

STUDY OF THE REDWOOD

FORESTS MAY BE RENEWED WITH SECOND GROWTH.

Valuable Tree Not Destined to Extinction—Its Great Size and High Qualities as Lumber.

OREGONIAN NEWS BUREAU, Washington, April 10.—What is to be done for the redwoods of the Pacific Coast is a question that has not only agitated the lumbermen of California and Oregon, but is of sentimental concern to the whole Nation.

The Bureau of Forestry, attacking the problem in a thoroughly practical spirit, has worked out conclusions that should appeal as reasonable at once to the lumbermen, who cut redwood on account of its commercial value, and to those who wish the ancient and marvelous type of tree growth preserved.

The results of this study are given in "The Redwood," bulletin 33 of this bureau, by R. T. Fisher, recently issued by the department.

The redwood forests are, in point of merchantable yield, probably the densest on earth, many stands yielding 150,000 board feet to the acre; and logging operations represent the highest development of the lumbering business that has been attained on the Pacific Coast. The total supply of redwood is estimated to be 3,000,000,000 feet. The amount cut in 1900 was 200,000,000 feet, valued at \$3,468,000. Although only one-tenth of the forests of the United States is owned by lumbermen, according to the last census, one-fifth of the redwood is in their hands, and the stands they own are the handsomest and most valuable in the redwood belt.

Can Renew the Forests.

Ever since the Spaniards began to cut redwood along San Francisco Bay, the range of its growth has been diminishing; it now occupies an area of about 300 square miles, and the total amount of timber several hundred thousand acres of timber have been cut over, and the good lands put into cultivation or turned into pasture. As years pass, the redwood forests have dwindled, it has come to be pretty generally believed that the tree is doomed to extinction.

The popular idea that the redwood has a chance of surviving is not well founded. The studies of the Bureau of Forestry have proved that possibilities of a new growth of redwood after the old trees have been removed are excellent, but only a half a chance, the redwood reproduces itself by sprouts with astonishing vigor. Measurements taken by the bureau on cut-over land show that in 20 years a fair soil and a dense stand, trees will be grown 16 inches in diameter, 80 feet high, yielding 1000 feet board measure to the acre.

Giant Trees Are Doomed.

With the knowledge that the redwood as a type need not become extinct, it is possible to consider the impending fate of the giant redwood in the old forests with a more cheerful mind. Occasional parks and reserves, such as the Redwood Park of the Santa Cruz Mountains, may preserve small areas of virgin redwood lands; but the richest, the densest, the most beautiful of the forests are owned by lumbermen, and will inevitably be cut. The trees represent invested capital; they are merchantable and a goodly amount of small as it is. Besides, in the virgin stands most of them are past maturity, and the growth put on is inconsiderable. Every considerable tree is a lumberman's redwood, and he will not cut it until he has reached the point to cut his trees.

Realizing that the fate of the old trees cannot be stayed, the Bureau of Forestry, instead of weeping, has taken the precaution to check the cutting, confined itself to proving that it is worth while to the lumbermen to do less damage to the young trees in logging virgin redwood lands, and to hold such lands for a second crop. The study made concerns itself with young second growth, rather than with mature trees, with timbered areas rather than with the virgin forest. Where selection was given the old forests and methods of lumbering, it was only that a better knowledge might be gained of second growth and how to deal with it.

The Bureau's is the first systematic study of the redwood ever undertaken by a forester, and it has made clear several points about the life and habits of the tree that are little known.

Great Size of Trees.

The redwood grows to a greater height than any other American tree, but in girth and in age it is exceeded by the big tree of the Sierra Nevada, which attains about its maximum height and 30 feet its greatest diameter, while on the flats, under better conditions, it grows to 30 feet high with a diameter of 30 feet. The oldest redwood cut is from 400 to 500 years old. After the tree has passed the age of 500 years it usually begins to die down from the top and to fall off in growth. The oldest redwood cut during the Bureau's investigation had begun life 1273 years ago.

The bark of the tree offers such a remarkable resistance to fire that except under great heat it is not combustible. It is of reddish-gray color, fibrous in texture, and gives to full-grown redwoods a fluted appearance. Moisture available for the tree is not abundant, and the redwood, as any hilly tract of forest will show. Wherever a small gully, or bench, or basin is so placed as to receive an uncommon amount of seepage, or wherever a creek flows by, there the trees are sure to be largest. While moisture of the soil affects the development of the redwood, moisture of the atmosphere regulates its distribution. The limits of the sea fogs are just about the limits of the tree. The fogs, unless scattered by winds, flow inland among the mountains. Western exposures receive most of the mist they carry, except those higher ridges above their reach, which support, in consequence, only a scattering growth of redwoods.

Character of the Wood.

The wood of the redwood varies greatly. The softest and best timber usually grows in the bottoms. The "flinty" timber occurs on the slopes. But this rule does not always hold good. All series of wood have unaccountable differences in the quality of the timber occur. A soft, fine-grained tree will be found close beside one "flinty" and less valuable. Even the practical logger is never sure until he cuts it what kind of lumber a redwood will yield. The tree's vitality is so great, it enters so many vicissitudes and suffers from so many accidents in the centuries of its existence, that the grain of its wood becomes uneven in proportion as it grows westward. The wood fibers formed under different rates of growth sometimes get up a tension so great that when the log is sawed the wood splits with a loud report.

The seed of the redwood will not germinate in shaded places; the small seedling demands plenty of light. The crown is lifted as things are opened up to the larch, another sign that the tree is not naturally tolerant of shade. In a mixed stand the redwood's branches die off more rapidly than those of its associates, and the crown bends eagerly to places where the light enters the forest canopy. But in spite of these signs of its sensitiveness to light, the redwood forms one of the densest forests that grow.

The reason for this is that the stand is maintained chiefly by suckering from old trees. Supported and nourished by full-grown roots, the stems sprout and grow under shade that would kill the small seedling. The sprout will endure an astonishing amount of shade. In stands of second growth, so dense that not a ray of sunlight can enter, saplings six or eight feet high are to be found growing from stumps, bare of branch or foliage except for a few inches of pale green crown at the top. In very dark, damp places in the virgin forest one may find clumps of shoots as white as sprouts from a potato.

Its Valuable Qualities.

Redwood possesses qualities which fit it for many uses. In color it shades from light cherry to dark mahogany. It is indicated by a reddish-brown grain, and is one of the most durable of the coniferous woods of California. It resists decay so well that trees which have lain 50 years in the forest have been seen to rot and decay into lumber. The wood is without resin, and offers a strong resistance to fire, as the record of fire in San Francisco, where it is much used, indicates. Insect seldom infests because of an acid element it contains. In sea water, however, the marine teredo eats of redwood piling as readily as other timbers.

Redwood Timber, says Dr. Hermann von Schrenk, of the Bureau of Plant Industry, possesses lasting qualities scarcely equaled by any other wood. Although very hard, it is not so much as oak, and its properties which prevent the growth of decay-producing fungi. So far as is now known, none of the ordinary wood-rotting fungi grows in redwood. It is because of its resistance to most forms of decay that the redwood reaches such a great age.

UNITE COUNTRY SCHOOLS

SUPERINTENDENT ROBINSON WILL BEGIN A CAMPAIGN.

Effort Will Be Made to Consolidate Districts Under the New Law.

R. F. Robinson, County School Superintendent, is making arrangements to commence a campaign of education in the districts under his jurisdiction on the law of school consolidation passed at the last Legislature. A series of meetings will be held at prominent points in the county. For this purpose the County Superintendent is dividing up the county. Meetings will be held at Gresham, Fairview, Troutdale and Coquille, and at some other points. These meetings will be held as soon as the weather will permit, a full gathering of the people. Probably the first meeting will be held at the fair of the Sandy River, where the people have already held a preliminary meeting.

Professor Robinson thinks that a consolidation of several districts may be accomplished at this point. The road leaves Corbett and winds up the hill toward Hillhurst, and about midway up the hill is a level district, on which a new school house could be built, and where three or four school districts could consolidate and build up a fine, strong school, in which the higher grades could be taught if desired. A fine meeting will be held in Columbia Grange Hall, which stands on the hill and is accessible from all these districts.

Ribbon Bargains

2-inch wide fancy silk hair ribbons, all silk, red, white, pink, light blue, per yd. 4c

Notion Dept.

6-yard pcs. white finishing braid 4c  
Linen thread, 3 for 10c  
Ladies' purses, reduced from 50c to 15c  
Side combs 5c  
Pearl buttons, 2 doz. for 5c  
Cut-steel Chantilly bags, each 28c  
Silk Windsor ties, 5c  
2 doz. for 1c  
Hooks and Eyes, 2 doz. for 1c

New Wash Goods

800 yards of figured lawns, dainty patterns, fast color. Regular 8 1/2c qualities. Removal sale price 6 1/2c  
1000 yards of pretty figured challies, handsome designs and colorings, worth 12 1/2c yard. Removal sale price 9c  
White India linens, Victoria lawns, dimities, Oxford, piques and all other white and colored Summer fabrics at removal sale prices.

Cloak Dept.

Ladies' jackets and capes at reduced prices. Silks, walking and dress skirts—all reduced. Children's dresses, large assortment—all reduced. Shirts, waives, all new—at reduced prices.

TO ENDOW DALLAS COLLEGE.

Evangelical Conference Authorizes President to Collect Funds.

At yesterday's sessions of the United Evangelical conference, held in the East Side Chapel, W. E. Spaulding, president, the committee on moral reform made a vigorous report. Steps were also taken to increase the endowment of Dallas College. The committee on moral reform condemned the desecration of the Sabbath, reading the Sunday papers, theater-going, the abuse of lodges and such games as are conducted on the sabbath, and resolutions were passed condemning the licensing of saloons and phoning the conference to a united and common effort by voice and vote to break up the liquor traffic.

The report of the statistical secretary showed a decided advance along the line of church finances. A report on a trip made by the visiting committee to Dallas College was read by G. L. Lovell, Dr. C. C. Pulling, president of the college, was instructed to canvass the conference territory for an endowment fund for the college.

The committee on worship reported the following programs for today: 11 A. M., preaching by Bishop W. E. Spaulding, 12 P. M., P. M. ordination of deacons and elders by Bishop Hill; 7:30 P. M., praise service; 8 P. M., missionary sermon by Bishop Hill.

The last session of the conference will be held Monday at 3 A. M., when the conference appointments will be announced for the ensuing year.

WORK ON SAWMILL.

Scowhouses Interfere With Driving Piles on East Water Street.

Work on the sawmill plant of the Standard Box Factory Company, at the corner of East Ash and East Ankeny, is progressing. Contractor Ben Smith has had his driver driving piles for a roadway on East Water street, between East Oak and East Ash streets. The presence of the scowhouses has interfered, and continues to interfere with the work. Twenty of these houses are now impounded on block 28, between East Oak and East Ash streets. The piles just driven on East Water street. The pile-driving also has come to a halt by the refusal of one owner to move his barge, which blocks further progress. The barge has been moved away, and work has been commenced on the sawmill. The slip in which logs are pulled up into the mill is being built first.

Hasasalo-Street Congregational.

At the Hasasalo-Street Congregational Church, Charles E. Chase, pastor, the morning service at 10:30 A. M. included a sermon and special Easter music, including an organ prelude from G. F. Handel, by Miss McKeeher; "Easter Hymn," with "Alleluia," by Lynn Dirckx; "Hymn Fortunate," by Mrs. Arthur Sullivan; "Hymn Micaiah," by Bishop Reginald Heber; anthem, "Holy Lord, God Almighty," by H. R. Skelly, rendered by double quartet, solo by Mrs. Thomas, "Calvary," by Rodney; organ postlude from "A. Valentini," by Miss McKeeher. Sunday school, with Easter lesson and music, opened at 12 M. The Christian Endeavor Society met at 6:45; subject, "The Resurrection." Miss Lottie Hampton will sing "The Door of Hope." The leader is Miss Rosalind E. Chase. Evening service opens at 7:45. Refreshments by the Ladies' Quartet. All are welcome. Take Irvington or Woodlawn cars to Hasasalo street.

East Side Note.

Mrs. J. Bunley, who lives at 34 East Twenty-seventh street, sustained a fracture of her left arm. She was standing talking to a friend when she fainted and fell.

Arbor Day was observed by the Woodstock School. Under the direction of Principal Miller, about 20 trees were planted on the school ground.

POSTOFFICE AT BORING.

Town is Ready for Mail Before Train Leaves. GRESHAM, Or., April 10.—(Special.)—The new railway town of Boring, on the line of the Oregon Water Power & Railway Company, five miles beyond this place, has been granted a postoffice, with Postmaster J. W. Smith. Mr. Smith has filed his bond and will open the office for business as soon as his commission arrives from Washington.

Crushing Rock.

Engineer Pretzman has just put the big rock crusher in operation at Rockwood. Besides the necessary machinery, a hydraulic ram has been placed in operation at a spring near by, which furnishes a good supply of excellent water. Mr. Cotton's enterprise will give an impetus to the dairy interests of the Columbia Slough, as the farmers along the Sandy road can now sell all their milk for the best prices going.

Fire at Fairview.

The house of J. P. Hailin, in Fairview, was destroyed by fire yesterday afternoon. It was occupied by Mr. and Mrs. Byers. J. Schram first saw the fire and gave the alarm. With the assistance of neighbors, the furniture was saved. The loss was estimated at \$200. There was no insurance. The fire was caused by a defective flue.

Vanderbilt Whips Camera Fleed.

CHICAGO, April 11.—A dispatch to the Tribune from Newport, R. I., says: Reginald C. Vanderbilt used his whip on a man with a camera who was trying to get a snap shot of him and Miss Nelson while they were out riding together. Near Hill Top cottage they met a carriage by the side of the roadway in which were three newspaper men, one of whom held the camera. Before the picture could be taken Vanderbilt reached out with his whip and cut the camera man across the shoulders and spoiled the exposure. Vanderbilt stopped his horse, and, getting out, went to a policeman, who happened to be near, and said he was tired of being photographed.

Third Quarter of Hill Military.

The third quarter of the current school year at the Hill Military Academy ended April 9. The following cadets gained the highest standing in studies during that period: In the academic department, Walter H. Gleason, with honorable mention of William H. Burton; in the preparatory department, Seymour Graham and Frank Scott, with honorable mention of Harry R. Holtbrecker; in the primary department, C. Jerrold Owen, with honorable mention of Harold Sanford. The roll of honor for excellence in studies, department and attendance during that quarter is as follows: Gerald J. Barrett, Percy O. Bretherton, William H. Burton, Fred W. Durkin, Allen C. Fletcher, Walter B. Gleason, Leo Hahn, Fred E. Hansen, John R. Holman, Ogden Marshall, Victor McFarland, Wilson F. Mays, E. Maxwell Mitchell, Robert D. McMonie, W. B. Moy, C. Jerrold Owen, Robert C. Rountree, Harold Sanford, Harvey M. Stackpole, all of Portland; Roy F. Alexander, Pendleton, Or.; Robert C. Brodie, Palestine, Or.; Richard P. Brown, Valdes, Alaska; Asahel Bush, Salem, Or.; Wallace A. Busselle, Seattle, Wash.; Harris F. French, Robert S. French, Cove, Or.; Augustus E. MacDonald, Roseland, B. C.; John H. Mitchell, The Dalles, Or.; John R. Palmer, Everett, Wash.; Marshall G. Pettie, Eugene, Or.; Charles H. Robbins, Stumpton, Or.; Leon E. Savage, Northport, Wash.; Frank Scott, Woodlawn, Or.; Fred L. Stanton, Spokane, Wash.; Herbert W. Whiting, Quincy, Cal.; E. Cecil Woodcock, The Dalles, Or.

Queer Hobby of an Author.

Leslie's Weekly. Among the hobbies of authors, none perhaps, is more curious than that of Arthur Morrison, whose novel of the London slums, "The Hole in the Wall," has recently been published. Mr. Morrison spends his leisure moments and spare cash in collecting Japanese art. For years he has been mousing over London, and although he is a comparatively poor man, he has succeeded in acquiring treasures of Japanese art, books of drawings and of prints. This he does by frequenting junk shops and pawn shops in the river-side slums, where sailors bring their oddities collected in foreign lands. A friend of Morrison's who does missionary work in the slums, relates how he once saw the author coming out of a notorious "fence" with an expression of beatific joy on his face. "You look as if you had discovered a gold mine," said the friend. "Better than that," replied Morrison. "I've got a beautiful ivory for six shillings, and a brand-new incident for my next book for nothing."

Mississippi-Avenue Congregational.

At Mississippi-Avenue Congregational Church, corner Fremont and Mississippi avenues, services today are as follows: 10 A. M., Sunday school; J. H. Upham, superintendent. There will be no morning preaching service. At 6:30 P. M., Young People's Society of Christian Endeavor; topic, Christ's teaching about the resurrection; leader, Ernest Simmons; 7:30 P. M., special Easter services by Sunday school.

Wonderful Bargains

LAST WEEK OF ROBERTS BROS.' GREAT REMOVAL SALE

All the new Spring goods reduced far below the regular prices. All small lots and broken lines must be sold this week. We have marked these lots at half price and in many instances much less. Surely many wonderful bargains await you, this the last week of our BIG REMOVAL SALE.

- Lace Bargains: Two lots of wash laces. They come in edgings and ins., to match, from 1 to 7 inches wide. LOT 1 comprises the English wash torchons, 1 to 4 inches wide, edging and ins., per yd. 4c. LOT 2 are Normandy and Ft. de Paris, from 3 to 7 inches wide, per yard. 9c.
- Hosiery and Underwear: Children's tan cotton hose, seamless and fine ribbed, all sizes. Sale price 9c. Ladies' lace-trimmed hose, black and tan color, values from 35c to 50c. Sale price 25c. Children's fine ribbed cotton hose, slight imperfections in making, regular 50c value. Sale price 15c. Ladies' long-sleeve vests and pants, Spring weight; also odds and ends in pants, values up to 75c. To close, sale price 17c. Ladies' sleeveless vests and knee pants, in ecru and white, taped neck and armholes, regular 20c value. Sale price 12c. Ladies' union suits, sleeveless vests and pants, Summer weight, 50c value. Sale price 32c. Children's union suits, medium weight, suitable for Spring wear, all sizes. Special sale price 32c.
- Silk and Velvets: 30-inch Jap silks, all colors, excellent quality and cheap at 40c yard. Removal sale price 32c. 20-inch taffeta silks in black and all colors, wear guaranteed, best 55c values in the country. Removal sale price 68c. Black peau de soie silk, 22 inches wide, fine, firm quality, worth \$1 yard. Removal sale price 77c.
- Comforters and Blankets: All qualities at removal sale prices. 36 large-size cotton-filled comforters, covered with silkoline on both sides and nicely stitched, our regular \$1.25 yard, Removal sale price 98c. 48 full-size comforters, covered with figured satin on both sides, white cotton filling, scroll stitched, worth \$1.75 each. Removal sale price \$1.39. 36 pairs of Oregon blankets, in mottled and plain gray, warm, heavy kind, regular \$3.50. Removal sale price \$2.80. 50 pairs full-size wool-finish cotton blankets, tan and gray colors, worth \$1.25 pair. Removal sale price 90c. 25 pairs fine white wool blankets, large size, excellent values at \$5.90. Removal sale price \$4.65.
- Dress Goods Bargains: 500 yards wool waisting, all the pretty colors, with fancy stripes. These are good 25c values. Removal sale price 18c. 900 yards wool plaide, crepe finish, 34 inches wide, bright colors, assorted styles, regular 30c qualities. Removal sale price 19c. 38-inch all-wool chevrons, in colors, navy, brown, reds, green and black, excellent values, at 65c yard. Removal sale price 45c. 46-inch brilliantine, colors black and navy blue only, bright silk luster finish, regular 65c values. Removal sale price 45c. 62 and 46-inch fine all-wool beiges, mohairs, Henriettas, serges and other makes, in black and colors, regular 75c and 85c qualities. Removal sale price 68c. Entire stock of dress goods, including new Spring arrivals, at removal sale price.
- Linings: Spun glass, 36 inches wide, black and all colors, sold everywhere at 25c yard. Removal sale price 18c. 36-inch saten, in all the staple and high colors, fine quality and finish, worth 25c yard. Removal sale price 18c. 500 yards percaline, 36 inches wide, colors black, drab and brown, good 12 1/2c value. Removal sale price 9c.
- New Wash Goods: 800 yards of figured lawns, dainty patterns, fast color. Regular 8 1/2c qualities. Removal sale price 6 1/2c. 1000 yards of pretty figured challies, handsome designs and colorings, worth 12 1/2c yard. Removal sale price 9c. White India linens, Victoria lawns, dimities, Oxford, piques and all other white and colored Summer fabrics at removal sale prices.
- Cloak Dept.: Ladies' jackets and capes at reduced prices. Silks, walking and dress skirts—all reduced. Children's dresses, large assortment—all reduced. Shirts, waives, all new—at reduced prices.

LAST WEEK OF WONDERFUL BARGAINS

PORTLAND'S FASTEST GROWING STORE Robert's Bros. LAST WEEK OF BIG REMOVAL SALE

LOOK AT THIS, THEN SUIT YOURSELF. After reading this, if you are not perfectly satisfied that we are offering the best Furniture values in the city it is your privilege to make further inquiries. The more you investigate the better it will please us. Our goods at the marked prices sell themselves, without the aid of the salesman.

Advertisement for furniture and home goods. Includes items like Golden Oak Rocker (\$11.00), Couch, Hike cut, covered with the best velvets (\$6.50), Sewing Rockers (\$1.25), and various other furniture pieces. Total price for a set of furniture is \$20.00.

TAUBENHEIMER & SCHMEER CARPET & FURNITURE CO., 166-168 FIRST ST.