAICO RESEARCH