

recognized by the people who saw them; and Paul's teachings on the resurrection confirm this view. But it is also indicated that there is a difference. In this life, to some extent, a morally deformed being can hide the deformity under pleasant physical features. Respectability can be affected where none exists. This is impossible on the other side. Death certainly tears the mask from the countenances of men and women and they appear in their true nature, reflecting that which is within. And therefore the ancient Prophet, speaking of the resurrection, truly observes: "Many of them that sleep in the dust of the earth shall awake, some to everlasting life, and some to shame and everlasting contempt." How can it be otherwise when the outward appearance is (as is imperfectly the case in this life) a true counterpart of the inward nature?

FROM THE FRUIT TREE INSPECTOR.

After a trip through the middle and southern part of the county, it is apparent to me that the borers in peach, plum and cherry trees will do considerable damage where they are not attended to, especially so in nupper Mill Creek, Cottonwood, Granite and Draper districts. The black or cherry aphid is very severe on young cherry trees this year, especially southeast of Union and in the Big Cottonwood district. The pear and cherry slug is also now coming along strongly, and so is the plum aphid in many localities, also the hop vine louse. Now we have four main remedies which, if properly applied, will stay or mitigate nearly all these troubles. First, paris green and lime for all larvae and worms; second, boardman mixture for all blight and mildew; third, kerosine emulsion for all lice and sap suckers; fourth, tobacco or nicotine water for lice and aphids on such delicate plants that won't stand the kerosine emulsion strong enough to kill the insects.

Now, if people will only try to understand and apply the proper remedies in the right time, half the battle is over; but as long as a person will insist on applying paris green or boardman mixture to the aphid or red spider, and turn around and swear that spraying is no good because he had tried it and knows it is no good (though he made it so strong that he took all the leaves off his trees), or on the other hand a man sprays with kerosine emulsion for the leaf blight and of course failed, and so the misuse and wrong application of the mixtures is continued and a failure results, and swearing and hard feeling is the result.

Now, would any man expect a crop of wool off a lot of coyotes, supposing he did not know the difference between sheep and coyotes and he by mistake raised a crop of coyotes instead of sheep. Or would any man put his hat on his feet for shoes and not expect soon to be barefooted and also without a hat. So is the misuse and misapplication of spraying measures, to say nothing of the man that locks the stable door when the steed is gone, or starts to spray when his crop is totally destroyed.

Respectfully yours,

JOHN P. SORESENSEN,
County Fruit Tree Inspector.

The case of Joel J. Hurt, the Wyoming cattle man, who demands the custody of his three little girls, now held by Mrs. Alfonso Schaefer, formerly Mrs. Hurt, came up in Judge Ogden's court, Los Angeles, Cal., Friday. Both Hurt and Schaefer were present and each carried a revolver. They were disarmed by Sheriff White. The mother was granted until next Wednesday to procure evidence from the court records of Wyoming and Colorado to offset Hurt's charges against her.

COMMENTS ON THE AGRICULTURE OF THE STATE.

Note:—This article was written during the fall of 1896, as the result of a trip over the State in connection with the Farmers' Institute work during the summer of 1896. It was reserved for the Institute Annual but other matter crowded it out. It is believed, however, that it contains matter that would be of value to our agriculturists, and is as applicable today as a year and a half ago when written.

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Observations made in various parts of the State point to the methods pursued by some of our farmers. My object in writing is to show a few dangers that threaten and how the same may be avoided. After having visited the major portion of the best farming districts of the State and observed things from the standpoint of an agricultural student, I wish to present a few thoughts along the line of those observations. In presenting one phase of these thoughts it seems to be wise to go back somewhat to the origin of things, and give a reason for the points that will be presented and to follow out the same in logical order.

No person who has traveled through and over the mountain ridges of the State but has, or may have observed the gradual disintegration of the rocks which ultimately form the soil of the valleys. The weathering effects of rain and snow, of heat and cold, have been gradually, and for ages been pulverizing the surface of the mountains, and the floods of spring and summer have carried down the decomposed rocks and spread them over the valley. Undoubtedly the major portion of this filling between the mountains has been sedimentary, yet no one who witnessed the effects of the cloud-bursts of recent years could fail to recognize them as important agencies in the work, especially in forming the surface soil in many places.

For the most part the mountains of the State are devoid of timber and vegetable growth owing to the slight rain fall. As a rule it is only in small and secluded gulches, where the drifted snows of winter furnish a fountain of life for summer growth, or beside the mountain-fed streams which wind their way down the canyons, do we find anything approaching the timbered areas of humid regions, and then it is naught but an approach. It is thus evident that our soils contain a mixture of mineral with a minimum of vegetable matter. How different this from the Atlantic states, where once stood "the forest primeval," with the ground covered with vegetable mould, or again on the vast plains of the central west where the growing grass furnish for ages, but the bison, sustenance, and gave a deep, rich, black soil full of organic matter.

The disintegration of the rocks do not cease when the crumbling particles are carried down into the valley. The forces of nature are yet at work changing its physical and chemical properties. The insoluble forms break up one upon another forming new compounds; nature's great laboratory is ever at work and change, not rest is the natural order of things. Yes and what mighty forces she has at work; man is at best but a poor and weak imitator and follower.

In those regions which have an abundant rainfall the dissolved soil ingredients are quickly carried off, percolating down through the soil and finally finding its way to the ocean. In arid regions where the rain fall is not sufficient to dissolve and carry off the

salts formed, they accumulate in the sub-soil. This accumulation of salt is not uncommon throughout the state, but I noticed it most markedly in the southern counties. With a light irrigation which is not sufficient to wash the soil, the rapid evaporation of water from the surface which the large amount of sunshine in our climate induces, these salts tend to come to the surface, accumulate there and kill vegetation. Evidences of this trouble were apparent in some of the older settled districts in the southern part of the State. Full details and explanations of this difficulty are given in the California station report for 1894-5 and in the year book of the department of agriculture, Washington, D. C., for the year 1895. The latter may be obtained by applying to either of the senators, or to the representative from Utah at Congress.

The various salt lakes, ponds and marshes in the valleys of the arid region which for ages have flowed into these places carrying with them the dissolved salts of the rocks and soil. The only outlet has been by evaporation which has carried off the water, but left the salts which have accumulated in the remaining water. In some places concentration of the salts have continued until part of them have been precipitated. This is seen every year in many marshy places where the evaporation of water leaves a white coat of alkali or salt on the surface.

Plants get their sustenance mainly from three sources—their mineral matter from the soil—the disintegrated rock—their nitrogenous matter (which in animal produces lean meat, the curd of milk and the white of egg; sometimes popularly called flesh formers) from the soil, mainly from rotting vegetation, and the woody fiber, arotesof rtimes starch, sugar fat, etc., from the air. The latter is everywhere abundant; our soils contain an abundance and in some places a superabundance of mineral matter, and the only likely deficiency is in the vegetable or nitrogenous matter.

The method of cropping followed by most of the farmers of the State is exclusive grain growing, mainly of the cereal kinds, and frequently the same kind of grain crop has been grown for years on the same land. When land has been seeded to lucern it has been allowed to stand as long as a fair cutting could be obtained. The effect of this has been to materially impair the fertility of the soil. Many old settlers with whom I conversed bore testimony to the fact that as large crops could not be grown now as were grown, ten, fifteen, or twenty years ago. Some ingredient which the plant require from the soil to attain a maximum of growth has been too largely drawn upon by repeated cropping, and with difficulty in getting the proper food supply comes a decreased growth of the crop.

Another result that has followed from this system, or rather lack of system in farming, has been an increase in the weed crop. Weeds, like the grain crop raised upon the farm, have particular habits of growth and with certain crops certain weeds attain a maximum of development. Again a lack of thorough cultivation is an opening for other weeds to develop and take possession of the soil.

The native weeds of Utah, that are troublesome, are few in number. I heard of but five or six and these appeared to be but locally troublesome. The imported weeds, however, make a very long list, and many of them are found quite abundant from Lewiston to Kanab. I made a note of the weeds which I observed in the various places, but having no "key" with me some four to six kinds which I recognized as imported weeds I could not name.