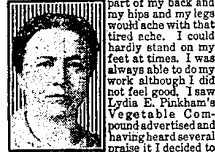


## COULD HARDLY STAND AT TIMES

Hips, Back and Legs Would Have That Tired Ache

Everett, Washington.—"For several years I have had trouble with the lower part of my back and my hips and legs would ache with that tired ache. I could hardly stand on my feet at times. I was always able to do my work although I did not feel good. I saw Lydia E. Pinkham's Vegetable Compound advertised and having heard several praise it I decided to try it. I feel first-rate at the present time. It has done wonders for me and I keep it in the house right along. I always recommend it to others who are sick and ailing."—Mrs. J. M. SUNDEN, 4022 High St., Everett, Washington.



To do any kind of work, or to play for that matter, is next to impossible if you are suffering from some form of female trouble. It may cause your back or your legs to ache, it may make you nervous and irritable. You may be able to keep up and around, but you do not feel good.

Lydia E. Pinkham's Vegetable Compound is a medicine for women. It is especially adapted to relieve the cause of the trouble and then these annoying pains, aches and "no good" feelings disappear.

It has done this for many, many women; why not give it a fair trial—now.

## "Vaseline" Carbulated Petroleum Jelly

is an effective, antiseptic first-aid dressing for cuts, wounds and insect bites. It helps prevent infection.

CHESEBROUGH MFG. CO. (Incorporated) New York



## ASTHMA

DR. J. D. KELLOGG'S ASTHMA REMEDY for the prompt relief of Asthma and Hay Fever. Ask your druggist for it. 25 cents and one dollar. Write for FREE S. A. M. P. L. C. Northrop & Lyman Co., Inc., Buffalo, N. Y.

DR. J. D. KELLOGG'S REMEDY

## Gray Hair

is not of fashion; it is unnecessary for you can have abundant hair of the original color by using Gray Hair Color Remedy. Ask your druggist for it. 25 cents and one dollar. Write for FREE S. A. M. P. L. C. Northrop & Lyman Co., Inc., Buffalo, N. Y.

No Soap Better For Your Skin Than Cuticura

25c Soap, Ointment 25c and 50c, Talcum 25c.

## Help Wanted

WANTED: Male help over 18 for automobile machine shop and assembly work. Experience not necessary. Ideal living conditions in best resort town on Lake Michigan. Apply or write, Employment Department, Continental Motors Corp., Muskegon, Mich.

Mitchell Eye Salve for SORE EYES

TOO LATE

Death only a matter of short time. Don't wait until pains and aches become incurable diseases. Avoid painful consequences by taking

GOLD MEDAL HAMMILL OIL

The world's standard remedy for kidney, liver, bladder and uric acid troubles—the National Remedy of Holland since 1895. Three sizes, all druggists. Look for the same Gold Medal on every box and accept no imitation.

W. N. U., DETROIT, NO. 23-1922.

## Wolverine News Brevities

Flint—Judge Joseph A. Moynihan, of Detroit, was re-elected state deputy of the Michigan State Council of the Knights of Columbus at the twenty-ninth annual convention here.

Kalamazoo—With 20 additional instructors, Western State Normal School will open its nineteenth annual summer term June 26. The summer course will continue for six weeks.

Pontiac—On his way to a doctor's office, Frank C. Ridenour, of Pontiac, slipped and fell down a flight of stairs and is suffering from concussion of the brain. Fears are entertained for his recovery.

Lansing—State medical laws will be discussed at the annual convention of the Michigan Chiropractors' Association here June 3-11. A school for chiropractors will be conducted. About 300 are expected.

Hillsdale—Fred O'Malley, postmaster of Hillsdale, has received notice from the secretary of the National Association of Postmasters that he is one of four postmasters selected to act on the membership committee.

Muskegon—A jury in Circuit Court awarded Mrs. Barbara Byrn, a widow, of Chicago, \$10,000 in her suit against Peter Dargis, a wealthy Muskegon contractor, for breach of promise to marry. Mrs. Byrn sued for \$10,000.

Sand Lake—When he opened the Sand Lake Exchange Bank to get some flags to be used in a Memorial Day parade, Frank Shattuck, president of the bank, found robbers had entered during the night and stole \$135.

Lansing—Pioneer residents of Michigan, many of whom had a hand in the making of the present development of the state, gathered here to attend the forty-eighth annual meeting of the Michigan Pioneer and Historical Society.

Kalamazoo—A demand that railroad crossing protection be provided by the Michigan Central Railroad at every crossing in the county will be made by Marvin Schaberg, city attorney, at the request of the Kalamazoo city commission.

Traverse City—A ban has been placed on women wearing knickers on the streets of this city by Mayor J. Swanton, who has given Chief of Police Blackie instructions to arrest any girl or woman on the streets in knickers. The ban is the present generation of boys are being attacked. Swanton said, "and I propose to see that they are no longer tempted by immoral dress."

Cadillac—Joseph Widgren, of this city, was driving his automobile up the Glen Garry hill, 30 miles west of here. At the top of the hill, the automobile plunged from the roadway and rolled down a 100-foot embankment. The machine turned over three times before it reached the foot of the embankment, where it crashed against a stump. Widgren was removed from the wreckage with only slight injuries.

Saginaw—A search and seizure warrant for evidence thought to be in private dwellings in violation of prohibition laws, was issued by the city attorney. The warrant is for the purpose of obtaining information instead of "information and belief," according to a decision of Judge C. M. Browne, of the Saginaw circuit court, handed down in the case of Paul Rohde, of the township, who was being tried on a charge of possessing liquor.

Grand Rapids—Although the 10 per cent reduction in freight rates, announced several days ago, will have no bearing on the rate before the Michigan public utilities commission, William A. Slater, traffic manager of the Association of Commerce, declares it will benefit business generally in western Michigan. The new rate, Slater points out, does not remove the alleged discrimination against shippers of this state.

Lansing—The Lansing city council has taken steps to prevent the dependent poor of the city from buying gasoline for their automobiles. According to a report to the council, supposedly destitute families have received bounty from the city and when social workers went to pay the customary follow up call, it was found the family was just auto-rickshaw and money advanced by the city actually had been spent for gasoline.

Ludington—Mason and Manatee counties, in which are located the cities of Ludington and Manatee, promise to become one of the chief salt-producing sections of the world as a result of recent developments. Ludington already has two salt companies in operation, one producing about 1,000,000 barrels a year, and the other, said that amount. A new plant is being constructed in Manatee the output of which will equal that of both the Ludington concerns. This will mean that two counties will market about 8,000,000 barrels of salt a year.

## RADIO

INSTRUCTIONS FOR TROUBLE SHOOTING

How to Detect and Remedy the Open Circuit, Short Circuit and Leakage.

Radio circuits are subject to the same ills that the ordinary power circuits are subject to. However, to cure them is not such a difficult task as might be supposed, especially if some logical procedure is used.

If a receiver is well put together in the first place and all contacts and other parts gone over once in a while, there is no reason why there should be any trouble. But the human being is prone to err. So that for the "once in a while" that trouble to happen, this article will be devoted to the explanation of what might happen to a simple receiver and the best way to fix it.

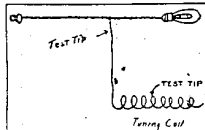
The usual troubles of the receiver fall under one of the following three headings:

1—An open circuit.

2—A short circuit.

An open circuit can most easily be detected by means of a series lamp. Nearly every one has available the ordinary 110 volt lighting circuit. Take an ordinary extension cord and cut one wire at any convenient place and use these two ends as test clips or tips. The extension cord is plugged into the house lighting circuit at any convenient outlet and when the two cut ends are held together the lamp will light as the circuit is closed. When the tips are held open the circuit is "open" and the light will go out.

Suppose it is desired to test for an open circuit in a tuning coil. Connect one tip to one end of the winding and the other test clip to the slider. As the



slide is moved back and forth the light should remain lit. If the light goes out at times there is an open circuit in the coil. If the light goes out when the coil is jarred the slider does not make good contact with the winding.

If a buzzer and battery are available they can be used in testing for an open circuit in the same way that the lamp can be used. Connect the battery and buzzer in series with the test clips or tips and any low resistance circuit can be tested.

The ground connections can be tested with a buzzer and battery, but do not use the house-lighting circuit to test for ground because one side of the lighting circuit is already grounded and if the other side were connected to the ground a short circuit would exist and an excessive current would flow.

If the ground wire is connected to the water pipe, connect one test tip to the ground and the other to the gas pipe, which is also grounded. The buzzer should buzz if any low resistance ground.

Leakage usually exists between the antenna and the ground. An antenna should be well insulated from its support. The lead-in cord should be brought down to the point where it enters the wall of the station in such a manner that when the wind causes it to swing, it cannot touch any grounded material and the rain and snow cannot cause a path along which the current can ground. This brings the lead-

in through the wall, insulate it well and inside the station use as short a piece of well-insulated wire as is possible to make good connection with the set.

To test the continuity of the circuit of a pair of telephone receivers, touch the tips of the cord phone to the tongue. If the receivers are in reasonable good condition a slight click will be heard. If the response is not received it is probable that the circuit is broken. In the other, examine the diaphragm of the receiver giving the weaker response and see if it is bent toward the pole piece. Try tuning the diaphragm over if such is the case. Be careful when the diaphragm of a receiver is removed that the leads of fine wire from the magnet spools to the connection blocks do not become broken in handling.

If the continuity of the circuit of a pair of telephone receivers is checked and no response is heard when the cord tips are touched to the tongue, try checking each receiver of a double head set separately.

The two receivers are connected in

## TIPS TO THE RADIOIST

The higher the aerial the stronger the signals. An increase of five to ten feet in the height of the flat tip aerial will increase signal.

Addition of a variable condenser to the secondary, or to the primary, of a loose coupler often helps to tune out the undesired signals.

The sliders on tuning coils often make poor contact with the slide rods. Thus much of the signal strength is lost. You can overcome this by soldering a flexible wire to the slider.

Increase length of aerials from six to ten feet for best results. Each wire should be from four to six feet from its neighbor. Two wires of two feet apart are no better than one wire. Loosely fastened wires on short spacers are no better than one wire.

series and to check either one separately, short circuit the tips of the cord leading to the other receiver just outside of the case. Should it appear that there is an open circuit in the cord, short circuit both receivers where the cord enters the case and with a buzzer or lamp connected to the tips on the end of the cord test for an open circuit.

Care should be exercised by the operator when adjusting a crystal detector to see that his fingers do not touch the surface of the crystal or the contact point of the little spring. The oil secretion that exists in the skin together with the dust that it collects will render a crystal detector inoperative by the insulating film that it will cause to form on the surface of the crystal surface that is touched. Should the surface of the crystal get dirty as evidenced by the received signals becoming weaker and weaker, try cleaning the crystal with a cloth and a little brush. Or if this does not seem to remedy the trouble, clean off old surface, so that an entirely new surface is presented to the spring.

AMATEURS SHOULD PLAY FAIR

Radio Inspector Schmidt Urges That They Learn the Laws and Regulations.

"Nine out of every ten radio fans are good sports, but the remainder either a fun with poor judgment, or a 'rotter.' It is up to the amateurs to see that restrictions are not laid upon them by playing fair and by radio inspectors. L. R. Schmidt, of the Ninth district.

This can be done by trying certain cautions and by being posted of the radio laws and regulations. A copy of these regulations may be obtained from the superintendent of documents, government printing office, Washington, D. C., for 10 cents. It is worth while to get it as it is in order to be a "square shoe" in the radio game.

The great trouble with amateurs is that when they want to send a message around a corner they put on all the power they have, with the hope that someone in Texas might pick up their message. The object should be to get the minimum amount of power to get the message to its destination.

In all circumstances, except in case of signals or radiograms relating to vessels in distress, a station shall use the minimum amount of energy necessary to carry out any communication desired.

Amateurs should keep their wave length to 200 meters. They should use a "pure wave" or, as the regulations state, "if the sending apparatus is of such a nature that the energy is radiated in two or more wave lengths, more or less sharply defined, is indicated by a sensitive wave meter, the energy in no one of the lesser waves shall exceed 10 per centum of that in the greater."

The wave must be "sharp." As to this the regulations state: "At all stations the logarithmic decrement per complete oscillation in the wave trains emitted by the transmitter shall not exceed two-tenths when sending distress signals or signals and messages relating thereto."

Amateurs frequently are at fault in calling stations too often. The law states that they can call three times, send "d e" once and sign their station call three times; but often the amateurs will send the call a dozen or more times.

HOW TO GROUND AN AERIAL

If Properly Done It Fully Protects the Property From Lightning.

Generally speaking, aerials do not attract lightning, but they do store up atmospheric electricity, and of course, this collected electricity creates a dangerous electric field. The aerial is properly grounded if it acts as a lightning rod and really protects the property from a lightning hazard.

Briefly, the first and last factors require that the aerial be grounded when not in use by a copper wire no smaller than B. S. Gauge No. 10, or larger, and run said wire as directly as possible to the outside ground.

This means that water, gas or steam pipes into the property cannot be used for a lightning ground, because if after this ground was cut into service there is a possibility of fire and loss of life may result. So do not use inside grounds for lightning protection.

## Had Your Iron Today?



Let's Have Raisin Bread Tonight

HOW long since you've had delicious raisin bread—since you've tasted that incomparable flavor?

Serve a loaf tonight. No need to bake it.

Just telephone your grocer or a bakery. Say you want "full-fruited bread—generously filled with luscious, seeded, Sun-Maid Raisins."

The flavor of these raisins permeates the loaf. A cake-like daintiness makes every slice a treat.

Serve it plain at dinner or as a tasty, fruited breakfast toast.

Make delicious bread pudding with leftover slices.

Use it all. You need not waste a crumb.

Raisin bread is luscious, energizing, iron-rich. So it's both good and good for you.

Serve it at least twice a week. Start this good habit in your home today.

But don't take any but a real, full-fruited, genuine raisin bread.

Your dealer will supply it if you insist.



Sun-Maid Seeded Raisins

Make delicious bread, pies, puddings, cakes, etc. Ask your grocer for them. Send for free book of tested recipes.

Sun-Maid Raisin Growers Membership 11200 Dept. N-2-2, Fresno, Calif.

POWER IN THIS FLASHLIGHT

Continued Experiments Have Resulted in Development of a Really Remarkable Article.

From the pocket flashlight operated by two or three dry cells of minute size the battery searchlight has been steadily improved until remarkable results are obtained.

Some time ago there was devised a searchlight of 500 feet range operating on six or eight volts. More recently a battery searchlight has been introduced with a range of 2,000 feet up to half a mile, operating on six volts. Equipped with a seven and one-half inch adjustable focus, single shell reflector, on a recent photometer test one of these searchlights gave 453 candlepower.

The combination of a nitrogen-filled tungsten lamp and a correctly designed reflector has worked wonders for the battery-operated searchlight. —New York Herald.

For Falling Hair.

"My hair is falling out," admitted the timid man to the chemist's assistant. "Can you recommend something to keep it in?"

"Certainly," replied the obliging young man, who had only recently left school. "Here is a nice carload box." —Pearson's Weekly.

Have something to say. Say it. Stop talking.

Let the children share this mealtime beverage

No NEED to warn the little folks away from the table beverage when Postum is served; every reason to invite every member of the family to join in the enjoyment of this wholesome, satisfying drink.

Postum is made from Nature's best grain—wheat, and contains nothing to harm nerves or digestion.

You'll greatly relish its full-bodied flavor and aroma.

Your grocer has Postum in two forms: Instant Postum (in tins) made instantly in the cup by the addition of boiling water; Postum Cereal (in packages of larger bulk, for those who prefer to make the drink while the meal is being prepared) made by boiling for fully 20 minutes.

Postum for Health

"There's a Reason"

Made by Postum Cereal Company, Inc. Battle Creek, Michigan

