

LOCAL AND PERSONAL

Visiting With Friends—

Esther Burlingame of Portland is visiting at the home of Mrs. John Callahan on C street.

Let Jerry O'Neal figure your next job of plumbing. First class material and workmanship. Phone 138. 207 E. Main street. 231tf

Recovering From Illness—

Mrs. B. F. Hatch of 218 Granite street is recovering from a serious sick spell and is able to be out of doors again.

Trade your old tires in and buy **MASON CORDS at LEEDOM'S TIRE HOSPITAL.** 252tf

Leaves for Home—

Frank Harris, who has been visiting with his sister, Mrs. B. R. Greer, for the past few days, left for his home in Kansas City, Mo., yesterday.

Fruit canning time is at hand. For fruit jars, lids, rubbers, jelly molds and sugar, Detrick's prices can't be beaten.

Visits in Ashland—

Mr. and Mrs. John Goodfellow of Grinnell, Iowa, made a short visit with the W. H. Day family last week.

Good insurance at good rates. Phone 274-J. Yeo of course. 265tf

Former Resident Visits—

Mr. and Mrs. C. A. Hitchcock of Jefferson, Ohio, are visiting in Ashland after an absence of 20 years. Mr. Hitchcock was superintendent of the local schools while here but is now practicing law in his home town.

Automobile insurance a specialty. Ask Mr. A. L. Lamb. Yeo, of course. 265tf

Visits Camp on Dead Indian—

Miss Enice Grubb spent the latter part of the week at Ice House lake, where the Beecher Danford family are camping. Miss Grubb rode out to the camp on her horse Thursday evening after work and returned home yesterday evening. Mr. Danford is engaged in cutting wood near his camp and will be there for several weeks.

Stopping in Ashland—

F. A. Sachi and family and Ed Brown of Marshfield, Ore., are stopping in the city for a few days. Mr. Sachi makes an annual trip to Ashland and spends a week or ten days in the camp ground and considers it good enough vacation for anybody. Mr. Brown is stopping at the Hotel Ashland and is taking sulphur baths and drinking lithia water, having come here for the benefit of his health.

RUIED HER HUBBY'S SWORD

Princess Mary Used Weapon of Viscount Lascelles to Cut Open Her Wedding Cake.

Viscount Lascelles's sword might do henceforth for a can opener, but as a weapon it is probably out of business for good. Princess Mary used it at the wedding breakfast to cut a London wedding cake. We need no further account of its condition. It is ruined. No temper of Damascus could emerge from such a test other than a bent and hacked-up thing, unfit for further service except splitting shakes, or perhaps taking up carpets.

Prince Henry offered to get a hatchet, but the bride, with that pretty persistence in destruction which sometimes impels the sweetest of women to dig out a jammed washboard plug with her husband's razor, rejected it and sacrificed the sword. Anticipating the wreckage that was about to ensue the duke of York suggested a Lewis gun for the job, but the lady went ahead, and strewn the plain with crumbs and chips.

The devastation must have been awful. We can think of but one parallel to that chaotic scene, and that occurred when J. D. Galloway returned from overseas, where he had been serving as a major, and was made to serve a cake at a certain club dinner. He fell upon that cake as though it had been a platoon of Prussians, and soon had it beaten, butchered, routed and dispersed all over his end of the table. Whereupon O. K. Cushing remarked:

"I understand for the first time in my life what is meant by the old phrase, 'the officer's mess.'"—From the Argonaut.

To "Wash Pa."

Many years ago, a teacher in the Indianapolis public schools, who is now widely known in club work, received the following excuse from a child in a poor district:

"Dear Teacher—Please excuse Mary's absence, she had to stay home to help her Ma wash her Pa."
"The signature, 'her Pa,'" so written, changed what he wished to say entirely.

Powder as Far Back as 200 B. C. It is said the Koreans made gun powder as far back as 200 B. C.

RADIO

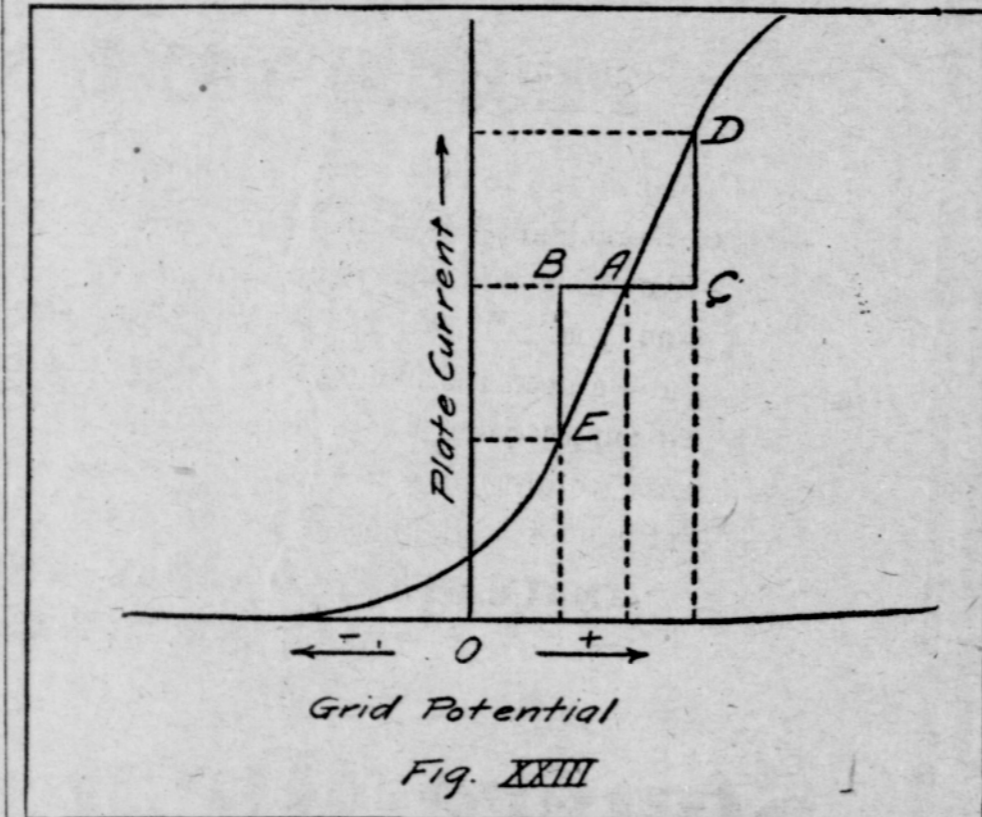
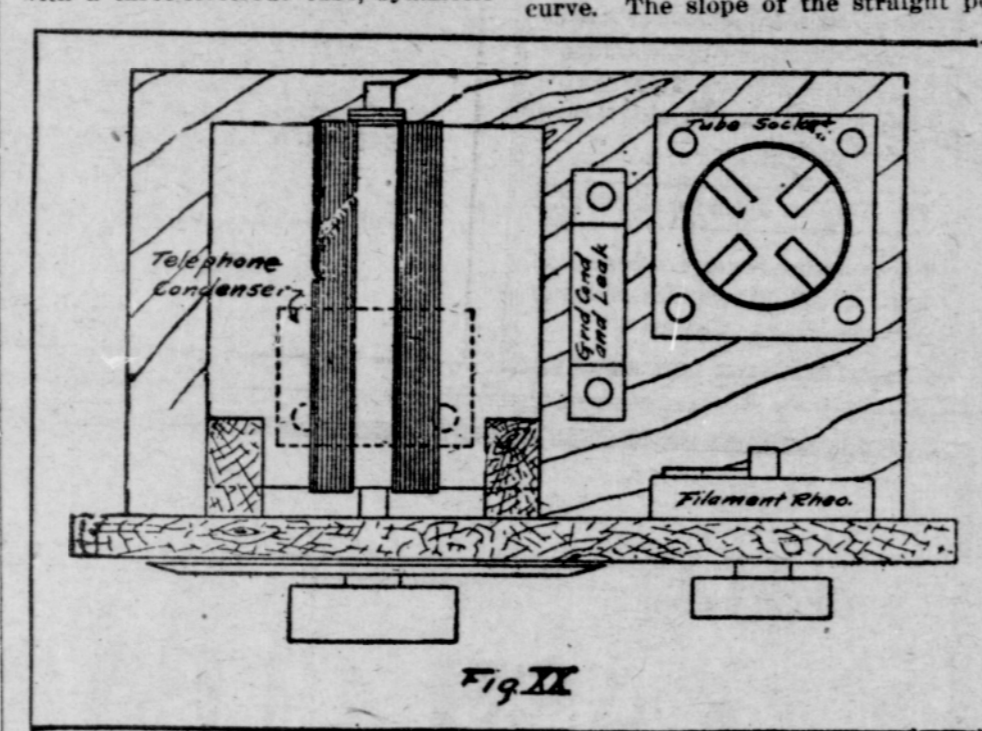
VACUUM TUBE WHEN USED AS AMPLIFIER

It Will Function Thus for Either Radio Frequency or Audio Frequency.

Starting today we shall give a detailed description of the vacuum tube when used as an amplifier. This series, as in the past, is continuous and if clipped out and saved will be convenient for reference.

When the three-electrode vacuum tube was used as a detector, the circuits associated with it were such that where a symmetrical alternating difference was applied to the grid, a symmetrical change in plate current resulted. That is to say, the vacuum tube acted as a rectifier. In addition to rectifying, the tube also amplified. The variation in plate current was "K," where "K" is the amplification constant of the tube, times what it would have been in a two-electrode tube, for the same potential impressed on the grid.

By properly adjusting the electrical constants of the circuits associated with a three-electrode tube, symmetrical variations of grid potential can be made to produce symmetrical variations in plate current, which are "K" times the amplitude of the plate circuit variations of a similar two-electrode value with the same applied grid potential. This means that if a three-electrode value is used in the proper circuits in a radio receiver, the signals can be made to appear as though the received signal is "K" times as strong as it actually is. If two tubes are used with their proper circuits in conjunction with a radio receiver the received signals will appear to be "K" times as strong as they actually are and so the apparent strength of the incoming signal is multiplied by "K" for each additional tube added to the receiver circuit.



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A vacuum tube used in conjunction with a circuit that will cause the plate current to vary in exact proportion to the applied grid voltage, but apparently caused by "K" times the actual grid voltage variation, is called an amplifier. If the tube functioning as an amplifier is used to amplify the incoming signal at radio frequency before it is rectified by the detector, it is termed a radio frequency amplifier. If the tube functioning as an amplifier is used after the incoming radio frequency has been rectified by the detector, it is termed an audio frequency amplifier.

Returning again to the characteristic curve of the three-electrode vacuum tube, shown in Figure 23, notice its shape. Suppose that a positive potential was applied to the grid by means of a "C" battery so that the tube would function at a point represented by "A" on the characteristic curve. If now the applied grid potential from the "C" battery is reduced by an amount represented by A-B in Figure 23 the corresponding reduction in plate current will be represented by B-E. On the other hand if the grid potential is increased by an amount represented by A-C, where A-C equals B-C, the corresponding increase in plate current is C-D.

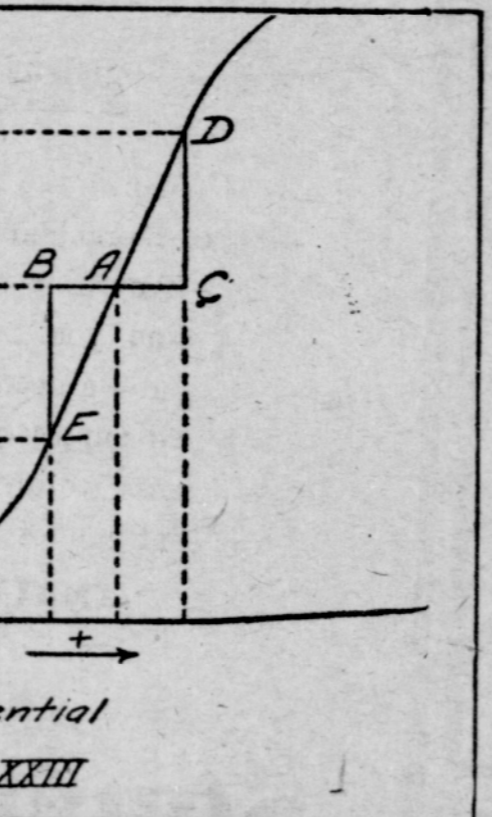
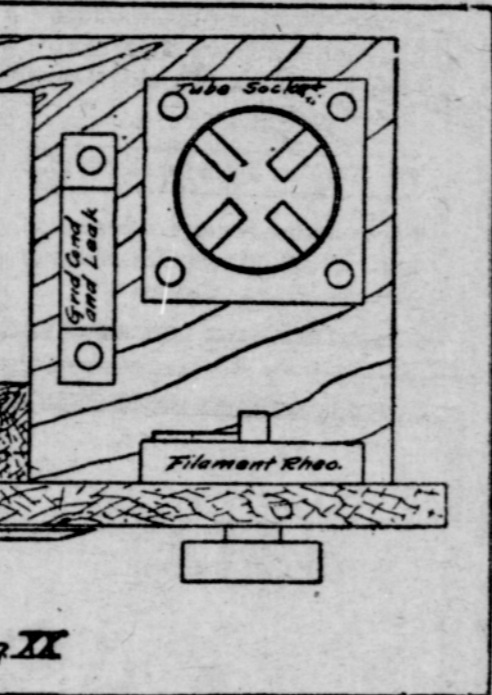
If the portion of the characteristic curve in the region of E-A-D is a straight line, then C-D will equal B-E, or so long as the working range falls within straight line portion of the characteristic curve, symmetrical changes in grid potential will cause symmetrical changes in plate current. From this it can be seen that if the working point "A" be selected near the bend of the characteristic curve, symmetrical changes in grid potential will not cause symmetrical changes in plate current. Since the plate current variation in such case would bear only slight relation to the grid variation in potential, the output of the tube would be distorted.

In applying amplifiers to receiving sets used to pick radiophone stations, distortion is one of the greatest difficulties to overcome. Too strong signals will result in decreased amplification. In Figure 23, if the applied variation in grid potential were 10 times that shown in the example, the plate current would not change 10 times as much, because of the bends in the curve, due to saturation. Finally, a condition can be reached where the use of an amplifier tube will decrease the signal strength because of the saturation of the tube. The rectified incoming signals would be louder without the use of the amplifier tube, because of the inability of the plate current of the tube caused by saturation to increase in proportion to the signal strength.

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There are, in general, two factors that can be taken from the characteristic curve and the second is the length of the straight portion of the curve. The slope of the straight por-



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TRAP FOR DRY AGENTS



Miss Edna O'Dea of the prohibition office, bureau of internal revenue, photographed with a large bear trap which was captured by Federal Prohibition Agent D. J. Gantt, near Etowah, Ga. The trap was set near a still to catch the first prohibition agent who came around.

Family Did Full War Duty.
Joseph Jacobsen, a former service man of the United States army, since falling in an army airplane at Towers, France, in May, 1918, has been in ten hospitals, four since the first of this year. Seven Jacobsen brothers served in the World war, and were contenders for the championship for the largest number of a single family in the service.

Maimed but Good Swimmers.
Swimming is quite easy, and is even beneficial for these men who have lost a limb, especially in salt water, which seems to benefit the maimed limb. At a swimming match organized at Brighton for so-called disabled men, 16 competitors entered the water. Ten of these had lost one leg, three were minus an arm, and the remaining three had no legs at all.

The course was from the Palace pier to the West pier, and 15 of the 166 competitors covered the whole distance, roughly three-quarters of a mile. The one who failed had to leave the water half-way owing to cramps in the stump.

Elephants Test a Floor.
Wishing to determine the strength of his garage floor, a Canton (O.) man employed the services of five circus elephants to act as test load, relates Popular Mechanics Magazine. They were led upon the floor and grouped as closely as possible, making a live load of more than fifty tons on the center of the floor—probably the first of this unusual description to be used for such a purpose.

Well, It Does in a Way.
A Washington society woman who was entertaining a South American delegate during the recent Pan-American woman's convention, said to her guest, "I'm afraid my knowledge of Spanish is very limited; in fact, I know only two words."
"And what are they?" inquired the other.
"Manana," meaning tomorrow, and "pajama," night."



ASOP'S FILM Fables
THE FASHIONABLE FOX
Caught in a trap along his trail The fox broke loose, but lost his tail. To mask his shame he cried, "I hear That tale aren't being worn this year And if in fashion you would shooe You'll bob your tails the same as mine!" An old fox said to him "Tush, tush!" I guess if you'd retained your brush, You wouldn't talk this kind of guff."
—And there's the moral, plain enough!
Ead. Jr.

Venida Hair Nets
Single and Double Mesh
15 CENTS
Colored Glasses
A Good Variety in Styles and Prices
40 CENTS AND UP
—at—
Elhart's
DRUGS, BOOKS, STATIONERY.

Effective . . . Diplomatic
ASHLAND REALTY CO.
Opposite City Hall
Business Chances
Insurance Real Estate
W. A. SHELL
BARBER
Safety blades resharpened like new. Single bit, 30c doz. Double bit, 60c doz
Children's Work A Specialty

Cool Kitchens for Hot Days
A New Perfection Oil Cook Stove in your kitchen will assure a cool and pleasant kitchen in the hottest weather. The New Perfection Stove is a tested, guaranteed product, and will do all the work of your wood range without heating the kitchen. Cooks as fast as gas and is absolutely reliable. We have them in two, three and four burners. Come in and let us show you the numerous features that make them the best stove for summer use.
SIMPSON'S HARDWARE
37-39 North Main St. Phone 203

Seeds of Success
From some of the smallest seeds you sow in your garden, come the most valuable plants and fragrant flowers.
In much the same way the small sums you deposit with us grow increasingly valuable.
Open a thrift account with us and sow the seeds of success.
The Citizens Bank of Ashland
Ashland, Oregon

BUSINESS AND PROFESSIONAL

FOR EXCHANGE
FOR TRADE—160 acre unincumbered ranch on Pacific highway and county road, near Hill; small house and outbuildings; good stock or chicken ranch with plenty of wood and tillable land. Will trade for unincumbered Ashland acreage; prefer no house, but would consider acreage with small house. Eleanor Greer, 199 Granite St. 231tf*

HELP WANTED
MEN WANTED
for service as railroad machinists, boiler-makers, blacksmiths, electricians, sheetmetal workers, pipe fitters, copper-smiths, tanners, car inspectors, car repairers, helpers—all classes

UNDER STRIKE CONDITIONS BEST EXPLAINED BY CHAIRMAN BEN W. HOOPER OF THE UNITED STATES RAILROAD LABOR BOARD IN HIS STATEMENT OF JULY 1ST, READING AS FOLLOWS

"In this case the conflict is not between the employer and the oppressed employees. The people of this country, through an act of congress, signed by President Wilson, established a tribunal to decide such disputes over wages and working conditions, which are submitted to it in a proper manner. It is the decision of this tribunal against which the shop crafters are striking.
"Regardless of any question of the right of the men to strike, the men who take the strikers' places are merely accepting the wages and working conditions prescribed by a government tribunal and are performing a public service. They are not accepting the wages and working conditions which an employer is trying to impose. For this reason public sentiment and full government power will protect the men who remain in their positions and new men who may come in."
Adequate provisions have been made for the full protection of all new employees, the same as old employees who have remained loyally at work. Applicants should apply to the office of the superintendent at Portland (Union station), or to the assistant superintendent at Roseburg.

J. H. DYER,
General Manager Southern Pacific Company.
R. E. KELLY,
Representative Executive Department Southern Pacific Company.

INTERURBAN AUTOCAR CO.
(Effective January 1, 1922)
Daily (Except Sunday)

LV. MEDFORD	LV. ASHLAND
7:00 a. m.	7:00 a. m.
8:00 a. m.	8:00 a. m.
9:00 a. m.	9:00 a. m.
10:00 a. m.	10:00 a. m.
11:00 a. m.	11:00 a. m.
12:00 noon	12:00 noon
1:00 p. m.	1:00 p. m.
2:00 p. m.	2:00 p. m.
3:00 p. m.	3:00 p. m.
4:00 p. m.	4:00 p. m.
5:00 p. m.	5:00 p. m.
6:00 p. m.	6:00 p. m.
7:00 p. m.	7:00 p. m.
8:30 p. m. Sat. only	8:30 p. m.
9:30 p. m.	9:30 p. m.
10:30 p. m. Sat. only	10:30 p. m.

Sunday Schedule
Leave Medford for Ashland and Ashland for Medford every hour on the hour from 9 a. m. to 5 p. m.; then 6:30 p. m. and 9:30 p. m.
Ashland waiting room—East Side Pharmacy.
ASHLAND-ROSEBURG STAGE
Daily (Except Sunday)
LV. ASHLAND **LV. ROSEBURG**
7:00 a. m. 8:30 a. m.
12:00 noon 2:00 p. m.
Travel by stage; shortest route by 20 miles; one of Oregon's most scenic trips. Fare—Ashland-Roseburg, \$4.00; Medford-Roseburg, \$4.15; Grants Pass-Roseburg, \$3.00.
MEDFORD-GRANTS PASS
Daily (Except Sunday)
LV. MEDFORD **LV. GUNT'S PASS**
7:45 a. m. 7:30 a. m.
1:00 p. m. 1:00 p. m.
4:45 p. m. 5:30 p. m.

C. B. LAMKIN
BARGAINS IN REAL ESTATE
City and Ranch Properties
Houses to Rent
CITIZEN'S BANK BUILDING
WHAT REDUCES MILK AND FLESH MORE THAN FLIES?
Double Strength SHOOFLY just in from Philadelphia. It's the best Fly Repellent on the market today for the spraying of your cows.
Fencing, Mowers, Rakes and Binders and their repairs. All kinds of Sewing Machines.
Peil's Corner

PHYSICIANS.
DR. ERNEST A. WOODS—Practice limited to eye, ear, nose and throat. Office hours, 10 to 12 and 2 to 5. Swedenburg Bldg., Ashland, Ore. 78-tf

DR. J. J. EMMENS—Physician and Surgeon. Practice limited to eye, ear, nose and throat. Glasses supplied. Oculist and aurist for S. P. R. E. Offices, M. F. and H. Bldg., Madford, Ore. Phone 567

DR. MATTIE B. SHAW—Special attention to mothers and children. Internal secretions and endocrine glands. Res. and office, 108 Pioneer avenue. Telephone 28. Office hours, 11 to 12 a. m.; 2 to 6 p. m.

CHIROPRACTORS.
DR. MAUD INGERSOLL HAWLEY—Visiting Chiropractic Physician. Neuritis cases a specialty. Phone 118-J. Treatment given only in your own home.

PLUMBING
H. R. ADAMS—Plumbing, Contracting and day work. 248 Fifth St., phone 166-J. 100tf

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. 56tf

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

ADAMS TRANSFER—Wood and storage. Phone 460. 211-1mo

LOST.
LOST—Three keys attached, in or near sulphur grotto, Lithia park. Please return to Tidings office. Reward. 267-2*

FOR RENT.
FOR RENT—Clean, cool rooms, single or housekeeping. 72 North Main St. 242-1mo

APARTMENTS—Furnished, close in, modern conveniences. Adults only. Inquire 166 Hargadine St., or phone 122. 257-tf

FOR RENT—Three room furnished apartment, all outside rooms. Phone 263-R or call at 369 Hargadine street. 267-tf

WANTED.
WANTED—Feeder hogs, from 70 to 140 pounds. Phone 4F13. 263-6

FOR SALE.
HAY FOR SALE—By G. F. Billings.

FOR SALE—Overland 90 in fine shape, bedrock price. See J. H. McKenzie at Mack's Garage. 266-6

FOR SALE—Quick, 12 acres terrace property, seven block from P. O., two blocks Lithia park improvements worth over \$4000. Price \$1650. P. O. Box 463. 254-1mo*

FOR SALE—Quick, 12 acres terrace property, five room house, barn, chicken house, one acre grapes, ¼ acre apples, ¼ acre peaches, ¼ acre cherries, wood lot, seven blocks from P. O., two blocks of Lithia Park, improvements worth over \$4000. Price \$1650. P. O. Box 463. 254-1mo*

FOR SALE—40 acres wood land, cheap. Three miles from city. See owner, 896 Boulevard. 262-18*

HEMSTITCHING and Picoting Attachment. Fits any sewing machine. Price \$2. Economy Sales Company, Medford, Or. 263-6*

FOR SALE—Six room modern house, close in. Terms. 63 Gresham St. 265-6*

FOR SALE—One large ice box, for hotel or restaurant use. Port-Shasta Restaurant. 267-2

FOR SALE—Very accurate, new, all steel mitre box, 28x5 saw. Also tool grinder. J. D. Hoag, phone 368-J. 267tf

FOR SALE—Most remarkable offer of the year. Must sell at once fine home, two highly improved lots, furniture if desired. 595 Rock St. Phone 368-J. 267tf

FOR SALE—Jersey cow, freshens in about a week. W. L. Moore. Phone 10-P-4. 267-4*

At Once
SEE US NOW ABOUT YOUR FIRE INSURANCE
Procrastination in taking out fire insurance has robbed many a man of his entire property. Don't be caught unprepared by the fire fiend. Your home, your business, your crops, your automobile have a very real money value.
No property is secure against destruction by fire. Let us tell you how little it will cost to fully protect you.
"When you want good insurance, talk with Billings."
Billings Agency
Established 1883
Real Estate and Real Insurance
ASHLAND, OREGON
Phone 211 41 E Main St.