

# Home Building Time

Let us show you our Book of Building ideas--plans of the latest design, modern and pleasing.

## WE FURNISH FREE

Completed Blue Prints, all necessary drawings for any kind of building furnished free to customers. Expert architects do our work.

## IF YOU ARE THINKING OF

Building a home, a silo, a barn or any other kind of structure, little or big, it will pay you to see us. We can give you

## YOUR OWN STYLE OF BUILDING

or assist you in planning. We are prepared to give you attractive figures on your material or furnish you the completed building.

## LET US HAND YOU THE KEY

after completing your job to your satisfaction, built to specifications by the National Builders Bureau of Chicago, Spokane.

**FARMERS--Housed machinery lasts three times longer; 12 to 24 per cent is the depreciation on farm machinery in the open, 3 to 12 per cent when housed.**

**COAL and WOOD--Fuel remains scarce and difficult to move. Let us have your order now in order to have it placed with our coming supply. Don't postpone, it may be too late if you wait till you need it.**

# Inland Empire Lumber Co.

H. M. STRAW, MGR.

"The Yard of Best Quality"

PHONE 331

# Geo. W. Elder

REAL ESTATE AGENCY

City Property, Farm Lands,

Irrigated Lands, Grazing Lands

The following are the best I have to offer in ranches

- 5645 Acres Stock Ranch, 300 acres irrigated, 200 acres in timothy and clover, 100 more to be seeded, water costs nothing, 1000 acres good plow land, 20 springs never freeze, most of the land has south exposure, 2000 acres summer range all fenced, neat buildings, house cost \$8000, other buildings to compare, 175 head cattle, 100 registered cows, PRINCE RUPER BLOOD. Will take \$50,000 in good property as part payment on this ranch. Price, \$35.00 per acre
- 1650 Acres, 450 acres summerfallow, 100 acres now in wheat, 450 acres to summerfallow, can farm 1000 acres of this ranch. 4 Room house, barn for 16 horses, water piped in house and barn, 30 horses, harness, wagons, Deering combine, three 3-bottom Oliver plows, rail road warehouse on ranch for shipping grain, a full line of farm machinery goes with the place. Price \$30.00 per acre including outfit.
- 748 Acre wheat and dairy farm, 14 miles west of Pendleton, \$3000 cash, balance 1-2 the crop delivered to the elevator until the land is paid for, near warehouse and on the Columbia highway. \$30 per acre.
- 1127 Acres 28 miles north of Pendleton, 400 acres summerfallow, purchaser pay for summerfallow and \$4000 cash, the balance 1-2 the crop delivered to the Elevator until land is paid. Price \$30 per acre, interest at 8 per cent.
- 400 Acres Irrigated land, 94 acres on the river bottom and the finest land in Oregon. Price for the entire tract \$100 per acre.
- I have Irrigated farms from 10 acres to 400, some very well improved, suitable for dairying, hog raising winter quarters for stock and in fact good enough for any purpose.
- I have several business blocks close to the center of the business portion of the city paying a splendid income and rented to responsible tenants, apartment house paying exceptionally large income on the investment, and can be had on very reasonable terms. I also have some fine farm leases to sell together with fine outfits. These owners have made money enough to retire for life.

## INSURANCE

I also represent the best Insurance Co's for Life, Fire, Accident, Health & Accident, Automobile, Bonding and growing crops.

BANK REFERENCE

George W. Elder

818 MAIN STREET, PENDLETON

Phone 993

## ALFALFA INVESTIGATIONS

(Continued from page one)

taken from the field before and after irrigation to ascertain the proper depth of water to be applied at each irrigation. It was found that the soil was capable of holding approximately an acre-inch of water in each acre-foot of soil so the applications have since been limited so far as possible to four acre-inches which wets the soil to a sufficient depth for plant roots. The duty of water per acre-foot is determined by dividing the tons of hay produced by the acre-feet of water applied. The results of this trial showed that slightly more hay could be produced by irrigating once a week than by irrigating once in two weeks but that the additional hay yield was not great enough to warrant the additional labor involved in irrigation and the additional water charge. The greatest return for the water used or in other words the highest duty of water per acre-foot was also secured on the plots irrigated once in two weeks. The production on the plot irrigated once in three weeks was so low that it would not be economical farming to irrigate at that long an interval.

### Border Irrigation

In the early years of irrigation on the Umatilla project furrow irrigation and wild flooding were generally used. The furrow method was undesirable in that the head of water was divided so that the loss from deep percolation below the root zone was excessive and it was difficult to reach the lower ends of the field. The wild flooding was unsatisfactory because parts of the fields were irrigated more than once and the higher portions were not irrigated. These objections were met and overcome by the border method because the head was not divided by using the method and so could be forced over the land quickly without excessive percolation loss. The duplication of irrigation was overcome by dikes which controlled the water and when a border is properly constructed there are no high spots which are difficult to irrigate.

By the border method of irrigation the land is laid out in strips from 20 to 40 feet wide and from 100 to 250 feet long, the size depending upon the type of soil and the slope of land lengthwise. The water is controlled from spreading too far sideways by dikes at right angles to the ditch. This method

has come into very general use on the Umatilla project largely through the efforts of the Experiment Farm and the local representative of the Office of Demonstrations on Reclamation Projects of the United States Department of Agriculture. At present 25 to 30 percent of all the land is laid out under the border method and 90 percent of the new land is employing it. Its use is rapidly spreading to the other light soil projects of the Columbia Basin as a result of the unusual success secured on the Umatilla. The advantages of the system are that it is a comparatively economical means of preparing land for irrigation originally, that economical applications of water may be made with it, that the distribution of water is uniform and the labor of irrigation is greatly reduced as compared with the flooding or furrow methods.

The border method work being done by the Experiment Farm with alfalfa consists of length and width of border experiments. The length-of-border experiment has borders 100, 175 and 250 feet long and 22 feet wide and the width of border experiment has borders 20, 25, 30, 35 and 40 feet wide and 200 feet long.

The average amount of water used on the length-of-border experiments was only slightly more on the 175 foot border than on the 100 foot border but considerably more water was required to irrigate the 250 foot border than the 175 foot one. Only .68 acre-foot per acre required to irrigate the extra 75 feet which the 175 foot border was longer than the 100 foot border but the extra 75 feet of the 250 foot border over the 175 foot border required 2.25 acre-feet per acre.

On the width of border experiment the amount of water as acre-feet per acre required to irrigate the 20 and 25 foot borders was equal and the 30 foot border did not require excessive amounts but the 35 and 40 foot borders required more water than consistent with good irrigation practice. The amount of water required for the single application was in the same proportion as the total amount of water required. The optimum size of border must be governed by the type of soil, the slope of land and by the head of water available. In other words each piece of land has its peculiar problems and the way it is to be laid out will depend upon these factors but the above results as to size should be kept in mind.