

BUSINESS AND PROFESSIONAL

One cent the word each time.

PHYSICIANS.

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DR. MATTIE E. SHAW—Residence and office, 108 Pioneer avenue. Telephone 28. Office hours, 10 to 12 a. m.; 2 to 5 p. m., only.

DR. H. M. SHAW—Physician and Surgeon. Special attention Eyes, Ears, Nose, Throat. Glasses fitted. Room 6, Mills-McCall Block. Phone 79 or 28.

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CHIROPRACTORS.

DR. E. B. ANGELL—Chiropractic and Electro-Therapy. This combination does wonders. First Nat'l Bank Bldg. Phone 48-142. House Calls

CONVALESCENT HOME

CONVALESCENT HOME—Good cheer. Good care. Good food. Terms reasonable. 153 Granite St. Phone 411-R. 306-1mo

VETERINARY

DR. J. P. CHISHOLM—Graduate Veterinary. Walker Ave.

TRANSFER AND EXPRESS.

FOR prompt and careful service auto trucks or horse drays, call Whittle Transfer Co. Phone 117. Office, 89 Oak street near Hotel Ashland. 561f

T. L. POWELL—GENERAL TRAFFIC—Good team and motor trucks. Good service at a reasonable price. Phone 83.

WANTED.

HIGH SCHOOL GIRL wishes position in family, where she can work for her board and clothes and go to school. Inquire 637 East Main. 82-4\*

WANTED—To trade two heifer calves for sow and pigs or some feeder hogs. Phone 18F12. W. R. Hayter, owner. 84-2\*

WOMAN WANTS WORK by hour Address Tidings office. 84-6\*

FOR RENT.

FOR RENT—A splendid three room furnished apartment; adults only. 357 Vista St. Phone 122. 801f

FOR SALE.

FOR SALE—Dry laurel wood, plenty of heater chunks; 12 inch tier, \$4.50; also 12 inch body fir, \$3.75; 12 inch second growth fir, \$3.25; delivered. 1224 Iowa St. 68-mo\*

FOR SALE OR RENT—Partly furnished house. 311 Granite. Inquire Nelda Cafe. 721f

SWEET CIDER—Made fresh every day. Two gallons 75c, one gallon 40c, delivered. Phone 9-F-11.

FOR SALE—Radio outfit, detector and two phase amplifier, in cabinet on bakelite panel 12x36 inch. Cost \$120, price \$50.00. Complete less a battery. W. H. R. Siskiyon, Oregon. 83-3\*

FOR SALE—Bull, Silver Lad 2D717-947; price \$100. V. H. Chapman, Neil Creek. 83-3\*

FOR SALE—Crochet and embroidery pieces suitable for Xmas gifts. Call and see them. 595 Roca St. Mrs. R. H. Coffin. 84-2

EVERBEARING RASPBERRIES

LA FRANCE, the largest and most prolific, 50c each, 3 for \$1; Erskine Park, Ranere and St. Regis, the best shippers, 10c each or \$5 per 100. Everbearing strawberries, \$2 and \$3 per 100; Marvel and Stovill, \$2 per 100. The Cory Thornless Blackberry, tips 15c each, 20 for \$2.50 or \$11 per 100. I have tried Burbanks and three other kinds and the Cory is the only "thornless" plant that will produce enough fruit to pay to plant and cultivate. 14-month-old plants have produced 25 pounds of large berries and no thorns. D. P. Blue, 500 Ashland St., Ashland, Oregon. 82-5\*

Investigate our Ideal Arcola HOT WATER HEATING SYSTEM For Small or Large Houses Our New Line of Heating Stoves Are Now In. Provost Bros.

Local and Personal

Medford Man Shoots Self—While making ready to clean a loaded Luger pistol at his home, George Barnum, Medford garage owner, was shot through the knee joint. He is now reported to be resting more easily, through the first night, spent at the Sacred Heart hospital, was quite painful.

Visited from Yreka—Mrs. Alice M. Young, of Yreka, recently visited her son-in-law and daughter, Mr. and Mrs. H. H. Mayberry, who later took her home in their car.

We have the best prices on used cars to be found in the city. Come in and look them over. Buick Agency. 721f

Streets Are Icy—On account of the icy surface of Main street just above the Plaza, men employed by the city laid a coating of crushed granite on the pavement this morning in order to eliminate the possibility of accidents.

For the best chill. Try Rose Bros. 741f

Buy that Xmas gift at the Variety Store. 89 N. Main St. 751f

Good Bouts Are Arranged—Battling Ortega, of Pacific coast fame, has been signed to meet Gordon McKay in a 10 round bout at the Natorium, December 22. Jack Edmondson will meet Tom Sharkey in the semi-final. The other six-round go will feature Battling Frick and Danny Cummins. There will also be a four-round curtain raiser. An excellent card has been arranged for the event by the promoters.

For sale at Needlecraft Shop, baby doll sets, garden sets, bloomer suits. 801f

Our box candy assortment is the most complete in Ashland. Rose Bros. 741f

Visits in Medford—Thad Coleman, of the Variety store, was a business visitor in Medford Monday afternoon.

Sweet Cider, made fresh every day, two gallons 75c, one gallon 40c, delivered. Phone 9-F-11.

Cheap insurance is costly at any price. For sound insurance at reasonable rates, see Billings Agency. Established 1883. 341f

Appoints Agent Here—A representative of the San Francisco Call was in the city Monday in the interest of his publication. He appointed Lester Beck as agent for the paper in Ashland.

A complete line of children's toys in balcony. East Side Pharmacy. 781f

Piano Tuning—Now is the time to have your piano tuned. Carl H. Loveland. Studio, 135 East Main. Phone 465. 661f

Here from Amity—Lloyd Cole, of Amity, Or., who is spending a few days in the city, visited with Mr. and Mrs. J. E. Kuykendall, of Laurel street, Sunday. Mr. Cole is in the valley with the expectation of renting a ranch.

We have what you want for that Xmas gift at the Variety Store. Best values in town. 89 N. Main St. 751f

Better insurance at reasonable rates. Billings Agency. Phone 211.

Missionary Society to Meet—The Baptist Missionary society will meet at the church Wednesday afternoon at 2:30 o'clock. Mrs. Beswick is the leader. Mrs. Britton, of Grants Pass, who has charge of missions in this district, will be present. All ladies of the church and congregation are cordially invited.

Ask your grocer for Golden Sheaf Bread. 521f

Detrick sells for less. 721f

Complete sets for dolls at Needlecraft Shop—Coats, suits, caps, etc., reasonably priced. 801f

Celebrates Birthday—Miss Carol Mitchell celebrated her birthday Saturday at her home on Laurel street by giving a 6 o'clock dinner to some of her friends. A very delightful evening was spent in conversation and music. Those present were: Mrs. Miriam Way, Miss Harriet Dayton, Mrs. Marcia Mitchell, Charles Mitchell, Willis Johnson and Miss Carol Mitchell.

Better be safe than sorry. See Bearer Realty Co. about your insurance. Phone 68. 2871f

Fire Destroys Barn—

The barn on the George Sullivan place in the Valley View district burned to the ground Saturday afternoon, with its contents. Some hay in the barn was the principal loss in the way of contents. The loss amounted to about \$700 and was partly covered by insurance carried with the Billings Agency. The cause of the fire is unknown.

Fruit cake and mince meat time is here. For citron, orange and lemon peel, raisins, currants, figs, spices, sugar, etc., Detrick's Groceteria sells for less. 481f

Cliff Payne has spur steel ladders.

County Court Fixes Taxes—Jackson county's tax levy for 1923 has been fixed by the county court, and will be 26.7 mills for outside of high school districts and 26.6 mills for inside the high school districts, a mill less than last year. Ashland's levy will be 26.4, as the city is exempt from the county levy of two mills, the local building being maintained at municipal expense. The levy will raise a total of \$723,831, including the state tax. The general levy is 16.5 mills, and will raise \$461,943. It includes \$39,063 for road work and \$130,000 for county administration.

If you want the best there is in bacon, boiled hams, chipped beef, lard and shortening, get it at Detrick's. We sell for less. 481f

New shipment of suits and o'coats just in. Will be glad to show them. Paulserud's. 841f

Cuts Thumb Badly—George Sheldon is making the rounds with one hand bandaged up as the result of having chopped off the end of his thumb Saturday evening while splitting some kindling wood. The thumb is quite sore, but it is thought that it will cause him very little inconvenience, once the soreness leaves and the member heals.

DON'T DISCARD your Rubber Boots. LEEDOM'S TIRE HOSPITAL will RETREAD them for you. NEW MACHINERY just installed. 791f

Merry Christmas will soon be here. We have a full line of Nuts and Candies at the right prices. Plaza Market, 61 North Main. 83-1f

Medford Soach II—When Eddie Durno, coach of the Medford football team, stepped from the train upon his return from the athletic hearing at Salem, he was removed to the hospital, where he underwent an operation for acute appendicitis. Word is anxiously awaited in Medford to see if a game will be played between M. H. S. and the Scott high school team of Toledo, Ohio, during the Christmas vacation. It is not thought likely such a contest would be postponed, or even cancelled, should Coach Durno be unable to direct his men.

Why not buy her a Singer Sewing Machine for Xmas. \$5 down and \$3 per month will put one in your home. Singer Sewing Machine Co., 10 So. Fir St., Medford.

Always see me first about your insurance; there's a difference; why? Ask me. Yeo, of course. 841f

Grants Pass Wants Club House—Mayor C. H. Demaray has been appointed by O. S. Blanchard, president of the chamber of commerce, to take charge of the work looking to the acquiring of a community building, says the Grants Pass Courier. Mayor Demaray has taken an active part in this work in the past and is greatly interested in the project. He stated that he would do everything in his power to bring about the establishment of such a building in Grants Pass. In commenting editorially upon the subject, the Courier says: "Of course, Grants Pass wants a community building. Other places are doing it and Grants Pass will ultimately join the ranks of the progressive cities which have provided such places."

FIGHT FIRE! Protect home and property. If you think you should insure, if you intend to insure pretty soon, DO IT NOW p. d. q., and avoid cause for SAD REGRET and self chastisement. Remember also that there is as great or greater risk on your household effects and clothing and it costs \$4 or less per year per \$1000 for insurance on ordinary dwellings and contents. Good old line companies that have paid through all the great conflagrations. 841f STAPLES REALTY AGENCY.

RADIO

CONDENSER ACTS AS STORAGE TANK

How the Fixed and Variable Types Are Constructed and What They Do.

A condenser in a radio circuit is a storage tank for electrical charges. This storage unit may be either fixed or variable. The fixed condenser, which consists principally of a few sheets of metal foil, intersectioned between paraffined paper or mica and bound tightly together, and which, unlike the variable condenser, does not cost very much either to buy or build, is the one generally used on the receiving circuit of the vacuum tube.

When connected across the terminals of the receiver, the fixed condenser has the property of discharging with great violence across these terminals and setting up stronger currents to act upon the magnet coils of the receiver. If the condenser were left out of the circuit the receivers would still respond to the impulses of the detector's rectified currents, but when they are added to the circuit, these currents build up a voltage in the condenser so great that when it is discharged it does so with violence. This discharge occurs at each impulse in the voice of the speaker. The voice impulses set up in the condenser are forced to discharge immediately, in order to leave room for the next charge and to prevent the condenser's becoming overloaded. Just imagine a reservoir of water filling slowly until the water were up to brim, and then flood gates opened so that the water all ran out. This is a good example of the manner in which the condenser

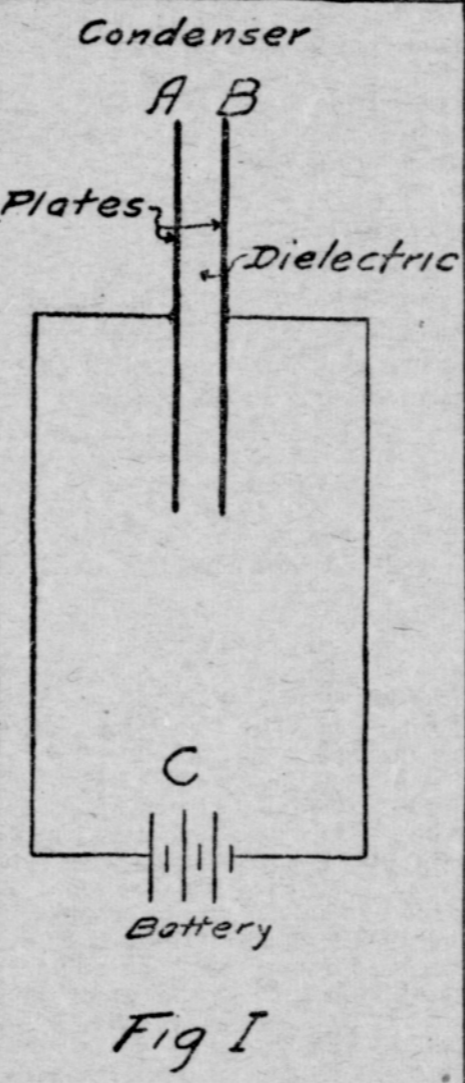


Fig 1

is charged and discharged. However, the radio impulses come so fast that the condenser charges and discharges almost instantly.

The low capacity fixed condenser in the grid circuit of the vacuum tube detector functions as a checking condenser for the radio currents to the plate of the tube and is generally about 0.0005 microfarads. Without this condenser in the tube circuit the signals will be much weaker and the bulb may have a tendency to choke up so that no plate circuit will flow through the circuit. Fixed condensers must be made of the best grade of materials possible; that is they must possess high insulating qualities so that the charges will not leak off through poor insulation. Condensers made of pure mica and copper foil are to be preferred over paper and tinfoil condensers, as they will build up their voltages to the highest point without leaking, before they suddenly discharge.

Variable condensers should also possess insulating qualities and such parts as insulating bushing and top plates should be made of good grade bakelite or equally good insulating material. Fiber washers and bushings soon develop leaks, as fiber has the property of absorbing moisture and warps in time, causing the plates in the condenser to touch. Variable condensers are generally made from aluminum so as to make them as light as possible. Aluminum has the property of keeping its shape in flat plates and is also a good conductor.

Built-up variable condensers with metal washers used as separators generally give more satisfaction than other types. Experience has proved that they keep their plates separated without scraping and the number of plates can be increased or decreased at will.

A variable condenser inserted in series with the antenna and tuner decreases the wave length of the antenna circuit as it is varied. When the plates are separated the wave length is the shortest, and even when the plates are intermeshed the wave length is shorter than if the condenser were out of the circuit. A variable condenser in shunt with the secondary or the tuning coil will increase the

wave length of the circuit, depending upon the number of plates that are inserted in the condenser as it is varied from 180 degrees to zero.

By reason of this characteristic the variable condenser allows for very close tuning.

A condenser consists of two electrical conductors separated by an insulator. The electrical conductors are called the plates and the insulating medium separating the plates is called the dielectric.

In Fig. 1 is shown a simple condenser consisting of two plates, A and B, with air between two plates acting as the dielectric. If now a battery C is connected to the two condenser plates, the positive side of the battery to one plate and the negative side to the other plate, a current will flow. This current that flows from the battery terminals when the battery is connected to the plates of the condenser is called the charging current. During the process of charging a condenser an electric displacement takes place in the dielectric. This electric displacement gives rise to an electromotive force which tends to oppose the applied electromotive force from the battery C. Finally a point is reached where the back e. m. f. and the charging current become zero.

If the battery C be disconnected from the condenser a potential difference will exist between the two condenser plates that will just be equal to the potential of the battery C. Short-circuiting the condenser plates will cause the condenser to discharge, a condition that will exist until the potential difference between the plates has been reduced to zero or until the dielectric has again resumed its normal state.

The charge that can be placed on a static condenser depends upon three factors. First, the area of the condenser plates; second, the thickness and composition of the dielectric, and third, the potential difference applied to the plates by the battery C.

Watch Your "A" Battery.

When your storage battery is "cranky" do you have it recharged without having it looked over by an expert? If you do not take any notice of it you are apt to be buying a new battery in a short time. Many are the things which can go wrong in a storage battery. Here are a few of the more simple troubles which lead to bigger ones: Letting the specific gravity of the battery go without notice, not using distilled water, overcharging, letting the battery stand idle for a length of time without charging and drawing too much current from it. These are only a few of the many troubles which occur in storage batteries of the lead-plate type.

What is Meant by Resonance.

You'll read in any radio magazine or other publication that in order to detect incoming waves you must bring your secondary into resonance. Sounds oddlike, doesn't it? It's very simple. Take two tuning forks. Adjust them to the same pitch and strike one. The other will respond to its vibrations. That's resonance. Resonance in radio means bringing your couplings to a point of sympathy by tuning carefully with the incoming wave and you'll get it.

RADIO FLASHES

It is now the thing for social clubs to have "radio committees."

An eastern institution for the blind has installed radio for its boys. The boys receive lessons in the code and learn to copy commercial messages.

Dry cells cannot successfully be used for the filament supply of vacuum tubes. The batteries will hold up for about five minutes, and then they will slowly die down, until nothing at all can be heard.

Radio waves from Queenstown, Ireland, were amplified in New York with such success that they disturbed the proceedings of the Supreme court in a building opposite the receiving station.

At present France has the most powerful radio station in the world in the American built Lafayette towers near Bordeaux. The station now being erected at Port Jefferson, Long Island, will by the end of the year take first place.

Dr. H. W. Nichols, an eminent electrical engineer, announces that the ether is not only not of use in radio transmission, but that it is an interference. Dr. Nichols believes that much can be done to remedy the static disturbance by a means of sharper tuning.

Radio outfits have become so numerous in the apartment houses in New York that it has become a problem to find space for the antennae on the roofs. A scheme is being developed to have community service rendered to tenants over the house telephone wires.

Dr. Marconi is reported as saying that radio will result in the junking of the ocean cables. Mr. Mackay of the Commercial Cable system, says Marconi "talks through his hat." It seems to us that neither could be called a disinterested witness. It is only fair to Marconi, however, to say that it is doubtful if he uses his hat as a means of transmission; the ether is too handy.



FOR HEALTH

Hint for Amateur Painters. When painting or varnishing soft wood, always first paint the wood with shellac and let it dry before painting or varnishing. This saves about half the paint and gives a much harder and smoother surface to the wood.

W. A. SHELL BARBER Safety blades resharpened like new. Single bit, 30c doz. Double bit, 60c doz. Children's Work A Specialty

Cause and Effect. Taste is a matter of tobacco quality. Chesterfield CIGARETTES They Satisfy

7 Billion! Over 7 billion Chesterfields are smoked every year—20 million every day. Chesterfield CIGARETTES They Satisfy

In Stock Duplicating Sales Books WITH CARBON Two Books 25c Per Dozen \$1.25 Two Dozen \$2.25 One Hundred \$8.00 ASHLAND TIDINGS

ALWAYS ASK US FOR CALUMET The Economy BAKING POWDER WHITE HOUSE GROCETERIA

Try the Classified Columns.