

MACHINE MADE TO TEST BOXES

DEvised BY FOREST SERVICE

Effort Made to Determine Kind of Wood Best for Boxes and Best Method of Nailing—Tentative Specifications to Be Drawn.

A machine for testing the strength of boxes has been devised by engineers of the Forest Service and is in use at the Forest Products Laboratory at Madison, Wisconsin. The machine is the result of experiments made to determine a fair test for all types of boxes. A series of tests in co-operation with the American Society for testing materials and the National Association of Box Manufacturers has been carried on during the past year to determine the strength of boxes of various woods and of different construction. Over four and a half billion feet of lumber is used for box making every year, and on this account the tests are considered important. Moreover, big losses are caused by the breakage of boxes in transit, and all parties concerned are said to be anxious to determine the best kind of box.

The machine consists of a hexagonal drum with 3 1/2 foot sides, which is lined with thin steel sheets. Pieces of scantling are bolted to the bottom and form what are known as "hazards."

In making the tests boxes filled with cans containing water are placed in the drum, which is then rotated. For convenience in observing the results of the tests, the sides and ends of the box are numbered with large figures, and in addition other numbers are placed at specified points on each side. The "hazards" cause the boxes to be carried part way around and then dropped back to the lower level of the drum. Each fall of this sort is a pretty fair imitation of the probable treatment it would receive in shipment. The boxes are watched carefully, and notes are taken on the manner in which they give way and the number of falls required to break them in pieces.

In this way, say the officials who have conducted the tests, it is possible to determine what kinds of woods are best suited for boxes. The tests showed a decided need for a standard classification of box woods and three groups have been made, based on the data which was obtained.

The tests also show the best methods of box construction. The experts say that one of the most striking things brought out was the inadequacy of the ordinary methods of nailing up boxes. The number of nails used and the way they are put in are important. One nail more to the side of a box will give it a great deal more strength than might be thought. The nails should not be driven too deep into the wood. In many cases, it is said, proper nailing will allow a reduction of the amount of lumber used without any decrease in the value of the box. Boxes with cleated ends were found to be much stronger than those without cleats.

As a result of the tests made at the Forest Products Laboratory, tentative specifications for boxes used in shipment of canned goods have been drawn up and submitted to the various parties interested, for discussion.

A MAP SO CLEAR

Under the title "A Map So Clear," C. C. Chapman in the August 12 number of the Oregon Voter has the following to say concerning Robert B. Gould's map of the Deschutes valley.

"Every man has his weakness. Some men like old coins; some like any kind of coin; some like trim ankles, a rather general hobby; some like golf. I confess to a love of maps.

"How fond I am of pouring over a map, plat or diagram. If it is a big one, I put it on the floor, crawl over it and stick colored pins in it to mark points of surpassing interest. I revel in blueprints, gloat over contour and play truant to get at a typographic plat.

"Hence my enthusiasm over a big map just completed by Robert B. Gould, civil engineer living at Bend, Oregon.

"Mr. Gould's map delights the eye. It displays a great region with graphic simplicity. To look at it, you can travel its roads and trails, explore its forests and scale the dizzy pinnacles of its picturesque mountain ranges. You can find the homesteader on the frontier, the shepherd in the hills and the old ranch house down in the canyon. The ditch of the irrigator, the rock rims of sagebrush plains, the swamps where Indians hunted fowl and plucked roots, the lakes which today are the homes of the swan and the pelican; all are before you.

"Technically, the map is a marvel of accuracy. I know the country it displays; I know the other maps which have recorded its contour in whole and in part, and can vouch for its unusual accuracy. No one who has any interest in that region of resources can afford to be without Gould's map.

"I forgot to say what this is a map of. It is a map of the Deschutes valley, south of and above the abyssal canyon up which tiny trains crawl along the railroads built five years ago from the Columbia to Central Oregon. The map shows the widespread valley, from the Agency Plains on the north, near Madras, south through the irrigated country around Redmond, east including Prineville and the Crooked River valley, southeast across the timbered Bend country to and including the Silver Lake valley; southwest through the forests across the Deschutes divide into the Klamath country; west to the summits of the Cascade Mountain range; a scope of 7,000 square miles of an interesting area as lies under the bright sunshine.

"The map is 5x7 feet (not inches) shows 3,000 miles of country road, all the existing and officially projected irrigation projects, the power transmission lines, railroad locations, reservoirs, lava beds, ice caves, those gems of mountain lakes which dot the region, game preserves, tumbling, crystal mountain streams—but I'm getting enthusiastic again."

Four chairs at your service at the Metropolitan. No waiting.—Adv.

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For farm land loans see J. Ryan service.—Adv.

For sign painting see Edwards.—Adv.

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ELECTING A PRESIDENT



Jackson Defeats Adams in 1828 Election.

THE Democrats nominated Andrew Jackson of Tennessee in 1828, and John Quincy Adams again opposed him. The election occurred on Nov. 4, and the vote, counted on Feb. 11, 1829, was: Jackson, 178; Adams, 83. Calhoun was elected vice president. The popular vote that year was: Jackson, 647,231; Adams, 509,007.

Jackson was again elected in 1832. The first national convention was held that year, and the platform was adopted setting forth the policies of the Democratic party.

Jackson was renominated and was opposed by Henry Clay of Kentucky. The vote was: Jackson, 219; Clay, 49. Popular vote: Jackson, 687,592; Clay, 530,189. Van Buren was elected vice president.

(Watch for the election of Van Buren in 1836 in our next issue.)

LODGE DIRECTORY

A. F. & A. M.—Meets second and fourth Thursday nights at 8 o'clock. Masonic Hall. J. D. Davidson, Secretary. Visiting Members Welcome.

R. A. M.—Meets first and third Friday nights at 8 o'clock. Masonic Hall. Visiting Members Welcome.

O. E. S.—Meets second and fourth Monday nights at 8 o'clock. Masonic Hall. Mrs. C. M. McKay, Sec. Visiting Members Welcome.

M. W. A.—Meets first and third Tuesday nights at 8 o'clock. Sather's Hall. E. E. Hanna, Clerk. Visiting Neighbors Welcome.

K. of P.—Deschutes Lodge No. 103. Meets every Wednesday night at 8 o'clock. Sather's Hall. Visiting Members are Welcomed. L. M. McReynolds, K. or R. & S.

I. O. O. F.—Bend Lodge No. 218. Meets every Monday night at 8 o'clock Sather's Hall. Visiting Members Welcome. H. I. McKim, N. G. N. P. Weider, Secretary.

D. of R.—Bend Lodge No. 208. Meets second and fourth Friday nights at 8 o'clock. Sather's Hall. Visiting Members Welcome. Mrs. Ethel M. Fleming, Secretary.

T. F. B.—Meets first and third Friday nights at 8 o'clock. Sather's Hall. Visiting Members invited to Attend. C. W. Thornthwaite, Sec.

F. O. E.—Deschutes Aerie No. 2043. Meets every Thursday at 8 o'clock. Sather's Hall. Visitors always Welcome. Chas. W. Erskine, Secretary.

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TO HOLD EXAMINATION.
The U. S. Civil Service Commission announces that a forest and field clerk examination will be held in this city on August 19, 1916, to fill vacancies as they may occur in the Forest and Reclamation Services. The usual entrance salary is \$1100 to \$1200 per annum. It is possible that vacancies in the Reclamation Service may also be filled from this examination at \$900 and \$1000 per

annum. Applications will not be accepted from persons who do not show that they have had at least one year's actual experience in clerical work in a business office. A knowledge of stenography, typewriting and bookkeeping is required. Both men and women will be admitted to this examination, but men only, between the ages of 18 and 40 years, will be employed as forest clerks. The age limits are 18 years or over on the

day of examination. Persons who desire to enter the examination should apply to the Local Secretary, Board of Civil Service Examiners, at the post office, this city or to the Secretary, Elvetham Civil Service District, 303 post office building, Seattle, Washington, for application blank, Form 1371 and information for applicants.

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LAW SCHOOL

A LAW SCHOOL will be opened in Bend about September 1, 1916, by Grant M. Raymond, LL. B., and Arthur J. Moore, LL. B. The school will be a night school, for the benefit of those who are otherwise engaged during the day.

Applications for admission are now being received at the law office of Raymond & Moore, on Bond street. Tuition will be within the reach of all.

The regular law course as prescribed by the leading law schools of the country will be adopted. Upon completion of the course graduates will be eligible for admission to practice law in the State of Oregon upon passing the State Bar Examination.

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