



ARE THESE STATEMENTS MISLEADING?

In the picture at the head of the column we have shown some imaginary clippings from radio advertisements. While they do not represent the majority of radio advertisements, they are a good deal along the lines of advertisements of a certain type that manage to creep into the radio column.

Of the four "advertisements" shown, two are simply "not so"; one is open to question, and the fourth gives information which, while it appears to convey information, actually does not do so.

Let us take them up one by one. First is the receiver with the guaranteed range of 5000 miles under all conditions. There have been such advertisements. Now it is one thing to guarantee that a certain range is possible—it may very well be—but it is another thing to guarantee that range under all conditions. It simply is not possible. There are times in certain localities where the most sensitive receiver available could not reach out 500 miles, let alone 1000 or 5000. During the bad static season down near the gulf there are times during the day when no superheterodyne on earth could pierce the din of static and bring in a broadcasting station even 150 miles away. So much for that.

Now for the "no interference" receiver. This is a pretty strong claim, and we personally would hate to have to make good on it. Put a receiver within half a mile of a good big commercial spark operating on 450 or 600 meters and then try to receive a broadcaster 100 miles away and 40, or even 100 meters off the wave of the commercial transmitter. Perhaps a very good superheterodyne might possibly give fair reception. But pick a broadcasting station only 10 meters away from the commercial and we doubt if there is a single receiver now offered to the public that would be able to receive the phone without a tremendous amount of interference from the spark. Receivers can be made to tune very sharply, but it

is dangerous to claim that they will cut out all interference.

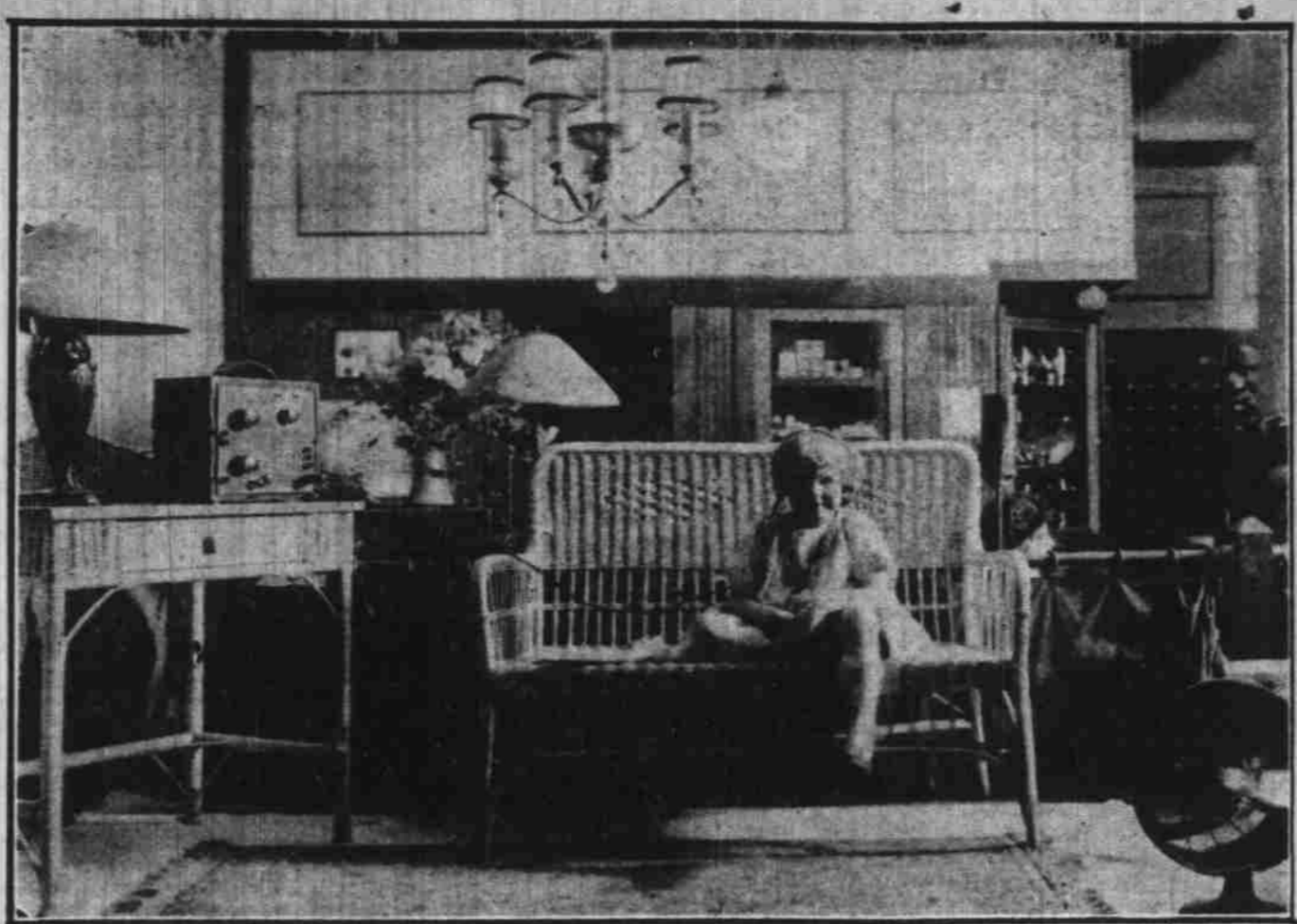
A very common fault lately is exemplified in our third example, in which the advertiser describes the quality of a variable condenser by showing its resistance at 1000 cycles. A test made at 1000 cycles tells us little or nothing about the condenser. What we are interested in is waves around 500,000 and 600,000 cycles. Two condensers which measure nearly alike at 1000 cycles may be very widely different at radio frequencies, which is where they are going to be used. Particularly is this true when the condensers are used for short-wave work.

The last "ad" concerns amplifiers in which there is no distortion. Since this really needs more than a paragraph to discuss properly we are making it the subject of an article to be run in this column later.

HOW MANY TURNS IN THE PRIMARY OF THE R. F. TRANSFORMER

The tuned transformer in radio-frequency amplification is here to stay. First attaining popularity in the neutrodyne circuit, the scheme has spread to many other types of radio-frequency amplifiers, where its greater amplification due to critical tuning as caused it to become decidedly more popular than the fixed transformers which, although more convenient, give less amplification.

Lately there has been developed a non-oscillating radio-frequency amplifier which does not use any stabilizing or compensating devices. This amplifier uses a special transformer in which a very small primary is used—usually about six turns. Even neutrodyne transformers are designed somewhat along these lines, as the primary turns of the average neutrodyne rarely run above 16 in number, and are more often 10 or 12. With such transformers it has often been found possible to leave out the neutrodon capacitor entirely, and still not have oscillation.



Listening to the Radio in window of Salem Electric Company

This is because of the loose coupling—and hence small transfer of energy—between the primary and secondary circuits, caused by making the primary small with respect to the secondary.

Recent experiments are against using the small primary however, either in neutrodyne or in other types of transformer. The reasons for using a larger primary are quite well known, but we will not bother the reader with the theory behind the statement. Suffice it to say that in laboratory tests a neutrodyne transformer wound with a 30-turn primary concentrated at one end of the secondary winding gave nearly twice the amplification of the same transformer using the customary 12-turn primary.

In Fig. 2 is shown how a neutrodyne transformer should be built to incorporate these recent developments. The primary "P" is composed of about 30 turns of No. 26 or 28 d.s.c. wire wound in a narrow slot in a wooden disk. This disk is fitted into one end of the cardboard tube on which the secondary winding "S" is put on. This secondary is tapped in the usual way for the neutrodyne connection.

COLLEGES FIGHT ILLITERACY EVIL

Kentucky Institutions Train Students for Work in Hill Districts

FRANKFORT, Ky., Nov. 15.—In the mountainous district of Kentucky are two schools, Berea college, the largest and most widely known mountain school of the south, and Wetherspoon college, another large institution but the least known among 200 mountain schools.

The students at Berea work their way, training to teach, in the professions of law, farming and business. Their expenses are negligible but their means are limited. President William J. Hutchins points out. The enrollment runs as high as 2,738 students, who come from the neighboring mountains.

The system is one of self-support. The faculty has arranged that the students may work half a day and study half a day. While President Hutchins' son's education costs more than \$1,000 a year at a prominent university, the students here average \$146 annual expenditure. Most of them do not have that much money so they receive faculty loans of \$30 each, then work out the remainder of their expenses. The dedication of the new home economics building brought out the largest body of mountain men and women ever assembled. It was considered a demonstrative response to the campaign against illiteracy, one of the features of "moonlight schools" for illiterate adults.

Governor Fields recently dedicated the latest addition to Wetherspoon college, a gymnasium of rough hewn timber, to reach which he and his party made much of the journey on mules. The school is located in a pocket between high mountains. The gymnasium was built entirely by the community, situated on Squabble creek, a half mile from its confluence with the Kentucky river. A non-sectarian institution, an orphanage and two branch schools, it is supported chiefly by the Lafayette Avenue Presbyterian church, Brooklyn. Although one of the largest schools in the mountains it is little known within the state.

Twenty-one years ago Harvey S. Murdoch, president, came from Brooklyn to found a college in the mountains. Next year, with completion of the building of high and grade schools, his original purpose will have been achieved.

BERLIN BECOMES LIVELIER VILLAGE

Many Changes are Noted Around Capital of Former Great Power

BERLIN, Nov. 15.—Amazing changes have come about in Berlin with the opening of the new theatrical and musical season, the business revival effected by the stabilized rentenmark, and the adoption of the agreement worked out at the London conference for the execution of the Dawes plan.

High-priced hotels are crowded; there are theater and opera openings almost nightly; various German commercial organizations are holding conventions and conferences; directors of various shipping companies are preparing for the extension of their activities and hotelmen have been encouraged to greater activity. Hotel lobbies are more brightly lighted and private dining rooms are again entertaining many parties. Berlin hotel keepers are especially jubilant over the dropping of the tax of 15 per cent which the city

has imposed on all foreigners occupying rooms in Berlin.

Berlin's leading hotels are taking on an especially international aspect, and celebrities from all parts of the world are again appearing here as in pre-war days. In the lobby of a single hotel Mrs. Katherine Fingley, Ganna Walska, Ossip Gabrilowitch, Isadora Duncan, Mr. and Mrs. Rufus Dawes, H. M. Robinson, Leo Slezak, Gerhard Hauptmann, Max Reinhardt, Mascagni, Maria Gay, Julia Culp, Fritz Massary and a score of other persons known to newspaper readers the world over were recently to be seen.

BETTER AUTO BUSINESS

The re-election of President Coolidge has insured the automobile industry of a most prosperous winter business, in direct contrast with former years in the opinion of W. L. Velle, president of the Velle Motors Corporation, Moline, Illinois.

Mr. Velle, in a statement made public today, believes that taxes on cars will be lowered, employment conditions strengthened, wages will be higher and living conditions bettered by cutting costs.

All these things, he says, will result in the working man having more money to spend for the comfort of his family and he will thus be able to provide many luxuries that have been denied him this year due to the uncertainty of industry.

ICELANDIC POETS WELCOME AVIATORS

Around the World Fliers Greeted With Verse Upon Their Arrival

HOFN HORNAFJORD, Iceland, Nov. — (AP)—When an Icelandic poet wrote a song to the tune of "Yankee Doodle," celebrating the arrival here of the American globe-encircling airmen on their long journey across the Atlantic, it was rather a special occasion for the Americans, and the American translation was adopted and sung by some of the sailors from the cruiser Raleigh, which lay off the fjord to "mother" the flight.

But it was nothing new for Hornafjord, where even children chant songs of their own composition, and the sagas of the old Norse vikings who, more than 1000 years ago swept these northern seas, are handed down from generation to generation in the language in which they were originally sung, faithful to the old texts. For Iceland has a remarkably rich literature of its own, both written and oral, and poetry is especially adapted to the Icelandic tongue.

In Hofn Hornafjord, isolated from the rest of Iceland by impassable mountains and seas that are often too stormy to allow the passage of the small Icelandic passenger vessels, many of the old viking customs are still observed. These include the gathering of the family each evening during the long, almost sunless winter, when sagas are chanted and the heroic deeds of the old Norsemen recounted. No longer do the Icelanders live in turf huts, as did their ancestors, and Hornafjord has modern homes of galvanized iron and cement, but the family gathering is as important today as it was 1000 years ago. The women dress in their quaint gowns of black silk, often embroidered in silver and gold, and wear the little black national cap or bonnet, a heritage of the early Norse settlers. In the long winter nights there is little to do and the evenings are devoted to the arts, literature, music, painting and drawing. Many of the villagers are graduates of the National University at Reyjavik, and others have been educated at Copenhagen or other continental capitals.

Children miss some wonderful fairy tales by going to sleep before father gets home.

RECORD TO BE ANNOUNCED SOON

Oil and Gas Record on Chevrolet 100 Hour Tests Will Be Announced

It is expected that within 10 days the Chevrolet Motor company will have complete records of the oil and gasoline consumption of every Chevrolet car that entered the 100-hour endurance and economy run conducted by nearly a thousand dealers through the country during October 4 to 11.

From these records, the average gasoline mileage per gallon and the number of miles per quart of oil will be computed, which will tell a most comprehensive story of gasoline mileage and oil consumption. The result will present a truthful, cross-section picture of the average mileage and oil consumption that may be expected from a Chevrolet any place in the country.

Why the records may be taken by the ordinary motor car owner as evidence of what he may expect in every-day Chevrolet driving is due to the following conditions under which the runs were made:

Regular stock cars were used. Each car was driven in relay, by six to eight persons, many of those driving being persons outside the particular organization. Thus, it was not a case of skilled drivers who know all the tricks of getting high gasoline mileage. Bad roads as well as good roads were chosen and every car was driven through city traffic, which cuts down high gasoline mileage.

Reports from dealers show that every variety of speed was used at different times, regardless of the most economical speed for low gasoline mileage. A large percentage of the runs were non-stop performances, the motor being kept running while drivers were being changed or oil or gasoline being taken on.

As might be expected in a nation-wide demonstration, there were handicaps of rain, fog, city traffic, railroad crossings, loose gravel and rough dirt roads. Many of the cars made intensive runs, going through every city and town in a given country and over practically all roads. One dealer used 14 different drivers, four women and ten men and carried 22 passengers during the run. Another dealer had the driving done entirely by persons outside his organization. Many of the dealers had their speedometers sealed by local officials. And nearly all the dealers exhibited their cars after the run in their showroom when prizes were awarded in the guessing contests as to the mileage made by the various cars during the 100-hour run.

A large number of the report books received by the National Automobile Chamber of Commerce specify the day of the week when accidents occur. Analysis of 957 giving these particulars shows that the greatest hazards, namely 213, fall on Sunday with Thursday and Monday the heavy days.

As noted above the afternoon and early evening hours are periods of the greatest hazard during the day with the heaviest toll occurring between four and five o'clock.

Eight-Hour Day Is Not Observed Thru Germany

HANOVER, Nov. — (AP)—The eight-hour day, while theoretically guaranteed by the new German constitution, is by no means gen-

erally observed among factory workers, according to an investigation just conducted by the Factory Workers' union. Of the 481 locals of the union, 320 turned in reports covering 4366 concerns employing 481,449 persons.

The results show that only 54 per cent of the employees in the concerns investigated work up to 48 hours per week, while 3.6 per cent work from 48 to 51 hours, 26 per cent from 51 to 54 hours, and 15.9 per cent over 54 hours per week.

Envoy Urges American Building in Denmark

COPENHAGEN, Nov. — (AP)—Erection of an "American House" in Copenhagen, where American business interests might be grouped together in one building, similar to the Busch Building in London, was advocated by the American ambassador, Dr. John D. Prince, in a recent address before the American Club here.

Dr. Prince said that both he and Consul-General Marion Letcher favored the idea, and that the latter was ready to support it to the extent of moving the consular offices to such a building, truly representative of American business interests. In his speech Dr. Prince emphasized the growing importance of Copenhagen with its excellent Free Port and commanding geographical position as an emporium for American trade on the Baltic, facts he said, that made an American House in Copenhagen the more desirable.

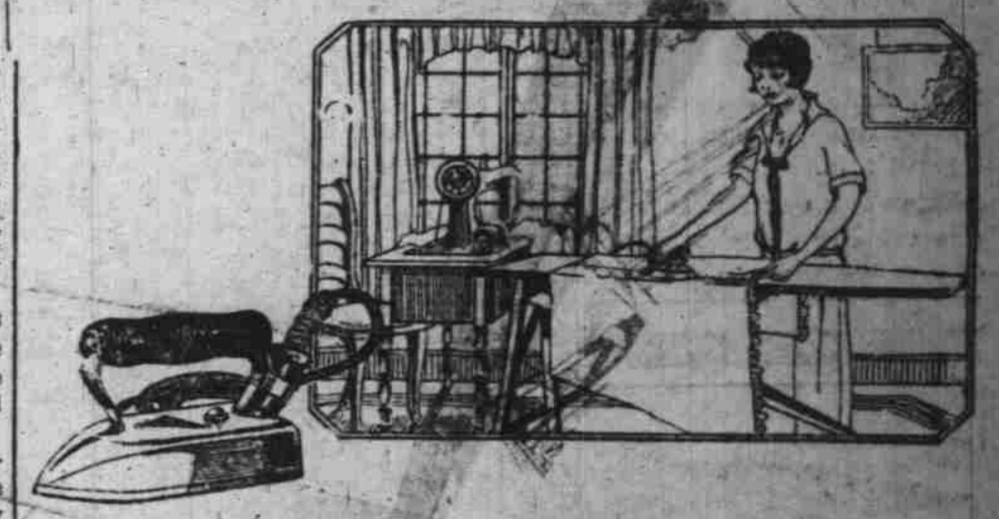
It is understood that a Danish line

architect has worked out a detailed plan for such a building, and that the plan will shortly be put before the American colony in Copenhagen by a Danish business man with large American interests.

Sweden Ready to Supply United States With Lumber

STOCKHOLM, Nov. — (AP)—A new and important item may soon be added to the export trade from Sweden to America, according to statements in the press by a Swedish lumber expert, the government forester, M. Jublin-Dannfelt, who has returned here after an extended tour of the United States as an exchange scholar under the auspices of the American Scandinavian foundation.

The demands on the forest resources of America have already become so great, says Mr. Jublin-Dannfelt, that a lumber shortage is being increasingly felt, especially in the eastern states. Besides, the long hauls from the region of standing timber involve sufficiently heavy freight rates to make imports from overseas advantageous. Consequently a new market for Swedish lumber is opening up and, in fact, a considerable number of shipments have already been made to Atlantic ports. Spruce, fir, and pine lumber, especially undressed materials, such as lath and planks, have been absorbed easily by the American market, and Swedish mills now look for a big trade along this line.



Do you enjoy the convenience of pressing in the same room that you sew?

It's such a nuisance to sew at home when you have to run out into another room every time you want to press a bit of work. Here's a simple way to save yourself steps and increase efficiency!

During November we offer Special
American Beauty Electric Irons Regularly priced \$7.50
Stanwell Ironing Boards Regularly priced \$3.50

This combination offer is made to acquaint you with these excellent household necessities. The American Beauty is a standard electric iron—thoroughly guaranteed—even to its cord.

The Stanwell Ironing Board is made entirely of wood—with no metal parts or wire adjustments to get out of alignment and wobble. This excellent ironing board—when bought now—costs you only \$1.35 more than the iron alone.

ONLY \$1.85 DOWN—the balance on convenient terms.

Portland Electric Power Co.

Phone 85.



237 N. Liberty St.



WE'LL SHOW YOU HOW

if you don't know already. There's a barrel of fun in making your own radio tube set at home. We'll furnish all materials, full instructions, etc. We have complete sets ready to use, but you'll get more pleasure building your own and it will cost you a lot less.

CHURCHILLS RADIO SHOP
 1120 N. Fifth St. Phone 1474-J

Walter P. Chrysler Announces

25 Miles to the Gallon

58 Miles per Hour

5 to 25 Miles in 8 Seconds

With a full sense of the seriousness of the statement—carefully weighing the meaning of every word—Chrysler-Maxwell engineers, without reservation, promise you, in this new Maxwell performance surpassing in every essential any four-cylinder car in the world today.

To make that sweeping assurance more definite and specific—we promise you in speed, in power, in pliability of power, in swift response, and even more particularly in riding steadiness and comfort, results no four-cylinder car has yet been able to attain.

To go still further into details, the new Maxwell has speed capacities far beyond any car of its type and class, and in the rare instances in which they may have to be used, will register them with an absence of vibration without precedent in four-cylinder construction.

Chrysler-Maxwell engineers have been actuated by the conviction that in addition to its inherent

and natural economics, the four-cylinder principle possessed possibilities of power and speed capable of being translated into ease and steadiness which have never been fully developed.

They set out to overcome what have all too readily been accepted in the past as limitations in the four-cylinder engine and to convert these limitations into positive advantages.

No one can doubt that success has crowned their efforts, after even so short an experience as a half-hour's driving demonstration of the car.

Judged by the unusual and extraordinary character of its performance, this Maxwell is literally a new and immeasurably better type of four-cylinder motor car.

W.P. Chrysler
 President and Chairman of the Board
 Maxwell Motor Sales Corporation, Detroit
 Maxwell-Chrysler Motor Co. of Canada, Ltd., Windsor, Ont.

- Balloon tires, natural wood wheels, stop-light, transmission lock, Duco finish standard on all Maxwell models. Shrouded vision, integral with roof, and heater are standard on all closed models.
 - Touring Car, upholstered in genuine Spanish leather . . . \$ 895
 - Club Coupe, upholstered in genuine Spanish leather . . . 1025
 - Club Sedan, upholstered in beautifully patterned fine cloth (Extra for genuine Spanish leather \$15) . . . 1095
 - Sedan, upholstered in genuine mohair plush . . . 1345
- All prices f. o. b. Detroit, tax extra

OSCAR B. GINGRICH MOTOR CO.

50, Com'l St., at Belview St.

Phone 635