EVENING SESSION.

The Institute met at 7:30 P. M. Hon. Ogden H. Fethers in the chair. Music by Y. M. C. A. orchestra.

FARMING IN SCOTLAND IN THE DAYS OF OUR GRANDFathers.

HON. JOHN JOHNSTON, Pres. of the Board of Regents, Milwaukee, Wis.

JOHN JOHNSTON.

Citizens of Janesville, Farmers of Rock County, and Friends of the Farmers’ Institute:—

It gives me very great pleasure to visit once more this beautiful and thrifty city, and especially upon such an occasion as this. My former visit here was on the anniversary of the birth of the farmer of Mossgiel, Scotland’s peasant poet, Robert Burns, who walked “in glory and in joy behind his plough upon the mountain side.” On that evening

“As bees flee hame wi’ lades o’ treasure
The minutes winged their way wi’ pleasure,”

and songs, speeches and recitations delighted and amused an enthusiastic audience of over a thousand people.

Tonight we may not witness the exuberant flow of soul which marked that Burns’ anniversary, yet when I see the distinguished speakers who are to follow me I feel safe in assuring you that we shall have a feast of reason of the highest order.

A Farmer by Birth.

I am not unaware of the fact that some of our very practical farmers are quite skeptical as to the propriety of having this grand series of Farmers’ Institutes closed by the speakers of the evening. They have a natural suspicion that we can tell them but little which will be of any use to them in the barn, the hen-house, the orchard or the field, and they may be right. Still, there is one thing of which my associates and I may boast and which cannot be gainsaid, and that is that each one of us was raised on a farm; and I feel sure that if a boy has had his home on a farm for the first nineteen years of his life, he must be very un-
like the gentlemen who are to follow me if he cannot say something about farmers and farming which shall be worth hearing. He may have taught school or attended the university, yet if on his return home during vacation he had to "buckle down" to work in the barn or the harvest field, impressions were made upon him mentally and physically which he will not forget while memory endures.

Looking Backward.

I appear before you tonight with less hesitation from the fact that my subject does not call for any "up-to-date" knowledge of the science of agriculture in any of its branches.

When we were boys and had a long journey before us, we would run part of the way, and then, having reached an eminence, we would stop and look back to see just what progress we had made. This represents somewhat the task I have undertaken tonight, viz., from the high ground on which we stand today to look back to the condition of farming in my native land in the time of our grandfathers.

I had the good fortune to be born on a farm in Buchan, the central portion of the county of Aberdeen, Scotland. I hold in my hand the receipts for rent of the farm from 1759 to 1802. The first receipt runs to my great grandfather, John Johnston, and I regret that no sum of money is mentioned. It reads, "Received full and 'compleat' payment for the crops of 1756, 1757, and 1758," from which I suspect that the rent was not paid so promptly as it might have been; still, it is satisfactory to know that at last it was "full and compleat." The receipts run to my great grandfather till 1782, when my grandfather, William Johnston, appears as tenant, and he occupied the farm till 1832, being a term of fifty years, when my father took it. My grandfather, however, continued hale and hearty till I was a large boy, and I had many conversations with him about farming when he was young. In this country there are but few instances where we can compare the condition of a farm at the present moment with its condition one hundred years ago, yet from what I have been told, I can picture the appearance of that farm one hundred years ago and compare it with what it is today. The changes have been most remarkable, and I believe I am correct in saying that by far the greatest of them have taken place within my recollection.

Old Methods.

The farms in our neighborhood in my grandfather's time were divided into the "intown" and the "outfields." The former was about a third of the farm around the houses. All the manure was placed upon it, and it, of course, was the richest land, but that is not saying much, for the manure amounted to but little. They would always plough the land in the same direction, and in time the ridges became like small hills with valleys between them. There was no such thing as rotation of crops, and turnips, clover and potatoes were unknown. Oats, peas and barley were the chief crops; and after the "intown" had been cropped for years and would not produce more than about twice the seed, part of it was given a rest—that is, was not ploughed. Thereupon, it produced a bountiful crop of wild grasses, thistles, "skellochs," sorrel, rushes and tansies. If this was the treatment of the "intown" you can imagine how the "outfields" looked. I remember that our "outfields" on the hill were largely covered with heather, and on the low and wet ground with rushes, for drains were not thought of. I need hardly say that the use of artificial manure was wholly unknown, although they did treat the soil once in a while to a little taste of lime.

You can well imagine there were many years of great scarcity and even famine. The year 1782, when my grandfather took the farm, was a year of famine. The rents paid were mere-
ly nominal, but, small as they were, they could never have been paid from the land. It is interesting to know that almost all the money the farmers received came from the knitting of stockings. Instead of women working in the fields, the men worked in the house; and the old men and boys spent their evenings, and in many instances their days also, in winter, spinning and knitting. The stockings were sold to the merchants in Aberdeen who sent them to London, Holland and Hamburg. A traveler through Scotland at the beginning of the present century records it as a noteworthy fact that not a single woman was to be seen at field labor in the county of Aberdeen.

Old Time Implements.

You will be curious to know what sort of implements they used. Well, the Scottish plough in Aberdeenshire in the days of our grandfathers was probably not so good as that used by the children of Israel in the land of Canaan three thousand years ago—certainly it was not so good as that described by Pliny as used by the Romans in his day. It was a large and coarse implement, all made of wood except the colter and the sock, and the whole was so primitive that an expert wright could make three ploughs in one day at a cost not to exceed forty cents each. It was drawn by from eight to twelve oxen. Besides the man who held the plough, there was the “gaudman,” who walked alongside carrying a long stick with a sharp point for prickling the lazy oxen, and his shouts were so loud and emphatic that compared to them the “geeing” and “hawing” of today would appear tame and uninteresting. I remember there lay around our barn for years, part of a great iron chain which grandfather called the “soam.” This chain ran along between the six pairs of oxen and was the only remnant left in my day of the “twal’ owsen” plough. The traces were made of dried rushes or twisted fir roots, for ropes were almost unknown.

There was no such thing as a cart or wagon on the farm, and they would have been of no use for there were no roads. All the carrying was done by “currachs,” or large baskets hung from a crooksaddle, one on each side of the horse. The crops were all brought home to the corn yard, and even the dung was carried to the fields in this fashion. It is not surprising that the “outfields” got but little manure. The horses went in single file, the second horse being tied by its halter to the tail of the first horse, and so on. Sometimes there would be a dozen horses in line, especially when going on a long journey—say to or from the meal mill or the peat moss.

Condition of Roads.

I have said there were no roads on which a wheeled vehicle could be used. There were the remains, even in the north of Scotland, of a few Roman roads and there were the military roads made by General Wade through the Highlands. The latter were of so great advantage to the localities through which they passed that an enthusiastic native exclaimed in language worthy of his neighbor across the Irish channel,

“Had you seen these roads
Before they were made,
You would lift up your hands
And bless General Wade.”

In our part of the country, however, there were only the footpaths made by the “shelties,” traveling in single file. These paths, generally avoiding low ground because of its being too soft, went in a straight line over the tops of hills. The first roads were made on these absurd lines, but were after a time abandoned, as heavy loads could not be drawn up such steep grades.

Then, the crops were all cut with the sickle and threshed with the flail. I remember when the small farmers around us threshed with the flail, from four o’clock in the morning till
eight o'clock at night we could hear the thump, thump, of the flail, with only a short intermission for breakfast and supper and an hour for rest at the "twal' hoors." There were no fanning mills, but the grain was winnowed by being thrown up into the draft between two open doors in the barn. On the introduction of the fanning mill there was quite a discussion as to whether it was not sacrilegious to use it. Was it not a usurpation of the Divine prerogative? Does not the bible say that "He causeth the wind to blow," and "He bringeth the wind out of his treasuries?"

Another curious discussion may be mentioned. After the introduction of turnips, they became, when boiled and seasoned a favorite dish. By and by bone manure was introduced and used in the turnip field. It was generally suspected that many of the bones were human, and whole districts were agitated with the question as to whether it was proper to eat turnips which had been manured with human bones.

**Grandfather's Cattle.**

I need not say that the cattle were a small, scraggy, ill-shaped, ill-fed lot, and pure black. My father was wont to tell us that when he was a small boy a pure white ox was exhibited at the markets, to see which they paid a small admission fee. A pure white ox, or even a partially white ox, had never been seen in that part of the country. The horses were no better than the cattle.

Then there were no fences. Many a weary day have I herded the cattle when a small boy. I believe I should have gone crazy if it had not been for the company of the dog. He stayed by me when all others seemed to have forsaken me. The dog has been called the friend of man. I know he is the most steadfast friend of the herd-ladie.

**Social Enjoysments.**

Notwithstanding the poor condition of agriculture, the rural population was as great a hundred years ago as it is today. The inhabitants of Scotland are two and a half times as numerous as they were in 1800, but the increase has all been in the cities. The population of Glasgow was then 77,000, while now it is 700,000; the population of Edinburgh was then 80,000, now it is 300,000; the population of Aberdeen was then 26,000, now it is 130,000. The farming districts were as populous then as now, and with such a lack of roads and conveyances, with no newspaper, and with a postal service which charged thirty-five cents to carry a letter from London to Aberdeen, it would be interesting, if time permitted, to inquire how the people occupied themselves, and what were their social enjoyments. Of course, in Scotland they always had the school and the kirk, together with marriages, christenings and funerals, but their social gatherings were confined to narrow neighborhoods. My grandfather often boasted that he had brought his bride home riding behind him on horseback, after the fashion of young Lochinvar. Indeed, that was the only way a young man could treat his sweetheart to a ride in those days. They so seldom came together in large gatherings, that when they did so, they never failed to make those gatherings very festive. Even funerals were no exception, and, Sydney Smith to the contrary notwithstanding, there was often a vein of the best humor to be found in their most solemn occasions.

In case of sickness it was hard to reach a doctor, and so every neighborhood had its "wise woman" who could administer home-made medicines. The minister's and the laird's wives generally took the lead in this, and their gardens had many medicinal herbs. One laird's wife who was in the habit of collecting medicinal herbs for the use of the sick upon her husband's estate, being asked if she was not afraid of poisoning some of the poor people, as the herbs might be poison-
ous, replied, "There is nae fear o' that, for I aye try them on the laird first."

Food and Raiment.

The usual food was mostly oatmeal made up in different ways—pottage, sowens and brose; there were also kail or greens, and their favorite drink was home-brewed ale. Tea was beginning to be used, but many denounced it as both extravagant and effeminate. Claret was more common than whisky, for whisky was not the ancient drink of the Scots. I have been told that the servants near the rivers Dee and Don stipulated that they should not be compelled to eat salmon oftener than three times a week. That was before the days of railways, and I need hardly say that they are not surfeted with salmon now.

The news of the outside world had to reach the household of the Buchan farmer by the pack-merchant or the beggar, and I could tell many stories about those characters, for not a few of them continued to come around even in my school days.

The clothing of the people was plain and simple as their food. They hated all pretentious display, but were remarkable for their genuine hospitality, and above all they prized education. It mattered not how poor the home, how hard they had to work for a living, the children must be taught to read and write. They were very independent in their feelings; sycophancy could never flourish in such a soil. Burns expressed it well when he wrote:

"What tho' on hamely fare we dine,
Wear hodden gray and a' that,
Gie fools their silks and knaves their wine,
A man's a man for a' that."

Reading Matter.

The weekly Aberdeen Journal figures among my earliest memories. Some half a dozen farmers subscribed for a copy, each keeping it two days. By the time the last one read it, it was twelve days old, but the information was just as new to him as if it had been an extra edition got out to contradict "the extra" which had just been published an hour before.

From what I have said it will be seen that the life of the farmer in northeastern Scotland was very primitive in the days of our grandfathers, and that agriculture was in a most barbarous and depressed condition. There were no roads, no drains, no fences, no rotation of crops, no wheeled vehicles, no clover, turnips nor potatoes, while the cattle and horses were most miserable creatures. Is this to be wondered at when we consider that that land of rocks and bens, and hills and glens, lies under the North Star between the shores of Norway and Labrador, and that it is only half the size of the state of Michigan, and that only one quarter of its soil is fit for cultivation, and much of it is so poor and rocky that the farmers of Wisconsin would not consider it fit to be ploughed?

The Changes Time Has Made.

Yet if we take a survey of Buchan today we shall see a most remarkable change. The Encyclopedia Britannica says there is no country in the world where farming is carried on with more skill and enterprise, and that the average number of cattle to the acre of cultivated land in Scotland is about a third more than in England, and of sheep more than double as many. Johnson's Universal Cyclopedia says that the Scottish farmers enjoy a high reputation for the intelligence which they bring to bear on the cultivation of the soil, and Scotch beef from Buchan and Highland mutton are highly esteemed in London. This must be true, for Johnston's Cyclopedia was fortunate in having for its editor our friend Dr. Adams from whom we expect to hear this evening. John Hill Burton in his history says that Scotland shows
to the traveler's eye the cleanest and most systematic cultivation in the world—the best example of scientific husbandry.

On the farm I have mentioned, the heather hill has been trenched, and the quaking bog has been drained, and both smile with the finest crops, the fields are all fenced, and there is hardly a weed to be seen, while the most scientific rotation of crops and the free use of commercial fertilizers keep the soil in excellent fettle. From this farm of 160 acres, 70 head of fat cattle were shipped last year, averaging in price $90 per head. Not only the turnips produced on the farm but a large quantity of artificial food, such as cotton cake and oil cake, contributed to this result. The county of Aberdeen is today unsurpassed in the breeding and unrivalled in the feeding of cattle, and 40,000 fat cattle are annually sent to the London market.

The roads throughout the country, instead of being mere paths, are nearly as substantial as the boulevards in Chicago; and the farmers, instead of knitting stockings in the winter evenings, ride to roups and markets and political meetings in their gigs, and never put a hand to spade or plough.

The mean, scraggy, ill-fed, diminutive, black cattle have given place to the short-horn or the mammoth polled Aberdeen and Angus, while the little shelties have been displaced by the noble Clydesdales.

Twenty-five years ago there were no more prosperous men than the Buchan farmers, but the importation of foreign beef in recent years has affected them very adversely, and it may be that they may by and by have to do some hard work themselves.

**Education and Co-operation.**

It may be asked how has such remarkable advancement been brought about during so short a time? I answer, by some such work as is being done today in Wisconsin, viz., the organization of farmers' clubs for the discussion of farming questions, the holding of fairs in every neighborhood where prizes are given for the best live-stock, roots and grain, the encouragement given by the landlords, especially in regard to draining, the use of fertilizers, and the rotation of crops, and the practice of making leases for nineteen years instead of yearly, as is the case in England; but over and above all, as the most influential factor in the advancement of agriculture in Scotland, I think may be mentioned the rapid dawning upon the minds of the farmers of the fact that scientific farming is the only farming which pays. As early as 1723 there was organized "The Society of Improvers in the Knowledge of Agriculture in Scotland," and in 1730 was instituted a local society which called itself "A Small Society of Farmers in Buchan." They published an essay whose preface sounds very strange today, for they disclaim anything purely experimental or speculative and express the design of confining themselves to such practices as they have learned from tradition.

The Highland and Agricultural society which was organized in 1783, gave, and still continues to give, the greatest encouragement to the advancement of agriculture. Its annual show is the great event of the year in agricultural circles, and it has so encouraged local shows that not only every county but almost every parish has its annual exhibit of live stock, roots and grain. During recent years the Scottish farmer has been well supplied with agricultural periodicals where everything pertaining to the farm is discussed in the most progressive and intelligent spirit.

I should say that the Buchan farmer today is ahead of the Wisconsin farmer in almost everything except in dairying. Wisconsin is away ahead in that branch of farming. I believe that Wisconsin is behind in the drain-
age of land, and certainly very much behind in the matter of roads.

I think that Dean Henry and the other experts present will agree with me in saying that it matters not how much you plough and harrow, how much you apply manure and sow the best seed, it is all in vain if your soil be sour and wet.

We Need Good Roads.

Then, I am strongly of the opinion that nothing will add so much to the comfort and pleasure of farming in our beautiful state as the improvement of the roads. Complaint is often made that it is becoming more and more difficult to keep the young folks on the farm, it is so lonesome, tame and uninteresting. With agricultural implements which now do so much of the work and thereby shorten the hours of labor, if the farmers of Rock county had roads like those in Scotland, farm life would be much more enjoyable for the young. Your boys, and girls, too, for that matter, could jump on their wheels and take a run into Janesville and back almost any evening and they would not feel that they are isolated from the great world of affairs outside. In a few years electric roads will join our smaller towns; and with good roads to the various stations, country life will cease to be secluded, but will become part of the life of the towns. The greatest need of rural life in Wisconsin today is good roads; and to secure them the first thing we must do is to make our road tax payable in money and not in work. The way the road taxes in Wisconsin are worked out is a first-class farce.

With the tendency all over the world to crowd into cities and the constant proportionate decrease of the agricultural population, I believe there are many in this room who will live to see the day when farming, from a business point of view, will be the most independent and lucrative of all occupations. No one certainly deserves good fortune more than the farmer.

“God bless the man who sows the wheat,
Who finds us milk and fruit and meat;
May his purse be heavy, his heart be light,
His cattle and corn and all go right.
God bless the seed his hands let fall,
For the farmer, he must feed us all.”

The Triumphs of Agriculture.

I often wonder why the immense progress made by the farmer is so little appreciated and so seldom mentioned. When the boastful orator of the Fourth of July undertakes to expatiate on the unprecedented progress of the nineteenth century, he speaks of the wonderful advances in manufactures, transportation and commerce; he tells how immense trains day and night rush across the continent at the rate of fifty miles an hour laden with merchandise and men; he mentions the mighty machines we make, which, with a fulcrum, could easily move the globe on which we live, and he bids us listen to the messages from far distant continents which have traversed quicker than lightning the dark depths of the ocean. Such things strike the eye of the most casual observer, but it takes some thought to appreciate the triumphs of agriculture.

If a Vanderbilt increases the speed of his trains from thirty to fifty miles an hour, the nation holds its breath in wonder, but if Farmer Fethers, by draining, good ploughing and manuring, makes a field produce thirty bushels per acre which formerly produced but fifteen, no one regards it as especially wonderful or praiseworthy, yet the farmer’s triumph is perhaps the greater of the two. I venture the assertion that the progress from one of George Stephenson’s first locomotives to that on the grand Omaha train which daily leaves Chicago, is no such triumph as the progress from one of those scraggy, diminutive, black cattle of Scotland to the grand polled Angus, or from the little sheltie to the magnificent Clydesdale.
THE FARMER IN THE UNIVERSITY.

PRES. C. K. ADAMS, University of Wis., Madison.

Of all the institutions of human society a great university is unquestionably the most democratic. It is more democratic than the church, for the reason that within the church, as we all know, the very rich and the very poor seldom meet on the same terms. It is more democratic even than the penitentiary, for although all can enter the penitentiary on the same terms, it is not true that all have the same chance to get out.

Within the university, on the other hand, the rich and the poor meet on precisely the same terms and occupy precisely the same standing. It is true that the rich have some advantages over the poor. They can buy more books. They can join more societies. They can have more of fashionable social life. On the other hand, the poor have some advantage over the rich. They are tempted into fewer distracting influences. They have no allurements to

Let us consider this proposition a little. If we enter one of our 'great machine shops, we find the workmen manipulating inanimate matter, passive and obedient to their every touch. All its powers and properties they know exactly. The farmer deals with life, not only with vegetable life, but with animal life. He works on a higher platform than the machinist; he must force from nature some of her most mysterious secrets, the secrets pertaining to life and growth. Even in raising his crops he must not only woo the earth, but the air and sky and sun must smile on his efforts.

An Earnest Wish.

Ladies and Gentlemen, I must make way for the eloquent speakers who are to follow me, but I cannot close without mentioning a wish which often comes into my mind, and probably it comes into the minds of others here. It is, that before I finally lay my head on the lap of Mother Earth for my long sleep, I may have the happiness to go back on a farm again and there live for a few years "unvexed by the unholy strife that in the city frets and fevers life."

"Back on the farm again! I hear no more
The din of trade with its tumultuous roar,
The landscape glows with color, and the trees
Wave 'palms of joy' in every passing breeze."