

of the county there is a considerable area of level prairie, covered with a deep, black soil, highly charged with vegetable matter derived from the growth and decay of shrubs and grasses which have covered its surface. The subsoil here is not porous, so that it does not permit the surface water to pass freely through it. As a result these lands are likely to suffer greatly from too much water during a wet season.

Sand and Clays.—The clay and fine sandy deposits of the loess form, an excellent material for the manufacture of common brick. This may be obtained anywhere in the western part of the county. In the eastern part the drift clays can be mixed with the sand from the beds of streams for this same purpose. Directly underneath the coal seams are deposits of fire clay, which in some places can be worked with the coal and used for the manufacture of fire bricks. Between coal seams No. 1 and No. 2 is a layer of fine light blue clay shale, which where exposed weathers into a fine plastic clay, suitable for the manufacture of pottery.

Limestones.—The Burlington, Keokuk and St. Louis limestones described above all furnish excellent material for either building stone, or, when carefully selected, for lime. The Burlington and Keokuk are most accessible around Quincy, and the St. Louis farther east. The Burlington ranks highest, and as the deposit is nearly one hundred feet thick, may be considered as almost inexhaustible.

Coal.—About one-half the entire county is underlaid by coal measures, but the coal seams, with the exception of the middle one, are very irregular in their development and therefore of little value for the production of coal. The middle seam has an average thickness of over two feet, and is frequently as much as thirty inches, and is of fair quality. It may be found over all the northeastern portion of the county, if the coal measures are penetrated to the proper depth. The principal drawback to the successful mining of the seam is the shaly character of the roof, necessitating considerable cribbing. This coal seam will afford about two million tons of coal to the square mile, and the time will come when it will pay to work it wherever it can be reached.

CHAPTER XLIX

AGRICULTURE: THE DISTRICTS OF ILLINOIS—DEVELOPMENT OF LANDS—FARMERS' INSTITUTES - SOILS - CROPS - CATTLE, HOGS, HORSES, POULTRY—ROADS—HORTICULTURE.

By Hon. G. W. Dean.

The County of Adams lies on the Mississippi River, in the State of Illinois, in the center of the great corn belt of the United States. The Base Line runs centrally through it, and it includes ranges 5, 6, 7, 8 and 9 in the most fertile part of the Mississippi Valley. On its western boundary, along the river, lies some of the most fertile lands known for agricultural purposes, and by leveeing and tiling most of it has, been brought into cultivation. That portion known as the bluff lands is among the most fertile of the county. They produce all the grains and vegetables in abundance. These table lands lie more or less along the west side of Payson, Burton, Ellington, Mendon and Ursa townships. All these lands sell readily at high prices; and a considerable portion of them are used for extensive gardening, which pays in proportion to the skill of the gardener. These garden products are the best that rich soil and cultivation can develop. The remaining townships are mostly prairie land, fertile and productive, and although it has been cultivated ever since its earliest settlement, it produces as good crops as in the beginning. Therefore the development of the county's agricultural interests are commensurate with the general progress.

The State of Illinois is divided into three agricultural districts—namely, the northern, the central and the southern. There is also known to agriculturalists a corn belt which virtually feeds the world with corn and its products—pork, beef and mutton. This corn belt runs through the States of Ohio, Indiana, Illinois, Missouri, Iowa, Kansas and Nebraska. These seven states furnish the surplus of agriculture. The others are barely self-sustaining. Illinois furnishes more agricultural exports than any other of these states, and produces the most products of the farm. This corn belt includes the northern and central divisions of Illinois; therefore Adams county, being in the center of that division claims her share of the honor of this great exportation.

The staple field crops are corn, wheat, oats, hay, clover seed, timothy seed and potatoes; these grow vigorously and produce good crops. The soil seems to be peculiarly adapted to these field crops, and more especially to the farmer's garden. Our farmers, as a general rule, have taken fairly good care of their soil.

Occasionally a farmer or a gardener will fail to make a living, while others under the same circumstances and conditions have done well; therefore, not the soil, but the man who handles it is at fault if it fails to produce.

The lands of Adams county, as Nature has provided, can be kept up, and have been developed so as to raise better crops than in previous years. Help is scarce and farm labor is expensive, therefore improved farm machinery is used to the general advantage of our farm owners. And as to the benefit to the tenant farmer, I know of no better place for him to start than here, by renting a good farm, well improved. If he can't pay cash rent, he may give one-half of the crop of corn and hay, and two-fifths of wheat and oats. There are just such openings for good tenants, who can take a lease for five years, and at the end of the lease buy the farm, so that the interest on the debt will be less than the rent paid. Then the tenant is on the way to success. There is reported by the Department of Agriculture, in the Year Book, the case of a merchant who inherited a farm in the East, fifteen acres, with a mortgage on it of \$7,000. This was perhaps three or four times as much as it was worth, and it would seem that a common sense man would have let the farm pay the debt by foreclosure. But this man moved upon his farm, and in time lifted the mortgage. This shows what industry and economy can accomplish. There are owners of good farms in Adams county today who commenced as tenants, and who now rank among the best farm owners. It is quite probable that the tenants of today will ultimately own much of the best lands of our county.

"Have the farmers of this county gained much from government experiments?" we are asked. We unquestionably answer, "Yes." The government has issued bulletins on almost every conceivable product of agricultural industry, and they are furnished free to anyone who will ask for them. But as our "suggestive questions" demand something about our county farmers' institutes, we will discuss this subject later on.

All the tillable lands in the county are not what we call corn lands. Some of them will raise only one corn crop profitably without rotation. These rough lands, such as those in McKee and Concord townships, would be more profitable if seeded to grass and used as pasture. To raise grain on them fertilizers will have to be applied every year, and then the soil will wash away. But by pasturing, the stock will fertilize them and the grass roots will hold the soil. The timber among the creeks and branches should be carefully

guarded, as it is a valuable product. If one-half of McKee township were seeded down to blue-grass, clover and timothy, and the poor lands fenced into large pastures in such a way as to make water convenient, and the blue-grass pastured early in the spring and late in the fall, it would make a great ranch. Then if, the other half were fenced into grain and hay fields in such a manner that they could be used as feed lots, she could, with her timber and rock and coal and great supply of stock water, be a marvel of wealth. We believe it would make an experiment station more valuable than any whose record is yet published to teach how to redeem the abandoned farms of the country, and we doubt not that it would be the "one thing needful" which would determine the debated question of building the much needed railroad east through the country.

As time passes and farmers are experimenting more and more on the flat lands of the country by different modes of cultivation, they have overcome much of the damage previously due to wet lands, and good crops, are grown where twenty years ago the land was not fit for cultivation. Therefore tiled drainage has not received the attention that it might otherwise have received. All the land is drained where it is necessary to bring it into cultivation, but more of it would be better through being tiled.

Farmers are living well now, and are making improvements in every line of agriculture; their old houses have been replaced by new ones; the old -dilapidated rail fences, which have lived out their usefulness, are fast disappearing, and in their stead is the wire fence. There are no more fence rows where the weeds are higher than the fence; the houses and barns are adequate to the conditions of the farmer, and are beautifully and substantially painted and repaired; the lawns are clothed in nature's beauties and are artistically arranged; the family gardens in their season abound with almost everything known to the vegetable kingdom, and the county seems to be taking on new life. All this is being brought about through the influence, direct and indirect, of the Illinois Farmers' Institute.

In 1881, by the suggestion of the State Board of Agriculture, a County Farmers' Institute was organized in Adams county by the election of G. W. Dean, President; C. S. Booth, Secretary, and A. R. Wallace, Treasurer. We had no way to support it except by the encouragement of such men as P. S. Judy (known as "Uncle-Phil"), A. R. Wallace, W. A. Booth, S. N. Black and a number of others. With this support it became popular,

and instructive meetings were held in October and May of each year. We used mostly home talent, securing an expert when we could do so. Our success encouraged other counties to organize, and thus an interest was created throughout the state. But being satisfied that it would be impossible to get the best results from a farmers' institute at individual expense, a number of interested farmers met at the Leland Hotel, at Springfield, Illinois, during the Thirty-ninth General Assembly and formulated the bill which chartered the Illinois Farmers' Institute by an act of the General Assembly. This bill was placed in the hands of Col. Chas. F. Mills to look after its passage. Col. Mills placed the bill in charge of Hon. G. W. Dean, then a member of the General Assembly, with instructions to use all honorable means in his power to have it become a law. The bill was passed. It provided for a Farmers' Institute to be held in each county, not less than two days in each year. The next General Assembly appropriated \$50 to every county in the state that held an institute, subject to the conditions of the charter of the said Farmers' Institute. This placed it upon its feet; and every county in the state is organized and holds one or more institutes each year. In every state in the Union the farmers' institute is protected by law.

The farmers employ the best available talent at their institutes, which makes it expensive, costing from \$30 to \$250 each. Considering this, the Forty-second General Assembly increased the appropriation to \$75 for each county. The institutes work under rules and regulations adopted by the Board of Directors, and there is a rule that no more than one-third of the appropriation shall be paid to foreign instructors. That means that we can get two speakers from the Agricultural College, who instruct us on two different agricultural topics each. They cost the institute nothing but expenses, as they are salaried instructors.

The number of institutes were attended by speakers from the College of Agriculture and Experiment Station at Urbana, season of 1904-5. These instructors delivered one hundred and fifty-nine speeches, embracing almost every conceivable topic, from soil investigation to the marketing of the crop. The farmers in the locality where the institute is held are interested and take part in the discussions. From this fact institutes are held at different parts of the county to accommodate the audiences of the different localities.

There are supposed to be 500,000 farmers in the state, and the total attendance at institutes is 52,000. The average attendance of

school children is 20,000, of teachers 2,000, of farmers' wives 10,000; and may we not hope that some of the 448,000 farmers who do not attend institutes can be reached by some of the teachers and scholars who are to form the next "generation of farmers?"

It is the custom for the director of each Congressional district to call a conference of the presidents of all the counties in his district to meet at some convenient place in the district, to arrange dates in such a manner that the speakers will have a week's work on one trip. Thus money is saved and time economized.

It is reasonable to expect from the present indications that the time is not distant when the Farmers' Institute will open the way for teaching agriculture in the common schools. Therefore her 27,000 teachers are already falling into line for this coming event, and the elements of agricultural science are gradually finding their place in the primary and secondary schools through instruction of their teachers.

The value of nitrogen-fixing bacteria has been thoroughly demonstrated, and greatly increasing yields of leguminous plants with accompanying production of nitrogen in the soil is one of the great features of soil improvement as taught at our agricultural college and experiment station. At the University we are taught to use commercial fertilizers, and our institutes have embraced the opportunity and have learned to apply the necessary elements-nitrogen, phosphorus and potassium-to a very great advantage; but commercial fertilizers are costly, and the farmers of Adams county have learned that our soil is of such a nature that these elements can be furnished the land by simply a rotation of crops. These three principal elements in the land of Adams county are absolutely necessary to the production of crops, and in the protection of nitrogen, the principal element in vegetable growth, will add to the soil enough phosphorous and potassium for all purposes.

The rich bottom lands of Adams county contain 7,880 pounds of nitrogen per acre, and all the other elements necessary to raise a crop of corn. With these conditions 100 pounds of nitrogen will produce 100 bushels of corn. Thus the land is impoverished only one pound of nitrogen for every bushel of corn raised on the land. But if the corn is gathered from the stalk, and the stalks are left on the field they will return a half-pound or more of nitrogen to each bushel of corn, as the stalk is mostly composed of nitrogen and the ear is composed of other compounds,

most of which can be furnished from the ground, perhaps for a thousand years. This land is very valuable. The bluff or table and prairie soils of Adams county are the second best soils known, containing 5,800 pounds of nitrogen per acre, and all the other soil elements necessary to raise a crop of corn. Therefore, three crops of corn can be raised without perceptible injury to the soil, but constant corn raising will wear the land out in time. To obviate this, instead of buying commercial fertilizers a rotation of crops is all that is necessary to restore the lost fertility after the three crops of corn.. There should be a rotation of oats, followed by wheat, then clover in the spring, then let it stand two years, and the soil will be ready for another rotation, each crop paying for itself, and necessary for the regular farmer.

BACTERIA AND LEGUMES

The soils of Adams county are a composition of such fertilizers as will grow legumes, without inoculation. Clover is grown for this purpose, and where the soil is in good condition and the spring favorable, a catch of clover is almost certain. The nitrogen-gathering bacteria or tubercles on the roots of the clover plant have the power to take free nitrogen from the air and cause it to unite with other elements to form compounds suitable for plant food.. There are about seventy-five million pounds of atmospheric nitrogen rest on every acre of land, and it can be obtained in unlimited quantities.

The land situated on a hillside sometimes fails to grow clover. In this case a light dressing of barnyard manure will almost always insure a stand of clover, and its nitrogen-gathering bacteria that live in the tubercles on the roots of leguminous plants will properly inoculate the soil.

Adams county is rich in plant food, and if it has been used in crops it has, in and of itself, the elements necessary to restore its fertility, all the while bringing profitable returns. This makes her valuable above other counties on account of agricultural wealth, yielding her products with the least possible expense. In comparison with the southern division of Illinois, with 31.80 pounds of nitrogen and half enough potassium and phosphorus to the acre to produce agricultural crops, it requires no extraordinary conception to appreciate the difference. When we consider the northern division, with her 5,800 pounds of nitrogen per acre, with plenty of phosphorus and potassium to produce abundantly, it is somewhat surprising that so much

of her division is composed of peaty swamp lands and sand and alkali soils.

The corn crop of Adams county has always been greater than the state average, because the southern division, on an average, raises about one-half as much to the acre as the rest of the State. The State average is (1903) thirty-five bushels, while Adams county's average is forty-two bushels; and the State average for thirty years has been thirty bushels, and the price ran for the same time from 58 cents to 20 cents per bushel. In 1903 the acreage of corn was 99,833 with an average yield of thirty-four bushels per acre, at 42 cents per bushel, making \$1,425,615, as its total value. Cost of production, \$993,338, which leaves a profit for the farmers of the county of \$438,277.

Although the corn crop of 1903 was hitherto without equal, the crop of 1904 has exceeded it, and the general result is that the farmers have accumulated much more wealth than they ever have done in one year. "One conspicuous item that has contributed to the corn crop" is it produced nearly two and a half million of bushels, and its high price gives it a "farm value" of over one billion dollars. The Secretary of Agriculture says : "With this crop the farmers could pay the national debt and interest thereon one year, and still have enough left to pay the expenses of the national government for a large fraction of a year." An occupation that has produced so unthinkable a sum as one aggregating \$5,000,000,000 within a year may be better measured by some comparisons: All the gold mines in the entire world have not produced, since Columbus discovered America, a greater value of gold than the farmers of this country have produced in wealth in two years. This year's product is over six times the amount of the capital stock of all national banks; it comes within three-quarters of a million dollars of equaling the value of the manufactures of 1900 less the cost of the material used; it is twice the sum of our exports and imports for a year ; it is two and a half times the gross earnings from the operations of the railways; it is three and a half times the value of all minerals produced in this country, including coal, iron ore, gold, silver and quarried stone."

Adams county, lying geographically in the center of this great corn-growing belt, shares equally in the honors extended to the farmers in Secretary Wilson's eulogy on agriculture.

The acreage of wheat for the year 1903 was 79,949, and the yield twelve bushels per acre, making 959.388 bushels at the average price of sixty-five cents, \$62,350. Taking out of this four and one-half bushels per capita to

feed the eighty thousand inhabitants of the county, there remains 579,388 bushels for exportation. The average yield of the crop for 1904 is not yet reported; it was a less estimate than usual, but the average price being one dollar and three cents per bushel, it has brought more money to the farmer than the previous crop.

We do not know why the State Board of Agriculture did not report the oats crop last December, but we do know that it is an important crop and bountifully fed in hot weather by the farmers, and that the supply is equal to the demand for both county and cities therein.

The pastures of the county have an acreage of 53,292, with a value per acre of four dollars and twenty-five cents, and the total value of \$226,491 for 1903. The acreage and value have not varied much for many years.

There is a small potato patch of 1,151 acres in Adams county, that yields 39,134 bushels, valued at \$33,264; total cost of production, \$18,213, and net profit, \$15,021; besides a sweet potato field of forty-two acres, yielding 2,730 bushels, valued at \$3,139; also a field of timothy for seed which produced 1,052 bushels, valued at \$1,368; and a clover patch that produced 1,802 bushels, valued at \$9,370.

A large number of small fruits are raised in the county, a few of which I will mention, with their value as reported from the State Board of Agriculture: Grapes, \$145; wine, \$654; other fruits and berries, \$6,589. Also some dairy products; pounds of butter sold in 1905, 152,621, valued at \$28,998; cheese, 6,426 pounds, valued at \$1,028; and 51,853 gallons of milk, valued at \$5,185; 8,142 gallons of cream, \$6,514.

BEEF CATTLE.

Number of cattle, May, 1903, 34,378; total live weight, 8,895,375; price, four dollars per hundred pounds; total value, \$355,815. Dairy cows, number, 370; price per head, \$32; total value, \$12,128.

HOGS.

Hogs numbered 49,469; average weight, 207; average price per hundred pounds, \$5.55; value, live weight, 471,706. The number of sheep, 12,018; average live weight, 100 lbs. Total live weight, 264,400; price per hundred; \$4.15. Wool, number of pounds shorn, 1903, 43,185; price per pound; 18c; total of the product, \$7,773. Wool has been running 18c per pound for a long time.

HORSES.

The number of colts foaled since 1893, up to the year 1902, averaged 1,252 annually, and in 1903 there were 1,340; from 1892 up to 1897 there were horses and colts, 11,894 annually; from 1897 to 1900 there were 13,913 annually; in 1901 there were 17,546; in 1902, 16,665; in 1903, 16,214. Although horses have in the main been on the increase, a good horse now (1905) will command a fabulous price, and any horse will bring his worth. The Secretary of Agriculture in his report says: "Farm horses have increased slightly in number, and more in value, and in the aggregate they never were so valuable as in 1904, with a total of \$1,136,940,298."

"The value of farm mules also reached its highest point in 1904, \$217,532,832." A deficiency of 5 per cent in the number of mules in the State this year as compared with 1903 exists, but the mule interest is manifest and in sympathy with the horse interest.

POULTRY.

The rapid increase of poultry in numbers and in quality, together with the increase in value of products, leads to some astonishing results for 1904, when compared with former years. The Secretary of Agriculture reports: "The farmers' hens are now producing one and two-thirds billions of dozens of eggs yearly, and these hens during their busy season lay enough eggs in two weeks, at the high price of eggs that have prevailed during the year, to pay the year's interest on the national debt." The value of poultry sold in the county in 1903, \$10,650; eggs sold, \$9,848.

HORTICULTURE.

As horticulture does not belong to agriculture, except so far as the cultivation goes, it will not be discussed here. There is a manifest interest in the county that would lead to a great system of orcharding, if a means of spraying could be devised to effectually destroy the insects that are so injurious to the apples from year to year. If a perfect apple could be thus assured, the possibilities are there are thousands of acres of land in Adams county not very profitable as plow lands that would grow good apples. There are large orchards now which have been profitable, and horticulture is on the increase. But restore the perfect apple again, and horticulture would be comparatively in its infancy.

ROADS

The roads of Adams county are numerous and in greater demand centrally because

there are no railroads accessible to haul farm products to market, and it all must be done by wagon. The farmers under existing conditions build their own road in some localities. Burton township is setting apart forty cents on the \$100 of assessment as a special tax for hard roads; this has been in existence ten years, and with the money thus obtained they have made a good road on the roads running into the city of Quincy on Broadway and State streets, almost through the township. The highways could be made very much better if they were graded high enough to run the water off the roads. If this were done, there would be less complaint. This spring we crossed three townships; in two of them about one-half, of the water ran in the middle of the road, and they were impassable with a load; the other was nicely graded and the road was good all the way through.

May we not hope that by levying a tax to the full limit of the law all our roads maybe graded high enough to drain all the water off on their sides? If a hard road law ever passes in the State of Illinois, in all probability it will provide for submission to the people by townships or counties, in which case Illinois is likely to be as old as the Roman Empire was when she made good roads before a general system of road making will be established. If the roads are first well graded, they will be in good condition for a permanent improvement when the time comes.

The Board of the Western Society of Engineers report that Illinois has "unlimited material for the manufacture of Portland cement." This being true, may we not hope that the hard road problem is solved by finding a road building material that will be economical and durable and that can be reached.

In conclusion we want to say by way of repetition, that because of the general farming on the soils, the great agricultural central west is the present, and we may say, "the future, granary of the world." The land whose fertility, can be kept up by rotation of crops is as good as Abraham's choice to dwell in the land of the plain of Jordan, annulling the world's historic verdict, "Westward the course of empire takes its way," and substituting therefore, "Here a permanent agriculture holds-sway."

It has been the tendency heretofore in the civilized world for the farmers to run their land down and then cry "Westward ho, young man!" The farmers did not know that lost fertility could be restored. As the farmer's stock is fed the products of the farm to produce to sustain the human body, even so the

soil must be fed the elements necessary to retain its fertility. He who speaks differently knows not whereof he speaks. Two years ago this was more noticeable because the South is enjoying prosperity owing to the increased value of her cotton crop in addition to her general progress in agriculture. The Eastern farmer, who has been long in the background in competition with the rapidly expanding upper Mississippi River Valley, is enjoying normal conditions on account of varied Industries. The Pacific coast is prospering' with its "world famed specialties." The mountain States glory in the fruits and prospects of irrigation. In the early settled prairie States the farmer bought much of his land at \$1.25 an acre, which now sells at \$100; and the American Desert, very lately nothing but a buffalo range, is now settled by prosperous farmers, making money from the proceeds of their, products. The fertility of the Adams county soils need not and ought not be reduced below its original productive capacity.

May we not hope that the farmers will assist to establish a system of farming which will insure a profitable and permanent agriculture. Let us not repeat the history of the great Mohawk Valley in New York, or the James River Valley in Virginia, both of which were once famous for their fertility and productive capacity.

Prof. Joseph Carter, of Champaign, said not long ago, in a public address, that he recently traveled through the valley of the James River in old Virginia, and he found there that some of the beautiful farm lands which once grew crops of tobacco which made Virginia rich, are now absolutely abandoned, and no man will own them. A well-regulated system of rotation of crops would have saved this once fertile land, and old Virginia would be growing tobacco yet.

The farmers are learned now, and may they not hope that those of Adams county will improve their already fertile lands?

HORTICULTURE IN ADAMS COUNTY.

By C. H. Williamson.

To whatever instinct is due the development of horticulture, the passion for gain or the passion for beauty, it is certain that the history of horticulture in Adams county is practically synchronous with its earliest settlement: more particularly is this true of Quincy, whose founder, Governor John Wood, was also the first tree planter. It is hard today to estimate what the city owes to this truly great citizen; but not the least of the debts it owes

to the loving care and remarkable foresight of its founder is his establishment of its first orchard and the beautiful shade trees which kindled a love more enduring than brass in our people, and an enthusiasm which has reached the heart of every dweller in the town whose first walls he reared, so that it might almost be said that every child who is born in the town is baptized into a love of trees. This passion which his love first kindled has so taken root and spread that today Quincy is one vast park of beautiful shade trees, prominent among all the cities of the west in this regard. But if, it owed so much to him, its debt is hardly less great to a line of men who, coming later, have had his passion for the beauty of trees in no less remarkable a degree. Among these whose names I cannot for behoove to mention are Lorenzo Bull, one of the city's greatest benefactors; Henry Whitmore; who personally planted many of the trees that are now the glory of the beautiful east end; Edward J. Parker, the father of the city parks and the untiring preacher of the gospel of civic beauty. If Quincy owes much to Governor Wood as the pioneer, it owes more to Mr. Parker in its uplift to higher ideals of civic beauty and practical plans for realizing those ideals. These men have left and are leaving monuments that will carry their names to the ages. In passion for rare and beautiful trees, and in generous sympathy with every aim that added to the city's tree wealth and beauty, I cannot forbear to mention Richard F. Newcomb. A richness of delight in tree beauty made him a center of infatigable enthusiasm. Not least among those whose example has been contagious and inspiring are: the honored names of Henry Bull, O. H. Browning, Nehemiah Bushnell, Willard Keyes, Henry Asbury. But these names, incomplete as they are in a roster of those who have deserved well of their city in respect of its beauty, are but a part of the story. That is the most remarkable that the whole city is leavened with the same spirit, and that the beauty of the city is not sporadic and a thing of parts, but of all parts and generic. Quincy's outward beauty is the outward and visible sign of a deep and inward sense for things beautiful that is universal, and touches not some, but all.

But if horticulture is in its deepest and truest sense the outward result of the inward craving for the beautiful, and therefore first to be mentioned, it is not less true that it has a practical sense, and that an honorable one. For if such men as I have mentioned deserve well of the city, not less to be remembered and revered are the pioneers in practical horticul-

ture--such men as William Stewart, Sr., of Payson; Deacon Scarborough, of the same town; Clark Chatten and Robert Rankin, of Fall Creek; Henry Kent and Edward Sinnock, of Ellington; D. C. Benton, and Harges & Sommers, of Quincy. And in this line, too, as I have before indicated, stands first Governor John Wood. It was he who planted the first orchard. In 1820 he was living near Atlas, in Pike county, when as the earlier history of the county tells us, he and Willard Keyes, both young and unmarried men, were temporarily housekeeping and farming in partnership.

In the spring of that year he made a journey on foot to the orchard of one Avery, who lived a short distance above St. Louis, and bought of him one pint of apple seed, paying a dollar for it. He planted these seeds and just three of them grew. This did not satisfy his appetite for tree planting nor discourage his determination to have an orchard.

In the autumn he made another pedestrian journey to Griffith's orchard, on the river opposite the old French settlement of Portage d Sioux. Here he was permitted to take the pomace from a cider mill and wash out as much seed as he wished. He made these journeys on foot, as he also did many other longer and more difficult ones, because he was then too poor to own a horse. About the same time he came into possession of another small quantity of apple seeds in the following manner: Wood and Keyes had made a quantity of maple sugar, and finding a family by the name of Sprague who were very destitute, and the parents and most of the children sick, Mr. Wood. made them a liberal present of sugar, and wishing to express in some way their gratitude, and having nothing else to give, they insisted on his accepting a portion of a supply of apple seed they had brought with them to the county. From the product of these two lots of seed the young men were able to supply not only themselves, but many of their neighbors, with trees for planting. In the spring of 1823 Mr. Wood, who in the meantime had removed to where Quincy now stands, planted a portion of his trees on a tract of land now embraced between Twelfth and Fourteenth and State and Kentucky streets. About the same time he planted some peach seeds, which were set out in the orchard in 1824. In 1827 he gathered fruit from both his apple and peach trees. Some of these apple trees are still living. About the year 1830 Governor Wood planted a quantity of chestnuts and set the young trees on his grounds. Before the year 1832 Major Rose, Willard Keyes, James Dunn, Silas Beebe and

others of the early settlers, including several in the eastern part of the county, had planted apple orchards. These trees were all seedlings, except about a dozen in Mr. Wood's orchard, and many of them were obtained from him.

George Johnson, of Columbus, planted in 1832 the first orchard of grafted apple trees. In 1836 Deacon A. Scarborough, of Payson, set out a large orchard of bearing trees, some of which are yet living. In 1839 he planted an orchard of 200 peach trees, some of which were still standing in 1868. In 1855 he introduced the Concord grape.

1837 Clark Chatten, of Fall Creek, purchased some grafted apple trees of Charles Stratton, of Pike county, and planted them on his farm. During 1838 and 1839 he continued to add to his orchard until he had 40 acres covered with apple trees, and became the laughing stock of some of his neighbors, who thought a market could never be found for so much fruit as that orchard would produce; but he continued to buy more land and plant more trees.

In 1867 he had in all 240 acres devoted to apple trees, and 187 acres devoted to peach trees, the largest orchard in the state, from which he amassed a considerable fortune.

In 1839 Wm. Stewart, of Payson, planted some peach seeds which he had secured from a small quantity of fruit purchased in Pike county for the purpose, and in the spring of 1840 he transplanted the young trees to a new farm he had purchased adjoining the village. At the same time he purchased one hundred grafted apple trees from a nursery in Pike county, probably at Atlas, and planted them in alternate rows with the peach trees. During the summer he went East and in the autumn brought from New York a choice collection of various kinds of fruit and ornamental trees, shrubs, flower seeds, etc., such as his then limited means enabled him to purchase. The next spring he planted these, and grafted some young apple trees grown from seeds planted the previous spring, and this commenced "Stewart's Nursery," which for twenty-five years was the leading one in the county. In 1852 Mr. Stewart started a branch nursery in Quincy under the direction of Wm. Stewart, Jr., whom he had admitted to partnership.

Henry Kent, of Ellington, sent in 1839 to Prince's nursery, Long Island, for a supply of apples, peaches and nectarines, and with these as a beginning started a nursery in 1841. He was the introducer of the nectarine, which was for many years after profitably grown in this section.

He was to the north half of the county what Stewart was to the southern half, and a man of splendid character and judgment. A later very valuable nursery was that of Deacon A. Scarborough, of Payson.

But the nurseries, valuable as they were as adjuncts to our early horticulture, would have been incomplete as stimuli had it not been for the remarkable work at the county's first Horticultural Society, of which Robert Rankin, for many years was the president and moving spirit. Under the active guidance of this society much valuable experimental work was undertaken, and successful exhibits were made at the State Fair and meetings of the American Pomological Society. The first exhibition of Adams county fruit at the State Fair was at Springfield in 1853, when Wm. Stewart and son took a number of premiums, among them that for the largest and best collection of apples named and true to the name. The first public exhibition east of the Alleghenies was in 1860, by G. H. Stewart, who took a choice collection to the meeting of the American Pomological Society in Philadelphia. This fruit attracted much attention and received high commendation. About the year 1863 or 1864 Clark Chatten took the first premium of the Illinois Agricultural Society for the "best cultivated orchard."

In 1867 Ira Coe, of Melrose, took premium at State Fair held in Quincy and received as such 100 Jonathan trees, which he planted in his orchard, now the property of the writer of this article. These are believed to be the first trees of this splendid variety brought from the East, and most of the 100 are still living, and are bearing in splendid health and very productive.

The Adams County Horticultural Society was organized in December, 1867, by the election of Robert Rankin as president and Wm. Stewart, as secretary. This soon included all the leading horticulturists of the county. This society did effective work for many years; it made out lists of the various kinds of fruits, based on long practical experience of the members, and recommended these lists to planters; it held outdoor meetings in the summer months, on the grounds of the different members, for the purpose of observing the practical workings of the different systems of culture. It also made exhibits, as a society, at various fairs, with the most flattering results. However, it languished; but with a later revival of general interest in horticulture there was established the Mississippi Apple Growers' Association in Quincy, in 1900. Its founder and first president was Henry Clay Cupp, of Fall Creek the largest orchard-

ist in the county. James Handly, of Quincy, was its secretary, a position he still holds. Mr. Cupp was later succeeded by the Hon. S. N. Black, of Clayton, as president. Mr. Black was a charter member of the Illinois Horticultural Society, and one of the most eminent and widely known horticulturists in the State. On his retiring from the presidency in the present year, 1905, he was succeeded by C. H. Williamson, of Quincy. The society, while local in its origin, was comprehensive in its aims, and while, unlike the early Horticultural Society, it confined its interest to the apple, it was because in the series of years the apple had come to be the only fruit of importance in Adams county raised for the distant market. In fact, in the intervening years even the apple had diminished in importance in the volume of product and in its essential value in the market, and strawberries and peaches; which had in the later sixties and early seventies been shipped in remarkable volume from the various shipping points of the county, had dwindled to insignificance during the eighties and early nineties as far as their production on a commercial scale was concerned. The causes of this remarkable change are not far to seek. In the first place, the culture of strawberries, which had its beginning in 1852 by J. H. Stewart and D. C. Benton, of Quincy, and in 1865 had attained to considerable volume, was greatly affected during the eighties by the throwing open by the railroads of new and cheap lands in the Southwest to berry culture, causing a great decline in the market values of strawberries in the markets where our berries were sent, as well at the same time new and better methods of shipping, particularly the use of refrigerator cars, made it possible to ship from more distant points in other directions, so that there was a greatly lessened demand for our berries. This same cause operated against our other small fruits, as well as against peaches. But an even more potent cause came into operation by the industrial expansion of Quincy itself, which withdrew hundreds of those on whom the berry growers depended for picking their fruits, to more lucrative occupations.

In the case of the peach there were at work climatic causes rendering the production less certain, and in the case of the pear, the blight.

At one time, indeed, in the eighties, it seemed as if horticulture, even that of the apple, was doomed to extinction. except on a very small scale and for the home market only, and this was due to causes, some obvious, some obscure. In the first place, the soil was no longer virgin, and long continued culture had exhausted certain properties out of the

soil very necessary to the life of bearing trees and plants. And no attempt had been made to replace them. The soil robber had been at work. The then available horticultural science was not able to point the remedy. In the second place, insect and fungous enemies had vastly multiplied. The codlin moth had appeared very early, probably as early as 1850. So had the scab, the most destructive of fungous enemies that attacked the apple, but the strong trees of our splendid and virile young orchards had been resistant. As the orchards aged and their vitality decreased, and continued production without proper fertilizing had greatly decreased their natural powers of resistance, they succumbed to the growing attacks of their insect and fungous enemies, and no longer produced fruit of a nature to be successfully marketed.

The art of spraying was little understood and less practiced. Then, too, the vigorous pioneers had many of them died or moved away where more virgin soils offered more alluring possibilities. Horticulture was in hands less experienced, which did not have the splendid courage of the old order nor the better science of the new order of things. There were ten years more of travail and distress, but gradually men turned in the light of better knowledge to address themselves to the old problems with a freshened understanding and a revived courage, and now Adams county is on the threshold of a better horticulture and a mightier industry. Young men such as Leeper of Lima, Robbins and Scarborough of Payson, Seymour of Fall Creek, Lambert of Coatsburg, Montgomery of Melrose, Chatten of Ellington, and some of the elders, as Cupp, Perkins, Heckle, Wharton and Rankin, are applying the knowledge that experimental science affords to a thorough understanding of local soil and climatic conditions that promise great results. Some are already garnering them, and they better understand their limitations. They know in the first place that they cannot gather where they have not sown. They cannot continually take without giving. If the trees are to bear, they must also be fed. They have learned that they must therefore fertilize.

They know in the second place that moisture must be conserved, that the soil must be stirred to unlock for the trees their potential supplies of food, and that life-giving air may reach the roots. They therefore cultivate. They know that the insect and fungous enemies can and must be combated. They therefore spray. They know that the soil must be enlivened as well as protected from the cold of a severe climate; that the water-bearing capacity of

the soil is in proportion to the humus content. They therefore sow cover crops. And above all, they know that all soils are not adapted to fruit trees; that a tree to live long must root deep in rich soil, and that in the loess soil covering our limestone bluffs nature has given Adams county one of those pre-eminent areas of natural adaptation which place her unrivaled in readiness to produce fruit fit to enter into that competition of excellence for which the exacting markets of the work are offering most suitable reward.

CHAPTER L.

ADAMS COUNTY'S BENCH AND BAR-PRIMITIVE PRACTICE IN THE MILITARY TRACT-CIRCUIT JUDGES-EARLY MEMBERS OF THE BAR

The early bench and bar of Adams county had a fame, justly. Acquired, in Illinois. It was the bar of the "Military Tract" --that part of the State between the Mississippi and Illinois Rivers and south of the latitude of Rock Island--which had been reserved by the federal government for the soldiers of the War of 1812, whose patriotism was recognized by "Bounty lands." On the bench in that circuit presided jurists of recognized ability and acumen, and at this bar practiced lawyers of learning, eloquence and skill, whose renown was widespread, all contributing to give to the bench and bar a lustre which time has not dimmed and which will ever be a source of pride to Adams county.

The first circuit judge was John Yorck Sawyer, a native of Vermont, whose name appears enrolled as a lawyer December 7, 1820. On the bench Judge Sawyer sustained an excellent reputation for ability and integrity. He was appointed at the session of 1824-5, and two years later was legislated out of office by the law of 1826-7, which repealed the circuit court system and threw upon the supreme judges circuit court duty. Judge Sawyer's first court was held July; 1825, in the cabin of Williard Keyes, on Front street, near the foot of Vermont, this being the only one of the three cabins then comprising Quincy "in which there were no children." The session was but formal, and the first business session of the court was held October 31st, following. After leaving the bench; Judge Sawyer resumed his profession at Vandalia, then the state capital. He died March 13, 1836, at which time he was editor of the Vandalia Advocate.

Judge Sawyer was succeeded by Samuel D. Lockwood, of the supreme court, whose name is recorded as the first licensed lawyer in Illinois, the date being May 14, 1819. Lockwood was born in Central New York, and came to Illinois in 1818, stopped first at Kaskaskia, and finally settled at Jacksonville, which was his residence until he retired from the bench in 1848. Then he removed to Batavia, where he died about 1885. Judge Lockwood was a man of excellent education, learning and refinement, who reflected exceptional honor on the position held by him.

In 1831, a fifth judicial circuit having been added, Judge Richard M. Young was appointed. Judge Young was a Kentuckian by birth, a man of exemplary habits, refined mind, industrious disposition and good judgment, who held the public confidence and who served out his full term of six years with dignity and credit. After serving his term he was successively United States Senator, Illinois State Agent in Europe, Clerk of the United States House of Representatives, Commissioner of the General Land Office, and finally he engaged in a legal agency business. His last days were passed in an insane asylum.

James H. Ralston, who succeeded Judge Young, in 1837, had been a practicing lawyer in Quincy, and was also a member of the state legislature in 1836-7. Ralston also was a Kentuckian. His services on the bench, while creditable, were brief, as he resigned in 1838, and was elected state senator in 1840, and was an unsuccessful candidate for congress a year later, after which he went to California, where he was found dead in the woods, having either died suddenly or been killed by some animal.

Judge Ralston's successor was Peter Lott, who came to Illinois in 1835 from New Jersey, locating at Carthage, Hancock county, whence he soon came to Quincy, where he resided for some sixteen years. Judge Lott had more than ordinary ability and made a good record on the bench. He was a Whig till about 1836, when he joined the democratic party, in which he became prominent. Retiring from the bench in 1841, under the re-organization of the judiciary law, he resumed the practice of law, was elected to the lower house of the legislature in 1844, enlisted as a private in Col. Bissell's regiment of Illinois infantry on the outbreak of the Mexican war, rose to the position of captain and acquired credit at Buena Vista. Returning home, he was elected circuit clerk and recorder for four years, after which he went to California and was placed in charge of the United States mint. He died a few years later, in Central America, while dis-