

Indian settlement in America was in the autumn of its life—the decay of its civilization—at the time Columbus came; that its population was dying out, and its previously greater number accords with the theory of high antiquity. He also declares that in the beginning of settlement the Indians spoke but one language, and that as they drifted away the hundred new languages were developed by the processes of centuries. Closing his first article on the discussion of this subject of Indian antiquity, Dr. Wilson says:

It is an accepted anthropological and ethnological fact, that the older a race is, the more deep-seated and permanently fixed become the traits of character in its people. This carries with it the correlative proposition that the more fixed and permanent are the characteristics of a race, the higher evidence do they become of the antiquity of that race. Applying this rule to the American Indians, we find that their types and animal characteristics are very persistent, probably more so than either the white, yellow, or black races; and that this extends to the mental, moral and sociologic traits as well as to the physical. Why is the wild Indian harder to tame than any other animal? It can only be accounted for on two theories: one is, greater natural and original individuality, independence, self-reliance, higher desire for liberty—if you please, the liberty of a savage,—his firmness and determination to conquer all obstacles in the way of obtaining that desire; or (2), that it is the result of the persistence produced by a long life through many generations, running back into high antiquity in the condition of savagery which has produced this intellectual, moral and sociologic state. Possibly, it may be a combination of the two, and that the latter has produced the former. But in any event, the fact remains, that the American Indian has greater fixity of type and characteristics than has any other race, and that this indicates, if it does not prove, the long-continued and persistent exercise of the conditions which produce these characteristics, and so his high antiquity.

ABOUT SPRAYING TREES.

The NEWS has received the following communication from Ogden, on the subject of spraying fruit trees:

Mr. Editor:—Please read, on page 3, of the apple pest. Now, when a man undertakes to work for the public, let him understand his business, and give proof that he does, before trying to force the people to spray their fruit trees, and not receive large salaries from the State for what he cannot prove to be of any good. Spraying does no good. It only kills or scalds the leaves of the trees, and spoils the sale of the fruit. A great many people are cutting down their trees sooner than be forced to spray. The best thing to do is to keep the ground clean.

RICHARD L. STEVENS.

The article which our correspondent requests to be read appears in the American Agriculturist under the title, "A Dreaded Pest of the Apple." We quote it in full:

The apple maggot, or railroad worm, is a serious pest that is rapidly spreading from the East to the West. The mature insect is a fly, which cannot readily be poisoned, and it is supposed that the eggs which produce the maggots are deposited by the flies in the pulp of the apple beneath the skin, so that the

young maggots are secure within the fruit, from the time the eggs are laid until they are mature and emerge from the apple and go into the ground. The maggot is very small, and honeycombs the fruit without material injury to the skin or exterior appearance, but causes streaks of rot in the flesh of the fruit, that are very repugnant to the consumer. The soil beneath infected trees was examined at the Rhode Island experiment station last fall (bulletin 37, L. F. Kinney), and the number of maggots that were secreted under different trees was estimated to be from 1,600 to over 12,000. When hens were penned under the trees, they worked faithfully and seemed to get enough food from the ground to sustain them during three or four days. It appeared as if few of the maggots were likely to be overlooked by the hens. It is probable that the apple maggots remain in the pupa state in the soil beneath the trees, in that latitude, from the time they leave the apple in the fall until the following spring, so that confining poultry in the orchard in the fall is the most practical treatment for this pest that can now be suggested. It is important to ascertain the distribution of the pest, and all who observe it will please report to us. Carefully feeding all windfalls or refuse apples to hogs or the stock is advised. Sheep, hogs and poultry should be kept in the orchard after haying, if not before. Clean culture is also advised. Spraying is no protection against this pest, because it does not affect the fly that lays the egg.

Our Ogden friend appears to regard the foregoing as conclusive evidence that "spraying does no good;" whereas, all that the article claims is that spraying is no protection against this particular pest. There is a suggestion that hens may be an effective enemy to the railroad worm, and this may be granted. But it does not follow that they destroy the codling moth, for they do not. Neither does it follow that because they are ineffective against a particular pest, they are "no good" in fighting others. The fact that spraying fruit trees does good in destroying many kinds of apple and other fruit pests is beyond the domain of theory; it is thoroughly demonstrated knowledge. There may be some question as to the most advisable time of spraying to catch all kinds of pests afflicted thereby, but there is none as to the fact that destructive insects on fruit trees fall victims to the spraying system. As to spraying spoiling the sale of apples, the evidence of the sprayed fruit controverts the claim. And people who cut down fruit trees rather than spray them simply do not value the fruit tree to be more than the trouble of keeping it clear of such insects as spraying destroys.

Our correspondent suggests that the best thing to do is to keep the ground clean. We will not dispute this; for such cleanliness is an essential feature in destroying pests. But there are other things almost as good, and one of these is keeping the tree clean also. This is done by proper spraying, and in other ways. To allow either the ground or the tree to incubate injurious insects to accumulated rubbish is unwise. Both should receive attention.

It should not be forgotten that there are fruit pests that spraying does not kill, and others that it does. The railroad worm may be one of the former; but it is not the most serious pest in

Utah, and it is to be hoped will not extend its ravages here. The codling moth, woolly aphis, scale, and a score of other insects and fungi are operating here, and some of them are destroyed by spraying. Some require other means. All these means should be made available. The most urgent condition is that which requires spraying. The present law on that subject may need some amendment, but it should not be repealed.

A great trouble has been that tree inspectors do not enforce the law as it is, but add fads and schemes of their own to worry and trouble the people. This should be stopped. The horticultural interests of the State, either through a State board or by united action in all the counties, should be given a full, fair, intelligent enforcement of the present law, and there would be not only no room for complaint such as there now is, but every orchardist soon would realize the benefits available. But if the horticulturists of the State will not get together and act with unanimity in these matters, it is not reasonable to expect others to do so for them.

CLIMATE AND CHARACTER.

Not long since, a Kansas paper suggested that the special characteristics of western people which eastern papers affected to regard as ridiculous or as having a visionary tendency in politics and industrial matters was not a temporary "craze," to be overcome in time by the sentiments and manners of the East, but a permanent condition due in great measure to the climatic influences which prevailed west of the Mississippi, on the great Plains, in the Rocky Mountains and on the Pacific slope. This latter proposition has called forth still further ridicule. But the Detroit News-Tribune takes the Kansas assertion up and declares there is no joke about it—that there is not a particle of nonsense in the theory of climate to account for the difference of the views of life people have after they take up their residence beyond the Mississippi. It alleges as a solemn, well-authenticated fact that climatic conditions of the far East and the far West of this country are so different that the sections must produce widely different tempered people. It says the active consciousness of this remarkable climatic effect upon temperament and spirits and views of life long have been a phenomenon of western life; that the feeling of change is the most frequent topic of remark for the first year or two among people who remove to the dry climate of the transmississippi region; that no man ever removed from the East to spend a year on the Dakota plains without the suspicion that the air was heavily charged with nitrous oxide; that he is as conscious of the active exhilaration as he could be with the breathing of any intoxicant; and that it is simply impossible that the continuous contact with this environment should work no change upon the organism. It asserts that people neither think nor act in such a climate as they did when they breathed barrels of water daily in a changeful climate; that mental