

OFFICE SEC'Y AND SUPERINTENDENT }
IOWA STATE AGRICULTURAL COLLEGE AND FARM, }
COLLEGE FARM, JANUARY 1, 1866. }

*To the Honorable Senate and
House of Representatives of the State of Iowa :*

In pursuance of law I have to make the following report of the proceedings of the Board of Trustees of the Iowa Agricultural College and Farm for the year 1865. Also, I herewith transmit a brief history of the Institution from its organization in 1858, up to the present time, together with the reports of the Executive and Building Committee, and Architect, as follows, to-wit:

REPORT OF THE SECRETARY
OF THE
IOWA AGRICULTURAL COLLEGE AND FARM.

According to instructions, I beg leave to make a plain and concise statement of the condition, history and wants of the College and Farm, from 1858 to 1866.

At the session of the Legislature of 1858, an act was passed providing for the establishment of a State Agricultural College and Farm, with a Board of Trustees, which shall be connected with the entire agricultural interest of the State. M. W. Robinson, Timothy Day, John Wright, G. W. F. Sherwin, Wm. Duane Wilson, Richard Gaines, Suel Foster, J. W. Henderson, Clement Coffan, E. H. Williamson, and E. G. Day, were appointed the first trustees. Clement Coffan and E. H. Williamson would not serve. Peter Melendy and John Pattee were appointed to fill their seats.

The institution is managed by a Board of Trustees, who are appointed by the Legislature, one being taken from each Judicial District in the State, and embracing the Governor and President of the State Agricultural Society, being in all fourteen members.

The Board serves without pay for their services. Its officers are, a President *pro tem.*, a Secretary and Treasurer, and an Executive Committee of three to act during the interim of the meetings of the Board.

In 1858 the Legislature passed an Act, appropriating ten thousand dollars for the purchase of a Farm on which to locate an Agricultural College. A farm was purchased in 1859 in Story County, situated about midway between Nevada and Boonsboro, and about thirty miles directly north of Des Moines.

The Cedar Rapids and Missouri Railroad is now running directly through the farm, coming into it on the east side about ninety rods north of the south line, and running diagonally through it, bearing

north-west, and leaving it on the north line within about twenty rods from the north-west corner, dividing it so as to leave about one hundred and sixty acres on the north side and about four hundred and eighty-eight acres on the south side of the Railroad. The farm contains six hundred and forty-eight acres, and is admirably adapted to the purposes of the institution, embracing all the leading varieties of soil in the State. It is well watered by Squaw and Clear creeks running through the farm, Squaw creek on the east, Clear creek on the west sides, affording an inexhaustible supply of pure stock water.

Near the center of the farm there are several fine springs, affording a good supply of water. The timber is principally black walnut, oak, elm, white maple, linn, cotton-wood, ash, hickory and numerous other valuable varieties.

The farm contains six hundred and forty-eight acres lying in a body, being about four hundred rods long from east to west, and about two hundred and fifty-nine rods wide from north to south. After deducting the one hundred and fifty acres above described, there remain four hundred and ninety-eight acres of prairie land suitable for grass and grain. There is probably not far from one hundred and eighty acres of low bottom land, about one hundred of which is covered with timber; the remainder is equally divided between wet and dry bottom.

The low land in the timber is a rich, deep, black, sandy loam, with clay subsoil, but not inclined to hold water on the surface. Next west adjoining the timber is a fine smooth, level tract of low land, remarkably well adapted for grass, but could, by a judicious system of drainage, be converted into a most productive corn land, not excelled in the West. Beyond this, to the north-west, is a large tract known in this State as second bottom land, being level, dry and very rich, and remarkably productive for almost every crop grown in this latitude. The soil is a mixture of black sand, fine gravel, and rich black alluvium and prairie soil proper, comprising, perhaps the most desirable soil known to the agriculturist. West of this is a large tract of level prairie, the soil being dry, slightly intermixed with fine gravel in places, with clay subsoil, being a fair representative of the prevailing prairie soil of the State. On the north-west corner of the farm is a tract of perhaps forty acres of clay soil, most of which is covered with a heavy growth of oak,

walnut and hickory timber. Though called clay soil, this land is a fair specimen of what is known in this State as "barrens" and "timber land." The soil is a mixture of prairie and clay, with heavy clay subsoil, and is considered the best wheat and fruit land in the Western States. On the south side of the farm is about ninety acres of high rolling prairie, intermixed with gravel, and well adapted for almost any grain crops, being warm and dry, the ravines which intersect it, carrying off all surplus water in the wettest seasons. The gravel contained in the soil is mostly on the surface, and is turned under by the first plowing, nearly disappearing after cultivation. There are five sand and gravel banks on the farm, furnishing an inexhaustible supply for building purposes, and for grading roads, walks and yards.

There is also on the farm good clay for making brick convenient to where the College is now being built.

THE IMPROVEMENTS

consist of a good, substantial, brick farm house, with a basement of stone, making a cellar under the whole building. The house is completed except painting, and when finished will cost about four thousand dollars. The brick were manufactured on the farm. There is also a good barn on the place, well finished and painted, of good height, and is forty-two by sixty feet in size, capable of providing storage room for grain, and shelter for the necessary teams and stock connected with the farm. There is a good stone basement under the barn, and a large yard inclosed by a substantial fence. Also a fine smoke and ash house fourteen feet square, built of brick.

A great portion of the work and material used in the erection of these buildings was furnished in payment of voluntary subscription by citizens in the vicinity.

There is about four hundred acres of the farm inclosed by a substantial fence, a part of which is built by boards and posts, five (5) boards high, and the remainder of rails, staked and ridered, eight rails high. The fences are built of good material and are put up in a very substantial manner. Of the land enclosed about one hundred and fifty-one acres are under cultivation.

There is a fine young orchard of about four hundred thrifty trees, near the house, inclosed by a good fence. This experiment has sat-

ified the people in the vicinity that the prevalent opinion that fruit cannot be raised upon our *open prairies* is entirely erroneous. Fine apples have been grown upon many of these trees, which had been planted out but four *years*, on *level, open prairie*. To be successful, it only requires ordinary care, such as one would bestow upon a corn crop, and the farmers are profiting by this demonstration placed before their eyes. The trees on the farm were donated by Mr. Jas. Smith, the well known nurseryman of Des Moines.

About seventy-five grape vines have been planted near the orchard, of several different varieties, among which are the Concord, Clinton, Isabella and Catawba. They are doing well, making a fine growth and producing some fruit.

Building material can be found in abundance on the farm and in the immediate vicinity. The necessary wood to burn the brick can be procured from down timber, which is fast going to waste, and the best kind of clay and sand for the manufacture of the brick is found in abundance on the farm. Stone can be had within three and a half miles, and lime within six miles of the farm.

The farm, which has been fully described, was purchased at a cost of \$5,379.12. In consideration of having the college building located at that place, the citizens of Story and Boone counties made liberal donations of lands, money, labor and material to the amount of about seven thousand dollars, to assist in improving the farm and erecting the necessary farm buildings.

DONATIONS.

Story county donated ten thousand dollars in the bonds of the county, bearing seven per cent. interest. There is also appropriated the proceeds of the sale of five sections of land in Jasper county, known as the Capitol lands. The value of the lands is about \$17,000.

It was expected that the Legislature of 1860 would have made an appropriation sufficient to commence the erection of suitable college buildings, but as the financial condition of the State would not justify it, an appropriation was not asked for. At the session of 1862, an appropriation was not expected, as the whole finances of the State were needed to meet the extraordinary expenditures incident to the suppressing of the rebellion. Hence nothing had been done to add to its prospective revenue since the Institution

was organized, until the last session. We have done what we deemed prudent in opening a farm and erecting thereon buildings suitable for a dwelling for a farmer, and also shelter for the crops and animals.

Beyond the expenditures necessary to place the farm under a fair state of cultivation, the Trustees did not feel justified in making appropriations from the limited amount in their hands, but preferred reserving the best of the assets for an endowment to meet the expenses of the Institution when in operation, hoping that when it had the ability the State would make the needed appropriation for college buildings. But, during this time the people of the State generally supposed that the buildings were erected, and that the college would soon be opened to the public; and many applications have been made to receive students. Had it not been for the extraordinary condition of the financial matters of the State, such would doubtless have been the condition of the Institution on the opening of the present year. It is now about seven years since the purchase of the College Farm. If all this could not have been done, a general expectation or hope at least, was felt by its friends generally, that the farm would be open for experimental husbandry. Even this could not be accomplished under the circumstances without involving an expenditure which it was thought would not be justified by the people of the State, unless the college institution was fully provided for.

In July, 1862, Congress appropriated to the several loyal States in the Union, for agricultural colleges, 30,000 acres of land for each Senator and Representative in Congress. The amount under this grant to the State of Iowa was 240,000 acres. Any State accepting this grant is required by the terms of the grant to erect the necessary college buildings without using any of the proceeds of the lands for that purpose, within five years from the time of acceptance of the grant. The State of Iowa, at the special session in September, 1862, accepted the grant, with this and other conditions imposed therein. The lands have been selected by an agent every way competent, appointed by the Governor and approved by the Board of Trustees of the College, as required by the acceptance law of the State, and they have been approved and certified to the State.

They embrace some of the best unentered lands in the State,

and when prepared for sale will command the attention of the immigrants. As the interest on the proceeds of the sales of these lands is exclusively devoted to meet the annual expenditures of the Institution, there will be a fund soon created to sustain the Institution. This munificent grant having relieved the Board from any anxiety in regard to the future endowment of the Institution, they felt that a portion of the reserved assets might safely be used to place the farm in a condition to experiment upon crops; the purchase of several of the leading races of improved animals of all kinds, and testing their value by crossing on native breeds; best mode of feeding, shelter, &c., and in beautifying the farm with useful trees and shrubbery, and preparing fully for the work contemplated in the establishment of the Institution.

Such is a brief history of the Institution under the management of the Board of Trustees, which is almost exclusively confined to the farm and the operations thereon. The next point is the college proper, and the course of studies to be pursued therein, which are specified in the organic law as follows, with some other provisions in regard to students, &c.

The course of instruction shall include the following branches, to-wit:

Natural Philosophy, Chemistry, Botany, Horticulture, Fruit Growing, Forestry, Animal and Vegetable Anatomy, Geology, Mineralogy, Meteorology, Entomology, Zoology, the Veterinary Art, Plane Mensuration, Leveling, Surveying, Book-keeping, and such mechanical arts as are directly connected with agriculture. Also such other studies as the trustees may from time to time prescribe not inconsistent with the purposes of this act.

The Board of Trustees shall establish such professorships as they may deem best to carry into effect the provisions of this act.

Tuition in the College herein established shall be forever free to pupils from this State over fourteen years of age, and who have been residents of the State six months previous to their admission. Applicants for admission must be of good moral character, able to read and write the English language with ease and correctness, and also pass a satisfactory examination in the fundamental rules of arithmetic.

The trustees upon consultation with the professors and teachers shall from time to time establish rules regulating the number of

hours, to be not less than two in winter and three in summer which shall be devoted to manual labor and the compensation therefor, and no student shall be exempt from such labor except in case of sickness or other infirmity.

OBJECT OF THE INSTITUTION.

The Iowa State Agricultural College has for its object, to associate a high state of intelligence with the practice of Agriculture and the industrial or mechanic arts, and to seek to make use of this intelligence in developing the agricultural resources of the country and protecting its interests. It proposes to do this by several means.

1. As a purely educational institution its course of instruction is to include the entire range of Natural sciences, but will embrace most especially a practical bearing upon the every day duties of life, in order to make the student familiar with the things immediately around him, and with the powers of nature he employs and with the material through the instrumentality of which, under the blessings of Providence, he lives and moves and has his being; and since Agriculture, more than any other of the industrial arts combined, it follows that this should receive by far, the highest degree of attention. The course of instruction is to be thorough so that it will not only afford the student the *facts* of science, but will discipline his mind to habits of thought, and enable him fully to comprehend the abstract principles involved in the practical operations of life. In doing this it is not deemed possible to educate every agriculturalist, artisan, mechanic and business man in the State, but to send out a few students educated in the college course, that they, by the influence of precept and example, may infuse new life and intelligence into the several communities they may enter. A single individual who is thoroughly educated in the principles and practice of an art followed by a community, will often exert a more salutary influence upon the practice of this art by the community, than would result from sending the *whole community* to a school of lower order than that which he attended. A single practical school of the highest order in Paris (the Ecole Polytechnique), during the last generation, made France a nation celebrated alike for profound philosophers, great statesmen, able generals and military men, and civil engineers. If one high school of practi-

cal character is established, subordinate schools, affording the elementary education of the latter, will follow in due time.

2. As a practical education the Trustees of the Iowa Agricultural College have adopted the fundamental principle, that whatever is necessary for man to have done, it is honorable for man to do, and that the grades of honor attached to all labor, are dependent upon the talent and fidelity exhibited in performing it. It is further considered essential as a part of the student's education that he be taught the practical application, in the field and laboratory, of the principles of his studies in the class room; and manual labor is also necessary for the preservation of health, and the maintenance of the habits of industry. An incidental but not unimportant result of the operations of these principles is a reduction of the cost of tuition by the value of the labor, so that the College can take students at very low rates of admission.

All students, without regard to pecuniary circumstances, are, therefore, obliged to perform manual labor as an essential part of the College education and discipline and training. In these respects consists a most essential difference between the idea associated with manual labor and that of all other attempts made heretofore to combine manual labor with study. Instead of the idea of poverty and want being associated with those that labor, that of laziness and worthlessness is associated with those who refuse to work efficiently, and the experience of established institutions has already most assuredly shown that no young man of whom there is any hope for future usefulness in life, is insensible to the disgrace which thus attaches to the lazy, who will work only as they are watched, and cheat their fellow-students by refusing to do their share of the labor assigned them, and nothing is more conclusively settled than that those students who are most studious and industrious in class, work the most efficiently, and are the most trustworthy in the performance of their daily work.

3. As an *Experimental Institution* our College has an unbounded field for labor. The principles of Agricultural Science, which shall ultimately constitute the subject of instruction in its class rooms will be a prominent and important branch of it. The development of no other department will yield richer and more lasting results, or confer more substantial benefit upon agricultural practice than this. Much time, however, is required to make thorough

and reliable experiments—they will not pay at once. As well might the farmer expect to reap his crop the day he sows his grain. They will, however, ultimately pay a thousand fold, as have the practical application of the sciences of electricity, heat and optics in the present day, paid for the half century of apparently unpractical, purely scientific investigations that led to the results now obtained through them.

The design of this institution is different from all other educational institutions in the country, excepting one in Pennsylvania, and one in Michigan, now in successful operation. By the union of labor and study, they are both placed in their proper position, and thus only are exhibited in their true dignity. Here they are taught to walk together, and that separation is degrading to both. The student's mind and hands are first prepared to promote skill and success in the important and honorable occupation of cultivating the soil, but he will be almost equally fitted to fill with honor any other position in life. There is thus supplied a practical and equal education so much needed by the great body of our farmers, and cheap enough to be embraced by all. "The farmer who claims such an equal education for his son, feels an *imperative necessity* for an institution such as this. He sees that the son of a farmer who has been a four-years' course at our old Colleges, returns with his eyes and his thoughts, and the best of his mind directed *away from* the objects which worthily and usefully occupy his father and his brothers. He is useless and inferior in the sphere of his home; he cannot labor; he must go from home; he is *driven* from it; he can do nothing but enter a profession, and in any profession he may enter, if he cannot make a conspicuous mark, he is a miserable thing at best, and almost certain to fall into ruinous habits and to become their victim. And the unhappy and disappointed father loses not only the cost of his education, his own struggles and expended energy, but in three cases out of four, *the son himself*. How different the case in circumstances which such an institution as ours is destined to establish. The boy in great part aids to work out his own education. Instead of dragging on his father, he aids him; instead of wasting his physical abilities, through want of exercise, he labors and develops them; while his mind is being stored with both practical and refining knowledge, his hands are educated to expertness in a thousand operations, and his body to grace and

strength. How delightful will be the meeting between the graduate of our *Agricultural* school and his father and brothers. He has stores of information for them, and there is mutual interest, and subjects of conversation in everything around. The proud and gratified father will bless the means by which his highest wishes have been accomplished." So plain is the need of this course of training, even to the dullest mind, and so plain is the method of establishing it, it is wonderful up to this day, that such schools are only commencing in this country.

The inquiry will naturally be made in regard to the cost of educating and sustaining a scholar in the college for one year. In the Farmers' High School of Pennsylvania, the price for board, lodging, washing, fuel and lights, is fixed at \$200 per annum. The cost in our institution would not exceed the sum from which would be deducted the amount credited for labor on the farm. The tuition is made free by law.

THE PRESENT BOARD OF TRUSTEES.

President—Wm. H. Holmes, Polk county.

Secretary—Peter Melendy, Black Hawk county.

Treasurer—M. W. Robinson, Des Moines county.

Members—Suel Foster, Muscatine county; Thomas Holyoke, Poweshiek county; James A. Bronson, Jones county; John McDonough, Clarke county; Joseph McGowan, Appanoose county; P. Henkly, Fayette county; P. Cadwell, Harrison county; L. Q. Hoggett, Story county.

Ex-officio Member—Gov. Wm. M. Stone, Marion county.

Executive and Building Committee.—Wm. H. Holmes, Peter Melendy, James A. Bronson.

I herewith submit a statement, exhibits and receipts, and expenditures of the farm and college building from the commencement in the winter of 1858, to the first day of January, 1866:

RECEIPTS.

Appropriation by the State in 1858.....	\$ 10,000 00
Bonds of Story county.....	10,000 00
Notes of individuals.....	4,420 00
Subscriptions.....	920 00

731 acres of land in Story and Boone counties (deeds)	4,925 00
250 acres of land in Story and Boone counties (bonds)	1,090 00

1860.

Interest on Story county bonds.....	\$ 700 00
Received for cattle.....	65 00
Received for produce on farm.....	18 94— \$ 783 94

1861.

Interest on Story county bonds.....	\$ 700 00
Received for wheat on farm.....	100 00
Received for produce on farm.....	67 50
Received for rent of farm.....	53 63— \$ 921 13

1862.

Interest on Story county bonds.....	\$ 700 00
Rent of farm.....	200 00
Charges on farm.....	12 63— \$912 63

1863.

Interest on Story county bonds.....	\$ 700 00
Story county orders.....	160 00
Rent of farm.....	106 00
Value of crops.....	497 50
Old crop.....	25 00— \$1,488 50

1864.

Interest on Story county bonds.....	\$ 700 00
Value of crops.....	2,271 90
Received for one yoke of cattle.....	160 00
Sale of buckwheat.....	20 00
Keeping stock.....	81 45
Boarding hands.....	276 08
Lumber and wood for college.....	1,534 35
Interest on bonds.....	160 00
Jasper county lands.....	16,000 00— \$21,203 78

1865.

Interest on Story county bonds.....	\$ 879 20
Sale of sorghum.....	89 00

Sale of wool.....	150	00	
Sale of potatoes, corn, oats and pig.....	29	65	
For boarding hands.....	259	39	
Sale of Story county lands.....	807	00	
Sale of Jasper county lands.....	1,453	79	
Sundry items.....	375	00	
Received from Fitzpatrick.....	126	38	\$4,169 41
			<u>\$59,834 39</u>

EXPENDITURES.

Expenditures up to January 1, 1861:			
For purchasing Farm, 648½ acres.....	\$	5,379	12
For location.....		349	97
For improvement of same up to date.....		873	10
For President's per diem and expenses.....		274	30
For Agents, stationery, &c.....		176	50
For farm, house, barn, tools, labor and seeds.....		4,434	24
1861.			
For farm, house, barn, agents and miscellaneous.....		2,385	99
1862.			
For farm, agents, and improvements.....		1,813	62
1863.			
For expenses of farm and agents.....		2,288	35
For expenses of farm, and agents' mileage.....		523	22
For expenses of rails, breaking prairie.....		148	86
For expenses of breaking prairie, and wheat.....		144	25
1864.			
Expenses of selling Jasper Co. lands.....		99	69
“ Executive Committee.....		200	51
“ Plan of College and Photographs.....		385	00
“ Farm house, stock, tools, and furniture... ..		6,448	37
“ Farm, fencing and breaking, &c.....		2,789	45
“ Stock and fuel.		300	00
“ Executive Committee.....		762	48

1865.

Expenses of farm, out houses and agents:			
Expenses of farm up to Jan. 1, 1866.....		6,166	22
“ Robinson bill.....		16	75
“ Murry, January meeting Capitol.....		4	00
			<u>\$35,962 17</u>
Total receipts.....	\$	59,834	39
Total expenditures.....		35,172	22
			<u>\$24,662 17</u>
Receipts of College Lands and cash from State:			
Received from Auditor 1864-1865.....	\$	20,000	00
Received from Government 240,000 acres			
of land, estimated value at \$2,00 per acre 480,000 00- 500,000 00			
Of these lands there has been leased 57,436.34 acres			
at a total value of \$109,459.44 upon which there has			
been paid, advance interest \$7,746.13 as an endow-			
ment to the Institution.			
Expenses of College foundation and making brick... ..		20,000	00
Making a grand total of receipts from State, donations			
from counties, individuals, and Government.....		559,834	39
Total expenditures up to date.....		55,172	22
			<u>\$504,662 17</u>

Thus it will be seen, the financial condition of the Institution is in a healthy state. The State has given to the farm proper \$10,000, and she has property for this small outlay amounting to \$59,834.39. The land is worth \$10,000 more than the State gave for it, thus making the farm proper worth to-day \$69,834.39, and with the munificent grant from the Government, valued at \$480,000—makes a grand total value of \$567,834.39.

The design of Agricultural Colleges is so little understood by the people generally, it would not be amiss to state briefly their objects. They are intended to develop and adapt a system of instruction which shall embrace to the fullest extent possible those departments of all sciences which have a practical or theoretical bearing upon agriculture and agricultural interests; which, while it shall be sufficiently thorough to afford good mental discipline, shall also afford a larger share of practical knowledge peculiarly adapted to the necessities and calling of a farmer, and which none of the

other classes of colleges are competent to perform. Science and art should go hand in hand. We find men all over the enlightened world working at agricultural sciences, who know too little about agricultural *practice*, whilst almost the entire agricultural community know nothing about science. These great interests can only be effectually united in agricultural institutions of learning, where all that science teaches can be brought before those who are devoted to agricultural practice.

The education of our farmers as such, beyond every other class of our community, is the worst provided for; hence none are more liable to imposition as the result of their ignorance of scientific instruction. No branch of human industry is suffering so much for want of the application of scientific principles in its various operations as is Agriculture at the present time. It is only necessary to instance the general ignorance which prevails in the veterinary art—the treatment of diseases of animals, a knowledge of which would save thousands of dollars annually to the State.

Where is agriculture practiced most successfully? In those counties where farm schools and colleges exist to the greatest extent. To quote the words of Prof. Pugh, of the Pennsylvania Farm School, who visited the principal farm schools in Europe, "Proud old England, energetic Scotland, rising Ireland, extended Russia, decaying Austria, little Denmark, and despotic France—all Europe, from the Mediterranean to the Baltic and the Baltic to the Urals, is alive on the subject of agricultural education, and what science has done, is doing, and is capable of doing for agriculture. And we may now come back and ask ourselves what republican America, what this great agricultural nation, with her millions of broad acres, has done and is doing for agricultural education and agricultural science, and what science has done for her. Where are her agricultural schools? Where are her agricultural colleges? Where are her agricultural investigations? which are to help the scientific men of the old world to develop the great principles of agricultural science, that must one day be to the farmer what the theory of navigation is to the mariner, or the principles of surveying to the man who measures land. Where are the agricultural bureaus to collect agricultural statistics and enable us to know just what the country is doing and what it is not? We ask and wait, and echo answers 'Where!'" These

questions are as pertinent to Iowa as to Pennsylvania, where they were uttered. Indeed, more so. A Pennsylvania farmer in Iowa is looked upon as one worthy of imitation in any community in our State. If a State farm school is needed there, as it is acknowledged to be by the expenditure of more than \$100,000 to establish one, its necessity is four-fold greater here.

The amount mentioned as necessary to put a Farm School in successful operation is so small that not a mill of tax would have to be added to the present tax. That it will be properly expended you are referred to what has been accomplished with the small sum of \$10,000 appropriated by the State. It was the first movement of any importance which had ever been made by the Legislature of the State, recognizing a return of a small portion of the money—most of which came from the tillers of the soil—by giving it to infuse and diffuse through their sons an enlightened system of Agriculture. It is now recognized as one of the Institutions of the State, and as it represents the leading interests of the State it should at least be fostered to an extent equal to any of the others. But its friends have not pressed it, principally because the others needed immediate aid to sustain them, and the finances of the State were required therefor to their utmost limit. This difficulty is not now in the way, and to secure all that is needed it is only necessary for our people to make known their wishes through petitions to the Legislature. May it not be hoped then that they will take this matter in hand at once and secure a fair proportion of the money which is obtained from agriculture to be returned to aid in promoting this great interest, which is admitted by all who have examined it, to stand in the most earnest need? It is peculiarly a Farmers' College, intended to elevate the profession of the farmer, and unless it is recognized and urged as such by the farmer upon the attention of the Legislature, it will never amount to anything.

"Such institutions as ours are experiments," says the doubter. Admit it in that sense, and what is proven by it? Absolutely nothing. On the contrary, our most useful and profitable modes of culture, discoveries in mechanics, in surgery, in medicine, in navigation—in brief, in every department of life are the results of experiments—toilsome and expensive experiments—and experiments are continually going on, and new developments are daily being made, the results of which tend to the welfare of man. Are

we so perfect in obtaining from the rich soils of our State "all that is hidden therein" that we need no further information? It is generally admitted that we are not. Then let us experiment and experiment, especially when the cost is fully within our means, until we attain as near perfection as is destined to the finite mind. Let those who doubt this mode of accomplishing the desired end present a better, and it will be adopted. Until then let us make the best use of the lights around us and the means in our possession.

But what have we upon which to base our enterprise. We can exhibit to the people of the State, a farm near 650 acres in a state of improvement and cultivation, with sufficient capabilities to sustain every individual who can be accommodated in a College building that costs the sum of \$100,000, even if such a building is completed within eighteen months from this time. Also a fund which will at that time show an actual or good prospect of an annual revenue of upwards of \$12,000 annually, sufficient, with the support received from the farm, to sustain five professorships.

All this was done, thanks to many friends of the enterprise, in and out of the Legislature, upon the basis of the small sum of ten thousand dollars appropriated by the State. *We must not stop here*, is the hope of every well wisher to the prosperity of our highly favored State, and it is not necessary that we should. Our reputation also as an enlightened agricultural people will suffer in the eyes of her sister States, if the effort is now abandoned. May it not be confidently expected then that every friend to the agricultural development of the State, will give our infant institution his influence and support, and make its objects and aims better known to those for whose especial benefit it is intended?

REPORT OF THE SUPERINTENDENT.

To the Board of Trustees of the Iowa State Agricultural College and Farm :

GENTLEMEN:—In compliance with the law creating the offices of Superintendent and Secretary, I beg leave to make the following report:

I was elected to fill the position of Superintendent and Secretary of the Iowa Agricultural College and Farm, on the 16th day of January, 1865. I consented to hold and perform the duties devolving upon the two offices until the next meeting of the Board, which was held at the Farm on March 22d, at which time I begged to be excused from serving as Superintendent and Secretary for various reasons, one of which was, that I could not move on the Farm, the law requiring the said officer to live on the Farm, and as shown from the minutes, I was unanimously retained as Superintendent and Secretary, to fill the offices the best I could without moving on the Farm.

I therefore beg leave to make a full statement of my duties as Superintendent. I have spent considerable time in looking after the interests of the Farm. I have made ten trips to the Farm, and six trips to Clinton, three to Dubuque, two to Chicago, one to Davenport, and one to Muscatine, two to Des Moines, and one to Fort Dodge, making in all twenty-four trips—making in time one hundred and thirty-five days. I have spent twenty days in office writing up minutes, attending to correspondence, and making out reports.

FARM.

The following is a statement of the work on the Farm since the first day of January, 1865, up to the first day of January, 1866, giving the costs of the same, and the receipts.

I thought it best not to sow much wheat, consequently there was

but fourteen acres sown of Tea and Fife wheat. Field marked "A" on the plat was sown to Tea on stalks, and stands thus:

SIX ACRES.

To breaking and clearing up stalks—to one day of man and team, at \$3 per day.....	\$3.00
To seed wheat (10 bushels).....	10.00
" $\frac{3}{4}$ day's sowing wheat.....	1.12
" $1\frac{1}{2}$ days' harrowing.....	4.50
" $\frac{3}{4}$ day's rolling.....	2.25
" 1 day's cutting with machine.....	5.00
" $\frac{1}{2}$ day's cradling.....	1.12
" 5 days' binding and setting.....	8.50
" 1 day's resetting.....	1.50
" 2 teams hauling and stacking.....	6.00
" 3 hands stacking.....	5.00
" thrashing 99 bushels of wheat.....	11.52
	<hr/>
	\$59.51

Cr.

By 99 bushels of wheat.....	\$99.00
By straw.....	5.00—104.00
	<hr/>
Profits.....	\$44.49

Field "B," 8 acres of Fife wheat. Four acres were plowed in the spring—balance on corn stalks. The four acres were sown to timothy and clover, which are doing nicely.

Field "B" stands thus:

To $2\frac{1}{4}$ days' plowing.....	\$8 25
" 13 bushels seed wheat, at 85 cts.....	11 05
" 1 day's sowing.....	1 75
" $1\frac{3}{4}$ days' harrowing.....	5 25
" $\frac{3}{4}$ day's rolling.....	2 25
" 1 day's cutting with machine.....	5 00
" 1 day's cutting with cradle.....	2 25
" $6\frac{1}{2}$ days' binding and setting.....	10 87
" $1\frac{1}{2}$ days' resetting.....	2 62
" 2 days' teams and men hauling and stacking.....	6 00
" 2 days' extra men.....	5 25
" thrashing 106 bushels of wheat.....	12 71
	<hr/>
	\$73 25

Cr.

By 106 bushels of wheat, at 90 cts.....	\$95 40
By straw.....	5 00—100 40
	<hr/>
Total expended on Fields "A" and "B" (14 acres).....	\$132 76
Total value of wheat and straw.....	204 40
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Balance.....	\$71 56

OATS.

Field "C," 24 acres, sown on fall plowing—twelve acres to timothy—has made a good sod. The harvesting of this field was tedious, a greater portion being very heavy and lodged.

To $2\frac{1}{4}$ days' sowing oats.....	\$5 50
" 75 bushels oats for seed, at 50 cts.....	37 50
" 5 days' harrowing.....	15 00
" 3 days' rolling.....	9 00
" 6 days' cutting with reaper and two hands.....	37 00
" $1\frac{1}{2}$ days' mowing with scythe.....	2 50
" 23 days' binding and setting.....	37 50
" 4 days' two teams and men stacking.....	24 00
" 12 days' work of men stacking.....	21 00
" expenses thrashing 936 bushels oats.....	56 16
	<hr/>
	\$245 16

Cr.

By 1036 bushels of oats, at 35 cts.....	\$362 60
By straw.....	15 00—377 60
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	\$182 44

Field "D," containing 18 acres, sown to oats, of which about one-half was on fall plowing and the balance on corn-stalk ground, both of which were of very large growth and were badly lodged, and the ground being very wet, it made very bad harvesting. In this field only one-half of the crop was bound up.

To 56 bushels of seed oats, at 50 cts.....	\$28 00
" 2 days' sowing oats.....	4 00
" $3\frac{1}{2}$ days' harrowing.....	10 50
" 2 days' rolling.....	6 00

To 4 days' cutting with machine.....	24 00
“ 1 day's mowing with scythe.....	1 50
“ 4 days' (two men and two teams) stacking.....	24 00
“ 4 days' (three men) stacking.....	20 00

\$117 00

Cr.

By 675 bushels of oats, at 35 cts.....	\$236 25
By straw.....	10 00—246 25

\$129 25

Total value of crop on fields C and D, containing 42 acres..	623 85
“ cost “ “ “ “	362 16

Total profit\$261 69

CORN.

Field “E” containing fourteen acres, fall plowing:

To 8 days' plowing.....	\$ 24 00
“ 1 day's harvesting.....	3 00
“ 3 bushels seed corn.....	3 00
“ 1 day's marking off ground.....	3 00
“ 1½ days' planting corn with planter.....	6 50
“ 4 days, with shovel plow at \$2.25.....	9 00
“ 2 days' 2d plowing with buggy plow at \$3.00.....	6 00
“ 1¾ days' 3d plowing.....	5 25
“ 2 days' 4th plowing.....	6 00
“ Expenses of husking 658 bushels.....	43 20

\$108 95

Cr.

By 658 bushels of corn at 40cts.	\$263 20
By coarse feed.....	10 00—\$273 20

Profit..... \$164 25

Field “F” containing seven acres, planted to corn. The results of this field are not so favorable on account of the ground being so wet that it was not worked as well as it should have been.

To 3½ days' plowing.....	\$ 10 50
“ 1 day's harrowing.....	3 00
“ ½ day's marking.....	1 50

To ½ day's planting.....	2 25
“ 1 day's 1st plowing, with buggy plow.....	2 00
“ 2 days' 2d plowing with shovel plow.....	4 50
“ expenses of husking 210 bushels.....	14 90

\$39 65

Cr.

By 210 bushels of corn at 40cts.....	\$84 00
By stalk field.....	3 00—\$87 00

\$47 35

Field “G” containing nineteen acres:

To 2 days' breaking corn stalks.....	\$ 4 00
“ 1½ days' raking and burning stalks, &c.....	6 50
“ 10½ days' plowing.....	31 50
“ 1½ days' harrowing.....	4 50
“ 1¼ days' marking off.....	3 75
“ 1½ days' planting corn.....	6 00
“ 6 days' replanting on account of bad seed.....	9 00
“ 3 days' plowing corn first time.....	9 00
“ 5½ days' cross plowing with shovels.....	12 37
“ 2½ days' plowing with buggy plow.....	7 50
“ 5 days' killing buckwheat.....	7 50
“ husking 912 bushels of corn.....	54 72

Total cost.....\$156 34

Cr.

By 912 bushels of corn at 40cts.....	\$364 80
By stalk field.....	7 00—371 80

\$215 46

Field “H” containing nine acres:

To 1 day, two men and two horses breaking corn stalks..	\$ 4 50
“ 1 day's raking and burning.....	4 50
“ 5½ days' plowing.....	16 50
“ 1 day's harrowing.....	3 00
“ ¾ day's marking off.....	2 25
“ 1½ days' plowing corn.....	4 50
“ 3 days' crossing with shovels.....	2 25
“ 1¼ days' plowing with buggy plow.....	3 75

To 1½ days' crossing with plow.....	4 50
“ husking 381 bushels of corn.....	26 67

\$72 42

CR.

By 381 bushels of corn.....	\$152 40
By stalk field.....	5 00—\$157 40

Profit..... \$84 98

There were also two acres of corn planted in the orchard which was mostly fed out when green to stock. No account was rendered. Valued at \$10.00.

Total value of corn, Fields E, F, G, & H, and orchard containing 51 acres.....	899 20
Total cost of corn crop.....	371 24

Profits.....\$527 96

SORGHUM.

Field “I” containing two acres, planted to Sorghum.

To ¼ day's breaking and burning corn stalks.....	2 00
“ 1 day's plowing.....	3 00
“ ¼ day's marking off.....	75
“ 2 days' planting.....	3 00
“ 3 days, with hoes.....	4 50
“ 1½ days' plowing.....	4 50
“ 12 days' stripping and cutting.....	18 00
“ 3 days, man and team, hauling.....	9 00
“ 30 days' manufacturing.....	46 00
“ 12 days' team on mill.....	20 00
“ 3 cords of wood.....	9 00

\$119 75

CR.

By 265 gallons of Sorghum, of very nice quality, at 65 cents.....	\$172 25
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Profit..... \$52 50

POTATOES.

About one half acre planted to potatoes. The seed was sent to the Farm by Suel Foster.

To 10 bushels of seed.....	\$ 15 00
“ ¾ day's plowing ground.....	2 25
“ ½ day's harrowing and marking.....	1 50
“ 1 day's cutting potatoes.....	1 50
“ 4 days' planting.....	6 00
“ 1 day's plowing.....	3 00
“ 3 days' hoeing.....	4 50
“ 4 days' killing potato bugs.....	6 00
“ 8 days' digging potatoes.....	12 00

\$51 75

CR.

By 130 bushels potatoes, which, if kept till spring, should sell for at least one dollar per bushel,... 130 00

Profit..... 78 25

ROOT CROP.

About three-fourths of an acre was prepared and sown to Carrots, Turnips and Mangel Wurzel, but a portion of the ground was so wet that they drowned out.

To 3 days spent in hauling manure.....	9 00
“ 1½ days' plowing, harrowing and ridging.....	4 50
“ 9 days' raking, preparing and seeding.....	13 50
“ 8 days' hoeing and weeding.....	12 00
“ 4½ days' gathering roots.....	6 75

45 75

CR.

By 84 bushels of Carrots, at 50 cents.....\$ 42 00

By 98 bushels turnips and Mangels..... 34 30—76 30

Profit..... 30 65

BEANS.

About one-half acre was planted to Beans.

To ¼ day's plowing and harrowing.....	1 50
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To 1 day's planting,.....	1 50
" 1½ days' hoeing and plowing,.....	2 25
" 1 day's pulling, stacking, &c.,.....	3 00
" ½ day's thrashing,.....	75
	<hr/>
	9 00

By 3½ bushels of beans..... Cr. 7 00

Loss.....

 2 00

GARDEN.

To 4 days' hauling manure.....	12 00
" 1 day's spading.....	1 50
" 2 days' plowing.....	6 00
44 days were spent in planting, sowing, weeding, tend- ing shrubbery, small fruits, young orchard, grape vines, flower beds, &c.....	66 00
To 2 days, horse and plow,.....	4 50
	<hr/>
	90 00

By Early June and Early Jackson potatoes, of which we
commenced to use on the 8th of July, and supplied
brick-yard hands with potatoes from garden, which crop
is estimated at 100 bushels, which will sell at \$1.00 per
bushel..... 100 00

Estimated value of other garden vegetables..... 75 00

 175 00

Deduct expenses..... 92 00

 Profits..... \$85 00

HAY.

The hay was cut about 1½ miles from the barn, drawn to it, and
stacked. The account stands thus:

To 44 days' time of men and teams.....	111 00
	<hr/>
By 68 tons of hay at \$5.00 per ton.....	340 00
Profit.....	<hr/> \$229 00

HUNGARIAN HAY.

Two tons of Hungarian hay—cost.....	8 80
Two tons of Hungarian hay, valued at.....	15 00
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Profit.....	\$6 20

RECAPITULATION.

TOTAL VALUE OF CROPS FOR THE YEAR 1865.

Value of 14 acres of wheat.....	\$204 40	PROFIT.
Cost of 14 acres of wheat.....	134 86—	\$ 69 54
Value of 24 acres of oats.....	623 85	
Cost of 24 acres of oats.....	362 16—	261 69
Value of 51 acres of corn.....	899 20	
Cost of 51 acres of corn.....	371 24—	527 96
Value of 2 acres of sorghum.....	172 25	
Cost of 2 acres of sorghum.....	119 75—	52 50
Value of ½ acre of potatoes.....	130 00	
Cost of ½ acre of potatoes.....	51 75—	78 25
Value of ¾ acre of root crop.....	76 30	
Cost of ¾ acre of root crop.....	45 75—	30 55
Value of garden—2 acres.....	175 00	
Cost of garden—2 acres.....	92 00—	83 00
Value of 68 tons of hay @ \$5.....	340 00	
Cost of 68 tons of hay @ \$5.....	111 00—	229 00
Value of 2 tons of Hungarian hay.....	15 00	
Cost of 2 tons of Hungarian hay.....	8 80—	6 20
	<hr/>	
Net profit on produce.....		\$1,338 69

The following amount of labor has been done on the farm outside of field work. During the first four months of the year it required the entire attention of one man to take care of the stock, as the cars were running through the farm, and the danger of stock being killed made it necessary to thus employ a man. Fifty-five days were spent in odd jobs, attending to stock, lumber, cutting wood and posts, hauling manure, working in orchard, building fence, &c. This amount of work done from January 4th up to March 24th.

Four days spent in grading about house, sowing grass seed—re-

sult, a nice lawn; five days spent in plowing, harvesting, ditching and sowing grass seed in west barn yard—making a fine grass plat; nine days sowing grass seed and harrowing, on prairie east side of farm—the result, a good fair patch of timothy; nine days after lumber, seed wheat, and repairing fences; six days killing caterpillars in orchard, preparing willow cuttings, husking corn, &c.; five days setting out willow cuttings (about one mile). [It required much labor to prepare the ground. The willows have done well, and bid fair to make a good fence. It is the intention of the Executive Committee to plant the west and north sides of the farm with a belt of willows.] Five days digging pit for cattle scales and hauling material for the same; four days setting out fruit trees; four days setting out shade trees in lawn in front of farm house; six days setting one hundred evergreens in nursery; three days setting out small fruit trees and shrubbery in garden; seven days preparing ground and setting out 114 dwarf and standard fruit trees and 34 grape vines; ten days digging foundation of wood shed, hauling stone, sand, and attending masons; five days hauling timber and lumber for wood-shed, raising wood-shed, laying up fence around College foundation, unloading lumber, &c.; six days shearing sheep; nine days digging foundation, hauling material for verandah; four days repairing well; six days spent in killing potato bugs; five days cleaning out willow hedge; 2½ days in garden among fruit trees; up to 23d of June: Seven days making sheep pens and trimming orchard; twelve days digging drain and laying tile from house cellar; 9½ days digging foundation for smoke house, hauling brick and sand for same; four days hauling lumber at mill; three days grading and hauling brick for pavement; eight days digging foundation for privy, and hauling brick, sand and lime; twelve days for lime, moving wool, making hay rack, making gates and hanging; 8½ days after evaporator, setting same, selling land, &c.; eight days after castings for cane mill, hunting stock, &c.; sixteen days building hog sheds, sheep racks, sheep yards, hunting borers in orchard, and grading around out-buildings; thirteen days trimming and laying down grape vines, taking ewes to Grinnell, mulching trees, &c.; three days to Des Moines with sorghum; six days grinding feed. Up to December 31, making in all 282 days.

AMOUNT OF LABOR EMPLOYED ON FARM DURING THE YEAR, FROM JANUARY 1ST, 1865, TO JANUARY 1ST, 1866.

Thomas Hood, 3 months, at \$28 per month.....	\$ 84 00
Thomas Hood, 8 months, at \$30 per month.....	240 00
Jacob Moine, 2 months, at \$18 per month.....	36 00
Edward Wittser, 1 month, at \$15 per month.....	15 00
John Hall, 8 months and 12 days, at \$30 per month.....	253 32
Fleming Snelling, 2 months, at \$28 per month.....	56 00
Wm. Marsh, 21 days, at \$25 per month.....	20 16
Wm. Manhanett, 5 months and 18 days.....	142 28
Henry Hocks, 2 months and 20 days, at \$20 per month.....	55 40
Alex. Dobin, 27 days, at \$30 per month.....	31 05
John Nyers, 64 days, at \$1.25 per day.....	80 00
Sylvanus Manhanett, 23 days, at \$1.25 per day.....	28 75
Wm. Marsh, 5 days, at \$1.25 per day.....	6 25
Fleming Snelling, 5½ days, at \$1.00 per day.....	5 50
James Harris, 19½ days, at \$1.00 per day.....	19 50
B. F. Iback, 15 days, at \$1.25 per day.....	18 75
I. Roberts, 57½ days, at \$1.50 per day.....	88 50
Samuel Rodney, 5 days, at \$1.50 per day.....	7 50
John Rodney, 5 days, at \$1.50 per day.....	7 50
Alexander Miller, 12 days, at \$2.25 per day.....	27 00
Hans Bacon, 2½ days, at \$1.50 per day.....	3 37
Clark Bacon, 5 days, at \$1.50 per day.....	7 50
Thrashing hands, 16 days.....	24 00
Husking hands, 17 days, at 1.25 per day.....	21 25
Husking hands, 9 days, at 1.75 per day.....	15 75

In summing up the work on field crops, &c., I am satisfied, from careful observation, that it has cost nearly one-third more than it would in ordinary seasons, and owing to the heavy rains in the spring months the result is not so satisfactory as it would have been under other circumstances.

In the sorghum account there has been some outlay that has not been charged to that account—several hours were spent in setting the mill and building the arch for evaporation; defective parts of the mill broke, therefore causing some delay in mending. We used Skinner's Climax Adjustable Sugar Mill, manufactured by E. W. Skinner of Madison, Wisconsin. It has peculiar features and

merits, and deserves a special recommendation. We give a description. It differs from other mills in two important points. 1st. In the use of bearers and weights to regulate the pressure of the rollers instead of set screws or keys. 2d. In the arrangement of its driving gear on the top of the mill and in attaching the sweep to the standards bolted to the periphery of the crown wheel. The advantage of this arrangement of the gearing will be apparent to all who have had much experience in the use of sugar cane mills; but it must be seen in operation to fully appreciate the advantage gained by the use of the bearers and weights. They insure a constant unvarying pressure of five to eight tons, as desired, on each end of the lower back roller. This presses the largest, as well as the smallest stalks equally dry, and with much less power, it is claimed, than is required by any other mill, which is doubtless the fact. They also guard against breakage. The examining committee of the Illinois State Fair tested its efficacy on the largest and smallest stalks run through side by side, and by handfull run through indiscriminately. In each case the begasse was much dryer than from the set screw or rigid mills.

Another advantage is claimed for this mill, which becomes apparent in making syrup from juice pressed by it. When two or more stalks fall in cross-ways or on top of each other the adjustable roller will ease up and allow the lump to pass through without extracting the rank green juice from the bark or joints. A rigid mill, if keyed up sufficient to pass single stalks tolerably dry, requires great power to carry such knots through, and the extra pressure takes from the bark or rind its disagreeable juice which is deleterious in making good syrup.

The weight of the mill is eleven hundred pounds. It has three rollers sixteen inches long, and ten inches in diameter. It is well and substantially planned and put together.

Mr. Skinner also manufactures a large sized adjustable mill for large works or plantations, a model of which was on exhibition at the Illinois State Fair. This mill has a compound leverage which gives great additional pressure, without corresponding increase of weight. Either mill can be geared to run any power or speed. We regret that we cannot give the prices of the several sizes made by Mr. Skinner.

COOK'S EVAPORATOR.

We used one of *Cook's Evaporators*, furnished us by Ransom Bartle, of Independence, Iowa, at one half the cost, and it has given good satisfaction, and we can cheerfully recommend it to the farmers of Iowa. The quality of syrup is very fine, clear and transparent, and of a rich, delicious flavor.

STOCK.

The stock has not done as well as could be expected, owing to the fact, we had not the convenience of taking care of the same as we should have done. I could not make the improvements desired, owing to the want of funds.

The following statement will show the condition and number of fine stock, together with the common stock now on the farm: together with the increase, cost of keeping, &c.

I did not think it advisable to purchase the remainder of the stock recommended at last meeting, for good reasons; first for the want of funds; second, for the want of proper buildings to take care of the stock. One of our fine Durham heifers lost a calf—in calving. The cars on the railroad killed one of our fine Leicester ewes, worth \$150. I have not presented bill for several reasons, one of which is, I was doing all in my power to have them fence the railroad running through the farm, and for this cause did not want to have any trouble until it was accomplished.

HORSES.

The following is the list of Common Stock, ages and value of each:

One span of work horses, 10 and 11, Bill and Charley,	\$250 00
One bay mare 7 years old, weight 1340 pounds, a fine animal,	200 00
	<hr/>
	450 00

CATTLE.

One red cow 8 years old, Polly,	40 00
One white cow 8 years old, Lucy,	35 00
One white cow 8 years old, Tibby,	35 00
One red calf, half Ayrshire, 7 days old,	5 00

One roan cow, 3 years old, Jule,.....	30 00
One ox, 5 years old, Turk,.....	87 50
One ox, 5 years old, Tom,	87 50

 320 00

SHEEP.

30 high grade Spanish ewes, valued at \$20.00 per head,	600 00
21 grades at 7 00,.....	147 00
22 lambs at 8 00,.....	176 00

 923 00

HOGS.

5 fat hogs, worth.....	\$150 00	
7 summer hogs, value.....	84 00	234 00

FOWLS.

53 chickens, valued.....	14 25	
8 bronzed turkeys,.....	24 00	38 25

 1965 25

DURHAM CATTLE—FINE STOCK.

One red heifer 3 years old, Jassamer.....	500 00
One red and white heifer calf 2½ months old, College Belle,.....	100 00
One red heifer 3 years old, Red Rose,.....	500 00
One roan heifer 3½ years old, Zelleah,.....	1000 00
One red bull calf 1½ years old, Alexander,.....	250 00

 2350 00

AYRSHIRE.

One red bull 2½ years old, Henry Clay,.....	300 00
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DEVON.

One Devon heifer 2½ years old, Heroine,.....	100 00
One Devon heifer 2½ years old, Pride,.....	100 00
One Devon bull calf 8 months old, Juno,	200 00
One Devon calf 6 months old, Creole,.....	20 00

SHEEP—SPANISH.

One pure thoroughbred Spanish ewe, Cora Smith,....	300 00
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One pure bred Spanish ewe, Rose Smith,.....	250 00
One pure bred Spanish buck lamb, Gov. Stone.....	1000 00
One pure Spanish buck lamb, Tiger 2d,.....	300 00
One pure Spanish buck 2 years old, Beauty,.....	200 00

COTSWOLD.

One Cotswold buck 3 years old,	150 00
One Cotswold buck 1½ years old,.....	200 00
Three Cotswold ewes,.....	225 00

LEICESTERS.

One buck, Leicester, Imported, 5 years old,.....	200 00
One buck lamb, (a model,) Ohio,.....	200 00
One Leicester ewe,.....	200 00

SOUTH DOWN.

One South Down buck 7 years old,.....	50 00
Four South Down ewes, in lamb,.....	400 00
One South Down ewe lamb,.....	75 00
Three South Down buck lambs,....	300 00

HOGS—HOSPITAL BREED.

2 breeding sows, 14 months old.....	100 00
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BERKSHIRES.

One Berkshire boar, 13 months—"Iowa Boy".....	75 00
Two " sows, 13 "	100 00
Five " pigs, 3 "	75 00
Four " crossed with Hospital.....	20 00

 Total.....7,390 00

RECAPITULATION.

Total value of fine stock in 1866.....	7,390 00
" " " 1865.....	3,046 00
	<hr/> 4,834 00

Value of increase of stock	1,330 00
" " " old stock.....	3,504 00—4,834 00

Value of common stock.....	1,960 25
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" " fine stock.....	7,390 00
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Total value of stock.....	9,350 25
One pair of shepherd pups.....	40 00
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	9,390 25

LIST OF HARNESS, IMPLEMENTS AND TOOLS ON THE FARM JAN-
UARY 1, 1866.

HARNESS.

1 set of double harness (wagon).....	40 00
1 " " " "	25 00
7 leather halters	7 00
1 riding bridle.....	2 00
4 horse blankets.....	10 00
2 surcingles.....	1 50
2 curry-combs.....	1 00
2 brushes	1 50
	<hr/>
	88 00

FARMING IMPLEMENTS, TOOLS, &c.

1 " Woods " Reaper.....	100 00
1 " " Mower.....	65 00
1 sulky hay rake (Frost & Bradley).....	30 00
1 corn mill (Joice's).....	75 00
1 corn planter.....	50 00
1 corn cultivator (mills of Des Moines).....	60 00
1 corn cultivator (Frost & Bradley).....	35 00
1 cane mill (Skinner's).....	165 00
1 evaporator (Cook's).....	60 00
1 Fairbanks' cattle scales.....	250 00
1 log wagon.....	110 00
1 two-horse Shuttler wagon.....	110 00
1 pair bob-sleds.....	30 00
3 harrows.....	36 00
1 grain drill.....	50 00
1 Garden City (Frost & Bradley).....	12 00
1 cast steel plow (Smith's).....	15 00
1 Moline plow.....	7 00
2 " R " coulters.....	12 50

1 shovel plow (single).....	4 00
1 " " (double).....	5 00
3 hoes.....	2 25
1 scoop shovel.....	2 00
3 spades.....	3 00
1 spade.....	1 75
1 pick.....	75
2 shovels.....	2 00
1 shovel.....	75
3 pitchforks.....	3 75
2 manure forks.....	2 50
1 manure fork.....	75
1 spading fork.....	1 00
1 garden rake.....	1 00
2 axes.....	3 00
1 ax.....	1 00
2 hatchets.....	1 00
1 scythe and snath.....	2 00
4 wooden rakes.....	1 00
1 hay knife.....	1 25
1 grindstone.....	4 00
5 water pails.....	1 25
1 set of measures.....	75
20 grain sacks.....	6 00
1 feed box.....	4 00
3 pair sheep shears.....	5 00
500 sheep labels.....	9 00
1 pair toe shears.....	1 50
2 punches.....	1 00
1 sodder iron.....	2 50
2 brands for tools.....	8 00
1 wheelbarrow.....	5 00
3 cable chains.....	20 00
1 draft chain.....	3 00
1 straw cutter.....	20 00
1 pair large pinchers.....	1 25
1 corn knife.....	50
1 monkey-wrench.....	1 25
2 cast-iron wrenches.....	50

1 cross-cut saw.....	6 00
1 corn basket.....	50
110 lbs. nails.....	12 10
1 set of carpenters' tools and chest.....	30 00
	<hr/>
	\$1,455 35

FURNITURE IN FARM HOUSE.

1 office stove.....	14 00
1 parlor stove.....	9 00
7 office chairs.....	15 75
5 cane-seated chairs (office).....	12 50
1 lounge.....	3 00
1 extension table.....	18 00
1 desk.....	30 00

Total value of furniture.....	102 25
“ “ “ tools, &c.....	1,455 35

Total value of furniture, tools, &c.....1,557 60

Grand total of stock, implements and tools for
1865..... 4,645 75

Grand total of same for 1866—

Stock.....	9,390 25
Tools, implements, &c.....	1,557 60

Grand total.....10,947 85

Total value of crops for 1865..... 1,338 69

12,286 69

Less cost of keeping stock for 1865..... 500 00

Total.....11,786 54

IMPROVEMENTS.

The farm house is now finished, with the exception of painting the inside work, which we would recommend to be immediately done.

VERANDAH.

A beautiful verandah has been put up since our last meeting, in front of the farm house, at a cost of \$300. It is built substantially,

and it relieves the bare walls of the house, and will be a protection to it.

A WOOD-HOUSE AND WORKSHOP

has been erected, east and adjoining the back part, on the lean-to of the house. It has been built of wood and put up in a substantial manner, at a cost of \$656.75. It is well painted, with blinds to the windows, with a division in the center—one part for wood-house and the other for workshop, and room for the hands to spend their leisure hours. Length of building 18 × 30 feet.

PRIVY.

A good double privy has been built of brick, 10 × 10, in a good, substantial manner, at a cost of \$150.

SMOKE AND ASH HOUSE.

A neat and substantial smoke and ash house has been built of brick, 8 × 12 feet, got up in a tasty style, suitable for model building, at a cost of \$130.

BOOK CASE.

A book case has been put into the office the entire length of the north side of the office, made of good black walnut, with cupboard and solid doors below, and glass doors above, with room for 2,000 volumes, at a cost of \$200.

PAVING.

The area between the wood-house and main building has been paved, making a good dry walk, at a cost of \$25.

CATTLE SCALES.

A set of Fairbanks' four-ton scales have been put in the barn-yard, at a cost of \$200, which I thought expedient to have on the farm.

TREES AND SHRUBBERY.

There have been several hundred ornamental and shade trees, and shrubbery, set out. I deemed it essential to make an ample lawn, with here and there a tree, with shrubs for fragrance, and evergreens to relieve the golden of the summer day; with bordered walks and quiet nooks, the embowering shade of trees, with

beautiful trailing vines, and shrubs, and flowers. A tree undoubtedly is one of the most beautiful objects in nature, in its many shapes; one of the greatest sources of interest and character in landscapes. By the judicious employment of trees we may effect almost any amount of alteration and improvement within the scope of landscape scenery.

GRAPE VINES, &C.

The following is a list of grapes that have been set out the past year: 6 Delawares, 2 Isabellas, 4 Hartford Prolifics, 4 Logan, 4 Diana, 6 Rebecca, 2 Iowa. We have mislaid the list of fruit trees and cannot give it now. Would recommend experimenting in the horticultural department.

TAME GRASS.

The amount of tame grass sown on the farm is not large, and I would recommend the seeding of all the meadows and pastures in tame grass as soon as it can be done. Whole amount of land sown, 43½ acres. On old ground—Timothy, 12 acres; Timothy and Clover, 4 acres; Clover and Blue Grass, 2½ acres; sown on prairie soil and harrowed in, and is doing well, 25 acres. Total, 43½ acres.

EVERGREENS.

There has been a large lot of small evergreens experimented with the past year, which have not done well. We have now about 160 Cedars that are growing nicely; 600 Balsam Fir, Norway Spruce, Pines, White Cedar and Hemlock that are doing well, and will, if care is taken with them, make good, symmetrical trees.

DRAINS.

The cellar has been drained, taking about one hundred feet of four-inch tile (the small tile were used, but would not do). The cellar is now completed, drained, and in good condition, at a cost for 100 feet of tile at 25 cents per foot, of \$25; cost of labor, \$21.81. Total cost, \$46.81.

BREAKING.

The breaking done on the farm for the year 1865, amounts to 29 acres, 18½ acres of old ground which had lain idle for three

years and was equivalent to new ground, 10½ acres of new sod. There was employed for breaking the above, one yoke of cattle and one span of horses. Time taken, two men and teams 18 days, at \$6.00 per day, \$108.00 at a cost of \$3.72 per acre.

We would recommend the breaking of at least 50 acres per year until all is broken up.

Whole number of acres of old ground broken, 126. New, 29. Total, 155 acres.

WILLOWS.

There has been about one mile of willow cuttings set out on the north side of the railroad, and along the west side of the farm. The season was favorable for starting the cuttings, and if they have a fair chance this coming season, will make a fine belt for a wind breaker. We would recommend the planting, on the north line of the farm the entire length, this fine willow for a screen, back ground and protection from north and west winds. The cuttings planted this year were obtained by Mr. Foster, from Overman & Edwards, of Illinois, as a gift to the farm. The cost was but the transportation.

FENCING.

There has been about 437 rods of post and board fence built this year (1865), commencing at the south-east corner of the orchard fence, running south to the south line, thence east on the road to the east line of the farm; thence north 50 rods, half the distance to the railroad. The other half was to have been built by Mr. Hoggett, which has not been done.

There are on the farm 240 rods of post and board fence, of post and rail fence 148 rods, of Virginia rail fence 374 rods, as follows:

Post and board fence.....	437	
“ “ “ hard-wood lumber.....	240—	677
Virginia rail fence.....	374	
Post and rail fence.....	148	

Total number of rods..... 1159

Cost of fence in 1865:

It has taken 983 posts, cut from the farm timber, valued at 15cts	\$ 147 45
It has taken 18,345 feet of pine lumber bought at Clinton at a cost of.....	605 38

Forty days' labor on same, at \$1.50.....	60 00
Fourteen days' labor on same, at 1.75.....	14 50
Eleven and a half days' of man and team hauling at \$3.00	34 50
Paid on contract of building fence.....	39 50
	\$901 33

There has been built on the line of the railroad a good fence, post and board, the entire length, south side of the railroad, about one mile, and the men promised to build the whole length on the north side of the road,—thus fencing the entire road through the farm. By thus fencing the road, it gives us about 170 acres of fine bottom and upland pasture. I made several trips to Clinton on the fence matter, to induce the railroad company to build the fence along the line of the road.

I would recommend the fencing of the entire farm; it will take about 690 rods of fence; and also to leave a thirty foot road around the north, east and west sides of the farm. We would recommend the fencing of the fields as the plat of the Superintendent shows the divisions.

COLLEGE LANDS.

A resolution was offered at the last meeting, requiring the Executive Committee to sell or lease the College lands, and to have the same patented.

We have appointed the Hon. Geo. W. Bassett, as General Agent, with instructions to plat, &c., in accordance with the resolution. Below find report of Mr. Bassett.

LAND OFFICE OF THE IOWA AGRICULTURAL COLLEGE, }
FORT DODGE, IOWA, DECEMBER 31, 1865. }

To Peter Melendy, Secretary of the Iowa Agricultural College :

In compliance with your request, the following report respecting sales and leases of the lands belonging to the College, and included in the grant made by act of Congress, approved July 2d, 1862, is hereby submitted for your consideration.

These lands, in all, amounting to two hundred and twenty-four thousand one hundred and sixty-nine 37-100 (224,169 37-100) acres were, on the 15th day of July last, by order of the Executive Committee, first offered for sale or lease, under the provisions of

chapter 117, of the acts of the 10th General Assembly of the State of Iowa.

At the present date, December 31, 1865, there have been leased 57,436.34 acres, at a total valuation of \$109,459.44, upon which there has been paid advance interest, \$7,746.13. In a majority of cases advance interest was collected upon leases from the date up to January 1, 1867, making the date of payment of interest uniform on all leases, as a matter of convenience both for this office and for the lessee.

The available endowment of the College now affords, in annual interest payable at this office, an income of \$6,567.56.

There remain of the total grant, undisposed of, 166,733.03 acres of about the same average value as that already leased, making the total value of the grant, under the present appraisement, about \$427,266.85. Though the sales may not be so rapid, yet the lands will, under the present mode of disposition, in a few years be made available and afford an ample endowment, placing the institution upon a permanent basis, and rendering it self supporting.

The leases were made in conformity to the provisions of the act of the 10th General Assembly, above referred to, for a term of five years, at six per cent. per annum, payable in advance, upon the appraised value of the lands made at the date of the lease with a right of purchase to the lessee at the expiration of the term. A copy of the form used is herewith transmitted.

Much inconvenience was at first experienced from a want of proper books of record, plats, maps and blanks, but that inconvenience is now removed, and we have prepared and in use at this office a "Register of Lands," in which is recorded the entire grant in quarter sections, with the number of acres in each tract, and the appraised value. Also a "register of sales and leases," in which are entered the sales and leases, with date, name of lessee or purchaser, a description of the tract and valuation, and the amount of interest or principal secured. One book of township plats, two books for sectional plats with the College lands marked thereon, a cash book, and a map of the Fort Dodge and Sioux City Land Districts.

The lands having been offered in the market at a favorable time, when an unprecedented immigration was tending to the Upper Des Moines Valley, a rare opportunity was offered for the disposal of

the grant, while the facilities offered to actual settlers by the admirable method of leasing have greatly tended to the settlement of this part of the State. Only about one-quarter of the entire grant has been disposed of, and it is generally desired that the remainder shall not long be withheld from occupation by those seeking homes in our State. No absolute sales have been made, and no lands offered since the sixth instant, the date of the receipt of your order withdrawing them from market.

GEO. W. BASSETT,

Agent for the sale of the Iowa Agricultural College Lands.

RECOMMENDATIONS.

BEE CULTURE

Should be encouraged in our State. No branch of agriculture in our State could be made so profitable as this in proportion to the labor and capital expended, and we would recommend the Executive Committee to procure at least six stands of pure Italian bees, and that steps be taken to build a model *apiary*.

A writer says: This interesting branch of husbandry is progressing with the increase of population and presents a much higher average per inhabitant than Illinois or Wisconsin in 1859. For Iowa in that year it was 1 41-100ths of a pound, Illinois 81-100 of a pound and Wisconsin only 29-100ths of a pound. Iowa ranks over Illinois 60-100ths of a pound, over Wisconsin 1 12-100ths of a pound and over both together 41-100ths of a pound. This is a very flattering exhibit for Iowa over her Western sister States. Whether our climate is more favorable or that our farmers give bee-culture more attention we are not advised, probably both have their influence. We merely state the facts, leaving for others to give the causes. It is a branch so remunerative that we are astonished greater attention is not given to it. The average product per hive in Iowa in 1862, was nearly 13 pounds.

FENCING AND PLATTING THE FARM.

I would recommend the platting and dividing the farm into fields and lanes, according to the Superintendent's plat. I think the land on the south side of the orchard fence should be used as lawns for our fine stock, to be kept at the proper seasons, and that

we group native and foreign trees promiscuously through the ground, taking for the centre of the group, the oak and the chestnut, which are among the largest and the noblest of our trees; the spruce, hemlock, ash and beach, locust and hickory, the cottonwood, sycamore, walnut, soft maple—the arrangement of these should be the subject of careful study. Groups should be always composed of one principal tree, larger and taller than the rest, with others grouped around as subordinates. Plant trees most certainly, and wherever they would be a beauty or a refreshment, let their roots begin to pierce the mould above which their branches may year after year wave with a fascinating grace and variety—like which there is nothing else in nature. There are many things that we might mention, but time will not permit.

All of which is respectfully submitted,

PETER MELENDY, *Superintendent.*

REPORT OF THE EXECUTIVE COMMITTEE.

To the Honorable Board of Trustees of the Iowa State Agricultural College :

GENTLEMEN:—Your Committee would respectfully beg leave to make the following report for the year 1865 :

The duties of the Committee for the last year have been laborious, requiring much time to discharge the many important obligations devolving upon us.

The infancy of the institution has been carefully matured and sustained by the many friends who have constantly given it their fostering care, expending their time, their labor and private resources, without hope or desire of public preferment, or reward, though it has attained the stature, the vigor, and the dignity of manhood. The capacity of our connection with the interests of the institution, and knowing the wants of the same, compel us to make a lengthy and minute report of every department of the Farm and College, and to call on the Trustees and the *General Assembly* for aid to enable us, your committee, to accomplish the great work for which it is destined. We have met with much opposition and complaint from many quarters, and with this all, we have removed many false prejudices of the community to develop and elucidate this great work of elevating labor.

Your Committee have had several meetings at the Farm and College. The many duties we had to perform, passed at your last meeting in March last, we have attended to, as the reports herewith attached show. We present to your honorable body the report of the Superintendent and Secretary, report of the Secretary, the history of the Institution from the organization up to the present time, report of the Farmer, report of the Building Committee, report of Architect, report of Brick Maker, report of Agent of Agricultural lands, all of which we hope you will find elaborative enough.

We have deemed it of the utmost importance for the interests of

the Institution to thus make a full history, and objects of the Institution from its organization to the present time, thus placing all information that the people of the State require to understand the objects of the Institution, of its progress and operations. The periodical meeting of your body is a fit time and an appropriate occasion on which to impart this information in detail.

And we would especially call the attention of the Board to the financial condition of the Institution. We would like to have made more improvements, and to have put the farm in a better condition. It has been thought best to proceed slowly and certainly, as a measure of economy and prudence, rather than involve the Institution.

Your committee was instructed to appraise the lands in Story and Boone counties. We submit the following :

APPRAISAL OF "DONATED LANDS" IN STORY AND BOONE COUNTIES
NOW REMAINING ON HAND.

In Story county, five hundred and thirty-six acres.....	536
In Boone county, one hundred and sixty acres.....	160
Total.....	696
Aggregate value of the same, \$4,880.	

Your committee sold the following lands in Story, Boone, and Jasper counties :

To A. J. Graves, the nw. $\frac{1}{4}$ of ne. $\frac{1}{4}$, sec. 15, T. 83, R. 24—40 acres ; se. $\frac{1}{4}$ of sw. $\frac{1}{4}$, sec. 10, T. 83, R. 24—4 acres, at six dollars per acre.....	480 00
To Roberts, ne. $\frac{1}{4}$ of sw. $\frac{1}{4}$, sec. 28, T. 84, R. 23—40 acres, at seven dollars per acre.....	280 00
To Watts, nw. $\frac{1}{4}$ of nw. $\frac{1}{4}$, sec. 25, T. 84, R. 23—40 acres, at five dollars ; one hundred dollars down, and one hundred dollars in one year.....	200 00
To Ballard, e. side se. $\frac{1}{4}$ of ne. $\frac{1}{4}$, sec. 31, T. 85, R. 23—25 acres, at five dollars.....	125 00
To Barnerd, sw. $\frac{1}{4}$ of se. $\frac{1}{4}$, sec. 9, T. 84, R. 26—4 acres, at ten dollars ; one hundred thirty-three dollars and thirty-three and one-third cents down, note 12 months one hundred thirty-three dollars and thirty-three cents, and 24 months for one hundred thirty-three dollars and thirty-three cents.....	400 00

JASPER COUNTY.

To Sidney Wellems, n. $\frac{1}{4}$ sec. 4, T. 78, R. 20—320 acres,
 at fourteen dollars and forty cents ; four hundred and
 eighty dollars down, four hundred and eighty dollars
 in 12 months, four hundred and eighty dollars in 24
 months 1,440 00

Total amount..... 2,925 00
 Paid down..... 1,278 33 $\frac{1}{2}$

Balance due..... 1,646 66 $\frac{1}{2}$

TITLES AND SUBSCRIPTIONS.

Your committee have examined the most of the titles of the lands donated in Story and Boone counties, and find them all right. We have also placed the subscription lists in the hands of John Scott, of Nevada, to collect. We find a number of the amounts can be collected. We are not able to make a full report as to the amount of good, and the amount that cannot be collected.

CHANGE OF ROAD.

Your Committee have made arrangements to exchange lands with P. L. Foster in changing the road on the south side of the Farm, so soon as the Legislature will give us the authority. Your Committee have expended about twenty dollars in making road on the south side of Farm. The amount appropriated is \$100. We deem it essential that the road should be immediately finished to prevent travel across the Farm.

SETTLING BRICK ACCOUNT.

Your Committee have settled with Chamberlain & Bronson in the matter of making brick, as follows: by paying them \$268, thus closing up the unsettled account.

STORY COUNTY BONDS.

Your Committee have attended to the matter of requesting the Board of Supervisors of Story County to levy a tax for the purpose of taking up the bonds of said county now held by us as a donation to College and Farm. We made the request, and we un-

derstand that they have made a levy for the tax for the amount of \$1,000, for the next year.

BILLS ORDERED PAID.

Your Committee have drawn orders on the Treasurer for the amounts ordered to be paid at your last meeting.

Your Committee would most respectfully submit the following report of receipts and expenditures on Farm account for the year 1865 :

RECEIPTS AND EXPENDITURES

By the Executive Committee, for the year 1865.

RECEIPTS,

1865.

January 13th. Received from Treasurer.....	\$1750 00
February 17th. Received from Treasurer.....	1500 00
May 21st. Received from Treasurer.....	500 00
May 8th. Received from Treasurer.....	250 00
June 9th. Received from Treasurer.....	800 00
August 10th. Received from Treasurer.....	190 00
May 10th. Received from Melendy.....	205 00
August 15th. Received from sale of land, Roberts...	186 66
September 6th. Received from sale of land, Ballard,	125 00
December 1st. Received from sale of land, Watt....	100 00
January 1st, 1866. Received from farm.....	118 65
January 1st, 1866. Received from sale of land, Graves	160 00
	<hr/>
	\$5885 31

EXPENDITURES.

January 1st, 1866. By vouchers herewith submitted..	\$6805 62
Excess above receipts.....	76 21

REPORT OF BUILDING COMMITTEE, 1864.

To the Hon. Board of Trustees of the Iowa State Agricultural Farm and College :

GENTLEMEN:—Your Committee would beg leave to make the following report: Your Committee was elected on the 15th day of June, 1864, to perform the important duties devolved upon them. We have met at the farm eight times. At our first meeting in June, we advertised for bids for the excavation and stone work. The bids were opened on the 11th day of July, 1864. We let the excavation to W. J. Graham at 24½ cts. per yard; stone-work to Scott & Kerney, of Des Moines, at six dollars per perch of twenty-five feet, and for surface work seventy cents per foot for cut-stone, door and window sills.

We employed Mr. John Browne as architect at fees of five per cent. on the cost of the building, with the proviso in the contract as follows: "This contract may be discontinued at the option of either party." We let a contract to Mr. Warner, of Boonsboro, to furnish all the joists, studding, square and roof timbers, at \$26.50 per M., delivered at the building. The contract was drawn up and signed by the Building Committee, and left with John Browne to get the contract signed. This Mr. B. neglected to do.

Mr. Graham failed to get the excavation done in time for the stone masons. The time for the work to be finished was the first week in September. We put on the job the farm hands and teams and finished the work. Mr. Graham complains of our architect not attending to his duties, therefore putting the work back. We have paid Mr. Graham one hundred dollars. The excavation by Mr. G. was 1428 yards of surface work.

STONE WORK.

Messrs. Scott & Kerney have laid something over 400 perch of rough wall, estimated at \$4.50 per perch, amounting to \$1,800.

They have also finished about 200 feet of cut-stone sills, at 70 cents per perch, worth \$140. There are about one hundred and seventy-five perch of stone on the ground. It will take about one hundred perch more to finish the rough work. They failed to get their contract done, which was the middle of November. They claim damages from Mr. Graham. Your Committee have paid them \$2,500.00.

BRICK WORK.

The brick contract was let to Chamberlin & Co., of Jones county, to burn seven hundred and fifty thousand, at \$5.85 per thousand, and the College furnish the wood. The first kiln of 200,000 was burned well, but unfortunately too much lime gravel was in the clay which burst the brick; in accepting this kiln there was a deduction of 10 per cent. We have paid them on this kiln \$1010.00.

The second kiln contained about 100,000 of better made than the first, but not as a burn. We have paid \$451.00 on this kiln. The kiln is on the land of Mr. Porter, formerly owned by W. J. Graham, adjoining the farm. We will have to pay to Mr. Graham 20cts per thousand. The first hundred thousand nothing to be paid on.

The whole amount paid to Chamberlin & Co., is \$1,338.82.

CARPENTER WORK.

The carpenter work has been done by the carpenter on the farm, Mr. Kellogg. The work done has been principally the doors, and window frames. We were not furnished the plans, nor the estimates on the carpenter work by our Architect. We were compelled to employ Mr. Kellogg by the day. The carpenter work has cost \$250.00; lumber \$100.00.

ARCHITECT.

In consequence of neglect of duty to the interests of the College, we discharged Mr. Browne early in September. In October we wrote to Secretary Wilson, to call on Mr. Browne for the plans and specifications. Mr. B. refused to deliver them.

We thought it necessary to employ another architect to report at the meeting in January, the condition of the foundation, and if

necessary to recommend changes, and to make new plans and specifications, and estimates, for which we have paid Mr. Browne \$350. We employed Mr. Edwards, who went to the farm in December, and who will make a report to your Honorable body. In discharging Mr. Browne, we thought it for the interest of the Institution.

A statement of moneys received and expended on the College building by the Building Committee for the year 1864:

MONEYS RECEIVED.

FROM WHOM RECEIVED.	BY WHOM RECEIVED.	AMOUNT.
Auditor of State.....	Chairman of Committee...	\$ 6,300 00
		<u>\$6,300 00</u>

MONEYS EXPENDED.

NO. V' R	TO WHOM PAID.	ON WHAT ACCOUNT.	AMOUNT.
1.	Sundry individuals...	Advertising freight & lime.	\$ 71 05
2.	Scott & Kerney.....	Stone work.....	2,502 00
3.	John Browne.....	Plan of Coll. building.....	350 00
4.	W. J. Graham.....	Excavation of cellar, &c....	100 00
5.	Suel Foster.....	Lumber, tile and freight....	133 25
6.	J. M. Kellogg.....	Work on window frames....	250 00
7.	— Talbott.....	Lumber for frames.....	28 64
8.	Telegraph Company...	Dispatch to Kellogg.....	2 00
9.	College Farm.....	Lumber, wood, &c.....	1,534 35
10.	Chamberlin & Co.....	Making brick.....	1,338 82
11.	— Kelly.....	Advertising College.....	10 00
			<u>\$6,320 11</u>
	Expended over amount received.....		\$20 11
	Vouchers in the hands of the Auditor of State.		

Most respectfully submitted,

SUEL FOSTER,
PETER MELENDY, } Executive Com.
J. A. BRONSON,

REPORT OF THE BUILDING COMMITTEE, 1865.

Your Committee laid before this Board in March last, a statement of their doings in the way of making contracts and preparing for the prosecution of the work on the College building. As soon as the season would permit, work on the foundation was resumed, but on examination, the walls showed that the work of last year was entirely worthless, owing to the manner in which it was put up, and the materials used in its construction.

Under the direction of the architect, (Mr. Dunham,) the old walls were torn down and the excavation enlarged, and new, substantial walls put up.

Your Committee acted upon the supposition that the foundation was all important, and that should we consent to the erection of walls upon the foundation then begun, we should be justly chargeable with a disregard of the interests of the institution and of the State.

The work now done is (in our opinion) of the best quality, and the foundation all that could be desired.

The excavation in 1864, was hurriedly done and the dirt left in heaps immediately about the foundation site, in consequence of which the water was running into the foundation from some distance about the same. In order to remove this difficulty, Mr. Robertson was directed to do the necessary grading, and, in the meantime to place the dirt excavated by him, where it would be wanted so as to avoid similar difficulties in the future, and at the same time secure an early completion of the grading.

The failures in the manufacture of brick for the first year were to us all a source of trouble and disappointment; fears were entertained that we should not be able to get such brick as should be used in the construction of such a building.

After a careful examination of the material on and about the College Farm by the Architect and Mr. Robinson, it was decided to open a new yard on the farm. This was attended with considerable expense, but we are gratified in being able to say that we have succeeded in obtaining a better article of brick than can be found anywhere else in central Iowa at a cost below what common

brick are now selling for at this and other points in the State. It is to us a source of satisfaction to be able to say that the work done this season is so much accomplished towards the completion of the College building. We have now about eight hundred thousand brick ready for the walls.

The foundation is all in, making twenty thousand feet of stone work. A coal vault in the rear of, and attached to the center of the building is finished. The grading around the building is all completed and in readiness for such improvement as may be determined upon in the spring.

The following statement will show the receipts and expenditures of the Committee since the commencement of the last year :

STATEMENT

Of moneys received and expended on the College Building by the Building Committee for the year 1865 :

MONEYS RECEIVED.

From Auditor of State	\$13,700 00
From Farm Fund (borrowed).....	603 49
	<u>\$14,303 49</u>

MONEYS EXPENDED.

Paid S. A. Robertson, month of April, (voucher on file), \$ 790 75	
“ same, month of May, (voucher on file).....	1,545 93
“ “ “ June, “ “	1,656 38
“ “ “ July, Aug., and Sept., (voucher on file).....	2,690 35
“ Robert Scott, work on College, (voucher on file).....	3,771 00
“ C. A. Dunham, Architect, (voucher on file).....	300 00
“ Chamberlain & Bronson, balance on brick account	
for 1864, (voucher on file).....	200 00
“ wood choppers, as per vouchers.....	609 46
“ for lumber, nails, labor, &c., furnished from Farm	
Fund.....	1,999 31
“ Robertson for services in superintending brick	
making, 1865.....	720 17
	<u>\$14,283 35</u>

RECAPITULATION.

Amount of moneys received from all sources.....	\$14,303 49
“ “ “ expended.....	14,283 35
Balance funds on hand.....	20 14

FINAL STATEMENT

Of moneys received and expended on the College Farm during the years 1864 and 1865 :

MONEYS RECEIVED.

From the Auditor of State, 1864.....	\$ 6,300 00
“ “ “ “ 1865.....	13,700 00
Total receipts.....	<u>\$20,000 00</u>

MONEYS EXPENDED.

By Building Committee, 1864, (as per vouchers).....	\$ 6,320 14
“ “ “ “ 1865, “ “	14,283 58
	<u>\$20,603 72</u>
Amount paid out above appropriation.....	\$603 72
Received from Farm Fund.....	\$603 49
Error.....	23
	<u>\$603 72</u>

Account of expenditures stands thus:

Amount paid Chamberlain & Bronson, brick making, (250,000).....	\$1,538 82
Am't paid Robertson on brick, (550,000).....	5,925 61
Am't paid Scott for stone-work.....	6,850 95
Am't paid for lumber, nails, hauling brick and wood,	
arches and carpenter work on frames.....	6,288 11
Error.....	23
	<u>\$20,603 72</u>

Amount of property on hand belonging to College Edifice, to-wit:

Tools, bedding, and household goods.....	\$ 650 89
Boarding house, 6,994 feet lumber.....	244 89

Lime house, 1,650 feet lumber.....	57 75
9,000 feet lumber for brick yard.....	315 00
	<hr/>
	\$1,268 53
From which amount deduct amount due Farm Fund...	264 58
	<hr/>
Net value stock on hand.....	\$1,003 95

STATEMENT "A."

<i>Agricultural College to Farm Fund—</i>	
To amount borrowed from Farm Fund.....	603 49
<i>Farm Fund to Agricultural College—</i>	
To brick for Farm.....	338 91
	<hr/>
Balance due Farm from College Fund.....	\$264 58

COST OF BRICK FOR YEARS 1864 AND 1865.

1864—250,000 made by Chamberlain & Co., at \$6.95 per M.,.....	\$1,738 82
1865—550,000 made by S. A. Robertson, at \$8 per M.,...	4,432 08
	<hr/>
Total cost, 800,000, at average cost \$7.71 per M.,....	\$6,170 90

REPORT OF C. A. DUNHAM, ARCHITECT IOWA AGRICULTURAL COLLEGE BUILDING.

To the Building Committee and Board of Trustees of the Iowa State Agricultural College :

GENTLEMEN:—In making this report, I will give you a statement of all which is worthy of note, that has been done upon the College Building, and the condition of the works when they came under my direction, also of certain changes which have been made in the plans of the building.

On the first day of February, 1865, I received the appointment as Architect for the College building from Hon. W. H. Holmes, Chairman of the Executive Board. In his letter to me he suggested that the form and dimensions of the lecture room might be greatly improved, and authorized me to make any other improvement in the original plans, which I might deem beneficial, curtail-

ing the cost wherever it could be done without injury to the convenience and general appearance of the building.

Upon inspection of the original drawings, it was found that the Lecture Room was in such a form that it would be impossible to use it for the purpose for which it was intended. There was no place to put the speaker's stand, so that what he was talking about could be heard understandingly half way across the room, and it could not be seated so as to accommodate one-fourth of the number of scholars, with a full attendance.

The stair-cases came next under my observation; found them to be one-half the usual width of stairs in buildings of this and similar classes. They were arranged in the worst form conceivable. I enlarged that part of the building and put in two good, broad stair cases easy of ascent and descent, and giving by the arrangement two more external doors to rear of the building.

The Library and Laboratory were next taken in hand. Upon inspection of the original plans you will find four small rooms where there are but two in the plans now presented. As Chemistry is one of the most important studies to be taught in the institution, I concluded that it should have as large a room as could be made for it without changing its location or increasing the size of the building. The same might be said of the Library.

The towers were found to be of great size and out of proportion to the balance of the building. At the external angles of the towers there were large, meaningless buttresses, looking like strangers in a strange place. The dimensions of the towers were diminished seven feet each on the ground, which will reduce the cost considerably. The buttresses were discarded; also the large balconies of a costly character of design and workmanship. They were to be constructed of wood liable to decay in a few years, unless given the best attention, with paint and brush, and the use of them is more than I have been able to discover. They certainly could not have been intended for ornament; if so it was a bad intention. In the northeast tower the construction of two of its sides was found to be most remarkable, some 16 feet in height was found to show brick walls erected upon a light wooden partition, supported by what was intended to be a truss, without any mechanical principle of construction being properly applied to resist the load which it was designed to sustain. I doubt very much

whether it would sustain its own weight any considerable time. The walls will now receive their support from iron columns. All of these changes were made in the plans, and submitted on the 22d day of February, 1865, to the Building Committee at the College Farm, and on that day I saw what had been done the year previous on the College building. The foundation walls were about one-fourth built, some were up their full height, they were covered in on the top with straw, and well protected around their bases. The walls looked very good, what could be seen of them; there were a few slight fractures which I could not account for at the time, but which will be accounted for hereafter. Met with the Committee and the changes were discussed.

Mr. Melendy suggested that there should be a Museum room close to the Lecture room, where anatomical and other specimens should be kept close at hand, to be readily introduced upon the lecturer's stand whenever wanted to illustrate and convey more forcibly the ideas of the lecturer. For arrangement of room see plans accompanying this report. The next most important change was the abandonment of the system of heating the building by steam, which would cost not less than thirty thousand dollars, three fifths of the estimated cost of the whole building, besides the entailment of heavy expenses annually; a first class engineer would have to be employed to attend to it, one who could do all the necessary repairs, or otherwise in case of a derangement of its proper working, or bursting of pipes, &c., there would have to be a machinist from some city to do the necessary repairs, while the whole school might be left in a very *cool* condition for some length of time. Mr. Melendy advocated the system of warming the building by hot air furnaces, on the principle of great economy and yearly savings to the Institution, and it was approved by the other members of the Committee. In making excavations for the furnace cellars it became necessary to take down some of the walls that were built, and then the cause of the fractures was discovered. It appears that the excavations for the cellar and foundation walls had been made just the size that the building was to have been. The contractors made single-faced walls, using the best stone on the inner face, where it would show their work to best advantage. In many places the walls were several inches thicker at the top than they were at the base. Those parts of the wall between the

bank and the inside course of stone were found to be filled with all kinds of stone rubbish, occasionally bedded in mortar composed mostly of sand and loam. If there was any lime in its composition my eyes failed to discover it. You all know that it requires the best wall where it has the greatest weight to sustain. The walls referred to were exactly the reverse, and let me say to you, there never could have been a brick wall twelve inches in thickness, built upon it two stories in height, without its falling down or fracturing so badly that it would have to be taken down; and it was of such bad workmanship, and partly of such bad materials, that it had to be all rebuilt this past season, and now in place of them you have good, substantial, double-faced walls, built true to a line on both sides, well bonded and tied together. In the original plans there was no provision made for the thorough ventilation of the rooms.

In the plans now submitted, the rooms are designed to be ventilated as follows: Opposite to where the warm air is admitted into the rooms, registers will be placed in the floors, of the same size as those that admit the warm air, opening to flues in the walls which will lead the vitiated air to the roofs; it will there be thrown off through ejectors. There will be small registers placed near the line of the ceiling in each room opening into the flues above mentioned.

A few other items I wish to say a few words about, in regard to the defects in the original plans. The author of the specifications says the principal roofs must be covered with slate, but the towers and dormer windows are to be covered with pine boards, not exceeding ten inches in width, and their joints covered with moulded battens, three inches wide, a style of finish not much used on public buildings in *this* country to my knowledge. The sashes to the dormer windows could only be raised about five inches to admit air, which would make the attic rooms anything but desirable study or sleeping apartments on a hot summer day or night. The cornice to the building was to have been of the most elaborate design and workmanship, and of a style wholly unsuited to a building of this character. The elevations are so different in design that it is almost impossible to believe that they were for the same building; in fact it would be impossible to work them up together, nor do they agree with the story plans. The second section or form of roofs was not

developed in the drawings, or referred to in the specifications. The form of the roofs was to be of a very expensive kind, requiring two sets of timbers; this has been made straight in the design accompanying, using but one set of timbers. There was but one external door, on the principal story floor plan, now there are three.

I trust that you will excuse me for thus going into details, but I wished to be thoroughly understood, in the reasons for the changes being made. A few words about the brickmaking and the present condition of the works and then I am through. The bricks that were made in the year 1864, were good solid bricks, but were filled with lime pebbles, and when the rains came in contact with them, and afterwards the frost, the lime in the pebbles slacked and burst out pieces, destroying them for facings for the building, but they will answer every purpose for the interior walls. On the 22d day of February, 1865, the Building Committee received propositions from several brickmakers, and finally made a contract with S. A. Robertson, of Des Moines, who has proved to be master of his profession, to make one million of brick, the number necessary to complete the building. After looking over the ground, I directed him to make a new yard and use the top soil instead of the bank clay, which was used the year previous, and the institution has been well paid by so doing. They will have a superior quality of brick, the best I have seen west of the Mississippi river. There are now made 850,000. The stone foundation walls are one foot above the final grade line, over eight hundred perch having been built the last summer. They have been all covered in and the premises properly graded. Accompanying this will be found detailed estimates of costs for erecting and completing the balance of the work on the building. Accompanying this estimate will be the drawings as now approved by the Committee. These estimates are taken and based upon quantities measured on the plans and drawings by a builder of large experience. The cost of workmanship and materials has been ascertained with great labor and considerable trouble. All of which is very respectfully submitted.

Your obedient servant,

C. A. DUNHAM,

Architect Iowa State Agricultural College Building.
Burlington, Iowa, Nov. 22, 1865.

REPORT OF SUPERINTENDENT OF BRICK.

DES MOINES, January 1, 1866.

To the Executive Committee of Agricultural College and Farm :

GENTLEMEN:—The undersigned would respectfully make the following report of his operations as Superintendent of making the brick for, and laying the same on the College Building, and such other work as was required by you.

At your request I went to the College Farm in February last to make an examination of the condition of the work, and having made such examination concluded a contract with you, which was modified by a subsequent agreement in the month of April.

The first thing to be done was to determine the site for a brick-yard. After a careful examination of the clay and the brick made therefrom the year previous, I was satisfied the old yard should be abandoned—there was too much limestone in the clay, the brick would crack and crumble. Making a thorough investigation, I selected a site in the timber as the most eligible location, notwithstanding it would cost heavily to clear and grade the same. Good brick you must have, and I saw no better chance for gaining that object, and so reported to you, and you were pleased to approve of my selection. Mr. Dunham, the Architect, examined the ground selected, and joined with me in recommending the same to your favorable consideration.

In the month of April, work was commenced on the yard and pushed forward as rapidly as possible and we were ready for brick-making in May. There being no suitable place for boarding and lodging the men employed, it was necessary to build suitable buildings, and in accordance with your instructions to build the same with the least possible expense compatible with the health and comfort of the men, a building, 16 x 60 feet, was commenced upon my arrival on the ground. There was a difficulty in procuring lumber, and thereby the work somewhat delayed, and here I must give my thanks to Mr. Graves, the farmer, for his efforts and advice in procuring material. The buildings were completed early in May. The necessary bedding, cooking utensils, &c., were procured, cooks employed, and from that time on, the men were

well satisfied, and I think considerable money saved, besides having the men close to their work.

Being so far from any large mart of trade, much difficulty occurred in procuring provisions, tools and other necessary articles; hence delays were sometimes unavoidable and expenses were somewhat increased; but, upon the whole, I think those of you who know the difficulties were well satisfied to find the total expenditures much less than would have been expected, under the circumstances.

Owing to a change in the plan of the basement of the College, it was necessary to do a large amount of excavation—more than had been done the year previous—and I was also ordered to enlarge the area of the old cellar and basement some eighteen inches around the entire building where mason-work had been done before. This was a work of much difficulty, and, necessarily, slow and tedious, but absolutely necessary to make a two-faced wall. And in making this excavation, I moved the earth to the east side of the building where it was needed to fill and terrace.

The architect also ordered me to grade around the entire building. This required a fill on the east side and south and part of the north ends, and the removal of the dirt which had the year before been placed on the west side, and there also make two feet of an excavation.

There was some work required around the Farm House, and at your request I built foundation for portico, pointed up building, built smoke-house and privy, and did some paving. All the brick used came from College Building.

Notwithstanding the extremely bad weather during the greater part of the first four months—hard on brickmakers and masons—losing thousands of brick on account of the heavy storms and rains—the character of the clay and the scarcity of covering lumber—yet, I think I can, with some little pride, refer to the amount of work done and the quality of brick made. The clay was difficult to work, cracking in the yard, and at times I almost despaired, but after experimenting, working and trying, first-class brick were made, and can be made hereafter.

On the 16th day of August I received a notice from you to suspend operations, the money appropriated by the General Assembly being nearly exhausted. This was a grievous disappointment.

Everything was working harmoniously, the weather was fine, and I had hopes of making up during the fall months for the delays and vexations of the spring and summer months, and thus reduce the cost per thousand of the brick at least one-third. Personally, also, it worked a hardship. I had given up my business in this city, and it being too late to make new arrangements, lost the best part of the season. Before I left the Farm, the tools used in the work were gathered together and safely stored away, the boarding house goods and chattels cleaned and packed, and all things left in good shape for a renewal of operations in the spring. The missing and broken tools, and articles, I am happy to say, made but a small list.

The accompanying exhibit will show the amount of money expended by me, and the different purposes for which expended.

In closing my report, I must give to the Executive Committee my warmest thanks for their kindness towards myself, and the readiness with which you, so far as possible, furnished me with advice and funds to push forward the work. I am also under many obligations to the architect, Mr. Dunham, a gentleman whose skill, judgment and honor need no encomium from me.

Account of work done and money expended under direction of S. A. Robertson on Agricultural College and Farm during the year 1865.

BRICKYARD—PREPARING SAME.

95 days' work at \$2 00.....	\$190 00	
23 days' work at 3 50.....	80 50	
20 days' teaming at 4 00	80 00	350 50

BOARDING HOUSE—BUILDING.

16 days, Carpenter, at 4 00.....	64 00	
16 days, Carpenter, at 2 00.....	32 00	96 00

LIME HOUSE, TOOL HOUSE, &c.

5 days, Carpenter, at 4 00.....	20 00	
5 days, Carpenter, at 2 00.....	10 00	30 00

EXCAVATION—BASEMENT COLLEGE BUILDING.

April—48 15-100 days' labor at 2 00.....	96 30	
“ 14 25-100 days' teaming at 4 00.....	57 00	153 30

May—76 75-100 days' labor at 2 00.....	153 50	
“ 39 days' teaming at 4 00.....	156 00	309 50
June—27 days' labor at 2 00.....	54 00	
“ 6 days' teaming at 4 00.....	24 00	78 00
July—16 15-100 days' labor at 2 00.....	32 30	
“ 14 days' teaming at 4 00.....	56 00	88 30
August—41 19-100 days' labor at 2 00.....	82 38	82 38

GRADING—JUNE AND JULY.

67 and 75-100 days' labor, at \$2.00.....	\$135 50	
24 and 87-100 days' hauling, at \$4.00.....	99 50	\$235 00
AUGUST—35 days' labor, at \$2.00..	70 00	
10 days' hauling, at \$4.00.....	40 00	110 00

WELL—DIGGING AND WALLING.

37½ days' labor, at \$2.00	\$75 00	75 00
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HAULING.

250 cords of wood, at \$1.00.....	\$250 00	
Lumber from Nevada.....	20 00	
Sundries “ “	12 00	
Goods, provisions, &c., different places.....	100 00	382 00
Sand to College.....	25 00	
Lumber from Railroad.....	30 00	

COLLEGE—BRICK-WORK, TURNING ARCHES.

24 days—masons, at \$4.00.....	96 00	
23 days—tenders, at \$2.00.....	46 00	
Lime on same—62 bushels, at 55 cts.....	34 00	176 10
Pumping water from cellar.....		25 00

HARDWARE.

Tools, household goods, bedding, &c., as per vouchers..	\$650 89	
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FARM HOUSE.

29 days' mason work, at \$4.00.....	\$116 00	
14½ days, tender, at \$2.00.....	29 50	
70 bushels lime, at 55 cts.....	38 50	184 00

\$3,080 97

In building the boarding house, the following amount of lumber was used:

Native lumber.....	1,520 feet.
Pine lumber.....	5,474 feet.—6,994

LIME HOUSE.

Native lumber.....	450 feet.
Pine lumber.....	1,200 feet.—1,650

BRICK YARD.

Pine lumber (estimated).....	8,000 feet.
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FARM HOUSE.

Brick from College.....	33,891
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Three kegs of nails were used during the season. The cost of the nails and lumber was never returned to me, and hence I cannot give the figures.

Respectfully yours,

S. A. ROBERTSON.

All of which is respectfully submitted, &c.,

PETER MELENDY,

Supt. and Sec'y Iowa Agricultural Farm and College.

OPINION OF THE ATTORNEY GENERAL.

[A question having been raised as to whether the Agricultural College lands are taxable, the opinion of the Attorney General was solicited, and that officer has kindly communicated it as follows.]

OFFICE OF ATTORNEY GENERAL, }
DES MOINES, IOWA, Jan. 25, 1866. }

Hon. W. H. Holmes, President pro tem., and Peter Melendy, Secretary, &c., of the Iowa Agricultural College—

GENTS: You ask if the lands granted by the State of Iowa to the Iowa Agricultural College by Chap. 117 of the 10th General Assembly, are liable to taxation under the revenue laws of the State.

These lands were granted by the United States to Iowa for a specific purpose. (See Act of Congress, July 2, 1862.)

The State of Iowa accepted the grant for the purpose specified, and on the 29th day of March, 1864, an Act was passed by the General Assembly granting these lands to the Iowa Agricultural College; and in said Act it is provided that said College should have authority to lease "for a term of ten or more years, any of said lands—the lessee to pay six per cent. interest per annum upon the appraised value of said lands, with the privilege of purchasing the same at the expiration of the lease, at their appraised value at the date of the lease."

All the rights of the lessee are derived under and by virtue of leases made in accordance with the terms of the foregoing provision.

It is provided in the Code, Sec. 712, that "lands bought from the United States or this State, and whether bought on credit or otherwise, are liable to taxation."

The only question then, is whether these agricultural lands are under the law, and the contracts given *bought* on a credit or otherwise.

My opinion is they are not. The persons holding the leases are not purchasers—they have neither paid for the land, nor have they agreed to pay for the same.

The lease may be an agreement to sell, but it is not an agreement to buy, for no one is bound to pay.

My opinion therefore is that these lands are not subject to taxation under any law now in force.

F. E. BISSELL, Attorney General.

Faint, mostly illegible text, possibly bleed-through from the reverse side of the page. Some legible fragments include: "the persons holding the leases", "not purchasers", "agreed to pay", "agreement to buy", "agreement to sell", "not an agreement", "bound to pay", "subject to taxation", "under any law", "now in force".