

toward the north. These hills are celebrated as among the finest wheat-fields of the valley. They rear their oval crests from the middle of the plain, and present a very picturesque appearance when seen from a distance. In places they are heavily timbered with fir and oak, which adds much to their attractiveness. From the summit of the highest of these hills I had a grand and comprehensive view of the valley, and the mountains in the distance. To the west a most beautiful and highly cultivated basin is spread out like a magnificent painting, dotted here and there with farm-houses and villages, grass plats, meadows, fields and wooded plateaus. The course of numerous streams is easily traced by the timber which grows upon their banks. The line of the west side railroad is distinctly seen. The coast range of mountains forms a dark background to the picture. Turning now to the east the view is more varied, but none the less interesting. At our feet rolls the "Beautiful Willamette," made famous in history and song. On its eastern bank stands Salem in all its mo-dest beauty, and further on, other towns are seen more or less distinctly, as they are more or less distant. In that direction the valley is alternately wooded and prairie, making a picture of fine relief. In the background, rise the noble Cascades, with their mighty peaks all in view. To the southeast dimly marked in the distance, rise the "Three Sisters." Nearer is Mount Jefferson, more than 10,000 feet high. Next comes Mount Hood, that grand old captain of the range, looking sublime and majestic in its clerical mantle of white, 12,225 feet high, his crest glittering in the sunshine, a shining gem against the blue background of a cloudless sky. Turning further to the north mountains St. Helens, Adams and Ranier, all shining, snowy peaks, pierce the sky in the dim distance, the last one, one hundred and fifty miles away, as the crow flies, all forming a picture to gladden the heart, and inspire the lovers of nature. There is life in such views as these.

C. B. WATSON.

Returns made by the Surveyor General's office show that during the past year over 4,000,000 acres of land have been surveyed in this state. This is about twice as much as has ever been surveyed in any previous year.

#### A MODEL STOCK FARM IN EASTERN OREGON OR WASHINGTON.

BY REV. G. H. ATKINSON.

##### ITS AREA.

An Iowa gentleman wrote, asking where he could best buy a stock farm, or land for one east of the Cascades? He aimed to buy land for fields and pastures, and to put the whole within fences. His plan was to raise food for stock. On inquiry for such land in Wasco county, a sheep owner, said, "we have no stock farms here. They are eaten out. The natural grasses are gone from large sections." He meant to say, there are no stock ranges left in northern Wasco. When reminded that the proposed buyer wished to make a stock farm, like those in Illinois and Iowa, he saw that such farms or lands could be found and probably purchased in that locality. They can be of any size, according to a man's ability to pay first cost and cultivate and stock them. They will be limited probably to a quarter section, or half section, whole section, or two or three sections. The smaller and most thoroughly tilled and enriched will prove the most profitable.

**SPECIAL RESOURCES OF THAT SECTION.**  
Natural grasses are signs. The bunch grass excels tame grasses in nutrient qualities. It fattens stock most rapidly, and retains its edible value, when cured in the pasture. Were its seed gathered and sown on its native soil, like other seed in well tilled fields, its growth would be luxuriant and its crop the best for wintering stock. Cultivated fields of it would make the finest pastures, if guarded against over feeding.

##### WILD RYE GRASS.

This plant grows rank in the upper Columbia basin, and proves to be the most luxuriant and edible for stock, when sown like other grain in cultivated fields. It stools thick, covers the ground, gives a finer and more tender blades and it is eagerly sought by cattle, sheep and horses. Fields of cultivated wild rye in the Atahnum valley Yakima county, in May last were greener and more thrifty than wheat or oats. These two indigenous grasses that have been the staple food of hundreds of thousands of cattle, horses and sheep, for the past score of years, and have made that region the paradise of stock raisers and buyers,

##### ought to be preserved.

Native grasses of known excellence are to be preferred above exotics.

##### QUESTION OF THEIR REPRODUCTION.

A stock raiser in the Ocheco valley said two years ago: "Our great want is a permanent grass. The man who will find one to restore our pasture lands, will deserve a rich reward." The reply was: "Why not restore the bunch grass, which your vast herds have eaten off?" This grass is perennial by root and seed propagation. It lives and thrives under the sage brush and when out of the reach of hungry cattle. If enclosed with fences, it will reproduce itself, and cover the ground with nutritious food as in former years. A stock farm in the bunch grass country has the great advantage of preserving or restoring and perpetuating that grass. In like manner rye grass seed can be sown on cultivated land and made to produce more and better fodder than in its natural state. Probably one acre of cultivated native grasses will give four times the product of the same acre untilled.

##### TAME GRASSES—CORN AND ROOTS.

In fields far from transportation, wheat, rye and oats are made into hay. Their rank growth makes cheap and rich fodder. Timothy is seen less frequently in the Upper Columbia basin. Alfalfa proves a success in the bottom lands along the streams; it will probably grow on the high plains, where wheat and oats never fail. Clover, its next of kin, finds here all the needed elements of growth. Peas and beans supply a large per cent. of food for stock. Corn planted for fodder has proved to be a good crop. Vegetables thrive on the high prairies, potatoes, turnips carrots and beets can be easily raised on any part of the bunch-grass and sage brush land. Such crops planted before or after wheat in rotation, save the loss of the fallow year, its crop of weeds, and aid the decomposition of the soils, whilst they add a large per cent. to their productive fertility. They also furnish large harvests of food to supply the demand for winter and spring, and keep up the growth and vigor of animals. Their uses in England and Scotland have made the stock of those countries superior, and their farms model ones for a century.

##### FERTILIZERS.

It is known the world over that soils must be enriched to the same extent