

with which they worked at home. The handles were thinner, the iron-work was lighter, and they felt sure they could do more work with these convenient implements than with the heavy ones they had always used. It was as much by the unnecessary weight of the tools that their young muscles were fatigued, as by the labor itself. Uncle Benny noticed the same thing in these, and admired the wisdom of Mr. Allen in thus consulting the comfort of his boys by providing them with implements adapted to their strength.

"If," said the latter, "we are ever to make labor attractive to our sons, we must be careful not to disgust them with it, by requiring them to work with tools so heavy that strong men only can handle them without breaking down their weight. How absurd it would be to harness a man to a horse-rake, and expect him to rake up a hay-field with it. Yet half our farmers never take this matter into consideration, but act as if they thought a young boy could handle a clumsy hoe as comfortably as they do. I find it has paid me well to invest a few dollars in these light tools for the boys. They don't overtask their strength, and hence they can stand up to a full day's work without coming home so fatigued as to wish that no such thing as work had ever been invented."

The Spanglers followed their leaders out of the tool-house with evident reluctance. It seemed to have obtained a stronger hold on their affections than anything they had so far seen. The ownership of a jack-knife had at one time been all their modest ambition desired; then the possession of a tool-chest like Uncle Benny's would have gratified their utmost wishes; but having witnessed this profusely furnished establishment, their longings, like those of children of a larger growth, seemed to acquire intensity as the difficulty of gratification increased. That night they talked of tools until sleep overtook them in bed, and dreamed of them after it had closed their eyelids.

By this time it was so nearly sunset that Mr. Allen's great stock of poultry had congregated just in front of the company, knowing by instinct that, if bedtime were approaching, supper-time also must be close at hand. They knew well the young hands that fed them, and held up their heads in hungry expectation of the gorgeous meal they were to receive. But the feathered crowd was so much larger than it had been a few hours before, that the visitors paused to inspect it.

There were chickens of the best domestic breeds, with here and there an uncouth colossal Shanghai, standing up on great clumsy legs, like a gallinaceous giant, overtopping the squat figures of the common fowls. An irate hen, impatient of the expected corn, would now and then, with sudden peck at some quiet but equally hungry neighbor, seize a feather in the wing or neck of the unsuspecting waiter, and wring from her not only the feather, but a piercing cry. As this barbarous sport was constantly indulged in throughout the crowd, a loud clamor of pain and spite and impatience rose up from among the hungry assemblage. The turkeys stalked at random through its dense ranks, holding up their heads and looking round with a native gravity, although equally keen for supper, and once in a while plunging suddenly forward to escape the pinching lunge of an exasperated hen. Overhead, the pigeons sailed in a large flock, while many of them clustered on the roofs and eaves of the buildings which overhung the feeding-ground, too timid to battle with the turbulent and squalling crowd which now had it in possession, but ready to settle down whenever the gastronomic foray should begin. Altogether it was the busiest and noisiest scene of the kind the Spanglers had ever witnessed; nor did they know it was possible for Mr. Allen's farm to present it, so limited had been their opportunities of seeing even what their nearest neighbors were doing.

"How is it about eggs in winter?" inquired Uncle Benny, addressing himself to Mr. Allen. "Do you get any? Spangler has a brood of hens that appear to do nothing in cold weather but eat. They didn't lay an egg last winter."

"Ah, Uncle Benny," replied Mr. Allen, "he don't manage his hens the right way. Indeed, I don't know any operation of his that's carried on as it should be, though his farm is naturally as good as mine. It is management altogether that makes a farmer, and mismanagement that breaks him. Why, I sent eggs to market twice a week all through the winter, and eggs are high now, you know. I think they have more than paid for all the fowls have consumed—the boys have it down in their account-book, and could tell to a cent both how much feed has been eaten and how much money the eggs have brought. I don't allow

them to receive or lay out a cent without setting it down. If they buy a fishing pole or a Jew-harp it must go down in the book, for at the year's end, when they find they have spent so much money, they must be able to tell me and their mother how it was spent. You may think it a great deal of trouble to be so particular, and it was so to get them into it, but it is a kind of trouble that pays in the end. My boys thus learn early what they must learn some time, and what too many are never taught at all.

"Now," he continued, "others no doubt do better with their poultry in cold weather than myself. But my plan is to confine them in quarters that are roomy, airy, and kept as clean as a thorough cleaning once or twice a week can make them, with warm shelter from cold winds and rain. I am particular about letting them have only clean water to drink, and that always within reach. Then there is a full supply of broken oyster-shells, lime, and bone-dust, with ashes and gravel. All these are necessary to continue good health, and to keep off vermin.

Then, as to feeding, they get every green thing from the kitchen that most persons throw to the pigs, such as cabbage-leaves, celery parings and tops, with turnip and potato parings. They also have boiled potatoes and Indian meal, and every scrap of cold meat from the kitchen. It is not always there is meat enough, in which case I supply them with what is called chandlers' greaves, or cracklings, softened by soaking in water. Of this I give them as much as they want, never allowing them to be without meat of some description. I have often brought home a sheep's pluck, and after chopping it up fine, given it to them raw. They devour these things so greedily as to satisfy me that meat, or animal food of some kind, such as worms, grasshoppers, flies, and other insects, is necessary to the healthy life of poultry. At all events they never laid eggs regularly for me in cold weather until I began to give them plenty of meat."

"I regard your success as evidence of the soundness of your system of feeding," replied Uncle Benny.

"There is really a great deal of reason in it, when one looks into the subject," he resumed. "You see, Uncle Benny, that, when fowls range over the ground in summer, they pick up an almost endless variety of animal food, such as worms, crickets, grasshoppers, and flies. But as cold weather comes on, all this supply of food disappears, and it is very remarkable that as soon as the supply diminishes they begin to quit laying. When these rations are entirely cut off by severe winter weather, the supply of eggs ceases. The two results occur with so much uniformity as to satisfy me that the production of eggs is dependent on the supply of animal food.

"Every farmer," he added, "knows that hens do not lay in cold weather, but few understand the cause, or if they do, they are too careless to apply the remedy. I have learned to look upon a hen as a mere machine for manufacturing eggs. She may be likened to a sausage-stuffer. If you introduce into it no nicely seasoned compound of the proper materials, I wonder how it can be expected to turn out sausages? It is precisely so with a hen—if you expect her to turn out eggs, you must introduce into the wonderful machine which grinds up worms and sheep's pluck into eggs some assortment of the materials that will enable her to project them regularly every day.

"Now the machine will certainly work, if you keep up its energies by giving it such food as it needs. Our stoves require twice as much feeding in cold weather as they do in summer, and I never yet saw a grist mill that would turn out flour unless you put grain into the hopper. There is another curious fact which long practice in poultry raising has brought under my notice; that is, that eggs laid by a hen well supplied with animal food are not only larger in size, but richer in quality. My city storekeeper often tells me that my eggs are larger than any other winter-laid ones that he sees, and that they generally sell for a few cents more per dozen. All these odds and ends of pluck and giblets that my fowls get during the winter cost very little money. But in return for that outlay, look at the results—I really double the length of the laying season, adding the increase at the very time when eggs are scarce and bringing the highest prices. If it were not for this plan of feeding, I don't believe my poultry-keeping would pay much profit. To make poultry profitable you must exercise care. But can you make anything pay without careful management? If there be such things, I should like to know what they are."

"I think you have hit it this time also," observed Uncle Benny. "Whatever your hand touches seems to prosper."

"But most of these little variations from the practice of other farmers are not of my own originating," replied Mr. Allen. *I learned them principally from books and periodicals.* From them I obtained the whole formula of how to proceed. But a hint, Uncle Benny, is sufficient for an observing mind. Some which struck me as pointing to valuable results, I followed up and improved upon to the greatest advantage. Now I have a treasury of these things, which I will show you."

He led the whole company forward into the house, and ushered them into a room which he called the library. There were shelves covering two sides of a very capacious room, filled with books, periodicals, and newspapers. The old man glanced hastily at the titles, and found that there were works of history, biography, and travels, with at least thirty volumes of different agricultural publications, showing that Mr. Allen was a close student of whatever was passing in the agricultural world, keeping up from week to week with the wonderful progress which is everywhere witnessed in the art of tilling and improving the soil, and with the multitude of valuable suggestions and experiences which crowd the agricultural publications of our country. There were also pen and ink, paper, and an account book, always convenient for making an entry when in a hurry. On another table, especially provided for the boys, were similar conveniences. In short, the whole arrangements and appliances of the room were such as would make them attractive to boys who had the least fondness for reading, while they would be potent helpers to such as were ambitious of acquiring knowledge. They gave unmistakable indications of Mr. Allen's mind and taste, showing that within doors, as well as without, his ambition was to be progressive.

Uncle Benny looked round the comfortable room in silent admiration, and determined in his own mind that he would make renewed efforts to put within reach of the Spanglers some additional portion of the great volume of current knowledge adapted to their condition. Even they were struck with the cosiness of the quiet room, the two older ones contrasting it with the comfortless kitchen which was their only refuge at home.

"This is a popular place for a stormy day, Uncle Benny," observed Mr. Allen. "This and the work shop are great institutions on my farm. I am sometimes at a loss to know which the boys like best. But the variety, the change from one to the other, is a valuable incident of both. The work-shop is excellent by daylight, but here they can spend their evenings, and here the whole family can gather together. It becomes, in fact, the family fireside; and there is no school so important as that. My children learn much at school, but here they learn infinitely more."

(To be continued.)

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