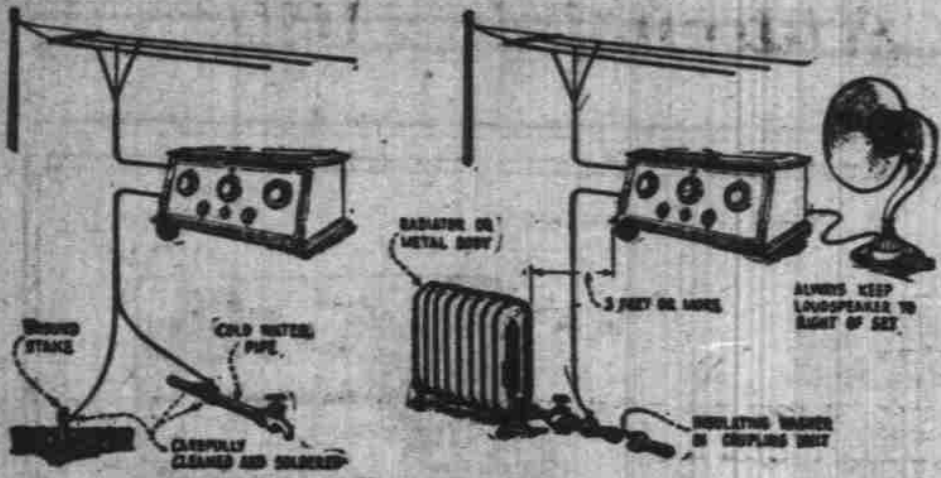


## Everyday Radio

BY KIMBALL HOUTON STARR



### A GOOD GROUND CONNECTION WILL ELIMINATE POOR RADIO RECEPTION

A good ground connection is just as important in radio broadcast reception as a good antenna. The antenna collects the signal energy and unless the ground connection is good and of low resistance to the signal, the energy can be very easily dissipated before it ever reaches your radio receiver.

Cold-water pipe systems usually make the best ground when you are sure that the pipes lead directly into the ground and that there are no insulated couplings in the pipe line. Many times in connecting your ground wire to the pipes of hot air or hot water heating systems, poor results will be obtained because insulated couplings are used in the pipe line which actually insulate the receiver from the ground. Rust and erosion in pipe lines also sometimes cause high resistance joints and hence poor grounds.

In any case, in making a ground connection, scrape the metal pipe or rod to which the ground wire is at-

tached, very clean and bright, then wrap the wire securely around it several times and solder the connection securely, making sure that your soldering iron is hot and that the "solder" flows into the joint.

A ground clamp can be used to good advantage, but again, great care should be taken to see that the connection is clean and bright before tightening the clamp down onto the pipe or rod.

In the country, the best ground connection obtainable is a metal rod or pipe driven four or five feet into the ground.

An added advantage in making ground connections to your radio receiver can be gained by fastening your ground wire to every available object that is grounded, connecting them all together and then leading the ground wire to your receiving set. The diagrams shown represent how these different grounds should be connected together and also illustrate ground clamps and steam radiator ground connections.



A RADIO PHOTOGRAPH OF VIRGINIA VALLI, UNIVERSAL STAR



A RADIO PORTRAIT OF HOOT GIBSON, UNIVERSAL STAR

## ACTION OF STORAGE BATTERY EXPLAINED

Joe Williams, Local Willard Battery Dealer, Gives Inside Story

Storage batteries for radio use are available to the public in many forms and sizes, and among the large variety every radio owner will find exactly the one to supply his particular needs.

In deciding the problem of the right battery, the recommendations of the set maker are invaluable as to correct voltages. As to ampere-hour capacity, that is entirely up to the set owner and his pocketbook.

Ampere-hour capacity is the

electrical measure of the life of the battery on a single storage. It means that the battery will deliver one ampere an hour for as many hours as its rated capacity.

In this way, a 100-ampere hour 6 volt "A" battery will deliver six volts for 100 hours at the rate of one ampere an hour. Or it will deliver 6 volts for 200 hours at one-half an ampere an hour.

In this way the approximate life of a single charge can be estimated by adding up the current pull of the tubes used. If four UV-201 A tubes are used the current pull will be 1.5 amperes an hour as the UV-200 tube draws 1 ampere an hour and the two UV-201 A tubes draw .25 each.

When the combined current pull of the tubes is calculated, divide the ampere hour capacity of the battery by this number and you have the approximate number of hours your battery will operate on a single charge.

The word approximate is used advisedly as the resistance of the set wiring will take a small amount of the battery capacity.

Contrary to common belief, storage batteries do not store up electricity nor do they produce it. A storage battery in its commonest form is a lead-acid combina-

tion and its action is entirely chemical and productive of electrical energy.

When a storage battery is in use the chemicals in the battery solution are combining with the lead in the plates. This causes electrical energy to flow from the battery. When the battery is being recharged, this chemical action is in the opposite direction. The current being passed into the battery drives the chemicals back into the solution.

### League of Nations Seeks Better Physical Training

GENEVA, Feb. 14.—Coordinating the national battles against disease and delivering sledge hammer blows against those maladies which still seem to defy medical skill, will constitute the essence of the future program of the League of Nations in its public health activities.

The league's health section has just closed a successful year. It has extended its sphere of action, improved, completed and defined

its technical equipment and has carried out with increasing success its special task, that of giving help to the various national administrations in their campaign against epidemics and their attempts to improve public health.

In the coming year special attention will be given to instruction in health and social medicine in Europe, America and Japan, together with the development and extension of physical training, with the object of securing the general adoption of rational methods of physical education.

### British Traders Pass Up Export Credits Plan Aid

LONDON, Feb. 14.—Several millions of pounds sterling are waiting at the department of overseas trade for British traders to borrow, but they do not come forward. The department has authority, under the export credits scheme initiated three years ago, to finance traders in the export of goods for any sum from \$50 upwards, and although several millions have been lent for that purpose there are many more millions available.

British trade is believed to be on the upgrade and the department is at a loss to know why exporters do not take advantage of the facilities. Practically, they are asking people to borrow money and participate in the scheme, which for a small premium guarantees payment of bills drawn by exporters against British export of British goods, and under certain conditions participates in any loss.

### Good American Dollars Rout British Beetles

LINCOLN, Neb., Feb. 14.—The appearance of the death-watch beetle in the timbering of one of the towers of Lincoln cathedral is causing the dean much trouble, but he is equally disappointed with what he calls the stinginess of English people in sending funds to assist in combatting the work of the beetle, and in the restoration of the cathedral.

The generosity of Americans, dean says, is in great contrast. American money, he points out, has enabled nearly half the work to be done, and by the end of the year he expects to have enough American dollars to pay for the reparation of the central tower and two transepts.

Scores of English tourists visit the cathedral but few of them go to him with a ten pound note, as the Americans do, and say "here is a trifle for your fund," according to the dean.

## 12,500 BUSES ADDED IN 1924

Over Two Billion Passengers Are Carried; Railways Use More Stages

NEW YORK, Feb. 14.—Twelve thousand five hundred buses and vehicles for bus use were built and placed in service during 1924, states Edward F. Loomis, secretary of the National Motor Truck committee, National Automobile Chamber of Commerce, in his transportation for February. This fact, together with the estimate of 2,500,000,000 passengers carried in old and new buses in 1924, indicates, the writer points out, that the bus is fast assuming a major position in our transportation system.

When added to buses in operation prior to 1924, these new vehicles bring the total number of buses in service in the United States and Canada on January 1, 1925 to 53,000. The gain during 1924 therefore represents approximately 25 per cent of the total now in use. Other figures obtained from bus operators by bus transportation forecast a corresponding growth during the present year.

The figures and estimates in the article, which is based on a survey to which Bus Transportation, The American Electric Railway Association, Electric Railway Journal, and the National Automobile Chamber of Commerce contributed, show the present distribution:

Common carrier independent	31,100
Electric railways	3,000
Hotels	1,000
Schools	15,000
Sightseeing, tourist and contract	3,500
Industrial use, including real estate, department store, apartment house, garage and factory service	1,075
Railroad terminal companies	250
Total	52,925

That electric railways realize the possibilities of the bus as a transportation medium is attested by the fact that while only 1,200 buses were used in this field on January 1, 1924, no less than 3,000 were used in January 1, 1925, representing an increase of 150 per cent. Three steam railroads are also operating buses in common carrier service through subsidiaries.

### Ford Now Makes All-Steel Cab and Frame on Trucks

The Ford Motor company enters the new year with a new product, an all-steel combination truck-body and cab mounted on the standard Ford One Ton chassis.

The new body is of the open express type, so constructed that it may be readily converted into other body combinations by using "take-it-easy" boards, canopy top, screen sides, etc.

"In fact," says the Ford statement, "the purpose in producing the new body was to place a low cost general utility truck, meeting both agricultural and commercial requirements at the disposal of ton truck users."

The body is built of steel to withstand the most severe usage and presents a new development in construction. The steel sills are reinforced with wood in order to lessen vibration and road shocks, thus making for more durability and longer life.

The loading space is seven feet two inches in length by four feet in width and of convenient and practical depth. The end gate is strongly braced and secured by "heavy" chains which hold it in position when lowered.

The cab, also of steel construction is extra roomy. The seat is of artificial leather, well-cushioned on four inch springs. Protection from the weather is afforded by loose fittings door curtains mounted on uprights and opening and closing with the door. An oblong window in the back of the cab gives ample facilities for rear vision, adding to the safety as well as the convenience of the driver.

The new truck which is already on display in many Ford dealers' show rooms throughout the country, sells complete with steel cab and body for \$490 f. o. b. Detroit, being priced in accordance with the standard Ford policy.

In addition to the saving offered truck users in this body, is the convenience of now being able to buy the Ford Ton truck complete and ready to put into service.

### PEARY'S POLAR AID IN TROUBLE

WREXHAM, Wales, Feb. 14.—James Jackson, who accompanied Admiral Peary on his Polar trip in 1906, is in trouble. He was committed to trial at the assizes here on a charge of arson. It was alleged Jackson was responsible for the burning of a portion of the premises he occupied, and that furniture found in the place smelt of paraffin.

Jackson served during the war and received a permanent injury to the head which resulted in a steel plate being inserted.

# Ford

Confidence in Ford Performance

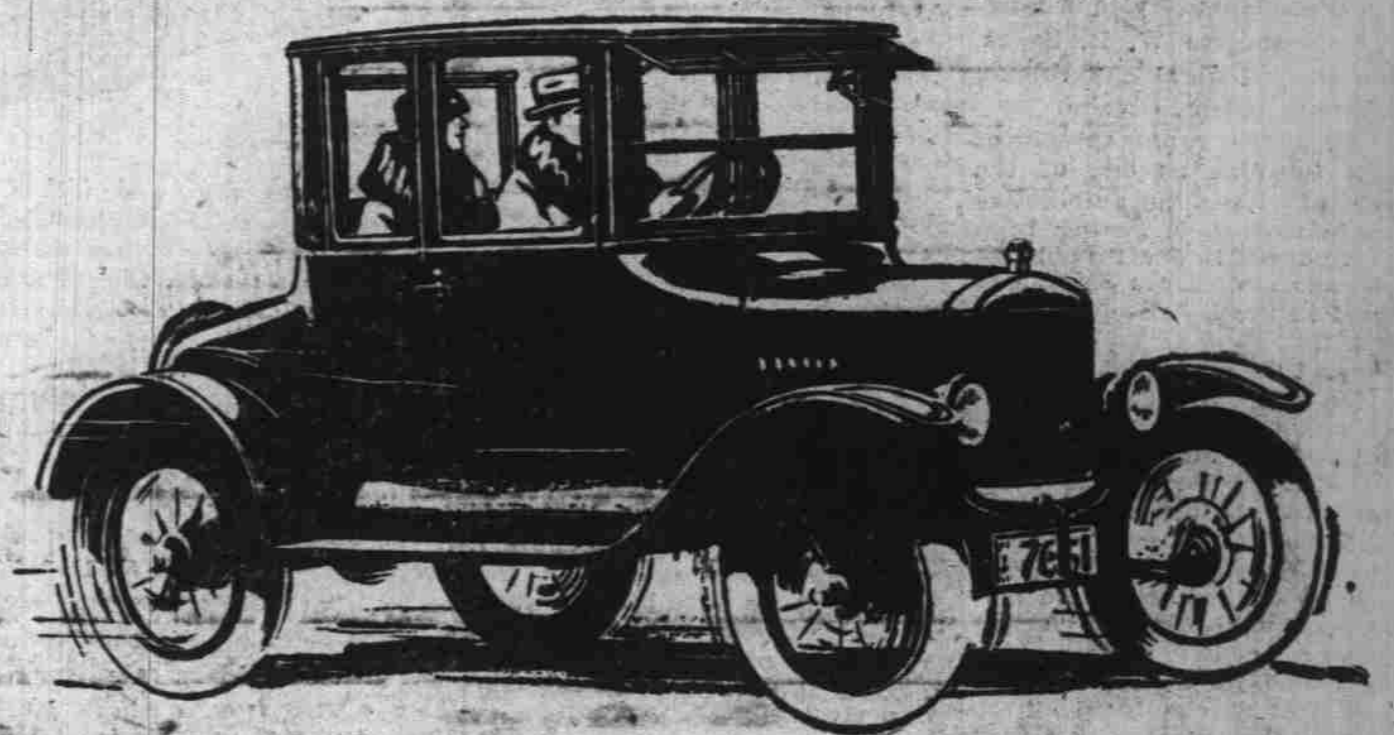
The owner of a Ford is never in doubt as to what he can expect in service. He knows what his car will do and how sturdily it will do it.

When bad weather and roads put other cars out of commission, the Ford car will stay on the job. It will carry through slush and snow, over frozen ruts, newly constructed roads—anywhere.

Yet Ford benefits can be yours for the lowest prices ever offered. This is made possible by the efficiency of Ford manufacture, the volume of output and practically limitless resources.

Ford Motor Company, DETROIT

SEE THE NEAREST AUTHORIZED FORD DEALER



VISITORS ARE ALWAYS WELCOME AT ALL FORD PLANTS

### BRITISH NABOBS URGED TO ACQUIRE U. S. HABIT OF HELPING COLLEGES

LONDON, Feb. 14.—A splendid way to bring about a better understanding between the United States and England would be to send all the wealthy men of the British Isles to America for the purpose of acquiring the knack of making frequent and liberal donations to educational institutions.

H. A. L. Fisher, member of Parliament, told members of the English Speaking Union at a luncheon recently at which he was the guest of honor.

Mr. Fisher, former president of the board of education, returned recently from a tour of the United States and Canada, during which he visited many of the principal colleges and universities. He spoke in particular of the "super academic" buildings for the under-graduates at Yale, built by part of the Harkness endowment of \$40,000,000, and said that he wished these quarters could be seen by all persons here interested in education.

"I think it would be a capital idea if we could send all England's wealthy men to America to inspect the wonderful universities, and to see what had been done with endowments from some of the American millionaires. If this were done, perhaps some of our rich men would acquire the habit of giving away vast sums to institutes of learning."

### Woman Runs Training Table And Athletes Eat Heartily

SEATTLE, Wash., Feb. 14.—Called in by Coach Callow to prescribe and supervise a scientific diet for oarsmen at the University of Washington, Miss Dorothy Kuebler, assistant professor of nutrition, just followed good household practice. During the two seasons that she has been in charge, the husky crew has won the intercollegiate championship at Poughkeepsie, and she is feeding them up again to defend the title on the Hudson in June.

"We do not give the crew men a special diet," Miss Kuebler says. "They are served a well balanced menu that all people should follow in order to keep healthy and in good condition. Fresh fruits and vegetables, milk, codfish and dry cereals, cooked meats, special

steaks and other wholesome foods constitute the main part of the fare. No rich desserts or pastries are served and highly seasoned dishes, fried potatoes and other foods fried in grease, are taboo.

### Monument Honors Memory Of First California Padre

SAN FRANCISCO, Cal. Feb. 14.—Another chapter of the story inscribed in the crumbling remains of a chain of 21 missions, the earliest of which were founded more than a century and a half ago in California, will be written soon with the unveiling at the San Fernando Mission of a monument to Father Junipero Serra, Spanish missionary, who established the edifice. The statue, depicting the mission father leading a shy Indian boy into the realm of Christianity, is of bronze and is seven feet six inches in height. It is the work of Mrs. Sally James Farnham, New York sculptress.

San Fernando was one of the missions. It was christened by Father Junipero, September 8, 1797. The San Diego mission, the first he established, was founded July 16, 1769.

One is born every minute and nearly all of them learn to sing "Sweet Adeline."

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