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AGRICULTURAL CLUBS IN THE RURAL SCHOOL.

THE Aurand District Agricultural and Domestic Science Club, which was organized January 2, 1912, in reality began its work in the fall of 1910. At this time the district board purchased twelve silver maple trees for the improvement of the school grounds, when the trees arrived the boys assisted in setting them out. They dug the holes, carried water, made frameworks for the young trees and mulched them. It could be seen at once that they were interested and the study of agriculture was accordingly taken up. At first there was one recitation period a week, this was on Monday morning from 9:00 until 10:00 o'clock. Nature Studies on the Farm was the text book used. It can be purchased for about forty cents. Many valuable suggestions were obtained from Farmer's Bulletin issued by the United States Department of Agriculture. The following ones were used: Boys and Girls' Agricultural Clubs, No. 385; School Lessons on Corn, No. 409; The School Garden, No. 218; The Potato as a Truck Crop, No. 407; Tree Planting on Rural School Grounds, No. 134, and Thirty Poisonous Plants, No. 86. Any of these bulletins may be obtained free by addressing the Secretary of Agriculture at Washington, D. C.

Practical work was at once taken up. The different kinds of soil, sand, clay and loam, were obtained and placed in jelly tumblers for future use. The boys of the manual training class built trays for testing corn and other seeds. These trays when finished were about one and one-half inches deep, 15 inches wide, and 23 inches long. The trays were then divided into small squares by a checker-board lacing of twine across the top. Kernels of corn were supplied to each pupil and the different parts noted as endosperm, embryo, etc. Drawings were made and topics pertaining to the work assigned for language exercises.

The next fall (1911) it was decided to make flower beds upon the school grounds. Two beds were set out, the care of one being given to the girls and the other to the boys. In these beds were set nearly 200 hyacinth and tulip bulbs for spring blossoming. The bulbs cost about \$2.50, this amount being taken from premium money won by the school at the county fair. The beds were a great success, blossoming profusely and the children felt amply repaid for their efforts. Just before Christmas it was decided to organize an agricultural club. During the holiday vacation the teacher had cards printed as follows:

This is to Certify that
.....
is a member of the Aurand District Agricultural Club and eligible to compete for any and all prizes offered by the club.
.....Teacher.

On January 2, 1912, the club was organized and the cards given out. The members pledged to do the work as outlined by the teacher.

The purpose of the club was to learn more about common things taught in the great book

of nature, and to train the heart, head, and hands. The following was unanimously chosen by the class as a motto:

Work makes the man,
Want of it, the chump,
The man who wins
Takes hold, hangs on, and humps.

The cards seemed to give still more enthusiasm to the work, although in the heart of winter the members began to make plans for their gardens. The father of one of the boys gave him a quarter of an acre of land for his own use, at the same time expressing the opinion that, to his belief, it was one of the best features ever introduced into the rural school. This particular boy planted corn

sofa pillows, handkerchief bags, holders, etc., from the sewing classes.

Was it a success? Judge for yourself. Thirteen first and two second prizes were won, amounting to \$18.75. But of greater value than the prizes won was the satisfaction of the members of the club who did the work, and of the parents under whose direct supervision the work had been done.

Calhoun Co. GUY F. THENEN.

PLANNING FARM BUILDINGS.

So much economy and convenience results from the intelligent planning of farm buildings that a few suggestions

is necessary, the feeder, in traversing this distance three times a day and return will travel more than four miles a year. Of course, at first this looks like a very short distance but when the distance is doubled it looks larger and many times outbuildings are farther away than that and at this period of the development of agriculture, the man who can do his work thoroughly with the least expenditure of energy and time is considered the most economical.

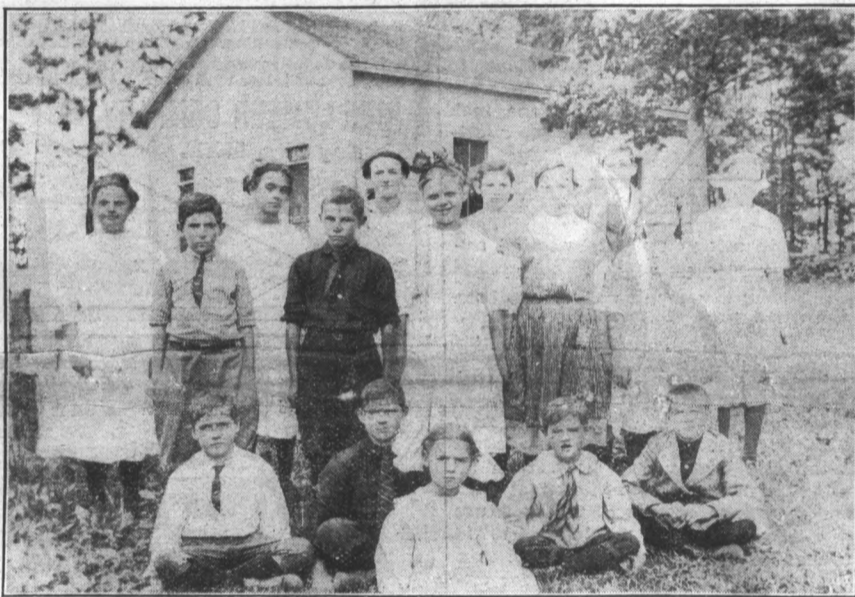
It is important to have the arrangement of buildings follow the factory plan as largely as possible. That is, in the factory the raw material goes in at one end and the finished product comes out at the other end. Translated, it means that the buildings should be so arranged that when the farmer goes out to the barn in the morning, he can do his chores with the minimum amount of walking, and handling of materials.

In general, the buildings should be placed on the poorest land on the farm and with proper regard to the wood lot, hills, and natural drainage. In many sections of the state where land is worth from \$100 to \$150 per acre, the saving of an acre of good land would be very important. On a great many farms, an acre could have been saved for cultivation had the farm buildings been arranged properly.

If it is possible, the house should be placed near the center of the farm with due reference to the water supply; but if this is impossible, the house should be placed on the side of the farm nearest the town, school, or church. On most farms there are a great many trips made to any one of the above mentioned places, and a shortening of the distance to them would mean a great saving of time in a year. The house should be at least 100 feet from the highway, and if possible, on a slight elevation so that one can see all parts of the farm from it. It is important that the house should not be too close to the highway for the dust that is stirred up on a hot day in summer, by travel, is considerable, and the germs contained in the road dust are anything but desirable when brought into the kitchen and on the clothes which have been hung out to dry. The dwelling should be on an elevation but not on one so high that it is inaccessible with a load or with heavy machinery such as the threshing machine and hay-baler; and, on the other hand, it should not be in the valley, for there we find the early frosts, lack of air, and the injurious effects of spring rains, often filling the cellars with water.

The garden spot should be nearby. Many times the housekeeper has to make a trip or trips to the garden each day. When it is on the rear of the farm, as is often the case, it means that she must waste her time by needless walking, to say nothing of the physical injuries which she may get from the carrying of heavy burdens.

Generally, the outbuildings, such as barns and sheds, should be placed at least 150 feet from the house and in the opposite direction from that in which the prevailing winds come. The reason for this is obvious and one can readily see that with



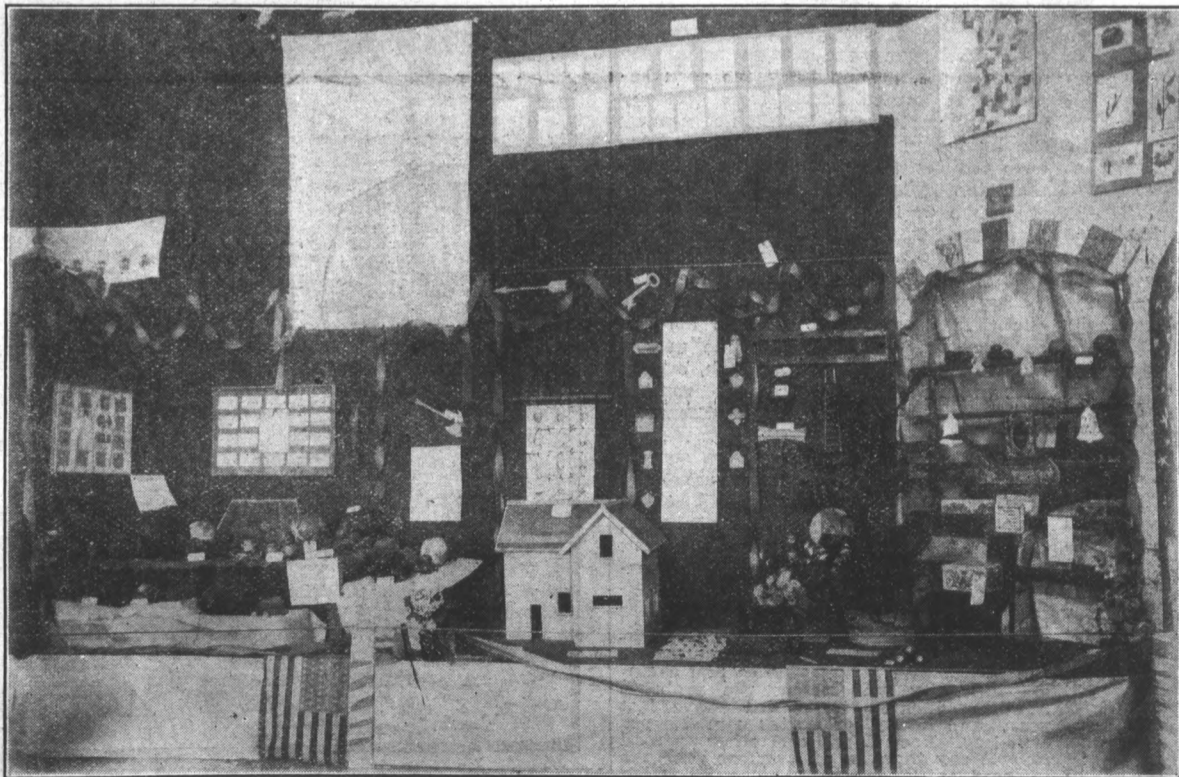
Aurand District Agricultural Club, Tekonsha Township, Calhoun County, Mich.

and beans, cared for them himself and as a reward for his efforts won two first premiums on corn at the county fair.

The first exhibit held by the club was at the county fair at Marshall, Michigan. There were melons, pumpkins, squashes, potatoes, corn, oats, fruits and vegetables, there were various articles of wood-work made by the boys, there were cakes, cookies, bread and fried cakes baked by the girls, and aprons, towels,

along this line are welcome at any period of the year and especially at this season when most farmers are arranging for buildings which they will construct next summer.

There are a great many important points to be considered in the building of farm houses and barns and a great deal depends upon their arrangement. For example, if a shed is placed only 10 feet farther away from another building than



The Aurand District Exhibit at the Calhoun County Fair, Held at Marshall, Mich.

the barn placed in the proper direction and at the indicated distance, he would avoid the noxious odors of the stables which are found in some farmhouses.

The paddocks and barnyards for summer confinement should be placed on the opposite side of the barn from the house and a great amount of land can be saved by the proper arrangement of these barnyards.

There are many other details to be considered in the planning of individual buildings, but the suggestions given above will apply equally to all those which should be likely to be found on the average farm.

Mich. Ag. Col. I. J. MATHEWS.

SELECTION AND CARE OF SEED CORN.

There seems to be quite a variety of ways of selecting corn for seed. Some of the ways employed by some farmers require too much time and unnecessary labor, at least it seems so to me. Such for instance, as selecting while husking, by saving a few husks on the ears, and then braiding them together to hang up. This method may do for selecting a small amount, or where the farmer does the husking himself. But it is impracticable where the husking is hired done.

Another method of selecting the seed from the wagon while unloading, takes too much time. I have always found it to be a quick and good way to select seed corn, to take a basket or baskets, and pick out the corn as it lies on the ground in piles in the field, before being loaded in the wagon to be drawn to the crib. By this method it is easy to see what corn is suitable for seed. I always make it a point to select corn of a uniform color, with a goodly number of rows on each ear and well filled out at each end. By thus carefully selecting my seed each year, I have a corn that yields well and matures early. Although this has been a bad and backward season, my corn matured early enough so that I had it all cut up and in the shock before there was any frost. And at this date, October 21, have it nearly all husked and in the crib, and it is all hard and sound.

Caring for the Seed.

My method of caring for the seed, is to place it over my dining-room where there is a large space unplastered. The corn quickly dried out in this room, and then it is taken out and stored in another vacant room where it is kept dry and does not freeze. By thus selecting and caring for my seed, I never have any trouble in getting a good stand, as every kernel grows.

Ottawa Co. JOHN JACKSON.

LILLIE FARMSTEAD NOTES.

At last we have had a week of splendid weather, ideal weather for doing farm work, and we have made the most of it. We got the third crop of alfalfa hay all hauled, we harvested the lima beans, and got them to market, and have practically got the ensilage corn cut and in the silo. The ground was hard enough so that the corn binder worked successfully, and the business went on as expeditiously as it ever did in the world. One who remembers last fall when we had to cut the corn by hand and haul it through the mud across the field, certainly can appreciate the weather that we are having at the present time. Of course, we are late, but the season is a month late. The corn leaves were nipped by the frost, yet the corn is in fair condition. It is just about the right degree of maturity and will make good corn silage.

The crop that I intended to husk has ripened up wonderfully, yet there is some soft corn and I have decided to fill the beet top silo with corn this year and utilize the beet tops in the old way by feeding them fresh and drawing them in from the field every day. We are going to husk all the ripe corn and then cut the balance and put it into the silo. In this way I think I can get much more out of the crop than in any other. We haven't as many beets this year anyway, because we have only a medium crop and a much smaller acreage and we can handle them, I think quite satisfactorily in the old way.

Soy Beans.

The soy beans didn't mature. I never saw any kind of plant so full of pods and filled any better than these bean plants, but they are not ripe. So we cut them with the mowing machine, raked them up at once and put them into the silo, mixing them in with the corn. That was the only way we could utilize them. In this way we got, I think, their full feed-

ing value. I wish they had matured, because I wanted to save seed from these as I wanted to try them again and perhaps sell some seed, but they did not ripen enough for seed.

It is splendid weather at the present time for fall wheat. The very last sown is up and growing nicely, the field which was put in earlier covers the ground, and if this weather continues we will have a splendid growth of fall wheat. It looks now as if we might harvest our beets and get our potatoes harvested in good time and get a nice bit of fall plowing done. If we can this season won't turn out as bad as it seemed it might. The clover seed is not yet all harvested. We had to stop to harvest the beans and ensilage corn, but with a few days more of good weather this job, too, will be completed.

COLON C. LILLIE.

FARM NOTES.

Cementing a Cellar Bottom.

I intend to cement my cellar this fall. There is a solid clay bottom. Would you approve of putting in sand between the cement and bottom? If so, about what thickness would you recommend? Or, would you put the cement on bottom without sand between? What proportion of cement would you use? Please answer through your paper.

Lapeer Co.

A. S.

In cementing a cellar bottom in clay soil there would seem to be no object in putting in sand between the cement and the clay bottom since, if the drainage is not good the sand would be saturated with moisture and would not better the condition. A comparatively rich coat of cement should be used, say one part of cement to three or four of sharp sand, according to the quality of the sand. This will make it more impervious to moisture than if a poor mixture were used. A coat of rich cement one inch thick will serve every purpose for a cellar bottom.

HYDRATED LIME.

I want to ask you what hydrated agricultural lime is? Is it any different than ground limestone, and is it any better, and does a person need to use both on the same piece of ground?

Kent Co.

J. T.

As has been explained in the Michigan Farmer a good many times, hydrated lime is burned limestone that has been slaked with steam, a comparatively new process, but after the carbon dioxide and moisture is driven off by heat, then by allowing the lime to come in contact with steam it absorbs enough of the moisture to partially slake it, making what is known as hydrated lime. Now this is a good form in which to use lime for agricultural purposes. It doesn't deteriorate in value after it is placed in this form. It can be bagged and shipped and if you don't use it all one season you can keep it over until the next. On the other hand, if you use crushed ground limestone before it is partially slaked or hydrated this will gather moisture from the atmosphere and it will swell and burst the sacks, that is, the only disadvantage. Both of these, however, are caustic and are disagreeable to apply to the land. If the wind blows this fine dust will blow and stick to your hands and your face, and it will bite too. Otherwise, I think it is the best form of lime to use. Of course, many are advocating at the present time, ground limestone rock before it is burned. This is a perfectly safe product to use. It will not destroy the humus in the soil, and it will produce the desired effect, but more slowly than the hydrated lime. You have to use more of it because it is impossible to grind it fine as it ought to be to give immediate effect, and only a small per cent of it will give immediate effect, but by applying larger applications at a time one then doesn't have to lime his soil as often as he would where he uses a smaller amount of hydrated lime, and in that way he will get just as good results.

COLON C. LILLIE.

"Fix definitely in your mind a surplus over last year of 253,000,000 bushels of corn, 448,000,000 bushels of oats and 25,000,000 tons of hay," says R. S. Johnson, of Chicago. "Add to this an enormous yield of milo maize and kaffir corn, perhaps equaling in feeding value 40,000,000 bushels of corn. This gives an idea of the lavishness of nature as shown in this season's production. The larger portion of every corn crop is consumed on the farms. We are unable to find a single authority who places the probable number of cattle to be fed above last year, and many estimates run 25 per cent less. Rock Island and other railroad reports say there is an extreme shortage of beef cattle in every state in which they operate."

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LIVE STOCK

THE VALUE OF "IMPORTED."

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A discussion of the pros and cons will, however, adduce some very suggestive facts. In the first place, the high quality of British-bred stock is largely due to continuity in breeding. It is not uncommon to find a farm on which a certain class of stock and a particular breed thereof has been bred without interruption, and with the same object in view, for a century or more. For instance, Messrs. Mansell, of Shrewsbury, Eng., famous as breeders of Shropshire sheep have been breeding the same family on the same farm, continually, for over 60 years, and others have been working along similar lines for a much longer period. The sires, therefore, possess a remarkably high degree of prepotency that enables them to uniformly impress their offspring with the distinct and peculiar characteristics of their own breed. Moreover, during the process of improvement each breed has become naturally adapted to the climate, food and environment of certain sections of the country, and thus acquired the ruggedness and vigor of constitution so essential to animals kept under the somewhat artificial conditions of domestication.

Here, then, are some of the advantages to be derived on this continent from the use of selected imported stock. From purity of blood we get the ability to transmit the desirable characteristics of the different breeds. From a long continued specialized development we find that typical representatives of these breeds will improve our stock in the particular specialty characteristic of each, whether it be mutton production in sheep, bacon production in swine, capacity for speed or power in the horse, or beef or milk production in cattle. Even though as individuals they appear to be no better than our home-bred animals, an interchange of blood may serve a useful purpose. They possess a robustness of constitution and a development of bone and frame associated with their natural adaption to external conditions of climate and treatment, and when introduced into our own herds will frequently tend to increase the size of the latter as well as retain and often improve their quality.

But the biological principle involved is another phase of the question that should not be overlooked. Therein lies the danger of putting too much dependence in imported stock. It should be remembered that the desirable characteristics which it is the object to have transmitted, have been developed by artificial means and are possibly more difficult to maintain than to acquire. Improvement through intelligent breeding and systematic selection has been made possible by the variation of the animal organism, under the control of man. Further, this variation is directly influenced by changing conditions of climate, food and habit and the advance made can only be successfully retained under like conditions and under similar treatment. Of course, it is to be expected that in transporting stock from one country to another there will be some change in environment, but if a judicious selection is made it need not be a marked one. It will be found, however, that no very great change is necessary to disturb the equilibrium of the organism sufficient to cause more or less of a modification in the form and character of the offspring. As a matter of fact, this principle of natural adaption has effected some very distinct modifications in imported breeds; an instance, being the contrast presented in the St. Lambert and the Island type of Jersey.

It is the desire of every true breeder to improve his stock and the way in which he can accomplish this quickest and best is the method to pursue. At one time imported animals were a necessity and we honor the enterprise of those who brought them here. But now, might we not make greater progress if we imported less and bred better? Many of our best breeders are building up fountain-heads of improved stock from which we can draw the blood that will best suit our purpose. And then we must specialize. It is much better to breed one class of horses, cattle, sheep and swine in a district than to have a dozen of each. The live stock of Great Britain have become famous because this course is practiced. In Herefordshire you will find little else but Herefords; in Shropshire little else but Shropshires; in the dairy districts of Scotland Ayrshires, and so on throughout the whole country. Hereford breeders in America have won an enviable reputation as the result of their independence and resourcefulness. We have the men and I believe the stock—the necessary combination for so important an undertaking. Can we not, therefore, mould and fashion animal form into a pure American product. This does not mean that I favor the evolution of new breeds; we probably have too many already. The point is this: Is it possible by careful selection to so improve our existing breeds with little, if any, resorting to importations, that they will be a monument to the energy and intelligence of our own breeders, and a factor in establishing the reputation of New World stock?

Canada. J. HUGH MCKENNEY.

FEEDERS' PROBLEMS.

Are Smutty Oats Poisonous?

Are smutty oats poisonous to stock and if so can they be treated so they will be harmless to feed? My oats are very smutty this year and I am afraid to feed them, as I have heard they are liable to cause trouble.

Allegan Co. L. B.

Cases have been reported where fatal poisoning of stock has occurred from the eating of smutted grass or smutty oats. Experiments with such material, however, when conducted with a view of determining this point, have usually been of an unsatisfactory or contradictory nature and nothing definite may be said on the subject at present which can be backed up by experimental data. Smutty oats should not be fed to horses at least, because of the danger of inducing respiratory troubles which would injure the horse's usefulness. In moderate quantities, fed with other grains, however, present knowledge on the subject would not indicate that the oats would be a dangerous feed. In fact, it is not at all certain that reported cases of poisoning from smutted grain are due to that cause.

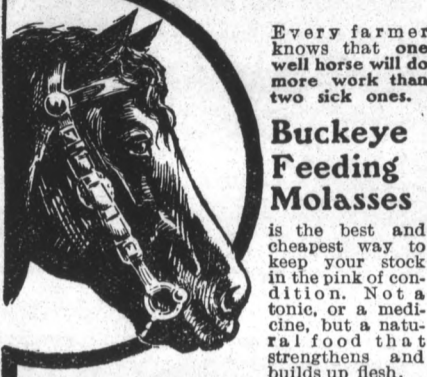
LIVE STOCK NOTES.

Large sheep range interests are holding on to their breeding ewes, and they are retaining most of their yearlings, extremely few well-bred yearlings having been marketed this year compared with former years. Only a short time ago one of the large ranch concerns in Idaho turned down an offer from a neighboring sheepman to purchase for \$6 per 100 lbs. 1,000 head of young ewes, to be taken as they run out. The supply is understood to be smaller than usual, and only two small flocks of yearlings were shorn in the spring in the Mountain Home district of Idaho, where from 30,000 to 50,000 head are usually wintered. A recent report from the Twin Falls tract states that 240,000 breeding ewes will be wintered there, with alfalfa hay costing \$3.50 per ton. It is stated that Idaho has shipped its last sheep and lambs for the year.

The recent sharp advances in prices for live muttons, including lambs, sheep and fat yearlings, in the Chicago market were due to the sudden great falling off in offerings of flocks from the western ranges. Owners of flocks in the middle west will have from now on much better opportunities for marketing their well fattened lambs and sheep at much higher prices than they have been in the habit of accepting for some weeks past. The season has been a rarely exceptional one in respect to the grading of the range flocks, owners having taken advantage of the unusual abundance of grass and water to finish off their holdings much better than in former years. This has made a much smaller percentage of feeders among the marketings and forced sheepmen in search of such flocks to pay high prices.

There have been sharp recent advances in the Chicago market prices for dairy products, because of greatly lessened receipts of such goods as butter, cheese and eggs, and further upward movements are expected, the smaller supplies having caused owners to withdraw a good many lines from the cold storage warehouses. Eggs have risen to the highest prices touched since last April, while butter prices are the highest seen in several months.

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PRACTICAL SCIENCE.

THE PRACTICABILITY OF SCIENCE.

BY FLOYD W. ROBISON.

The reader who may have followed the articles during the preceding year will observe that we have attempted to furnish classified information in readable form, beginning with the origin and formation of soil, following up through plant and animal nutrition, in such a way that there would be some tangible information which would reinforce him in his general reading of the popular scientific literature of the day. Our object in this has been to furnish him with fundamental facts regarding the plants and animals which would enable him to conduct his own work with far greater regard for fact than he otherwise might have been able to do. Not only is this true, but in the abundance of literature which is found in the agricultural press, referring not only to soils but to plant life and animal husbandry, there is an enormous amount of information which is untrue and which it is not possible to adapt to practical conditions on the farm.

We have attempted to reinforce the reader so that he would be in better condition to pick out the good from the bad and thus classify the information at his command. In carrying on this series of articles we appreciate that the person who can point out some line of undertaking which is profitable, is appealing forcefully to the reader and many of our writers and public speakers have spent their time and energies in directing farmers along lines of new venture and suggesting new principles to govern their various operations. So much has thus been done that has been fascinating and attractive for the time, but which it has been necessary to cast aside as impractical when the test of experiment has been put to it upon the farm.

This department is a department in which truth and facts are aimed at regardless of whether they build up or throw down, for we believe that we have performed a valuable service to the farmer if we can prevent him from spending money and effort on a worthless enterprise, as surely as if we directed his efforts to a proposition that was paying. With these two main points in view we have striven, and are striving, to present the modern research of science in a truthful and conservative way, to the farmer.

Before taking up the study of the principles of human nutrition, let us pause in consideration, briefly, of the contributions of science to our everyday life, and welfare.

History of Science.

The history of the development of science is in reality the history or record of the progress of the human race toward perfect freedom from the enslaving chains of superstition and vice. The early periods of human existence insofar as we have records, were periods of superstition and the masses of humanity were swayed and controlled by those superstitions. Yet even among the records of those times there were thinkers whose minds were continually active in the interests of their fellows. We are building today with some of the stones hewn for us by the thinkers of ancient times. That which is of merit remains and the highway upon which man has traveled from the degradation of savage life to the heights of twentieth century enlightenment is ever and anon illuminated by the scientific contributions of great men and deep thinkers.

The world stands transfixed by the power of the human mind and during all the years when the flame of human liberty was flickering and the friends of liberty and toleration held their breath lest that flame be extinguished, the minds of scientists were shaping and molding into form and trying in the fiery crucible of scientific inquiry the rock bottom principles which are now firmly imbedded in the eternal structure which science is building.

Scientific Progress is Slow.

Progress toward the goal of perfect human understanding is not rapid. Science is not in harmony with haste and many a year must pass and many a thinker's brow be furrowed before any permanent step is safely reached in the solution of any of life's problems. Nor are the names of great scientists, such as Plato, Aristotle, Archimedes, Gay Lussac, Dalton, Darwin, Van Hoff, Pasteur, and others, to be idolized because

of their contributions in themselves to science. Their triumph is great, but the efforts of these men were but the crowning cap of the edifice which had been reared before them. How clearly Paul realized this great truth. Speaking of the prophets he said, "These are they who died in faith, not having received the promise but having seen it afar off, God having provided something better for us that they, through us, should be made perfect."

Where the Credit Belongs.

Darwin's name has been almost a household word and now, more than a century from his birth, we extoll his remarkable achievements and revere his name and accept, in the main, his doctrine, yet there were others before Darwin without whom Darwin could not have achieved success.

Likewise with Dalton and Gay Lussac, and even Pasteur.

Great men and public thinkers have spent their lives to wrest from nature her secrets for the benefit of all mankind, and mankind has known them not. "Full many a flower is born to blush unseen and waste its sweetness on the desert air," content to form part of nature's great plan in the subduing of the world and preparing a place for the existence of a crowning race. Darwin's name is familiar to all because his scientific studies have come directly in contact with life and he has popularized the work performed before him by many other devout thinkers whose names the world does not even know.

Pasteur has put the finishing touches to a line of investigation that has promulgated a much clearer understanding of the behavior of nature and has unfolded to the world in general the intricate workings of the underworld of bacteria, the existence of which people in general little dreamed of. We concede without question the greatness of Pasteur, and we are proud of his contributions to science, yet we know that he has achieved renown upon the life work of others whose devotion to science has made his work possible. In paying homage to such a man it will be no discredit to him if we bow our heads at the same time reverently in appreciation of the efforts of the unknown workers who have gone before him.

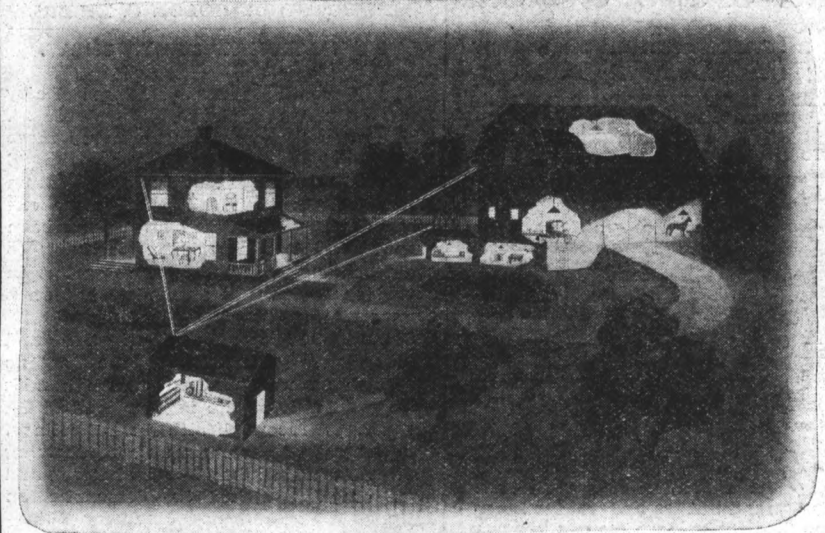
The Dignity of Science.

Little do we realize the extent to which science has permeated our everyday life and to what extent, likewise, we are dependent upon science for the enjoyment of the privileges we now enjoy, and, indeed, for the safety that has been thrown around our everyday existence. It is science that said to the Black Plague, when it appeared at the port of New York: "Thou shalt not enter." It is science that said to the yellow fever when it appeared at New Orleans, "Thus far hast thou come, but farther thou shalt not go." It is science that has drained the marshes of our beautiful Michigan and made it one of the most healthful and beautiful states in the Union. It is science that turned the flood gates of the rivers of the waste deserts of our western states and made those deserts as fair as the garden of the Lord. It is science that has given us our most modern conception of the activities of life. To the biologist in his laboratory the language of nature is plain and she speaks to him her secrets of cell function and nutrition. He places upon the stage of his microscope a drop of water from a stagnant pool and with the finder selects one of the amoeba, or single-celled animals for his observations. The main physiological functions which are present in the human organism are there present in this single-celled organism but it is more restricted in its environment. The tiny cell moves along and comes in contact with a morsel of food, remains in contact with it for an instant and begins the function of absorption. It then passes on to another morsel, remains in contact with it and bounds away, rejecting the last morsel which, in one way or another, has not been congenial to it. Here is an organism extremely limited in its environment, without sense as exhibited by the higher animals, yet exercising all the functions of selection and rejection for which conscious beings are noted.

Science is Practical.

To the physicist and electrician the language of nature is revealed in the (Continued on page 399).

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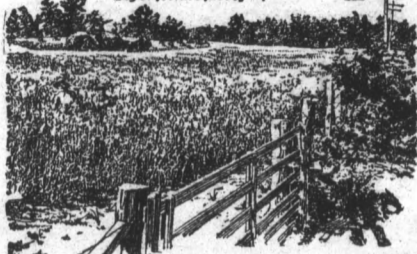
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says a former Indiana man, now living near Dexter, Mo. "Our land here is stronger and the profits from crops greater than where we came from."

[Wheat of Ferd Seyer, Illmo, Mo.]



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Last year our corn averaged 75 bu. per acre. We have made 90 bu. We double up on corn with cowpeas, like we do on wheat with clover." Wheat yields regularly from 20 to 40 bu. per acre along the

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C. D. DeField, of East Prairie, Mo. told me that he raised forty mules last year without doing any winter feeding at all. With green pastures all year, cattle and hogs go through the whole winter without feeding. Think what that means in these days of \$10 beef. The alluvial soils of the St. Francis Valley are the richest in the world—10 to 50 feet deep—producing bumper crops of corn, clover, alfalfa, cowpeas, etc. And the richest soils make the richest people. The average net surplus of each family in this section is \$850 per year. They are enjoying, too, every social advantage of good schools, churches, phones, rural free delivery and close markets. The government reports this the fastest growing section in America; and land values are growing faster than the population. \$15 per acre was the price a few years back; now it's around \$80. Get some before it goes any higher.

On the 1st and 3rd Tuesdays of each month there are low round trip excursions via Cotton Belt Route, allowing 25 days' time and free stopovers. Go on the next one.

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Written by a farm man who knows farming from A to Z. He traveled all through this section to learn where the real farm opportunities were—the kind he knew you would grasp if you saw them. He tells you, in plain words, all about them. 50 pages and farm pictures. Send a postal today for your free copy.

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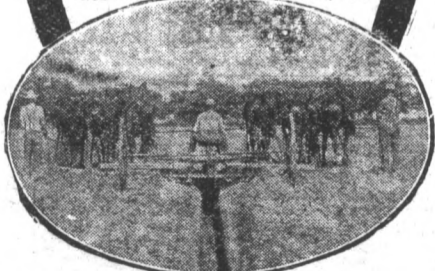
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THE DAIRY

CONDUCTED BY COLON C. LILLIE.

THE NATIONAL DAIRY SHOW.

The Seventh Annual National Dairy Show opened at Chicago, on October 24. The national character was never more plainly evident than this year, the 46 herds shown representing states from Massachusetts to Washington. The exhibits of dairy machinery have never been surpassed. It is especially gratifying to see machinery not only on show but in actual operation, not as models but on a commercial scale.

Demonstrations of pasteurization and bottling were given daily by the Bordens in which several hundred quarts of milk were prepared for the regular trade. On account of recent health board rulings, this subject of pasteurization is receiving more attention than ever before and large crowds watched the demonstration daily. A prominent creamery company operated a model creamery, churning three times a day. A stand was placed to the rear of the creamery so that the entire operation, from the ripening of the cream to the final wrapping of the butter, could be watched by the spectators. Daily demonstrations of the merits of various milking machines were given, and the same method of seating was followed. A vacuum device for cleaning the cows is in actual use in the stables each day and if the appearance of the animals is any indication of its merits, it is a valuable device in the high-class dairy.

The arrangement of the exhibits deserves especial comment. All are well placed and arranged in such a way that they may be seen by the visitor with a minimum of trouble. The amphitheater is in good condition and the adding of a covered alleyway to another barn across the street will do much to help the International Live Stock Show to be held in the same building the latter part of the month.

A new feature was instituted this year in the form of five herdsman's prizes to be awarded to the various herdsman. This incentive has done a great deal to add to the appearance and general neatness of the stables. The prizes are awarded on the basis of condition and cleanliness of herd, courtesy and deportment of the herdsman and attendants, neatness in keeping feed and bunks, cleanliness in stalls and alleys, decorations and attractiveness of the stable, promptness in getting animals in the parade and into the show ring. The idea of awarding prizes to the herdsman is excellent for much depends on the work of this man, who seldom becomes known. In the Students' Judging Contest on Friday the effect of these prizes was demonstrated.

The contest of this year was the largest ever known in the history of the show, 14 colleges sending teams of three men each. One man from each institution is placed in a section, this making three sections of 14 men each. From the beginning of the contest until the close at nearly six in the evening the men are not allowed to communicate. They are rated 50 per cent on their placings and 50 per cent on their reasons. Each student had two rings each of Jerseys, Holsteins and Guernseys and one ring of Ayrshire cows. Dr. Rawl, of the Bureau of Animal Industry, had charge of the contest, while G. P. Grout, of Duluth, Minn., G. A. Bell, of Washington, D. C., and Will Forbes, of the dairy division of the Bureau of Animal Industry were the judges.

Among the meetings being held during the show are: The International Milk Dealers' Association; the Commission on Milk Standards; the American Guernsey Cattle Club; the American Dairy Farmers' Association; the American Jersey Cattle Club; the Illinois Association of Farm Press Editors; the Conference of Dairy Cattle Judges; the Holstein-Friesian Association and a large number of others. The benefits and advantages from holding meetings of such associations in connection with large shows are beginning to be realized.

Another feature that is attracting much attention is the showing of milk and butter delivery horses to wagons. Two classes are judged in the arena each night and the applause when the final ribbons were awarded shows the growing popularity of the contests. In the milk delivery classes the drivers are required to drop off bottles at various stations on the route as well as to pick up cases of

milk and the training of the animals in stopping and starting was often the deciding factor in awarding the prizes.

There were two parades each evening. These, together with the showing of delivery wagon horses, a band, a dairy maids' sextette, athletic contests and some really good singers, served to hold a large crowd in the great arena. As a fitting finale to the evening's entertainment, the calves in the various herds are allowed to run loose and frolic in the arena.

The Cattle

After all is said, it is upon the cattle themselves that the life of the show depends. The city visitor wonders at the machinery, absorbs some of the benefits of the educational exhibits but when he reaches the cattle stalls a different feeling possesses him. The new out of town visitor stands by and singles out the merits of the various animals while the fascination to the old timer is never ending.

As was anticipated, the show at Milwaukee attracted a number of herds that have been exhibiting at the National Dairy Show and according to breeders, the Waterloo, Iowa, show was the big one of the year in point of numbers. After it ended the herds split, those of poorer rating going to Milwaukee in spite of a chance for the reversal of decisions by new judges. But in spite of the fact, some 700 cattle of the best individual merit and the bluest blood in the country fill the stalls. With the exception of the Ayrshires, represented by two herds, the number of entries compares well in all classes with the show of last year. According to Supt. Irwin, the quality is better in all breeds and classes. With this show as the grand finale of the circuit, the cattle are in the pink of condition and in addition to the great individual showing represent the finest lot of dairy cattle ever assembled on the continent.

This year, the breeds are grouped and all are housed together in a large building adjoining and connected with the arena by means of a wide and easy incline. The quarters have especially good light, are well ventilated, provided with dry, sanitary stalls and excellent facilities for washing. The breeders pronounce them the best ever provided for them. The aisles are decorated in a pleasing manner. The breed associations have their quarters in the same building.

The Guernseys lead from every standpoint. Breeders pronounce the 215 head on exhibition the best lot ever gotten together. M. H. Tichenor, of Wisconsin, the owner of Dolly Dimple, has a most formidable array. W. W. Marsh, of Iowa, is showing Glencoe's Bopeep, 1st at Waterloo, and Dairy Maid of Pinehurst, winner of the Iowa Dairy Cow Contest. F. L. Ames, of Massachusetts, has some 32 likely ones on hand that must be reckoned with. Charles Hill, of Wisconsin, is another strong bidder for honors.

The Holsteins loom up strong with 175 animals in the stalls representing eight herds. The Jerseys come next with 14 herds, aggregating 150 head. Elmendorf Farms have an exhibit. The herds of Adam Sietz, of Wisconsin, and Barclay Farms, of Pennsylvania, with a total of some 75 head represent Ayrshires. There are two herds of Brown Swiss. E. J. Kirby, of Michigan, and L. M. Strader of California, represent the Dutch Belted. Two millionaires, Howard Gould and Jas. Hagin, are each showing a few of poor Irishmen's cows—the diminutive Dexters receive much attention.

One of the new improvements about the yards is the new Stock Yards Inn, just facing the International Amphitheater, built by the Union Stock Yards & Transit Co., at a cost of \$250,000. It is of brick, in the old English style of architecture with many-gabled roofs and dormer windows. It is a handsome structure with 175 rooms. It is pleasing to note that the Stock Yards Company has seen fit to erect such a structure for the benefit of visiting stockmen.

(Continued next week).

The practice upon many dairy farms of rejecting the fore-milk by running it upon the floor of the stable is not productive of the good that it is customarily thought to accomplish. To be sure this milk contains a much higher content of bacteria than the after-milk and its removal takes from the pail a considerable number of the micro-organisms; but the volume of this fore-milk is so small, compared with the total bulk of the milking, when the cows are giving an average "mess," that the bacteria in the bulk is not sensibly increased. The practice is not to be condemned, in fact, it is to be recommended, but the dairymen should not expect any pronounced results from it. It is one of a score of small things which, worked together, result in a superior quality of milk.



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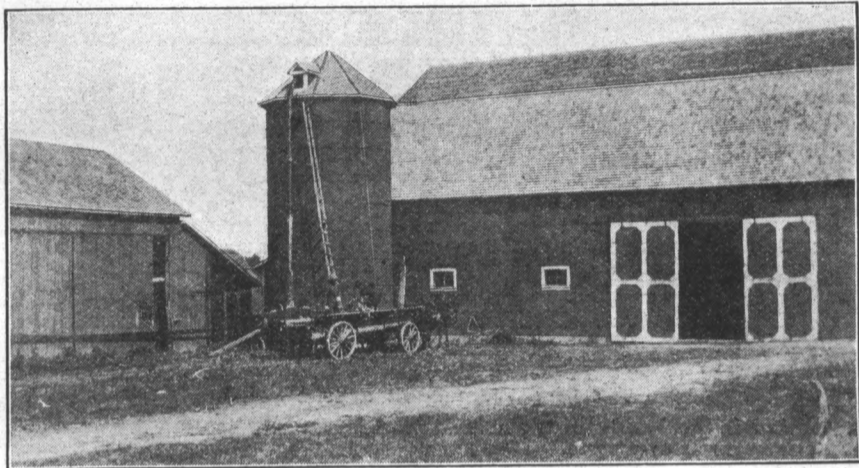
A. E. BURKHARDT
MAIN STREET CORNER THIRD CINCINNATI, O.

MILK FEVER.

We just recently had a case of milk fever at Lillie Farmstead. This same cow had milk fever last year. Other than this we have had no cases of milk fever for several years. In fact, this dread disease which used to be so fatal and carry off so many of our best cows has ceased to cause us very much anxiety. The reason why we have had an cases of milk fever in recent years, I think, is due almost entirely to our method of preventing it. This disease has not been understood even by the most learned veterinarians. In fact, it is scarcely understood at the present time. But we do know, or think we do, at least, that it comes because the cow is relieved of all the milk in her udder soon after calving, and by being very careful not to milk the cow out clean for the first two days we seem to have prevented milk fever almost entirely. Sometimes a cow has

almost sure to die. Now, however, if the non-removal of the milk from the udder does not prevent the disease the inflation of the udder with air if taken in proper time is practically certain to bring relief and save the cow.

Several years ago the only preventative we knew for milk fever was to starve the cow to keep her from getting in a lethargic condition before she freshened. People were advised formerly by veterinarians to take the grain all away from the cow, give her nothing but dry hay, scrimp her in feed so that she was actually thin in flesh before she came in. Then she was not very liable to have milk fever. But, this manner of treatment would not produce the best results from a dairy standpoint. A cow in poor condition when she freshened will not give as much milk, she will not produce butter-fat economically, she isn't in condition to do so, and yet a live cow that would do fairly well was much better



Silo-Filling, a Common Job in Every Dairy Community.

an exceptionally vigorous calf and it gets up and nurses too much the first thing. This, I think, is largely the trouble with our present case of milk fever. Then again, a cow having had milk fever once, is more susceptible to it the next time she freshens. In both cases, however, we have succeeded in bringing the cow through in good shape. Both times we sent for a veterinarian because our air pumps were out of commission and also because the boss was away from home. In both instances the veterinarian came and forced sterilized air into the udder, gave a little tonic, and the cow came out in good shape.

There is certainly a peculiar thing about this dread disease, and no one can understand it. The reason why removing all the milk from the udder of the cow at one time so soon after calving caused parturient apoplexy or milk fever can hardly be explained, and yet that seems to be the direct cause of it, and when the udder is inflated with air to bring about the original pressure caused by the full udder then the cow is relieved, and sometimes the relief is immediate. The cow is relieved so that she gets upon her feet and acts apparently well in a very short time. Some cases, however, are more persistent, and the cow does not get up for several hours. In this particular instance the cow was up in five or six hours, and in two days she was apparently in normal condition.

We haven't lost a case of milk fever since the air treatment was discovered. Before that time it was nothing uncommon to lose one or two cows each year. I think then, however, that if we had known about not removing all of the milk from the udder at one time soon after calving that we could have prevented a large share of the losses which we formerly had, even with the old treatment, because we now prevent it by not milking out what the calf did not take. The result of milking the cows out clean at freshening time was that every year some of our best cows had milk fever. With the old treatment a large per cent of them died. Then, by discovering that if we would only milk out a little of the milk night and morning until the third day the cows didn't have milk fever, and besides that the discovering of the air treatment of inflating the udder in case they did have it has removed almost entirely the horrors and the mortality of this dread disease. This discovery of the idea of inflating the udder has been worth untold money to the dairymen of this country. Before that the loss from milk fever was something astonishing and it always took the best cows. The poor cows and the young heifer rarely, if ever, had milk fever. It is the best cow in the herd and she was

than a dead one. Now, however, when we feel safe upon this question of milk fever we can feed the cows a grain ration before they freshen and keep them in good condition, and there is practically no danger of loss from this disease in the handling of a good dairy cow.

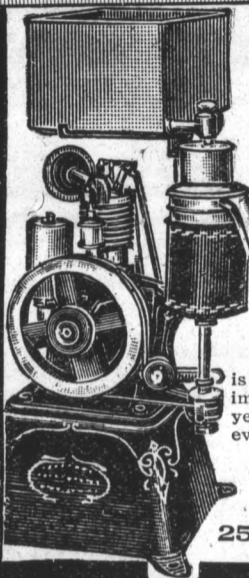
COST OF PRODUCING MILK.

An investigation made last year by the dairy department of the College of Agriculture, Ohio State University, shows that the average cost of producing a gallon of milk in Ohio is about 25 cents, or 6.25 cents per quart, allowing 3,200 pounds per cow per year as the average milk production. This takes into consideration the cost of feeds, labor, interest on investment, maintenance, insurance, taxes, etc. When the average milk production per cow is increased the cost per quart is decreased. The average cost of distribution is 3 1/2 cents per quart, making a total of 9.75 cents per quart as the cost of producing milk and delivering it to the consumer. This means that when milk retails at 10 cents a quart, the average producer and distributor is making little or no profit in the transaction. Where high producing cows are kept and economic methods of handling and distributing on a large scale are employed, the above figures are greatly reduced and there is a fair profit in the dairy business. However, it is the average producer, who keeps average cows, the rapidly increasing cost of feeds and labor and the greater demand for sanitary conditions that are contributing to the high price of milk.

ECONOMY OF DAIRY COW.

The dairy cow is a more economical producer of human food than the steer. Lawes and Gilbert have calculated that a fattening steer which gains 15 lbs. in weight per week yields 1.13 lbs. of nitrogenous substance, 9.53 lbs. of fat and .22 lbs. of mineral matter, or 10.88 lbs. of total solid matter. A dairy cow giving 10 qts. of milk per day yields 6.60 lbs. of nitrogenous substance, 6.33 lbs. of fat, 8.32 lbs. of nitrogenous substances not fat and 1.35 lbs. of mineral matter, or 22.60 lbs. of solid matter. Thus, it will be seen, the cow giving an average quantity of milk will yield more than twice the total solid matter that the steer yielded. Several years ago it was determined by the Ohio Station that a cow will produce a pound of butter-fat with the same quantity of feed that a steer will require to produce three lbs. of flesh. For further evidence of the economical qualities of the dairy cow note the tendency of feeding to decrease and dairying to increase on high-priced land.

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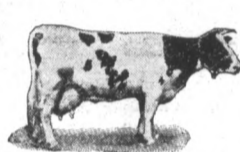
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Average percent fat for year 3.86



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30 DAYS' TRIAL

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POULTRY

CARE OF DUCKS IN WINTER.

Some readers of this paper will be wintering ducks this year for the first time, and therefore desire to avoid mistakes that nearly all amateurs make. Ducks should have a good, comfortable house to stay in at night, and also during cold, disagreeable days.

We keep our ducks in houses built especially for the purpose. However, almost any ordinary house or shed can be converted into a duck house at small expense, provided it has never been occupied by other poultry and is free of vermin. Ducks are very timid and should never be kept with other poultry, especially chickens. They thrive better in a house by themselves. Noise, such as the cackling of hens, will keep a flock of ducks in a state of nervousness.

If new houses are to be built they should be made substantial, so that they can be used for the purpose several years in succession. If they are properly built they will be suitable for either old or young ducks. As a rule, no shelter is necessary for old ducks during the summer or early fall months, except in wet weather. Ducks sit on the ground when out of doors, and if it is cold or damp they are apt to suffer from cramps or develop colds and roup.

Our house, which is 20x40 feet, is large enough for anywhere from 50 to 200 ducks, according to age and variety. This house is built with a shed roof. It is about 10 feet high in front and five feet at the back. There are four doors and four windows, and the floor space is divided into four compartments. The partitions are just high enough to keep the old ducks from flying over. They cannot fly very high. No roosts or nest boxes are required, but they need plenty of straw or litter on the floor to "roost" upon. This litter should be renewed frequently. Sawdust is not a suitable floor covering, because the ducks are liable to eat it.

Where large numbers are kept, feeding racks are almost a necessity. They are not difficult to construct and will save a great deal of feed, or rather, will prevent it being muddled over by the fowls. Feed placed in a feeding-rack is sure to be cleaner than that placed where the ducks can paddle over it with their feet. This rack is built as follows: Take two pieces of scantling, heavy enough to be quite substantial, of a suitable length; also, two short pieces for the ends of the frame. The trough is nothing more nor less than a board about 10 inches wide with narrow strips nailed along the edges. The frame is used for the top of the rack, which is made on the same plan as an ordinary sheep-rack. Slats are about three inches wide and 18 inches long and they are placed about three inches apart. The slats are nailed securely to the frame at the top and at the lower end they are nailed to the edges of the trough. We then place this trough, rack and all, on blocks about six inches high. This raises the top of the rack to about two feet from the floor. The ducks will not try to fly over this. The feed can be evenly distributed along the trough, so that the fowls can reach it from either side.

These rack-troughs can be used either in the house or outside. In winter, we feed in the house. Ducks cannot endure much cold. Their feet suffer greatly when they have to walk through snow, unless the weather is mild. However, it is best to keep ducks out of snow and off frozen ground if eggs are wanted when prices are high and hen's eggs are scarce, or if one expects them to lay well early in the spring when eggs are wanted for hatching.

A comfortable house and good care will give the same results with ducks as with chickens. Indeed, we find that a duck will respond to good treatment even more quickly than a hen. This is especially true of the Indian Runner. With proper care these ducks will begin laying early in the fall and continue until the following summer. Then they take a few weeks' rest and grow a new coat of feathers. When they stop laying they may be picked, if one wants to save the feathers, but we never pick our layers. They are allowed to moult at leisure. Old and young are kept separate until the latter are matured, or nearly so, as young ducks thrive better alone than when kept with the old ones.

(Concluded next week).

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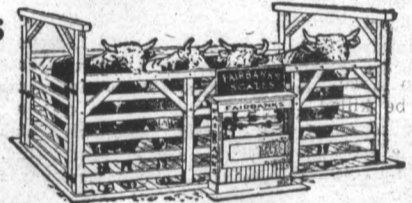
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HORTICULTURE

SAN JOSE SCALE IN THE FALL.

San Jose scale is undoubtedly one of the two most serious orchard insects that we have to contend with in Michigan at present. Already it has killed thousands of acres of fine apple orchards and has so badly injured hundreds of others that they will not last long. Not only has it proven one of the worst orchard insects but it has also done incalculable injury to the numerous beautiful fruit trees formerly found in our city and village yards and it has also attacked many of our ornamental shrubs and made barren many yards that were once the pride of their owners, and it still spreads from tree to tree, from orchard to orchard, from community to community, and even into new and remote sections where it has not been dreaded before. In the last case it is carried on nursery stock and before the unsuspecting orchardist knows he has it, many of his trees are dead or dying and the dreaded pest has gained a foothold in his neighbor's orchard or shrubbery.

For a number of years various spray mixtures have been in use in the fight to save the orchards of this state and other states, and several of them have given partial satisfaction. The oil sprays killed the scale all right, but frequently killed the trees also. Lime-sulphur solutions have proven the most satisfactory because they are cheap, efficient, and if used properly do no harm to the trees or shrubs. Commercial lime-sulphur has largely taken precedence over the old home-made solution, because of the convenience of its use.

Many fruit growers have complained that they could not control scale with the commercial solution of lime-sulphur or the home-made concentrated solution, but an inquiry into the cases invariably reveals the fact that the spray material was not made strong enough or was not thoroughly applied, or for both reasons combined. If a standard guaranteed brand of commercial lime-sulphur is used in the proportion of 1 gal. to 7½ to 8 gals. of water and the bark of the tree or shrub absolutely covered, every scale will be killed. But it is a very difficult thing to completely cover every particle of the bark, especially in the high tops of old apple trees or in the thick bunches of shrubbery alongside of a house; in fact, it is so difficult to do, and so seldom done, that where scale once gets a hold it is most sure to stay. It cannot be entirely gotten rid of. When scale once gets into an orchard, its owner might as well realize that if he expects to keep his trees healthy and bearing, he has one annual job at least to perform, and that job is "spraying for scale in the spring."

Many times it is suggested and recommended by orchardists and spray manufacturing concerns, that fall spraying would be better than winter or early spring spraying, but experience in this state has proven that spraying with strong lime-sulphur in the spring as late as possible before the buds start, is the best. The scales are more easily killed after having submitted to the cold of the winter. Spring spraying is preferable also because its influence as a fungicide for scab, canker, curl leaf, black knot, rots, etc., is much more valuable than that of fall spraying.

However, fall spraying should not be entirely discouraged, especially in extremely bad cases of scale, when both a fall and spring spraying would undoubtedly be a wise procedure for the first year and after that one thorough spraying in the early spring should be sufficient to keep the scale in control.

Mich. Agri. Col. O. K. WHITE.

MISTAKES IN CONDUCTING SPRAYING OPERATIONS THIS YEAR.

It has been said that it is through our mistakes that we progress. So it is mistakes that I am going to write about. I hate to make mistakes and many times I hate to acknowledge them, but I have made some this year in my spraying that I intend to avoid next year and, maybe, by making mention of them someone may benefit by my experience and avoid making them also.

When I commenced packing my fall apples I found on very large trees some apples that were so scabby that they were not marketable. I will prevent a repetition of this by building a folding tower such as was described in The Farmer last spring, on the top of my

spraying machine platform, which will enable me to get four or five feet higher and this year where I used a 10-foot rod I will use a 14-foot rod next year, so that these places that I could not reach I shall reach without fail next year. Again, there were some trees in my orchard this year that blossomed but little so I did not take the trouble to spray them. I thought the fruit would not pay for the spraying. But now I am convinced that the fruit is not the whole object to keep in mind while spraying. To say I was ashamed is putting it mildly, when a party of people who motored twenty miles to see my apples went into raptures over some exceedingly large Tolman Sweets that I had not sprayed on account of their being so few on the tree. These apples were so wormy that they were fit for nothing but the hogs. I have firmly resolved to spray every tree that has a dozen apples or else pick the apples off and throw them away before the codling moth has a change to get in its work.

Another mistake I made was to assume that the first spraying, when the trees were dormant, which was very thorough, had destroyed all the scab spores, and that subsequent sprayings were principally for the codling moth. While I used lime-sulphur solution I did not take the care to get it the proper fungicide strength and the result was a little scab in places when there ought not to have been any.

While we aim to protect our trees against breaking when they are carrying too heavy loads, it occasionally happens that a tree gives away where we least expect. I have in mind a large Northern Spy tree which has been split the whole length of the trunk from the branches to the ground, a distance of about four feet. I have decided to chop out all the splintered wood, coat the surface with tar and with a woven wire fence stretcher draw the parts together firmly and bolt them. I am firmly convinced that the tree will be practically as good as before such treatment.

Berrien Co. R. G. THOMAS.

PUBLIC HEARINGS ON GYPSY MOTH AND BROWN TAIL MOTH.

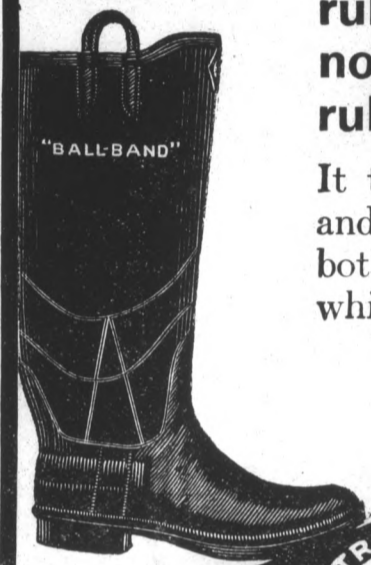
By Section 8, of the Plant Quarantine Act, approved August 20, 1912, the Secretary of Agriculture is authorized and directed to quarantine any state, territory, or district of the United States, or any portion thereof, when he shall determine the fact that a dangerous plant disease or insect infestation, new to or not theretofore widely prevalent or distributed within and throughout the United States, exists in such state or territory or district.

Before establishing such quarantine the secretary is directed to give a public hearing, at which hearing any interested party may be present and be heard, either in person or by attorney.

The gypsy moth is one of the most destructive insects which attacks fruit, shade and forest trees. It is known to occur in limited areas in Maine, New Hampshire, Massachusetts, Rhode Island and Connecticut and as the egg masses of the insect may be transported on Christmas trees and green, living trees and shrubs, or on forest products, such as cord wood, lumber, telephone poles, railroad ties, etc., it is necessary that every possible means be taken to prevent distribution to other sections of the United States.

In order to accomplish this purpose it is proposed to establish a quarantine covering the district now known to be infested with this insect in order to regulate shipment from such district of plants or plant material which may carry the pest. If the proposed quarantine is established, the secretary of agriculture will issue regulations providing for the inspection of material to be shipped out of the quarantined area which is liable to transport this insect. The shipment of Christmas trees and Christmas greens out of the quarantined area will in all probability be prohibited, except in so far as it may be possible to inspect them.

Notice is given that in compliance with the law a public hearing will be held at the Department of Agriculture, Washington, D. C., on October 30, 1912, at ten o'clock, in order that all parties interested may appear or be represented, to give testimony concerning the advisability of placing a quarantine on certain portions of New England to prevent the spread of the gypsy moth, and immediately after this hearing one will be held with regard to quarantining against the brown tail moth.



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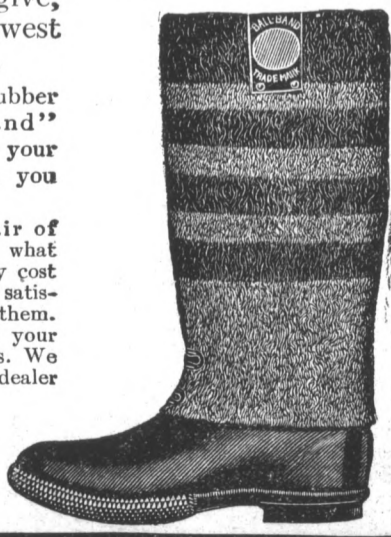
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DETROIT, NOV. 2, 1912.

CURRENT COMMENT.

If not, turn to your Are You Reading It? last week's Farmer and enjoy the opening chapters. We refer to our new serial, "Bramble Hill," in which The Farmer has secured for its readers the best continued story that has yet appeared in its columns. This is said without reflection of any kind upon similar productions which have preceded it, many of which have proven so popular as to bring us innumerable requests for them in book form. The story brings out, in an entertaining, instructive way, the wholesome influence of rural life and surroundings in developing strong character and arousing latent qualities necessary to real success. The author, Robert Carlton Brown, is a successful magazine writer whom it gives us pleasure to introduce to our thousands of appreciative readers through the medium of this admirable story.

Two proposed amendments to the state constitution will confront each elector who prepares a ballot in the general election on Tuesday next. None should overlook these proposals, since a full expression of the electorate upon matters directly affecting the fundamental law of the state is even more desirable and of greater importance than a full vote in choice of officials. The first of these proposed amendments affects Section 1, Article III, of the constitution. Briefly stated, it proposes to extend the right to vote to every woman, a citizen of the United States and the state of Michigan, above the age of twenty-one years. The second proposal has to do with the amendment of city or village charters, giving, through Section 21, Article VIII, of the constitution, any city or village the power to amend an existing charter through its regularly constituted authority, without making a general revision of the old charter or framing a new one.

The demonstration and lecture train institute held at St. Ignace on Monday last, closed a special twelve-days' campaign in the Upper Peninsula by instructors of the Agricultural College and Experiment Station men who, during that period, stopped at about 30 cities and towns and appeared before about 12,000 people. The route carried the instructors through all but about five of the counties in the Peninsula. The interest ran high, instances being reported of farmers traveling 25 miles to avail themselves of the instruction offered.

The train consisted of seven cars, four of which were used for demonstration purposes, one car being devoted to dairy

and beef cattle, another to sheep and swine, a third to poultry and a fourth to grain and produce. The topics discussed covered a wide range, Professor Jeffery speaking on Upper Peninsula soils and their management; Mr. Raven on horses, beef cattle, sheep and swine; Professor Linton on farm poultry; Professor Shaw on the State Agricultural College, the Experiment Station and the farmer of Michigan; Mr. Geismar on orchard, garden and fruit crops; Professor Wojta on farm crops adapted to the Upper Peninsula, and Professor Carr on dairy, poultry and equipments.

The enthusiasm of the people of the Upper Peninsula for this work shows the awakening of that portion of the citizenship of the great commonwealth of Michigan in agricultural pursuits. Outsiders have thought in the past, and many of them still believe, the Upper Peninsula to be fit only for mining operations, but that agriculture will play a large part in the future development of this section is testified to by this seemingly aroused intelligence as to the farming and stock raising possibilities over the whole stretch of the Peninsula.

There is general satisfaction with the Sulzer apple package and grade bill passed by the last Congress and signed by the President, August 3, 1912. The bill provides for a standard grade and pack of apples, the measure as it became a law reading in full as follows:

Sec. 1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the standard barrel for apples shall be of the following dimensions when measured without distention of its parts: Length of stave, 28 1/2 inches; diameter of head, 17 3/4 inches; distance between heads, 26 inches; circumference of bulge, 64 inches outside measurement, representing as nearly as possible seven thousand and fifty-six cubic inches, provided that steel barrels containing the interior dimensions provided for in this section shall be construed as a compliance therewith.

Sec. 2. That the standard grades for apples when packed in barrels which shall be shipped or delivered for shipment in interstate or foreign commerce, or which shall be sold or offered for sale within the District of Columbia or the Territories of the United States shall be as follows: Apples of one variety, which are well-grown specimens, hand-picked, of good color for the variety, normal shape, practically free from insect and fungus injury, bruises and other defects, except such as are necessarily caused in the operation of packing, or apples of one variety which are not more than ten per centum below the foregoing specifications shall be "Standard Grade minimum size two and one-half inches," if the minimum size of the apples is two and one-half inches, in transverse diameter; "Standard Grade minimum size two and one-fourth inches," if the minimum size of the apples is two and one-fourth inches in transverse diameter; or "Standard Grade minimum size two inches," if the minimum size of the apples is two inches in transverse diameter.

Sec. 3. That the barrels in which apples are packed in accordance with the provisions of this Act may be branded in accordance with Section two of this Act.

Sec. 4. That all barrels packed with apples shall be deemed to be below standard if the barrel bears any statement, design or device indicating that the barrel is a standard barrel of apples, as herein defined, and the capacity of the barrel is less than the capacity prescribed by Section one of this Act, unless the barrel shall be plainly marked on end and side with words or figures showing the fractional relation which the actual capacity of the barrel bears to the capacity prescribed by Section one of this Act. The marking required by this paragraph shall be in block letters of size not less than seventy-two point one-inch gothic.

Sec. 5. That barrels packed with apples shall be deemed to be misbranded within the meaning of this Act:

First.—If the barrel bears any statement, design or device indicating that the apples contained therein are "Standard Grade" and the apples when packed do not conform to the requirements prescribed by Section two of this Act.

Second.—If the barrel bears any statement, design or device indicating that the apples contained therein are "Standard Grade" and the barrel fails to bear also a statement of the name of the variety, the name of the locality where grown and the name of the packer or the person by whose authority the apples were packed and the barrel marked.

Sec. 6. That any person, firm or corporation, or association who shall knowingly pack or cause to be packed apples in barrels, or who shall knowingly sell or offer for sale such barrels in violation of the provisions of this Act, shall be liable to a penalty of One Dollar and costs for each such barrel so sold or offered for sale, to be recovered at the suit of the United States in any court of the United States having jurisdiction.

Sec. 7. That this Act shall be in force and effect from the first day of July, nineteen hundred and thirteen.

The size of the barrel mentioned in Section One is the size in general use in apple sections where apples are packed in barrels and for this reason will work little hardship in causing no radical

changes. The measure provides for a single grade of apples, known as the Standard Grade. But this grade is divided into three sizes governed by the minimum size of the apples in each grade as specified in Section Two as follows: "Standard Grade Minimum size, 2 1/2 inches; "Standard Grade Minimum size, 2 3/4 inches," and "Standard Grade Minimum size, 2 inches." In all of these sizes the specimens must conform to the stipulation that they be of one variety, hand-picked, of good color for the variety, normal shape, practically free from insect and fungus injury, bruises and other defects, except such as are necessarily caused in the operation of packing or apples which are not more than ten per cent below the foregoing specifications. This last provision was put in to allow for errors in packing. It is to be seen, also, that the barrels are to be marked with (1) the variety, (2) the name of the locality where grown, and (3) the name of the packer or person by whose authority the apples were packed and the barrel marked. As specified in Section Seven the law goes into effect the first of July, 1913. Many Michigan growers are packing according to its provisions this season, however. That such a measure will give increased confidence in the apple pack, done according to its provisions, goes without saying. Our foreign trade in apples should be enhanced, as well as our home trade. The Fruit Marks Law of Canada has accomplished great benefit to the apple trade of that country and has improved the foreign demand to a remarkable extent, so much so that the exporters of apples from the United States are being discriminated against in favor of the apples coming from across the line. What that law has done for Canada the Sulzer law should do for this country. The next move should be for each state to adopt a law in harmony with this federal statute.

HAPPENINGS OF THE WEEK.

National.

Lieutenant Becker, of the New York police department, was found guilty of murder in the first degree by a jury last Thursday. In the trial he was charged with instigating the murder of Herman Rosenthal, the New York gambler. The counsel for the defendant will appeal the case, through which the convicted man hopes to get a retrial.

The Ohio legislature purposes to enact a law providing for the examination and registration of nurses. A bill has been drafted to this effect.

A movement looking toward a world unity in religion has received substantial financial support and the program for an international conference will soon be arranged for.

An apple evaporating plant burned at Allegan last Sunday, causing a loss estimated at \$6,000.

Nineteen persons are reported to have been rendered blind by watching workmen weld railway tracks by an electrical process at Anderson, Ind. The peculiar quality of the rays is believed to have affected the retina of the eye, according to local physicians who are attending the cases.

Illinois school officials are aiming to improve the rural schools of that state by a system which provides for an inspection of school equipment as regards grounds, buildings, furniture, heating, ventilation, libraries, water supply and sanitation, and the qualifications of the teachers. If the inspection shows the school to be of a certain standard a plate is fixed above the door of a school indicating it to be "a standard school. Upon the fulfillment of certain further requirements, the school may be designated as "a superior school." By this means the patrons of the school are enabled to know the relative grade of such schools as compared with others of the state.

The dynamiting conspiracy trial is still in session at Indianapolis, Ind. The government, however, is getting its case well under way.

Advanced prices for steel products appear to indicate a strong tone in that market. The business for October indicates that more steel rails were sold in that month than during any other month in the year.

The ground is being broken for a 42-story office building at Seattle, Washington. This is the tallest and largest building of its kind on the Pacific coast. Vice-President Sherman is reported critically ill at Utica, N. Y. The physicians hold out little hope for his recovery. Being a candidate for re-election on the republican ticket with Mr. Taff, his severe illness at this time has raised the question as to how his place on the ticket might be filled in case of his resignation. The matter is being considered by the party.

The board of supervisors of Saginaw county adopted a resolution calling upon the next governor of the state to recommend to the next legislature the erection of a House of Correction along the same lines as that owned by the city of Detroit. Detroit recently cancelled its contract with Saginaw county for permitting persons to be sent to the House of Correction in the former city. Since then the jail at Saginaw has been overcrowded. The resolution will also be forwarded to the clerks of all counties of the state.

Wm. Palmer, an employe of the Alma

sugar factory, was seriously burned by the boiling over of a vat of syrup near which he was standing.

Thirty-six suits to recover penalties aggregating \$360,000 for alleged violations of corporate tax laws were filed in the United States district court at Philadelphia on behalf of the federal government.

Foreign.
It is reported that one person was killed and 20 wounded, two of them fatally, in a political riot at Havana, Cuba, on October 26. Election is to be held there on November 1, and it is predicted that considerable rioting will occur on that day. It is believed that the present government will not survive the election, for should it be continued a revolution will in all probability result. On the other hand, should the conservative candidate, General Menocal, be elected peace may follow because that wing of the electorate is supposed to be backed by the United States government; and fear of intervention is likely to prevent an outbreak on the part of the defeated party.

Affairs in the Balkan war have gone against the Turks the past week. The Bulgarians and their allies have already succeeded in collecting their forces about Adrianople and have practically isolated that place from communication with Constantinople, and the Bulgarians are now moving to strengthen their position between these two important points to enable them to effectively divide the Turkish forces. Thus far the Bulgarians have carried out their program quite closely. They are, however, not over sanguine regarding their victories and have issued a call for 80,000 more troops to assist in the campaign. The Montenegrins are bombarding Scutari and the capitulation of that place is expected according to reports. Another important item favorable to the allies is the successful joining of the Montenegrin and Servian forces at Sientza.

On October 27 the entries for the International balloon race for the Gordon Bennett cup started from Stuttgart, Germany. Only two American balloons started in the great contest. The third aircraft exploded about one hour before the race was begun, the explosion happening when the balloon was being filled.

The Czarevitch of Russia was stabbed by a person, now believed to be an anarchist, while on the royal yacht.

A special train carrying troops from Milton, Ont., to Toronto, crashed into an express train, killing two and injuring 39 persons. The accident seems to have been the result of a misunderstanding of orders.

It was reported here on Tuesday that a plot to assassinate Gen. Menocal, the conservative candidate for the presidency of Cuba, was frustrated by an unexpected change in the route of travel of a parade in which the General was riding at its head.

The conservatives were victorious in the provincial by-elections in Ontario on Monday. The net result is a gain of one seat to the administration.

A change is expected in the Canadian cabinet at Ottawa by the retirement of Hon. F. B. Monk from the portfolio of public works.

The derailment of a fast train at Toronto, Ont., resulted in the injury of several persons, four of whom were from Detroit.

CROP AND MARKET NOTES.

Lapeer Co., Oct. 26.—Fine weather for digging potatoes and doing other farm work, although wild geese are flying southward. Not more than one-half of the acreage of potatoes dug as yet. Produce dealers do not seem to care whether they buy or not. Potatoes in some sections are rotting some and the white grub and angle worm are making hard looking tubers. Sugar beets are being harvested. But little corn husked as yet. Apples are "hard pinched" to command 75@90c per bbl. Cider worth from nothing to 25c per cwt. While some orchards are neglected, the fruit being left to rot and, later, freeze, hundreds of bushels will be made into cider next week.

Mecosta Co.—Some farmers report their potatoes going 150 bu. per acre, and beans 12 to 15 bu. Not very much fall seeding done this year. Some of the farmers who had seed corn of their own have a good crop, but most of the fields grown from shipped in seed contain a lot of soft corn and frosted fodder. Apples have borne the best in years but are not of very good quality, as a usual thing. Hogs are worth from 6 1/2@8c per lb., milk cows from \$20@40 each; fat cattle are very scarce here at this time, as a great many have already been shipped out.

Sanilac Co., Oct. 24.—Sunshine and dry winds from the southwest have improved conditions for the farmer. Beans are pretty well harvested; a few days more and the crop will be secure; it will thresh about 75 per cent of a crop. Potatoes were never so nearly a failure in this section as this year. Such as were planted around June 15 were in the right stage of development to be severely blighted. Grain threshing about done and silos filled with corn that was well matured, as no killing frost came early. Large acreage of wheat sown; warm days and moist ground have caused it to make rapid growth. Some rye being sown. No fall plowing done yet. Pastures good; second cutting of hay heavy; mostly cut for hay, as little seed is to be found in heads. Some hay being sold at \$1.3 per ton. Other markets quiet.

Wayne Co., Oct. 14.—The weather has been very pleasant for nearly three weeks, part of the time having real summer weather. The wet weather is partially broken. Wheat sowing just about completed, some of it sown very late. Early sown wheat looking fine. Corn nearly all cut, not being as good as expected. Potato digging in progress, but yielding only about half a crop, on account of rot and grub eating. Butter, 28c; eggs, 25c.

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THE PRACTICABILITY OF SCIENCE.

(Continued from page 393).
 transmission of sound and in the production of electric stimuli. Who did not marvel at the wonders of the telephone and telegraph, and with what reverence almost do we not consider the discovery which permits, with the single pressure of an electric button, a message to be flashed through a thousand miles of space. The scientists in these matters have not been working to accumulate information and to unravel nature's secrets for the purpose of furnishing abstract information, for the C. Q. D. or the S. O. S. is being used as a daily means of saving human life.
 The chemist and the physiologist have learned, likewise, that before an intimate knowledge of the nutritive processes of man and animals can be understood, the mystery of the life of the single-celled bodies must be unraveled.
The Stone Which the Builders Rejected.
 One of the most difficult things for students to learn and for the public generally to recognize is that the discovery of the fundamental principles of life activity are never revealed spontaneously. They are the result of a natural evolution or systematic building in which many scholars have devoted their lives. If we were to judge any of our great men upon the failure of their prophecies, or the success thereof, most, if not all, would fail. Much more is said that is not true than that which is true, and the history of the scientific achievements of this day, when recorded a few years hence, will be free from many of the things which we now deem vital. Time smoothes out the lines and blots out the undesirable and what finally is reared in the great structure that science is building, will be a few stones which have been selected from many and, in fact, which in this generation may have been rejected entirely, for very frequently is it true that the stone which the builder has rejected has become the head of the corner.

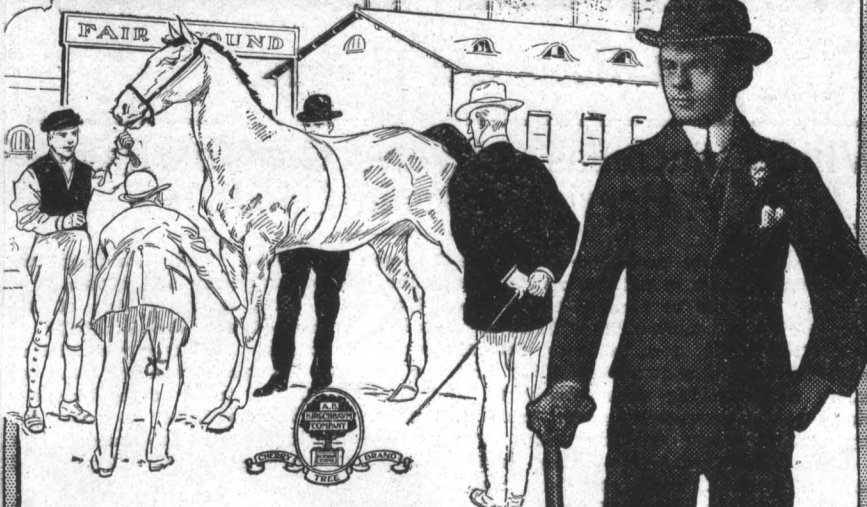
INTERNATIONAL CROP REPORT.

A cablegram, dated Oct. 21, 1912, from the International Institute of Agriculture, Rome, Italy, has been received by the United States Department of Agriculture, giving the following information:
Wheat.—The preliminary statement of production in Algeria is 27,173,000 bu. The total production in the countries named below is given as 3,257,000,000 bu., or 7.2 per cent more than they produced last year: Prussia, Belgium, Bulgaria, Denmark, Spain, France, England, Ireland, Wales, Hungary, Italy, Luxemburg, Norway, Netherlands, Roumania, Russia, (73 governments), Switzerland, Canada, United States, India, Japan, Egypt, Tunis and Algeria.
Cats.—The preliminary statement of production in France is 375,613,000 bu., Ireland 62,482,000, Algeria 12,352,000. The total production in the countries named below is given as 4,084,000,000 bu., or 20.7 per cent more than they produced last year: Prussia, Belgium, Bulgaria, Denmark, France, England, Ireland, Wales, Hungary, Italy, Spain, Luxemburg, Norway, Netherlands, Roumania, Russia (73 governments), Switzerland, Canada, United States, Japan, Algeria and Tunis.
Corn.—The preliminary statement of production in Roumania is 88,580,000 bu., Canada 14,218,000, Egypt 69,804,000. The total production in the countries named below is given as 3,620,000,000 bu., or 15.4 per cent more than they produced last year: Bulgaria, Roumania, Spain, Hungary, Italy, Russia (73 governments), Switzerland, United States, Canada, Egypt, Algeria and Tunis.
Sugar Beets.—The estimated production in tons of 2,000 lbs. is, for Prussia, 14,430,000; Belgium, 2,006,000; Denmark, 886,000; Italy, 1,653,000; Sweden, 1,091,000.
Rice.—The production in Japan is estimated at 367,656,000 bu.

Farmers' National Congress, New Orleans, Nov. 7-12.

The thirty-second annual meeting of the Farmers' National Congress, which occurs in New Orleans, La., Nov. 7-12, promises to be of more than usual interest because of a proposal to convert the organization into a country life federation. The new constitution, which will be adopted or rejected by the delegates at this meeting, proposes a federation of all associations, institutions and other general organizations primarily interested in country life, to be known as the American Country Life Federation. This Federation, if formed, will include state and national departments of agriculture, and agricultural colleges and experiment stations, as well as associations of agriculture, horticulture, live stock, etc. The primary purpose is to form a great national country life or agricultural society in which all existing country life organizations have a part, the membership to be in the form of delegates representing the respective societies, associations and institutions. Such a federation would be on a par with the American Federation of Labor, the American Federation of Women's Clubs, the American Manufacturers' Association, the National Education Association, and other like great national bodies.

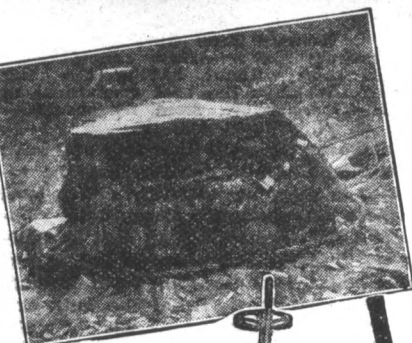
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 Kirschbaum Clothes keeps shape indefinitely. For they are twice shrunk by the famous London Cold Water Process, until the fabric will shrink no more.
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Woman and Her Needs

At Home and Elsewhere.

White Chinchillas and Velvet Coats the Rage—Henriettas Again Good.

If there was any proof needed of the old saying, "There is nothing new under the sun," it would be furnished by fashions. Have you noticed how Henrietta cloth, after having been taboo for several seasons, is being shown this fall? And dealers are assuring us solemnly it is going to be extremely good, with a very strong accent on extremely. It is in almost identically the same shades that we wore, I won't say how many years ago, another proof of nothing new. It gave me a feeling of extreme old age to see a piece of Henrietta exactly like the one which made up my "best dress" when I was a girl. Mahogany color we called it then. They have a new name for it now, copper color.

Henrietta will be chosen by the woman who does not want to pay more than \$1 the yard for her dress, for she can get a very good piece at this price, though it comes as high as \$2. Besides the copper shades there are numerous others, all good, green, both apple and darker shades, taupe, or smoke color, which is a brownish gray, three or four shades of brown and blues in all the tones.

More beautiful than the Henriettas, because more lustrous, are the coleen poplins. These have been good for several seasons, but were never before shown in such a bewildering variety of beautiful colors. There are plum and prune shades, for the matron, greens in every conceivable tone from the very darkest to the lightest, mandarin, a pumpkin yellow, maroon and other shades of red, Manitoulin blue, Alice blue, electric blue, in fact every sort of blue, and one perfectly ravishing color exactly like cloth of gold. In fact, the poplin looks like a piece of cloth of gold, and has the advantage of being only \$1.50 a yard.

Heavy double-faced goods, whip cords and diagonals are seen for suits and coats. These coatings run as high as \$4 a yard, but as three yards will make a coat of the length worn this season, the garment would not be so very expensive if made at home. And with the easily followed patterns we have nowadays, there is no reason why any woman should not make her own coat. The pattern shown in The Farmer of September 28, No. 7564, would be stunning made up in some of the season's coatings. Gray is very good in these rough goods, a heavy diagonal cloth with a thick fuzz almost like eiderdown is especially smart. There is a beautiful cloth plaided with stripes of green, and flecked with tufts of gray and golden brown which would make a stunning coat for dressy wear. More serviceable are the dark browns and taupes, with plaid on the under side. These are the double-faced goods which may be made reversible.

For the woman who considers beauty above utility the shops are showing coats of white chinchilla. As these sell so easily it would not be advisable for the woman who can not spend much for cleaning to buy one. But they are certainly very becoming and quite new. They are the season's length, about 18 inches above the bottom of the skirt and cut on English lines. They are much worn by young girls, while for the older woman coats of velvet are supplanting the plush ones, probably because they cost more. But they wear better than a cheap plush, and look much smarter. The most beautiful velvets are shown for them, in taupe, prune, wistaria, French blue, brown, copper, navy blue and mandarin. The coating velvet is shown in 42 and 44-inch widths and sells for \$3.50 and \$4.50 the yard, three yards and three-quarters to four yards being sold for a coat. There are velvets that sell for \$10 the yard, but these are only to be thought about in dreams. So soft is the texture and so exquisite the colorings that an artist would rave about them. Small wonder, then, that frail woman would almost go hungry to possess a coat of such cloth.

Corduroys are even better than last year for utility wear. They are shown in what is called, hollow cut, with the cut so deep that the back may be seen

between the cords. They are in plum, prune, taupe, dark gray and brown.

Manitoulin blue, the new blue of the season, is named for the bluebells of Manitoulin island. A buyer who visited the island this past summer was so charmed with the shade of the bluebells that he had it reproduced as nearly as possible and it is one of the season's new colors. One sees it in the silks as well as poplins.

Wistaria, taupe, copper, American Beauty, mole taupe, plum and prune are all good in the crepe meteors, charmeuse and crepe de chenes, which are the popular silks just now. A novelty in silks are the accordeon pleated ones. Good old-fashioned brocades are seen again this year, and are especially good in black.

HUMAN WELFARE QUERIES.

Dill Pickles.

Household Editor:—I saw several recipes in a recent issue of the Michigan Farmer for dill pickles. All are different from mine, which I imagine I like the best, and is as follows: Four quarts of water, one quart vinegar, one cup salt, lump of alum large as a hickory nut. Place all together in stew kettle on stove to come to a boil. Wash and cut in half medium-sized cucumbers, not less than one inch in diameter, and place in two quarts cans, with a few sprigs of dill among them. Add one level teaspoon of black pepper for each quart. When the liquid comes to a boil pour over the cucumbers and seal. Ready for use in two weeks. I enjoy the Michigan Farmer, especially the household page.—Mrs. E. B. C., Mt. Pleasant.

Elderberry Wine.

Pour eight quarts of boiling water over 16 quarts of elderberries. Let stand 12 hours, stirring now and then. Strain, press out all the juice and then to every four quarts of juice add three pounds of sugar, one ounce of cinnamon and one-half ounce of ground cloves. Let this boil five minutes then set away in a stone jar in a warm place with a cloth thrown over the top, to ferment for three weeks. Draw off carefully so as not to disturb the settlings, bottle and seal.

I have no recipe for grape wine nor for canning wild grapes and elderberries together. Several recipes for canning elderberries alone have been printed, and I should think you might use any of these, putting half grape and half berries.

Tomato Soup Curdles.

Household Editor:—How can I make tomato soup without having the milk curdle? What is the best way to clean varnished woodwork from fly specks?—Mrs. M. N.

I make tomato soup this way and have never had the milk curdle: Put the tomatoes in a granite stewpan with a level teaspoon of salt and cook until they begin to disintegrate. Then add a half-teaspoon, level, of soda and boil for three or four minutes, when put through the puree strainer. Scald the milk and add just before serving. I usually make a white sauce of the milk as we like the soup a little thick. If you always sweeten the tomatoes with soda and scald the milk before combining, I can see no reason why the soup should curdle. Some authorities on cookery claim that if tomatoes need soda they have begun to spoil, but my experience does not bear out this theory.

When doors, drawers, etc., stick and refuse to move, rub them with a cake of paraffin. This will not get gummy in time, as soap will.—Mrs. S.

Who Can Send Quilt Patterns?

Household Editor:—Could some of the Michigan Farmer readers send quilt patterns? Also, can anyone tell a good remedy for bedbugs in the walls? I have been watching for a remedy through The Farmer, but have only seen one for carpet bugs. Is there any way to keep pumpkin and squash for winter without canning it?—Mrs. G. S., South Branch.

Household Editor:—Will someone please tell me how to make Irish crochet jabots, with which velvet or ribbon is used?—D. F.

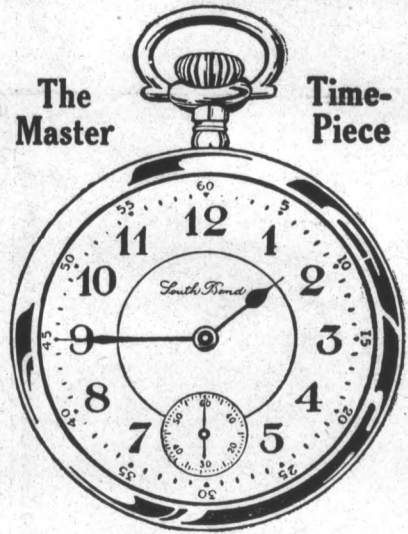


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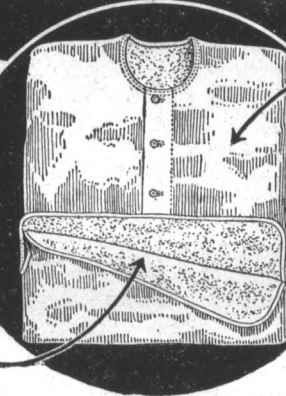
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(107)

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WHY WOMAN SUFFRAGE?

Dear Deborah:

Though I half believe you stood where you did on "The Suffrage Plank" simply to stir some of us up, still a few women may take you in earnest so I wish to take up very briefly a few statements you give for not being an active advocate of equal suffrage, and consider them.

1. Of course, "married women with no children, married women whose children have grown up, and spinsters," are mainly "leaders" in this movement for all women! Why not? Would we women be worthy of a part in public homekeeping if we had not first of all at heart the duty which lies least? That is one beauty about it all. The women who are out in the field are those women whose children have gone from the home nest and who are still seeking to follow them with their protection and interest. They are also women of means from protected homes who seek to help those less fortunate women whose conditions of living are heavy. The mothers with children still clinging to their skirts are mostly at home, but many of them are giving sympathetic help from that home circle as they are able through their daily contact with people. It is said that in Seattle probably not 100 women worked publicly for suffrage and yet at the first election an overwhelming number of women voted. The few who can, work in behalf of the many who can't.

And "spinsters?" Well I plead guilty to the belief that if anybody should go outside the home to work for this cause, it is the spinster! Since the day when, a few months ago, I had an arrest of thought upon this subject, as a spinster I have felt it incumbent upon me to do all that I can, not for myself alone, but for the hundreds of individual women who cannot go out from home but who need and want this co-partnership in the larger housekeeping of the community. More than being guilty of being a spinster, I am one of the 100,302 Michigan women who pay a share toward the support of the state without having any word as to who shall spend or squander that money. I am also one of nearly 8,000,000 women in this country who earn their own living and am interested with them in conditions under which we, together with many children from our homes, work in offices, stores, factories and upon farms. I am country-born and bred and have seen boys and girls by scores leave country homes to plunge into Detroit and other large cities. When I read that yesterday a special coach, with armed guards, left Detroit to take to prison 13 white-slavers who were convicted in that city, where it is boasted that "life is worth living," I naturally thought of those country girls who have gone to the city. Do you wonder that I wished that their mothers had some powerful relation to the laws that now aim only to "regulate" the conditions that foster traffic in young womanhood? More than this, I am one of thousands of "maiden aunts" who have had a responsible part in the care and rearing of motherless children and have learned thereby something of how quickly a boy can slip his home-moorings when he bestrides a bicycle and goes to school; and can dimly guess, with a wordless horror, the agony of those mothers who see their daughters, almost at their doors, made the victims of such atrocities as befell little Martha Reis a few days ago in Detroit.

2. You marveled at the personal topics discussed at the suffragists' tea which you attended. Did it not occur to you that these women had no incentive, through responsibility to discuss the relation of "Schedule K" to Johnnie's new overcoat; or of Detroit's pitiable civic scandal to the cost of a car ticket? They talked of baby's teeth and of husband's favorite meat because these are things to which they hold themselves directly related. But do you for a moment suppose these women would not intelligently follow baby and husband into wider fields just as soon as circumstances led them to recognize their woman's relation to those fields?

3. You do well to so frankly say that you suspect a possible relation exists between woman suffrage and the high cost of living; and if you will follow the same line of reasoning further, it will lead you into further conviction.

4. Because of these plain facts and others, in behalf of women who would like to try to help woman who are our "sisters" in all the dearness and largeness of that term—can't you say, next Tuesday morning, "John, if you cannot vote for the woman's amendment today, won't you please not vote against it?"

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100 Quarter Sections in Meade County, Kansas.

I have the exclusive sale of this land, owned by **THE WILSON LAND & GRAIN CO.**, on main line Rock Island R. R., in banner WHEAT and ALFALFA district of SOUTHWEST KANSAS. Some of this land for sale as low as \$25 an acre, depending on improvements. Easy terms, long time. Write for FREE BOOKLET AND MAP showing conditions of crops in EACH COUNTY in Kansas, terms, excursion rates, etc. **Agents Wanted, B. H. TALLMADGE, TOPEKA, KANSAS.**

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there. Will I carry them grips for you, mister?"

"Why, yes, thank you." "You're welcome," replied Bud formally, twisting about to view the pile of luggage.

"You can take that one with the two handles," offered the young fellow. "I really don't know which handle you should carry it by."

Ed Humphrey swayed forward on his toes, plopped his eyes out, screwed up his mouth and wriggled his nose facetiously at Herman as the stranger turned to help Bud sort out the pile of bags. He put one finger to his forehead with Homeric simplicity and remarked, rolling his eyes ominously, "Nuttty."

In support of this verdict the young man, having gathered up part of his bags, dropped them all suddenly and stepped back to where Hermann stood, dripping perspiration, and, introducing his remark with a nervous clearing of his throat, remarked, "By the way, I've lost my trunk check; but that won't make any difference, will it?"

"Difference? Of course it will. Are yuh sure it's gone?" queried Hermann.

"Yes, quite. I searched everywhere just before I got off the train. I was looking for my fountain pen, but I thought I'd be satisfied if I could only scrape up the check while I was about it. I didn't find either."

"Yes," said Hermann politely.

"No," said the other, "I found neither. But you'll attend to that, won't you?"

"I'll see what I kin do," volunteered Herman, "though it's against the rules to deliver anything without a check for it."

"Oh, I can describe the contents. I—I've done it before, you know."

Picking up a hat box and a hand bag, Sid Edgeworth turned to follow Bud, already struggling across the sizzling platform between two travel-tagged, English kit-bags, a pair of field glasses, and a wicker lunch basket containing two thermos bottles and rations for six.

When they were out of sight down the main street Ed Humphrey moved from his stand for the first time, glanced up at Hermann, who still stood staring after the stranger, and emitted a long, low whistle of consternation. Hermann only grinned.

Sid Edgeworth stood at last on the doorstep of the old Edgeworth house, sombre and hushed. He thanked Bud genuinely for his mile-long struggle with the luggage. Bud forgot the heat in an instant when Sid slipped a dollar bill into his palm and rang the doorbell.

Mother Hubbard, the stout housekeeper, whom Sid remembered vaguely, now red-eyed and trembly, opened the door to him and he entered with a bow, not a word passing between them.

In the parlor was Hornbill, who had nothing to say, only greeting the young fellow with a cold, shivering handclasp and remarking how much Sid's nose was like his grandfather's.

Sid was very glad of his voluminous baggage that afternoon. It gave him something to do. He stayed in his close, stifling room, starting at every one of the infrequent sounds from below, apparently absorbed in unpacking and re-packing his bags.

After supper he sat alone in the cool on the porch, his thoughts far away. Everything seemed strange and dream-like. But when he jerked himself from the hazy nullity of his drifting thoughts Sid always realized vaguely that he was face to face with his future, and he didn't like the look of it.

Beside that, it was a strange position in which he found himself. He did feel grieved; he was unnerved whenever he allowed his thoughts to revert to his grandfather's death, which they were constantly doing. There wasn't a relative on earth left him now. Yet he could not help recalling a bit bitterly the struggle his father had made against Nathaniel Edgeworth, Senior, who had refused him an education, forbidden his marriage and denied paternal pity during those long years Nathaniel Junior had fought out his battle in Boston, sick and alone with Sid, his wife having died at Sid's birth. Reconciliation had only taken place shortly before the death of Sid's father.

Then there had been the allowance. Yes, Nathaniel Edgeworth had tried to make up for it all, with almost foolish generosity—but too late. Still, Sid must be thankful to him. The allowance had served to jerk him from a poverty-stricken bohemian community of insolvent artists and writers into a class of congenial young fellows at college.

These thoughts repeated themselves, conflicting endlessly in his mind during

the whole of that frightful following day. The tight little funeral, hard and uncompromising, brief and exact, was all very hideous.

Some sympathy was duly offered Sid by the elderly ladies of the community and his few distant relatives, among them Susan Dunlap (who was really no relative at all), whom he met for the first time. She was so thoughtful in offering her condolence that he seemed greatly relieved to find her nice, and different from what he had fancied her.

Scarce as the sympathy was, Sid was embarrassed by it. Of course, he was sorry his grandfather was dead. It did give him an unaccountable sense of aloneness. But he had never known the man personally and had only the debt of gratitude for the education given him. He was much relieved when all was over and the pitifully few carriages had straggled back from the churchyard, Sid riding with Old Wattles and Hornbill.

Hornbill had been so affected by the death that the sight of his sorrow caused a chill to shiver through Sid, and he avoided him. But Wattles, only more gentle and quiet, Sid found quite companionable. He wasn't always referring to some last act of Nathaniel Edgeworth's, he didn't spend all his time weeping. His presence was restful to Sid, who couldn't be continually alone; and he missed him that night when the old fellow hobbled off home.

Sid wanted to get away. He had hoped to be able to go back to New York next day. His need was compelling. Turtle Creek was no place for him, he didn't belong there, he wanted to go—at once. Through his mind ran incessantly a restless drumming to the rhythm of car wheels. "I want to go, want to go, want to go east again." It seemed like a poem he had read somewhere, and he couldn't get it out of his mind during that restless, endless night. Several times he started up in bed as though he shouldn't be there. What was he staying for? He must get away. The room, the air, everything, was so oppressive. What was he staying for?

Oh, yes, the will; Nathaniel Edgeworth, his grandfather's will. He hadn't thought of its possible contents once since Newt Plum had informed him, after the funeral, that he must not go back to New York at once; that he must stay and hear the will read at three, next day.

Well, it was next day, and he had stayed. He'd hear the will read—how could it interest him, anyway—and then he'd go, go back, out of this town whose atmosphere stifled him, where he felt so foreign and hypocritical; away from Hornbill, whose grief jangled on his nerves; away from the villagers with their crocodile tears, away from the sadness of it all, and into his own snug little chambers at the Johnstone where there weren't any weeping willow trees stirring restlessly against one's windows all night.

He was quite packed and ready long before three o'clock that afternoon. What a silly thing it was for him to wait. He didn't care at all about it. Nathaniel Edgeworth really wasn't anything to him anyway. He had finally threshed it out and reached that conclusion. He didn't want his money. It would all go to Susan Dunlap, anyway. He would be glad of that. He could go back to New York and take the timekeeper's job Jim had offered him. He couldn't languish for another minute in that dread-filled house.

Sid had always placed bunkers between himself and sadness. Recognizing his nature his friends had always helped in keeping serious things from him. He couldn't stand sorrow of any kind. This weepy business settled like a blight on him. He could throttle honest old, red-rim-eyed Hornbill, who went slow-footed about the house, a crooked finger in his empty lapel buttonhole, mumbling incomprehensible things about "comrade," and "Gettysburg," and "they don't understand." To Sid his own man, Roberts, had always been a funeral horror, with his aged and respectable manner. But Hornbill was a thing he had never even dreamed.

Sid sat fidgeting with his hat in the stuffy front parlor while the few people interested in the will gathered in, hushed and humble.

There were present Sam Dunlap, with his adopted daughter, Susan, (she was the only refreshing bit in the landscape to Sid), Old Wattles, Hornbill, Newt Plum, a severe raw-boned old farmer named Aloisious Stimpson, Mother Hubbard, and one or two others.

Newt Plum, as lawyer, read the will. Sid sat listlessly through the preamble, a juggling of law terms which Newt Plum

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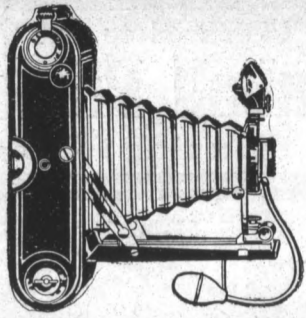
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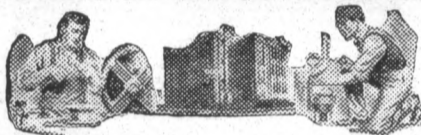
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mouthed affectionately, interspersed with bitter epigrams by Nathaniel Edgeworth. Sid paid no particular attention to the naming of the executors: Sam Dunlap, Newt Plum, and Aloisious Stimpson. But among the series of small bequests which followed he noted that Zeb Wattles was given the deed to his little house and an income for life of ten dollars a month, so he could "scratch along as usual" the will read, in Nathaniel Edgeworth's quaint phrasing, "and never become purse-proud and haughty." To Mother Hubbard was left a cook book and five hundred dollars, with the characteristic explanation from Nathaniel Edgeworth that she was to learn something new in the line of cookery from the book and that the money was to pay for the good materials she invariably wasted and spoiled in trying to master a new dish.

Hornbill was given a half interest in the old Edgeworth house for four years, with a monthly stipend of twenty dollars, to be increased to fifty if he left the house after the four years were up.

After that clause Newt Plum re-adjusted his spectacles, glared fiercely at the bated-breathed audience, rasped his dry throat and continued: "To my grandson, Sidney Edgeworth, I bequeath the remainder of my property, both land and invested securities, on the condition that he reside continuously (with the exception of two weeks in each year) in the old Edgeworth homestead, in which he is hereby given a half interest with Brigadier General Hornbill, for four years, and that he fulfill, within the stated four-year period, one or the other of the following conditions:"

Sid was now sitting up straight in his chair, mouth open, listening intently, his eyes luminous with wonder.

Newt Plum continued: "That he acquire, by purchase or gift, the deed to that strip of land commonly known as Bramble Hill, lying between the grove on the northeast end of my property and the farm belonging to Sam Dunlap, and add it to the Edgeworth Estate.

"Or, that he shall accumulate one hundred thousand dollars in rentals and other earnings from the four hundred acres known as Edgeworth Farm, a sole interest to the extent of three thousand dollars a year (the present income of said property) is hereby bequeathed to said Sidney Edgeworth for the period of four years, during which time he shall be sole administrator of said property and the profits therefrom. Should he by any chance make any amount from the land over and above the twelve thousand and less than one hundred thousand, the excess above the twelve thousand allowed him shall revert to the estate.

"In the event that Sidney Edgeworth fails to acquire the Dunlap strip of land or make the four hundred acres (valued at thirty thousand dollars) pay him one hundred thousand dollars within four years, the entire estate shall revert to Miss Susan Dunlap, adopted daughter of Sam Dunlap, my brother-in-law."

There was an ominous hush as Newt Plum finished. Then there broke out an excited jumble of confused sounds. Evidently the reading had caused a great sensation.

Sid sat stunned. He was beginning to see through the clever provisions of that will. He had even passed over without much thought the necessary four years' residence in Turtle Creek, struck dumb by the seeming impossibility of the staggering task laid out for him.

Old Wattles stepped over and put a hand on the young fellow's shoulder. Sid jumped.

"Guess you're to be congratulated," quavered the old fellow.

"Congratulated? How? What?" cried Sid. "You don't think I could ever make this land pay a hundred thousand dollars in four years, when it pays only three thousand a year now?"

"Pshaw! No! That's just your grandfather's little joke, he's jokin' ye," smiled the old fellow. "There's an easy way out of it."

"How?" asked Sid blankly.

"Why, Sam Dunlap's no fool; don't you think he'd give ye Bramble Hill if ye married his daughter? It tain't nothin' but a worthless passel of rocks, anyway. He wouldn't sell it to ye, but he'd give it gladly, providin—"

"You don't mean—"

(Continued next week.)

Weary Willie—Ever play chess?
Tottering Tommie—Naw; too much like work.

Weary Willie—But you don't have to move for a long time.

Tottering Tommie—Well, yer got t' move some time, hain't yer!

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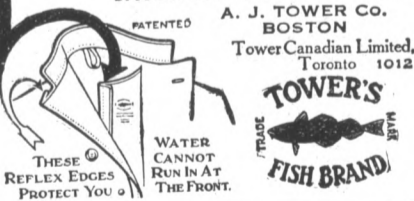
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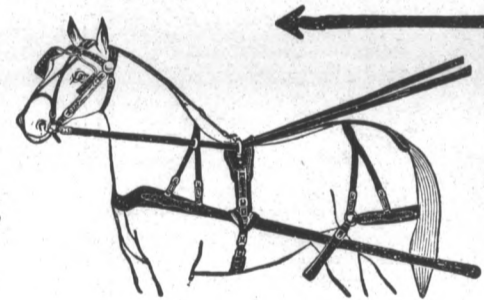
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THE NOVEMBER PROGRAMS.

State Lecturer's Suggestions for First Meeting.

(Co-operation Day Program.—"They helped everyone his neighbor; and everyone said to his brother, 'Be of good courage.'"—Isa. xii, 6).

Fifteen minutes of orchestra music, followed by a song.

Election echoes by two men and two women.

"What shall the women do next?"

Whistling duet.

Business co-operation: 1, its need; 2, in England; 3, in Denmark.

The Grange plan of co-operation contrasted with the American Rochdale plan.

Closing song, with whistling accompaniment.

THE PROPELLING POWER OF WORK WELL DONE.

In another month all the Granges of the state, with the exception of some Pomonas, will elect new officers. It seems almost a pity that this annual election must come just at the beginning of the season when a Grange may reasonably expect to do its hardest and best work. It would seem as if better results might be expected if the new officers were installed a little earlier and they have their plans well laid in readiness for execution when the fall work is nicely out of the way and the evenings are longest.

However, there is the satisfaction of knowing that the thoroughly efficient officer will do such work as will carry his office forward for a time by the power of its momentum. This is what every conscientious officer has the right to expect. He will do his best up to the close of his term of office, and turn over to his successor, not an empty title of office, but the duties of the same in such shape that his example and his plans will propel the work forward over the line of readjustment with the impetus which he has given.

Particularly should this be true of the lecturer's work. The habit of having a good program at every meeting ought to be so well established that the break in changing from one lecturer to another will not materially decrease the strong stride forward with which the Grange moves. It is to be hoped that this will be the case in a majority of the Granges of Michigan this year. Not only should the lecturer strive to do especially good work during this last month of the Grange year, but he should try to better his previous best at every point. Not alone that, but he should now get his program outlines, press clippings and notes upon the year's work in shape, so that he can make a concise report which covers the main features of the time he has been in office. This should include the chief topics discussed during the year, the different forms of entertainment features and mention of exhibits and illustrative material used to supplement the subjects considered. To also give the number of different people who have participated in the program will make a striking feature of the report, and any such facts go far to show how large a percentage of the membership is actually availing itself of the educational opportunities of the Grange. At first thought this may seem a mere form; but the chances are you will be surprised yourself at the showing you make in this way. In case you have not brought results to pass, you will discover the reason why this has been true and perhaps justify the fact to yourself and others. On the other hand, if you have had something of a program at every meeting—even though at times in your own sight it may have seemed a slight one, this summary of the entire year will look encouraging. It will add, by this process, to the splendid achievements which already stand to the credit of the Grange, simply because of a persistency to hold frequent meetings and carry out a program at every meeting.

In addition to a review of what has been accomplished, the retiring lecturer may well forecast what needs to be done, set forth plans that are still undeveloped and picture visions of what it is possible for his particular Grange to do in the future. I have known an entire Grange to be vitalized by this sort of reports. While it gratifies and surprises the members to see at a glance how much has been done, at the same time their con-

sciences and ambitions are quickened at sight of unattained possibilities which are pointed out. Such a report acts against self-satisfaction, which is a state as undesirable in a society as in an individual.

JENNIE BUELL.

COMING EVENTS.

National Grange, Forty-sixth Annual Meeting, at Spokane, Wash., Nov. 13 to 26.

Pomona Meetings.

Kent Co., with Courtland Grange, Wednesday, Nov. 20. D. E. McClure, state speaker.

Ingham Co., with Webberville and Vantown Granges, at farm home of Mr. and Mrs. Hugh Sisbee, Webberville, Friday, Nov. 22. Thanksgiving program.

Kalamazoo Co., at Scotts, Wednesday, Nov. 6. Principal address by the State Lecturer.

Charlevoix Co., with Ironton Grange, Thursday, Nov. 7.

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CLUB DISCUSSIONS.

Primary Elections.—"Are primary elections a success to popular government?" was the first topic considered by the members of Conway and Handy Farmers' Club at its September meeting. The topic was ably handled by Alton Grant, who said that as far as he had been able to learn they were neither a success nor popular. Barely 15 per cent of the voters took part in the last primary election, showing it is not a popular measure; one reason is the candidate has to make a declaration of his politics, he has to circulate a petition signed by two per cent of his own party, etc. A. E. Cole, G. L. Adams and others favored the system, but not the present primary law. G. A. Newman believed the greatest trouble lies with the people being too busy to get out to the caucus. Edward Greenaway was in favor of primary election because it brought the laws nearer to the people, and believes that the faults of the law will be corrected.

"The Ideal Neighborhood" was the second topic and was opened by Mrs. James Wilkinson who said the ideal neighborhood should extend further than our own neighbors; under ideal conditions neighbors should be interested in each other; selfishness is the base of all trouble. Jealous, envious people we do not desire to have near us. When a neighbor is behind with his work lend a helping hand; in time of sickness give an encouraging word and a hearty handshake. In the discussion Mrs. W. M. Horton said to be ideal would be perfection. An ideal neighborhood would be made up of perfect people, no backbiting, jealousy, envy, etc.

Middleman a Necessity.—In a discussion of the topic, "How can consumer and producer get closer together?" by the members of the Conway Farmers' Club, J. B. Rambo held that we can not get along without the middleman. E. Greenaway said he agreed with Mr. Rambo that middlemen are a necessity; we do not want too many, the less we have between the manufacturer and consumer the better, but we must have some. The people have learned the best ways of doing, times are better, small dealers are crushed out by big concerns and you can buy cheaper of a firm that makes large quantities. Conservation is necessary. J. Snyder said trusts make us pay more; small dealers would cause competition. J. B. Fuller thought there were too many non-producers; half as many professional and business men in a small town would be better, with more profit for those engaged in business. Co-operation among farmers is a good thing. F. Rathbun agreed that co-operation is right. Alton Grant said the credit system is a detriment to both sides; many farmers with plenty of means ask credit.

Favor Agricultural Expert.—Members of Charleston Club, of Kalamazoo county, to the number of 65, met with John McGlocklin and family on a recent Saturday afternoon. Although many men were kept away by the press of fall work, a live meeting was held. A resolution was drafted, to be presented to the board of supervisors asking that steps be taken to secure an agricultural expert for this county. The demonstration in fancy needlework by Miss Spring, director of art in a local store, was a marked success. Many are planning upon completing the course of three lessons which will be given at the regular meetings of the Club.

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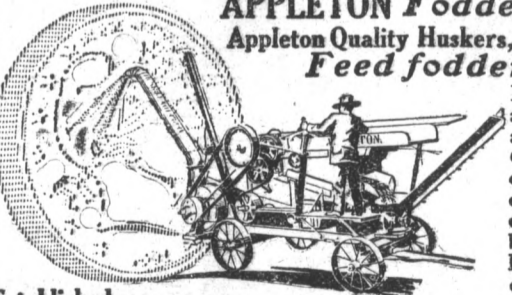
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