more dry weather than any land I ever saw."

By and by they sowed their lands to grass, engaged in stock raising, became rich, moved to town, or otherwise retired from business, and rented their farms. The rapid filling up of the western states advanced the price of land, and more rapidly in recent years, now that there is no further agricultural west watered by the rains from heaven.

These old farmers, as a rule, read few agricultural papers. Many of them read Horace Greeley in the Tribune and Orange Judd in the old American Agriculturist, and beyond these they had little faith in farm papers. These two men were in their day worthy of their confidence. This former generation in their retirement cannot understand why their sons, or their tenants, cannot make money as rapidly and as easily as they did, and are sometimes inclined to lament over the degeneracy of the times. They forget that they themselves were not to any great extent creators of values, and that the present occupants of their farms must create values not by the use of stored fertility, nor by the advance of land, but by producing the actual stuff. For the farm is essentially a factory, and the increase in wealth from the rise in value of the factory is a very different thing from the increased production of the factory itself.

The modern farmer, if he is to succeed, must be a student, must understand the nature of the soil, the laws governing the movement of water in the soil, and the laws governing the development of plant life. He must know more of the laws of heredity than his father did, and must understand the nutritive value of foods and their adaptation to different kinds of animals. To achieve equal success, he must be a great deal broader man than his father, and the hands that he hires must be of greater ability and intelligence.

The young man must depend more and more on the use of improved machinery, and the man that uses machinery must have a higher intelligence or his employment will be unprofitable to his employer and eventually to himself. The problems of feeding are much more difficult now than they were thirty years ago. It required no very high degree of skill to buy three-year-old steers, with frames fully grown and ready for fattening on what was a well-balanced ration for them; it requires a much higher degree of skill to fatten the yearling or two-year-old by providing grain ration adapted to the development of muscle, and at the same time interlarding it. The young man will need to have sharper eyes, to do more thinking, to read better agricultural papers, to study books on agriculture, to get a firm grasp on the underlying principles, and acquire the skill to apply them properly to the conditions and circumstances by which he is surrounded.

We have great honor for the hoary head. We know that the man who has farmed under any circumstances for thirty years has acquired a great store of practical common sense; nevertheless, we are disposed to take the young man's part, at least so far as to recognize the peculiar wants which he must meet and solve if he is to farm with success. The next generation will find the problems still more difficult; hence, the need of keeping eyes and ears open to acquire the sort of agricultural education that will fit him to meet the intricate problems as they occur from year to year.—Wallace's Farmer.

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Owing to delay in making some engravings of poultry-house plans, to accompany the second article of H. L. Blanchard, we are obliged to omit the same until our next issue.

## HORTICULTURIST'S REPORT.

The report of Horticultural Commissioner Baker, presented to the governor, is notable for its briefness, occupying only five typewritten pages. He says:

"The industries over which this office exercises a supervision have increased phenomenally in the past four years. Probably a million fruit trees will be planted in the state during the present season; three-fourths of a million more than were planted last year, and nearly a million in the two years preceding, making for the four years a total of two and three-fourths million trees planted in the state, nearly doubling the acreage planted previous to this time, from which it may be seen that fruit growing is fast becoming one of the leading industries of the state, its capacity for which is unexcelled by any in the Union.

"In view of the fact that the formative period of this office has been passed, I would respectfully recommend that the sum of $600 annually be appropriated for clerk hire, which would enable the commissioner to devote more time to the work in the field Nearly every county in the state should be visited by him at least once a year and the difficulties of horticulture, etc., fully ascertained. To accomplish this he should be relieved of the clerical work which he now of necessity performs, and a sufficient appropriation be made to meet the incidental and traveling expenses of the office, for which $1000 per annum would be necessary.

"Attached to this office is a horticultural exhibit in liquid solution, a portion of which was prepared for the Chicago World's Fair. The original expense of this exhibit was quite large—probably several thousand dollars. It is of value to the state to be able to show its capabilities in this direction. A large portion of this exhibit now requires renewal, which could be done, restoring the exhibit to its original value, by an appropriation of $250 annually, which I respectfully recommend.

"Some complaint has been made by nurserymen licensed to do business in this state that it is unfair to exact a bond from them, while none is exacted from the county inspectors, to whom authority is given to destroy their goods in extreme cases of dangerous infection. The inspectors would no doubt cheerfully give a bond for the sum of $1,000 for the faithful observance of the horticultural law and so silence the complaint.

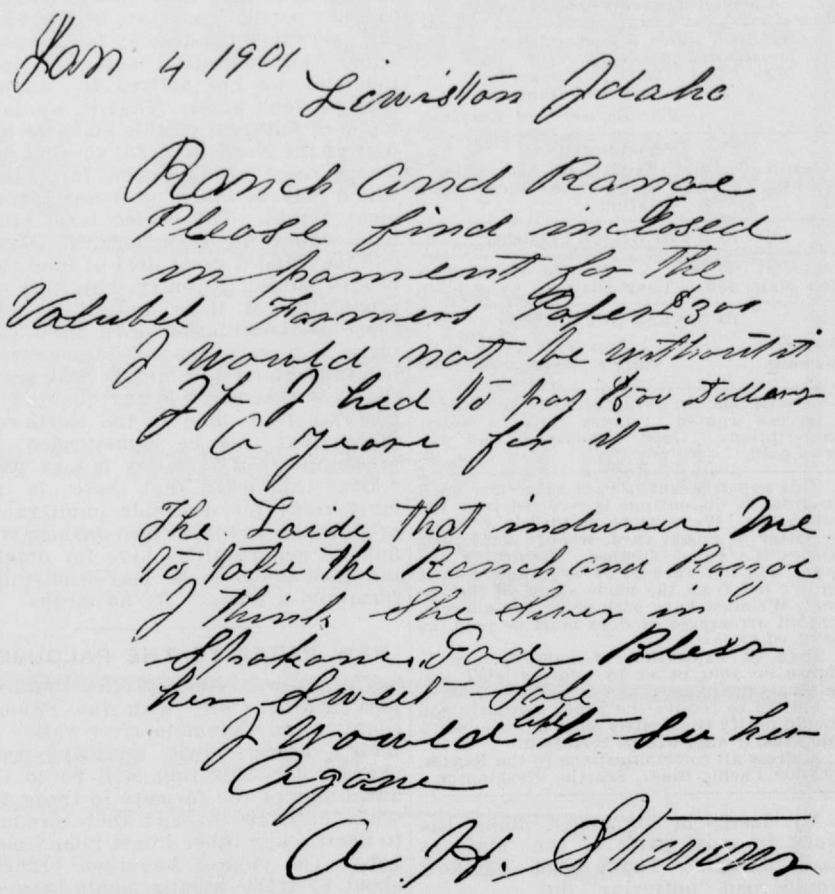
"It is of the highest importance that the work done by the county inspectors be of the best character obtainable. The service would be benefited by giving authority to this office to detail a county inspector from a strong horticultural county to a weaker one, temporarily without an inspector, to meet the emergency; the service performed to be paid by the county wherein it is rendered.

"It is noticeable that the counties horticulturally weak suffer under the present law, as in the strong counties the inspectors are allowed necessary expenses by their county commissioners, which is not always the case in the weaker counties. For this reason it cannot be absolutely depended upon that an inspector will leave his own work to attend to that of the public when his expenses in doing it will amount to quite a large sum, in which he is not reimbursed. Nor is the per diem pay of $2.50 sufficient to secure the best service, and I would respectfully recommend that the pay of county inspectors be made $3 per day while actually employed, and necessary expenses in the performance of their duties.

"It would be of great advantage to the fruit industry of this state if an appropriation be made to defray the expenses of a fruit exhibit at the Pan-American exposition to be held at Buffalo, N. Y., this season. This is the center of the fruit belt of the Eastern states, and the most important and extensive fruit display ever made in the United States, or perhaps in the world, will be made there. The natural advantages possessed by the state of Washington for the fruit industry should be shown as, for beauty of appearance and extreme high quality, it commands prices which enables our orchardists to ship it across the continent to the great Eastern cities, this industry, under intelligent management, is capable of great expansion, and the opportunities offered by this display should not be neglected.

## A TESTIMONIAL THAT IS.

This letter reached our subscription department the other day:




## SOME INTERESTING CROP FIGURES.

The statistician of the department of agriculture estimates the United States wheat crop of 1900 at 522,229,505 bushels, the area actually harvested being 42,495,385 acres, and the average yield per acre 12.29 bushels, as stated by the Farmers' Voice. The figures for 1899 were: Yield, 547,303,846 bushels (25,000,000 more than in 1900, in round figures); acreage, 44,592,516; average per acre, 12.3 bushels, thus showing that the reduced yield was owing largely to a reduction in acreage. It indicates, too, how the extension of the "wheat belt" has made a fair total yield secure, the heavy losses sustained in the Dakotas and Minnesota during the past season being almost covered by the generous yields of other sections. The production of winter wheat is estimated at 350,025,409 bushels and that of spring wheat at 172,204,096 bushels, the area actually harvested being 26,235,897 acres in the former case and 16,259,488 acres in the latter. The winter wheat acreage totally abandoned in Ohio, Michigan, Indiana and Illinois is finally placed at 3,522,787 acres and the spring wheat acreage totally abandoned in North Dakota and South Dakota at 1,793,467 acres.

Concerning the outlook for winter wheat, the statistician estimates the total acreage sown at 30,282,564, an increase over the figures given for the 1900 acreage; but this increase is only apparent in the figures, there being an actual decrease in the acreage sown to winter wheat at the present time as compared with one year ago. This discrepancy is occasioned by the fact that 590,575 acres of Nebraska's wheat area has been transferred from spring to winter wheat, a fact not known to the department when the figures for 1900 were published. A comparison of the newly seeded acreage with that of the fall of 1899 shows that of the eleven states and territories that sowed 1,000,000 acres and upward with winter wheat one year ago Pennsylvania, Missouri, Kansas, California and Oklahoma report an increase amounting to 971,704 acres, and Ohio, Michigan, Indiana, Illinois, Texas and Tennessee a decrease of 1,780,191 acres. The average condition of the growing crop on December 1 was 97.1 per cent of the normal. There are many complaints of the Hessian fly, but the low-condition figures reported from Ohio, Michigan, Kentucky and Tennessee—86.80, 87 and 84, respectively—are fully offset by the exceptionally high condition reported from Kansas, Missouri, California, Oklahoma and other states, in all of which it is above normal.

The following table shows the comparative yields in products named for the years 1899 and 1900, as estimated by the statistician:

| Product— | 1899. | 1900. |
|---|---|---|
| Corn, bu.... | 2,078,143,933 | 2,105,102,516 |
| Oats, bu..... | 786,177,713 | 809,125,989 |
| Rye, bu..... | 23,961,741 | 23,995,927 |
| Barley, bu.. | 73,381,563 | 58,925,833 |
| Buckw't, bu. | 11,094,473 | 9,566,966 |
| Potatoes, bu. | 228,783,232 | 210,926,897 |
| Hay, tons... | 56,655,756 | 50,110,906 |

The area from which these crops were gathered was as follows, in acres: Corn, 83,320,872; oats, 27,364,795; barley, 2,894,282; rye, 1,591,326; buckwheat, 637,930; potatoes, 2,611,054, and hay, 39,132,890.

The corn crop of 1900 was one of the four largest ever gathered while the oat crop has only once been exceeded. On the other hand, the barley and rye crops are the smallest, with one exception in each case, since 1887; the buckwheat crop is the smallest since 1883, and the hay crop the smallest, with one exception, since 1888.