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Subject —

"The Farmers Library."

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" , an abused art.

" , a scientific subject.

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Stock breeding, Works on.

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Although Farming is not one of the three learned professions, Theology, Law, or Medicine, it is, nevertheless, worthy of a place in this category. In various forms it has been the means, more or less directly, of man's support ever since his creation.

The art of gaining a subsistence by tilling the soil is so easily accomplished that farming has been made the refuge of all who have failed in other vocations of life. Once a farmer, always a farmer has been too much the custom. Farmers sons make farmers. Especially is this so of the uneducated. The prevailing idea has been, and to a great extent today is, that most any ignorant ~~could~~ be a successful farmer, but that a really bright person should enter a profession. Accordingly, those failing in other vocations have flocked to the farm till the farmers ranks have been filled with men who are no more suited to a progressive farm life than they are to the presidents chair.

Not another art is practiced by man

which involves a greater variety of operations, or involves a greater number of scientific principles than farming. Yet almost any of them is regarded as far more scientific and technical. Even shoemakers are apprenticed two or three years but farmers not at all.

In agriculture there is a pressing need of the applications of the principles and methods that have aided in other industries. Practice and science must go hand in hand with hearty cooperation if the problems of farm management arising from the world's progress and the consequent depression of prices are to be met. From the complexity and interdependence of all agricultural processes and their intimate relations to every department of science, it must be admitted that there is no business or profession in which so wide a range of knowledge can be made use of as in farming.

So a broad and liberal culture with special training and aptness for the work is required in dealing with the practical applications of the latest contributions to science. This breadth of culture and thorough

training in methods of scientific investigation is necessary for the promotion of any part of the world's work.

Nations acquire their structure by natural processes and not by artificial growth. By the transformations of thousands of years man's occupations have become specialized so that now, each by adding to satisfy some small portion of his neighbors needs, has his own satisfied by the efforts of hundreds of others.

A good farmer must be critical in his acquaintance with the things which he handles every day. He must have his tastes, his preferences in minute details, and be able to act almost without thinking from his familiar acquaintance and habits of judgment. Every farmer should have a thorough scientific training; one in which the aim is to discipline the observation and judgment as well as to give information. He should be made familiar with the ways of finding knowledge when it is wanted.

Bacon says - "Man can do nothing

but move things and must leave nature to do the rest." This emphasizes the value of a scientific training since "The how, when, and where to move things for the successful making of a crop out of seed, soil, sunshine, and shower, depend wholly upon our understanding of why not move."

Time language will not fill a farmers barn; neither does truth need the embellishment of art. Still you may well educate that you may the better draw inferences. Thought is the instrument by which ^{man} moves the world.

How can the farmer cultivate his thought so that he too shall have the trained intellect with which to move his sphere of the world? This is a problem which can best be accomplished by use of a library. Books contain the best part of great mens minds and they permit us to attempt to understand these minds. Reading supplies us with the observations of others. But even these are of value to us only as we see them under like conditions. This is especially true of the farmer because he has such a varied set of conditions under which he must labor.

Indeed the farmer is the most independent man on earth but the progress of the world is going on at a rapid rate, so the farmer if he is to keep pace with the rest of the world must be a reader. We should read to settle a creed, to discover grounds for believing as we do; to form ideas; to gain estimates of philosophy, science, and art; to learn of man and nature; to obtain relief from care and recreation from toil; to quicken our perceptions of beauty and to make keen conceptions of truth; to give clearness to thought and to seek solution for those doubts which cause intellects of different convictions to clash; and to familiarize ourselves with the beautiful ideals of moral excellence.

Of course it is not supposed that a large library is available to every farmer but still nearly every farmer's home has books enough in it to be of untold value to him if they were only of the right kind and then he knew how to use them.

Of the many, many topics of direct interest to farmers the following are suggestions:—
Suitable farms as regards soil, exposure,

relation to market, shape and convenience for every variety of cropping and handling of stock. Suitable crops for the soil available, the capital invested, for the climate of the region, for the help and conditions of tillage.

Suitable stock for the markets, feed yards, crops raised, and buildings afforded.

Suitable culture for the various crops, soils, and seasons, rotation of crops involving available experience and machinery. Handling of stock and the principles of stock feeding. Principles of fertility involving seed selection, methods of planting, tillage, drainage, irrigation, manuring, rotation, etc.

Diseases of crops and stock. Enemies of stock and crops in the insect world.

Protection of crops in barns, stacks, silos, granaries, etc.

Now of course the farmer, as most all other specialists, gets the bulk of his practical, or rather applied education from experience out in the field. Yet a thorough knowledge of the subjects mentioned would not be sufficient, for with the progress of civilization the physical

status of the world changes. In the art of farming, constant is the change in the methods, tools, staple crops, conditions, markets, and the increase of capital. Indeed the times demand that the farmer be a scientist, an economist, an educator.

A farmers library should contain works on subjects that appeal to the powers of observation, and for this there is no subject so well adapted to the opportunities of the farmer as the study of geology. This is a subject which invites us to a critical inquiry into the origin of things. And besides being a history of the past conditions of the earth and its inhabitants, it leads us to observe the manner in which similar structure is now formed under our eyes. By a complete study of it we are enabled to group phenomena and to generalize and inquire after those antecedents which science denominates causes. It enables us to supply and apply principles. It supplies impressions and hints for personal observation and many impulses to continue. It is indeed a scientific subject

leading out into practical thought, observation, and action.

Botany and Zoology furnish a knowledge of plant and animal life as to structure and organization. These are naturally followed by chemistry which makes us familiar with the characteristics of the various elements entering into combination in plants and animals.

It is not enough to know simply the laws which govern the vegetation of the seed, the growth and harvesting of crops but the farmer must know something of animal nature. Much of his capital is absorbed in stock, so to get the best returns from it he must understand the principles of stock-management. In diseases the veterinarian ^{can be} called in but in the daily treatment of stock the farmer must rely upon himself. He must therefore know something of the physiology of nutrition and chemistry of foods with reference to the animals subservient to agriculture.

This leads us to stockfarming. Here the farmer like all other progressive men must

learn by experience. Hence the need of books and the experiments of others.

Chemical research has done much to throw light on the feeding act. So the analyses of foodstuffs of all kinds is very valuable and a good work on this subject is Stivart's "Feeding Animals". It discusses stockfarms, principles of feeding, various breeds of cattle, and the principles of preventing diseases. It is practical rather than theoretical. In cattle feeding we do not get something for nothing. The most successful farmer who feeds his farm products and sells the concentrated product is the one who most economically turns the forces of nature so that, in the long run, they will act in his favor.

For a condensed work on the principles of stockbreeding, the best is Miles' "Stockbreeding". It treats of hereditary characters, diseases, atavism, variation, etc. In fact the work is very suggestive on all the lines of stockbreeding. It gives many instances of traits in animals which are easily explained by a thorough

study. It is, indeed, a very valuable work and should be in the hands of every breeder. Darwin's "Origin of Species" is another work worthy of much careful study. Also his "Plants and Animals under Domestication" is an excellent work. Amurby's "Manual of Cattle Feeding" is recommended by good authorities as an excellent scientific work. "Horse Feeding" by Sanders is worthy of a place in the stockman's hands. These are only a very few of the works on the subject but they are standard works and are of inestimable value in the stockman's library.

If one desires a peep into the views of the old Roman agriculturalists he can do no better than to read "Wat Days at Edgwood" by Donald Mitchell.

Now while the object of this paper is to be suggestive as to the sort of literature the farmer should have in his library for his own practical needs, it must not be thought for a moment that the needs of his family should be overlooked. His home should contain a variety of literature suited to

the needs of his wife and growing children. It should be for information, recreation, development and power.

For information let there be up-to-date encyclopedias, an atlas of the world, a daily newspaper, a family paper for general news, and weekly, and religious papers. Some literature of recreation is necessary for sound mental life. Such are a number of the magazines.

Have some literature ^{of culture} in order that good taste in the proper spheres of life may be developed in the proper plane. Have the works of strong writers.

Now in conclusion may the farmers library be adapted to the needs of his profession. May it be inviting to his family. And then may it be used by all. Read and you will be at home in your profession and in mental life. You will be more prosperous, more happy, and more wise. And then all with whom you come in contact will be better because of your having lived in the world.

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