

PORTLAND BUSINESS DIRECTORY

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PORTLAND NON SKID FIBER SOLES RUBBER HEELS
Moisture Proof—Wear Longer Than The Average.
ASK YOUR SHOE DOCTOR.
PORTLAND RUBBER MILLS

BROOMS
Keep the Northwest Prosperous by using Northwestern Made Goods.
ZAN BROS., Inc.

Hotel Alder
Rooms \$1 per day and up. Special monthly rates. Out-of-town visitors made to feel at home. Southern Pacific electric train depot in same building. J. W. BUSHONG, Manager.
285 Alder St., cor. 4th. - PORTLAND, ORE.

ORIENTAL CAFE
AMERICAN and CHINESE DISHES.
Service at all hours. Music and Dancing. Meet your friends here and enjoy your stay in Portland. Upstairs, corner Broadway and Washington Sts.

'L' Cafeteria
BEST PLACE IN TOWN TO EAT
We especially invite out-of-town visitors to give us a trial. We will make you feel at home.
Sixth and Alder Streets. PORTLAND, ORE.

Orpheum
At HEILIG THEATER THE BEST OF VAUDEVILLE. Presenting at all times the Biggest American and European Novelties.
Every SUN., MON., TUES., WED. Mat. Daily, 10c to 50c. Nights, 10c to \$1.00.

TIRES LONG-WEAR TIRES; PURE RUBBER. STRONGEST COTTON FABRIC.
Surprisingly high Mileage. Live reliable dealers. Write for exclusive territories.
STANDARD TIRE & AUTO SUPPLY CO., 84 1/2 Sub St., Portland, Ore.

DYEING, CLEANING BROADWAY DYE & CLEANING WORKS.
200 Broadway, Portland, Ore.

AUTO Parts The House of Parts and Accessories for Autos.
We will send you Parcel Post anything you may want for the Auto if it can be secured in the city.
LONG & SILVA, 462 Hawthorne, Portland, Oregon

COLUMBIA RIVER SMELTS
The Dignest Smelts are in. See our daily quotations on fresh smelts in the Portland Journal under Town Topics. Frozen, 6c by express in 20-lb. boxes and over. Smoked and Kippered, 20c per lb. We handle everything in fresh, frozen, smoked, salt, and kippered fish. NORTHWEST FISH CO., Producers & Distributors, 205 Yamhill St., Portland, Oregon.

Wallpaper
Our GREAT CLEARANCE SALE is going at FULL BLAST. Clean up on broken lines at one-half price. A good opportunity missed if you fail to investigate. Paints, oils, varnishes at wholesale prices. Write for free samples and color cards. Miller Paint & Wallpaper Co., 172 1st, Portland.

MRS. FRED OLSEN Teacher of Singing
Sec. Oregon State Music Teachers' Ass'n
409 Sherman-Clay Building, Portland, Oregon.

Signor G. Taglieri
Maestro of "La Voce Postata" Italian "Bel Canto"
Voice Building from Elementary Stages to High Artistic Finish. Principal tenor Italian and English Grand Opera companies. Of international reputation. Studio—304-4 Stearns Building. Phone Main 3145.

SCHOOL OF DRAMA AND EXPRESSION—Stage, Platform, Story Telling, Dramatic Reading, Coaching and Physical Culture. Especial attention given to acquiring vocabulary and extemporaneous speaking. MARIE B. VAN VELSOR, 409 Bush & Lane Bldg., Broadway and Alder. Main 2239.

ABBY WHITESIDE, Pianist
Member of Extension Faculty, University of Oregon School of Music.
605 Bush & Lane Building, Portland, Oregon

You Will Feel Right at Home. Beautifully Furnished Rooms.
Safe
Central
\$1.00 Without Bath
\$1.50 With Bath
Weekly Rates
Monthly Rates
NORTONIA HOTEL
11th and Stark, PORTLAND, ORE.
Excellent Cafe and Roof Garden

SEE THE IZARD Generator
making pure Gas from Coal Oil. Fits any stove or range. Has no equal for cooking, heating, furnaces, etc. Easy to operate. No dirt, soot or odor. AGENTS WANTED
IZARD GAS HEATING CO., 244 Washington St., Portland, Oregon

Mark Your Shipments to Highest Prices, Prompt Pay Best Service.
CASH BUYERS OF Cream, Eggs, Poultry.
PORTLAND, ORE. Veal and Hogs, Creamery and Offices, Front and Ankeny Sts.

De Laval Separators
Everything for the Dairy, Creamery and Cheese Factory.
Distributors of JAMES BARN EQUIPMENT ACME FEED CUTTERS ALPHA GAS ENGINES EMPIRE MILKING MACHINES
Write for prices or information.
COLUMBIA DAIRY SUPPLY CO., 92-94 Front St., Portland, Oregon

EVERYTHING FOR THE OFFICE
OFFICE FURNITURE & APPLIANCES
PRINTING—ENGRAVING—BOOKBINDING
MARSHALL 6080
Kitham
Fifth & Oak Streets PORTLAND, OREGON
COMPLETE LINE OF STEEL FILING DEVICES AND SYSTEMS

Raw Furs Wanted
Muskrats, large average, \$ 1.35
Skunk, " " 5.00
Mink, up to 10.00
Raccoon, up to 5.00
HUDSON BAY FUR CO.,
222 Powell Street, San Francisco, California

Make more Money Pull big stumps by hand
Clear your stump land cheaply—no digging, no expense for teams and powder. One man with a K can rip out any stump that can be pulled with the best inch steel cable.
Works by leverage—same principle as a jack. 100 pound pull on the lever gives a 48-ton pull on the stump. Made of the best steel—guaranteed against breakage. Endorsed by U. S. Government experts.
K Stump Puller
Write today for special offer and free booklet on Land Clearing.
Walter J. Fitzpatrick, Box C, 183 Fifth Street, San Francisco, California

They'll take First Prize
On Your Table!
BLUE RIBBON SODA WAFERS
EXTRA QUALITY SLIGHTLY SALTED

MONROE & CRISSELL
New Location, 91-93 Front St., PORTLAND, ORE

When You Want to Buy a Diamond
buy it from a reputable store. Jaeger Bros. are known as the leading diamond experts of Portland. See their Special \$100.00 Diamond.
JAEGER BROS., (Oregon Building) 131 3/4 5th St., Portland, Ore.

MR. BUSINESS MAN
Are you wanting to sell. We have buyers for general stores, groceries, confectionery, cigars, restaurants, etc. Send me description.
F. RIERDON, RITTER, LOWE & CO., 203-3-7 Board of Trade Bldg.

ACCORDION PLEATING
Skirts pleated any style, \$1.50. Hemstitching, 10c per yd. Buttons covered. Eastern Novelty Mfg. Co., 85 1/2 Fifth St., Broadway 2009

AGATE CUTTERS & MFG. JEWELERS
Jewelry and watch repairing. Miller's, 355 Wash. St., Majestic Theater Bldg.

ARTIFICIAL LIMBS
Oregon Artificial Limb Co., Inc. Write for Catalog. 425 Wash St., Portland.

AUCTIONEERS—2d HAND FURNITURE
Ford Auction Co.—Auctioneers. We sell everything. 191 Second St., Portland.

AUTO BARGAINS
Used Buick roadster \$285. Powerful engine, two new tires, tools, etc. This bargain buggy good for 75,000 miles of hard country service. No self-starter to get out of order. Payments to suit responsible party. Western Newspaper Association, 219 Oregon Bldg., Portland, Ore.

AUTO ACCESSORIES
Motors, gears, bearings, wheels, axles, and trailers. We wreck all makes of cars and sell their parts at half price. David Hodges Co., N. Broadway and Flinders.

MEET ME IN PORTLAND
At one of the most elegant Billiard Rooms on the Pacific Coast.
Bowie & Caldwell's, Second Floor Pittcock Block

CARPET WEAVING AND CLEANING
Fluff Rugs From Old Carpets
Rug Rugs, all sizes. Mail orders prompt. Send for Booklet.
9x12 Rugs, Steam or Dry Cleaned, \$1.50. WESTERN FLUFF RUG CO., 54-58 Union Ave. N. East 6516, B-1475

THE BEST EATS IN THE CITY
St. Nicholas Cafeteria
125 Sixth Street, Portland, Oregon.
See what you want and pay for what you get.

JUST OUT—Complete History
America's War For Humanity
Including peace terms. 600 pages; 100 beautiful illustrations. Cloth bound, \$2.00; Buckram, \$2.50. Free literature; also large photo Wilson, Pershing, CRESCENT SUPPLY CO., 312 Swatland Bldg. Agents Wanted

J. C. ENGLISH CO.
Electric Washing Machines
SOLD ON EASY TERMS.
148 Fifth Street, Portland, Oregon
Second Floor Bet. Morrison and Alder.

Stop at
The Portland Hotel
when in Portland
Rates \$12 up
In the heart of the City
Richard W. Childs, Mgr.

Are You Getting All the Cream?
Send for our free Separator test. Just tear out this ad. and write your name and address on the edge of it. You may be feeding a lot of cream to the hogs. Our free book also tells about the wonderful close-shimming "Simples." The one-piece link blade idea does it. Write today! The free information will be worth money to you.
MONROE & CRISSELL
New Location, 91-93 Front St., PORTLAND, ORE

They'll take First Prize
On Your Table!
BLUE RIBBON SODA WAFERS
EXTRA QUALITY SLIGHTLY SALTED

VEAL AND PORK WANTED
228 Alder St. Portland, Mar. 6, 1919
We pay 25c for top quality veal. We pay 21c for top block pork. We never charge commission.
Frank L. Smith Meat Co., "Fighting the Beef Trust."

Egyptians Fond of Pigeons.
Certain Egyptians carry on to a remarkable degree the business of raising pigeons. On one estate the 14 pigeon towers, each composed of about 1,200 clay jars, set one upon another. Each jar forms a comfortable house for the family of pigeons occupying it.
Yes, indeed!
There is one part of our paper in which we almost lose confidence sometimes, and that is our weather forecasts.—Columbia Record.
The Fiercest of the Elements.
"Your wife has probably interfered with more of your plans than ever did rain, fire or cold weather," says the Howard Courant.

BUILDING MATERIALS
Send for booklet on Farm Buildings of Penion Interlocking Tiles in Free. P. L. Cherry Co., 271 Hawthorne Ave., Portland, Oregon.

CITY AND FARM PROPERTIES
We protect your interests. Farms, timber, acreage, city, exchanges. Gilson Realty Co., 431 Ch. of Commerce, Main 6127.

CLEANING AND DYEING
For reliable Cleaning and Dyeing service send parcels to us. We pay return postage. Information and prices given upon request.
ENKES CITY DYE WORKS
Established 1890 Portland

DRUGS BY MAIL
Anything in Drugs, Rubber goods, Toilet Articles, etc. We pay postage. Satisfaction guaranteed. Joe M. Hicen, 265 1st St., Portland.

DRUGS BY MAIL
Send to us for anything in Drugs, Rubber Goods, Trusses, etc. Postage prepaid. Plummer Drug Co., 260 3d St., Portland.

FARM LOANS
On improved farms in Oregon—Long time if desired, and at lowest current rates. Wm MacMaster, 331 U. S. National Bank Bldg., Portland.

FARM TRACTS
Own a farm tract where everything grows year around; fine climate, boating, bathing, fishing, shell roads. Let me send you one hundred views of this wonderful country between Houston and Galveston. Easy monthly payments, over five hundred producing oil wells in sight. Company drilling on this property now. Write or wire today—1/2 sold out. Have parties who will plant your tract on shares. Let me tell you about it.
W. E. COGDILL,
Chamber of Commerce Bldg., Portland.

FARMS WANTED
If you have a farm for sale write us, giving detailed description. We are specializing in the sale of farm lands. G. S. Smith, Chamber of Commerce Bldg., Portland.

FINANCIAL MORTGAGE LOANS
For Mortgage Loans see OREGON INVESTMENT & MORTGAGE CO., 220-22 Chamber of Commerce Bldg., 4th and Stark, Portland Oregon.

HIDES, WOOLS & CASCARA BARK
We pay highest prices. Write us for quotation. Kahn Bros., 192 Front St.

HIDES, WOOL, TALLOW
BISSINGER & CO., P. O. Box 4578, 148 to 154 13th St. N., Cor. Irving, Portland. Main Office, San Francisco. Branches: Seattle, Spokane, Boise, Salt Lake, Reno, Billings, Missoula, Vancouver, B. C.

OPTOMETRIST AND OPTICIAN
GLASSES AT A SAVING.
Patronage solicited on basis of strictly confidential and reasonable charges. Thousands of satisfied patrons. A trial will convince. Chas. W. Goodman, optometrist, 209 Morrison, Portland, Oregon.

PHYSICAL THERAPEUTICS
Dr. A. A. Phillips, 505 Broadway Bldg. Disorders of the stomach, liver, kidneys, bowels, goitre, high blood pressure and female disorders.

PLUMBING & PLUMBING SUPPLIES
We can supply you with any kind of plumbing supplies at wholesale prices. We will gladly estimate cost of any job. Write for prices.
STARK-DAVIS CO., 212 Third St., Portland

PERSONAL
MARRY IF LONELY: for results, try me; best and most successful "Home Maker"; hundreds rich wish marriage soon; strictly confidential; most reliable; years of experience; descriptions free. "The Successful Club," Mrs. Purdie, Box 556, Oakland, Calif.

PAINTS AND WALL PAPER
Paints and Auto finishes. Wholesale and retail. BOLLS Wall Paper Co., 229 Morrison St., Portland, Oregon.
Write us for prices. Pioneer Paint Co., 185 First St., Portland.

PORTLAND
Go with the crowd to the Abington Bldg., Portland to buy, sell or exchange Real Estate. Frank L. McGuire.

SANITARIUMS
WHY THE MILK CURE? Ask the Moore Sanitarium. An institution devoted to doing one thing well. Office 908 Selling Building, Portland, Oregon.

SANITARY BEAUTY PARLOR
We help the appearance of women. Twenty-two inch switch or transformation, value \$7.00, price \$2.45.
400 to 412 Dekum Bldg.

SCHOOLS AND COLLEGES
EMLER BARBER COLLEGE
Wants Men, Women to learn the trade; positions waiting; send for catalogue.
MISS DECKER'S Private Business College, Alisky Bldg., 3d & Morrison Sts.

Hawthorne Auto & Gas Engine School, 462 Hawthorne Ave. Practical experience in overhauling and repairing every make of auto and gas engine. Oxyacetylene welding. Established 1897.

SILOS AND GRAIN BINS
The only exclusive Silo factory. No Hoops, No Nails, No Trouble. Stay Round Silo Co., 501 Dekum Bldg., Portland, Oregon.

TAILORED SUITS
Suits to order, \$10 down, \$5.00 per month. Unique Tailoring Co., 104 Fourth St., Portland.

WALL PAPER AND PAINTS
Wall paper and paints. Wholesale and retail. BOLLS Wall Paper Co., 229 Morrison St.

WATER SYSTEMS FOR COUNTRY HOMES
Man with Ford and \$200. Capital to sell Kewanee Light and Water Systems; good territory still open; write and give selling experience. M. D. Spencer, Distributor, 333 E. Morrison, Portland, Oregon.

VEAL AND PORK WANTED
228 Alder St. Portland, Mar. 6, 1919
We pay 25c for top quality veal. We pay 21c for top block pork. We never charge commission.
Frank L. Smith Meat Co., "Fighting the Beef Trust."

CONDITION OF TREE TELLS OF ITS DIET
Nitrates, Sugar and Starch Needs Revealed.
MUST BE BALANCED
Relative Supply of Most Important Elements Regulated by Methods of Pruning and Culture.
(By the Oregon Agricultural College)
The growth and fruiting conditions of every orchard tree may be interpreted by the relationship of moisture and nitrates on the one hand to carbohydrates on the other, explains Prof. C. I. Lewis, chief of the division of horticulture. Some conditions favor neither vigor nor fruit, some favor vigor without fruit, and some favor both vigor and fruit.
Abundance of moisture and mineral nutrients including nitrates, with shortage of available carbohydrates, indicates weakened vegetation and lack of fruitfulness.
Abundance of moisture and mineral nutrients including nitrates, coupled with an available carbohydrate supply, indicates increased vegetative growth, but barrenness and sterility.
A decrease in the ratio of nitrates to carbohydrates makes for an accumulation of carbohydrates and for fruitfulness and fertility.
A further decrease in nitrates without prevention of increase of carbohydrates makes for suppression of both vegetation and fruitfulness.
Moisture and mineral nutrients come up from the ground, while carbohydrates—sugars and starches—are manufactured in the leaves from atmospheric gases and materials obtained through the roots. Orchardists may learn from the condition of the three just which of these plant foods is needed to balance up the diet, some of the most common conditions being outlined by Professor Lewis as follows:
The first group, too low a ratio of carbohydrates to moisture and mineral nutrients including nitrates, is illustrated by a tree that has been entirely denuded, leaving only a stub. The tree cannot utilize the nutrients from the ground because the sugars and starches have been removed and the tree has not enough stored food in the wood nor the foliage for making and utilizing it. The tree is likely to die or make but feeble growth at best. A less pronounced form of the same condition is illustrated in a tree excessively summer pruned. Large amounts of wood and leaves have been removed, taking away carbohydrates and also the leaves for manufacturing more insufficient amounts. The tree becomes dwarfed and devitalized.
The condition in group two, trees with an abundance of moisture and nitrates and also carbohydrates, is seen in a young tree from one to five years old, growing in rich soil and pruned rather heavily in the dormant season. The orchard practices have encouraged strong and vigorous growth with very little fruit.
Conditions in group three, with a well-balanced supply of moisture and mineral nutrients, and carbohydrates, are frequently seen in well cared for trees from nine to fifteen years old. Both wood and fruit are produced. This result was brought about by decreasing the relative supply of nitrates in trees from group two, bringing vigorous young trees into vigorous fruiting without unduly blocking vegetative growth. The bearing trees are healthy and continue to grow.
Group four is illustrated by trees in many of the older orchards of the northwest, situated on light soils. The trees are loaded with fruit spurs but make but little growth and produce but scant fruit, and that of inferior quality. The same process that brought the tree so successfully from the second into the third or bearing group has gone too far and unless remedied the tree has reached the end of its usefulness. It is here that application of nitrate of soda or use of other means of restoring the moisture and nitrate supply, works wonders. The old tree begins to put forth new life, new growth, and to set fruit and bear.