

CREDO FITCH HARRIS

of the Horse and Buggy Days
of Radio

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## To Robert Worth Bingham



Reproduced by courtesy of Judge-March, 1924.

Radio Fiend (at the "Follies")—What do you think, Maria? I'm getting Louisville, Kentucky, on my pocket set!

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WHEN my friend, Judge Robert W. Bingham, publisher of two large and influential newspapers—later to become the American Ambassador to England—telephoned me one peaceful April morning in 1922, there was evident, if restrained, excitement in his voice.

"What are you doing today?" he asked.

"Finishing the ninth chapter of my next book."

"Have you seen the Courier-Journal?"
"No."

"You may be aware of the fact that there is such a newspaper?" he pleasantly inquired.

"Vaguely." We both laughed.

"Then finish your ninth chapter—it's doubtless terrible—and drop in today, if you can."

Meanwhile I sent for the morning C-J and saw, streamer-fashion across its front page, that he intended building a "radio telephone broadcasting station." In those years it rated that staggering title. But I might as well have picked at random any four Sanskrit words in

a Hindu temple, for all the enlightenment they brought me.

Fate had mischief in her eyes that day. I was writing my sixth book and the contract called for its delivery the following November. It was to be quite a book, too, if you want to know! Laid in an Arcadian period of Kentuckv. with Mr. Henry Clay and other historical notables passing leisurely across the background, the story in front ran fast. Indeed, I completed the chapter that forenoon with a sigh of satisfaction, for my young and fiery heroine—then but thirteen—was stretched lengthwise on the lowest limb of a giant oak tree beneath which, she had overheard the night before, two men were to fight a duel at dawn. In her half-savage little way she imagined herself in love with one of them, quite three times her age, and had climbed to this position before sun-up, fervently hoping that his antagonist might be placed beneath her so she could suddenly drop upon his shoulders at the word "Fire" and divert his aim.

Bless her impetuous heart! She would have done it, too! But Fate was spinning a different weave, and I have left her in that tree now these sixteen long years. Without food or water, through blistering summer heat and winter snows, I have left her up a tree!

As I entered my friend's office, he began at once:

"I am intending to build a radio telephone broadcasting station, and hope you can organize it for me—get it going!"

"I never heard of it till this morning—don't know what it is!"

"No one else does, much," he answered. "It's new, and amazingly incredible. There's one in Detroit, I understand—or maybe it's Pittsburgh. If you have no engagements, you might run up to those places and see!"

"What does it do?" I asked, thinking of my next chapter.

"I am told," he began—and then launched into a tale more weirdly impossible than anything to be found in the Arabian Nights. Fascinating, yes, but utterly, absurdly visionary. Yet he continued, pointing out blessings which the ridiculously mysterious jigger would bring to humanity, to the isolated, sick and blind. He said that my voice would carry without assistance for more than a thousand miles—

I interrupted nervously: "You mean my voice?" A vague uneasiness for this beloved friend had started a rippling in the skin of my back.

"Certainly! It will span bridgeless chasms,

fly over tree tops! By stretching a piece of wire along the roof of a mountain cabin, the family living there can manipulate a little box and find themselves in a pew of a city church, in a seat at a concert or desk in a University."

I was now alarmed. He had been working intensively on a number of interests, and I conceived the idea that his nerves were beginning to pay the piper. While I wondered how I might diplomatically suggest a cruise or other complete rest, he read these thoughts in my lugubrious face and burst into one of the most wholesome and contagious laughs I have ever heard in my life.

"That's what I thought about the manufacturer's representative who told me," he kept on laughing. "But, seriously, it is said to perform all those things. It surpasses legerdemain, and even approaches divine miracles. It may be a divine miracle, if handled properly. I intend getting one for the citizens of Kentucky and Indiana, to give them pleasures, diversions, religious consolation, simple rules of hygiene—in fact all manner of enlightenment, especially to some parts of our mountains where a fine and forthright people are completely shut in."

He talked for another half hour, then paused: "If you could see your way to get it organ-

ized for me—perhaps ask your publisher for an extension——"

Long before that my fears had flown, and in their place came a kind of hypnotic sublimation which held me agape before this man-made thau-maturgical invention. I had been led into the garden of Parizade and placed beneath her Singing Tree whose leaves dripped harmonies. So—I sent the telegram.

Somewhere in the limbo of my desk at home are the yellowing pages of those nine chapters. Up in Mercer county a little girl still lies, stretched out like a panther, on the lowest limb of a giant oak tree waiting for me to come and get her down. But I haven't the courage to face her, now. In fact, I've forgotten her name.

Thus was it that I stepped into the most exacting, maddening yet satisfying profession of the twentieth century. Dr. Ernst Hochstadt, professor in the University of Vienna, recently announced that from experiments on some of the students he believes it to be "as tiring listening to a noisy radio for ten minutes as climbing eight flights of stairs." Quite near the bull's-eye, Doctor! In fact, a remarkably fine shot! If, by comparison, I have worn thin the steps of half a dozen Statues of Liberty, what of it! Who, once yoked to this greatest of all

humanitarian devices, having nursed it from infancy to the giant it has now become, could turn away? Many a night it has made my pillow restless, and many a day poured acid on my nerves. On the other hand, out yonder into a space where receivers are, there have been millions of pillows, hot through disease and pain, that it has cooled; millions of tortured nerves that have been soothed to sleep.

Please understand, the credit is not mine. It belongs to that friend who was courageous enough, public spirited enough, to lay his money on a dream.

Full fifteen years have passed since then. The present age of broadcasting and its commercial aspects is a far cry to that early little band of adventurers, asleep to the possibilities of making money, who were reconciled and indeed quite happy to give with a prodigal hand in lieu of a daily bushel of "thank you" letters. So much white water has roared down the rapids that some may find it difficult to understand the publisher's willingness to build an expensive apparatus solely to benefit mankind. One might pardonably infer that, even though no financial return were possible from the station itself, he hoped it would be a means of increasing the circulation of his newspapers. Such a result did

become patent within a year or two, but when we first discussed it upon that memorable day, which changed the current of my activities, he was drawn by its fascinating mystery as an agent of public service. It was too strange and new for wider comprehension. This I know, as I have known him, his mind, his great heart for half a lifetime. We were but gazing uncertainly into a feeble dawn, but his penetration reached much farther than my own.

Such an utterly diversified change in the conduct of its affairs from then to now, and the terrific speed with which broadcasting has advanced, seem to have thrust its beginnings deeper into the past than they actually were.

The drama of their early days is practically lost. Especially our first two toddling years might be entitled to a small niche in this twentieth century of swift progressiveness before entirely retreating beyond the reach of memory.

Their secrets lie before me in a huge mass of yellowing papers, already covered with dust, which are the only source now extant to reveal the intimacies of the birth and rearing of the first licensed radiocasting station in Kentucky, one of an early handful in the United States, which operated on the highest known power

for broadcasters then devised by engineers—500 watts.

Contemplating those two tempestuous years one is subconsciously touched by the ancient saw that "the first two years of marriage are the hardest," but no discord in wedlock, no union of Incompatibles, has yet produced for man or woman such derangements as the borning and weaning of that cantankerous little devil, named WHAS, which thrilled the country in those early days of what Congress now calls "The Art."

Today broadcasting is matter of fact. The romance of listening to voices coming through the air without visible assistance, penetrating walls, water and earth with equal facility, has to a great extent disappeared. The receiving set is no longer an object of amazement. Its place in the American home is permanent and, perhaps because it is more used than any other fixtures except beds and chairs, the mysteries back of it have become commonplace.

Not so with the debut of that old broadcaster. The whirl of its adventures were so interwoven with smiles, laughter and tears—even quasi tragedies—that it would be impossible to do them full justice without embracing too great an exactness of detail for a one-volume book. Much,

therefore, shall be omitted which might otherwise reflect the station's early influence upon educational, civic and religious life within the hearing of its voice. As each day brought at least one event worthy of being recorded, those first two years alone—a period now viewed through dim glasses—would mean the inditing of upwards of a thousand such incidents. It is no use trying. Only a few peaks may be recounted here from the jumble of old records, but if they re-create certain erstwhile memories now lost in the acceleration of development, these pages may be said to have served their purpose.

HAVING gleaned all that was gleanable from the studio director in Detroit, while our one and only operator drew dark secrets from a chap who toyed with a slide-rule and posed as "technician," we dashed back to Louisville agog with knowledge. What a pitiful amount was required in those days!

The Department of Commerce controlled whatever radio affairs were astir at the time, for the Federal Radio Commission and the subsequent Federal Communications Commission were pleasures yet to be experienced. Under the Department of Commerce reposed the Bureau of Navigation whose chief, Hon. David Carson, had, by genial permission or otherwise, practically as much say-so about this infant industry as Mr. Secretary Herbert Hoover, himself. I rather thought at the time that neither of them took their child very seriously. Subsequently they did, as they also became my friends and advisers on many occasions.

Thus to that Department we wrote that I was

coming for a license to operate. The law requiring such procedure seemed scarcely to have been printed long enough for the ink to dry. There was no question of denial, for what difference could a radio station make in the serenity of our national life? Who wanted to spend money for one of them, anyhow, when few people would go to the costly trouble of buying some mysterious kind of a contraption which might, or might not, enable them to listen? And listen to what? More particularly, for how long? The great American public knew little or nothing about it, and even those who did, conceived it to be a sort of glorified toy that would soon drop into disuse, like Christmas dolls and wind-up trains.

Such expressions were not infrequent after the newspaper story apprised our town of what was coming. The average Mr. Citizen merely followed the skepticism which beset many great inventions during their days of infancy. The first steamboat launched in Philadelphia by John Fitch in 1786 was considered a freak by wiseacres and they turned their backs to pleadings for pecuniary assistance. About twenty years later Richard Trevithick showed to gaping London a locomotive, puffing around a circular track, but scientists branded it utterly without commercial possibilities. When the Wrights, at

Kittyhawk, flew their first aeroplane the majority of intellectuals viewed it as "sensational but valueless except for circuses and suicides." And many other priceless inventions, of course, between Fitch and the brothers Wright suffered like indifferences—only I can't remember them, nor should they have a place here if I could.

Yet, were my trusty encyclopedia to heel, I would no doubt discover among that great skeptical laity a few rare spirits with visions—or faith, if you choose,—sufficiently strong to pierce the opaque future and translate the awkward self-propelled tub, the clumsy locomotive, the frail airship with its breath-taking flight of three hundred yards, into crystallized dreams of world importance. High in that list would stand my friend, the publisher, who saw in radio—not as much as it has become or will yet achieve, but enough of its humanitarian values to justify the great adventure he had launched. For he, too, dreams dreams.

In the Department of Commerce a young man stated that our call letters were WHAS, our wave length 360 meters, except when broadcasting weather reports when we would use 485 meters.

"What does WHAS stand for?" I asked.

"Search me," he answered agreeably.

"But what does that mean about 360 meters for programs and 485 for weather?"

"I suppose you'll have to work it out for yourself. I'm just reading it off your license."

"Your gratuitous information is dazzling," I murmured. "It's like the man who gave a beggar a penny and asked him how he became so destitute. 'Same as you, sir,' wheezed the beggar. 'I was always giving away vast sums to the poor and needy.'"

His smile told me that he had heard it before. "Please realize," I continued seriously, "that you're looking upon the neediest needy who ever came in here. Isn't there anyone who can shine a little more light on the situation?"

"Secretary Hoover is in a meeting and Mr. Carson's away on a government boat. I doubt if the President would know. You might ask Congress. Anyway," he added genially, "I was told to keep this for you. You'd better take it."

And thus our first license was literally thrust at me. Looking back, it seems unbelievable that there should have been no "hearings," no entanglements, nor even a pleasant little legal battle which today, in similar circumstances, would be fought out before a body of honorable gentlemen,—the Radio Division of the FCC—sitting in banc with the wisdom of Solomon

stamped upon their patient faces, as they listen to a flow of technical nomenclature that fifteen years ago had not got into dictionaries.

Since those early days The Art has added a thousand words to our vocabulary—many of them unprintable.

That license, dated July 13, 1922, specified "360 meters for broadcasting music and like matter; 485 meters for broadcasting weather reports," and further granted us "unlimited time" of operation. But the dictates of caution, which actuate ventures of border scouts and pioneers, caused us to proceed merely with programs from four to five o'clock each afternoon and from seven-thirty to nine on weekday evenings. the entire twenty-four hours had been given over to us, those periods could be changed without further official parleys, and they were, indeed, frequently extended for special occasions. the other hand, I recall moments of aural agony when I wished they might have been condensed to extinction.

What logic gave rise to that mandate to tune a transmitter suddenly from its normal operation of 360 meters to 485 for the weather reports, and then quickly back to 360 for the continuance of a program, has never been explained and it still remains one of the most profound

Departmental enigmas. Practically none but farmers yearned passionately for news of tomorrow's weather, and crystal sets were incapable of serving distant areas. There were a few, though quite exceptional, instances of longer range receivers,—using earphones, of course. These were homemade affairs built from published diagrams and strung out from mother's parlor table to the kitchen, but so imperfect and confusing to tune that usually we had sent the forecast on 485, and were back again on 360, before the tyro had emerged from his wilderness of tangled wires, knobs, rheostats and other gadgets. The ruling was so patently absurd that the chief of the Louisville Meteorological Bureau personally appealed to Washington and had it changed. Parenthetically, for fifteen years I have tried to discover the father of it. None will confess.

In the beginning when 360 meters had been assigned to all stations, happily there were only a few and those widely scattered. For, although we did not become aware of it until later, it was impossible to tune those clumsy little transmitters with any reasonable degree of accuracy and, because of that, their mutual interference was negligible to the listener. Crystal sets, which remained constant and only caught the nearest signal were almost entirely used at

first. But shortly more efficient types began to be manufactured which could "pull in" distant stations, and therefore if all transmitters were operating on a precisely fixed frequency, with no variations whatsoever, listening to any particular one would have been unpleasant because of heterodyning from the others. That gradual improvement in receivers, as well as correspondingly more efficient transmitters, resulted in the necessity of giving stations different wave lengths, as at present. But that came later.

The way a transmitter was complacently assumed to be kept on its required 360 in those days would be amusing now, or horrifying. A government inspector arrived every four or five months to "measure" us. He carried a little black box with a meter in it—and perhaps other things, but I never looked. He discouraged looking, so the mystery surrounding it remained profound. He usually placed that box on a chair about eight feet from our transmitter while the apparatus was operating—a distance which was considered safe from the standpoint of interference that might readily be caused by the proximity of a human body.

You may not recall it—there is no reason why you should because it was an intrastudio problem—but transmitters of that day were very

sensitive to "body capacity," as it was called, which, translated into English, meant that if a person approached too near the apparatus something inside of it set up a violent squealing. I shall avoid technicalities.

In front of the main panel was a large aluminum disk with a center knob, devised by the manufacturer to vary its emitted frequency—similar to a peg for the tuning of a fiddle string which, by turning it one way or the other, raises or lowers the pitch. The supervisor would gravely and thoughtfully turn that knob back and forth, watching his meter betimes.

During this process his breathing always became labored, his brow puckered,—which may have been an individual characteristic or a desire to impress us. He would then take a pencil and make a thin mark on the disk's circumference, announcing solemnly: "360." Another mark: "485 for the weather." Without further ado he left, his manner indicating an unexpressed admonition: "Take care!" If those pencil strokes escaped being rubbed off by an over-zealous janitor some early morning, we probably retained an accuracy of five or ten meters, above or under par. Or if they remained long enough for the supervisor's next visit, it was interesting to ob-

serve that he invariably rubbed them out himself and put on new ones.

As a matter of fact, as I have said, it was the very antithesis of accuracy which made it possible for American stations, even few as they were, to operate simultaneously on what was blithely considered to be the same wave length. Had they maintained, as is done with present transmitters, a variation of the merest fraction of a cycle, the air would have been resonant with moans, groans and maniacal screamings. "cycle" was an unknown term of measurement and we little suspected there were 833,333 of them in our 360 meters. Today a broadcaster's channel, or its assigned wave length, varies but a fraction of merely one of these-like .1 of that last 3 up there! So much for the niceness of modern measurements. And thus, as on a railroad bed with many parallel tracks where trains can whiz by each other without touching, interference between stations, theoretically at least, is eliminated.

Our license was good for ninety days. Before the end of those three short months we were told to file another application for a further ninetyday permission. That procedure continued until a few years ago, when licenses—or franchises were extended to the noble length of six months.

Some future historian will write the surprising anomaly of these present day big businesses, which high powered stations have come to be, possessing faith enough to risk a fortune in an undertaking that holds no guarantee of continuance beyond half a year. For a station cannot own its wave length, as Congress had decreed that all radio channels belong to the public domain. I pray you, do not entertain the idea that our path is strewn with roses.

In recent hearings before the Federal Communications Commission, broadcasting during those first two years that we operated was twice referred to as "the prehistoric era." And, indeed, that expression fit it like a girdle. The dawning industry, compared to its present development, was tolerably suggestive of that first imaginary animalcule which emerged from ooze to become, in time, a mastodon—or man, if my fundamentalist friends will permit the simile.

Not until 1922 did the Secretary of Commerce consider broadcasting important enough to call a meeting of its widely scattered station managers and engineers, whereat both he and they floundered in possibilities, nodded sagely over probabilities, and spent hours discussing supposedly known principles which a year later were discarded in as many minutes. That nullifying

process took place at the Second Radio Conference in 1923, which brought even fresher possibilities and probabilities—though we were still in the "prehistoric era."

Yet most of us by then were of a notion that we knew enough to formulate certain rules by which the budding Art might be guided to a fruitful destiny.

And so we proceeded to do, with no slight feelings of importance. Gathered about the council table, someone said in a voice that shook with emotion:

"Gentlemen, this meeting is epochal! It will go down in history!"

He may have been thinking of Independence Hall, or Runnymede.

After the three days of profound concentration that it took us to hitch our wagon to a fine big star we adjourned, shook hands gravely—I blush to say pompously—with the Mr. Secretary who thanked us for our fine work. Then we bade adieu to the city of Washington, but had scarcely got settled down again back home when the star ran off and our wagon was a sight! The Horse and Buggy Days witnessed nothing so complete in the realm of demolition.

This required a Third Radio Conference, in 1924. It began to look as if each succeeding con-

ference was called to patch up the wreckage of its predecessor.

But it is none the less true that broadcasting managers-an accepted misnomer-had voked themselves with a youngster of such terrific speed, so agile in its changes from one aspect to another, that none of them was quite able to cope with it. It required special training of temperament which our former sane lives had failed to take into account. Without being able to do anything about it, we found ourselves dashing around in a wilderness of split-seconds. over, while we slept, unexpected theorems sprouted, grew, bloomed and had dropped their seeds by the time we came down to breakfast. Such devastating surprises even subdue the emotional squirt of a grape-fruit. Before luncheon new and untried mechanical appliances had, from all sides, sprung upon The Art with a confusion of madness, and by evening a visitor could instantly recognize the station manager by the wild, roving look in his eye.

On such a track began the race of radio with modern progress, and it has been tearing along—hell-bent, devil take the hindmost—ever since.

In that "prehistoric era" the poor little Art was indeed having a vexatious struggle wriggling itself up on the slippery bank to a higher

existence, courageously trying to flip whatever it possessed which took the place of fin or tail. Perhaps the handicappers of eternal Chance watched with equal interest the original protozoan when it, also, first beheld a new, frightening, sublime creation. Both, according to their genesis, seem to have made good; one having developed a thing which walked upon two legs and now goes forth in armies to slay its fellow man, whereas the other bred an oddity known as crooner.

Rather than leave those early conferences on a flippant note, even nugatory as they appear from today's point of development, it is fair that I record them as having been composed of serious men blazing their trail through a vastly complex wilderness, a confusing labyrinth of swamps where often our only light came from an elusive will-o'-the-wisp which we followed more because of faith than reason.

Five years later, 1927, came the first Federal Radio Commission which ironed out the kinks we had left and created an engineering force of great ability. Still later, by another Congressional Act approved by the President June 19, 1934, that Commission grew into the present FCC.

To GET back to our knitting! The largest transmitter then known was ordered, and a laboratory engineer came out ahead of time to select a place for its installation. We were becoming properly excited. He warned us that such tremendous power as 500 watts, capable of splitting atoms, must be handled with the nicest precision and delicacy.

No, he could not have said just that, for atoms were not considered splittable in those days, but at any rate his tutelage caused grave apprehensions of what might happen when the "juice" was turned on. And I do vividly recall his explanation of what a radio wave looked like:

"Throw a stone into a still pond, and the undulating circles, pressing outward, are an exact imitation."

It would be unfair to tell his name. But he was an outstanding scientist of that day, imparting the last word in radio erudition. The great Steinmetz himself might have said the same, back yonder in that "prehistoric era." It merely

shows what infants we were,—as another decade and a half will show what babes we are now!

Since the station was formally established as a department of two daily papers, and their articles of incorporation were changed to embrace it, we became by law and mutual interests one of that large family—the baby, true enough, yet definitely creating a third factor in the organization which was now composed of: a morning newspaper, an afternoon newspaper, and WHAS.

This I particularly wish to stress, because many of the old records on which my yarn is built happen to be closely interwoven with news rooms, and I would not have you feel that I am going far afield to make copy when the station's affairs and those of the Fourth Estate become properly identical. Such instances cannot entirely be ignored, although they shall be touched upon as infrequently as possible.

Our first idea of locating the studios in the parent building was discarded when it became known that vibrations of the presses would work havoc with microphones and other delicate radio adjustments. So we were given space high up in an adjacent storage building, where silence was the only virtue, and the construction of quarters went forward.

I shall never forget that studio. To reach it you had to take the Courier-Journal elevator to its topmost limit. There, amid the unceasing noise of busy linotypes, you might gaze around more or less helplessly until directed to a solid iron door. Two feet beyond this you came upon an iron and asbestos fire door. We must have been expected to burst into flames at almost any moment, because the underwriters specified fire doors aplenty. Stepping then upon an iron platform which spanned a dizzy height between the two buildings, you would climb a narrow iron stairway. It was not uncommon to see visitors carefully avoid touching that iron hand-rail, lest they receive some kind of an electrical shockfor the average mind was obsessed by curiously superstitious fears concerning us.

At the top of these stairs stood a large porcelain drinking water affair which a janitor filled each morning with ice. A few paces farther, still overhanging the chasm, was the little motor generator. Then, turning left, you would pass another fire door and enter our reception room. To one side of this stood the transmitter behind a glass partition, with a large and threatening red sign: "DANGER." Straight through the reception room was my office, with a secretarial

desk and typewriter. From this a door led into the music room—the studio in fact.

Perhaps that particular room was designed to be no more torturous than others of its kind throughout America.

Best acoustical engineering thought called for padded walls, padded ceiling and heavily carpeted floor. Not a whisper of sound could be tolerated from the outside. Within the room no slight reverberation of a musical note was supposed to bounce from any surface and distort microphonic reproduction. Our windows were small, very small, yet they must be tightly closed and covered with padded frames. Electric fans? O, horrors, no! Thus spoke the experts before experience taught them kinder ways, and as a matter of course their finished product looked and felt like an air-tight padded cell. It was a madhouse, too, upon occasions!

From the first we had realized the solemn responsibilities this new science had placed in our hands, not alone for the opportunity of spreading information but to guard against the grievous fault of broadcasting misinformation.

Fairness dictated that both sides of acute controversial questions must enjoy equal opportunities to air their views. Civic problems, pro-

hibition and its opponents, politics were finely balanced to the minute.

During a state senatorial campaign in 1924, when our independent newspapers were strongly supporting the Republican candidate, I telephoned Democratic headquarters:

"It's three days before election, and the Republicans have had an hour and forty-five minutes more radio time than you fellows. Send over some speakers to even things up!"

"Sure!"

That established policy continued even beyond the year when broadcasters awakened to the fact that they had been giving away a lot of valuable service which should be paid for. The bright radio manager who first adopted this new and, at the time, rather astounding policy is unrecorded. In fact, several stations may have been quietly feeling it out in a timid way—as an elephant cautiously tests the strength of a bridge before venturing to cross it. However that was, we had been on the air more than three years before it burst, apparently over night, and I remember that when it went off in my face, so to speak, an earthquake would have been less startling.

A dynamic, wholesome looking cuss dashed into my office that pleasant October morning in

1925 as if he had only ten seconds to catch a train. He came from Chicago, and brought its stimulating breezes with him. Before he talked fifteen minutes I felt like I'd been taking a guaranteed tonic for six months. His idea was exadopted, and The Mid-Continent Broadcasters' Association became a fact. Five other stations besides our own, representing Chicago, St. Louis, Denver, Ft. Worth,—the sixth eludes me—would take an advertising program of one hour, which he was prepared to sell. In the order named, these would cover the week-that is, Chicago on Mondays, Louisville on Tuesdays, St. Louis on Wednesdays, Denver on Thursdays, Ft. Worth on Fridays, and the one I have forgotten on Saturdays. The client, a cigar manufacturer, would thereby get coverage from some mid-continent point with great regularity. Each station would charge him \$400 an hour for time and music, and the contract would run ten weeks.

Parenthetically, that client, desiring to test the pulling power of this new advertising medium, included in his copy for these microphones an offer to mail, free of charge, three cigars to everyone who wrote him. During our third week he wired an urgent appeal to the six of us: "Please stop immediately. Am using twenty

girls to mail cigars and four days behind already. We cannot stand it. No one can stand it. Stop immediately." So our first customer folded up because of too much advertising, and the Mid-Continent Associates, for some forgotten cause, dissolved. But we had launched into the selling of time.

Thus was borne to the ear what is now internationally known as "the American system." The irritability it soon stirred up has never been matched on land or water. Earlier contented listeners suddenly exploded and showered us with indignant letters. One wrote: "If it's the last act of my life, I'm going to invent something to turn my radio off during those advertising talks, and turn it on again when the music starts!"

But before this man's genius had had a chance to bloom he, like most of his countrymen, began to realize the advantage of the American system over the so-called "European system," where governments own the stations, prohibit advertising, and listeners pay a yearly tax on each receiver they own. A proportion of that levy goes for the buying of radio entertainers, and the programs are said to be inferior to ours. I do not mean that foreign countries lack artists entirely comparable to those in the States, but the

broadcasts suffer from an absence of competition.

Here, large advertisers employ trained staffs to build the best available air shows, and cost means little when vieing with the standards, charm and interest of preceding and following periods. None can afford to suffer by comparisons. They pay staggering prices for Metropolitan Opera stars and choruses, symphony and dance orchestras, headliners from successful theatrical productions, tragedians, comedians, punch and punchinello, picked up from coast to coast upon a network of copper wires and brought to millions of firesides. American listener, in lieu of touching the nerve of his purse for another tax, rather prefers hearing a few words about some motor car or cigarette as payment for a snappier, better and greater variety of free entertainment.

An English visitor in our studios was quite interested that we should keep at hand trained substitutes for expected entertainers who, by some untoward circumstance, might fail to appear. He explained that the British Broadcasting Company would merely shut down and wait. And when I began to smile—for it really was amazing—he defensively exclaimed: "Why, shortly before I left, a chap who was to have

done an hour of something never showed up at four o'clock! The station merely told us it would turn off until five. I think they were jolly well right!"

Such delightful loitering as he pictured in the English studio was sweetly reminiscent of an old swimming hole, of days spent in poetic languor down on the farm. It brought to my apathetic tendencies a pleasanter feeling than our split-second, frenzied American way. So I'm a convert to the European system! But would you tolerate it? Nay, my dear spoiled, nervous, listening children! You'd quickly take my head off!

When the swing to commercialism arrived, the erstwhile balance of time between political parties was in a measure destroyed. We still make more or less ineffectual efforts to keep them even, and indeed give an equal number of gratis periods up to the date when candidates are announced. Thenceforward, until election, their speeches must be paid for. Entering a campaign, should one side buy ten hours and the other six, we naturally hope the lesser will add another four. But if it will not, or cannot, the situation is stymied. To make up differences free of charge, one way or the other, would be greatly unfair—and with us all propaganda is

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punctiliously avoided. Regardless of which side our newspapers happen to be supporting, their radio station keeps hands off. Never has a political editorial been read through our microphone. Because of holding ourselves to this strict accountability, candidates have sometimes accused us of being "tough." We are not "tough." We are fair, and recognize the grave injustice of throwing the weight of radio upon the side of our own political interests.

You should not have let me run on, this way! Now we shall have to turn back nearly three and a half years to get to the beginnings of this narrative again.

After our return from Detroit, while waiting the arrival of the transmitter and the completion of that iron platform between buildings so we could cross without having to swing on ropes like Sinbad, I found another office space and began to write masses of letters. The director up in Michigan strongly advised this, for his station had opened nine months before my visit and he was old with wisdom besides having lost twenty pounds. Following his tip, I gathered a list of musical persons in Louisville and contiguous areas, and began my letters—explaining what a radio telephone broadcasting station was and inviting them to come and register their

willingness to entertain for us—free of charge, as a matter of course. The idea of paying radio talent was then as remote as selling time to advertisers.

I was careful not to say to the prospects as much as the publisher had told me that first day I called upon him, for had I got into the enigmas of "a small piece of wire on a cabin roof," and the manipulation of "a black box" acting as a magic carpet to whisk them over the earth or even to Mars, they wouldn't have come anywhere near us. They might have turned and run at my approach. And we needed them, not alone their abilities but their friendship, faith and loyalty.

For it should be remembered there were no networks in those days, and no electrical wizard had devised a way of picking up entertainment by telephone lines at remote control points. Every program we broadcast had to originate within our own padded room, so it was necessary to have a long string of volunteers on call and for them to be dependable enough to cross our threshold promptly thirty minutes before starting time. Otherwise there would be no concert, or one that got off late. What those troubadors wished to sing or play I left to their own choosing, and half an hour was none too long in which

to orientate their introductions, think up a few words about each musical selection and, if possible, some interesting fact concerning the life of its composer.

Although the Department of Commerce had granted us use of the entire twenty-four hours, should we want it, on the other hand there might be trouble afoot were we to remain entirely silent or even tardy in beginning periods which we had publicly committed ourselves to fill. So my letters, while meant to be subtly enticing, were emphatic.

You may think that the preparation of shows from four to five o'clock every afternoon, and seven-thirty to nine each night except Sundays, would be quite a simple undertaking. Comparing that weekly total of sixteen hours to our present schedule of one hundred and twenty-four, it is. But sometime when you've nothing else to do, try it for a few years, depending entirely upon unpaid amateur talent. First, however, accept a friendly tip and engage your room in a sanitorium.

The scores of daily replies which began to arrive reflected a fine co-operation. Except for a few who expected babies, I do not recall that any declined. At times the queue of registrants outside my door seemed interminable.

One woman with tender eyes, whose telltale throat hinted at how long ago she had passed the age of feminine despair, came to say that although she had not been invited nor had she sung for several years, she would gladly make an exception in our case; and that her husband, "celebrating tomorrow his seventieth birthday" had really a lovely tenor voice.

This is not written in levity or disrespect. It was a kindly and courageous gesture—more kind than wise, perhaps. A stout heart rested there, and if the voice had wandered off and got itself lost in the shadows of proud memory, what of it!

A few weeks later, when driven desperate by a last minute cancellation of a flu-stricken quartette booked for the afternoon program, and further distracted after my secretary and I had called a score of telephone numbers only to find they led into an epidemic of colds, I bethought myself of the elderly soprano and her seventy-year-old husband tenor. You understand that I was quite desperate. The starting hour was close upon us. Another telephone call! Almost at once a taxi was speeding after them, and they arrived breathless but in time. Writing this many years later, I am glad they had that one great radio adventure. Of its kind, it was

their only one. Both have since joined the Celestial Choir. Sweet sing to them!

No, I positively had nothing to do with that! It was a motor accident in California. In fact, among those who came to our studio, there was only one woman whom I really wanted to kill. But that's—(I wish Kipling had not written his haunting phrase! Right here I should delight in saying: "But that's another story!")

I may have mentioned that our first summer was excessively warm, the heat in our studio terrific and the air unspeakable. If so, it is because the padded, tightly shut room has left an everlasting impression upon me. After a night program, when a dozen horn blowers had done their half hour, to be followed by a vocal chorus of thirty minutes, and this succeeded by still another thirty minutes of arias, ballads and recitations, there was nothing so sweet as a breath of outside air, even in the alley. Of course, all has changed now. Our present large and beautiful studios are air conditioned and we work in the lap of luxury. Money was at hand to be lavishly spent for our comfort in those days, too! But acousticians were as far behind in the science of treating such rooms as we were in the art of radio, itself. No one was to blame.

As our opening night approached, citizens al-

most raided electrical stores to buy crystal sets and earphones. Tube receivers had scarcely come into the broadcasting picture. A scattered few were built by budding young engineers (without loud speakers, of course), vet they spread out over so much room-or rather so many rooms—that few homes were physically able to house them. Crystal sets were fairly good while they worked. On going dead, the frantic fan would wiggle his wire whisker to another part of the crystal, or another, and still Then he might dash to the medicine chest and give it a dab of rubbing alcohol. If that failed he might put it in the oven for a ten minute baking. Meanwhile the concert was probably over. Those were good recipes in their day and generation, and during our first year of broadcasting we must have repeated them by telephone to a thousand anxious inquirers.

Carefully I had gone over my talent list and picked out the choicest material for our first big night, announced to open Tuesday, July 18, 1922. A cinema concern moved in to take a thousand feet of film. Some of it they shot in the afternoon, keeping a reserve for the first studio program. That reel, by the way, was later shown in almost every theatre of size throughout Kentucky and southern Indiana.

By half past six o'clock newspaper photographers, executives, departmental heads, reporters and a few especially invited others had arrived, and were very much in the way, standing around with mouths more or less agape while cautiously refraining from coming into contact with any metal surface. Will I ever forget it!

We were to open at seven-thirty o'clock. Yet by seven each singer and instrumentalist was placed, as well as eminent citizens who, according to pre-arrangement, were to be introduced to our great unseen audience. Then the movie men began to grind. Their klieg lights added to the dazzling ensemble, and to the heat. By seventwenty the studio was closed. There we waited as the clock ticked off minute after minute. Mercury in the thermometer was about the only other thing that moved. Then, one by one hand-kerchiefs appeared, but I frowned them back into their pockets. Handkerchiefs might make a noise.

Two minutes more to go! At the end of those torturous one hundred and twenty seconds a red signal light would flash on the studio wall, and we would be—on the air! I explained this quickly in a hoarse whisper, and once more warned the room to silence. No cough! No sneeze! My heart was pounding. Our star

soprano was breathing painfully. I could see the contralto's pulse beating in her throat. All nerves were tuned to concert pitch. Suddenly the red light glowed! Someone gave a little gasp. I, also, wanted to gasp, but swallowed it and exclaimed in my best manly voice: "This is WHAS, the radio telephone broadcasting station of the Courier-Journal and the Louisville Times, in Louisville, Kentucky!"

It was the first cry of our infant broadcaster. A rather long cry, but a lusty one.

I had rehearsed it at home until the family was almost crazy, and had further prepared a brief explanation of what our adventure hoped to accomplish. Those who lived more than a thousand miles away were asked to wire us, collect, if they heard us or not—a somewhat ambiguous Irish twist which got by without comment. But afterwards a destitute creature accused me of having said to send those telegrams "prepaid" instead of "collect." Maybe so.

Now came the moment for introductions of executives and a few broad-browed notables who were waiting in line, pale and perspiring. They looked frightened and forlorn. I recall thinking that they looked very much as I felt.

It was expected, as a matter of course, that when their names were called each would step

forward and at least say "Good evening," or "How-do-you-do." But microphone-itis is a fearful disease, and as one after the other was presented he made only a low, courtly bow in the most—or nearly most—approved drawing-room manner, with never a word coming from his frozen lips.

Those silences were awful. They fairly thundered, seeming to shatter the calm air with ear-

splitting roars.

It is gratifying to exonerate our president, the publisher, from any such exhibition of microphone fright. He was out of the city. Yet, even if he had stood in that palpitating line-up, I shall not believe he would have let me down as those others did. Until then he never had, nor has he since, so without conclusive evidence I find it difficult to conceive his nerve failing at the very moment when our little bark launched upon uncharted seas—and rough seas, too!

However, (there's always a however) that old carbon microphone produced amazing and terrifying effects upon those who faced it! Buck ague, fire panics, bayonet charges were child's play in comparison.

I did not sleep much that night.

Going in town next day I passed a church. On the bulletin-board out front was the subject of the pastor's following Sabbath sermon: GOD IS ALWAYS BROADCASTING.

Broadcast had instantly taken its place in the public mind. At least, throughout our locality, it became an active and controversial subject of conversation, whereas two months earlier the word was scarcely mentioned. In fact, I did my utmost at dinners and other gatherings to steer away from it, rather than openly admit ignorance.

But that minister's salesmanship appealed to me and, wishing to enlarge upon a beautiful thought, I added to our schedule a Sunday forenoon service from ten to ten-thirty o'clock, quickly ordered a melodeon moved into the studio, and an electric motor device placed outside the wall to keep the bellows pumped up. As I have said, our license was for unlimited time.

Frankness compels me to confess that, in the general rush and confusion of getting started, I

had inexcusably overlooked church services on the air, for it was known that WSB in Atlanta, which had opened two months previously, was broadcasting a church service and there must have been, of course, others. I was told, however, that these religious periods were consistently occupied by a single denomination, and it seemed that greater spiritual comfort might result by rotating preachers, thus from week to week more emphatically appealing to that particular group of listeners which shared his creed. All might listen, but every so often a certain section would be more intimately affected. So, it already being Wednesday, I dashed from minister to minister of a selected group. Each enthusiastically accepted the invitation to bring organist and choir at ten, on specific Sunday mornings, at which hour they could finish in time to make their regular eleven o'clock pulpit engagements.

The very next Sunday, having opened the station, introduced the pastor, organist and choir, I slipped out and started the motor as he was announcing the first hymn.

That July was unbearably warm, anyhow. (Do, please, excuse such repetitions! I only meant that that July happened to be sizzling hot.) While the third verse was being sung I

entered the studio again and saw that a peculiar change had come over the organist. The minister noticed it at the same instant, and we raised our eyebrows at each other in silent questioning.

She was a florid person by nature, but now her face seemed livid. Her hips were doing curious hula-hula motions on the organ bench, anything but church-like, and really for a moment I thought a mouse had started up the clock. The parson and I, stepping cautiously, peered for-Then came the dawn. The poor lady had not known about the electric blower, and she was trying to pump the unattached pedals with all her might. The fact that they were unattached-"floppy," without the spring-back pressure she had been expecting to feel against the soles of her shoes-converted her endeavor into one of mental confusion and physical impossibility. Yet she was keeping at it with alarming gusto, gripped with a sense of suffocation and panic. Chin set, jaw muscles rigid, one could see at a glance that she intended to get that letter to Garcia or know the reason why.

Our preacher was a marvel. In another minute the hymn concluded and he actually prayed with a straight face.

Quickly, during the prayer, I slipped outside again and brought the puffing organist a glass

of water, fearing that what she needed most might be a doctor. Pantingly she whispered:

"Can't I use the piano? This organ has something the matter with it!"

In another whisper I explained about the electric blower, which struck her as being so funny that she began to laugh. Silently, of course, but it was gaining momentum and fast approaching an explosion. So I pinched her.

Within the studio it was not uncommon to spring some quick, and often rough, surprise upon hysterics. Anything to make them snap out of it was pardonable rather than letting their paroxysms get on the air. We met those cases frequently then, for all who came to perform approached that poor "mike" with fear and trembling. Their nerves were stretched far toward the breaking point and the amount of self-control they had, determined a good performance or complete disaster.

We scarcely ever meet the temperamental artist nowadays—at least, not carried to extremes of hysterics. The early mysteries and glamour of broadcasting have passed. It's delicious thrills are no more. Like the automobile of today, it has become a necessity and big business.

As these radio church services progressed we

began to see with gratifying surprise the widespread good they were accomplishing. A report reached us of a storekeeper, in a nearby river village, who purchased twenty crystal sets and earphones in order that his neighbors might foregather for the "preachin'." They took it so earnestly that when the radio minister said "Let us pray" men and women kneeled humbly on the bare wood floor. More reports came, particularly from shut-ins who had no other way of attending church.

Hundreds and hundreds of pathetically grateful letters from shut-ins really plunged me into a black depression. I had had no concept of the fact that there could be so many paralytics, lame, halt or blind tucked away—with tender care, for the most part—in top or back rooms of as many homes. While visitors came and went below stairs, those others were the attic hermits whom the public did not see. It was only when our station became a daily companion that their years of loneliness found expression in penciled words.

These were not local, by any means. From Wethersfield, Connecticut, came a letter—it lies before me—saying: "I am glad to write and congratulate you on your wonderful broadcasting. I have a broken back, and your station

makes a fellow feel happy, and the programs are marvelous. I want to send my congratulations and best wishes, and hope they will be accepted as I always enjoy tuning in your station."

He was one of the early investors in a tube set, quite new upon the market, using earphones, of course.

That, and other such letters, more than repaid our public-spirited publisher for his heavy expenditures in radio. His dream was coming true; a genuine satisfaction in bringing to just such unfortunates a new and exciting pleasure was his dividend.

While many wrote touchingly about the Sunday morning services, which were of a more personal nature than musical broadcasts, several hinted at a drawback, and it became apparent that some means must be devised for annihilating the spiritual distance between microphone and listener, pulpit and pew. Because of the obvious fact that our radio congregation was made up of all denominations, I asked our ministers to avoid sectarianism and build their sermons solely upon a fine human philosophy, thus touching all listeners alike.

This met with serious objections in some—happily very few—quarters, but those were quick and vigorous in calling me to account.

What authority had I, one demanded, to tell him how he should or should not preach!

(I only write this to record the early resistances and confusions which surrounded the beginnings of radio while it was gathering speed.)

Well, I really had no authority, at all, if put like that. It was merely an idea of mine, old as the hills, no doubt. Voltaire was young in it when he wrote: "To worship God, to leave each man the liberty to serve Him in his own fashion; to love one's neighbors, enlighten them if one can, pity them when in error, and attach no importance to trivial questions which would never have given trouble if no seriousness had been imputed to them." Concluding: "That is my religion, and it is worth all your systems and all your symbols."

Jesus expressed it in a more beautiful and simple way.

Confucius touched it in a kind of negatively phrased "golden rule" to his favorite pupil: "What you do not like when done to yourself do not do to others." And, as China had a literature fifteen centuries prior to him, it was permissible to suppose that the same tolerant viewpoint might have penetrated farther into dim antiquity.

Suggesting this to one gentleman who had

stoutly averred that he could not preach without a direct mention of his own particular faith, I fear that I lost a potential friendship. At any rate, the majority of invited ministers accepted the mutually advantageous censorship, being quick to perceive a patently wider good they might accomplish by it.

One really great preacher came in several times to discuss the wisdom of these radio services. He was whole-heartedly in favor of them, but wanted me to realize certain dangers along the way that should be avoided. For already, in a few outlying churches, irate ministers had begun to preach against the destructive influence of this innovation. Invariably parts of such tirades got into newspapers—being legitimate news, as all news is which recounts the changing of old orders—and left me worried.

Early one Monday a particularly militant gentleman called. There was blood in his eye, and with an uncontrollable outburst of feeling he began, "This thing you have built here is a scourge spot! You are robbing the churches of God!"

It was an attack of peculiar virulence and malevolence that almost brought me out of my chair.

I may be entirely wrong, but I could never feel that because a man wears sacred cloth he

must be handled like a touch-me-not. To do so is hypocritical, and hypocrites are liars. Besides, thinking quickly over the last few thousand of my sins, I failed to recall robbing a church.

"You have made a somewhat amazing statement," I said. "Suppose you explain it."

A hatred crept into his face that, really, changed him from a man of God into a restrained savage—and not much restrained, either. The metamorphosis was shocking.

"It requires no explanation—to you!" That "you" was so venomously shot at me that I could feel hell fire licking my ankles. Yet his anger would not suffer him to stop there, and again he burst forth: "Yesterday nearly half my congregation stayed at home!"

"I suspected as much," I replied as quietly as possible, trying to turn the other cheek. "They stayed at home to hear a better sermon—wait a moment!" For he had started to talk again, and it was my turn. "This thing we have built, far from being a scourge spot, is putting brains in competition with the world. If you can't meet that competition as a minister of the Gospel, don't come here blaming us. Blame yourself. If your pews are empty——"

With a kind of snort, he left. Which was too bad, for I had a lot more to say.

After all, his soul was compressed into a single agony of loss, impotence, failure. I felt sorry for him then. And do now.

As a matter of course, we did not want to take away from regular church attendance. We realized that there did exist a certain type—he may still be found—who would listen to the radio church and then consider his conscience entirely satisfied for the rest of the day. And there were others, hungering for intellectuality but having suffered innumerable Sundays under the tirades and platitudes of the commonplace, who would turn happily to their radios as blessed avenues of escape.

New ideas began to blossom, for "de sun do move" and brains are entitled to endorsements. We took another step—a real plunge this time—and each minister, in his turn, announced that we had inaugurated a "WHAS Church Service Congregation, offered to those who are shut-in, or those who are not now happily or conveniently identified with some organized church." Saying, further, that "the membership entails no obligation other than a desire to continue the unity of the spirit which you are taught by your faith, and attendance upon some church service, other than the radio service, when possible."

These application blanks were mailed upon

request. When filled out and returned, Membership Cards were sent which stated:

# THIS IS TO CERTIFY THAT

Having Made Application For Membership In

# WHAS CHURCH SERVICE CONGREGATION

Is hereby declared a member, conditioned upon a desire to continue the unity of the spirit which he (or she) has been taught by his (or her) faith, and attendance upon some church service when possible, other than the radio service.

These ten o'clock Sunday morning studio broadcasts followed the pattern of regular church services, except that they were in a condensed form. I think that those brief sermons were as brilliant as any that I have ever heard—wholesome human philosophy, charity of mind, tolerance, kindness, neighborliness, immortality—all chords were struck in the finest perception of life and conduct.

Within six months we had mailed cards to more than 20,000 members. The unique aspect

of this vast congregation of the air was its allembracing denominationalism. Numerically as strong as an Army Division, these people met reverently Sunday after Sunday, through the necromancy of radio, to worship God simply for His Own sake, hearing nothing to remind them of the biases of dogma and creed, forgetting little jealousies, and attaching "no importance to trivial questions." A Baptist minister followed a Presbyterian, then came the Methodist, Episcopal, Evangelical, Jew, Christian, Adventist. They never missed, never forgot rules, never failed to strike a divine spark of inspiration. They were an outstanding group of men, and the success of our effort belonged personally to them. Yet there was I, poor piece of clay, presuming to direct from behind scenes though having no church of my own. Still, it's the consciousness of a devil in the offing which makes preachers work.

That WHAS Church Service Congregation marked our first and most profound epoch in radio advancement. Studio services still go on, and that "really great preacher" to whom I just referred has unfailingly continued throughout these fifteen years to take the first Sunday of each month. But membership cards have long since been abandoned. Eventually the national

networks came into being, using numerous outlets which served more satisfactorily distant areas with a Church of the Air.

One of our first gratifying returns was a letter, written with difficulty, from a woman in southern Indiana. It was dated "Sunday."

"Dear WHAS, for the past nineteen year I've been living from my bed to a wheel char and back to bed, and aint never had a chance at going to church except listening to yore radio and that seemed a long way off. But last week my membership card come. This morning I opened the Book on my lap, laid my card on Its blessed page, and felt just like I was setting in the front pew."

We were encouraged.

Wielding such influence, the power of radio became more and more apparent. There was no imposition of an arbitrary censorship then, nor is there now, except within a station manager's concept of propriety. But I realized, and have continued to realize through the years, that upon each microphone, upon the conduct of each station, must rest a solemn obligation. So I

posted a Code in the studio which to this day has remained unchanged:

### "THE WHAS CODE

"A station's value is in proportion to the esteem of its listeners.

"One objectionable word will ruin the most beautiful program ever built.

"Had the Lord written an Eleventh Commandment it might have been:

Thou Shalt Not Be Common.

"Entertainment, if not in good taste, belies its name.

"Mispronunciation is worse than no pronunciation.

"Avoid controversies."

And beneath this I attempted, alas! to editorialize:

"The culture of a people is molded by spoken words. There are said to be nearly a million receiving sets in America. An audience of this size is impressive, but that it should be under the domination of relatively few microphones is startling. The possession of such power to influence, places squarely

upon the voice of each station a solemn responsibility for decent and intelligent address. Failing in either of these, silence becomes a virtue."

I could not help smiling just now as I copied that yellowing, dusty page. Mile-posts have sped by rapidly. Nevertheless, our old Code is even more valuable today, when two-thirds of the nation's population are forming ideas from six hundred microphones, and children's minds are everywhere being grooved into habits of thought—tidy, or otherwise.

In those days there were ten or twelve dance orchestras which freely offered us their services. It was a type of music I personally could have done without, but quite eighty per cent of our mail called enthusiastically for more of it. Jazz then must not be confused with the swinging, rhythmic simulations of today. No selections would have been considered beautifully finished without the introduction of a crowing rooster, a squealing pig, a cow bell—and some of the time all three at once. Upon the larger collection of barnyard denizens seemed to depend the greater success of a particular rendition. there were other interpretations when I thought the drummer was carrying the tune, and the ribald saxophones trying to head him off. was jazz in them days, brother, and if its origin is ever traced you will find that it was initiated by somebody stepping on a cat.

Musical balances were difficult to obtain—I mean, of course, for microphone reproduction. The more perfectly we could get each instru-

ment to register with an identical intensity upon that small but conscienceless mechanical ear, the better the broadcast. In other words, players should be so seated that their ensemble of notes produced a smooth curtain of sound at the point of pick-up. A flute, for instance, is more penetrating than a cello, and an oboe less so than a clarinet; a trumpet out-blasts a French horn. All instruments vary in these respects.

A symphony orchestra on a stage sends a perfect blending out to the audience, but that is chiefly because the audience is far enough away to be unaffected—or rather undominated—by any particular section of instruments. Let a person, however, walk into the midst of such an orchestra while it is playing and he will discover what I mean. Should he stop in front of the trombones, his ears—and they are his microphone—will be dominated by those tones to the partial exclusion of others. He will get the same distorted effect if close to the wood-winds, or the strings.

As the broadcasting studio orchestras and microphone were necessarily quite near to each other—and not infrequently the musicians sat in a circle around it—preliminary drilling was important. The men learned that if I pointed to a certain player, holding up one finger, it

meant for him to turn a third away from the microphone (which, in sound reproduction, was equivalent to moving him so many feet farther back); holding up two fingers meant to turn two-thirds away (thus moving him still farther back). Three fingers meant to turn all the way around. Outside the studio door hung a special set of earphones just for me and, after announcing the first orchestra selection I would exit quickly, put them on and listen, then slip back in and do the necessary pointing.

There used to be one trumpeter—when he dies I am sure that Gabriel, through sheer envy, will never let him inside the pearly gates—who had lungs of leather and a horn of flint. His earsplitting blasts immersed the entire premises. Any amount of turning him was futile. So I finally had to move his chair to a corner of the room and let him blow into the padded wall.

As I look back upon them, some of those setups must have been screamingly funny. An outsider stepping in might have supposed that most of the orchestra members were not on speaking terms—all being seated at different angles and blowing in various and sundry directions.

Although today studio set-ups of musical groups, even down to a soloist with piano accompaniment, must be carefully auditioned

ahead of time for precise balances, modern equipment has advanced far beyond the necessity for those early crudities.

They were a temperamental lot. That chap I put in the corner was more crushed by it than I could have guessed. Before the concert ended, I chanced to move around where I could see his face. I was simply staggered to find tears rolling copiously down his cheeks. But, although crushed and mortified, he had kept on playing—blowing out the agonized lament of a broken heart. I could almost see its pieces splattering from that terrible horn. Later we gave him a new instrument, and after that he sat right up in front, doing a fairly good job. At least he was happy again.

God protect me from temperamental artists! It was one of these who caused our first program breakdown. To begin with she arrived somewhat late, and entered twisting her hand-kerchief into a wee ball, breathlessly declaring she could not "go on with it."

"That's ridiculous!" I made a fair bluff at laughing. "Of course, you can."

"I can't—I can't—I can't," she crescendoed. "I'll see a thousand ears wagging and flapping at me!"

The sand was running out of the glass and

we had to get started. She was a pretty thing. Indeed, as I remember it now, she possessed an unusually rare and dazzling order of beauty. A week or so before, when she had come for a booking, our observant technician quietly remarked to me that she could "crash a Beauty Show in a calico josie."

I have never seen a "josie," and doubt if anyone else has. But "josie" or no, she now was late, and getting jumpy, and putting crinkles in my own nerves. For a moment it was a toss-up whether to get tough or give the soothing-syrup. The syrup seemed more promising—at least pleasanter.

"Forget those ears, my dear sweet singer! Just think intensively about the thousands of sick and suffering people whose pillows are hot with fever, and how your gorgeous voice will penetrate the walls and soothe them!"

I did not actually mean soothe the walls. Radio had not quite got to that. But when program time drew near and tardy artists went hysterical, a proper arrangement of words meant less than nothing.

It wasn't a gorgeous voice, either.

Anyhow, with a few encouraging grunts from her accompanist she stiffened up, walked deter-

minedly into the studio; the light flashed, she was introduced and began.

Half through her first song I heard a suspicious quaver, turned quickly and saw her eyes brimming with tears. A storm of some kind seemed imminent. In desperation I made angry gestures, funny gestures, all sorts of gestures to distract her from those "thousands of wagging, flapping ears." But the hurricane was upon us and, in another instant, she broke down completely with a wail that sounded scarcely human.

Whispering frantically to the piano accompanist to keep on playing something, anything, I led the—by this time—bawling soprano outside.

"What do you mean by ruining this broadcast," I stormed. "Didn't I tell you to forget those confounded ears?"

"I w-w-wasn't thinking about th-th-the ears," she sobbed. "I was th-thinking of all those s-s-suffering people you told me to think about!"

That should have taught me something. It was only our first month, and not much water had run over the dam since my publisher friend told me of this miraculous invention. I have sometimes wondered if he deliberately avoided any intimation concerning temperamental so-

pranos, lest he scare me off, or if he actually had no knowledge of them!

But the woman I really wanted to kill—I might as well tell about it now, being in a killing mood—did not blight my vision until six weeks later.

It was the noon hour and I worked alone. The others had gone out for luncheon. I did not hear her climbing the stairs, but suddenly my door became darkened by something huge. I looked up.

It was a massive female, fanning amazingly fast with an absurdly small palmleaf.

"Ah-ha, I've found you," she exclaimed, coyly shaking a finger with that air of coquettish abandon which some large ladies affect.

I arose politely and waited.

"Always believe in going right straight to the boss," she continued. "Only this morning I says to Alfredeer, 'Alfredeer,' I says, 'when you want anything go up to the top for it!'—and, if this ain't the top, I hope never to climb them iron stairs again!"

It was meant to be humorous and, like a pliable stooge, I smiled.

"Who is Alfredeer?"

"Alfredeer? Why, he's my son, of course! Whose else's do you think he would be?" She

flung this at me with an air of inimitable, superior and superb challenge.

It was not radio, but life, that had taught me there is little to be gained by arguing the delicate question of parentage.

"What may I have the pleasure of doing for you and Alfredeer?"

"I want you to explain to him everything about the workings of your place here, from beginning to end. Even if I am his mother, I don't mind saying he's bright. His father thinks him a genius, but that's because they're featured similar." Then she called over her shoulder: "Alfredeer? Oh, Alfredeer! Come and shake hands with the gentleman like I told you!"

I do not remember what philosopher it was who said that a woman, generally speaking, is generally speaking. But his name deserves to be remembered.

From behind her imposing figure Alfredeer emerged, and I received my second shock, for without doubt he seemed as mentally minus as she was physically plus—face morose and stupid, eyes close set and small. Two long upper teeth protruded over his lower lip, and his ears leaned forward with an air of constant listening.

This somewhat indescribable and abstruse compliment which she had wafted toward an

absent husband stood looking up at me. I am no student of the endocrines, but the veriest psychiatrist would have seen in Alfredeer something absent.

Yet history teaches that genius has been known to lay its greenest laurels on strange heads, and I said pleasantly—more pleasantly than I felt:

"So you want to see our station, Alfredeer?" He drew back churlishly.

"My name ain't Alfredeer! It's Alfred! She makes me sick—always saying Alfred-dear!"

I began to like the kid.

"He's that cute," the mother gurgled. "Think's he's too old for Mummy to keep calling him Alfred-dear!"

Oddly enough, a dead old memory flared up before me. During the unsophisticated period of my youth I was raised on the story of a great-aunt who had lived and died without knowing that "damn Yankee" was two words. All southern families, between the tragic '60s and the gay '90s, had a great-aunt like that. None but consummate morons have ever repeated it since the sinking of the *Maine*, and in my own family it was relegated to the closet where we kept our skeletons about the time I went into long pants. Yet something in the aura of this gurgling

woman brought it, fresh and beaming, spang behind my eyebrows. The only possible affinity of the ideas and their most agreeable association, must have germinated in that little "damn."

For the ensuing half hour, being alone and too busy for luncheon, I took Alfred step by step through the premises, explaining watts, ohms, frequencies, plate current, inductance and voltage. The microphone was verbally dissected. The intricate combinations of amplifying panel coils and chokes were forced to yield their secrets for the benefit of this Edison-Marconi-Steinmetz prodigy, who stood by drinking in every detail with a relish heretofore unimaginable.

"Surely," I told myself, "from the way he's eating this stuff up he's more than a genius!"

Animated with an enthusiasm to bend the young tree to future greatness, I forgot work, hunger, heat. Everything went by the board in my inspired determination that his insatiable brain should garner the complexities of this greatest of all sciences. Of course, I did not know much about it, but I was determined that he should. We got on our hands and knees to look under things, perspiration dripping off the end of my nose. We stood upon chairs to look on top of things, and then I had to hold him up.

Not once did he interrupt. Not once did he

ask a question. An intelligence such as his seemed to scorn the need of questioning. He was gathering and assembling facts as nimbly as a bank teller counts paper money. In complete silence he moved from point to point, his doting mother close upon his heels.

At last utterly wilted, nearer dead than alive, ready to bet my bottom dollar the heat had risen fifty degrees, I said:

"That's all, Alfred. What do you think of it?"

"Nuthin'. Where's the water?"

"Water," I murmured. "Water," and glanced toward the porcelain cooler.

"Of course, the water," she spoke up tartly. "Don't tell me a Water Company ain't got no water!"

"Good God!" I sat down. "Do you think you're in the Water Company?"

"That's where we aimed to be! If we ain't, where are we?"

As she felt her way haltingly down our narrow iron stairs someone, less exhausted than I, should have tumbled the cooler over the railing upon her head. And Alfredeer—my word! He should have been lifted by his rabbit-ears up on Mount Taygetus, with the Spartan sicklies, to perish from exposure! What a family!

Time is such a gentle healer of implacable hatreds that it is pleasant enough now to recall that she left the place unscathed. But if I ever have another chance—

WITH no one to teach us, no precedents to guide, I blazed our trail through an unknown forest of perplexities and nightmares, begging dear old Providence to lead us out alive, even if deranged. It would hardly have been sporting to expect both.

Experience can be a bitter school, but when once it teaches, there is no forgetting. The conglomerate information my Detroit confrere imparted had seemed complete at the moment, but after a first plunge into actualities those kindly words fell away, leaving me stark and alone, facing the several duties of manager, announcer, program director, continuity writer, and the doer of whatever else turned up, including host and bouncer.

Because it happened to be a Federal law that no one could manipulate the transmitter unless he had passed examinations and been issued a broadcasting license, I employed an assistant operator just to be around should something untoward happen to our regular technician. This

made a total staff of four. (That there are now forty-six, aside from an average of forty regularly employed staff performers, may be an interesting comparison.)

His addition seemed an expensive luxury, in those days, yet prudent in the same sense that we kept on hand a few spare tubes to replace any which might burn out. Aside from that intangible benefit he helped me not at all, being so completely immersed in crazy-looking formulas, calculus of probabilities and variations, that I avoided him as much as possible. Years ago I had to study Newton's method of fluxions, and have not entirely recovered from the headache, yet.

Oh, yes, still another duty fell upon the manager-announcer, as alien to my talents as walking a tight-rope, and this was playing the chorus of "My Old Kentucky Home" on chimes. Imagine! In an unguarded moment, thinking that it might be an effective way to sign the station off, afternoons and nights, I had these metal bars constructed—eight were sufficient—and, after giving the correct time, that famous old tune was hit off note by note. Invariably I went at it with fear and trembling, lest the do-dad I struck with hit the wrong thing—and the marvel is that it did not miss oftener. In fact, my daily agony

was the anticipation of that moment when, hammer in hand, heart in mouth, alone and forsaken before a listening multitude, I should assume the role of virtuoso. What devil put the idea in my head to begin with, may never be known. But, once started, there was no turning back.

The way we gave that correct time seems now almost too ridiculous to be true. Having arranged the program of singers and players to conclude at four and a half minutes to nine—if threatening to run over, making signs to the performer to stop at a specific verse; or, if running short, signaling for a repetition of verses and chorus.—I would announce: "Now we shall give you the correct Central Standard time, calling the next three minutes in fifteen second intervals, and the last minute in intervals of five seconds. Are your watches ready? (Keeping my eyes glued to the large master clock with a pendulum swing of half a second.) Are your watches ready? (A pause.) It is four minutes to nine! (Then a stifling series of pauses.) Fifteen seconds!-Thirty seconds!-Forty-five seconds!-Three minutes to nine!—Fifteen seconds! seconds!—Forty-five seconds!—Two minutes to nine!-Fifteen seconds!-Thirty seconds!—Forty-five seconds!—One minute to nine! — Five — Ten — Fifteen — Twenty —

Twenty-five — Thirty — Thirty-five — Forty— Forty-five — Fifty — Fifty-five — NINE O'CLOCK!"

That was the place for my musical solo, and then: "This is WHAS, the radio telephone broadcasting station of the *Courier-Journal* and the *Louisville Times*, in Louisville, Kentucky. We hope we have brought you pleasure, and now wish you a very—good—night."

And another day had passed into history!

I have written all of this out, only to give some of you a chance to say: "Why, I remember that! Doesn't it seem a million years ago?"

Such long drawn pronouncements would put modern radio listeners to death—if they stayed with it all the way through. But then people had different ideas, and radio was more of a novelty. It was great fun keeping grandfather's clock and daddy's watch set to the second!

I was pleased one morning to receive a gentleman from Big Stone Gap, Virginia, who introduced himself as a member of the Correct Time Club there. It's chief purpose, he explained, was the foregathering of all members each night and the checking of their watches with our signals. The unlucky one who happened to be most off, stood treats for the crowd.

During his conversation he nonchalantly pro-

duced from various pockets four watches, saying with a twinkle:

"No one's going to catch me! I take my ticks seriously!"

Aside from those rather dismal time signals and sign-offs, it began to dawn upon me that an announcer must develop a different technique from one who stands upon a platform and speaks to a visible audience. So, for my own improvement—and there was plenty of room for it—I began a study of the pattern he should fit.

First, he must maintain absolute, though cordial, discipline in the studio. Second, he must possess (or cultivate) a split-second accuracy in timing, and never be late at the microphone nor even in a hurry to reach it, lest the audience recognize a shortness of breath. Third, he must always keep within the bounds of propriety—which of course would forbid coughing into the microphone or clearing his throat. Fourth, his diction must be as nearly perfect as possible. Fifth, his pronunciation must be correct.

Those five rules became patent in the very beginning. But now, long since the days when an announcer spoke entirely ad libitum, I have added rule six: that, except in the broadcasting of sports, prize fights, parades, and other such outdoor features which have to be told instantly

as the eye perceives them, within the studio he must read aloud to himself his microphone copy well in advance, practice for smoothness and proper emphasis—in short, for that agreeable gallop which can make or break his popularity.

Another, and I believe most important, discovery which early experience taught me, is more difficult to achieve; but there is little doubt that as long as broadcasting lives, and announcers are employed, they will find it their next, and finally greatest, lesson. It is the ability to create within themselves a fourth dimension.

When a speaker comes out upon a platform, the audience sees his length, breadth and thickness. Not so with radio listeners. They must see through their ears, and the announcer who succeeds in helping them develop this sixth sense, is at once successful.

Perhaps the best approach to it is to be a personage. I do not mean at all bombastic, or conceited, or swanky. Those elements would destroy him. But in a cordially polite and natural manner he must be a man of the world, the kind of social man to whom nothing is foreign, speaking to gentlemen and ladies of culture. As such persons are not the type who would enjoy "Hello, folks," he leaves any such familiarities alone. Nor does he need them, ever!

When I wrote an article to our Code: "Entertainment if not in good taste belies its name," I was thinking of programs, but it applies equally to announcers.

Then must come practice—daily, incessant practice, to pitch a vocal resonance, its tones and shadings, into these complexions. I found that my best location—though I do not mean that I ever achieved vocal resonance—for such rehearsals was in the cellar, where the air is still. By standing two feet from a wooden door, and speaking to it, one is best able to hear his own tones which noticeably reverberate back to the ear.

Having advanced this far, he should begin to focus attention on rhythm, and develop a pleasant timing to his style of speaking. Not singsongy, Heaven forbid, for he should always be direct—direct and sincere.

But the fourth dimensional value, you ask? I am coming to it. One may have mastered those other requirements and, by stopping there, remain perhaps an acceptable announcer, but never "tops." I believe that that is reached through no direct effort of one's own, but merely by a feeling of controlled nervousness when addressing the microphone and an acute consciousness, even touched with fear, of the vast spaces

which lie out yonder in the darkness, beyond it. Such mental tension tightens his muscles, tingles his nerves, tunes his entire being to concert pitch. At such times he is at his very best, and the timbre of his voice automatically assumes a resonance to project that fourth dimensional quality—if it is in him to be aroused. Ears perceive with great acuteness and register upon minds a picture of the man, himself. Listeners sometimes call it personality, magnetism, or charm. Basically it may be any or all of these. But transcending them is that which, in lieu of a better word, I call the fourth dimension. With it, such an announcer gathers an army of friends who do not, nor shall they ever, know him by sight. They have guessed what he looks like, yet he is a hundred types to a hundred imaginations—tall, dark, thin, fat, blond, or rosy. But all feel that he is their friend, and all enjoy hearing him.

A fading letter before me, from Ohio in 1922, was a fair example of what a seminary girl could produce when lavish with underscores and bubbling enthusiasm:

"Won't you please (underscored) send me immediately (underscored) a photograph of your announcer! I know exactly (underscored) what he looks like! Isn't he tall, with perfectly lovely (twice underscored) blue eyes and wavy

hair? I'm simply mad (underscored) about the way he says 'goodnight'!"

Now, it so happened that I looked our announcer in the face every morning of my life when shaving. I had not only failed to notice a single one of those lovely features but, on the other hand, had observed many which brought me positive anguish. To ruffle the serenity of her young dream with a photograph of his ugly mug would have been the height of cruelty. It was simple enough to reply that he was a shy young man, timid of cameras, and we regretted, therefore, not having a picture of him to send her. That should have ended the matter. But another letter came, inquiring for his name. I replied most formally:

"Dear Madam: It is against the rules of this radio station to divulge the name of our announcer.

With deep regret, I am"- etc., etc.

"That ought to end it," I remarked to my secretary.

But did it? Not at all. It was a mystery how her answer got back so fast. She said that I was a mean, selfish person to be so hateful—that anyone who understood anything at all would at

least send a name of a person—there couldn't be any harm in that—if I was too much of a crab to, then let someone else do it.

Those two little pages were simply scarred with underscores. I passed it over to my secretary, telling her she had better take it on at this point, and nip the ridiculous sentimentality in its pristine bud. A month passed before I happened upon the carbon copy of her letter.

It said:

"Dear Miss—: The boss did act mean by not giving you Horatio's name, but it was because he didn't want to disappoint you. You see, our announcer doesn't look at all like you think. He's kind of old and bent over and squints, but his voice fools lots of people. His last name is Beeswax.

Sincerely,"— etc.

I never inquired further into the foundational truth of those statements.

As that fourth dimensional value in announcing spelled success, a complete absence of it was correspondingly destructive. I recall the time when my managerial duties grew to proportions which required someone else to do this part of the work, and I employed a likable chap with good basic qualifications. After he had carried on for a short while he came to my room. There was a gleam of triumph in his eye.

"Well, sir, I've conquered it!"
"Conquered what?" I inquired.

"The microphone," he answered proudly. "I don't pay any more attention to it now than if it were that"—pointing to my inkwell.

"You mean that you've no longer a screwedup-tight feeling when you go to it?"

"Exactly! I've finally overcome it!"

"Well," I sighed, "as an announcer you're dead on your feet without knowing it. Unless you immediately recapture that quality, our listeners will begin turning thumbs down on you."

I could see that he was not at all convinced; but two weeks later the first of a flood of objections arrived. It came from Mississippi.

"What's the matter with your new announcer? Was he an undertaker in private life? I expect any moment to hear him tell us that the remains are in a room to the right, and please step quietly."

When I showed him a number of these he shook his head sadly, remarking:

"I've killed my best friend."

And so he had.

Another early discovery showed that radio was bringing forth a new technique in oratory. The speaker of silvery tongue, who enticed his audience through floral vistas and finally lost it in a wilderness of blossoms, might still occupy the seat of honor at a barbecue but he was persona non grata at a microphone. The political spell-binder, with untiring enunciation of platitudes and fallacies, and the indulgence of an overweening self-conceit, a determined principle, might still grace the rural stump but we had no use for him.

If the early radio audience was willing to receive constructive ideas at all, it wanted them short and full of pep. It appeared almost at once that relatively few of that restless, hetero-

geneous multitude of listeners would tarry with a station which presumed to educate them. They cried for entertainment.

Yet, if a speaker had a pleasant articulate voice, they would usually show him the deference of listening to a few sentences, and those first lines would either make or mangle him. If he wandered an instant from his subject, cleared his throat, began to hem and haw, or a staccato cough burst horribly into the microphone, they calmly removed their earphones and left him stranded on a cloud. Then took pen in hand and wrote us about it. In no uncertain terms they wrote.

I got so that I could tell to the fraction of a second when our listeners would rise, like a covey of quail, and make for the woods. Being a hunter of quail, this suggested the interesting sport of retarding that flight until we had said our say—the development of a theoretical bird dog that could hold the covey to his point.

About that time the National Safety Council of Chicago expressed to us a huge package of manuscripts, containing ninety-two safety talks of nearly three thousand words each. Completely wasted effort! So I shipped them back with the request:

"Please cut."

In a few weeks they bobbed up again, this time trimmed to about a thousand words. Again I sent them back with the same request:

"Please cut."

"What the devil do you mean by 'Please cut!" wrote an irate Chicagoan. "We've cut them down to nothing, as it is!"

I told him that a thousand words would indeed be as nothing over a radio station, because nobody would listen to them; to confine each talk to one subject only, and have them prepared the length of a night letter telegram—fifty words—embodying the germ of one idea, and maybe we could get that to sink in.

Rather to my surprise those fellows were sporting enough to do it. I wrote a more or less sensational headline over each, and was then ready for the experiment of keeping those quail from flushing.

Here is an example.

Immediately after some orchestra selection, I would say quickly:

"Our safety talk tonight is thirty-five words long, entitled: Umbrellas As A Means Of Suicide!"

It was not difficult to imagine the little flutter of unrest which began to ripple through our listeners at the word "talk." Thousands of hands

had started up to jerk off the earphones. But at the "thirty-five words long" they hesitated, because that brief torture might be endured. Then, when the title was announced, hands drew back, curiosity was quickened, and ears pressed forward. While their minds were held in that suspended state, I continued:

"On a rainy night, don't step off the sidewalk with your umbrella held down over your face and get hit by an automobile! See if you can repeat this to the family tomorrow at breakfast!

The orchestra now plays—" etc.

And the next evening:

"Our safety talk tonight is forty-one words long, entitled: Boiling Water Is Deadly. Every year thousands of children are seriously scalded when thoughtless persons leave a kettle of boiling water where an inquisitive youngster can reach up and draw it down upon himself! Always place vessels containing scalding water out of a child's reach!"

Soon we learned that several Indiana schools were giving credits to children who handed in neat copies of our current Safety Talks. The audience was sitting still and liking it.

As we guardedly broadcast quite a third less of the prevailing jazz than letters asked for, hoping that the injection of better music might

eventually raise the standard of public taste, it now seemed conclusive that talks would stick if built briefly and dramatically.

So much water has since passed over the broadcasting dam, and the current has been so swift, that few may realize the gradual approach we had to make in those good old days to keep our audience reconciled to any talks, whatsoever. It reminded me of stalking wild game, and was as different from modern procedure, when listeners are content to sit through a fifteen or thirty minute speech, as day is from night.

A noted educator delivered an hour and a quarter lecture on "America's Moral Obligation to the World," in a southern city. Our country was then in the throes of pro- and anti-League-of-Nations excitement, and it occurred to me that, except for length, his ideas would make excellent broadcasting. So I wrote, asking if he would be willing to condense his lecture from seventy-five minutes to four. Having dispatched this daring request, I awaited results.

In good spirit he tackled the job, but a few weeks later telephoned that cutting to four minutes was even more difficult than building up to seventy-five, and could he have an extra minute?

As a matter of fact, he finally delivered that condensed talk in four minutes and forty sec-

onds, but they were four minutes and forty seconds of concentrated value from which no attention could lapse. Figuratively speaking he had turned a mental X-ray on his subject and chosen only the essential bones of its skeleton. These were dramatically explained.

From the baskets of letters which poured in upon us we felt it was reasonable to assume that more people grasped his dominant thought of America's Moral Obligation to the World than could have been reached by several scores of lectures in auditoriums with all seats filled.

Another example of conciseness was on an afternoon when Calvin Coolidge, then Vice-President, spoke. We had booked him for fifteen minutes and he took six. Later, after he became Chief Executive and was noted for brevity, we rather congratulated ourselves upon even getting that six.

In those days, for some obscure reason, long speeches provoked short patience among our listeners, who removed earphones, began to read or went to the movies. One of our most frequently repeated maxims to speakers who came both for bookings and advice, was: "'Tis better to say little to many, than much to none at all." Talks, if not pared to the bone, were anathema, and repeatedly we were asked by mail not to put

any of them on. I could not tell you why, but the general public wanted none of it. Mr. Average Citizen demanded music, and by far a greater majority screamed for jazz. Indeed, the only man I recall during our first two years who spoke for as much as fifteen minutes and received no complaining letters, was an old chap who told a funny fox-hunting story frequently interspersed with an imitation of baying hounds.

Even at the risk of arousing further antagonisms, education by radio-much ballyhooed in recent years—was begun at WHAS early in its existence, and we have been giving, watchfully, more and more free time to it. But such broadcasts must be handled with the nicest finesse, or turn into total losses. At present, connected with our station by special telephone lines, are studios in two universities and three colleges which use periods ranging from one to five times weekly, and we are fortunate in the fact that teachers possess, or are acquiring, the technique of presenting their material in ways to be effective. For the "radio professor" has a bigger job at the microphone than in his class room. With students directly under his eye he can lecture for half an hour or so and, whereas they may squirm inwardly, they have to sit and endure it. Not so out yonder in the air! The mo-

ment he becomes prosaic they say to themselves, "Rats to you, prexy," and turn to a dance tune. If he can't hold them he has failed, and failure of that sort is worse than no effort at all.

News was popular, if condensed almost to bulletin form, and we were furnished daily with a stack of "flimsies" from an outside agency. At that time we took nothing from our own newspapers because the Associated Press, of which they were members, frowned upon their copy being used by radio stations.

It takes time for a people to alter tastes and habits. Minutely analyzing the gradual changes over fifteen years, I believe it is largely due to the careful endeavors of well conducted stations that the average person today has grown to enjoy a much higher type of music. I judge solely from hundreds of thousands of letters received over that period, and many, many conversations.

We have not, of course, altered the tastes of those who all their lives were music lovers. I refer only to what I conceive to be a considerable majority, who would have shuddered and turned away had an announcer been unthinking enough to employ the word "classical" when introducing a selection. That word used to be poisonous.

The first time I committed such a false step,

telephones jingled and we were told politely but positively, "Don't give us any more of that highbrow stuff." The next two days brought letters with the same objections. People were taking their radio seriously—too seriously.

So our approach toward the better things changed, and a strategy was adopted which began to show gratifying results. A competent pianist was called into the conspiracy and programs were arranged, one number for each night being selected from the old masters but introduced only in keeping with the gaiety or simple beauty of the tune. We were careful, too, that it would not suffer in liveliness by comparison with anything preceding and following it.

I shall have to use other compositions to illustrate, because the original sheets are lost. But let's imagine that, in a fifteen minute period of popular piano pieces, one is the Gavotte and Musette from the *G minor Suite*, by Bach. It would be introduced: "Here's a jolly tune—a gay peasant dance with everybody rollicking on the village green. Soon, by listening carefully, you can hear an old fellow coming near who plays the bagpipes. He does not tarry, but passes on into the distance. See if you can detect the skirl of his bonnie instrument."

Only at the end would I confess that they had

been listening to Bach, and briefly tell the story of him and his *G minor Suite*. "It's one of the classics, of course, but, like many another, pleasant to hear."

The next night our strategy might call for a "a fine, swinging waltz," which would turn out to be the 3rd Movement, scherzo, from the Sonata in F minor, by Brahms.

The same policy was also adopted when introducing any classical numbers which other performers had upon their programs.

Slowly the previous objectors began to like them, and no longer flinched at the word "classic." One week the pianist, because of requests from sources which had formerly registered "kicks," had to play three different evenings that perfect Minuet in the 3rd Movement from the Piano Concerto in E flat major, by Mozart.

Radio has undoubtedly raised the public standard of music, and of many other things. But I am not blind to its detriments.

Now, let's get back again to the first two years which, after all, comprise the "prehistoric era" I set out to record.

OUR STATION had not been operating a week before the wildest rumors and imaginative tales began to reach us. Many of these apparently had some foundation of fact, many came from sources which might have been considered unimpeachable. Several groups were formed for research into psychical phenomena, the belief being that, here at last, radio was the key to unlock their mysteries.

One morning a gentleman appeared in my office. He seemed to possess the gift of deep, dark silences, and his face was gravely authoritative. He advanced with the slow, solemn stride which Edwin Booth might have used in an entrance for *Hamlet*, and his voice was a musical diapason, exceedingly attractive. The cut of his coat suggested a rural minister—although he might not have been, for he offered no card or introduction, and I have never seen him since.

"This will have to be curbed," he said, with undenying finality. "Yesterday afternoon I took a walk across my farm. A flock of blackbirds

passed over. Suddenly one of them fell to the ground dead. Your radio wave must have struck it." He paused. His timing was perfect. "Suppose that wave had struck me?"

Now that was rather stumping. I had not been up against anything like it before. The straightforward path of inexorable logic pointed otherwise, yet how could one apply logic to radio? Anxiously I ventured:

"Suppose the blackbird had reached his three score years and ten, and just naturally passed out?"

He pondered this. There was something about the "three score years and ten" which touched him, for no doubt he was more familiar with theology than ornithology.

"Perhaps," he murmured. "Perhaps. But I have warned you!" And, turning, he left.

Do you know, I actually began to entertain the ridiculous idea that our radio wave *might* have killed that blackbird? And, if it had, how many more fatalities should later be laid at our door? Please understand that we were all very young in The Art! Furthermore, my seat of thought is wide enough to accommodate a superstition or two. I consulted our technician.

"Maybe," he sagely nodded.

"But why didn't it kill all the blackbirds?" I

insisted. For, the fact of the matter was, I greatly desired his complete negation to the whole absurdity.

With puckered brow he merely shook his head, but the next day handed me a sheet of formulas intended to show how one blackbird might be killed and the others escape—formulas embracing cube root, cosines, coefficients and submultiples until I was dizzy.

I gave up. Yet it was not altogether a givingup matter. This broadcasting business, obviously, threatened to lead into places too inexplicable for the human mind to follow.

That same day he demonstrated one mysterious peculiarity of these "electro-magnetic" waves, as they were called. He took an ordinary electric light socket, screwed in a sixty watt bulb, then attached in the usual manner two long wires. One of these he fastened to the iron hand rail of our stairs, the other he carried into the next building and touched it to a metal radiator. Result: the light burned brightly! Yet we could feel no current. It was magic raised to the nth degree. Small wonder if we were half expecting any dire thing to happen!

Wild and woolly fancies continued to spread throughout the public mind. If it rained too hard, letters came accusing us; if it did not rain

enough, we were again to blame. About that time a sharp thunder storm broke over the city and, of course, our station attracted it.

"I never had lightning knock bricks off my chimney before," wrote an indignant homesteader. "What do you think I am, anyway?"

Not knowing, how could I reply?

One man heard queer noises in the fireplace, and his wife had had "historics."

A woman could not sleep o' nights, and someone told her that our waves played over the metal springs in her mattress. She was afraid to get into bed; she had sat up the last forty hours. Would we stop it, or would she have to sue us?

A nicely phrased letter on engraved paper apprised us of the lamentable fact that the floor boards in the writer's new home had begun to creak. The builder said that radio was drying them out. Would we have them fixed, or should she attend to it and send us the bill?

Another: "They say radio brings in sperets and hants. I doan want no truck with ghostes so plese turn them waves some other way."

And this note came:

"My little girl thowed up in school today. She ain't given to thowin up and they say its radio and you got to give her sumthing."

All such accusations were answered tactfully, and sometimes a considerable correspondence resulted because of these apparently strange phenomena.

A woman, more neurotic, writing in a fine old-fashioned hand, said that while she was listening to WHAS her husband, who had died thirty-eight years ago, appeared in the room with her. She knew that radio was the agency which brought him, but she had waited for nearly a week and he had not returned. Could she come and sit in the station, and watch for him there? "You see," she added a pathetic touch, "when he was on earth we had no such thing as radio, and he is probably confused about it, especially as he possessed no aptitude in mechanical matters. I think it likely that he is getting on the wrong wave and being carried somewhere else."

I could have sworn from the bottom of my heart that the gentleman lurked not upon our premises, and assured her with equal truth that if he happened to come wandering in some day he would certainly have to lurk alone. That chap who wanted "no truck with ghostes" spoke my language.

But something entirely different had to be concocted for this delicate one who must have spent years in vague and fantastic melancholy.

It required gentle stepping, and I thought hard over an answer, almost wishing that a few of our departed "analysts" might return. (Sorry! I thought I had told you about the analysts! But they will appear in a later chapter, if I ever get to it.)

Anyhow, I did wish for one! Each day her letter stared up from my desk, until it began to take on accusing eyes. I covered it with papers, but it seemed to have the faculty of looking through them. I tried replying to it, but never got very far. Then, one morning—

She entered, bringing that long ago froufrou of taffeta on taffeta. I had not heard it since childhood, but it used to charm me in a delightfully tantalizing way, and I shall welcome the return of that old fashion in women's dress.

Our interview was lengthy, for she presented a problem at once formidable and fragile. At first agitated, somewhat frightened by her strange surroundings, it was not long before a few tears came to soften the deep lines in her face, and the deeper pain in her heart. With a touch of exquisite pathos, she murmured:

"Our love is like the throb of violins. I cannot bear to think of him being lost."

God grant that she took away some small measure of comfort.

Quite an original direction of thought now sprang up to quicken listeners' imaginations, and it slowly dawned on me that these psychoses came in cycles, like seventeen-year locusts or epidemics. This new one was the fantastic notion that voices had been wandering around in space for centuries, actually present but inaudible, until radio opened the way to capture and bring them alive to our ears. Such being so, said the proponents (and they had proof that it was), why didn't WHAS reach into the past and broadcast speeches of history's famous orators?

"What is to hinder," wrote one, "your station letting us hear the Sermon on the Mount, in the very voice of Christ, Himself?"

That is quoted exactly from the old letter.

The most politely phrased replies, expressing deep regret that this could not be done at present, only started arguments. And what arguments!

One such little note of mine brought an answer next morning in person. He was a dignified appearing man, with splendid breadth of forehead which belied the ridiculous myths lying in ambush behind it. As he entered, before even I knew who he was or what he wanted, it could be seen that here was a person conscious of unchallenged supremacy, armed all over with subtle

antagonisms. He has joined the great majority now, where I hope he is finding more peace than he brought to a few of my days—for that newfangled bug had certainly given him a wicked bite!

On the premise that we were able to make audible all of the voices that have spoken since the dawn of man, he had written asking us to broadcast the famous speech of Charles James Fox, delivered February 2, 1775, before the British Parliament, when that statesman boldly defended the young American colonies. My modest denial of such radio supremacy had outraged him. And here he was to contest the point.

"I hear your voice being picked out of the air, don't I?"

"I shouldn't say 'being picked out.'"

"I'll say what I think, sir. Other people, shut up in that room, there, speak and their voices penetrate my walls, my home, don't they?"

"Yes."

"Then why can't I hear Fox?"

"Fox is dead."

"But he wasn't dead when he made that speech, was he?"

"No."

"The members of Parliament heard him, didn't they?"

"Yes."

"And his voice went out into the air, didn't it?"

"If the windows were open."

"Then it must still be in the air!" He glared at me. "What is it that deadens a voice, after it has been spoken?"

"Attenuation."

"Ah! So you admit it!"

I believe that he must have been baiting me to say that, from the carnal way he sprang upon it.

"Admit what?" I asked.

"That a voice never dies!"

"I admit nothing of the kind."

"You said attenuation stills it! Do you know what attenuation is? I shall tell you! It means: to make more rarified, to dilute!"

"Well?"

"Then you know that regardless of how much a substance is diluted, there must always be a portion of that substance remaining in the dilution. Science can find it, and does so repeatedly. Now, therefore, millions of attenuated voices are in the air about us, our ears being too gross to

detect them, but your radio can pick them out! Why doesn't it? I want to hear Fox!"

At this juncture my secretary thrust her head in the door to say that I was late for a meeting downstairs. The visitor accordingly took his leave. There was no meeting. She was just a good secretary.

"Curious notion," I commented.

"Fox hunters have," she answered, and went back to her typing.

The next day and the next, and also the next he came, until I was tempted to simulate Fox, myself, on some evening program and give him an earful. He was asking for it! Yet our other listeners weren't, so that would never do. Then I conceived the more inhuman idea of introducing him to the lady whose husband kept getting on the wrong wave. Maybe they could work it out together.

But he stopped coming.

As time passed, superstitions concerning us grew less, and the day finally arrived when we could almost look our fellow creatures in the eye without flinching. Those noises in the fireplace proved to be gusts of wind; the woman was sleeping well upon her mattress with its radio affinity; the little girl stopped "thowin up," and

forecasts of "Fair with occasional showers" seemed satisfactory.

I could not feel really critical of their enkindled phantasmagorias. Radio was so utterly new, so completely mystifying! They looked upon it very much as an awe-struck Indian might have watched the first steamboat churning its way into the silent waters of his tribe. Nor could I forget that with but a little encouragement I had been ready to swallow that blackbird yarn in toto!

Yet these "weird" people could not keep still for long. As one group made its exit another came on our stage. They appeared and disappeared with uncanny regularity.

And now came the greatest surprise of all—the love-letter cycle!

At the risk of imitation, I may remind you that the world is a bizarre and curious place. It required something as far-reaching, and yet as personal, as radio to quicken every imaginable fancied theory in heads which were not screwed on so tightly as they might have been, and our station was the magnet that drew these amazing ideas in lengthy forms of screeds and scribbles.

There was one characteristic about those particular letter writers which puzzled me. I have never been able to find an answer, nor make even a satisfactory guess. And that was the mystifying pattern of their "cycle" (I have no better word for it), the simultaneous spontaneity with which some perfectly absurd idea would burst into expression throughout five or more states, and for no apparent reason—except mental telepathy, which I was not then quite ready to accept.

In recent years, however, radio has brought us so much nearer to the secrets of that obscure field that it is only a question of time before the

Curtain of Mystery will be drawn aside. You recall that I mentioned body capacity—given the name in lieu of one more specific—which is the emission of some force that caused the government supervisor who occasionally came to measure our wave length to stand safely away from the transmitter so that proximity of his body would not create a disturbance.

I fear that I cannot explain it to you, because I do not know myself, nor does anyone else. Science has a fair knowledge of how it behaves under certain conditions, of many of its audible and even visible effects, but just what it actually is has thus far eluded the seeker. Some agree that it is a form of magnetic, or electrical, energy thrown off by a living human body, but whether this output is from the nervous system, muscles, circulation of the blood, heartbeats, breathing, or something more obscure, still lies in the realm of theory. A French scientist, De Martini, is reported to have announced his belief that various cells of the human body radiate electromagnetic waves of extreme ultra-short bands.

You may remember, in the old days, having moved close to a receiving set or placed your hand on it, whereupon the volume would perceptibly increase. You cannot do this now, by the way, because manufacturers shield their re-

ceivers against that very thing which was causing the trouble—body capacity. Its intensities vary in all people, and one investigator tells us that it changes from time to time even in the same person, depending upon the degree of his health.

Another scientist devised a delicate apparatus, with meter, for measuring this elusive and minute force, and attached to it a wire and needle. He found that when the needle was thrust into the forearm of a subject he obtained a certain reading, but, if into the biceps, a higher reading was noticeable. By following the route of nerves, from centers to their minute ends, the meter varied proportionately. From such experiments he announced his belief that body capacity was a force thrown off by one's nervous system.

Could this influence explain the mystery of the water-switch—often scorned as a superstitution, yet as often successful? Should the man with his peach-fork above ground, and a stream of water below, be brought into phase (sympathy, or tune) by the variable degree of his body capacity, would there be no apparent effect?

An ingenious engineer built a "broadcasting station" so minute that a pin was used for its antenna. His intention was to employ an operating power not to exceed that which is emitted

by a normal person's circulatory system and, whereas that has never been measured in the terms of emitted energy, he felt that his smallest of the small transmitters did not miss it very far. Then by a most delicately contrived meter he succeeded in catching a weak signal two hundred feet away.

Anatomists tell us that mental activity sends an added flow of blood through tiny vessels to the brain and its nerve centers-increasing as the concentration of thought becomes more intense. If this may be assumed to throw off a certain amount of energy, is it broadcasting the thoughts that it helps to generate? Perhaps. The answer may only be known when someone happens upon a definite method for tuning-in another person's wave length. Even now we occasionally catch vagrant signals. You have done so, yourself. Do you remember once standing for a time silent with a friend, when simultaneously both of you began to speak about an identical subject entirely foreign to previous conversations? Had one of you accidentally tuned the other in, without understanding how?

Another obscure and attractive aspect of this theorizing is that thought transmissions would also require a carrier wave capable of conveying silence. Mull that over, if you wish. Then say

it would be a great improvement over the present system of broadcasting. It's all right. I even thought of it myself. Anyhow, I toss the inviting subject to your cogitations, since these pages are not intended for problems or prophesies, and allow me to return to that almost nationwide spontaneous birth of absurd notions (other absurd notions, perhaps), which we left dangling several paragraphs ago.

The first indication of such an approaching avalanche of "cycles," which I started to tell you about, might be only one letter, then two or three from widely removed writers, in the next few days perhaps thirty, and a week later they would

drop to nothing.

It was like a great wave of witless drivel that broke upon our shore, rolled foaming up the beach and flowed out again. That was the end of it. But the writers had been serious—as the man who wanted to hear Fox. What coincidence, or as yet undiscoverable force, activated these variant minds and set them thinking along identical channels, although separated by miles and even states, has been to me far more incomprehensible than the legerdemain of radio itself.

Well, now came the love letters! Every early announcer has been through this.

One's speaking tones had little to do with it, for surely my own were nothing unusual. I suppose the proximate cause might have been found in that daily and nightly repetition of the same male voice which, more or less confidentially—surreptitiously—entered the boudoirs of certain hope-lorn ladies.

Today those neurotic responses rarely occur. Perhaps there are as many hope-lorn females, out yonder in the ether, but whereas they formerly had only a few voices to moon over, now there are hundreds. It makes choosing difficult. Further, this greatly increased number of announcers have become matter-of-fact visitors to the home, their wings of romance clipped by the drug of usualness. But in the early days—unwittingly, God wot!—the thrills and flutterings they produced within the breasts of idiosyncratic donnas soon found expressions on the written page.

The first such epistle I received nearly jumped me out of my skin. In all of my young and sheltered life no woman had ever come at me like that! Its fire and fervor were terrifying, and to have such a bomb go right off in my face left me bewildered and helpless.

It was not directly addressed to me, for I had never announced my name at the end of a

program—as became the vogue several years later. Yet as I did all of the talking at that time, any envelope, dainty blue or otherwise, inscribed to: "Announcer, WHAS," properly fell into my hands.

I sat down and tried to think. Could I have given the writer cause for such rhapsodies? Had some usual courtesy upon my part been misconstrued? The name meant nothing. Word by word I went over it more carefully, wiping my forehead two or three times en route. Why, damn it, I didn't know this woman!

Feeling qualmy and miserable I thrust the letter into my pocket, and that evening with a sheepish grin handed it to my wife. Most of my senses had gone askew, but at least that modicum of judgment remained.

It was the beginning of another of those mysterious waves. Whereas I found myself in one woman's heart on Monday, I seemed to be in another's soul on Tuesday. Some spoke of passions: ruling, master, everlasting. Others promised to be waiting for me, the place, day and hour specifically underscored. One expected me in Chicago, another in Sandusky, and there were three in Cincinnati. No sailor who ever weathered a gale before the mast had more sweethearts in as many ports as a trembling lit-

tle man at a microphone in Louisville, who dutifully ran home and laid each burning proposal in his understanding wife's lap. She saw the pathos in them, whereas I had only felt the scare.

The early microphone voice produced strange, and sometimes tragic, effects. Three years later, when I described the first Kentucky Derby ever put on the air, May, 1925, two listeners in different parts of the city and one in Illinois dropped dead. Our newspaper reports announced that they had already been suffering with heart disease. But were those writers trying to be kind to me, and could it have been that the broadcast was so deadly stupid my listeners died of ennui? It is past proving now.

In any event, there are still times when I feel just a wee bit guilty. And during the next three years, when I also took the microphone at Churchill Downs for this most classic of American flat races, the thought of other weak-hearted listeners was so persistent that at times I wanted to pause and say: "Now please don't get excited! Do take it calmly!" So far as we heard, there were no more tragedies.

But this is running ahead too fast! Let's go back to our first August!

Looking through the old records of that month I have come upon one marked, "The Lady with

the Plumes." Lord, how it makes me smile after all these years!

She lived in a distant city, and had written that she wanted to come and sing for us. A few friends had also written about the beauty of her voice, and enclosed programs of some of her concerts. That she was really an outstanding singer seemed absolute. It was quickly arranged and went down in our book—we called it our Doomsday Book—for an hour two weeks thereafter.

The afternoon of that day she telephoned from her hotel to get final instructions. Of course, there had been announcements about her and this concert de luxe, all of which seemed to put her into the best of humors.

When she appeared that evening I thought I was seeing things. There entered—rather, there tripped in—a cheerful lady about four and a half feet high and four feet broad. I once had a darling cousin like that, and at a distance could never tell whether she was walking or lying down.

Our prima donna was the original spirit of jollity. If ever I saw it, she carried the holiday in her eye. No more perfect carnival of fun could have been packed into one human frame.

And the way that frame was dressed! As

though appearing before a visible audience, she wore a full-evening costume of white satin, bare shoulders, of course, and a corsage of yellow roses. Two white ostrich-feather plumes adorned her hair, and she carried a large white plume fan, as well as long white gloves. Her plump body fairly shook with an ingratiating manner and, as she shook, so also shook the plumes both on her head and in her fan. I, too, was almost shaking, but with controlled laughter.

Her accompanist, a morose female of indeterminate summers, thrust the program at me and turned away to view our autographed pictures through a lorgnette. It was a heavy program, my word! Arias, arias and arias!

She had never before sung to a microphone. I doubt if she had given it a thought. Yet in sizing her up I felt confident there would be no tears or hysterics in one so patently a seasoned trouper.

Showing her where to stand, we awaited the red light. Even for several minutes before it flashed, she had taken her stance—left foot well forward, arms stretched out, hands clasped. (You've seen it many times on the concert stage.) And in her clasped hands were held, dangling, the long white gloves. The fan had been laid upon my desk.

I opened the station, said some complimentary things about her, announced the first aria, and she began.

Then I turned my back, because those little plumes on the top of her head were shaking so amusingly that it was no easy matter to watch her with a straight face.

As she started I felt amazed at the beauty of her voice. She was really singing divinely, and surpassing all that her friends had written me.

I announced the second aria, and again turned away. The accompanist played a brief prelude and paused. She played it again and paused. No voice came. Wheeling quickly with that terror which strikes deep when a program is on the edge of an abyss, I saw my prima donna convulsed in silent laughter. Her body was shaking like jelly, and the little plumes were almost dancing out of her hair. My severest frown had no effect, whatsoever. I doubt if she saw it. Her stance had not changed, the left foot was still forward, her arms still outstretched, her hands still grasping the long white gloves, but she shook and shook and shook.

The accompanist and I exchanged meaning looks—mean looks would be more accurate—and I made a quick, if inept, explanation to the listeners that we would have a piano num-

ber before Madame So-and-so favored us with the aria just announced.

As the pianist started I went to Madame with the idea of leading her from the room, for there was no telling when that silent laughter might burst into howls. But she would not lead. She could not. The spasms of mirth were holding her fixed upon one spot. The technician came in hurriedly, and as I pulled by the arms he got his shoulder somewhere around behind and pushed. It took time and strength but we finally reached my office.

"Now, what the devil made you do that?" I asked severely.

"Look," she gasped. "Look!" And she went into another paroxysm of shaking, holding her clasped hands close to my face.

I looked. I saw. I understood. And then I vulgarly guffawed.

Leaving the hotel hurriedly she had picked up, not the mousquetaire gloves, but a pair of white stockings, and her eyes happened to light upon them at the moment when she should have been starting that second aria.

Meanwhile the morose accompanist was playing and playing and playing, while the technician and I rubbed the prima donna's wrists, patted her back and brought her glass after glass

of water. She eventually finished her program, and most beautifully.

After seeing her down the iron stairway, our technician sighed. His silence could only have been interpreted as an emphatically profane observation. So I sighed.

WHILE our two daily programs got off punctually and with increasing success, there came a night of trouble—as must, of course, although we did not look for it quite so soon. This was caused by a cloudburst, in popular phrasing a "veritable" cloudburst, which deluged the city, and by seven-thirty, our opening time, none of the performers had appeared.

There were no such things as remote-control pick-ups in actual operation. The theory had been mentioned in a few of the most erudite technical magazines, without experimentation to back it up. It was also even before the days when we employed phonograph records and a self-playing piano. The dream of a chain, or network, hook-up had yet to be born.

We were in a tight spot. The only alternative to silence, which might have embarrassing results in Washington, was a modest stack of news flimsies which came to us late each afternoon. So on the dot of seven-thirty I went to the microphone and gave our sign-on, intending

to broadcast news until the storm abated and our longed-for talent should appear.

The minute hand crept lazily up the dial, the stack of dispatches grew thinner as I continued reading them, one by one, slower and slower, and still slower.

Our technician was gazing down the iron stairway, disheveling his hair and suffering with me. The rain sounded even worse. The final news item lay in my trembling hand. The clock showed seven forty-five.

That last story was about a notorious speculator in Europe—it may have been Hugo Stinnes—and told of a bold financial coup he had just achieved. With it, my ammunition was exhausted and so was I. An hour and fifteen minutes to go, and I had never attempted to address the microphone, nor any audience for that matter, more than a few brief minutes at a time. I couldn't sing, I couldn't play the piano, my lips were too frozen with fear to whistle. Card tricks were useless.

It was the quintessence of torture. To be abandoned in our padded room, believing that half a million people were listening to me, poignantly realizing that I had to do something for more than an hour without anything to do, made me want to die.

Desperately recalling a story that tied-in with the Hugo Stinnes yarn, and suffering the "sinks" one has in an express elevator going down, I drew a quavering breath and began:

"In our own Kentucky mountains we have someone who can match that wizard of high finance. She is known to me only as 'Aunt Sally,' and lives on an almost impassable trail six miles from nowhere. Her nearest neighbor is 'Uncle' Ben Allen who keeps a small store at the cross-roads.

"One December morning, when a soft snow was turning to slush, Aunt Sally broke a knitting needle. This is a tragedy to many mountain women who spend their winters knitting socks for the men folk. Undaunted, Aunt Sally drew a shawl over her head, went outside and felt around in the corn-husk rick for an egg, because she knew that an egg would be good for a new needle in trade at Uncle Ben's store. Finding one, she set forth upon her six-mile walk.

"Uncle Ben was all solicitude when she entered his store.

"'Why, Aunt Sally,' he exclaimed, 'this hain't no kind of a day for ye to be out! Hit don't belong to the likes of old folks!'

"Aunt Sally explained her predicament,

showed the egg, and he fetched down a box of steel needles. She took her good time squinting along the length of each to detect any slight sign of warping. She hefted them, ran her fingers over them, finally handing him the egg and weaving one particular needle into her shawl. Still solicitous, and following the hospitable custom of the community, Uncle Ben asked:

"'Will ye have a drap afore goin' home, Aunt Sally?'

"'Now, I don't keer ef I do, Uncle Ben,' she answered.

"He put the demijohn on the counter, also the cedar bucket of cool spring water, the dipper, and a tin cup, inquiring again:

"'How do ye take yer licker, Aunt Sally?'—doubtless thinking of the brown sugar—and Aunt Sally replied with superb savoir faire:

"'Most times I favor a raw egg in hit, Uncle Ben.'

"Uncle Ben possessed a sense of humor. And, besides, Aunt Sally was getting along in years. So he pushed out the egg she had just traded, saying, 'Take this-un heah, Aunt Sally.'

"She cracked it on the lip of the cup and dropped its contents in, then discovered that it had two yolks, and traded him out of another knitting needle."

Suddenly my ears were delighted by highpitched voices in the reception room. Our
technician burst upon me with signs of the concerteers' arrival. No news could have been more
welcome, no long-shot thoroughbred could have
thrust his nose under the wire in a better nick
of time. Had they not appeared at that instant I really do not know what would have
happened, and whether our listeners were as
bored with my part of the program as I was
nervous, may be left in the laps of the gods.
But one fact was obvious: we must devise a way
of getting remote pick-ups!

Parenthetically I cannot resist quoting a letter which came a few days after that dreadful night, if for no other purpose than to show how often radio listeners hear with only half an ear:

"Dere sir, I heerd wat you sed in your raydo of a man as is willin' to trade licker for eggs. Now my wife is got a flock of hens layen strong so if you send me that fellers name and adrest I garenty you wont lose nothing by it.

"P. S. how much is he got on hand and is it corn or wat.

"Yores truly-"

Those were the days of prohibition.

At that time our city was served by two telephone companies, and their engineers were implored for help on that remote pick-up proposition. Weeks passed. Apparently no means could be devised. We remained in isolation and constant apprehension of future cloudbursts or other causes which might delay our troubadors.

There was a theater halfway out the next block which had an orchestra in the pit, and finally with the consent of intermediate property owners, as well as the City Fathers, we stretched a lead-covered cable over roof-tops, across the street and into that building, attached a microphone, a basketful of other gadgets, and presto! we had one of the earliest remote pick-ups in existence. Some still insist that it was the first, but that claim cannot be supported because I vaguely remember having read that WGY achieved such a hook-up a few weeks before ours. At any rate, it created a local sensation in those days, and letters poured in upon us marveling that we should be able to "catch music at a distant point," do something mysterious to it, and project it to families sitting comfortably around their winter firesides. The quality of that transmission, moreover, was surprisingly clear. Now, one accepts as a matter of course

a transcontinental program carried over metal circuits for two thousand miles.

Before that, however, we tried broadcasting the World Series games, but this was done—the only way then possible—by having a telegraph key and special operator placed closely outside our studio door. As he received the play-by-play reports by wire—even including balls and strikes—they were immediately passed in to me and announced over the microphone. An explanation of this method to our listeners, who up to that time had had to be satisfied to wait for their newspapers, created another pleasant stir.

Two weeks later we handled, in the same manner, the Center-Harvard football surprise which put Bo McMillan and his Praying Colonels in the pages of gridiron history.

Today such amateurish efforts would be utterly laughable because of waits and various imperfections, but then they were hailed with acclamations of delight. In our section of the country, at least, they were the first, and that made them good.

Heartened by those little successes, our technician went into hiding and emerged with a brilliant idea. It was, in brief, to present a world series "radiogame" at our own Parkway Field,

to be played in pantomime exactly as the big fellows were doing it.

Although too late to try it out that year, he began work on the electrical and mechanical problems at once. Blueprints cluttered the premises, and headaches came and went, and pencils were chewed to their marrow-bones.

It finally came to trial when the Pirates and Senators battled for the pennant, in 1925.

Editor & Publisher carried a great story about it, parts of which read:

". . . presented to the public a 'radiogame,' in which the big league games were played off by local semi-professionals, simultaneously with the series games.

"So faithfully were the big league plays duplicated that photographs taken at Forbes Field, Pittsburgh, and at Parkway Field, Louisville, were similar in nearly all respects.

"Baseball experts who viewed the opening game declared the radiogame as good entertainment as the regular game.

"Two Louisville semi-professional teams represented the Pirates and Senators. They were equipped with different uniforms, wearing P's and W's to distinguish them,

used gloves, bats and masks. Two umpires were used in each game."

Special wire reports of the play-by-play games in the big league led directly to the press box at Parkway Field, and from there were relayed secretly through a microphone in the press box to the players.

Editor & Publisher, continuing, said:

"The plays were read as fast as received, time being allowed, however, for each play to be completed before a second one was given.

"Batters and runners could not hear the plays, but were coached by players on the various bases, all of whom were equipped with earphones. All bases were wired together, and all connected with the press box microphone. Each player was equipped with a complete wire device by which he received each play as called. This equipment could be detached when his team came in to bat and handed to the opposing player taking the field. An electrician was kept on hand to examine connections at the end of each inning and insure all players being 'alive' at all times.

"So well were the final two games timed that, starting a full inning behind the Washington game, the radio players caught up with the big leaguers in the last half of the seventh inning. During the eighth the announcer kept three plays behind Washington, in the ninth he sped by and kept one play behind. When the last Pirate batsman took his post the announcer caught up with Washington.

"The crowds at Parkway Field, Louisville, and at Griffith Stadium, Washington, left the stands simultaneously.

"Fans numbering 2,000 daily flocked to the Louisville field to see the games, despite cold raw wind and overcast skies."

It really made a first-rate show, and our actorplayers threw themselves into it with all they had. Balls and strikes were pantomimed realistically. When the press-box announcer, entirely out of sight and hearing so far as the spectators were concerned, said in a low voice "ball, too far in," all of the side not batting got it. As the pitcher began to wind up, the catcher would say, sotto voce, to the batter, "ball, too far in." The pitcher would pretend to throw, the batter would step quickly back to get out

of the way—and perhaps glower savagely at the pitcher—while the catcher, with a slap, pretended to nail the ball, and the umpire would yell: "Ba-all one!" Were the next a fly caught in deep center, all out players knew of it at once. Again the catcher, sotto voce, coached the batter. Up would wind the pitcher, then the throw; the batter would swing and start toward first; instantly center would turn and dash to the fence, reach up and make a brilliant catch.

Thus each play progressed and the acting was perfect. The reason we started half an inning behind the big leaguers was to keep the action snappier. But earlier plays were written on a box score sheet, so there would be nothing missed.

It was good fun, and we later had it patented.

It was in the early days of our "prehistoric era" that we launched out upon a new adventure, one that later brought us more favorable national comment. This was an offer to broadcast for persons missing from home, who could not otherwise be located. We called it: "Paging the Ether." Really, some of our finds were extraordinary, and showed us anew the penetrating, all-reaching power of radio.

Replying to that announcement a letter came one day from a gentleman in Russellville, Kentucky. The writing indicated age and effort. He had received no word from his son, Dan, for more than a year, and had abandoned hope of finding him until hearing the offer from our station. Now, perhaps, through this new science, we might bring some light again into his life.

So that afternoon I asked for news concerning Dan's whereabouts and said that his father wanted him to come home.

Several weeks elapsed, and then a brief but happy note arrived from the father saying that

Dan had sent him a post card from Seattle. We were pleased, of course, but I did think the chap had taken an inexcusably long time notifying his dad, because our message had reached that northwestern city in less than a tenth of a second. However, in a few days, this letter came, again from the father:

"I am writing to tell you that the prodigal, Dan, whom you broadcast for, has returned; the fatted calf has been killed, the ring placed upon his finger and shoes upon his feet. He was on the Pacific Ocean, out from Seattle, on a boat. The Captain sent for him and said: 'Dan, your father is calling you. He wants you in Russellville.'"

This had the scent of a good story and needed following up. In brief it turned out that Dan was on a freighter, en route from Australia to Seattle. One day when they were 200 miles off Cape Blanco a sailor came into the fo'castle telling Dan the Captain wanted him. He deferentially entered the master's room, saw him lolling back with sea boots up on the table and two strange looking black things clamped to his ears. These were removed as he sat up and delivered the message.

Now Dan knew as much about radio as I had a few months before, and that was nothing. So he backed away, quietly closed the door, then dashed down the companionway stairs among his fellows, shouting:

"The old man's hearing voices—gone crazy as hell! Says my father's been talking to him from Russellville, Kentucky, and wants me to come home!"

I can sympathize with Dan, having entertained similar sentiments toward my friend, the newspaper publisher, when he told me the previous April what this radio thing would do.

At any rate, when Dan finally went ashore at Seattle, he sent his father the post card, and then followed upon its heels.

Even our signal having reached so far was most exceptional, and the Captain might have tried daily for months before he caught us again. But broadcasting waves from our little 500 watter, when conditions of air and earth were exactly right, sometimes registered in almost unbelievably distant places.

In glancing over ancient clippings from home and foreign newspapers, I vividly recall many of the happy surprises which we were the medium of bringing to worried families. And I feel again, as I did then, humbled in the presence of

an invention which all but approaches the solemnity of a divine miracle. Results were so simply obtained! No effort, skill or ability was required by the announcer. He merely said into the microphone something like this: "We desire information concerning the whereabouts of so-and-so." Age and appearance of the missing person followed, and also the place where last heard from. Listeners were asked to telegraph, charges collect, if they could assist us.

That inquiry went into hotels, boarding houses, lowly rooming places, farms, cabins in the woods, highway garages and filling stations. It penetrated places where individual searchers would not have thought to look.

In our old scrapbook of those clippings I see that "E. Anderson learns of uncle family gave up as dead thirty-five years ago;" "radiophone finds Mary Allison who has been lost twenty-four years."

A nice little find occurred early one night. A "must" telephone call came through from the Department of Justice which, a few minutes before, had received word that a prisoner, being taken to the Atlanta Federal penitentiary, broke from the officers and jumped off the moving train some thirty miles below Corbin. He was a counterfeiter, dangerous, and very powerful.

Then followed a personal description. Would we please broadcast it?

Hanging up the telephone, I immediately called back that same office to check the story's authenticity (an invariable procedure upon our part to guard against practical jokers).

It was time now for opening the station, and naturally this important news went on the air ahead of the concert. The result of it we heard

next day.

A Mr. N., alone in his cabin about thirty miles south of Corbin, happened to have his receiving set tuned to WHAS, his earphones adjusted, waiting for our program.

After we had signed off at nine o'clock he stood up, stretched, and was about to retire, when someone knocked on his door. Mr. N. opened, and there entered a man whose face and hands were rather badly scratched. The visitor explained that his car had run off the road. Could he obtain shelter for the night?

"Delighted," said Mr. N., or words to that effect, at once recognizing the escaped prisoner. "I'll go out first and bed down my horse, then come back and fix you a place to sleep. In the morning I'll help you get your car out of the ditch."

Instead of bedding down his horse, he quietly

mounted it and rode to a near-by town. With constable and posse he returned, and the counterfeiter found himself again in jail.

And following it, incidentally, we received a few pointed letters, presumably from the recaptured lad's gang, promising an immediate and fine revenge.

Of course, nothing came of those. The important thing was: we got our man!

One mob of gangsters whom we did not get—though how they escaped is still a mystery—happened not long afterward. A long distance telephone call from a sheriff notified us that a county bank had just been held up by armed men who escaped in a black sedan. Immediately calling back for verification, I broadcast the alarm, notifying crossroads stores, blacksmith shops, filling stations to muster out the neighborhood, stop all cars, and be prepared for a scrap because the gang was armed. As this message fortunately arrived during the afternoon program, there were many already tuned in to our concert.

It later developed that deputies and posses, who gave quick pursuit in other automobiles, found themselves stopped at various points by indignant country folk who had been rallied by our message. This, rather than retarding

pursuit, was in reality of great assistance, because it informed them that the thieves had not passed that way, so they turned, following other routes.

The incident led us to offer our police department a twenty-four hour service for just such emergencies, if the city would assign an officer, holding a broadcasting license, to be on duty at our transmitter from the time we signed off at night until we took-on again in the morning. In cases of emergencies he could start the apparatus and send out warnings. But to make this effective we had to devise some means of awakening the rural population so that all could turn on their receivers and get the news.

This seemed possible by the installation, at strategic points, of a coherer tube—which is the common form of coherer used in wireless telegraphy, consisting of a small glass cylinder lightly filled with equal parts of silver and nickel filings, which lie loosely when undisturbed but freeze together if activated by the influence of Hertzian waves, and thus effect a circuit.

In certain bedrooms throughout Kentucky and Southern Indiana we planned to install these, each of them connected with the common variety of electric bell and dry cell, the contact being made for ringing when the tube solidified.

Then the county sheriff, country storekeeper, et al., would get up, put on earphones, and know the worst.

First, however, in our station the police operator, after starting the set, would revolve the tuning disk to a fixed pre-established frequency designed to agitate the coherers, let that frequency run for sixty or ninety seconds (by which time we could imagine bells ringing in a thousand homes), then tune back to 360 meters and broadcast the bulletin. Thus we would immediately throw an electric net, so to speak, along all roads and the citizens would be waiting, shotguns in hand, to gobble up offenders.

The only drawback to this ambitious plan was that we could not attract the attention of those coherer tubes beyond the utterly fruitless distance of a scant two miles. They simply refused to become interested, and remained as bereft of feeling as the banker during his glacial period of '29 to '32. But it was a great idea while it lasted.

This, of course, took place before the days, or even the thought, of police short wave transmitters, with receivers on motorcycles and in cars. They now have their own electric net.

Such wide activities in the finding of lost persons, aside from stolen automobiles and an occasional apprehension of criminals, brought us

a national reputation. Requests by mail multiplied, and not infrequently men or women came long distances to make more confidential appeals.

Several of these remain in memory with distinct vividness. One was a really spectacular find. Concerning another, I was not permitted to know if we had been successful. Should her eyes light upon this, she may drop me a post card—unsigned, of course,—saying "Yes" or "No," thus dispersing my lingering pangs of curiosity. And the mention of a post card here suggests a third, an answer which did come, tragic in its simplicity.

ONE DAY a young Frenchman came into my room. His name was Jean Salomez, and he was visiting every coastal French Consulate in the world, he said, in search of a long-lost uncle. When in New Orleans someone had told him of our "Paging the Ether" service; so he hurried to Louisville.

His story was fascinating. He had had three uncles living in Lille, France, but forty years before, one of these, due to a slight contretemps with a lady friend, had left for parts unknown. Meanwhile their father died, leaving each of them \$70,000, and shortly thereafter their mother died leaving each a like inheritance. The \$140,000—or, according to exchange at that time, about a million francs—of the missing man had been kept in trust for him, should he ever return.

Now, recently, one of the two known uncles had died, leaving his estate divided between the other known uncle, the absent uncle, and the young nephew who was telling me the story.

But this last uncle's will provided that if the runaway Lothario were not located in seven years his estate, which had grown considerably, would be divided equally between the last surviving uncle and the nephew. Conscientiously this nephew was traveling the earth in search of that errant uncle.

"But," I protested, "you say he was forty years old when he disappeared, and that he's been gone forty years. If I broadcast this you'll have fifty octogenarians crashing your gates for that fortune. How can you possibly pick out your uncle, who left before you were born?"

"It is quite simple," he answered. "For the past three hundred years every male child born in the Salomez family has been marked with a secret mark. That shall tell me!"

Now this was drama—that private mark! You may recall my saying that we were a department of our newspaper organization and, as a matter of course, our interests were cordial and loyal. Foreign news dispatches which affected us were sent to me, and likewise we reciprocated with information—when it was not obtained in confidence, of course,—which interested them. That entente was only natural, and quite dissociated from gestures of mutual

"plugging." So I took him to the city editor's desk. But even with press and radio combined there seemed hardly a chance of finding the absent one who might have been dead for years.

That same afternoon I broadcast as much of the inquiry as seemed desirable and two hours later received a long distance call from Middlesboro, Kentucky—far down in the southeastern corner, in the mountains, near the Tennessee line. A woman's voice said that she had waited for her husband to come home before putting it through. He advised her to get in immediate touch with us, because in their County Poor Farm there had been for—Oh! a very long time—a little old man obviously French. People considered him "touched," since upon a few occasions when he became excited he had cagily hinted at a fortune awaiting him in France.

"I've no idea it is the same man," she added, with a slightly embarrassed laugh, "and think it's rather silly to telephone, but my husband says you never can tell!"

After being yoked a few months with radio, I thoroughly agreed with him. You never can tell! Long shots would not be long unless they did come through, once in a blue moon.

The short of it was that that very night young Salomez, accompanied by a feature writer and

staff photographer, boarded the train for Middlesboro. They were met early next morning by the lady and her husband, breakfasted, and were driven to the Poor Farm.

It seems that at first the old fellow did a lot of pouting and stubbornly refused to answer questions, but after considerable palaver, coaxing, and flattery on the part of the young Frenchman, he grudgingly admitted his identity.

"If that is true," said the nephew, "you must have---"

The other interrupted with the first real spark of animation he had shown. He drew his poor little bent body up to its best military height, and seemed to be on the point of singing the Marseillaise.

"The Salomez secret mark," he cried. "The Salomez secret mark! Come!"

Excitedly they entered an adjoining room, closing the door, and in a few minutes emerged with arms around each other. Both were weeping.

The old man was indeed genuinely "touched," and had become quite childish. Nevertheless, the nephew took him home to France, to live happily ever after—and that was that.

Small wonder the public became more than ever convinced that radio performed miracles!

About this time I remember having had the hardihood to say that nothing surprised me, even though being surprised every day. There was no paradox intended. It merely meant that the repeated pounding of such sensations was lowering my threshold, and they passed in with more tranquillity than before; that even if the nebulous body of Napoleon should appear and want to give a radio talk about Josephine, Waterloo, or some of his other battles, I might book him without stopping to think. Therefore I was rather amazed to find something far less alarming than a Corsican ghost giving me the greatest surprise of all.

It was thus that I sent a broadcast through the air which has haunted me ever since, an inquiry for a certain person—though I have never known if it produced results. For it was not intended that I should know—either the one sought or the one who did the seeking.

October had come, the most beautiful month in Kentucky. Maples, oaks and sweet-gums were a riot of color, and purplish haze washed the hills. All the tubes of mauve and orchid were squeezed dry, for Nature had set her palette drunkenly. I had seen it that morning driving in, and its beauty hurt. And now, for hours under roof, I worked fast to get my stuff fin-

ished, hungering to be in the woods. For a reddening oak or bronzing beech can give me a yearning more poignant than a ewe's sad bleat for its missing lamb.

With attention riveted on my desk, I gradually became aware of a nearby presence. Distinctly could I feel the mesmeric influence of someone watching me. Slowly, even reluctantly, I glanced up.

Framed within the doorway, her body poised in an attitude of graceful uncertainty, her eyes regarding me with a rather startled, questioning look, stood a girl. She must have come in very softly. At that hour the place was vacant, and our rooms were so far above the street that few outside noises reached us. In such quiet I surely would have heard the usual step.

Her costume was in charming taste and she made, indeed, an exceptionally attractive picture—with no exaggeration, a dazzling completeness of beauty. Curiously fleeting touches of something alien and intrusive clung to her. She seemed as if she had wanted to come, yet did not want to, and I felt that a quick move on my part might send her incontinently flying, so strikingly was she a creature of delicate and rapid responses.

For a few moments we merely stared at each

other. When I arose she came hesitantly forward and took the chair I placed. In spite of her loveliness I began to feel that she was overdoing a part. This rang a little bell of caution in the backstairs of my brain—for already we had discovered that radio people were supposed to be easy marks for various and sundry touchmasters.

"Are you the manager?" she asked, in a low voice.

I bowed.

"Are we alone?"

"Quite," I assured her.

"Would you mind closing the door?"

"We have a rule up here against closed doors," I said, with an unfortunate lack of diplomacy, but absolute truth.

She flushed, and her eyes held a momentary look of reproach.

"Please let me explain," I hastened to add. "Our quarters here, as you've noticed, are very remote—up under the roof, with no usual business hall or passageway anywhere near. Whether or not against our individual predilections, deportment must have the appearance of strict propriety—since otherwise parents might object to their daughters broadcasting and, as all talent is voluntary, such interdictions would hurt us.

Moreover, many listeners from out in the state, coming to the city, want to be shown through. They are already half suspicious of the word 'studio' because of Little Egypt's antics on a dinner table and other gay New York party-exposés which have received wide publicity. So when they climb our narrow iron stairway to complete isolation some of them are on the look-out, understandably enough, for things disparaging. Please forgive the long explanation. But it had to be, for my seeming rudeness."

"It is quite commendable," she said, in so even a tone that I was left wondering whether it were sincere or a gentle sarcasm.

A somewhat too long and embarrassed pause followed this.

"I must speak with complete frankness," she continued. "And you must fully understand my distress, because I'm going to ask a really big favor of you."

At last, the cat was out of the bag! That queer feeling I had had at the outset meant there was going to be a catch in this! She read my suspicion, for the hurt look in her eyes returned, as she added:

"It isn't to cash a check. I have more money than I know what to do with."

"Then maybe you'll cash mine." I laughed,

feeling like a he-man donkey. "But, if not that—what?"

"Please listen, and don't laugh any more. It's frightfully hard to explain."

With that it seemed suddenly as if all hope of discreet reticence was ripped to shreds. Her well-bred mixture of calmness and sensitiveness changed as she leaned nearer on my desk. I saw now that she was painfully in earnest, and when she spoke again, though clinging somewhat desperately to her poise, her voice held an acute note of distress.

"No one knows I have come here, except my husband. It was his suggestion that I make this long journey to have you radio something. Had we done it nearer home—well, we just couldn't. Besides, yours is the only station which does that kind of thing. Then, too, this is the place where it happened."

She stopped, summoning more courage, and in a moment I realized why she needed it.

"Mr. Radio Man, I was a love child, born in the city hospital where my mother died. But my father was wealthy and had me taken almost at once by a private nurse, a wet-nurse. Later I went to a private school. A few years later still, when his legal wife died, I lived with him as his ward, having everything in the world I

wanted. And when I was old enough he told me the whole story.

"Three years ago I married, most happily. My secret made no difference to the man who loved me. Then, on my wedding day, Father handed me a packet of little trinkets which my mother had given him to keep for this great moment of my life. A year later he died, leaving me his estate.

"Last month I happened to get out the keepsakes again. One of them, a gold locket, I was dangling over the crib of my baby who delightedly tried to catch it. He is just a year." She paused. "For the first time I noticed that it had a hinge. Prying it open I found, tightly crushed, a very thin piece of paper, written on with pencil by my mother-when she knew death was near. You can imagine what she said—a sort of little prayer for me—and she also wrote that she had kissed 'the tiny birthmark under my chin.' Mr. Radio Man," her cultivated voice sank to almost a whisper, "she said there was a birthmark under my chin!"

A longer pause followed.

"Well?" I inquired, fascinated both by her

and the unfolding of this strange tale.

"There's no birthmark," she tilted back her head. "The hospital people blundered, and gave the nurse my father sent, the wrong baby."

"But," I explained, "couldn't you have outgrown it?" She shook her head.

"No. I have visited the best dermatologists. They made tests. There is nothing—and there never was."

"Why not a bruise-forceps?"

"My elderly nurse lives near here, and I've been to see her. She took me at five days old, you know, and is positive I had no bruise—nor birthmark, either."

She was carrying this off rather splendidly.

"Would your old nurse remember?"

"O, yes," she smiled slightly. "She knew me the moment I entered her home—a home my father had bequeathed to her." She paused again. "No, there's nothing else to do. My husband thoroughly agrees that we must find the right girl—for somewhere there's a girl entitled to the estate my father left." She added with the slightest of smiles, and no doubt again reading my look of admiration: "I'm not being a martyr. He is quite wealthy, himself. How long will it take—that is, if you agree to help me?"

"Better allow four days to get distant answers. Where are you staying?"

She mentioned a prominent hotel, and added: "I'm to remain four days, and then come back here?"

"If you prefer it that way."

"I—I believe I do. I'd rather not have you know my name—if you don't mind! What are you going to say?"

"Let's see," taking a pencil. "'Somewhere, there is a young woman'——(you said twenty-five, didn't you?)——'twenty-five years old, with a small birthmark under her chin, who has inherited'——(shall I say a fortune?)——'

"A fairly nice fortune."

"——'a fairly nice fortune. Her more complete identification may be proven later. Meanwhile, if any one of you answers this description please write WHAS at once; or if you know someone twenty-five years of age, with a birthmark under her chin, be good enough to advise us immediately. Address all letters to: Birthmark, in care of this station.' How's that?"

"Do you think we'll get any?"

"It's a gamble. Was it Tennyson who 'shot an arrow into the air?"

"Longfellow." She smiled, arose, and left me. Four days later I placed in her hand thirteen letters addressed to *Birthmark*. She was quite elated and went hurriedly out, intending to take the next train "home"—wherever that was.

I sometimes find myself wondering if anything came of it!

THE subdued voices in which hundreds of courageous men and women confidentially told their tragic and pathetic stories, in my little office high above the street, have left with me a sincere admiration for the human being in distress. Few cracked-up. If eyes were sometimes averted, the great majority went evenly ahead with chins out, their brave monotones giving no hint of hearts which I could see were breaking, or broken. No drama was ever written that could match the throb and pulse of these tales—none of which I can even hint at here. They were given as a sacred trust.

As a girl in search of a birthmarked alternate has for years haunted me, so have I wanted to meet again a man who dropped in one afternoon with a simple request for help. For obvious reasons names and places are changed.

He had completed two terms of enlistment in the Army, when word came of his mother's death in Louisville. A trust company had been named executor, and when the will was read he found

himself sole heir. The estate had little value. Two aunts were present at the reading of the will, and they now divulged a previously guarded secret that this soldier boy was not the son of the testatrix, at all; that he had been born a waif in the City Hospital, and raised by their sister who was childless and tender-hearted.

Strangely enough, in the dead woman's box was found a clipping of an old newspaper, set in agate, and evidently inserted as a "Personal" advertisement. The wording was frank and to the point:

WANTED—A Christian family to raise a white male child two weeks old, born in City Hospital.

Dr. So-and-so, (and address).

The date of that newspaper was February 20, 1891.

"What can I do?" I asked him.

"I don't know," he replied. "My aunts (but, of course, they aren't my aunts, any more) didn't say that just to get the estate, because it doesn't amount to anything. They honestly felt I ought to know the truth. They meant well." He paused. "But I'm sorry they ever told me. Then I could have gone through life thinking

tenderly of a dead mother. She was like one to me." His face gave a slight twitch. "But now—now, I'm sort of—swinging in the air. I feel as though there's nothing under me. That was two months ago, and I can't sleep, wondering who my mother is, or was. I thought, maybe, you could help me find out."

And he *looked* as if he hadn't slept—haggard, thin, worried.

We got to work, though not at first by radio. He proved to be a good investigator. As a beginning, I sent him to search the hospital's old records. They showed that only one male baby had been born there during February, 1891. So he must have been that child.

The records further showed the mother to have been admitted under the name of Mrs. John Doe, and her occupation given as "Housekeeper, Louisville." Then to the Public Library for the 1891 City Directory, but no Mrs. John Doe appeared in it.

Obviously she had given another name, and the trail abruptly ended.

I sent him back for a further search of the hospital records, and this time he found the names of three nurses who were on the maternity ward during that month and year. So we turned to the current City Directory, but none of those

names was listed. The nurses might have married, or died.

This was the place for radio to step in, so I broadcast:

"In February, 1891, there were three nurses in the maternity ward of the Louis-ville City Hospital. In order to complete a family record, it is important for us to get in touch with them. Will anyone who nursed in the maternity ward of the City Hospital, Louisville, during February, 1891, please notify WHAS."

Within five minutes one of them telephoned us. She had married and was living nearby. By arrangement the soldier left immediately to see her, and his report was about as follows:

"Yes," she said, "I remember the case, because of the interest Dr. So-and-so took in it. That advertisement brings it all back to me. He was a very kind old man, always doing charitable things. The young mother was quite pretty, and we nurses believed she entered under an assumed name, from Blanktown, Indiana."

"Why did you think she came from there?"

"I—I don't know. O, yes, I do remember now! One of our internes was most solicitous

and tender with her. He came from there, and they seemed to have known each other."

"Did you ever suspect that he might have been the father of her little boy?"

"Now that you ask, we did sort of think that, because he made three closely successive trips to his home just before she came. I know all of us noticed that he was worried about something."

"Could hey have been married?"

"No."

"But perhaps he married her after she left the hospital?"

"I'm sure he didn't, because we heard she had gone back to her home, and when he finished his interne work I know that he started practice in Exeville, Pennsylvania."

When the soldier brought these assembled facts to my desk, I wrote the doctor saying merely that a man had come asking us to broadcast for news concerning his mother, that old records shoved her to have been admitted to our City Hospital in February, 1891, perhaps under a fictitious name. As he had been an interne there at that time, would he assist us should he have any recollection of the incident? A self-addressed stamped envelope was inclosed, and my carrying envelope marked: "Return in 5 days to—" etc.

Even though justified, I felt a little sorry bringing out this ghost of the past, should it transpire that the doctor had been keeping it in his closet.

Two weeks went by. No answer. Neither was my letter returned, and that rather placed him as being alive in Exeville. So I wrote again, politely but somewhat more to the point. Three weeks went by. Silence.

"I'm satisfied she was my mother." said the distracted soldier. "And he's my father. I'm going up there!"

"Is that wise?" I suggested.

"It's got to be! Not knowing is the thing that's killing me! I'll go to his office as a patient, and when we're alone——"

"Wait a minute! All of that happened over thirty years ago! Think it out! You may find yourself facing any of three situations: first, that they did marry, regardless of what the nurse thinks——"

"Then why let me be advertised as a waif and put up for sale!"

There was something terrible in the restrained bitterness with which he said it.

"Very well," I agreed. "We'll dismiss that, and look at the other two. The nurse said she was pretty, so the chances are that she has long

since married someone else, and you'll never find her."

"Would it be possible to broadcast and request her to write you?" he asked.

"No," I said, and let it go at that. For who could expect a lady-mama of a little bastard child to pop right up and answer such an inquiry? It would be as futile as blowing a horn at a red traffic light. "So there's only one probability left," I continued. "You'll go to the Pennsylvania city and find that this doctor has become a personage, general practitioner, respected and even beloved. He may have a family of his own. Would you step in, after all these years, and scramble their lives? It's a serious matter!"

"I've thought of that," he answered quietly. He answered quietly as he suffered quietly. That's what I liked about him. "If it turns out as you say, and he tells me the truth, I'll promise to slip away again and no one will ever know I was there."

"And then do—what?" I asked, feeling deeply sorry for him.

"Well, then there'll be nothing left, I suppose, but go back in the Army."

It may have been three months later when I received a post card from the northwest:

"Thanks for all you did. Have rejoined my regiment."

Would you mind my telling just one more "Paging the Ether" story? It is somewhat different, because it never got on the air, at all.

I looked up. Standing patiently by to get my attention, was a small boy. Blue, large and wistful were his eyes, and his cheeks were smeared with dirt and tear stains. Not in recent hours had a comb and brush touched his tousled hair. He held a worn cap with both hands, grasping it tightly as if suffering under some strong emotion. As I smiled, he essayed a smile in return, but it was half-hearted.

"Mister," he began, "don't you radio for lost people?"

"Yes."

"Well, I wisht you'd send one fer Mister Mac! He's been gone since yesterday and I can't find him nowhere!"

"What's his full name?" I asked, taking up a pen.

"Just-Mister Mac, is all we know him by."

"Age?"

"Oh, he's awful old!"

"We must have something more definite than this! What's the color of his eyes?"

"Brown," the little boy spoke up confidently.

"Brown, Mister! But he can't see, hardly. There's sort of something white growin' over 'em."

"Hair?"

"It's black an' white spots."

"Spots," I exclaimed, sitting straighter. "Are you talking about a dog?"

"Yes, sir, he's a setter."

"I'm sorry," I said, laying down my pen. "Our rules only let us broadcast for lost people."

"But he is people, Mister!" The little urchin's body grew tense as he saw a likelihood of having his request refused. "He's just as much people as anybody!"

Tears were gathering afresh in his eyes. He had banked his last hope of finding Mister Mac through the necromancy of radio and, as he saw this slipping, a kind of panic seized him.

"Please don't turn me down! Suppose he was your dawg!"

That was exactly what I had been supposing. I had owned many dogs in days gone by. They had owned large portions of me. Through a mist I seemed now to see their honest eyes of chestnut brown, looking at me as steadfastly as the blue eyes of the little boy, pleading with me to extend to this suffering youngster a mite of the kindness I had shown to them.

"Even if he were mine," I answered softly, "I couldn't break the rule."

"Oh, Mister," he choked back a sob, "you don't know how bad it is! Why, when I was just a baby me mudder put Mister Mac in bed with me. He was a puppy then, an' him an' me grew old together. An'—an'—well, when me mudder died-. Well, every day when they made me leave for school Mister Mac came to the corner with me, an' watched me out of sight. An' when I got near home again, he was always there a-waitin'. An' he'd hold my hand in his mouth, Mister, like as if to lead me. That's the way we was. An' if things went bad an' I had to cry, he'd put his head clost on my chest an' cry, too. Honest to God, he'd cry just like me! Or if I'd laugh a lot, he'd wag his tail an' grin so wide vou could see all his teeth. Oh, he was just as much folks as anyone. Mister!

"An' yesterday I did him a dirty trick—without meanin' to. Us kids was playin' on the street, an' I jumped in a passin' wagon without his seein' me. An' then I called, like as if I was in trouble. An' bein' half blind Mister Mac couldn't see where I was. He looked around ever'where, awful anxious an' scairt, an' then run off the wrong way. That's the last I've saw of him. An' maybe he's been hit by a ottermobile,

lyin' up in a alley somewhere dyin', with no one to give him water, or pet him, or tell him I'm sorry I played that dirty trick. Oh, Mister, won't you please, sir, help me find him?"

I am not in the least ashamed to admit that as he told his little story I wanted to throw him downstairs. It would have been against rules to grant his request; yet I did not have the moral courage to refuse it. Thus, for half a minute, I stared at the wall, while he waited expectantly.

It was during this torturous interval, as the shades of my dead dog friends were passing before me, that three boys dashed into the studio, stopping abruptly when they saw us. Then one whispered excitedly, "We got 'im, Bud!"

As though in obedience to a magic wand, they instantly vanished. I heard the clattering of their shoes upon the iron steps, the slamming of the iron door.

Finally I went to the control room window—the only one that opened—and looked down upon the street, a hundred feet below. There, within a circle of enthusiastic urchins, a tousled-headed kid kneeled with his arms tightly wrapped about the neck of a benign old setter, which vigorously wagged its tail.

Would I have broadcast for the lost Mister Mac? I don't know, even now.

OUR reward for the effort of finding—or more often trying to find—missing persons was not all satisfaction. It became simply appalling to realize how many boys and girls had run away. The boys did not affect me so much, because I understood their urge for wanderlust and felt that most of them would turn up, safe and sound, when the excitement wore off and nostalgia set in. It was a different story when girls ran away.

I have listened to scores upon scores of tales from grieving fathers and mothers in the seclusion of my office. Many of these parents came from long distances. Some of their daughters had disappeared years ago, some only within the week. They sought me out in the strictest personal sense—since I was in command of the station, and the station had become widely known for this type of service.

In the majority of instances, especially when local persons were concerned, I argued for deferring the broadcasts until a last resort. The police worked closely with us, and those watch-

ful fellows, faithfully keeping my confidences, quietly returned many a girl to her home, thus avoiding the embarrassment of radio publicity.

As the unexpected knowledge of so many shutins had depressed me earlier that summer, now this ever-growing list of errant girls and boys gave me another attack of dejected amazement. Things must be out of joint, somewhere! Was it prohibition? Post-war hysteria? Or had this juvenile unrest been going on year after year, and was the attraction of radio only now bringing it, wholesale fashion, to light?

Letters came from as far west as Utah; from the Great Lakes to the Gulf, and the Atlantic states. Some were written on engraved paper and phrased in delicate taste, some with pencil, all but illiterate. Back of each was a tragedy of sorts, and I puzzled deeply whether the fault lay with the homes or with the run-aways.

In one instance, at least, this question was answered that winter, and although radio made the find, it could not have turned out as fortunately except for newspaper assistance.

Heaven forbid that I suggest here, in the year of our Lord 1937, the advisability, or otherwise, of co-operation between radio and press. These are peaceful pages, intended to arouse no controversies—even although there are times when

co-ordinated efforts between the two achieve wider results—community chest drives, warnings of epidemics or other dangers, all manner of things which concern the public welfare.

The day before Christmas a man came in. He was large and healthy enough, but curiously servile. His little son had disappeared—run off, he was sure of it! He affected a for-God's-sake-help-me-it's-breaking-my-heart attitude which was neither pretty nor convincing. Anyhow, the description card was filled out, his address and other usual information taken, and he left.

That night, about bedtime, the then managing editor of the Courier-Journal called me at home.

"Did you broadcast for a missing boy named Hicks?"

"Yes. This afternoon."

"A man telephoned that he and his wife found him tonight hiking along a road across the river. Saw him in the shine of their headlights. The woman had heard your broadcast, and had a hunch it was the same boy, so they turned back and picked him up. They say he's a nice little fellow. It ought to make a good human interest story for tomorrow morning—father-and-son reunion, and Santa Claus. Can you help me? Know the father's name and address?"

"That's in my office. I'll be right down!"

I would rather have stayed indoors that Christmas Eve, for the weather was freezing. But, aside from a desire to bring the runaway home, some of my early years spent in news rooms as well as in the hunting field had doubly taught me the old, old maxim—which is said to have dated before the days of Park Row and Fleet Street—that "a story and a fox are two things which must be run to earth."

The address I finally stopped before had been a fairly nice house in times gone by. Like others of its kind along that street it had fallen in with bad company. No light showed. The front door was wide open, and the bell-pull—the old-fashioned kind—had been jerked out by its roots and hung dejectedly from a single wire, swaying in the frosty wind.

My flashlight showed a bare front hall and carpetless stairs leading up past broken patches of wall plaster into blackness. It was a most uninviting place. I hallooed. And hallooed again. Finally, from a rear door, appeared a haggish kind of female, nightgowned, barefooted and wrapped in a dirty quilt. Her hair, which must otherwise have been gray or white, was carrot red.

"Who d'you want?"

"Henry Hicks," I answered.

"He ain't here."

"Then his wife—if he has one."

"Oh, he has one—when she ain't on the streets! You go away!"

I explained that Hicks must come and get his little boy, whom we had found.

"The poor kid," she murmured, growing more human. "I'll tell you where Hicks is, but don't never let on I did!"

She directed me farther in the street to a gambling and bootleg joint. It, too, seemed dark, for the worst of those places at that time not only kept blinds drawn but blankets tacked over them. The door was locked, of course. Nobody came when I rattled the knob and pounded on the panels. I believed someone was in there, and that the woman had told me the truth.

At this moment, from a dark doorway across the street, emerged a short fellow well bundled in sweater and overcoat. Obviously, the lookout.

"Can't you get in?" he inquired, pleasantly.

"No. I want to find Henry Hicks."

"I know Hicks, but he never comes around here. I couldn't get in, either. They've gone home long ago."

"All right," I said. "I'll be waiting in the

Managing Editor's room of the Courier-Journal. You tell Hicks we've got his son, and if he isn't there in thirty minutes we'll come back with a squad car and bust this door open."

Hicks made it, bringing along a pal of the same caliber.

When the M. E. explained our situation, Mr. Hicks showed no signs of agreement. He had entirely recovered from his broken-heart over the missing lad.

But Charlie—he was managing editor in those days—had his own heart set upon that touching reunion of fond parent and wayward offspring.

"It ain't no use," said Hicks. "I got thirty dollars in a game there, and I don't dast leave it!"

"Let your buddy, here, go back and watch it for you," Charlie suggested. "What's thirty dollars anyhow, to getting your little boy again?"

"Hell," said Hicks, spitting on Charlie's floor.

Charlie possessed the amusing characteristic of becoming gentler and more courtly with increasing anger. Such men are said to be dangerous, and make good watching. He now leaned forward, smiling and looking every inch a benign and benevolent professor.

"Mr. Hicks," he said, in a slow, pleasant voice, "I am a Christian gentleman, dispensing Christ-

mas cheer, and hell-bent on bringing happiness to distracted families. A warm taxicab is waiting to take you across the river on an errand of parental love. You either go, you God-forsaken louse, or spend tomorrow in jail—and I'll put you there!"

As I've remarked, the M. E. had his heart set on that human interest story. And Hicks went.

It was one o'clock when Charlie walked with me down the hall and pressed the elevator button. Hicks, a feature man, and a photographer with flash powder, had just left.

"Thanks for coming," he said. "But we've made a rotten mistake tonight in finding that kid. I'll get hold of the Children's Protective Association."

But it so happened that the Children's Protective Association was not called upon. For another woman, who had heard the broadcast, read that Christmas morning story aloud to her husband and, although it did not, of course, divulge the tragedy of the lad's situation, it somehow contrived to spin a tenuous thread of sympathy which reached their hearts. Inquiries followed.

The boy was given the protection of their

home, and six years ago I heard that he had finished High School.

Mr. and Mrs. Hicks have long since disappeared. You may have guessed that Hicks was not their real name, anyhow.

And forgive me for decorating this tale with so much newspaper scenery. But, were it not for a managing editor, that youngster would merely have been returned to his horrible surroundings and probably drifted to ruin. Equally true, had radio not found him in the first place, the valiant part which the M. E. played could never have crystallized.

It was one case, at least, when the Fourth Estate and The Art, working together, did an acceptable job. Now, see here! I have run you up to Christmas along the shadowy road of missing persons, and passed several important milestones at which we should have stopped and read! On one, might have been carved the word "broadcasted."

We had not gone very far in our radio adventure before that atrocious "ed," as a past tense, appeared more frequently in the spoken and written word, at last reaching such a point that it bade fair to become a national curse. About half the letters we received used it in one way or another.

"I think your program was as fine as any I've ever heard broadcasted."

What feelings of pleasure I derived from the first twelve words fell dismally into groans of pain at the thirteenth.

A letter from the editor of a Chicago radio periodical, stated:

"This magazine is broadcasted monthly by the"—etc.

On the first page of another publication ap-

peared the thrilling information that "some phase of dentistry will be broadcasted from KDKA."

It began to appear in distant editorial columns, in some of the more forthright magazines. It spread like influenza.

Finally, I opened our evening concert period with a little talk about it, and was delighted to learn how many others had been suffering with me.

This, of course, seems very far away at the present time, but it marks a phase which may still be remembered.

The first acknowledgment of my radio effort to suppress that grammatical mayhem came from an attorney in McPherson, Kansas.

"I was very much interested in listening to your entertainment last evening, especially your comments on the wrongful use of the term 'broadcasted.' I was once on the verge of a nervous spell after hearing a high school teacher say: 'Our dark complected janitor failed to turn off the water—'. The wrongful use of words in our language is altogether too common, and your efforts are to be commended."

An internationally known poet set his lance and rode to the joust with the fire of Pegasus:

"Stop that new grammatical error! Shoot it

with objections! Drown it with radio protests! The English language has enough idioms to make it difficult, so why add another? Why let our mother speech be at the mercy of ignorant accident? Stick to 'broadcast' not 'broadcasted' and the Lord save us from all grammatical sin."

Then a champion in Ottawa, Canada, arose to say:

"I was very much interested in your statement by radio in reference to the improper use of the word 'broadcasted' instead of 'broadcast.' May I suggest that in further talks on the subject of grammar you might comment upon the practice of enthusiastic listeners of sending telegrams to radio broadcasting stations to express their appreciation in the following ungrammatical sentence:

"'Concert coming in fine.'

"A hint from you that adjectives qualify nouns, and that adverbs modify verbs would, no doubt, produce the desired change."

That nuisance-urge of reading telegrams from admiring listeners, which we never had—nor ever have—yielded to, was just then riding high. For nearly thirty minutes each night one might listen to the same kind of twaddle, phrased in almost the identical way which irked our Canadian correspondent.

It's popularity value was scarcely debatable, for whereas Joe Doaks, in Bear Wallow, might feel beside himself with joy when his telegram and name came back through the air to him, a hundred thousand other listeners would be saying within their hearts: "To heck with Joe Doaks! Let's have some music!"

It was a saying of mine in those days that, if a straw blew past the window, a wise radio director should thrust out his head to see how soon the haystack might be coming. This applied more pertinently to written criticisms of musical performances, and the exercise of caution before booking that same talent again.

Incidentally, it could have pertained to those mystifying "cycles" which tormented us, because that innocent suggestion of the Canadian chap, asking me to give talks on grammar, caught fire in other directions and within a fortnight letters poured upon us requesting speeches about every conceivable aspect of Orthography, Etymology, Syntax, Prosody, Accidence, and kindred or comparative relationships. I was floored.

As the captain of a Georgia baseball team, writing to book a game with the Caloosahatchie High School, finally chewed his pencil down to its eraser and challenged a club in Tampa, so I conceived it proper—at least easier—to dismiss

entirely the word "broadcast" from our spoken and written vocabulary, and in its stead adopt a new word—"radiocast." This was not original with me. I had first seen it suggested by a New York newspaper as perhaps serving to eliminate that poisonous "-ed."

Thenceforth, radiocast, radiocasting — but never radiocasted—became our daily verbal diet, and I was heartened by a clipping from an Indianapolis newspaper:

"'Broadcast' as a radio term today will go back to the farm, so to speak, after the brief brilliance of its career.

"It is to be superseded by 'radiocast,' to avoid the perplexities of the hybrid 'broadcasted' and other confusions the old word suggested.

"'Radiocast,' which is already being used at the microphone and in correspondence from WHAS, has no past tense. Its principal parts are radiocast, radiocast, radiocast.

"It's predecessor will go back to its prosaic significance of 'scattering by hand, as seed.' The glorious days of 'broadcast' were numbered and they reached their quota when

the listening public began to add that fatal '-ed.'"

And it remained dead with us for several years. Gradually, however, it crept again into microphone usage, but not until the public, wide and far, had realized the heinous crime of adding a syllable for its past tense. As a nationally known horseman said to me once: "It's as unintelligent as pronouncing your Kentucky Derby, 'durby.'"

One of our early big shows, until then the pièce de résistance, fell upon a night when the thermometer was reaching far too high and haughty for its own good. It did not have the grace to prove the adage that "pride goeth before a fall," for even after sundown the mercury stuck to its guns like a Spartan. (If Spartans didn't have guns, still I crave the metaphor.)

All through a long day the city had sweltered. Underfoot the asphalt was soft, and the streets danced with heat waves. One adventurous spirit got his name in the afternoon newspaper by trying to cook an egg on the Court House sidewalk—or induce the sizzling stones to do the cooking—and further reading that his experiment failed, only made us doubt the veracity of the press. Persons brought up to the nicest use

of English suddenly dropped "warm" from their vocabularies and descended to the vulgar "hot."

Major General Summerall and his famous First Division were in Camp Taylor, and he had offered me the Regimental Band for an hourand-a-half evening concert. That cordial gesture had been given a week earlier and, it is needless to say, I accepted quickly, inviting him and Mrs. Summerall to come to the station to see its workings from within. The Armistice was but close behind us, and the First had moved into Taylor for stretching and relaxation after its valiant service on the Western Front. In the "know," and strictly "graveyard"—a newspaper secret which is never broken—we had been tipped off that General Summerall was headed straight for Chief of Staff. But General Pershing's occupancy of that high place kept a "hush" on this news until the President should announce it, which he did a few years later. All of this made us feel pretty good-as one is apt to feel when harboring a pleasant secret in store for another fellow who hasn't yet been told of it himself, (though maybe he had).

The important day was upon us. The studio was small, the band large. After our four o'clock program sweating janitors moved the piano into my office, for we needed every foot of

space. They then brought up fifty folding chairs and arranged them in neat, if rather crowded, rows. I recall how delighted our technician was because the musicians would not require music stands.

"Those chairs about fill it," he said, "and the stands just wouldn't get in at all!"

We agreed that it was a lucky break, and felt kindly toward an army that could turn out men with fine enough intellects to memorize thirty tunes.

When at seven o'clock I was shaking hands with the General and his Lady, I noticed our otherwise sedate technician making the most peculiar motions behind Mrs. Summerall's back. They weren't just motions, they were excited, frantic, delirious warnings, but what omen he intended them to convey left me stupified. In another moment he had fled, dashing down the iron stairway.

Later I knew that someone had telephoned up from the first floor saying that a flock of army trucks were unloading a band of seventy men. Seventy! And we were to be packed like sardines with fifty!

Happily, (and this may be considered the only happy feature, besides the presence of General and Mrs. Summerall) the alert technician fled

in search of more janitors to rush us another twenty folding chairs from the assembly room far below.

It was a tight enough squeeze fitting those empty extras, but when the band filed in with instruments our immediate fear was whether or not the walls would hold. The men clambered over chairs like khaki-clad monkeys. The piccoloists were the quickest, having scarcely anything to carry, but the bass horn players did not do so well. Yet all of them had got settled, in a manner of sorts, when the clock pointed to seventhirty.

The microphone invariably made me nervous—it definitely does, even now, although I've spoken into it several thousands of times—but that night it took real effort to keep my voice from shaking. After I formally signed on the station, adding a word about the General, his Fighting First, our appreciation of the band and announcing its opening number, the leader's baton came down and we were off.

Could that band blow!

With every horn pointed directly at me—the front line nearly touching my chest—I felt as if I were in a warm and vapid wind-storm—a kind of a musical sirocco.

The temperature lost no time going after a

new record. Dark spots began to appear and spread on the men's O. D. shirts.

The line of trombones was placed so close behind the trumpeters that every so often their slides, shooting outward, punched that luckless section in the backs of their necks. The trumpeters were at first surprised, and then indignant. Their faces were about as devoid of amiability as a herd of tameless rhinos.

But the trombones had the right upon their side, because it was necessary that those snaky slides be pushed out just so far to get the correct pitch of a given note, and in order to overcome the resistance of the trumpeters' necks they considered it essential to jab with more force—in fact, with more than necessary force. They were quick to perceive that the harder they jabbed the madder became the trumpeters. It was a perfect set-up for the trombonists, and gleams in their eyes told how thoroughly they were liking it.

Zoui! would go the slides! Ugh! would grunt the trumpeters—except that they could not grunt and make a note at the same time, which caused a peculiar riffle in the ensemble, a kind of snorting sufflation of air without any sound. It was quite uncanny.

Yet, with the General and his Lady present,

there was nothing for them to do but take it. The trombonists weren't pulling their punches, either! I suppose the heat was making all of us a little mad, and by punching someone else they derived a measure of impious relief.

As I was announcing the second number, General and Mrs. Summerall sidled along one of the padded walls and slipped through the door for recuperation beneath an electric fan in my office. It was sporting of them to have remained so long. For no one on the outside, listening through earphones, could possibly have imagined the travail we suffered while giving birth to that really splendid concert! Mrs. Dionne, perhaps; but she hadn't got her name on the front pages, then.

With the General gone, however, I rather expected some one of the tortured trumpeters to turn and bring his horn down upon a trombonist's head. Nothing of the kind. For, by the end of that second piece, murderous intentions had perspired out of them. To escape further punishment with the least exertion they had merely leaned forward, elbows on knees, and were blowing willy-nilly straight down at the carpet—perspiration dripping off the ends of their noses. The trombonists, too, had undergone a metamorphosis. Nearly breathless, they

moved their slides half-heartedly. By this time all the O. D. shirts were wringing wet. Then the bass drum quit. The humidity had sagged its head.

Thenceforward, the First Division band and I resigned ourselves to a bath of steam. But it was a marvelous organization and the men were soldiers.

The next few days brought more than a thousand complimentary letters, with few exceptions requesting another such program.

Another such program!

As a cardinal, perched upon a high dead branch, is a shining mark for every eye, so all too soon did we begin to attract various and sundry "speechifyers" whose existence I had never suspected. There were solemn men arriving with heaven-sent messages to a sinful world about to be consumed by fire; there were funny men who knew the panacea for all ills and could make the old earth rock clear out of its orbit; there were some who felt that this very same world owed them a living, and hoped to collect through our microphone. But greatest of all were the "analysts." There were character analysts, vocational analysts, psycho-analysts; analysts to tell one what to eat, what horse to bet on, how to dress. I never saw so many analysts in my life as flocked down upon us that autumn! Nor can I imagine where they had been keeping themselves in the previous years. But when radio started they hopped to it with a twitter like sparrows to a feed box. Some were unctuous, purse-lipped and beetle-browed; some mildly

provocative; some fanatical. All were in the clouds, and all were amateurs.

Now the real analyst, "psycho-" or otherwise, who has mastered his science and knows what he knows, has my unfailing respect. But these others had only been reading what the big men wrote. From those pages they collected their own speeches for broadcasting, submitting them in bundles, with frequently paragraph upon paragraph copied verbatim.

It was still within the early age of Freudian influence, and by and large the general public had become "psycho"-conscious. At least, one heard that kind of thing rather generally at dinner tables. Goodness knows I possess little enough knowledge of such depths, but I did not have to heave the lead and take the mental soundings of these visitors more than once to discover they were the most banal type of nescient Philistines. Still they continued to light upon us in veritable flocks. You have no concept of the way they talked, and how listening to some of them for ten minutes drove a simpleminded gentleman plain "barmy."

There was a woman, a sort of chatterbox type, who played a pretty and delicate game of talk. Much of it had been spent trying to persuade me into letting her give one of those "psycho"

speeches. A few minutes earlier I had refused, for a third time, point-blank. She turned her intent gaze straight upon me, and asked the most disconcertingly frank question I have ever heard.

"Has it occurred to you," her eyes never flickered, "that the greatest tragedy of your life was when you were born?"

"Often." I smiled—swallowed and smiled—"and, to my friends, constantly. But I want you to realize this is for your own good. If you read that paper to our immense audience, there would not be one in a thousand who could understand it."

She brightened.

"You mean that it is-too erudite?"

It wasn't fair to pin me down.

"Aside from its quality of scholarship," I came up for air, "by talking over or even under the heads of your listeners you could do yourself a grave injustice. For the majority, being unable to grasp it, would salve their conceit by placing the blame directly upon you."

"Now that is commendable analysis," she nodded agreeably, and we parted shaking hands.

Such encounters were among the most difficult situations I had to meet. The diplomatic necessity of having to refuse people, disappoint and frequently hurt them, yet see to it that they left

us without rancor, was not one of my inborn predilections. Aside from my publishing friend's generous purpose in building the station for the entertainment and benefit of humanity, and operating it with no monetary return, the thought was inescapable that it might somewhat repay him as a good-will magnet and circulationgetter for his two newspapers—that is, if we could make friends and keep them under all adverse conditions. As many applied and few were chosen, this required meticulous handling.

It seemed accomplishable only by a frank and honest interest in the welfare of those who came to us. Singers below standard were sympathetically advised to practice for another six months, perhaps a year, and return for a second audition before risking the criticism of that outside crowd which judged, not by the charming appearance of the artist but coldly and impersonally by what it heard. As each of them had no doubt felt deep within his heart a glimmering of that truth before arriving, we could always shake hands at the door and wave each other a pleasant adieu.

There was an exception to that.

A ponderous, professorial person, with stains of a hurried breakfast egg upon his waistcoat, gave his chair another hitch nearer my own. He had entered with brisk importance.

Besides being physically objectionable, he belonged to that tribe of high-pressure individuals who resort to the practice of edging closer with each point they endeavor to drive into some perishing victim. In this case he was selling himself, and it was an extravagant buy at any price. Every time he hitched, I—as unobtrusively as my dwindling good manners permitted—hitched farther away. It seemed only a matter of minutes until I reached the wall, when he might be in my lap.

I knew a man who had a chair, for just such visitors, screwed to the floor. He said it was funny, watching them try to move up.

There was nothing funny in my situation and, paraphrasing the last Plantagenet, I could have cried: "My kingdom for a couple of screws." For I was determined that an animal whose crafty penuriousness was his prevalent characteristic, whose cunning mind patently diverted honest circumstance to its crafty design, whose waistcoat displayed drippings of hash-house gluttony, would never be my lap dog if I could help it.

"You possess the medium, sir, and I the intelligence," he continued, after a malodorous preamble of several minutes. "I have analyzed every stratum of society, and know their imme-

diate needs. You will never regret my message over your radio, sir!"

"What is your message?"

"My message, sir?" He seemed hurt that I should not have known. "It is a delicately contrived amulet for ladies. To wear it around their necks means that their every wish shall be gratified—after I have called personally and analyzed them."

"Your idea is to analyze them personally?"
"When they write me here, in care of your office, sir."

"And you then present them with the little amulet?"

"For a modest consideration, sir,—say, fifty cents, or a dollar, depending upon their station in life. If a spinster wishes a husband, the amulet and I shall tell her how to secure one; if a married woman is unhappy, we shall point the way to brighter paths; if she is childless and wants to be surrounded by the sweet little darling—"

"Yes, I understand. But if she's already surrounded by the sweet little darlings and wants to be childless, can your amulet work backwards?"

Another look of pain crossed his face.

"Anyhow," I continued, "our programs are booked for a long time in the future. Come back

then. It will be interesting to see if you are still alive."

"Sir," he drew himself up with a pretense of dignity, "I shall refrain henceforth from listen-

ing to your broadcasts!"

"Sir," I replied, "I don't give a damn!" It was on the tip of my tongue to add that he was a revolting lapse from the well-ordered decencies of society and the lowest imaginable grade of precarious mendacity. Only after he left did I feel ashamed of myself for having let such a creature annoy me.

At any rate, he was the one visitor in my recollection with whom I did not shake hands at the door.

And thus passed out of my life another pseudo-analyst. Gradually the entire flock migrated to other fields.

I must not leave an impression that such freakish callers were by any means usual. It was their rarity which gives them a place here.

Aside from performers, the thousands who crossed our threshold that first year might fall into three divisions of the spectrum, and I should say the freaks would fit the low, infrared end—impossible to see, if seeing means understanding. The intermediate band appeared as varying colors, always pleasant to behold, while those on the

scintillating top of ultra frequencies—rarer, as a matter of course—were men and women of charming attainments who brightened our rooms with intellectual brilliancy.

These were frequent visitors to our high roost in the storage building and, with the spontaneity of radio itself, developed into a salon of sorts, representing a catholicity of ideas, plans, problematical adventures into civic, religious and social philosophies which, in some respects, had never been matched nor may ever be againbecause radio will never be new again. It was that "prehistoric era" of broadcasting which added luster to already lustrous minds, seasoned them with a pioneering courage, lured them into unexplored spaces—onward, outward to the baffling wall of infinity behind which lives God. Had it not been for the sensational behavior of The Art—its all but unbelievable mystery, its entree into homes as effortlessly as a materializing specter-mental stimuli might not have attained such impetus.

Of course, it also transpired that a somewhat similar intoxication was bewitching those of lesser mental equipment, and persons whose heads were not securely fastened on—or not fastened at all, except with a piece of twine—reacted in varying degrees of hyperboles and fantasies.

From these came the freaks, the intellectual halfcastes, who insisted upon claiming our attention—if not for long. How aptly did the age-old Confucian precept fit them: "Learning, undigested by thought, is labour lost; thought, unassisted by learning, is perilous!"

But when visited by some of that other group of rarer spirits I could easily imagine myself sitting at a modern Arthurian Round Table.

There came a priest, a protestant minister, a rabbi, a woman painter, a University dean, another woman—the only woman, by the way, upon whom the British Geographical Society, until then, at least, had conferred its coveted medal—three authors, a doctor of medicine, a lawyer, and two of the keenest humorists I have ever met. A sifting of their ideas frequently reached our microphone in abbreviated forms, shortened only to fit the listeners' tolerance of "talks." For in that "prehistoric era" our station leaned as far as it dared toward a worship of the good god, Erudition—which in later years yielded to the inferior god, Wise-Crack.

Pendulums swing. Stations almost everywhere have now reached an agreeable compromise in program servicing that embraces both, and if the wise-crackers stay within the limits of

respectability all may be well—until something else bobs up.

And something else will bob up, to a moral certainty, since otherwise broadcasting would not be what it is. No station manager dares lay him down to sleep without keeping a subliminal eye open for the unexpected which may be staring in his face when the morning alarm clock goes off.

In the baskets of "fan" mail which reach a station daily are often such expressions as: "Why do you put on that terrible so-and-so! I don't like it." Lying below that letter may be three or four in praise of the very same "so-and-so," and it is therefore retained—though under scrutiny.

To all who wonder—and will always wonder—why a station deliberately lists those features which seem deplorably inept, let me expose an inner secret!

Endeavor, if you will, to visualize a radio audience as seated in a huge circle a hundred miles in circumference, all looking toward and listening to a particular antenna that stands in the center. These people are touching elbows but, in individual tastes, remain as far apart as the poles. Such is the stage-set. Now for the show!

The invisible men whose duty it is to make sounds fly from that antenna, must first fulfill the mandate of their license, which is to operate "in the best public interest, convenience and necessity." Thus they must try to engage the interest of every unit in that heterogeneous circle, and this in turn means that the programs should run the gamut of every respectable taste-from the most erudite to a silly pun; musically, from a symphony orchestra to a jew's-harp solo. Aside from their commitment to the Federal Government, they must not lose sight of the oft repeated fact "that a station's value lies in the minds of its listeners." So a high degree of general popularity must be maintained, playing to all rather than few, since otherwise the potency of that particular antenna would not attract the advertiser who, our American system being what it is, pays the bills. Pray do not be so indifferent as to forget that, without those advertisers, you would have no broadcasting.

These generalities might be broken down into various subdivisions but they would scarcely fit into the purview of this chronicle. Indeed, I have stepped far out of bounds already and must hurry back to our early milestones. Suffice it to say—and this only to give an insight into the necessity of pleasing all listeners, variously, every

so often throughout the days and nights—(which means also displeasing all listeners, variously, often throughout the days everv nights)—that each of the thousands of letters arriving weekly is tabulated, first by state, county and town; then the towns and counties are tabulated as to populations, the number of radio receiving sets they support, automobiles, telephones, bank deposits and clearings, their respective gross businesses in sundry staples, etc. In short, the potential buying power of each locality per proved and probable radio listener. The entire area within the consistent and normal range of our voice is brought into the same kind of focus. The advertiser studies these figures. feels satisfied that our station will do him a good job, and thus he contributes to the entertainment you and your family receive, gratis, from early morning until midnight.

And if he wants a tune called "The Old Pine Tree Ain't What She Used to Be," don't suppose that a station personnel could not bear to live without it. What is supposable, however, is that a flock of letters from you listeners, calling for a better type of entertainment, will be heeded with commendable speed. Then the man who buys the time may realize that, although his factory turns out the finest products in the world,

his sense of showmanship has lagged a few paces behind his commercial genius. Result: his radio programs are turned over to the professionally qualified! And so, my dear children, in the last analysis, if you do not like what you get, say so—and say it in armies!

Contrawise, if your station—whichever or wherever it is—should happen to bring you a few moments of pleasure, there is quite a simple way to gladden the hearts of the men and women who work in it.

And now-about face, march!

EVEN as we realized with dumb dread that a wave of some other kind was due as surely as night followed day, the child violinists descended upon us, brought by doting parents. Following those particular and peculiar "analysts," it seemed as sudden as though some genii had opened a cave and let them all out at once.

There were mornings when our reception room crawled with them. They reminded me of little dressed-up ants with fiddles under their arms—a kind of Alice-in-Wonderland nightmare, wherein one watched for the fiddles to turn into flamingos and for a game of croquet to begin over our carpet, with hedgehogs for balls.

Again it was the advent of radio which implanted the hope in so many parental hearts that tiny Tim or little Lena would someday out-Kreisler Kreisler and plunge Heifetz into the very nadir of despair. The idea may still be encountered: that all that is required to play a violin, is to buy one.

But contacts with these youngsters really did

bring me a lasting satisfaction. No one suspected it, but I think they needed me more at that particular time than Santa Claus.

The music room adjoined my office, and between programs its door was permanently open. When a parent arrived with a wee bit of a chit carrying an undersized fiddle, my secretary would conduct them into that room, telling the little one to tune.

Shortly I would hear a G struck on the piano, and a plunked violin string brought up or down to it—or nearly so. Then the other strings in order. After this there was usually silence, and at that point I would stop my work and go in. The following conversation scarcely ever varied:

"Well," this pleasantly, of course, "have you tuned?"

"Yeth, sir."

"Positive?"

"Yeth, sir."

"Let's try once more," and I would hit the G, D, A and E, while the blossoming virtuoso plunked the corresponding catguts.

"Do they sound all right to you now?"

"Yeth, sir."

"Very well. You sit down and rest, while I talk to your mother."

Taking that lady aside, my stock sermon

began again, the only changes being in the pronouns "he" or "she."

"Madam, I don't wish to know the name of your child's teacher, but I do want to impress you with the fact that you are wasting her time, health, and your own money, because she will never be a violinist."

This was a direct invitation to an argument, and it didn't require an R. S. V. P. down in the left-hand corner, either. One could divine the workings of the parent's mind as plainly as if they were written on paper. Indignation showed as a first reaction, then the summoning of verbal cudgels with which to lay the radio manager beneath the sod.

"He ain't had time yet to learn how to tune," one loyal, if bristling, mother spoke up defensively. "I'm fixin' to buy him one of them there pitch-forks."

"A good idea," I agreed, quietly—hoping it would be used on the violin, and the money spent for lessons diverted toward having the poor little fellow's adenoids removed. But I could not get into that.

I was sincerely working for the child in all such cases—a child frequently undernourished, who should have been out in the air romping instead of drawing a bow for hours across squeaky

strings in a stuffy room, with no future, whatsoever.

The determining judgment of each individual lay in the accuracy of that tuning. I would explain that a critical sense of pitch was, first of all, necessary before anyone could master the violin, that this capacity for refined perception put into the ear by God Almighty could not in any circumstances be artificially cultivated. Without it a violinist was helpless, since upon a player's ear more particularly than fingers depended the making of true notes; that the offspring might become an acceptable pianist if a paid expert kept that instrument in tune and, by striking an A, she would get the right kind of an A; or she might possess inherent artistry enough to reach heights in painting, sculpture, writing. As a violinist-no.

Before I had finished there was not a father, mother or doting aunt who failed to agree with me. Because it was so patently simple and true. They might have been disappointed in their dream of that youngster someday stepping upon a concert stage amid salvos of applause, but if they were it was a healthy disillusionment. And so we parted, friends.

Deplorably seldom did I find one with an ear of promise. Such a one was, of course, encouraged.

Sometimes, alone, when thinking back along the path of years, I wonder how many hapless kids were spared the torture of futile practising, the afterclap of a losing game, and if I really helped them!

Although these young fiddlers usually came but once—except a few with ability and no piano at home to whom I gave the use of our music room for practice on Saturday mornings—we found upon our hands about that time a different sort of instrumentalist, probably the most unique specimen that ever crossed our threshold. He came not once, nor every Saturday, but three or four times a day, and stretched his visits to such lengths that I even contemplated the purchase of a brass star and having it ready to mark the spot where he should fall. For beyond all peradventure of prophecy it began to appear as though we must turn a switch and electrocute him.

He arrived one afternoon, an undersized, thin little fellow with a grotesquely large mustache—a mustache so overbearing that it might readily have sapped the greater part of his vitality.

Close to his breast he hugged a bundle wrapped in brown paper. He approached cautiously, fearfully. By and small, he was a pathetic soul.

"Folks told me to come up heah, an' play an' sing. An' I will, ef ye was to ast me!"

"What do you play?"

"Dulcimer." He laid the bundle on my desk. The delicate care with which he began to unwrap it suggested—well, I suppose "tenderness" is the word, if fingers gnarled by toil might still be so denominated. And while he was thus engaged I took a closer look at him, then saw that the bridge of his nose was exceptionally high and abnormally thin.

In my own groping for light, this placed him. Here was a man-a Highlander with speech somewhat diluted by lowland influence-who sang mountain ballads. The evidence seemed patent and inescapable, because all mountain ballads I had ever heard sung upon their native heath were pitched into the tops of noses exactly like this one. Only an inexplicable and uselessly cruel caprice of fate could have built a vocal sounding chamber such as that, for nothing else in Nature was capable of producing a nasality which made listening so painful. I could now conceive our visitor swaying his body from side to side, tapping the tempo with his boot, whining agony upon agony in the tragic song of Barbara Allen (nineteen verses) or Turkish Lady (seventeen), plunking betimes the three-

stringed dulcimer which neither helped nor hindered. It made me shudder.

Manifestly, some bedeviled pixy had wished upon us the original hill-billy, the nascent "briar-hopper" of the Barrens, the progenitor of that troubadorial caravan which was to arrive in later years and give our audience the greatest of those "thousand shocks that flesh is heir to." Yet, in spite of him, I felt drawn to the sad little curiosity—he handled that cursed dulcimer so lovingly!

"What is your name, and address?"

"Me? I'm a kithless man, an' live heah an' thar. But I got friends in Frankfort, aplenty!" Again he stroked the dulcimer. "Whittled her out with my knife, I did. My cabin were up on Leetle Howdy Crick—then!"

"Why-then'?"

His face twitched.

"'Cause I mean then. 'Tain't nowhar now. Them Trant boys stoled some dynamite at the mines, got to feelin' frisky, an' blowed her up. But I had done hid out the night afore, an' they never knowed hit. Ye see?"

He gave signs of chuckling.

"So the joke was on them?" I smiled.

"Mought call hit that. Did ye ast me to sing?"

I could make room on the afternoon program for an extra.

"All right, we'll open with you at four o'clock—but get here at half-past three. What are you going to sing?"

His face brightened.

"Bar-bree Allen."

I felt that it was coming.

"Very well, the first five verses." I wrote it down.

"Ye mean—five stanzas?"

"Yes."

"Look-ee heah, Mister, thar hain't no man livin' can sing Bar-bree Allen in five stanzas!"

I knew it only too well, but said:

"All we have room for today. If people like it you may sing five more, sometime. Come along, and I'll show you where to stand."

In the music room I placed him before the "mike."

"When I call you, move quickly but very quietly and take this position. I'll tell the people who you are, the name of your song, explain about the dulcimer and all that—then you begin."

"How many folks is goin' to be heah?"

"Perhaps none, while you're singing."

His eyes narrowed. Suspicion was making them glitter.

"Ye said if folks liked me I mought come back. But how they goin' to like me ef they hain't none heah?"

Had it really fallen to my lot a second time to spell out, letter by letter, each radio mystery? I was still smarting under the first such experience.

"Answer me a question," I demanded. "Do you think you're in the Water Company?"

That mustache fairly bristled at me.

"Hit don't belong to ye city fellers to poke fun at the likes of us!"

I would not have hurt him, and said more gently: "Sorry. A few weeks ago I had a terrible shock about the Water Company, and it has left me a little queer. Now I'll try to explain how your friends in Frankfort will hear you."

"Telefoam?" he asked, guardedly.

"No. We don't use wires. You just sing into this, and your voice will go for a thousand miles, across tree tops, mountains—everywhere, all over the world."

Of course, I had already told him that I was a little queer. Otherwise, his wounded pride and anger might have reached the blowing-off point.

Instead, he gave me a look most eloquent of pity. "Don't ye bother none," he said. "I'll do like ye tell me."

I intended squeezing in the five verses of Barbara Allen as an opening number. The other features, already booked, were an elocutionist, contralto soloist, and piano duets. Elocutionists bloomed rather profusely in those days. Often, since, I have wondered what has become of them.

The little man from "Leetle Howdy Crick" was prompt and ready to go. I had brought the elocutionist in, also, to avoid delay, and she stood behind him awaiting her turn. The red light glowed, I made the station announcement and introduction. He started, as was to be expected, swaying his body, tapping time with his boot, and whining out the doleful experiences of a hard-hearted lass—while absently plunking at the dulcimer.

It was during the fourth verse that our elocutionist collapsed. Doubled up with silent laughter she beat a hasty retreat, so I whispered to the innocent cause of it:

"Sing another five!"

He stopped abruptly, saying in a loud and happy voice:

"Air they likin' hit?"

This through the microphone, of course, and I could have slain him. He may have thought our listeners were talking back to us and asking for more. Yet hardly that either, for his obviously growing suspicion of me, after my effort to explain the workings of radio, and his realization now of the fact that I was "queer"—well, I never knew what he was thinking! At any rate, he kept on, and on, and on.

My ever alert secretary entered and whispered that the elocutionist was, for the moment, beyond all hope. Should she try the aromatic, or send in the contralto? I nodded an affirmative to both. We kept aromatic spirits of ammonia at hand for hysterical performers, and actually used it more frequently than the bottle of iodine in the workshop.

So the contralto and her accompanist were quietly ushered in. They stood it until about the ninth verse, and then incontinently fled to join the elocutionist.

The situation had become critical. Putting my lips close to the dulcimer king's ear, I whispered:

"Don't stop! Keep right on going!"
Seeing that he understood I tiptoed outside.

The reception room was resonant with muffled—very poorly muffled—shrieks. My secre-

tary had been correct in her diagnosis, for the elocutionist was beyond all hope of settling down to serious recitations, and the contralto had by this time laughed her vocal cords raw. The piano duetists thought they might be able to play and giggle at the same time, but I was not willing to risk it.

Thus Barbara Allen proceeded to its vastly delayed and melancholy end, whereupon I sent the little fellow chopping away at The Green Willow Tree, and after that he launched into Lord Thomas and Fair Elender.

Finishing that pair up, I whispered to him: Turkish Lady. But he had another idea and said quite audibly:

"How 'bout The Frog and the Mouse? Goes this a-way: 'Froggie went a-courtin' an' he did ride, whump, whump—'"

I shook his arm, whispering savagely: "Turk-ish Lady, you sap!" So he began.

You know—or I hope you don't—that *The Frog and the Mouse* has some very naughty lines which the soloist would have sung, as readily as not. But now he was safely launched upon the other, and had got down to the sixteenth verse:

"O, then, he spoke to the young bride's mother,

'She's none the better nor worse for me;
She came to me on a horse and saddle,
And she may go back in a carriage and
three,' "——

when the clock pointed to five. Closing time. I have never been able to whip up a great sentiment over Turkish ladies, anyhow, and signed this one off with positive glee.

As he carefully rewrapped his dulcimer in its brown paper jacket and prepared to leave, his manner suggested a deep seriousness; not a prostration caught from the songs—as the rest of us were suffering-nor a sympathy for my own "queer" mental state, but with the excitement of performing past and his calmer judgment again in control, he was entertaining more solidly founded suspicions that I had put him up as an object of ridicule. His lips were mute, but his eyes spoke a former accusation: don't belong to ye city fellers to poke fun at the likes of us!" How could I make him understand? It was simply one of the Impossibles! Hugging the dulcimer to his breast, and with never a word, he walked away—a detached segment of life that badly needed fixing.

Four days later he reappeared. "Look-ee heah, Mister," he exclaimed, "I been

down to Frankfort, an' my friends that heerd me! I jes' come in on the wind, an' that warn't no wires or nuthin'. They said I could a-been heerd for a thousand miles—like ye told me!"

"We have some letters for you."

For a moment he gazed at them wistfully, helplessly.

"I hain't never had no book-larnin'."

My secretary took the hint and read his "fan" mail aloud to him. As she finished one and picked up another—there were only about ten—his face became more and more a study. His eyes were dreamy, he seemed to be totally subdued.

"Hain't hit *phenomical*," he whispered. Over and over he whispered: "Hain't hit *phenomical!*"

From that time he became our daily visitor, settling himself in the reception room for hours, practicing other mountain ballads. No programs being on, every ten or fifteen minutes he would tiptoe into the studio and stand in awed contemplation of the microphone, murmuring: "Hain't hit phenomical!"

He was drawn to it as a peasant to a wayside shrine. Facing it he almost quivered with emotions which ran the scale from stupefaction to worship. It was his first consciousness of what he conceived to be a miracle.

Although he became a pest of greater magnitude, we treated him kindly and with as much patience as human endurance could muster. Seldom enough one finds a spirit so immersed in reverence that a hustling world draws back to keep from disturbing it. That was his defense, and before it we surrendered.

A few weeks later he disappeared again. As unannounced as he had come, he left and was seen no more. He may have gone back to "Leetle Howdy Crick" to tell "them frisky Trant boys" all about how he "come in on the wind an' could a-been heerd for a thousand miles." If so, his continued absence is readily, if tragically, explained.

Recalling him now—rough-hewn dulcimer, rougher-hewn mind which reached perhaps its only great exaltation—I find myself thinking:

"Hain't hit phenomical!"

THERE is a certain type of human being—I have usually avoided him when possible—who goes forth over the land seeking into places with a view to discover where and how he may contrive to better his fellow creatures. True, material good often results, and certainly the urge prompting such crusades is lighted by the spark of Christendom. But not infrequently the leaders themselves are unmitigated bores, being persons spiritually baffled by life's knocks, who fly off with a gush upon tangents of quasi-martyrdom for the public weal.

That I should ever become one of them was as far from my mind as fratricide, and yet I did that very thing in a momentary aberration. The thought must have struck me when there were no other thoughts in particular floating about. But so continuously were we reaching for new broadcasting experiments that any idea with a sparkle, unless quickly crowded out by a following idea, went into the making at once.

"Why not," I suddenly exclaimed, breaking

the calm of a peaceful morning like throwing a brick into a plate glass window, "broadcast a period of setting-up exercises? Here's a chance to increase thousands of biceps, straighten shoulders, reduce Aunt Hannah's hips and the waistline of Uncle Herbert! In short, but emphatically, begin the creation of supermen and superwomen!"

"Did you ever take setting-up exercises?" Our technician answered with another question.

"One day, years ago. But personal biases are beside the point. Our duty here is to benefit mankind."

Three hours later a physical director answered my telephone call in person.

"It has never been done," he shook his head doubtfully.

"That's just the point," I insisted.

"But how can I set-up a lot of people wearing earphones? They and the wires will get twisted together something awful!"

There was no denying that the adventure held more tricks than an Indian fakir, because loud speakers had scarcely made an appearance and, with few exceptions, listening was done through phones. But the longer he hesitated the more insistent I became. For, you see, I had slipped with a great splash into the group of benignant

extremists, and was now fanatically determined to improve my fellow creatures regardless of their strain and suffering.

"Not at all, not at all," I hastened to reassure him. "You put on a pair of earphones. facing away from a receiving set, and let the wires hang back over your shoulders. Then concoct a special group of exercises to fit that posture. We'll have you photographed in each pose, have line drawings made from them, and print a chart of special instructions showing by illustrations how our listeners will proceed from Position One, to Two, to Three—and so on, as you call them off. When ready, we'll announce these charts free of charge to all who yearn for physical perfection, and you be here every night at nine o'clock to give 'em a stiff fifteen-minute workout. I'll have a pianist play snappy marches, so everything will be done to music. See?"

Thus we established another new place in the sun, and throughout that winter continued the nightly sport until April's sultry weather automatically brought it to a conclusion.

Glancing over our ancient records, I find the entry that we mailed upon request 9,000 charts. Even after these many years, the thought of 9,000 persons simultaneously going through

those bends and twists is enough to make one's muscles ache.

A knowledge of whatever good may have resulted will never be known. Perhaps there are some today who still profit by improved constitutions. Thousands of letters were received. Two of these lie before me.

"The boys in my Department," wrote the Fire Chief of Topeka, Kansas, "set-up with your physical director every night, and it sure does keep them in fine condition."

Then, on dainty mauve note paper, is this:

"Mother insists that I write you at once. Last night while taking the exercises she got tangled up in the wires and fell, pulling the radio off the table and breaking it. Besides, when it fell, it struck her on the heel and she is in bed today. She told me to say that those exercises are silly and dangerous. Her heel hurts a great deal and is quite swollen. Isn't it simply dreadful about the radio?"

One day, when the local flying field was scarcely more than a gleam in the minds of its founders—at least, if compared then with the splendidly equipped place it has since become—a United States Army plane swooped out of

the sky and made a perfect three-point landing, with Captains William H. Murphy and Frank H. Pritchett at the controls. It was the fore-runner (or should I say foreflier?) of pursuit, combat, transport carriers and other types of Army planes concentrating for air maneuvers which had been vastly heralded.

This first arrival, the AB-6, carried a then sensational development for aircraft. Quoting the opening of a three-column newspaper story:

"A most successful attempt to transmit a conversation between an occupant of an airplane and an official at WHAS was made for the first time in history yesterday afternoon at 4:15 o'clock.

"The air conversation, carried on by Col. J. R. R. Hannay, United States Army, and the station manager, lasted fifteen minutes. The longest lapse of time between speeches was four seconds, while the shortest was two seconds.

"Col. Hannay's airplane was equipped with the latest miniature radio apparatus, consisting of a transmitter with the necessary high voltage dynamotor, a receiver with filament and plate batteries, and an interphone.

"Although the airplane's radiophone transmission range was only supposed to be 100 miles, the conversation was heard distinctly in sections nearly 200 miles from Louisville.

"Word was received by Commander Klein today from the Navy Department that Rear Admiral Dyson, of the Bureau of Engineering, would be here tomorrow to assist in the investigation."

This "investigation" was a pleasurable checkup which the Army and Navy representatives made quite thoroughly. I had previously announced the time we should attempt this twoway conversation from earth to sky, asking our listeners who lived more than 100 airline miles away to wire us collect if they heard it. Of the sixty telegrams we received, nine were from places more than 170 airline miles distant.

This was what set the Army and Navy chortling, since their newly devised transmitter was not expected to have a range of more than 100 miles but now, by actual test, it had been heard nearly twice that far. Thus Rear Admiral Dyson was coming to place his stamp of approval on the evidence.

I had no such thought as making a distance

test for their flying transmitter when I called up Colonel Hannay the day before.

"Want to try some stunts?" I inquired.

"Certainly. What are they?"

"The AB-6 is here with that new aeroplane transmitter. I thought you might like to go up tomorrow afternoon, and we'll have a two-way conversation."

"I'll be glad to, but don't see how you're going to do it."

"We have it pretty well worked out," I told the genial Colonel. "You be up at 4:15 tomorrow afternoon, with your receiver tuned to 360 meters but your transmitter, of course, off-although have it previously tuned to send on 360 so, when its time comes, everybody listening will get both voices on the same wave length. signal you: 'WHAS calling AB-6,' then ask some questions, and clear for you with: 'WHAS temporarily signing off for AB-6.' At that moment have your transmitter punched on, as ours will instantly be shut off. After you've talked, signal me by a similar cue: 'AB-6 temporarily signing off for WHAS.' Stop your transmitter at once, and we'll punch ours on. In that way there'll be no heterodyning, and it ought to work."

"I'll follow your instructions," he said. "If

we successfully pull that off between a plane and long wave broadcasting station we'll probably be establishing a record."

That evening I told our listeners what to expect next day, and the following afternoon at 4:15 sharp we had everything in readiness.

"WHAS calling AB-6, WHAS calling AB-6," I signalled through the microphone. "Colonel Hannay, we are inquiring after your health, sir! And to ask if there is anything we may send up to you. When replying, won't you also tell us where and how high you are? WHAS temporarily signing off for AB-6."

Clear as a bell his voice came back to us. Our technician was standing by to turn our transmitter off the instant my signal ended. It was this high efficiency on his part, the four- and two-second intervals mentioned in the newspaper account, which gave smoothness to the conversation. So far as listeners could detect, there was no lightning-like movement of trained hands on the apparatus or instantaneous thinking to do the right thing at just the right moment. The entire credit of success belongs to him, for all I did was talk, and that required no effort at all.

"AB-6 calling WHAS! Thank you, Mr. H—. I am quite well and thoroughly enjoying a delightful breeze. The temperature here

is 74 degrees Fahrenheit, although it seems cooler. We are flying at 5,600 feet, and are about three miles northeast of some rectangular pools of water which may be your reservoir. In a few minutes we shall go to 11,000 feet. Pedestrians are barely distinguishable, and motor vehicles look like ants. You are very kind, offering to send anything up to me. What is your temperature on the earth, and what is the baseball score? AB-6 temporarily signing off for WHAS."

"WHAS calling AB-6! We're quite glad you're so comfortable, Colonel! The temperature is 94 degrees Fahrenheit down here, but a very warm 94. At the end of the sixth inning the baseball score stands: Louisville, seven, Kansas City, three. Louisville has made thirteen hits and one error, Kansas City six hits and three errors. When you reach that 11,000 feet tell us what the world below you looks like. You wouldn't want to pitch off with a parachute and join me, would you? WHAS signing off for AB-6."

Colonel Hannay was laughing when he gave the AB-6 calling WHAS. "Thanks for the invitation," he said, "but I don't think the jump would agree with my constitution." Then followed a graphic description of what the city,

thread-like roads leading toward it, and the country for many miles looked like. Happily the day was clear.

"We have a desire," he added, "to find your building and bomb it. We'll come down to 5,000 feet—we're doing it now—so tell me how to find you. AB-6 temporarily signing off for WHAS."

"WHAS calling AB-6. You have issued an inhuman command, sir, but we'll try to help you. First tell me as exactly as possible just where you are. WHAS temporarily signing off to be bombed by AB-6."

"AB-6 calling WHAS, and making ready to blow it up. We are now flying at 5,000 feet, about six miles northeast of those rectangular reservoirs and directly over a railroad track. AB-6 signing off for WHAS."

I told him to follow the railroad track southwestward, pass the reservoirs, but where the tracks split to take the southern branch; keep on it for six city blocks, then turn west and follow that street thirteen blocks. At the corner then he would see a gray stone building with two radio masts. We should be there, waiting.

In a very short time his plane could be heard coming nearer. Then his voice:

"AB-6 calling WHAS. We'll be over you in a few seconds! Watch out! Here they come!"

It was so realistic that I shuddered. Then he spoke again, from farther westward:

"AB-6 calling WHAS to inquire if they are much damaged. Was it a direct hit? AB-6 temporarily signing off for WHAS to answer, if there's anyone left there."

"WHAS calling AB-6. Thank you, Colonel, there are a few of us left, but it was a very fine hit, right in the midriff. Let us know before you do it again. WHAS signing off for AB-6."

"AB-6 calling WHAS. Sorry we smeared you so badly, but practice is necessary and you know what Sherman said. Is there anything we can send you? AB-6 temporarily signing off for WHAS."

"WHAS calling AB-6. Thanks, Colonel, you might rush us an ambulance, cigarettes and juleps. WHAS temporarily signing off for AB-6."

"AB-6 calling WHAS. I thought you fellows had prohibition down there! Can comply with all but one of your requests. AB-6 signing off for WHAS."

"WHAS calling AB-6. My apology, sir, for that egregious error. Then please omit the ambulance. WHAS signing off for AB-6."

"AB-6 calling WHAS. Shall omit the ambulance, but land at once and personally rush other

adequate supplies. AB-6, United States Army DeHaviland airplane, thanks WHAS for this really impressive and record making two-way broadcast, in which for the first time to my knowledge technical difficulties have been entirely overcome. AB-6 permanently signs-off."

It was indeed vastly pleasing to the Army and Navy. None of the newspaper stories said whether Colonel Hannay rushed the supplies to us, nor is it important enough to be divulged here.

nere.

Our records show one other "first time"—although as late as January, 1925—which bobs up from a mass of old press clippings, one of which

preambled it:

"For the first time in history a piece of land will be presented to a state by radio. Tuesday evening at 8:30 o'clock, Bishop Charles E. Woodcock of Louisville will present, from radiophone station WHAS, a tract of land in Harrodsburg, Ky., 75 miles away, to the State of Kentucky for a state park."

Further description may as well be briefed. That spot in Harrodsburg was the identical site of the first permanent white settlement west of the Alleghenies, founded by John Harrod in 1775. From it, fan-like, spread all white civi-

lization westward.

James L. Isenberg, a public spirited and certainly the most self-effacing gentleman I have ever met, acquired the property which included the old burying ground of its first settlers—or, at least, all of those who were not killed by Indians while on hunting expeditions and never found. He conceived the plan of presenting it to the State and making it grow into a magnificent Memorial Park. That he lived to see this ambition well on its way to fulfillment was realized when President Roosevelt unveiled one of its most impressive monuments, of heroic size, in 1934. But this is running ahead of my story.

The deed, to what was then a few acres overgrown with briars and weeds, had been prepared. Near the spot a banquet was spread for a hundred prominent Kentuckians. On the table had been installed the most efficient receiving set which that day afforded, with a "loud speaker."

From our studio in Louisville Bishop Wood-cock broadcast the presentation address, listened to with respect and silence by the banqueteers. When he came to the part "I now present," two gentlemen in Harrodsburg arose and one of them, in pantomime, handed the deed across the table to the other who represented the State. While they stood, thus creating a tableau suggestive of Kentucky's Great Seal, I broadcast

the acceptance speech which had been previously mailed to me.

It was an incident not without picturesque features. The sleeping ground of those pioneer dead, being placed into the keeping of a Commonwealth by the necromancy of radio, held inescapable aspects of romance. In their day, a trip from old Harrod's Town to the Falls of the Ohio, where Louisville now stands, required—if one got through without being scalped—the better part of four or five days. Whereas each syllable of the Bishop's address sped back in one two-thousandth of a second.

Added to the fascinating contrasts, a newspaper photographer who had waited to "shoot" that scene of the deed being passed across the table, was flying toward Louisville in an airplane to make the Central Kentucky mail edition of a morning daily.

What is time, anyhow?

ODD little things sprang up daily—out of the mail bag, in through the door. For all roads were leading to the new marvel, radio, as once they led to the astonishing Empire of the Cæsars.

"Yet with this difference," remarked our Round Table Philosopher one morning. "Broadcasting will never fall as did afflicted Rome. That city grew into so intensive a magnet of many splendors, that agrarians thereabouts, jealoùs of the fun they were missing, abandoned plows and herds and sped thither to be a part of it. Overcrowded with non-producers within its gates, its rich encircling farms began to decay in tragic neglect, and the city itself grew fallow. As hordes of idlers pushed each other to feed upon its abundance, the unconquerable empire, arrogant in the plenitude of its power, began with a slight shiver to feel the thinning of its blood—as old men feel the creep of death. Deprived of its agricultural richness, anemic, palsied, all but whimpering, it fell.

"Radio, too, is an intensive magnet of many splendors, yet with sure strokes it etches an opposite pattern. Rather than entice from the fields, it soothes the farmer's urge to migrate cityward, satisfies his curiosity—or hunger—by letting him take into his home the best things the cities have to offer. Not just from a single metropolis contiguous to his acres, for the day will come when he can choose from any city in the world. And you, who sweat and slave with the progress of this thing, are building in America a theoretical quarantine against that very disease which killed Rome."

What was it that got us off on that? Oh, yes, odd things!

A Louisville man came in one day.

"I want to thank you," he smiled, "for collecting a debt that had been owing for more than twenty years. Yesterday I received a letter from an old classmate who said that he had been listening to our station, and that recalled me to his mind, which in turn recalled the fact that the day we graduated I had loaned him three dollars. He inclosed the money and wrote a good deal more. I had forgotten him, also. It was so entirely surprising," he smiled again, "that I stopped in to tell you."

Although radio had not intentionally entered

the collecting field it was pressing to cut new paths, inviting new ideas. And one of our early brain-storms centered around a plan to broadcast a duet between two stations of equal size—all wave lengths being the same in those days. So bizarre did it seem that newsmen snapped at it. There is no denying its elements of daftness. But networks had not been dreamed of, and here was a faltering step which might lead to something sublime.

Calling in our faithful technician I put the question. He batted his eyes once or twice, took up a pencil and began to figure.

"Don't do formulas like you did about that blackbird," I begged. "Make it simple."

We decided that a station in Atlanta would present the best chance of success, as it had the same amount of power and the distance between us was free of other radio disturbances. So I wrote the president of the *Journal*, which owned WSB:

"How does the idea strike you of having an instrumental duet played between Atlanta and Louisville? It might be a novel undertaking and, whether or not eminently satisfying, may lead to a new achievement in radio. If reasonably successful it would open a rather engaging vista for the imagination—of a vast future or-

chestra reaching from coast to coast, with but a single instrument in each of the large stations, making the heavens redolent with sound or, if we're lucky, music."

("Large stations" were only 500 watts. But to continue):

"Our duet may necessitate some correspondence, but we might begin with these suggestions:

- "(a) Install in each of our studios a self-setting clock with a pendulum swing of onehalf second.
- "(b) Tune our pianos to 400 pitch.
- "(c) Set our radio apparatus exactly at 360 meters, and guard the panels during the test from undue body capacity influence, and endeavor to keep our frequency range as nearly as possible the same.

"We will put on a violin soloist and you a piano accompanist—or the other way about if you prefer. A musical director who can watch the pendulum and whose baton can be seen by the players will be in each studio.

"Suppose we agree to start at eleven o'clock a certain morning. When the minute hand of the self-setting clocks approaches eleven, our respective directors raise their batons. When the minute hand clicks on that hour, the batons

descend with the first backward swing of the pendulum. And on the stroke the musicians begin, continuing as the batons mark time with the pendulum swings.

"We should plant scouts midway between our stations to find out how it goes. And, if you permit me, I would suggest that the music be simple at first, with a tempo commensurate to the half-second measure of the pendulum."

The poor Major! It is hard to say what kind of a headache that gave him, or what brand of strange mania he thought had attacked me. For he never answered, and before I had the pleasure of meeting him again he had passed on to an existence where, it is devoutly to be hoped, the vicissitudes and griefs of broadcasting do not follow.

But twelve years later this same experiment was attempted between two eastern stations, with a fair and interesting measure of success.

Late one afternoon an unforgettable letter arrived. The pencil had moved slowly, painfully. The postmark was Southern Pines, North Carolina.

"I want to thank you," it began, "for the beautiful music you broadcast. I wait for it every night, and it seems that you are in a

dream. I can't see where it comes from, only a man says WHAS, Louisville. I am a little sick boy living way down in the sticks of North Carolina, where there is never a band or anything, and I have to lie in bed most of the time just looking at the four walls. But my daddy bought me a big radio set with a tube, and I hear your music through my earphones most every night. I just want you to know how much I enjoy it. Well, I must close."

Two months afterwards, a week before our first Christmas, his letter developed into a program which fired the imaginations of news writers in more than a dozen states, particularly throughout New York and Pennsylvania, for our drift that night was to the northeastward. (There are so many radio stations now, interspersed between former great distances, that the phenomenon of "drifts" is rarely if ever taken into consideration.)

But I shall let an old clipping from the Courier-Journal tell you about that long-ago December night:

"Thursday evening WHAS will broadcast a special concert dedicated to a little boy who is ill with a serious hip disease. This concert will be his very own Christmas present to all boys and girls, everywhere, who may have to lie in

bed throughout that day when Santa Claus dispenses happiness.

"Nor is it intended only for shut-in children, but for women and men, as well, who by some mischance, misfortune or misdeed are doomed to spend the Yuletide drearily gazing at four encircling walls. The walls may be actualities, in hospitals, prisons; or they may be of the mind—disappointment, sorrow, desperation. But of whatever kind, and however formidable, WHAS will pierce them in an effort to bring some measure of peace to the unhappy ones within.

"This is a new endeavor in the field of radiophone broadcasting, and is the crystalization of feelings and thoughts unwittingly reflected from a letter received a month ago. It was an odd little letter, written with pencil on a page of scratch-pad; some of the words tilting upward, some down."

(The little boy's letter was printed here, and the article continued):

"The day this arrived WHAS was not in the best of humors. There had been eleventh-hour cancellations for the evening program, and the studio force was tired and fretful. Yet when it had been passed around for all to read, their fatigue seemed, in some magic way, to vanish. They may have visualized the wan cheeks, a

thin hand outside the coverlet, serious eyes gazing at the four walls through which no music had ever come to temper the loneliness and pain—until the installation of his big receiving set.

"The manager wrote back telling him what his appreciative letter had accomplished; and how it, and the kind thought prompting it, had driven away their weariness and grouch—a rather conclusive proof of the fact that four walls are but ephemeral things, after all, since even the concerts broadcast from WHAS are played within four padded walls, and the music goes out just the same.

"The little boy was quick to catch the parallel, and immediately became an ardent patron of the idea that kindness and courage are very much, indeed, like radio music—that no walls can possibly hold them in—that they simply have to reach out over the earth and help people.

"Thus it came to pass that a compact was made; the conditions being that every evening a concert would leave the four walls of the studio in Louisville to keep him from being lonely, and he would send back from his four walls wholesome thoughts to keep WHAS from getting tired.

"Across the miles each night they have kept

their respective trysts. Occasionally they write, and in his scrawled lines unfailingly appear the most approved sentiments of a little soldier and gentleman.

"Once he sent a box of flowers from his mother's garden. Of course, someone else had picked them for the grim disease that has attacked his hip forbids him to gather flowers—unless it is from another kind of garden, rich with invisible blooms that thrive on tenderness and character. These, indeed, he can and does pick, and broadcasts with a lavish hand in exchange for a radio tune.

"WHAS would like to relay the spirit of this lad's example to every unfortunate who, gripped by some distress, must spend the holiday season gazing at four dreary walls—prisoners of illness, of accident, of habit.

"Therefore on Thursday evening a special concert will be sent, dedicated to a little sick boy 'down in the sticks of North Carolina,' who is fighting gallantly for health. It is to be his very own Christmas present to his fellow sufferers everywhere."

The entire faculty of the old Louisville Conservatory of Music came forward with a request—it was almost a demand—to give that program. Consummate artists as they were, I

truly believe they had never presented anything so beautiful.

Incidentally, but through no suggestion by radio, gifts poured in upon the little boy almost filling his four walls with toys, because people began calling that very night for his name and address, and the next few days brought scores of letters with the same requests.

He and I continued our correspondence for nine years. Each Christmas, and sometimes between, we sent each other insignificant presents of sorts. I had dubbed him "The Little Squire of Southern Pines," and his chief motive was to fight for health so that he could take me fox hunting.

He lost the fight, but never lowered his flag.

SCARCELY a week passed in that venerable period of our beginning without its bothersome, if not bewildering, problem scrambled into a tangle of obscure enigmas, making it appear as if some stern fate deliberately tried to thwart our wills—or, more likely, a bevy of mischievous ether sprites were purposely leading us astray in order that they might hide behind a cloud and giggle.

Contrary to what we had believed and optimistically undertaken, there were times when I seriously doubted a human ingenuity astute enough to bridle this necromatic pinto and ride it with any semblance of certainty.

The physical machinery operated without skipping a beat, and programs went smoothly when not blown asunder by artistic tempests, but bewildering effects continued to transpire out in the distance which were wholly unaccounted for. If we could have seen what we were working with, speedy corrections might have followed. But, to all of us then, the handling

of invisible ether waves was like feeling around in the dark for a box of matches.

A deep, somber perplexity appeared on our first birthday, when a letter came, describing a hamlet some ninety miles southward, whose inhabitants had never heard a broadcast and openly scoffed at stories which attempted to explain it.

The writer, an ingenious person, said that a few months before he had built a large receiving set, with a tube and many dials, and mounted it on a truck which he took pleasure in driving hither and you over three counties, inviting people to listen through his earphones.

I rather got the idea that this was done purely for love of country. As he collected crowds here and there, enjoying the self-importance of being thus a patriotic promoter in the new Art, he arrived at this particular hamlet and sonorously proclaimed what he had come to show them. In a few minutes the entire population of about forty, including children, had surrounded the truck, eager and all but breathless with expectation.

Imagine his chagrin, therefore, when having cleared for action, the various favored ones who first clapped on the phones and screwed their faces into expressions of intense listening, said flatly they "couldn't hear a gol-darn thing."

This was the cue for others of the "boys" to slap their thighs and guffaw, so the spirits of the altruist were thoroughly dampened, his pride bruised, his faith in WHAS shattered. Reaching his home, he wrote that long, Oh! very long, letter, recounting each detail of his humiliation. He had slunk away, a crushed and crumbled creature, and in no uncertain language held us to account.

Sympathetically, I replied that maybe one of his connections was loose.

With thinly veiled sarcasm, though fairly palpitating with rage and wounded sensibilities, he came back at me wanting to bet any reasonable amount that his connections were as tight as mine—that his receiving set not only enjoyed perfect health but he would "put it up against any other'n, anywhere. Facts is," he concluded, "we couldn't hear you, and them fellers don't believe there's any such thing as radio besides making me feel terrible. What you aiming to do about it?"

Now I was taking this correspondent's lamentations with a grain of salt, yet nevertheless called in our technician and his assistant, repeating the tale as being more or less monstrous and unnatural. They looked at each other

with lugubrious faces, like two doctors consulting over a very bad case.

"It's a dead spot," said one, "a spot where radio waves can't reach."

Having wrestled with the cantankerous thing for a twelvemonth, I should have called a dead spot a place where it *did* go, and a real live, peaceful spot where penetration was impossible. But that was by the way, and only a transient thought befitting moments of dissolving faith.

"What shall we do about correcting it?" I asked. "If the trouble spreads, it'll arouse a storm of public indignation!"

"Send one of us down there, in a car with a receiving set, to have a look for it."

"Have a look for what? If it isn't there, how can either of you find it?"

The technician took out his pencil, slide rule, and reached for a pad on my desk. I shuddered, thus standing on the edge of an impenetrable forest of cosines, realizing that in another minute I should be lost in an expedition of discursive formulas. Given a pencil and slide rule, that fellow had no equal in the confounding of my limited mental equipment to a point where I could feel a thousand mangled delusions pouring over me. Remembering the blackbird, I cried:

"Don't draw it! Just tell me—simply, like a bedtime story!"

Three days later the assistant telephoned from the little hamlet which still shook with Rabelaisian laughter over "music through the air."

"Did you find the dead spot?" I asked excitedly.

"No, sir, it isn't here."

"Did you tune-in our station?"

"I tried, but couldn't hear even the carrier whistle. Everybody is kidding the life out of me. The storekeeper says we're nutty."

I felt like biting my nails.

"As I understand it," I yelled through at him, "if you can't find a dead spot, there isn't a dead spot there; and if there isn't a dead spot there, and you still can't hear us, then there is a dead spot there. Please give my respects to the store-keeper!"

"What shall I do now?" he asked, slightly mystified.

"How far are you from Mammoth Cave?"

"About twenty miles."

"Well, we've been planning for a test there. Suppose you drive over and see if you can get us underground!"

And thus through the impetus of scoffers—how often it has happened in the past!—we

achieved something worthy of a place in radio history; only because it had never been done, no one knew if it were possible to do, and we happened to demonstrate its practicability. At that time there had been speculations expressed in a scientific radio magazine concerning an electromagnetic wave's ability to penetrate earth but, no cavern being handy, field experiments lagged—except for a try by a New York broadcaster to reach inside of the subway, which did not turn out convincingly.

Reaching the Cave he called me up again, to get the schedule we should have by that time arranged for testing periods. Meanwhile, I had sent right and left for talent to assist in this bizarre undertaking. The broadcasts would begin at ten o'clock next morning and continue fifteen minutes, then again at eleven o'clock for fifteen minutes, the same at noon, and at one, two and three o'clock. At four, of course, our usual afternoon concert of an hour would come on.

These would give him seven periods for the experiment. As he logged the schedule and called it back to me, his voice was trembling. And he afterwards confessed that he had felt suddenly awed, even frightened, by a sweeping prescience of some great adventure.

Testing his receiver that night in the hotel he

found it correct, and next morning, with guide and a companion, the Big Hole was entered. He carried a compass, of course, in order to set his loop aerial exactly toward Louisville, and made the ten o'clock try about half a mile in. Driving down a metal spike to which the ground wire was attached he put on the earphones, tuned and listened. He tried tuning more critically, and listened more intently. Nothing. The silence was as abysmal as the great cavern, itself.

They pushed farther in and prepared for the eleven o'clock test. All was ready. The time came and passed. Nothing.

Neither did the noon hour bring results. Fat Man's Misery and the Corkscrew were negotiated in the search for a spot offering promise, somewhere beyond. Down went the iron spike again. The compass was consulted, the aerial correctly set. Their watches pointed to one o'clock—one-five—one-ten. Nothing.

He took up a handful of earth and examined it. Here may have been the trouble, for what he held was dry and powdery, a finely dissolved limestone so light that it could be blown away with a mere puff. The spike, he conjectured, had been driven into places without moisture, and such conditions would render ground connections almost, if not indeed quite, useless.

Another set-up was made for the two o'clock signals. Nothing. By this time the guide was smiling. He had been steadily growing more skeptical.

"If it's moisture you want," he suggested,

"why don't we try Echo River!"

They almost rushed to it for the three o'clock test, feeling now sure of success. Crowding aboard one of the flat-bottomed boats, dropping the spike overboard to the bed of that weird underground stream, they pushed off and waited with everything ready. On the second of three the whistle of our carrier came through, but that was all. No voice, no music.

It was the assistant operator's theory that this particular cause of failure might be attributed, not to a lack but an excessive amount of moisture, since the vaulted ceiling and walls were simply dripping, and he conjectured that his receiving set, being entirely surrounded by water, was thus effectually insulated from radio waves. This sounded very well then, but was disproved years later by broadcasts from submerged submarines. However, the Echo River try came to naught.

The regular afternoon concert from WHAS would begin at four o'clock, and if he failed to catch anything then he would have to wait until

half-past seven. So they chained the flat boat again to its landing, took up their packs and started in search of another place. Wider became the guide's smile of derision. He now thought it safe to drop a few caustic remarks. He really had upon his side the weight of evidence—first too little, then too much moisture.

They had returned some distance when, immediately at the operator's feet, the flickering torches showed a moist spot of soil. This looked hopeful because, unlike Echo River, the ceiling and walls were dry, and with good cheer they drove down the iron spike as far as it would go. The loop aerial, too, was set, the compass giving the proper direction.

Four o'clock came, and with earphones in place the operator tuned. Without a moment of hestitation a voice came through, carrying our station's announcement.

A part of his written report stated:

"The music was as vigorous as though we had been in Louisville, ourselves. I leaned quickly over and slipped the phones on the skeptical guide's head. With a snort he sprang back, making a gesture as if to slap them off. But we steadied him, and after that he became an amazed and happy man. The music was clear, and strong enough to be heard six feet from the

phones. The entrance to the Cave points away from Louisville, so we were receiving the signals through solid rock and earth.

"This spot, according to our guide, was about a mile from the opening, and 370 feet below the surface. We had successfully carried out the first radio test ever made in Mammoth Cave. Moreover, to our station goes the distinction of being the first broadcaster ever received in the Cave."

That led, as may be imagined, to the ordering of a bronze tablet to be erected, where it can be seen today, and where I hope it will stand for centuries. It states simply that "at this spot, July 21, 1923, was heard for the first time in Mammoth Cave a voice by radio transmission"—the name of the sending station included.

As it happened to be my voice, I feel a little thrill of pleasure whenever thinking of it.

A year later the tablet was dedicated. By this time "loud speakers" had appeared—raucous affairs compared to those now—and one was placed, with a receiving set, alongside the tablet. A special train left that morning with a number of guests. These were led into the cavern where they arranged themselves before the "speaker," waiting rather excitedly for the four

o'clock hour when, from the studio in Louisville, the ceremony would begin.

The story, from a yellowing page of the Courier-Journal, said in its opening paragraph:

"The famed Mammoth Cave reverberated with the strains of My Old Kentucky Home, melodious chimes pealed in faraway galleries of the cavern, and great limestone walls took up and threw into inaccessible recesses snatches of Southern melodies yesterday afternoon, while 272 persons burst into a round of applause that was echoed and re-echoed as the final strains of the music died away. For the first time in history a public radio concert was given in the depths of the cavern, and the guests of WHAS who heard the program said it was the most unusual experience of their lives."

There was more, of course.

Oh, by the way! That dead spot referred to in the opening of this chapter turned out to be there, after all. Subsequently another man explained it by saying that some acute condition of geographical phenemenon caused the radio waves to suffer a complete ground attenuation.

Do you understand it now? Neither do I. But someday, when I'm old and feeble and ready to retire, my little house with ivy walls shall be built upon that spot—a proved spot of quiet and blessed peace.

It was on the seventh day of our first December, when we were preparing that program for The Little Squire of Southern Pines, that a shocking mandate came from the Department of Commerce, maker and enforcer of radio rules and regulations. The long, formidable envelope was passed over my desk, and the enclosure read:

"Effective immediately, you will proceed to broadcast on a wave length of 400 meters."

Just like that! Short and to the point. No order which ever came from G.H.Q. could have improved upon it in this respect. I forget how it was signed, but that made no difference. At the moment it seemed arbitrary, curt, rude, insolent and distinctly unpleasant. I almost rushed with it to our technician, thrusting it at him with a tender exclamation.

He read it; then read it again.

"Now what?" I asked. "Can you put us on 400?"

"I can try," he said. "When the supervisor

measured us last September he marked 360 and 485, but the 485 got rubbed off. Let's see. This 400 meter change would be—" (out came the slide rule). "Well, it would be about a third up from where we are to where 485 is if 485 was there, which it isn't. We can't move a third up to nowhere. Maybe I can guess it, within about ten or fifteen meters."

So much for being on frequency those days.

"If you happened to miss it forty meters, we might stay where we are!"

I did not want to tempt him, but the idea held agreeable possibilities.

"That would be a lot better than monkeying around," he agreed. "It will take people a week to find us again—changing all of a sudden, this way, without letting them know in advance!"

We looked at each dolefully, like two Chinese idols. No one hear The Little Squire's program? It seemed preposterous! Then followed a period of talk that sounded like a couple of coughing machine guns. The result was that we decided to combat the austere mandate, immediately.

"I'm putting in a call for Mr. Hoover," I declared, starting to the telephone.

The Mr. Secretary was out, said a voice. Would I speak to anyone else? Yes. Hon.

David Carson, Commissioner of Navigation! A few clicks, and the extension was made.

"You say you don't like 400?" That very charming gentleman asked, after I registered our objection.

"No. Not at all."

"What wave length would you rather have?" Dignity and sweet patience were in his voice.

"None, particularly. We want to stay where we are."

"Well, that will be all right. Stay on 360, if you'd rather. I'll write you a letter confirming it."

And the first radio "hearing" I ever attended—by long distance telephone, at that—adjourned satisfactorily without the slightest delay, fatigue or stratagem. Many times, sitting through hours of later hearings, the memory of it has sustained me.

That, of course, happened years and years ago, when few of the present stations were in existence, and those few had not experienced, even in their nightmares, future tangles and tussles before a specialized commission; nor the employment of streamline legal talent; nor the several kinds of megrim brought on by dayswithout-end of arguments.

Pray do not infer that I am lacking in re-

spect for the Commission. Indeed, I give its members more, and with an open hand. I know their problems and possess no slight knowledge of their agonies.

When the very first Commission was being formed, Mr. Hoover did me the honor of wiring to ask if I would accept one of the appointments. As I was in Egypt at the time, Judge Bingham answered for me, saying that he thought not. As usual, he was right. For then, and increasingly since, I felt that such a group was foreordained to premature old age beneath the vexatious radio problems multiplying in America, as well as predestined to be the target for unwarranted judgments hurled at them by irresponsible carpers.

When you turn your receiver to any distant station, and get it without annoying interference, think kindly of that Commission whose talents are being devoted to your interests. Less would not be cricket.

Christmas came—our first. For a week before, and trailing after like a low plume of smoke from a distant steamer, each vocal group which arrived to broadcast had in its repertory the beautiful song, Silent Night. I heard Silent Night so often that I became silent-night-con-

scious, and felt myself wanting to move about on tiptoe after sundown. Such a saturation of the ether may have suggested an entirely new thought to the Department of Commerce, because shortly after New Year's came this query:

"What do you think of the idea of having silent nights over the country? Upon one night a week certain stations in specified areas will stay off the air, thus giving better reception of outside stations for people living close to local antennas."

It was a worthy thought which we speedily endorsed, choosing for our own use—rather, for our own disuse—Mondays, and on January fifteenth, 1923, we observed the first. By and large, this was one of the queerest innovations radio has ever experienced.

I wonder how many of you remember it, back in that "prehistoric era."

One pleasant reminder lies before me in the form of a post card from Nashville. The sender had pasted upon it some radio editor's listing of: "Best Things in the Air Tonight." Six stations were named for that Monday evening, and across from WHAS was, of course, the word "Silent." My spoofing, if anonymous, correspondent wrote at the bottom: "Is this why WHAS is best?"

Except for the visit of a rather blasé young woman who wanted to broadcast for "an alimony" and burst into a surprisingly sudden rage at my refusal, declaring that all men were villains and she thanked her stars that she had never been fool enough to marry one—(reminiscent of the Communist who shouted: "Thank God I am an atheist!)—a lapse in our records would indicate that the following few months were spent in a peace which brooded over all. Of course, something must have dropped out of our old book, which is more understandable than a succession of harmonious weeks. Such blessings in radio stations are usually clothed with the witchery of fiction.

But, as a breath-cloud passes slowly from a mirror, we were soon again staring at the stark image of reality. This time, it was the death of President Harding.

Now there is nothing about death or any of its correlative circumstances that should amuse one. But, thinking back upon our effort to broadcast the pattern of his funeral, a smile—respectful and tender—will not be denied my lips. Why we attempted it, in the first place, is still a mystery, unless the uncanny appeal with which radio beckoned to new and still newer explorations became too strong for us.

As there was no possibility of broadcasting that great distance by remote control, from the point of origin, I wrote the minister in Marion, Ohio, and received from him the exact order of the funeral—when the cortege would arrive at the church, his selection of Scripture readings, hymns, and so on. We intended to duplicate it minute by minute, word for word, song for song. An organist, choir, minister were in the closed studio, waiting.

In our reception room outside were placed several rows of chairs, facing a table on which stood a large photograph of the dead President, draped with an American flag.

Long ahead of time the chairs were filled. They were a solemn group, and a few women—gentle, reminiscent perhaps of some poignant griefs which had touched their own lives—wept quietly. By the pendulum swing of our large master clock we broadcast simultaneously—or at least fondly imagined that we were doing so—each step of the ceremony as it transpired in Marion. Out in the air, our listeners also seemed to have been deeply impressed.

Looking back along the overgrown path of years, I wonder! Of course, it was the first funeral ever broadcast, and a President's funeral, at that. Those elements of originality

threw about it a glamorous interest which entirely hid the ineptitude of such an undertaking. One radio magazine praised it to the skies. But I, who know, must own that its only claim to fame was—being first.

The following October newspapers announced the approaching visit to Louisville of Mr. Lloyd George, and the types were scarcely dry before we found ourselves pelted with poems of welcome. Each screed came with a request for the time when it would be broadcast, so the author might notify his, or her, friends.

Amid the direful calamities of time, is there anything more beautiful than faith?

Pages of verses fell upon us like autumn leaves, and in about as many forms. The reading of half a dozen each morning brought its compensating reward in the amazing way their writers had rhymed "George" with some other word, for by far the majority started off with "Hail, Lloyd George," or "Welcome to our city, Lloyd George," and then came up against a stone wall at the second line ending.

Perhaps the one which hit it nearest—apparently inspired by that fictitious yarn about Pershing's visit to the tomb of Lafayette—began:

"So you have come, Lloyd George, Doughty blacksmith at the forge."

But it was only after the famous Welshman sailed back to England that my eyes lighted upon that, and even now the memory of it makes me hang my head in shame.

If there be truth in the ancient saw that an attribute of royalty is the gift to remember names and faces, I must be the commonest of commoners. The day a little woman was shown into my room, I should have sworn that she was unforgettable. Very small and of childlike mien, she entered with little springy steps and a smile which frankly said she was enjoying it. Wearing a little old-fashioned bonnet upon iron-gray hair, half-mitts and a Quakerish kind of gray dress, she reminded me of a human mouse—a human mouse on pogo sticks.

"I have brought you a poem written to Mr. Lloyd George," she began, in a scarcely audible, mousey voice. "Will you broadcast it?"

"I shall have to read it first," I replied.

She smiled. "You must speak louder. I am quite deaf."

Leaning nearer, I tried again. But she only smiled and shook her head regretfully. By slow approaches I finally got within two inches of her ear and yelled. That connected. It also brought our technician on the run. He backed out, apologetically. Then the poetess left, on her little springs. I thrust the verses in a drawer

of my desk and, God helping me, forgot them.

A week went by. We were at that time preparing for Mr. Lloyd George's speech which would be broadcast in a nearby hotel ballroom, and we fervently hoped that the rickety remote control connection would hold up until he fin-A cabinet maker had just delivered a small mahogany box in which we intended to place the microphone. One of our cartoonists had drawn a stunning design, stereotyped and printed on white China silk to cover the front of the box. It represented the globe-with lines of latitude and longitude so there could be no mistake about it. At one side a lion, rampant, stood upon a scrolled motto: Dieu et Mon Droit; at the other side, rampant, stood an eagle on a scrolled motto: E Pluribus Unum. were reaching across and shaking hands-shaking hands across the world. Above was a scroll with part of Kentucky's motto: United We Stand.

Through this piece of silk the Prime Minister would speak, and surely receive inspiration. Later, with the microphone removed but a mahogany hinged top with silver inscription plate attached, the completed box would be presented to him as a souvenir. He could use it either for cigars or trinkets.

Anyway, that is what we were rushing to

finish up, for the afternoon was waning and the speech came at a seven o'clock banquet the next evening. I turned for something, and from the corner of my eye got a fleeting glimpse of the deaf little woman entering our reception room.

Contrite at having neglected to read her poem, more penitent for having entirely forgotten it, I rushed over, placed my lips two inches from her ear and yelled, "Awfully sorry—"

With a thinly smothered scream she sprang back. It was not the one I thought, at all. Worse yet, this woman had brought Mr. Lloyd George to the station—merely to look around. And there, staring at me past her shoulder, with an expression of astonishment mixed with anything else you wish to add—a look which Parliament may have seen a thousand times but I never until then—stood the King's Prime Minister.

Explanations may not have sounded quite as convincing as I should have desired, but they proved one thing—that a Welshman knows how to laugh. And that laugh may have contributed somewhat to the laryngitis which, over night, attacked his throat so that he could not make the speech, after all.

I hope he still has the box, though I never saw him again and it was presented by someone else. In the early days of this narrative Camp Henry Knox, thirty-odd miles below Louisville compared as unfavorably to the present Fort Knox—with its impressive depository for ten billion dollars' worth of gold, permanent quarters for officers and men, and other buildings suitable to a modern United States Army post—as a haphazard shantytown to a dignified residential section.

It was the old Camp Knox which now loomed upon our horizon. Army maneuvers were about to take place there, employing a force of 18,000 men with Maj. Gen. Robert H. Tyndall, of Indianapolis, commanding.

This heavy concentration of troops was the largest since the Armistice, and the stage was being set for operations extending over a wide area. Such a force of fighting men is no small show, and plans were heading into the greatest sham battle ever attempted.

At the hour of noon, upon a certain Friday—August 22, 1924—an imaginary Red army

would swoop southward across the Ohio river and occupy Louisville. This was a surprise invasion, and the city would be taken even before a single Kentucky Colonel had a chance to draw a trusty six-shooter. You know from that, that it had to be a genuine surprise.

Immediately, however, the Blue army of 18,000 actual men, the units of which had been previously separated, would begin to effect a concentration at Elizabethtown, farther southward, to complete mobilization of the Fifth Corps Area. The two armies were expected to engage about seven o'clock that night.

I have probably neglected to mention that only a few months before we succeeded in overcoming most of the baffling difficulties which had stood in the way of remote control pick-ups over ordinary telephone lines. Although such experiments had been from nearby points in the city, where orchestras were playing, if a like or similar technique could be stretched to forty miles we might broadcast this military engagement from the actual front.

To accomplish such an enterprise would not only keep our anxious citizens apprised of how the gauge of battle was going, but it would be the first time that such a thing had been done through a broadcasting station and, admittedly

out of the question in times of real warfare, the experiment might bring to light some worthwhile suggestions for future development. Aside from this, we were keen to be first. That enticing word "first" had come to hold a warm attraction for us.

When I approached General Tyndall he was cordially interested, and gave us every possible assistance. His co-operation was an absolute necessity, of course, because without the commanding officer's approval anyone I might assign to the job of dodging in and out among the lines, shouting through a portable microphone, would at once be arrested, marched to G. H. Q., tried by a drum-head court martial and shot as a spy at sunrise. That was a foregone conclusion.

At certain strategic points along the highway leased telephone lines were tapped, leaving "drops" which could be later attached to a mobile microphone in order to keep abreast—for a very limited distance—with troop movements. There was also provided a small portable amplifier to start the voice off with a proper punch. Each syllable had forty miles to travel before reaching our transmitter, and must therefore leave the microphone at a high volume of sound. At least, that was the way it seemed to us in those days.

The circuit lacked many refinements built into chain hook-ups of today. In fact, it could not have been accredited with any refinements, whatsoever, had we tried to send delicate strains of music over it. But a fairly understandable transmission of a spoken voice needs less delicacy in the clearing and balancing of metallic circuits. We did not know that, at the time, either. But happily this was war and held no place for the gentler arts. Basically the pick-up was the same as those now in use—though more of a roadside weed which laboratory greenhouses later cultivated to produce charming blossoms.

Our technician had put his best skill into the complicated affair. It had worked well enough on tests, but he still showed much worry and concern lest it give down somewhere and spoil the broadcast.

"You can't help a cannon ball coming along," I said, trying to hearten him, "and cutting your line of communication. That happened every day in France."

"I know," he replied, trying to smile and making a very poor show of it, "but some of our wires are tied to trees which a tank could knock down without knowing it. Besides, these lines of ours are more important than any we had in France."

Looking back with cooler judgment that last statement might have been debatable, though at the time he seemed to have the right of it.

As it turned out, I was not forced to send one of our own men into that scene of carnage, for General Tyndall agreeably chose from his personal staff Col. Mack E. Hamer to be "radio war correspondent," and at stated intervals between periods of bursting shells and gunfire this officer would explain the immense game to our listeners, its swing toward victory or defeat.

The great day came. The zero hour approached. Standing with me by the transmitter our technician was even more nervous than the captured city. For a remote pick-up from such a distance had never been attempted so far as we knew and, moreover, we were now becoming alarmed over what the blasts of cannon fire might do to our tubes. Tubes were not designed for such unexpectedly harsh treatment. Would the thunderous explosions frizzle them up? Would they burst? Melt? Or take it?

Staged for the first great clash between Blue and Red armies, when artillery, machine guns and rifles would be heavily engaged, General Tyndall thoughtfully ordered Colonel Hamer to a position in the very thick of it. This was close between two 3-inch field pieces, one of

which had orders to fire on the minute and half minute, the other on the quarter after and the quarter of. Thus we would get nearby bursts every fifteen seconds, and the intermediate spaces were to be filled with incessant machine gun and rifle fire.

I opened the station, saying that Colonel Hamer, at the front, would report the battle up to this point—which he did in a splendidly dramatic and understandable way. Then the firing began.

The technician and I looked at each other. That first 3-inch gun, far from damaging the tubes or splitting our eardrums, merely sounded as if someone had struck a dilapidated, partially cracked old gong. The zip-zip-zip-zip-zip of small calibers continued realistically for fifteen seconds when—bong!—spoke the next 3-inch cannon. It was interesting, even exciting. It was the first.

If some of you can remember the days when occasional accommodation railway trains used to stop at depots for the passengers to disembark and eat, you may also recall that a white-jacketed colored boy stood at the restaurant door and beat upon a battered tin tray, or pan, to guide the hungry to their fodder. The percussions he produced sounded almost exactly like

those roaring field pieces. Unsuspected by any of us, the old-fashioned microphones of that day could not pass through their little insides those frightful blasts, because the granulated particles of carbon used in their construction instantly froze beneath the sound impacts, feeding us a distorted, imperfect signal. As instantly, it is true, they unfroze, permitting the milder "zips" to sound quite natural.

Colonel Hamer, letting us have a run of this for about twenty minutes, took up his story of the battle again. After that we once more plunged into the midst of shell fire, and for another twenty minutes the regularly spaced bongs! zip-zip-zip-z-z-z-zip-zip-zips held a large population enthralled.

The fighting was fast and furious. Would our gallant Blues destroy that imaginary horde of ruthless invaders? Colonel Hamer stood ready, should Fortune turn her face from us, to give immediate warning, so that all in the enemy's line of approach might hastily evacuate their homes.

A Chicago radio weekly, under a caption extending across its first page, carried a great story commending us for that sensational broadcast. But, while the battle raged, we had no suspicion of wider sensations that were being stirred up,

nor what strange story distant night editors from coast to coast were excitedly reading, hot off the news wires.

Now it so transpired that that very Friday our earth and Mars were nearer to each other than they had been for several years. beforehand astronomers had faithfully polished their lenses. Also for weeks imaginative writers had set the country wondering if the miraculous infant, radio, might not be able to gather unto itself signals from our neighbor planet. Proponents of the theory that those mystifying "canals" were dug with the distinct purpose of attracting the attention of us Earth dwellers, began writing to inquire when and how we intended broadcasting messages to the Martians. Several had suggestions. Some wanted to come to the station and help. A few told us what to say—especially one note from a little girl. quote it:

"I wish you'd ask them if they have dogs there, and if there are any Scotties. My Scotty looks so long at the moon sometimes I wonder if he is seeing other Scotties, too. I asked Mother and she said maybe, but I don't think she was listening."

At any rate, the impetus with which such letters increased warned me of another avalanche

of madcap mail. But, most assuredly, I was not prepared for what did come!

The first thunderclap appeared in a news dispatch to the *Courier-Journal* from Boston and told a weird tale of a radio specialist who was tuning his receiver at random when suddenly strange signals started coming in to him. They resembled the ringing of a gong and ended in abrupt z-z-zips. He dashed to the telephone. Signals from Mars! There was a lot more, of course.

A few hours later came another sizzling hot story from Vancouver, British Columbia, also telling the world that mysterious signals had been picked up at that point, which were causing our Canadian friends to wonder if the planet Mars were trying to establish communication with us.

No known code, International, Morse or private, contained anything resembling them. They started on a low note, and ended with zips—quite a number of zips. Then the low note came again, and more zips followed. Radio people in that corner of the Dominion declared they had never heard the like of it before. Aside from Mars trying to call us, other explanations just did not exist! And one listener firmly supported this hypothesis by the precise timing which

spaced each of the gongs, which seemed conclusive evidence that some intelligible communication agency was at work somewhere out in our constellation.

It is useless to mention other clippings that found their way to us, but most of them showed a self-indulgent prodigality with bold, black types.

From Boston to Vancouver, and sweeping into the South, numerous editors played up those "signals from Mars" with splendid éclat—until the true explanation hit the wires when, of course, everything went suddenly quiet.

It may have been two months later that a Boston friend shook his head at me gravely.

"You and your sham battle came near killing my dear great-aunt Agatha."

I tried to look appropriately sympathetic. He continued:

"Within my memory, Aunt Agatha never varied the morning custom of having her tea and toast brought up on a tray and, beside them, the newspaper. A maid would pour the tea, Aunt Agatha would sip it delicately, nibble a crumb of toast, then open that dignified representative of the Fourth Estate. She opened it without fear of being startled—our family doctor did not want her to be startled. Indeed, there was noth-

ing in the neighborhood of Aunt Agatha's exclusive Back Bay home that could have startled her. So, with an abiding faith born of many years that the headlines, as pale and gentle as her frail self, could by no stretch of imagination cause a flutter, she opened the newspaper. Then she screamed.

"The family hurried in. Aunt Agatha's hand was trembling as she pointed, horrified, to the front page. She had merely glanced, but not stopped to read, for that usually pastoral scene was now inelegant with a huge smudge of inchhigh black letters.

"Only four times in her sheltered life had that trusty newspaper marred its front page with such a disgusting display of black: the first, when Fort Sumter was fired upon; second, the assassination of Lincoln; third"—he hesitated—"it might have been the election of Cleveland, I'm not sure; but the fourth was either the Titanic disaster or when we entered the World War. In any event, throughout her honored years of reading news, black letters had inevitably spelled tragedy, and now Aunt Agatha was upset to an alarming degree.

"After we explained that it was merely a radio message which had been received from Mars, she quieted down, sipped her tea, but commanded

me to tell the editor that he had overstepped the bounds of propriety."

I have never known how many newspapers carried that "bong!-zip-zip" Martian story, back yonder in August, 1924. It certainly was another "first" for us and, in a manner of speaking, for Aunt Agatha, also.

This about brings us from the forest of that "prehistoric era" through which we stumbled for two exciting years, (although many of my pages have run ahead, and perhaps I should not have let them do so). It was a dense wood, and haunted by solutions of problems we grasped at, sometimes caught, but more often felt slipping between our fingers; problems that seemed like a floating candle light—steady, or flickering, or momentarily obscured. If invisible snaky vines tripped us, we scrambled up and again pushed onward.

By that time many more stations had appeared to claim their places in the ether. Broadcasting had added wings to its speed and spoken with an emphasis which caused the world to realize that it had come to stay, to grow, to lay its hand upon the multitudes—for weal or woe. Its essentiality began to stand out like the raised types for the blind.

Mr. Hoover, still Secretary of Commerce, and "Uncle" Dave Carson, still Commissioner of

Navigation, called another conference. It was time for the swaddling clothes to be removed. Their infant was walking—no, running at full speed.

How amazingly long ago it seems! If measured by the strides which radio has made from then to now, our vague beginnings must verily have rested in deep antiquity.

I would not be misunderstood to imply that, when we emerged from our first two adventurous years, we had mastered the enigmas of The Art. Such a millennium may always recede, beckoning, beyond our reach. New and ever newer problems are constantly arising. And, since there is no man-made instrument of any kind upon the earth that has yet been completed to a degree which precludes still further perfection, the hope of perfected radio exasperates imagination.

During the next few years, while still under the Department of Commerce, stations multiplied with astonishing rapidity. Obvious to Mr. Hoover was the immediate necessity of creating a bureau to handle this stampede for licenses, a specialized body to zone the nation, critically weigh and place various classifications, allocate frequencies and powers, and do about a million other things to bring order to a situation which,

by its own unwieldy increase, threatened chaos. So, heeding him, Congress authorized the first Radio Commission.

About that time little WHAS took its first jump in power—to 5,000 watts. This was followed with 10,000, then 25,000, then 50,000. We are now building in preparation for half a million watts; short wave facsimile and television, also. There is no end in sight to the many ways this Art will serve you.

My friend's dream has long since come true. He was the pioneer, the intrepid gambler with an untried force. His was the faith.

His station, which opened with three befuddled employees, has grown to a size that requires the clear thinking of more than forty trained workers—exclusive of staff orchestras and other talent. It has wired studios in five colleges and universities, to bring those splendid institutions of learning to our antenna for the benefit of all. Education is free, religion is free, public forums are free.

Scattered through the remotest sections of our mountains are more than a score of "Listening Centers," with signs along trails pointing the way, so that mountaineers and their families can foregather and hear these programs.

Our first association with a network was

unique because of the fact that those five years were operated solely on a gentleman's agreement, with no word of written contract. Conversations were opened and completed one December morning in 1927, by long distance telephone.

Our present connection, made in 1932 with another network, is no less agreeable. This huge chain sends us the best that can be had in New York, Chicago, Los Angeles and other centers. Our people hear the King of England speak, Hitler, Mussolini, the Pope and other famous men of Continental Europe. We have even heard the noises of battle from around Madrid.

Late in January, 1937, when we accepted as a privilege the challenge an angry Ohio river gave with its sweeping waters, you may have heard WHAS as, disregarding all commercial and other programs, it broadcast emergency bulletins for 188½ continuous hours.

It was on Thursday forenoon, the 21st of January, at 11:29 o'clock, that we sent the first flood warning to all persons who lived in low places—up hollows and creak beds—to prepare for quick evacuation with their families, cattle and household effects, because signs of unprecedented high water were ominous. That announcement was repeated several times throughout the day.

Friday, January 22, conditions looked more serious. The yellow water, rising slowly, sullenly, but with a determination which threatened the worst river catastrophe in history, was emphasized by a Weather Bureau prediction that the western section of Louisville, and much of Jeffersonville and New Albany, Indiana, would be seriously affected. This meant that the police radio, situated in our western area, would probably be silenced—which shortly happened.

With citizens and neighbors in peril, a single duty faced WHAS regardless of its commercial commitments. A quick meeting of newspaper and radio executives decided in two minutes that all programs would be abandoned and the station devote its energies to rescue work.

Saturday, January 23, brought a ray of encouragement. The torrential rains which had been pouring upon the entire Ohio Valley for nearly a week, turned overnight into sleet. Freezing weather temporarily cleared the skies and we entertained a hope that the crest might pass with no further height or damage. But the heavens opened again with another deluge which melted the two inches of sleet. Dangers multiplied.

At four o'clock Sunday afternoon, January 24, the Electric Company warned us that it

could not guarantee power after eight o'clock that evening. Parenthetically, its power did not fail until twenty-five minutes to midnight, and meanwhile it was rushing the completion of a special line from another source of power supply twenty-odd miles east of our transmitter, so that in reality we were off the air only about three hours.

But that warning presented real tragedy, if the only means of keeping refugee workers informed were to be taken away from them—the only method of reporting emergency cases—the only avenue of communication threatened, since telephones in many sections were already flooded out.

Anticipating power failure, announcements were broadcast urging listeners to salvage their automobile battery sets, and thus continue to receive and spread relief messages. Simultaneously, by means of teletype, the Volunteer Inter-City Network for Flood Relief in the Ohio Valley, came into existence. This was composed of WSM in Nashville, to the South; WFBM in Indianapolis, to the North; WLAP in Lexington, Kentucky, to cover the Bluegrass area, and WCKY in Covington, to the East. These stations did not hesitate to take all relief bulletins, passing through our microphone, direct to

their antennas by long distance wires. They, too, were sacrificing commercial programs. And thus all boundaries of the flooded area were being continuously served.

By Monday, January 25, however, with the anticipated crest of the water two days off, that network became enlarged. Both national chains, CBS and NBC, had joined it to give blanket coverage of the United States and Canada, also the British Broadcasting System came in, and subsequent foreign networks, which tied together approximately 5,000 short wave stations throughout the world, the largest ever established in the history of radio with all directions and information provided by the signals emanating from the candle-lit studios of WHAS.

Picking out at random a few of the terse bulletins, from those 115,000 we broadcast, are these which many of you may have heard:

"Send boat to—South 45th Street. Child desperately ill." "Paralyzed woman 80 years old. Send boat immediately to—" "City hall calling. 50 children marooned at—Church. Hurry." "Attention police cars. Insane man with revolver at Eleventh and Walnut." "Seven people marooned on housetop on Lower River Road between—and—. Can't hold out much longer." "Attention Dr. Holmes at Car-

rollton, Kentucky. Plane leaving now with vaccine. Be on lookout. Landing cannot be effected. Will drop vaccine from plane." "Ambulance to Portland Library. Meet power boat with sick child, suffering contagious disease." "Jeffersonville Relief Station. 14 people marooned in house at—Mechanic Street. Woman in throes of childbirth. Rush boat, and doctor if possible."

Voluntary sound equipment trucks went, at our direction, as near to the flooded areas as possible and, throughout nights of total darkness, turned their large horns outward so that messages rolled on and on across the water to be picked up by listening boatmen. Not infrequently persons with battery sets in their homes—and everyone I know with a resurrected old crystal set—wrote down bulletins and, when applying to their immediate neighborhoods, called them from windows to passing boatmen.

Within the studios fifteen special telephone lines had been hastily installed to keep us in constant touch with official sources, such as the City Hall, the Mayor's Committee, the Department of Sanitation, the Health Office, the Police, the Red Cross, the Armory, and all Relief Centers. Added to these were eighteen trunk lines into our newspaper switchboard, practically for our exclusive use, because water had

reached the basement generators which ran our presses and daily editions were printed—the first two in Shelbyville, Kentucky, and the several subsequent ones in Lexington, all handled by a line of motor trucks. So, aside from having a fortunate supply of telephone circuits, we were ably helped by the splendid voluntary work of newspaper men and women whose services were not required for those limited editions being printed outside of the city.

These assistants, added to our own force, settled down at desks, received and typed emergency messages which were telephoned in to us hour after hour. Over other desks those bulletins were passed for editing—watching for duplications, for something ambiguous, violent or otherwise improper. Thence in an uninterrupted stream they went to the microphone.

Shift after shift took seemingly endless hours. From the more obscure jobs—where girls and boys typed incessantly with cold-benumbed fingers, squinting by a candle's flickering light to see the keys—to the spectacular announcing staff, the WHAS organization worked as if it were a well-oiled, beautiful machine. The only one of those untiring soldiers not deserving the fullest meed of praise was my own unfortunate self, marooned for several days and unable to

be constantly in the studios to battle side by side with them. My pride in that organization is unbounded, and I welcome this opportunity to say it publicly.

Night and day, determined, dogged human machines fed those dismal calls to announcers who barked them through the air like the knell of death—though, in reality, the hope of life. Official sources have reported that in Louisville, alone, 54,000 refugees were removed in hurriedly summoned boats to places of safety.

It was in that period of distress that radio came into its own. But it cannot stop there. It's road ahead is long, and rich with still greater benefits to come. It's sun has scarcely risen.

Dreams and visions! Memory-haunting phrases!

I must not run on. There remain other crumbling milestones, standing along the path of our first two years, but they are too remote for you and me to wander back and read them now. Perhaps these few, recounted here, will quicken your memory of auld lang syne, so that the early days of broadcasting may not entirely be forgotten.

At any rate, the time has come for signing off. In the ancient wording of that "prehistoric era": "——We hope we have brought you pleasure, and wish you a very—good—night."

THE END.