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AGRICULTURAL EXHIBITIONS OF 1859.

[The following sketch of the Exhibitions of 1859, has been compiled from the original or published accounts sent by Secretaries, and from such other sources as were accessible. Had there been a more general compliance with the requests for information, in the April, July, and October numbers of the *Journal*, this account would have been fuller and more accurate. The best use has been made of what facts could be obtained.]

ALABAMA.

The State Agricultural Society,—organized January 10, 1855, and chartered February 14, 1856,—held its fifth annual exhibition at its grounds near Montgomery. These grounds are about thirty acres in extent, and cost, with the buildings and fixtures, nearly \$17,000, of which \$2,100 was for the land. They are situated on the bank of the Alabama river, and the Society offered a premium of \$50 for the best steamboat exhibited. Premiums of \$50 for the best cotton-gin and of \$30 for the best Alabama made gin were awarded after careful tests, for which there is a gin-house, with fixtures for pressing and baling cotton. The highest premium for horses, which were exhibited in a spacious amphitheatre, was \$30— for cattle, \$20. Almost every article grown, produced, or manufactured in the State, appeared in the premium list, and the accomplished Secretary, Dr. N. B. Cloud, paid especial attention to the Ladies' Departments.

The exhibition is described as having been a glorious display of the progress and the position of the stock-raisers, the horticulturists, the mechanics, and the industrious fair-ones of Alabama. Nothing attracted more attention than a herd of camels, which it is thought will be preferable to mules for plantation work, being a procreating animal, of more power and greater longevity, and subsisting on cheaper food. Several were sold at prices ranging from \$200 to \$400. Other stock was sold at auction, bringing good prices.

LOCAL EXHIBITIONS IN ALABAMA.

The North Alabama Agricultural and Mechanical Association held its exhibition October 19–22, at its fine grounds near Decatur, where there was a large display of fine stock, superb fruit, and valuable agricultural products. Tennessee valley society at Tusculumbia,

October 26–29. West Alabama Agricultural society at Demopolis, November 1–4, embracing the products of the fertile countries on the Tombigbee and Warrior rivers.

ARKANSAS.

There are as yet no State and but few county societies in Arkansas. The Clark county society held its annual exhibition; that of the Washington county society was at Fayetteville in October.

CALIFORNIA.

The State Agricultural Society,—organized and chartered in May, 1854,—held its sixth annual exhibition at Sacramento, September 13–23. A large and permanent pavilion was erected in the city, and not very far distant were the grounds, with an amphitheatre and every convenience for exhibitors. The State makes an annual appropriation of \$5,000 to be paid out in premiums. The largest premiums offered were: \$200 for the best grain farm, over 1,000 acres; \$75 for horses; \$50 for short-horned bulls; \$20 for bucks. Many of the premiums were plate and medals, with flags and swords for the best drilled companies, and trumpets for firemen. Exhibitors of implements and machines had to put on their labels their names, and the prices which they asked for each article.

The display of horses, cattle, sheep, and jacks was good, and showed the effect produced by the introduction of blooded stock, some of which was on the ground. The young cattle were nearly twice the size of animals of the same age in the Atlantic States, and as animals can live out of doors without being fed all the year round, subsisting on the wild grasses, California cannot fail to become a great stock-raising country. The fruits, vegetables, and cereals were of marvellous size and beauty—there were stalks of corn twenty feet high, with full ears sixteen inches long; a cabbage weighing fifty-three pounds, and a beet (two years old) weighing one hundred and fifteen pounds. Of dairy products, the most remarkable were two cheeses, weighing seven hundred and seven hundred and fifty pounds—the larger the product of one dairy in two days. Probably the most valuable article on exhibition peculiar to California, was a gold bar, weighing 150 lbs. avoirdupois, and valued at a little over \$41,000. It was only to be seen during the first week, as it went out to the States on the last steamer. The shape and size of this bar was about that of a common brick, except perhaps that it was somewhat thicker.

The large yield of 2,006 bushels of wheat was obtained from thirty acres this year, by R. F. Peckham, of the Pajaro Valley, Monterey county.

LOCAL EXHIBITIONS IN CALIFORNIA.

The Northern District Society held its first exhibition at Marysville, August 30–September 3. Alameda county society, first exhibition at its own grounds in Oakland, October 4–14. Contra Costa society at Martinez, October 12. Santa Clara valley society, third annual exhibition, at San Jose, September 18–21, a premium of \$500 was offered for the best trotter, and another of \$200 for the best trotting stallion. Sonoma county society, first annual exhibition, at Healdsburg.

CONNECTICUT.

The State Agricultural Society,—organized and chartered in June, 1852,—held its sixth annual exhibition at Brewster Park, near New Haven, October 11–14. Owing to inclement weather, the two previous exhibitions of the Society had proved unremunerative, and the Legislature had (through a mistaken economy) reduced the annual appropriation for the present year to \$1,600, but by the exertions of its efficient officers, the debt of the Society had been paid, and an attractive premium list was offered. The largest premiums were: for the best cultivated farm, not less than one hundred acres, \$50; do., not less than forty acres, \$35; for the best horses and bulls, \$20; for the best bucks, \$8. The executive committee was sub-divided into committees, having in charge the different classes, with authority to fill vacancies in the boards of judges. The Park had just been fitted up by a company, at a cost of \$25,000, and was admirably calculated for the exhibition. There were 272 entries of horses and 325 of cattle; of sheep, swine, and poultry, 210; agricultural implements, 161; dairy produce, vegetables, &c., 503; household manufactures, 148; textile fabrics, 320; horticultural, 458: in all 2,397. Secretary Dyer was of course highly complimented for his unwearied exertions and his excellent business arrangements.

The displays of horses were very fine, and the trotting matches elicited loud applause. The cattle, sheep, and swine, of different breeds were generally worthy of commendation; there was a large exhibition of poultry, and the implements and domestic manufactures, farm and garden products, and floral displays, were all excellent.

In the evenings there were meetings for the discussion of agri-

cultural topics, at one of which the project of a course of lectures at New Haven was proposed, and determined upon.

On Friday the President of the society, Hon. Alvan P. Hyde, delivered the address, which we publish entire, as embodying the present position of agriculture,—not only in Connecticut,—but throughout New England :

PRESIDENT HYDE'S ADDRESS.

Mr. President and Gentlemen of the Society:—The present condition and future prospects of Connecticut Agriculture, is a subject which has long demanded, and for the past few years has to a considerable extent engaged the serious attention of thinking men in all parts of our State. To unite and concentrate the efforts of the friends of agricultural improvement, was the main object which led to the formation of the Society. It was hoped that a central organization, acting in harmony with the auxiliary local societies, by bringing together men of kindred minds from the different counties, who were earnestly engaged in the same enterprise—thus forming an opportunity for interchange of opinions and facts, and a comparison of results—would tend to produce uniformity in our efforts; would stimulate and encourage those already interested, while it would awaken a spirit of emulation and inquiry among our citizens generally. That these hopes were not in vain, that the time and money which have been devoted to this object have not been mispent—the Exhibition of this year fully proves. When we remember that this is but the sixth exhibition of our Society—that it has received little encouragement in the way of pecuniary assistance at the hands of our State Legislature, and that whatever has been done, has been accomplished solely by the energy and public spirit of the officers and members of the Society—well may we be proud of the success that has crowned our efforts.

But the evidence of the good effects which have resulted from the organization of agricultural societies amongst us, is not confined to the quality and variety of the articles exhibited on these grounds. It is to be found in almost every section of our State, in the evident improvement of farms, farm-buildings and fences, in increased crops, in the character and quality of the stock that is raised, as well as in the productions of the garden and orchard. Within the last few years, there has been a visible change for the better in Connecticut husbandry, and this is due in a great measure to the increased interest which has been awakened in the minds of our citizens through the operations of these Societies. I trust that this first step which our State has taken, is to be followed by a rapid progress in the same direction.

There is no State in our Union whose agricultural interests require to be fostered and encouraged more than our own, for in none have they been more sadly neglected. That the system of cultivation pursued by our fathers in New England was vicious—I mean by reason of its effects upon the present generation—is universally

admitted. Yet they adopted it, *not* from any want of intelligence, or because they did not understand their own immediate interest, and they persisted in it not from any lack of enterprise. The results they accomplished in other fields of labor, forbid that we should accuse them of either ignorance or folly. Its adoption was the natural consequence of the situation in which they were placed. They found here a vast territory, made rich and fertile by nature, ready for their occupation. To produce plentiful crops it needed no fertilizing; all that was required was to plough the ground, sow the grain, and reap the harvest. To accomplish this, there was little demand for energy or enterprise, and it required but little labor or skill, and but a slight investment of capital to produce food sufficient for their wants. They found it more profitable to remove to other lands, than to attempt to renew the fertility of their old fields, when their strength had once been exhausted by crops. To them, land was the cheapest of all property, as it is to-day, in some portions of our country, so cheap that its fertility scarce adds to its marketable value.

While agriculture thus naturally became in the estimation of our fathers a matter of secondary importance, all the other wants of the inhabitants of this country, the necessaries, the comforts, the luxuries which civilized society requires, were either to be supplied here by their enterprise and skill, or transported from distant countries. In these departments of industry there was an immediate urgent, pressing demand for the exercise of all their intelligence, energies, and capital, and that too with the promise that their success should be most liberally rewarded. Hence it is that in New England, especially, manufactures and commerce have ever been the favorite pursuits of our people, and have also been the most remunerative. In these, New England fortunes have been made, and in these chiefly, New England capital has been employed. With her innumerable streams of pure and never-failing water, less affected by freshets or drought than in any other portion of our country, furnishing a cheap and constant motive power for mills, and manufactories in almost every valley, and with her extensive sea-board containing numerous and safe harbors, easy of access both by sea and land, New England possesses natural facilities for engaging in manufacturing and commercial pursuits unequalled in any part of the globe; and if we bear in mind the fact that the investment of capital and the application of labor are always controlled by the prospect of a profitable return, we can hardly be surprised that our fathers devoted their constant and increasing efforts to the development and improvement of these natural and peculiar advantages to the neglect of their agricultural interests.

Under these circumstances the system of cultivation they adopted was that of depletion, impoverishment, and abandonment.

Connecticut is one of our oldest States, and like most of the old States was early subjected to this exhausting process. A large proportion of the surface of our State has been thus treated. And oftentimes the fathers and more frequently their sons, who have chosen

to follow the occupation of their fathers, have left the old worn-out fields, turned their backs on the old homestead, and emigrated to other States, where the land was richer and had not been cursed by a vicious system of cultivation. Those sons of Connecticut are now scattered through every State, from our western border to Minnesota. While the causes which produced this state of things continued to prevail until a very recent period, it would have been idle for us to anticipate that capital could be diverted to any considerable extent from the channels in which it was employed to be applied to the improvement of our land; and until within a few years past, no serious effort was made to stop this growing evil, for no absolute necessity required it. The decrease in our own production, as well as the increased demand occasioned by our increase of population, were readily supplied from other States, and at reasonable cost. So long as sufficient food could be furnished us at a moderate expense, there was no necessity that other branches of industry should languish or their progress be materially retarded. Nor have they done so; from 1840 to 1850 our population increased about 20 per cent, though our agricultural productions materially decreased during the same period. Our next census will doubtless show that our increase in population during the past ten years has been equal to that of the ten years immediately preceding, though I trust it will also show that we have to some extent at least increased our means of supporting them. Connecticut is rich and prosperous to-day compared with our sister States. The attention of our citizens has been directed to other pursuits to the neglect of this the most important of all, and their energy and enterprise have made us rich and prosperous as we are in spite of this neglect. But it must be evident to all, that our progress would have been much more rapid and satisfactory to ourselves had the money which has been sent abroad for the purchase of food for our own use, been paid out to the farmers of our own State, and by them been expended in improving their farms. I believe that during the last twenty-five years, money enough has been paid to other States by citizens of Connecticut, for this purpose alone, which, if it had been expended in the improvement of our own land, not only would have enabled us at the present time to produce enough for the support of all our inhabitants, but also leave a large surplus for exportation; and yet the soil of our State is so poorly cultivated, notwithstanding the improvements that have been made during the past few years, that if we were to be deprived of the supplies of food we are constantly receiving from other States, a famine would prevail throughout our borders.

For several years it has been apparent that we could not always depend upon these new States, and that we must increase the production of food at home, or cease to grow in wealth and population. Every year the sources of our supplies are being removed farther and farther from us. To the original cost paid to the producer, we are obliged to add the expense of transportation to our doors. Already the price of certain articles of daily consumption has been

seriously enhanced; and I can see no good reason why all others must not soon follow in their wake. Heretofore the western farmer has been able to obtain his land for a nominal sum, and of such extraordinary fertility that large crops could be raised with little outlay of capital or labor. New inventions in agricultural implements and machinery facilitating the planting, reaping and threshing of grain, have enabled one man to perform the work which before required the labor of many. Under these circumstances, he could afford to sell his products so low that the eastern farmer could not hope to compete with him. Having no home market, he has been ready to sell at whatever price he could get. Competing lines of railroads, steamboats and canals, established by eastern capital, have been willing to transport his products to an eastern market at rates ruinous to themselves. These causes combined have supplied us with our grain at such moderate prices that we seemed to forget that there was any necessity of our attempting to raise our own, or any danger that it would not always last. But it cannot last. The limits of this fertile territory have already been reached, and it is being rapidly filled by the ceaseless tide of emigrants, from the east and the old world, who are there establishing their homes. The barren hills and plains beyond the Mississippi dam up this tide and turn it back upon itself. Not only are our eastern cities, towns and villages rapidly growing—thus increasing the demand by the increased consumption—but manufacturing villages, large towns and populous cities are daily springing up through our western States, which will soon furnish them with a market at their own doors. In addition to this, the same system of farming that our fathers practiced here is now being employed in the west on a gigantic scale. If the present system is continued, their steam plows, reaping and threshing machines, must exhaust their soil with a rapidity that will speedily reduce it to a level with that of many of our oldest States; and it doubtless will be continued till the western farmer shall be able to sell his produce at a price that will remunerate him for the additional expense he must incur in restoring to his fields that fertility of which he is now annually depriving them. With their lands advancing in price, though decreasing in intrinsic value, coupled with the necessity of enriching them with fertilizers, a bushel of grain in Illinois must soon represent a larger outlay, both of capital and labor, than it has heretofore done. With a diminishing production and an increased home demand, it will command a price proportionate to the cost of its production. The day must soon come when, if we continue to rely as now upon the west for our supplies, the prices of provisions will be enhanced to such an extent as will be ruinous to our manufactures as well as to all other branches of business in which we are now engaged.

Upon whom then can we rely for our future supplies? I answer, upon you, the farmers of Connecticut, and upon you alone. If Connecticut is to maintain her present position of prosperity, it is absolutely necessary that the work of agricultural improvement

which has been commenced shall be pressed forward until Connecticut agriculturists shall stand as high as Connecticut manufacturers now stand. Our capitalists, merchants and manufacturers—all classes of society—are immediately and directly interested in this result, and are bound, as they value their own personal prosperity, to furnish all the aid in their power and to countenance and encourage every measure which will tend to hasten our progress in this direction.

Aside from the fact that it will eventually become a matter of necessity that our State shall raise a sufficient quantity of those products congenial to our soil and climate to supply the wants of our own inhabitants, there are other considerations which render it important that as a State we should offer every encouragement to this branch of industry. It is far better for us as a community that our population should be scattered over our whole territory, and a reasonable proportion be engaged in tilling the soil, than that they should be congregated in cities and large villages, and our country towns be comparatively deserted. Although man is a social being, it by no means follows that the crowded workshop or the thronged street is best calculated for his mental, moral, or physical development. Complete physical development is oftenest found in the green fields and pure air of the country. When deprived of these, men physically degenerate. The mental and physical character of the inhabitants of our cities would rapidly deteriorate were it not that they are strengthened and invigorated by the constant recruits they are drawing from the country. There is ever flowing from the country to the city a steady stream of young men, who, dazzled by visions of future wealth and honor, forsake the honest callings of their fathers for the trials, struggles, and temptations of a city life. There is also a counter current flowing back again, though less in extent, and consisting in a good measure of men who, enfeebled by confinement or overtaken by a premature old age, seek in the quiet seclusion and pure atmosphere of the country that health and happiness they have failed to find in the city.

So, too, men degenerate morally when congregated in large bodies, for then vice and crime find countenance and encouragement. Human infirmity, like many kinds of disease, is exceedingly contagious. The seeds of moral disease planted in us by Nature need but a polluted moral atmosphere to cause them to spring into active life. The gambling saloons, brothels, and other dens of infamy with which our cities and large villages abound, are the running sores where this festering depravity breaks out, contaminating and polluting all who approach them. It is true that bad men are to be found in the country as well as in the city; but isolated as they are, without the encouragement or protection of those who sympathize with them, and with the finger of scorn pointed at them in the community in which they live, their example seems rather as a warning than a temptation to others.

Mr. President: The work in which you and the other friends of this Society are engaged—the attempt to raise Connecticut hus-

bandry to its proper level, and to fully develop the capacity of our soil to reward labor—is one which it will require much time and effort to accomplish. The seed you have sown has but just begun to sprout, and must be cherished and nourished with exceeding care if we would reap a harvest of success in the future. Farmers are proverbially slow to change, and are peculiarly jealous of all attempts at innovation. They are too apt to look upon their occupation as a mere art, handed down to them from their fathers in its perfection, and in which there is nothing to be learned except the mere manual skill to perform its labor.

What we are most in need of is a better agricultural education—an education which shall enable us not merely to understand mechanical rules and established practices, but the reasons upon which those rules and practices are founded.

Labor is the chief source of national and individual wealth; and the more intelligence we can infuse into it, the greater will be the returns it will make. Science has contributed greatly to the improvement of every art and branch of industry which administers to the wants of man; and there is no art which for its prosperity and success is more indebted to science than that of agriculture, and none which more earnestly demands its assistance in the future. Farming must be reduced to a regular system, so that, like law, medicine and mechanics, it may be studied by those who would engage in it, both practically and theoretically. It must be interwoven with our system of education, and taught as a distinct branch of study in our schools. No good reason can be given why the same course should not be pursued by one who desires to excel as a farmer as is pursued by the lawyer, physician, or mechanic. Why, before he undertakes the management of a farm, with its complicated duties and interests, should he not become thoroughly acquainted with the principles of his profession, and with those natural laws upon whose operations his success wholly depends? I by no means intend to disparage the importance of practical knowledge and personal experience in an art so practical as this. Without these, the knowledge acquired in schools would be of little use. Yet a knowledge of the constituent parts of the soils he wishes to cultivate, of their combinations, and the elements of fertility they may lack, of the chemical composition of the plants he wishes to raise, of their habits and the food they require, with the same personal experience, must give its possessor a great advantage over those less informed—not only in guarding against failure in the ordinary operations of the farm, but especially in enabling him to devise and adopt new and improved modes of culture. That knowledge is power, is as true here as it is everywhere.

Nor is it in schools alone that the education requisite to success can be acquired. Our country abounds in agricultural treatises and periodicals, placing within the reach of every farmer the means of acquainting himself with everything which science has discovered or experience has taught. So, too, the operations of a society like this are of the highest importance as a means of disseminating valu-

able information, by exhibiting the practical results of different systems of cultivation, new varieties of seeds and plants, and the various kinds of stocks and horses that are daily being introduced.

This is eminently a practical age as well as an age of progress. The duty which men of learning and science owe to society to reduce their knowledge to practical rules, so that they may be grasped and used by their fellow-men, is fully felt and acknowledged. It is now a conceded fact that there is no law of nature which, when once discovered and understood, cannot be made of practical use to mankind. Men of science may pursue their investigation in the seclusion of their own laboratories while searching out some new and hidden law of nature, but they receive little credit till they also show how it may be made available in promoting the welfare of their fellow-men. When this is done, we pronounce them benefactors of our race. And to-day that curious provision of nature which causes the seed to sprout and the plant to grow—the laws that govern the growth and nourishment of plants and animals—the wants and fitness of different kinds of grain, and the composition and relative value of different kinds of manure, are receiving the constant and, I might almost say, the immediate attention of some of our most learned and skillful chemists. As they publish their discoveries to the world, the value of their suggestions are being tested by practical farmers who have exhibited to us the results of their experiments, so that all may see and know their value, and follow such as are worth following.

I know it is sometimes claimed that book-farming, as it is called, does not always pay; that those who adopt it and attempt to conduct their farming upon scientific principles have a propensity to try new experiments, and oftentimes with serious loss to themselves. That this is frequently so, I do not doubt, nor would I have it otherwise. Most of the improvements that have been introduced in the useful arts during the last century, have been the result of experiments; and if no experiment was ever tried till we were sure of a favorable result, our progress would be slow indeed. It seems to be a law established by our Creator, that all human progress shall be gained at the expense of individual sacrifices. It has long been truly said, that “the blood of the Martyrs is the seed of the church,” and we know that in all ages the tree of liberty has been most bountifully watered by the blood of patriots. This same law holds true in relation to our progress in the peaceful arts and sciences. The history of the past is replete with instances where the promulgation of the discovery of some new law of nature has brought its author to poverty and disgrace, and sometimes even has subjected him to personal danger and imprisonment; when inventors have died in poverty and neglect, while their inventions have added greatly to the wealth and prosperity of those who have succeeded them. But agricultural experiments generally require little outlay of capital and seldom entail a serious loss. They are more easily and readily made than any other art, and even when they are a failure, our labor is not wholly lost.

Human knowledge is the result of the lesson taught by human experience, and oftentimes the lessons taught by our failures are of more value than those to be learned from our successes. Those men possessed of wealth and education, who are devoting their money, time and energies to this work, merit all honor and praise at our hands. They are attempting to elevate and improve that art which is the mother of all other callings and professions; the one upon which they all rest and depend for existence; the one which, as it is the oldest of all human employments, is the most honorable of them all. One of the highest auguries of our future success is to be found in the fact, that the jealousies of our farmers are gradually falling away before the light of science. They are beginning to appreciate the value of the information to be acquired in our scientific schools that are being established among us; they are awakening to a sense of the dignity and importance of their calling, and are more ready to receive and act upon any suggestion that promises to improve their condition, or to render their business more profitable or more honorable.

It is only by directing all our enterprise and intelligence actively and earnestly to this work, with the advantage of all the helps which science and experience can furnish us, that we can renovate the agricultural interests of our State. Our hills are steep, and rough, and rocky, and much of the best of their soil has been washed into the valleys, and the riches of which they have been robbed, for the most part, there lie unused and unproductive in the swales, and swamps, and marshes, with which our State abounds. We must restore to our hillsides the elements of fertility of which they have been deprived, while these swales, and swamps, and marshes are to be reclaimed, and made the best of all lands by thorough underdraining and careful tillage. In this way, these waste places may be made to produce abundant crops of the best of English grasses, and the rocks upon our hills will be fringed with rich pasturage and surrounded by luxuriant fields of grain.

It is true this will require us to invest capital liberally upon our land in addition to the first cost of the land itself; but does not every other kind of business demand our whole time and attention, and the continual investment of capital to make it profitable? The manufacturer is daily expending his income in replenishing his stock of raw material, in supplying the place of his worn-out machinery with new, and in adding to his establishment every new invention and improvement calculated to increase the quantity or improve the quality of his productions; otherwise his career would soon end in bankruptcy and ruin. The capital of a farmer invested in his farm is of two kinds—his land and its fertility. Fertility is his floating working capital, and bears the same relation to his land as the goods of the merchant do to the store that contains them, or the machinery of the manufacturer to his mill. The manufacturer who should refuse to repair or replace his machinery, as it becomes old and worn-out, would soon find his mill would not pay for running; and the merchant who should neglect to replenish his stock

of goods, would soon find his store with its empty shelves not worth the tending: and a man who would so conduct himself would be regarded as one who needed the care and supervision of a conservator. Yet there are many men, even now, who yearly and systematically convert everything they can spare from their farms into money, and return no part of it in the shape of fertilizers. Such men are robbing their business of its active working-capital, and their land soon becomes like the mill with its machinery worn out, or like the store with its empty shelves; the bushes encroach on the fields; the fences fall to decay; the buildings are suffered to get out of repair; and the sons and daughters are but too glad to turn their backs on so unpromising a spot.

I verily believe that if our farmers would as freely invest capital in improving their farms and would direct as much care and attention to their management as is done by our other citizens in the management of their business, they would, taking one year with another, receive better interest on their investments than is obtained by either our merchants or manufacturers; that the man who has an hundred acres of land from which he can now glean but a bare sustenance, would get a far better return for his capital and his labor if he would sell one-half and carefully invest the proceeds in enriching and improving the remainder.

Let us clear up, new-fence, and fertilize the old fields; introduce stock of which we may be proud for their beauty as well as their value; repair the buildings, and surround them with shade trees; fill the garden and orchard with fruit, and the yard with flowers; make the farm more attractive as well as productive; in a word, make the old homestead what it ought to be—a home in fact; a place around which the affections of the family will cluster; a place to be admired and not to be despised, and we will hear less of emigrating to other States, and there will be fewer vacant seats around the family board at our Thanksgiving gatherings. The man who pursues this course, not only has his capital invested in his business, but he is beyond the reach of all commercial convulsions, and has no need to fear a financial crisis. He has his money invested in a bank which will honor all his drafts; if he properly presents them at seed-time they will be duly accepted, and at the harvest fully paid. He is acquiring an inheritance for his children far better than any money or any stocks he can leave them.

Though we are now compelled to struggle with a hard and reluctant soil, our location is not without its advantages. We are blessed with pure air, pure water, and a healthy climate. Along the streams in our valleys are clustered manufacturing villages which furnish us with the best of a home market at our very doors.

It is through our manufacturers alone that we are able to draw wealth from other States to our own, for there is scarce anything else than their productions which we send about to sell. They are causing a constant golden stream to flow in upon us, which is compelled almost as constantly to flow out again to purchase the food they need. If our agriculturists will do what they ought and most

easily can do, and what I hope they soon will do—raise from our own soil enough to fully supply this home demand—then the outward drain will immediately cease, and this golden current will be turned into the pockets of our own citizens, adding rapidly to the wealth and prosperity of our State.

As a means calculated to exert a powerful influence in exciting an interest upon this subject in the minds of our people, and in hastening the accomplishment of this desirable result, this Society deserves the active and earnest co-operation, not merely of our farmers, but of all classes of society. I trust the time will soon arrive when the annual meetings of this Society shall be looked upon by every citizen as the great holiday of our State—as a time, once in every year, when the inhabitants of all our towns shall lay aside the implements of their daily labor, and leaving behind as unworthy of the place and the occasion all sectarian feeling, all party spirit and all local jealousies, here assemble on common ground to celebrate the triumphs of our citizens in the peaceful arts—the victories Connecticut skill and energy have achieved on Connecticut soil—to celebrate the agricultural independence of our State.

Gov. Buckingham afterwards addressed the audience, expressing the pleasure with which he had listened to the address of Mr. Hyde, especially that portion which urged the importance of an agricultural education for young men.

The Hartford *Homestead* said that “the State Exhibition passed off to the great satisfaction of the vast majority connected with it as managers, exhibitors or visitors. We were blessed with uninterrupted fair weather; and the throngs which visited the fair were orderly and sober, intelligently observing, and inquiring to an unusual degree. The blank greenness which was so painfully noticeable both in Hartford and New Haven at the early fairs of the society is fast giving place to an intelligence which is not the result of simply being the second or third time at a State fair, but which is produced by thought upon the topics which a State fair suggests—thought, too, which has led to reading and conversation, and resulted in a greatly advanced state of knowledge. This was gratifyingly evident to any one who stood to listen to the remarks of those who passed any class of stock, agricultural implements or products. In this respect the benefits resulting from these great exhibitions have been overlooked in a measure. The strife between stock-breeders and other classes of exhibitors to develop the best qualities and increase the excellence of their flocks, herds, etc., is a great benefit, but the use of the exhibition to the masses of the people, few of whom would otherwise ever raise their ideas above the common stock of our rural districts, is exceedingly important.

We have never met so orderly and intelligent a class of visitors." The receipts were stated as over \$12,000, leaving a clear profit to the society of not less than \$5,000.

LOCAL EXHIBITIONS IN CONNECTICUT.

There was a Harvest Home Festival at North Canaan on the 9th of September, at which Rev. Mr. Eldridge delivered an address; a similar gathering is to take place next year, at which the past, in its customs, costumes, implements and manners, is to be reproduced, and Rev. Mr. Eddy is to deliver an historical address. The Union society held its first exhibition at Fall's Village, September 13-15; Mr. Holley, orator. Windham county society, seventh annual exhibition at Brooklyn, September 21-22; remarks by Gov. Buckingham. Litchfield county society, at Litchfield, September 21-22. Fairfield county society, nineteenth annual exhibition, at Norwalk, September 27-30; P. T. Barnum, orator. New London county society, fifth annual exhibition, at Williams' Park, Norwich, September 27-29. Hartford county society, at grounds used in 1858 by State Society, at Hartford, September 20-30; Professor Johnson, orator. New Britain farmers' club, at New Britain, October 5-6. Woodbridge and Bethany society, at Woodbridge, October 5. Middlesex county, (organized in 1840,) at Middletown, October 5-6. New Milford association, at New Milford, October 5-6. Tolland county society, sixth annual exhibition, at their grounds near Rockville, October 5-6; Hon. Dwight Loomis, orator. Cheshire society, October 19. West Suffield society, October 20th, and adjourned until the 21st. Union society, at Hitchcockville, October 26.

DELAWARE.

There is no State Society in Delaware. Exhibitions were held by the Newcastle county society, organized in 1836, and by the Kent county society.

GEORGIA.

The Southern Central Agricultural Society—organized in 1846, and chartered in 1849—is in fact a State society, owning spacious grounds at Atlanta, where the annual exhibition was held, October 24-29. There were five hundred and fifty-eight entries, of which one hundred and fifteen were horses, for which the highest premium was one of \$20; the other first premiums, \$10; sixty-four cattle, for which the highest premium was \$10; and six sheep, for which the highest premium was \$10.

The *Southern Field and Fireside*, (of which Dr. Lee is the agricultural editor,) says: "All of the stalls were filled with a goodly number

of Durhams, Devons and Brahmins, in the cattle line, and with horses, Morgan, blooded, and of all work. In the former class was a bull of antediluvian proportions and of 2,700 pounds. He must have been fully as large as the brazen animal of the same species in whose *stomach* Phalaris confined his prisoners. The most magnificent stallion on the ground was Sligo, who took the premium, and who belongs to Mr. McGhee, of Troup. There was much disappointment felt at not hearing the anticipated speech of Hon. Rob't Toombs. The audience was, however, consoled by the address of Rev. C. W. Howard, of Cass county, on Friday morning, who, besides lending his eloquence, contributed some of the finest stock that was made, to the fair. In the afternoon of the same day there was an exciting trotting match on the small track within the enclosure of the fair ground. A small black horse gained; the owner we did not learn.

“In the number of visitors and of articles entered there is a large increase on former years. Our State fairs are still far behind those of almost every other State; and until more assistance is given and interest taken in this exhibition, they are likely to remain so for some time to come.”

LOCAL EXHIBITIONS IN GEORGIA.

The Clark county society—organized in 1859—held an attractive exhibition at its grounds near Athens, October 18. Addresses were delivered by Col. Billups, Rev. C. W. Howard, and Henry Hull, jr., Esq., the last named gentleman taking the following practical, business-like view of the necessity for a reform in the agriculture of the older Southern States:

ADDRESS OF HENRY HULL, JR., ESQ.

How can we use our heritage of exhausted acres in the best and most profitable manner? Can they be made to sustain a large and increasing population in prosperity, and is there any practicable way of restoring these wasted lands to fertility? These are questions of vital importance to us all, and worthy of our most serious consideration.

In discussing them, I propose to leave out of view all modes of applying stimulating manures to growing crops, as necessarily limited to small quantities of lands, and as not reaching the real seat of the disease under which our agriculture suffers. I take it for granted that every sensible man will save and use all that he can, in that way which his own experience and observation, aided by the experience of others, may prove to be best. But this, at last, is like giving invigorating cordials in small doses to a man whose condition absolutely requires a total change of climate and

habit. It is absolutely necessary to change our whole system of culture. I hold that we can no longer afford to make cotton our sole source of revenue; and the *higher* cotton gets, the *less* we in Middle Georgia can afford to make it. Paradoxical as this may seem, it is certainly true, and for this simple reason, that it is a staple in the production of which the *annual value of the land* used is very *small*, and the value of the *labor employed* is *enormously large*.

Now observe, that if our *slaves* were fixtures upon the soil, the whole question would exhibit different results; but when the slave of Clarke county can, in three days time, and at ten dollars cost, be set to work upon the bottom lands of the Mississippi, where he can make *ten* bales of cotton in one year, we can no longer afford to work the same time and make *three bales*. The Red river planter can obviously afford to pay three times as much for that slave as we can, and the *higher* cotton gets, the greater is the difference in profits *there* and *here*.

What, then, can we do? The only answer a sane man can give is, to employ our labor in making cotton only on those lands whose fertility may justify it, and in making other products on all lands which will not justify the production of cotton. If you ask what other things, I answer, all useful products which require in raising them, less of labor which is so dear, and more of land which is so cheap. The whole essence of agricultural philosophy for middle Georgia, is in that *one idea*.

Bear it in mind, and observe its application. Notice the fact, that only the land upon which a vast amount of very costly labor is expended, brings us in one dollar of cash return. All our old fields, all our woodland, now so scarce and valuable, costs us annually the taxes for support of the State and county, and yields not one cent of income.

How we can use these lands profitably, is the real question of interest.

Cato, the elder, being asked one day what was the best use that could be made of land, answered: "*Good grazing.*" "And what next?" said the seeker after knowledge. "*Tolerable grazing.*" "And what next?" "*Bad grazing.*" "And what next?" "*Tillage,*" was the reply. This reply of the renowned Roman Censor, a farmer, may seem to have more point than wisdom; but the experience of all countries where the want of an enormous population makes the heaviest demands upon the productive power of the soil, fully proves the truth of the position, that good grazing is, indeed, the most profitable use of land.

In Scotland and Ireland, where agriculture is brought to great perfection, out of about eight millions acres of land under cultivation, four millions were in grass in 1857, (as shown by the reports of Parliament,) the other four millions divided among the various grain and root crops. In England, Belgium, and other lands, where population is dense, the proportion is as great.

Hence, we hastily conclude that a dense population and local markets are necessary to justify the seeding of good lands to grass.

But let us at least open our eyes to existing facts. The *grass* of New York and the valley of the Connecticut is brought in the concentrated form of thousands of pounds of cheese, butter and beef, and sold to Georgians at remunerating prices.

The *grass* of Kentucky and Ohio is brought in the shape of thousands of mules and hogs, and millions of our money goes to enrich the grass-producers there; and worse than that, even the grass itself, unconcentrated, in all its natural bulk and weight, raised upon land worth \$200 per acre, is brought by steamboat a thousand miles, and by the more costly railroad transportation, three hundred miles more up into the hills of Clarke county, where land is not worth more than \$10 per acre, and sold in the streets of Athens at \$30 per ton.

Now, compare the profits of an acre of our best land, (alluvial creek or branch bottoms,) seeded to grass and planted in cotton, both in the best way. The acre in grass may be safely estimated at *two tons*, (four tons is not unusual in grass countries.) The labor employed in producing it, was the seeding in the fall, and the mowing in the summer. The value at prices of this season, \$60. The acre in cotton might be estimated at 1,000 pounds seed-cotton, worth at present prices, \$30. The labor (that costly element) was unceasing toil from January to December. The acre in grass is greatly increased in value. The acre in cotton somewhat diminished:

Now for the second year: On the grass half the labor is not needed, the yield largely increased, the profit greater. On the cotton, the same toil for long months is gone through, the yield sensibly smaller, the profit sensibly less, the land somewhat poorer. But leaving the subject of "good grazing," or even "tolerable grazing," as requiring little argument to establish their claim to high rank in agricultural investments, let us consider the third head of Cato: "bad grazing," of which we certainly have enough for the greater part of the year. For nature, ever kind, ever beneficent, looking with pitying eye upon the barren wastes left by our destroying progenitors, first casts a mantle of broomsedge and other grasses over the land, as if to hide its nakedness from the gaze of others, till a second growth should begin the slow work of restoration.

Of these old fields, we have enough, and they furnish abundant grazing in spring and summer. We all have and must of necessity keep some land in original forest. These virgin acres should yield winter grazing. But, says the unbeliever, there is no grass in the woods, no matter how rich the soil. I appeal to the older men to know if, fifty years ago, the woodlands of this country were not covered with luxuriant native grasses, which fed and fattened the cattle upon a thousand hills. Do you suppose that the essential elements of those soils are changed? Are the rains of Heaven less refreshing? Is the the air less pure, or the sunshine less genial than then? Not at all. What condition of the soil then is changed? Simply that when annual burnings kept out the thick undergrowth, and let in the sun and air, the grasses took possession. Keep out the undergrowth now, and let in the sun and air again, and the woods will

again be covered with native grasses, or if seeded properly with richer and better perennial grasses, green in winter.

Reason and experience in many places in middle Georgia go to establish the fact, that these grasses can be successfully grown upon our original forest land and on our best open land, and if so, horses and mules, and hogs, cattle, and sheep, with all their valuable products, can be profitably reared in Georgia.

The prices of horses and mules have steadily and rapidly risen, till we can hardly realize the fact, that a pair of horses which could be bought a few years ago at \$300, would bring to-day \$800. We complain loudly; but it is all right, for it takes just such astonishing developments and just such enormous burdens to make men forsake the *old and beaten paths of error*, though leading *directly to poverty*.

But, says the "croaker," if this system of husbandry be adopted generally, there is danger that there would be no demand for hay, and butter, and beef, and mutton, and horses and mules, as every body would raise their own, (a consummation most devoutly to be wished,) while for cotton there is an unlimited demand, and local markets, and if the price does not suit at one time, you can hold till it does, without injury or cost; while if horses and mules are not sold, they will "eat off their own heads," and breadstuffs, if not consumed, perish on our own hands.

These are, indeed, most admirable and valuable conditions which have always made cotton a favorite staple. But there is another product which, equally with cotton, possesses all these with one immense advantage over cotton, that it can be raised on poor land with little labor; that staple is wool, worth in all markets about three times as much per lb. as cotton. There is good reason to believe, that in this region it can be raised with much larger profit. Sheep possess in a most remarkable degree all the requisites for profitable husbandry. They are very prolific, of early maturity, and transport themselves even to distant markets at little cost, and best quality of all, they will live where other domestic animals would starve.

It is a fact not generally known, that all over Georgia many varieties of herbs grow, on which sheep feed, which no other animals touch. They are browsing as well as grazing animals. In our old fields, wherever a few tufts of broomsedge grow, or a patch of briars, or even that badge of sterility, a thicket of sassafras bushes, there sheep will exist.

You cannot find anywhere a hundred acres of land which will not sustain a hundred sheep in the spring and summer, and with winter grazing on our forest lands, all the year. If this be true, our old exhausted lands can be made to pay an annual profit, which would make the usurer open his eyes in wonder.

These lands (extensive old fields with small quantities of original forest and strips of branch bottoms) can be bought readily at three or four dollars per acre, or even less. Throw together a thousand acres of such land, put 1000 sheep upon it, obtain 3 lbs. of wool

from each, worth one dollar, and a lamb worth one dollar and a quarter, and you may pay a shepherd to protect them from dogs, and realize a clear profit of 30 or 40 per cent.

Then, how rapidly these wasted lands might be enriched, by hurdling a thousand sheep upon them at night, instead of paying enormous prices for manures brought from the distant islands of ocean; for it is a fact, established by careful experiment, that a given weight of food fed to sheep, will produce greatly more enriching manure than when fed to any other domestic animals.

Let us then, like sensible people, use the lands we have in raising such staples as they are adapted to, and soon we can change the tons of broomsedge and other forage found in abundance into pounds of meal and wool, for the food and raiment of men.

ILLINOIS.

The State Agricultural Society—organized and chartered in 1853—held its seventh annual exhibition at Freeport, September 5–9. The grounds (which includes those of the county society) were about forty acres in extent, with a fine grove, and a level space for the trial of steam plows. There were premiums offered of three thousand dollars and of two thousand dollars for the first and second best steam-engines, suitable for plowing and other farm work; and the Illinois Central Railroad Company offered an additional premium of fifteen hundred dollars for the best engine for plowing; but the Society did not award its premiums, although the examining committee unanimously recommended that the highest one be paid to Mr. Fawkes. The gate receipts amounted to ten thousand six hundred dollars, adding to the proof that the United States Society's exhibition at Chicago, the next week, added to the attendance and the interest of the State Society's exhibition.

The display of cattle was excellent, showing the good effected by the Illinois Stock Growers' Society, which imported a large portion of the animals, or their parents, constituting the fine herds of J. N. Brown, J. Smith, J. C. Boone, and Dunlap & Pollock. There was a fair display of horses, good sheep, excellent swine, especially John Wentworth's Suffolks, and a large amount of implements and machinery. The specimens of grain, vegetables, and fruit from southern Illinois exhibited an agricultural and pomological progress deserving high praise. Drought and early frosts had seriously interfered with the farming and gardening operations in the northern counties, but they nevertheless made a creditable display.

LOCAL EXHIBITIONS IN ILLINOIS.

The Cass county society held its annual exhibition at Virginia, August 30. Macoupin county society, September 13–17. Henry

county society, (organized in 1852,) on its fine grounds at Cambridge, September 14-16. St. Clair county, at Belleville, September 14-16, the best exhibition ever held in the county. Coles county society, at Charleston, September 14-17. Grundy county society, at Morris, September 20-22, on grounds recently put in fine order. Vermillion county society, at Catlin, September 20-23. Macon county society, at Decatur, September 20-23; the members of this society pay admission fees; one of them is annually chosen orator. Peoria county society, at Peoria, September 20-23, on the spacious grounds where it had been proposed to hold the exhibition of the United States Society. Madison county society, at Edwardsville, September 20-23. Mattoon Union society, at Mattoon, September 21-25. Carroll county society, at Mount Carroll, September 21-23. Warren county society, September 21-23. Rock Island county society, at Rock Island, September 21-23. La Salle county society, (organized 1852,) at Ottawa, September 27-29. Mason county society, at Havana, September 26-28. Livingston county society, at Pontiac, September 27-28. Lake county society, at Libertyville, September 27-29. Tazewell county society, at Fremont, September 28-29. Hancock county society, (organized in 1852,) at Carthage, September 28-30. McLean county society, at Bloomington, September 28-30. Whiteside county society, at Morrison, September 28-30. Schuyler county society, at Rushville, September 28-30. Van Buren county society, at Paw Paw, September 29-30. Stark county society, at Toulon, September 29-October 1. Ogle county society, at Oregon, October 4-6. Buel Institute, at Hennepin, Putnam county, October 4-6. Bureau county society, at Princeton, October 4-7. Champaign county society, at Urbana, October 4-7. Lee county society, at Amboy, October 4-7. Sangamon county society, (organized in 1852 and admirably managed,) at Springfield, October 4-7. Knox county society, (originally organized in 1840,) October 4-7. Fulton county society, at Lewiston, October 5-6. Orland society, October 5-6. Scott county society, at Winchester, October 5-7. Randolph county society, at Sparta, October 5-7. Kanakee county society, at Soldier creek grove, October 5-7. Clay county society, at Xenia, October 6-7, on the society's grounds. Lee county society, at Dixon, October 10-15. Shelby county society, at Shelbyville, October 11-14. Farmers' Institute, at Danville, October 11-14. Adam county society, (organized in 1853, and now having 800 members,) at Quincy, October 12-14, open to competition from every section. Brown county society, at

Mount Stirling, October 12-14. McHenry county society, at Woodstock, October 12-14, described as an excellent and well managed exhibition, with evening discussion by Central Union Farmers' Club. Christian county society, at Taylorsville, October 19-21. Exhibitions were also probably held by the societies organized in the counties of Clinton, Cumberland, Fayette, Fulton, Green, Ironquois, Jasper, Logan, McDonough, Menard, Montgomery, Morgan, Moultrie, Pike, Wayne, and Woodford.

INDIANA.

The Indiana State Board of Agriculture held its eighth annual exhibition on the grounds of the Floyd county association, about two miles from New Albany, September 26-October 1. These grounds contain about sixty acres, well arranged, and fitted up at a cost of nearly \$20,000. Around the interior of the enclosure there is a broad track for trials of speed, one mile in length, within which are the various halls and tents, with an amphitheatre 275 feet in diameter. There are commodious buildings for the officers, stalls for cattle and horses, pens for sheep and swine, eating saloons, and every other necessary accommodation for the comfort of visitors and exhibitors. The people of New Albany were enthusiastic in their efforts to furnish rooms for strangers, and to render the exhibition successful and agreeable.

There were 2,373 entries, of which 322 were horses, 48 jacks and mules, 100 cattle, 83 hogs, and 85 sheep. The highest regular premiums for horses and for cattle were \$30, but Governor Willard had divided the \$500 placed at his disposition by the State law, into two "sweepstake" premiums of \$250 each, for the best stallion and for the best bull. A premium of \$100 was offered for the best farm of one hundred and forty acres, an entrance fee of \$10 being required from each competitor; and a premium of \$125 was offered for the best stationary engine. The receipts were nearly \$10,000, some \$2,000 under the expenditures, but unfavorable weather and other exhibitions materially diminished the attendance.

The show of stock (said the *Indiana Farmer*) was good, "but not half what it should have been, at a point accessible alike to Indiana and Kentucky. Kentuckians reasoned thus: We have sent our *very best* horse and our *sweepstakes* bull to St. Louis, and of course Indiana will beat us, and we will go and see, but leave our stock at home. On the other hand, Indiana said: Kentucky, of course, has her best stock at her own fair; they will be removed over the river to our fair, and rather than be outdone by Kentucky, we will

leave our stock at home. At the fair they expressed mental astonishment at the non-appearance of the other's stock."

The display of farm implements and machinery was larger and better than at any previous State exhibition. The show of fruit and of flowers was good; the halls for table comforts and farm products were poorly filled as to number and variety, but the articles on exhibition were of superior merit. In the fine arts hall, the ladies of Kentucky and Indiana met in the most spirited rivalry, and much to the credit of both. Coverlets, quilts, counterpanes, tidies, mats, and ladies' clothing lay six ply deep on an average, and often it seemed impossible to say which was the best.

High praise is awarded to John B. Dillon, Esq., the Secretary of the Board, and to Mr. Bradley, the Superintendent. A general hope was expressed that the people of Indianapolis will imitate what has been so successfully done at New Albany, and fit up grounds in a style suitable for a State exhibition.

LOCAL EXHIBITIONS IN INDIANA.

Putnam county society, at Greencastle, September 5-9. Lawrence county society, (organized 1851,) at Bedford, September 5-8. Putnam county society, at Greencastle, September 5-9. Fayette county society, at Connorsville, September 6-9. Rush, Henry, and Hancock counties Union exhibition, at Knightstown, September 6-9. Washington county society, at Salem, September 13-16. Fountain and Warren counties society, at Attica, September 13-16; R. B. Fulgrove, Esq., orator. Parke and Vermillion counties society, at Montezuma, September 13-16. Hendricks county society, at Danville, September 13-16; a volunteer premium of \$25 was offered for the best trotting bull in harness. Rush county society, at Rushville, September 13-16. Johnson county society, at Franklin, September 14-17. Henry county society, at Newcastle, September 14-16. Sullivan county society, at Carlisle, September 14-16. Owen county society, (organized 1854,) at its fair grounds near Spencer, September 14-16. Sullivan, Vigo, and Clay counties Union exhibition, at Centreville, September 16; Hon. C. L. Dunham, orator. Marion county society, at Indianapolis, September 19-24. Decatur county society, at Greensburg, September 20-23. Spencer county society, at Rockport, September 20-22; the new grounds were not finished, but the exhibition was successful. Dearborn county society, (organized 1852,) at Lawrenceburg, September 20-23. Tippecanoe county society, at Lafayette, September 20-23. Hancock county society, at Greenfield, September 21-23; Hon. R.

A. Riley, orator. St. Joseph's county society, at its commodious grounds near South Bend, September 21-23. Clark county society, at Charlestown, September 21-23. Morgan county society, at Centreton, September 26-29. Lake county society, (organized 1851,) at its grounds near Crown Point, September 27-29. Warren county society, at Williamsport, September 28-30; Col. James R. M. Bryant, orator. Miami county, at Peru, September 28; this society receives all the license money paid to the county for shows, which in 1858 amounted to \$240. Huntington county society, at Huntington, September 28-30; the highest award was the society's diploma, and the other awards were agricultural works and periodicals, no cash premiums having been offered. Hamilton county society, at Noblesville, September 29-October 1. Southwestern Indiana exhibition, at Evansville, October 3-7. Wells county society, at Bluffton, October 4-5. Franklin county society, eighth annual exhibition, at Brookville, October 4-6. Porter county society, at Valparaiso, October 4-5. Warrick county society, at Boonville, October 4-8; a successful exhibition, 1,001 entries, receipts \$1,700; expenditures and 350 premiums, \$1,300. Laporte county society, eighth annual exhibition, at Laporte, October 4-7. Clay county society, at Centre Point, October 5-7. Wabash county society, at Wabash, October 5-7. Bartholomew county society, at Columbus, October 5-8. Gibson county society, near Princeton, October 11-14, when it was resolved to enlarge the grounds five acres. Marshall county society, at Plymouth, October 12-14. Boone county society, at Lebanon, October 13-15. Whitney county society, at Columbia city, October 14-15. Fulton county society, at Rochester, October 14-15. Wayne county society, October 17-21; one of the largest and best exhibitions ever held in the White Water valley, the grounds having been put in fine order, and a new two-story hall built for machinery. De Kalb county society, at Auburn, October 17-19. Pulaski county society, at Winimac, October 25-26. Posey county society, at New Harmony, October 25-27; the receipts were \$1,500, which paid expenses and liberal premiums, and left a surplus for improvement of the grounds. Accounts of eighteen other agricultural exhibitions held during the year 1859 in Indiana have been received, but it has been impossible to properly locate them. From several able addresses forwarded, the following one has been selected. It was delivered by that able geologist, Dr. Richard Owen, who is now engaged in a reconnoissance of each

county in Indiana, for the geological survey now being made under the direction of his brother, David Dale Owen, State Geologist :

ADDRESS BY RICHARD OWEN, M. D.

Availing ourselves of the characteristics with which our Omnipotent Creator has endowed man, the last and greatest of his glorious works, recognizing the social impulse which prompts the human heart to sympathize with its fellow mortal, in joy and in sorrow, we have convened, at this period, for the purpose of comparing our individual progress, and of interchanging mutually our views regarding the details of management in agriculture, the most ancient, as well as the most important of all arts ever devised or practiced by human ingenuity.

One of the usages latterly connected with these social conventions, is to assign to some individual the duty of condensing into a brief discourse a rapid survey of the progress, future prospect, and continued importance of improvement in this delightful department of physical and intellectual labor.

That task has, by your kindness, been committed to my charge, and although no one can feel more deeply than I do the responsibility of the undertaking, many, I am well aware, could bring more experience to bear, in commenting on the advantages of agricultural art. If, however, warm interest in the cause can compensate for that deficiency, the want shall be, at least partially, atoned for by the zeal of the laborer.

No one can deny to agriculture the rank of highest antiquity among the arts. No sooner did the intelligence with which man was gifted by his Creator, detect the precarious support which was afforded by fruits, that summer and autumn showered bountifully within his reach, but which were no longer found in winter and spring, (during which period only such wild animals as proved less swift of foot, or less cunning than their human master, satisfied the cravings of hunger;) no sooner, I repeat, did these facts become evident to his perceptive and reasoning powers, while at the same time he observed the autumn seeds that had dropped on the ground, swelling and budding in the spring, than he began to imitate nature, and scattered the seeds of such fruits or grain as pleased his palate on freshly prepared soil, from which he had eradicated all other growth.

Such, we may imagine, was probably somewhat the humble beginning of that noble art, which now furnishes sustenance to about one thousand millions of human beings, on a planet comprising about fifty millions of square miles of land, tilled or barren, that is, in the ratio of about twenty inhabitants to every square mile, or 640 acres. Suppose only one-third of this land susceptible of cultivation, we have still considerably over ten acres for every inhabitant. Belgium requires only about two acres to sustain each individual of her population; and England, it has been asserted, can "maintain her man on every rood of ground," or quarter of an acre. Let us, however, take even an acre as the amount necessary to main-

tain comfortably one individual, and we shall find from the above data, that by judicious cultivation, the earth is capable of sustaining at least ten times as many inhabitants as at present exist.

Such being the antiquity and value of this great branch of human industry, nine-tenths of all our fixed capital, and two hundred millions of men being besides, (according to Johnston, the celebrated agricultural chemist,) employed in developing its resources, we are certainly justified in re-asserting that agriculture is the most ancient and the most important of all arts ever devised or practiced by human ingenuity.

But it did not attain its present eminence until within a few years: our forefathers were content, as some nations are at this day, to scratch the surface of the soil with a crooked stick, drawn by one or two oxen, and to rub out the grain with their hands. Even in merry old England, as late as the eighteenth century, there were no winnowing machines, (wheat fans, as we here term them,) the chaff being blown away by the wind, while the grain was thrown by the laborer high in the air. The objection which the ignorant often offer to improvements, is humorously depicted by Sir Walter Scott, in this connection, in "Old Mortality." "The pious Maude is shocked at the wickedness of those who created an artificial current of air by means of a machine, for the purpose of cleaning grain, instead of waiting patiently, as their forefathers had done, for the variable breezes of heaven."

In some counties in England which are removed one or two hundred miles from the great thoroughfares, a few years since there were no wagons, and only one or two carts; nearly everything was transported on pack-horses.

But the progress of civilization is working great changes. Stimulated by a premium of \$2,500, offered by some English agricultural society, several steam-plows have recently been made, and work successfully, and one is described as having ploughed for the allotted two hours at the rate of nearly eight acres per day. Rapid progress has been made in our own country, as evinced by the numerous agricultural associations, by the admirable mowers and reapers, which surpass those of all other countries; also, by the improvement of worn-out lands in some of the older States, and by the encouragement of surveys calculated to develop the mineral and agricultural resources of the country. Our State geologists collect and submit to the department of the analytical chemist the various soils that have disintegrated from the rocks spread over our highly diversified country. The ingredients of several fertile soils are compared, as well as those of many sterile fields; the essential ingredients are ascertained; the deficiencies are pointed out. In this manner, in the Kentucky survey, already over two hundred soils have been analyzed, by the celebrated chemist, Dr. Peter, of Lexington; and my brother, Dr. D. D. Owen, in his report, has embodied many useful deductions regarding the best mode of improving the lands of Kentucky. Such geological explorations and analysis are greatly wanted in Indiana; but, until we have a State

survey, we may avail ourselves of much general advice embodied in the Kentucky report, which applies to us also. One soil is found by analysis deficient in calcareous matter, and the judicious agriculturist will try at first on a small scale the effects of air, slacked lime, or of a marl, found perhaps abundantly in his fields. This he hauls, whenever his teams are not otherwise engaged, and if the experiment succeeds, he extends his improvements through a series of years, and is finally amply repaid.

Another field is found wanting in the alkaline and earthy phosphates, so essential to the filling out of cereals. The owner should scrupulously save and collect, which he can do at small expense, the bones of all the animals that die around and are often left as a public nuisance, calcine them by heat, or yet better, grind them in a mill, and apply a small quantity of ashes until he observes the result.

By other analysis, as Dr. Peter frequently proves, the subsoil is shown to contain the earthy ingredients which are deficient in the surface-soil; and subsoil plowing, taking every year only a few inches, may be resorted to with benefit.

On some well-worn farm, perhaps near rocky regions, where these earthy ingredients are abundant, the chemist points out a deficiency of humus, or decayed vegetable matter, to give rapid growth and succulence to the stalk or straw. In such case, the prudent farmer diminishes for a time his grain crops, or at least consumes them on his farm, trusting to the sale of stock for his profits. He, besides, either raises green crops only to plow them in again, or at all events, husbands the manure of his stables and barn yards, in every shape and form; preventing its waste, by receiving it in tanks and on compost heaps, and the muck from ponds, scraping from streets, decayed leaves, &c. Our merchant-men, encouraged by the demand for fertilizers, bring cargoes of guano, plaster, &c., to our coasts; and the thousand conveying railways, like so many dark veins, pointing their anastomosis towards the central organs, convey these materials to our great internal valleys and plains, to be elaborated in the heart of our country, for the production of that varied nourishment, which afterwards radiates on the same iron-bound road, like the life-diffusing arterial blood, to the extremities of our favored land, scattering wealth and prosperity broadcast over our Union.

But, like the great and complicated human machines, to which we have compared our agricultural system and national prosperity, unless we observe certain great fixed laws, unless we use our best judgment, the whole structure is liable to fearful reaction and disorder.

The exhausting of the soil is like over stimulating the system, and draining it daily by excesses, which must finally sap its energy to the foundation. Nor should we flatter ourselves that the stalwart son can bear these excesses any better than his father; in fact, they are sometimes more injurious in early youth. So it is, too, with the rich soils of the giant West; they seem inexhaustible, but some of the apparently worn-out soils of the eastern States having, from the disintegration of roots, all the necessary inorganic or earthy

elements, are soon reclaimed by a judicious system of husbandry; whereas, some of our soils, from which we have cut and carried away all the best timber, and perhaps even the ashes of the consumed remainder, and lastly, after we have raised corn in the same field for twenty-five or thirty years, are so worn out, that especially, if both surface and subsoil are light, friable, and sandy, they not only produce very inferior crops, but the soil cannot even well retain the ingredients with which we endeavor to nourish them.

To the mind of the merchant, perhaps another comparison might be more striking: Our system of exhaustion is too much like living on our principal, instead of husbanding that capital and adding to it, until we finally draw an annual interest sufficient for all our wants. It is in fact as Norton, in his *Agricultural Chemistry*, remarks, little better than the conduct of the countryman in *Æsop's Fable*, whose goose daily laid golden eggs, but who, in his anxiety to be suddenly rich, killed her, and lost all. We are so anxious to be wealthy, that we sacrifice the only true source of real wealth and prosperity, the fertility of our lands.

This, then, if I am permitted by your kindness to assume the office of censor, I would denounce as the evil most to be avoided among farmers. But what, it may be asked, is the remedy? Knowledge. I answer, unhesitatingly, if anything on earth will remedy or prevent this evil, as well as nearly all others, it is knowledge.

If any man finds himself sick, dyspeptic, gouty, his life perhaps a burden to him, what is his wisest course? To inform himself regarding the laws of hygiene, and to call in those who have made these subjects a lifetime study, so as to have their advice. While in ordinary health, he may content himself by obeying those laws which he has learnt are necessary for its preservation, such as temperance and exercise, not living to eat, but supplying only the waste of nature. When, however, he becomes ill, when some functions are permanently disturbed, he should consult those who have made such subjects a special study, and give their advice a fair trial.

Thus it is with the agriculturist: He should not take from his soil a crop, without returning to it nearly the same in some shape or other. And if he finds any portion less productive than another, let him submit it to the chemist, and in accordance with his advice supply the deficiency, organic or inorganic, carefully and cautiously, until he is satisfied that the theoretical inference is correct. Let him not fear to appeal to chemistry, on which my brother, in his second volume of his *Kentucky report*, passes the following beautiful and just eulogium: "That science which has extracted from the fixed alkalis, metals lighter than water, that burst into flame the instant they come in contact with that fluid; which has reduced from clay a metal bright as silver, yet light as marble, that resists corrosion, that forms with copper an alloy having the color and brilliancy of gold; which distils from bones a body of the consistency of wax, so combustible that summer heat almost suffices to inflame it; that prepares from kelp a body whose vapors of the richest hues will render a silver plate so sensitive to light, that a

few seconds suffice for impinging rays to paint their image on its surface; which compounds principles so subtle, that a grain or two will impregnate the whole atmosphere of an apartment with the most deadly fumes, while the compound itself hardly loses any perceptible weight; which unites together the *same substances*, so as to form at one time the most active poison, at another, by varying only slightly their proportions, a substance already inert. A science, I say, which has accomplished wonders like these, is surely capable of disclosing the mysteries of the chemistry of agriculture."

Consulting, then, the facts developed by the science thus justly eulogized, as found in the works of Liebig, Johnston, Norton, the reports of the State Geologist, &c., we meet with many such as the following, which I have selected chiefly as a stimulus to further examination:

That plants derive their nourishment partly from the air, by means chiefly of their leaves, and partly from the earth, by means of the spongioles in the roots. Thus the leaves may be compared to the lungs of the higher animals, the roots to their stomach. And as in animals it is necessary that the food should be of a kind and in a form suitable for the action of the digestive organs, so in plants it is essential that the ingredients should be of a soluble form. Thus silix, so essential for some plants, is, in its solid form, insoluble in water, and therefore cannot be assimilated, until acted upon by alkalis, which must, therefore, be furnished when necessary, or rendered free by the admixture of lime; thus, also, stiff insoluble clay-soil, burned and top-dressed with lime, yield to water fertilizing ingredients. Again, as the health of the animal economy requires, at various times, more than one article of diet to supply the different constituents of the system, so also does the plant require various nourishment from the soil; and when some one ingredient is deficient, the soil is incapable of raising certain plants, until art has replaced the consumed material. As repletion may follow excesses, in the case of animals, so plants too may be over supplied with some materials, as salts, &c. We are further told, that rotation in crops is not alone sufficient to remedy all the evils of exhausted soils. Even pasture lands may require bone ashes; also, that liming and marling may supply some important ingredients, besides calcareous matter. Chemists tell us further, that a soil is not fertile in proportion alone to the humus it contains; that where there is a deficiency of alkaline or earthy phosphates in a soil, it will not raise cereals—or, in other words, a grain the most valuable food we have—nor peas and beans, until we supply the defect; that phosphates, to renovate the soil, are found in guano, in coprolites, and in disintegrating fossiliferous rocks; hence the richness of blue limestone, and some Devonian regions; hence, too, the propriety of sub-soiling, when the upper light earth contains the humus, and the subsoil the important inorganic elements of fertility. They teach us that large cities might add greatly to the health and wealth of the inhabitants as well as to their own corporate resources, by having suitable arrangements, manufactories, &c., for the conversion

of all decaying vegetable and animal residues, liquid and solid, many of which otherwise render the air pestilential—into highly fertilizing composts and poudretts. In London alone, half a million of pounds sterling (nearly two and a half millions of dollars,) is stated^a to be annually lost for want of suitable sanitary arrangements within her corporate limits, besides the resulting contamination of the Thames river, at present so much complained of. Thus, by a proper course, the resolved elements of decay and death might be made to furnish those of new life and growth.

Chemistry further informs us, that in employing these elements, we should be aware how some plants, as turnips, potatoes, Indian corn, require potash; that the culture of these should be followed by that of a plant requiring silica, as wheat, barley, &c.; and these, again, by lime plants, such as peas and clover; in other words, that *grain* crops, *root* crops, and *grass* crops should alternate. It gives the information that the hygrometric power of a soil is vastly increased by its pulverization, and that the thorough working of land is, consequently, extremely important in a dry season. All these and many more facts are taught by science as truths, which can readily be tested, at first on a scale, by the intelligent and prudent farmer, who should adhere to no customs in opposition to his reason, merely because they are old; and reject no suggestions, when approved by his judgment, only because they are new. Thus theory and cautious practice should go hand in hand. Each is inadequate without the other to produce the best results; both taken together are irresistible.

As an additional means of improving our experience, we should know the size of every field on our farm, and keep a regular account with each crop, as well as with the orchard, dairy, poultry yard, &c., so as not to guess, but actually to know, which department is most productive. Here, perhaps, some of you may remark, "we would like to do those things, but are not very well versed in surveying and book-keeping." Then let your sons be so. Let them go where they can learn, practically at least, enough of surveying to measure and plot off the whole farm; enough of book-keeping to render, by double entry, a separate account with each department; enough of geology to understand the outlines regarding the existence on the earth's crust of different rocks, and the soils resulting from their disintegration; enough of chemistry to perform the analysis of those soils, and to learn the chief components of the different fertilizers; or, at least, to understand and appreciate the analysis made by competent chemists.

Practical agricultural colleges, at which young men could learn these sciences, (somewhat in the manner adopted at Hoheniem, in Germany, as ably described in a recent letter from Gov. Wright, published in the *Indiana Farmer*, in the *Tribune*, and in the *New Harmony Advertiser*,) ought to be scattered throughout the length and breadth of our land; and I sincerely hope will be by the passage, in a modified form if necessary, of a bill introduced into the last

Congress by Mr. Morrill, of Vermont, and to be voted on in the United States Senate next session.

"But," perhaps some one remarks, "my son does not design becoming a farmer; he wishes to be a preacher, a lawyer, a doctor, or a politician; he thinks they make more money, and are more looked up to than farmers." Probably that is so; but it should not be so, and would not if the same preparatory schooling, the same talent, energy, and capital were brought to bear in this as in other professions.

Let young men find that, by receiving a thorough agricultural education, and by having enough to put good farms under complete fence; stocked with the requisite amount of well-blooded animals, their farms will prove as remunerative as practice in a profession; let them see that they have ample scope for their mental energies, by cultivating scientifically, and breeding stock according to physiological principles, and they will not be so desirous to swell the ranks of the learned professions, or to rush into political life, before they have experience and matured judgment sufficient to aid in guiding the ship of State. When, by some years of industry and judicious management, they have placed their farms in a condition to be superintended by others, without much risk, then, if they feel disposed, they may yield to their country's call, and serve her in the field or the forum, to repel the foreign invader, if such necessity should occur, or to eradicate, by judicious counsels, the internal seeds of discord, and legislate, not merely with a view to secure their own re-election, not for the sake of a lucrative sinecure, but patriotically, for the good of the whole nation, and then retire again, like the father of his people, into the quiet of domestic life, the citizen and the farmer. Can any one deny that there is a dignity in agricultural occupations, when such men as Washington, Jefferson, Webster, Clay, and others, pursued them during a considerable portion of their lives.

Perhaps, however, one of the most powerful motives for adopting these pursuits consists in a knowledge of the advantages which such a life affords for rearing a family in health and virtue. Who has not observed that, as a general rule, the youth of both sexes who have been reared during their earlier years in the country, are more healthy and more robust than those of the city, as well as less likely to fall into the excesses of luxury? Yet, in the end, when they have received the advantages of education, they may often be numbered among the greatest men and women. And here permit me to remark, that if there is any error into which we are falling, more likely to prove our bane than any other, it is that of denying to our daughters the necessary physical training to fit them for their duties in life, to render them the healthy mothers of vigorous children, capable, also, of undertaking the earliest and most important education of youthful minds, destined at a future period to control the fate of our republic. If sound minds and bodies are not transmitted to children by their mothers, can we expect, in adult age, powerful intellects, sustained by vigorous bodies? That the men

of the nation should have sound minds in sound bodies, it is essential that their mothers should have these qualities; while, at the same time, the mothers would find their own happiness much increased by such healthfulness. Who does not regret to see the increased number of delicate constitutions, evinced by the frequent cases of hysteria, neuralgia, and other nervous diseases, as well as dire consumption? In pointing out a remedy for these evils, permit me to quote from the chapter on physical improvement, in a work on geology lately offered by me to the public:

“Can we wonder that the girl who confines herself closely to the house, or who is prevented by parents or boarding-school teachers, ignorant of hygienic principles, from taking the necessary exercises, especially in early youth, should become pale and sickly, or even fall a victim to the injudicious treatment of those who bitterly bewail their loss?

“Who, on the other hand, has not felt his own life-blood throb with healthfully-quickened pulsation when he has vaulted on to the back of a thorough-bred horse, the noblest of the brute creation, and dashed off over turf or heath, amid the joyous companionship of intelligent friends?

“What sight can be more beautiful than to see a graceful maiden, whose form is well set off by the neatly-fitting riding habit, curbing her well-trained palfrey with a bit, sufficiently powerful to render his playfulness safe, yet mild enough not to check too suddenly the ‘free bound?’

“What young man of sense, gazing on the bright glow and animated expression called forth by such healthful action, would not rather select for his lifetime companion, and for the mother of his children, the possessor of such requisites to happiness as might reasonably be expected to be secured, if such rational exercise is continued, and accompanied by equal good sense in other things, than to trust his domestic happiness to the hot-house frailty of over-stimulated nutrition, and the mental evanescence of frivolous, novel-engendered precocity?

“Perhaps there *is* one sight even more beautiful than the above picture, which we have sought to paint in no over-wrought colors, but only in its true Claude-Lorraine tints of glowing nature. It is that of sportive infancy, with the rounded features which Raphael has so beautifully represented in his various pictures of ‘The Infant with the Madonna.’ It is the sight of innocence engaged in infantile sports, enjoying the fresh air which heaven exhales, exercising the limbs which nature has given for the enjoyment resulting from unrestrained movement, and evincing towards each other, in their conduct, the early power to restrain passions, beneficial when controlled, but highly injurious when permitted to exercise a mastery.

“Why not, then, let this innocence, this exercise, this immunity from serious cares and sorrows, be prolonged through their due period? Why hasten prematurely into the turmoils and decay of life?

“Among the inferior animals, naturalists have observed that the

period of life is usually five times that of growth; and the same probably applies to man. Thus the horse has a 'full mouth,' and has commonly attained his height at five; consequently, lives often in a natural state, until he has reached twenty-five or thirty years of age. Man usually acquires his stature, if not precociously forced, about his twentieth year, and would live, if he were rational—unavoidable accidents excepted—until he attained his four-score years and ten, or even his five score. But, unfortunately, particularly in the United States, whose Anglo-Teutonic inhabitants are derived often originally from the most energetic and enlightened of the European stock, there is a natural desire, but one against which we must bring our best judgment to bear, rapidly to mature—too rapidly, alas! for soundness—pecuniarily, physically, and mentally. Young America, take warning! Let the period of innocent enjoyment, of invigorating amusement, of freedom from care, be prolonged; lay the foundation of health and strength, of innocence and virtue, before all other requisites. With these and a good education, the rest will follow and endure: longevity, wealth, distinction, family enjoyment, and a tranquil old age of prolonged usefulness and of extended virtues. If such is to be our portion, individually and nationally, let us begin in time, let us regard health-giving exercises as a cardinal virtue."

One great cause of the diminution in healthful exercise, to be found in the anxieties regarding expensive and fashionable dress, alluded to in the same work, at page 183, thus:

"Let not the great struggle be, who can amass the most wealth, who can outshine his or her neighbor in displaying the costly products, manufactured often from the toil of over-worked, exhausted human beings, produced sometimes from the very life-blood of our overtaxed fellow-men. Little does the high-born lady think, when she heedlessly rends the frail fabric of her Brussels, Valenciennes, or Honiton lace, worn at a ball—the price of which might feed ten thousand famished mouths for lengthened days—how many bitter tears it cost a sister-being to form those delicate meshes, and how those drops of anguish, exhaled into heaven's ethereal vault, may waft just accusations of selfishness even to the throne of an offended Deity."

These evils do not exist among the agricultural portions of our community to so great an extent as in crowded cities, still they are gradually insinuating themselves, and must be guarded against.

If, then, rural life, properly directed, is well adapted for the health and morals of our sons and daughters, how shall we retain them at home, and prevent their wandering off to taste the dangerous allurements rendered attractive by the high-sounding title of *fashion*? The answer is readily found. We must render home attractive by selecting, as soon as circumstances will permit, a "Homestead," a blessing which any industrious youth, in this country, may secure in early life; we must endeavor to bring to that home a healthy, sensible wife, selected because she was a good daughter, a refined, truthful, modest, virtuous maiden, fond of keeping her mother's

house neat, and willing to take her share in the duties of life. These qualifications, too, must be judged of, not in a ball-room or party, but by frequently seeing her at home, sometimes unexpectedly. We should then surround that home by all the comforts and attractions which a farmer's income will permit, making it more agreeable for the children to frequent their home and associate with their parents, with each other, and with their educated neighbors, than to lounge at places of frivolous amusement, acquiring vicious habits among dissolute companions.

But to insure these home attractions, to render home pleasanter than any other place, the entire time must not be given to labor; there must be scope given to the intellect in improving the farm and the stock, there must be a field for prudent enterprise, if the tastes lead in that direction, by uniting the purchase and sale of farming produce, to that raised on the homestead; and lastly, there must be abundance of rational amusement and social intercourse. By early rising and methodical arrangement of time, there might be opportunities for all that is here recommended, without undue interference with the duties on the farm. Not to dwell too much on detail, I would suggest that there be frequent rural parties—such as pic-nics, riding excursions to visit any objects of interest, evening meetings for music, &c.; also, that, as soon as practicable, considerable attention should be given to laying out the grounds in the proximity of the house with neatness and elegance; that pains be taken in the cultivation of a garden, which should be both useful and ornamental, with, perhaps, a small green-house and hot-house attached.

Amid these scenes, which speak of home comforts, of quiet innocence, of nature's bountiful and beautiful gifts, sons and daughters might occasionally mingle their labors, and cultivate, at the same time, their tastes and their fraternal affections. To such abodes, too, might be taken, most appropriately, the youthful visitors who enliven their country life; and amid such scenes might be permitted to expand those feelings of youthful esteem and love, based on a correct knowledge of each other's character, which should be not only permitted but encouraged; for if anything, besides virtuous precepts, will prevent dissolute habits in a young man, it is an honorable attachment to a worthy young maiden; and if any man can afford to marry, so soon as he has a home and can find a good wife, that man is the farmer. Indeed, without such a companion, where would be his household, his dairy, his poultry-yard; where his home comforts, enlivened by a group of happy children?

But, independent of these arguments, I hold, in opposition to the doctrines of the Shakers, that marriage is conducive to mortality. Much the larger number of criminals, inmates of insane asylums, and paupers, is to be found represented by the unmarried. And although much misery arises from ill-assorted marriages, still experience dictates, I clearly think, that all healthy persons should marry at a suitable age, provided they meet such chances of alliance as their reason recommends. To guard against unsuitable unions, let

not parents, when they disapprove, bring anger and violent opposition to bear. Let them watch over the formation of incipient acquaintance, and point out the character before the affections have become enlisted. Let them early teach sons and daughters the most important lesson in life, that of *self-control*. Not the crushing of feeling, but the placing of it under the control of the judgment, so that, however much the feelings prompt, they may not act, except under the sanction of cool, deliberative reason. Should, unfortunately, the affections of a son or daughter be misplaced, let the parents, by making a friend of that son or daughter, endeavor to convince that the well-being of that child is the object; let them request, at least, an extension of time, to prove the character of the passion and the character of the person then so devotedly loved. If any system will succeed under the unfortunate circumstances, this is assuredly the most likely. But, above all, let parents take warning by the wrecked happiness of too many couples, fashionably married, not to urge a union for the sake of wealth, position, influence, where there is no affection; or, worse yet, where the affections are placed on another individual. Which of the two is more to blame, if misery and crime are the consequences of such sordid selfishness, the parent or the child? Reply is unnecessary.

Perhaps these observations are not peculiarly applicable in an agricultural address; but having touched on the subject at a time when celibacy is upheld on one side, by shakers and cynics, and when polygamy, or a worse doctrine, is advocated on the other, by Mormons and free-love votaries, my sense of duty, as an educator and physiologist, would not permit me to refrain from giving such force and extension as one individual may add to the generally expressed opinion on the subject—an opinion which I desire to see indelibly engraven on the minds of the youth of our land—how immeasurably superior to selfish loneliness, how yet more infinitely superior to lawless indulgence, is the beautiful monogamic relationship, the union of two individuals, calculated, in their main characteristics, to harmonize; the pure sympathy of soul, which desires to promote its partner's happiness through life; the warm geniality of heart, which desires to rear for its country, as the offspring of that blessed union, virtuous and useful children.

Having thus endeavored to show that devotion to agricultural life, as it ought to be pursued, is highly conducive to virtue and happiness, I propose to close these somewhat discursive remarks by briefly summing up, in recapitulation, the course to be followed, the errors to be avoided, and the advantages which are likely to be secured by the intelligent cultivator of the soil:

Let him select for his operations, if practicable, a farm that is not already impoverished.

Let him preserve the fertility of the soil, by restoring to his fields, in some shape, as much as he takes from them.

To effect this object, let him carefully alternate his crops, husband all vegetable and animal exuviae, and plow in all residues.

Let him cultivate no more acres than he can work in the most thorough and improved manner.

Let him employ the cleanest and best seed when he raises grain; and, by never losing time unnecessarily, be always ready to sow it at the most favorable season.

Let him select for his staple article of culture such products as are best adapted to his soil, latitude, and facilities for transportation to market.

But let him not cultivate his whole farm on that one crop; because he cannot thus work a limited number of hands to the best advantage, and because he runs too great a risk in case of circumstances arising disastrous to that one growth.

Let him plant out fruit trees of a good quality, and cultivate at least a small garden.

Let him keep no more stock than he can keep well, and let it be of a good quality.

Let him, in improving his stock, cross with animals similar in their good qualities, but wholly unrelated by blood.

Let him carefully keep separate accounts with each department of grain, grass, stock, or other farming product, so as to know *certainly* which is the most profitable.

Let him, as a matter equally of comfort, economy and harmony with his neighbors, keep his fences, gates, &c., always under good repair.

Let him never lose one moment unnecessarily, but yet have frequent short intervals of recreation.

Let him not so entirely fatigue the body as to deprive himself of all desire and profit in mental occupation; but let some leisure hours be devoted to mental exercise connected with his profession, such as examining with the microscope, and otherwise investigating the habits of the numerous insects injurious to agriculture.

Let him be a member of some agricultural association, and take one or two journals.

Let him send his sons to schools and colleges, where, besides acquiring a knowledge of the ordinary branches, they will learn, *practically*, book-keeping, surveying, chemistry, geology, and mineralogy.

Let him send his daughters to schools and colleges, where, besides the ordinary accomplishments, they will learn house-keeping, plain needle-work, and the cutting out of ordinary female garments.

Let him, when those sons and daughters return, emulate his beloved partner in making the parental home attractive: let him inculcate wisdom and virtue, truthfulness, affection, integrity, industry and economy.

Let him carefully avoid going in debt, and strenuously discountenance, except under extraordinary circumstances, the use of the credit system.

Let him, by precept and example, proclaim the dignity and honor of useful labor; the justice of each performing his share in the duties of life. And, finally, let him impress on the minds of his

children, as on his own, the true principles of republican government; let him decide, according to the best of his ability, what appears to him to be the true policy, and not neglect his right, as a freeman, to support, by his vote, not the mere party politician, but the enlightened statesman and patriot, who seems to legislate for the good of the whole, for the preservation of the *Union*.

In this connection, permit me to close in nearly the same words which I employed in an address delivered for the benefit of the Mount Vernon Association, when, after depicting the horrors of civil war and domestic strife, I exclaim :

“Sooner, far sooner than that such should be our fate, let the earth yawn and engulf us ; sooner let a consuming meteor, a sun of fire, in its erratic course, parch our share of this earth to a blackened cinder ; far sooner may the flood-gates of heaven again be opened, and an overwhelming deluge bury our portion of North America, while she is yet ‘The Land of the Free and the Home of the Brave,’ beneath the deep waters of the commingling Atlantic and Pacific, never to rise again ! Swept, while yet innocent, forever from existence, she will leave at least no record of domestic strife, of national gangrene, of fratricides and parricides ; the boundless ocean archives will alone remain token of her utter annihilation.

“Forbid it, heaven ! Forbid it that the calamities we have depicted should ever visit this thrice-glorious country ! Omniscient God, in Thy eternal wisdom, avert the threatened scourge ! Our prayers, if sincere, will be heard. God, in his infinite mercy, will fill our hearts with a touch of his attributes—Justice, Truth, and Love. His favored land will be saved—saved through him by the intelligence and virtue of its people.”

IOWA.

The State Agricultural Society—organized in 1854—held its sixth annual exhibition at Oskaloosa, on the grounds of the Mahaska county society, September 27–30. The grounds were those used in 1858, containing about twenty acres, and well provided with buildings, tents, and fixtures. The number of entries was about 1,200, being some 200 over those of the previous exhibition, and the attendance was good, although the heavy rains of the preceding week, which had made many of the roads almost impassable, doubtless kept hundreds at home who would otherwise have been there. High praise is awarded to J. H. Wallace, Esq., Secretary of the Society, for the order and dispatch with which business was transacted, also to the Chief Marshal, Gen. Bridgeman.

There was a fair display of Durhams, one herd of Devons, and some fine grade of native cattle ; a good show of horses, hogs, and sheep ; and a creditable display of implements, though not so large as had been anticipated. Defenbaugh's underground ditching machine was tested, and “was made to operate finely and satisfactorily.”

The exhibition was closed by a procession "of all the animals which had taken premiums, amounting to 109 head—48 horses, 44 cattle, and 17 jacks, jennets, and mules. They made a fine show and attracted a great deal of attention. The attempt to sell animals was almost a failure, but few bringing anything like a fair price."

LOCAL EXHIBITIONS IN IOWA.

The Scott county society—organized in 1853—held a successful exhibition at its grounds near Davenport, September 13–15. There were seven hundred entries, and the Secretary says, "that the Directors paid the larger portion of the premiums awarded, in silver medals and plate. About \$400 worth of silverware was distributed, which cost the Society that sum, less 5 per cent. only. Nearly all the recipients were delighted with their prizes, and no dissatisfaction worthy of notice was manifested. The distribution of silver medals and plate was an experiment here, never before tried, and I am glad to say it was a perfect success. We did not furnish medals enough; these seemed to be in great demand." Webster county society, at Fort Dodge, September 14–15. Mahaska county society, at Oskaloosa, September 14–16. Polk county society, September 14–16, on its fine grounds at Des Moines, which cost \$3,550, and are within the corporate limits. Morgan county, at Jacksonville, September 20–23. Hardin county society, at Eldorado, September 21–22. Tama county society, first exhibition, at Toledo, September 21–22. Poweshiek county society, at Montezuma, September 22–23. Boone county society, at Boonesboro, September 24–25. Bremer county society, at Waverly, September 28–29. Butler county society, at Clarksville, September 28–29. Delaware county society, at Delhi, October 4–5. Humboldt county society, at Dakota city, October 4–5. Floyd county society, at St. Charles city, October 5–6. Apanoose county society, at Centreville, October 6–7. Cedar valley society, Black Hawk county, at Butler's, October 6–7. Iowa county society, at Dodgeville, October 6–7. Marshall county reform association, at Albion, October 6–7. Warren county society, at Indianola, October 6–7. Cerro Gordo county society, at Mason city, October 10–11. Lucas county society, at Chariton, October 12–13. Shelby county society, at Shelbyville, October 27–28.

KANSAS.

A mass meeting of the friends of Agricultural progress in Kansas, was held at Topeka, on the 16th of July, 1857, at which the following committee was appointed to draft a constitution for a State Agricultural Society: C. C. Hutchinson, of Lawrence; W. F. M.

Army, of Hyatt; John Grabel, of Walthena; Henry Harvey, of Council city; Dr. Hunting, of Manhattan; Moses C. Grimes, of Neosho city; Wm. Pennick, of Leavenworth; Martin Cave, of Richmond; M. L. Gaylord, of Topeka; Chs. Robinson, of Quindaro; and W. Y. Roberts, of Wyandotte. On the 9th of September, a meeting was held at Lawrence. The committee reported a constitution, which was adopted, and a State Agricultural Society organized, but no fair or agricultural exhibition has yet been held by this Society.

LOCAL EXHIBITIONS IN KANSAS.

The Douglas county society held its first annual exhibition on the grounds near Lawrence, the first week in October. The display of horses, cattle, and hogs, was very good; the mechanical department was creditable for a new country; and the vegetable and horticultural departments gave evidence of the productiveness of the rich soil of the new territory. The annual address was delivered by T. Dwight Thatcher, Esq., who eloquently demonstrated the adaptation of the country to agricultural and mechanical pursuits.

KENTUCKY.

The State Agricultural Society held its fourth annual exhibition at the grounds of the Kentucky Agricultural and Mechanical Association, in Lexington, September 13-17. The first cattle show held west of the Alleghany mountains, was held near Lexington, under the auspices of Col. Lewis Sanders, in 1816, and from that may be dated the superiority of the cattle of that "blue-grass" region, and the consequent excellence of the exhibitions. The present grounds, fifty-two acres in extent, are shaded by noble forest trees, and there are spacious buildings, including a large amphitheatre.

The display of cattle was, of course, excellent—the Durhams being most numerous, although there were good Devons and Ayrshires, and some fine Alderneys. Many useful machines and implements were exhibited, and—judging from the brief account furnished—the exhibition was a successful one. The great charm of a Kentucky exhibition, is the genuine hospitality exhibited. Each family brings baskets of provisions, with which pic-nic entertainments are improvised, and strangers are cordially invited to partake of the good cheer.

LOCAL EXHIBITIONS IN KENTUCKY.

North Kentucky exhibition, at Florence, August 30-September 4. Central Kentucky exhibition, at Danville, September 6-9. Bour-

bon county society, at Paris, September 6-9. Nelson county society, at Bardstown, September 12-16. North Kentucky exhibition, at Maysville, September 13-16. Union county society, at Eminence, September 20-23. Harrison county society, at Cynthiana, September 20-23. Southwestern exhibition, (on grounds where National exhibition was held in 1857,) near Louisville, September 20-25. South Kentucky exhibition, at Glasgow, September 27-30. Mercer county society, at Salvisa, September 27-30. Mason & Brachen counties society, at Germantown, September 27-30. Kenton county society, at Independence, September 27-October 1. Warren county society, at Bowling Green, October 4-6. Davies county society, at Owensboro', October 11-14. Springfield exhibition, October 11-14. Logan county society, at Russellville, October 11-14. Henderson & Hopkins counties society, at Henderson, October 18-21. At the Gibson county exhibition, there was a display of a yeoman's family, not easily to be equalled. About three o'clock, Mr. Stephen Meade and his wife entered the amphitheatre, followed by their twelve sons and two daughters, each on a fine gray steed, and in the order of their ages. They proceeded around the ring, while the band struck up Hail Columbia, and drew up in front of the Executive, when the President made some very appropriate remarks, after which the mammoth family was vociferously cheered from one side of the grounds to the other. The old gentleman was born in 1793, and went to Kentucky in 1819. Mrs. Meade was born in 1803. The two were married in 1821. The eldest son is 36 years old, and the youngest 14. The older daughter is 19, and the younger 17. Eleven are married, and have 22 children. The fourteen children of Mr. Meade were all born in Gibson county, and all now live there but one, and are the best of citizens. None of the family have died, and all now look hale and hearty.

LOUISIANA.

The Bienville Parish Society—organized in 1857—held its second annual exhibition at Mount Lebanon, October 25. The grounds had been put in order for the reception of stock, and a track constructed for the display of horses. The premium list was a liberal one. Only the produce, stock, and manufactures of Louisiana were admitted, except a few articles marked in the list as "open to the world."

MAINE.

The State Agricultural Society held its fifth annual exhibition at Augusta, the capital of the State, October 20-23. The grounds were

those used in 1858, with more extensive arrangements for the accommodation of stock, and are about thirty acres in extent, almost between the State House and the river. The State House was used for the displays of fruit, dairy and garden products, and domestic manufactures, while in a temporary building near by were the implements and machines. The premium list was about \$10,000, comprising premiums of—\$200 for best trotting horse; \$100 for best trotting horse always owned in the State; \$40 each for best Durham and Hereford bulls; \$40 for best ten yokes of oxen from one county; \$10 for best boar, &c. There were over 700 entries.

The weather was very unfavorable, and is thus humorously described by the editor of the *New England Farmer*: "The exhibition was to have been continued through four days, but the threatening aspect of the weather on Tuesday resolved itself into a decided storm on Wednesday, and arrested its further progress. There was no 'make-believe' about it, for the rains descended, the winds blew, and the floods came, and every living thing 'caught the dumps' at once. The cattle would not low, the cocks would not crow, nor the horses go—it was an effectual damper all round. The auctioneers grew hoarse while the icy rain drizzled down their necks, and soon began to pack up their traps; the jockeys lost all their grit, and the boldest of them didn't believe there was a horse on the ground that could trot a mile in ten minutes; the men suddenly came to the conclusion that 'discretion is the better part of valor,' and departed to get up a flame within themselves, or find one at their hotels. There was a regular stampede among the women, and the fields, so lately sparkling with feminine beauty and grace, became damp, dull and despondent, and the winds and rain had it pretty much to themselves. But the exhibition was not a failure after all, for the interruption which it experienced showed how much the people regard and cherish the festival. It was not a failure, either, because what goes to make up an exhibition *was there*, although the people were prevented from seeing it. Some 500 cattle, 300 horses, 100 sheep, swine, poultry, bees and honey, grains and vegetables, fruits and flowers, household manufactures, paintings and pictures, and a respectable collection of farm implements and machines, were presented to be examined. Then there were the usual arrangements for plowing, drawing, and the exhibition of horses."

The show of horses was good, the Messenger and Black Hawk varieties of the Morgan stock predominating, and the "time" of the trotting never exceeded 2.39 over a heavy track. The display

of cattle was excellent, especially the working oxen; it would be difficult to find an equal number having so many points of excellence as the teams from the town of Stark. A herd of Devon cows exhibited by the Shakers of Lebanon, was very fine. There was also a large display of Durham stock, grade and pure, some of which was very good. A few full blood Jerseys were presented by Dr. Holmes, editor of the *Maine Farmer*, and they are among the first, we understand, introduced into the State. The show of implements and machines contained many attractive articles, among them a Scotch "grubber," made to do the work of harrow and cultivator. It is triangular, with one small wheel forward and two large ones behind, on which the weight of the frame rests. The teeth are long and bend forward and upwards, so that the action is to lift the dirt up and leave it light—a desideratum long looked for by judicious farmers. This machine is all of wrought iron; it was made by Messrs Cumming & Rose, of Portland.

AGRICULTURAL MEETING.

In the evening there were meetings in the senate chamber; T. S. Lang, Esq., the President of the society, in the chair. On the first evening, after the different superintendents had reported the character and number of entries in their various departments, Dr. Holmes, (the efficient Secretary of the Society,) introduced the following question for discussion:

"What breed of cattle is best adapted to the soil, climate, and wants of Maine?"

Wingate Haines, of Aroostook, is one of the largest and most judicious farmers in the State. He said that he had commenced with Durham cattle, but had found that a cross with Devon bulls had suited him best. The products had the spirit and hardihood of Devons and the size of the Durhams. The cattle were fully as large as the cross of Hereford with Durhams.

Mr. Goodale believed that a breed of cattle must be made up expressly for the wants of the State, by breeding in the qualities wanted. He had tried the Ayrshire stock, and liked them for milk and work.

Isaiah Wentworth, of Poland, has the best herd of Devons in the State. He commenced with the Devon stock three years ago, having formerly had Durhams. The Devons were more hardy and more spirited; keep in good condition with poorer feed, and are more easily prepared for beef. He had proved one yoke of Devon oxen; and he thought that a yoke of Devon cattle, giring six feet and a half, would outdo Durhams or Natives of seven feet. Devons suited him better for farm use. In the logging swamp, the heavy and slow Durhams were better. For all work, he preferred a cross between Devon and Durham stock. For milk, he thought the Durham was better than the Devon, and that the Native was better than either.

Devons would not yield an average of more than three gallons a day. He had found them remarkable for docility.

Dr. Holmes was called upon to speak for Jerseys. He is a pioneer in the introduction of this stock in Maine. He said they were a poor despised race—the laughing stock of Durham and Devon breeders—and they must work themselves into favor solely by their good performance. They were the “martyrs of the barn-yard.” He spoke of the history of the Durhams in New England. The first bull, Young Dunton, was brought to Boston in 1818, and after remaining there a number of years, he was brought into Maine by the speaker. He was the first thorough-blood Durham introduced into Maine, and he was kept here until he died of old age. The Durhams then were different from Durhams now. The stock had been bred for size, and milking qualities had been overlooked. He thought that the farmers who bred Durhams should try to regain this quality. The Herefords he had found good for work and beef, but not for milk. He said there was a difference between *races* and *breeds* of cattle. Races had distinctive characteristics, which could never be got out of them. Breeds were made up by crosses. Durhams, Herefords and Ayrshires he called breeds. Devons, Jerseys and Galloways were distinctive races. Pure Jersey stock might be found in Canada, the first inhabitants having come from the coast of Normandy. In such a length of time, the breeds would have lost their characteristic qualities. To sum up, he thought that if any man wanted to raise large, handsome cattle, they should get Durham or Hereford; if they wanted beauty and uniformity, the Devon; if they wanted good milk, he favored the Jersey. He spoke favorably of the Galloways. He had found them very hardy, bearing the cold better than any other race, and being good for milk and beef.

Mr. J. F. Anderson spoke in favor of the Devon stock and its grades.

Mr. L. Wetherell, of Boston, made a few remarks, and combatted the argument of Dr. Holmes, maintaining that Durham stock would not lose its characteristics by breeding in, and, consequently, that it was a distinct race. We regret not having a fuller report of his remarks.

The discussion was one of uncommon interest, and it was very evident that the speakers had informed themselves with much care on the subject, the continuation of which must lead to good results in Maine stock. The discussion was kept up until a late hour, and resumed on the following evening, when—

Mr. Whitney, of Vienna, thought that different breeds were useful for different purposes, and should all receive attention. He believed that any improvement in blood was desirable, and that farmers might succeed in more breeds than one.

Mr. Abner Coburn, of Bloomfield, defended the Durhams from the severe attacks which had been made on the breed, in the course of the discussion. He referred to the great improvement in the size of the cattle of the State within his recollection, and attributed it to

the general introduction of the Durham stock. He spoke of the noble oxen, and asked Dr. Holmes if there were any oxen or steers among the Jerseys?

The Doctor replied, with animation, that they did have six feet oxen, which would kill any Durhams in the State.

Mr. Coburn resumed, denying that Durham cattle required great feed to keep them in condition. The speakers against them had summed up their quality, in a sarcastic manner, as great junks of beef, just as if it was something against the breed. He thought it was a valuable quality for the market, of Maine cattle. He challenged comparison for the Durhams with any other breeds on the field. In speaking of Jerseys, he said that those we have here are a degenerate race. In Canada the race reached its highest state. He believed they had cows there which weighed two or three hundred pounds apiece, and they actually had Jersey oxen! He acknowledged that the Jersey milk was rich. A man came to him once, and said he wanted a cow which gave good milk; he didn't care about the quantity; he only wanted enough for himself and wife. He advised him, without hesitation, to get a Jersey cow! (Laughter.) He declared that the Jerseys were great eaters, and that they were like the pig which ate a pailfull and then was not half a pailfull himself, altogether. (Laughter.)

The remarks of Mr. Coburn were directed to Dr. Holmes, who is a staunch defender of the Jerseys, and they created a good deal of merriment.

Mr. Abner Toothaker, of Rangeley, thought that any herd should be improved by saving the best, which was as necessary as in seed corn or grain.

LOCAL EXHIBITIONS IN MAINE.

East Washington county society, at Pembroke, September 27-28; oration by Rev. Mr. Philbrook, of Calais, on "dignity of labor." North Franklin county society, at Strong, September 28-29. West Washington county society, first exhibition, at Columbia, September 29. North Aroostook county society, the most northern society of the kind in the United States, held its second annual exhibition at Presqu' Isle, October 5-6, where there was a fine display of cattle, horses, farm products, and manufactured articles, raised or made just beneath the forty-seventh parallel of north latitude. North Penobscot county society, at Lincoln, October 5-6. Franklin county society—organized 1841—at its valuable grounds near Farmington, October 5-7. Oxford county society, October 7; a successful exhibition, superior to that of any previous year, both in the display of animals and articles, and in the number of people in attendance. Kennebec county society—organized 1818—at Readfield, October 11-13. Sagadahoc county society, at Topsham, October 11-13. Lincoln county society, at Union, October 18-20. Pittston fair, at

Pittston, October 18. Waldo county society, at Belfast; a meagre exhibition, owing to want of grounds. Cumberland county society, at Gorham, October 20-21. Androscoggin county society, at Lewiston; the most successful ever held. Somerset county society, at Bingham, October 20-23.

MARYLAND.

The State Agricultural Society held its twelfth annual exhibition at Frederick city, October 25-28. The grounds, which contain about ten acres, are those used during the Revolution as a military post; and the substantial stone barracks were ample for all the uses of the society. Around the fences were stalls, a majority of which had doors with locks—and the accommodations for cattle were excellent. In the middle of the grounds a very fine course was laid off for the exercise and trials of speed of the horses entered for competition. A durable fence enclosed the ring, and care had been taken for the prevention of accidents. In order that the numerous contests and trials of speed between the horses might be the better witnessed, a large number of seats were erected on both sides of the judges' stand. The highest premiums for the best cattle and horses were \$20; sheep, \$8; swine, \$6—total amount of premiums paid, \$1,946. The gate receipts were \$2,287 21; and the exhibition was self-sustaining, giving ample assurance that when the State shall act with proper liberality in aiding the advancement of agriculture, the Maryland society will at once be placed on a prosperous footing. Too much praise cannot be awarded to President Merryman, who accepted office when the society was embarrassed, and who has done so much to re-organize its affairs.

The display of horses was the finest which has ever taken place at any Maryland exhibition. The Cleaveland bay and Black Hawk breeds predominated, and some of the animals on exhibition exhibited all the excellent points of their celebrated progenitors. Among the horses exhibited was an imported stallion, Symmetry, Cleaveland bay, imported by Dr. John R. Woods, of Albemarle county, Va., which arrived in this country about five weeks previous. He is a most beautiful animal, perfect in limb and carriage, and was purchased in England, by Sanford Howard, of the *Boston Cultivator*, on order of Dr. Woods, at a cost of \$2,500. The display of cattle was very fair, including the Herefords of Mr. Merryman and the Devons of Mr. McHenry which took the first premiums at the U. S. Exhibition at Chicago. Mr. Bowie's Devons were considered the best on the ground by the judges, and there were Alder-

neys, Durhams, grade, and native cattle of a high order of merit. The show of sheep and swine was very good, and some very choice ones in each of these classes. The implement show was a very good one—not as extensive as at some former shows, but of excellent quality. The other departments were very fairly represented, the farm and garden products being especially good.

On the afternoon of the third day, an address was delivered by the Rev. John G. Morris, D. D., on “The Connection between Agriculture and Natural History.” The learned researches of Dr. Morris in natural history, and his devotedness to agricultural interests, eminently fitted him for such an address. It is needless to add that it was an able effort, and was well received.

Upon the conclusion of the Doctor’s address, the list of awards and premiums was read, after which Mr. Merryman announced the close of the fair, in a few pertinent remarks. He said, that in closing the exercises, he thought it his duty to express his sincere thanks to the numerous friends of the Society, “the ladies (God bless them) in particular.” He thought the warmest thanks of every one connected with the Society, was due the ladies for the great interest they took, not only in coming to the fair, but in making and depositing articles to compete for prizes. He had been to many Agricultural fairs, had been connected with many, but had never known or seen such a Household Department as the ladies had gotten up and sustained at the present fair.

Much of the preceding account of the Maryland exhibition is taken from the *Rural Register*, edited by Samuel Sands, Esq., the efficient and experienced Secretary of the Maryland Society.

LOCAL EXHIBITIONS IN MARYLAND.

Montgomery county society, at Rockville, September 8; Joseph H. Bradley, of Washington, D. C., orator. Washington county society, at Hagerstown, October 18-20. Charles county society, at Port Tobacco, November 15-16.

MASSACHUSETTS.

The State Board of Agriculture—organized April 21, 1852—held no exhibition; neither did the Massachusetts Society for Promoting Agriculture—organized in 1792. The county and other local exhibitions were well attended, and, generally speaking, very excellent.

LOCAL EXHIBITIONS IN MASSACHUSETTS.

Bristol county society, at Taunton, September 14-15; remarks at dinner by Leander Witherill, Judge Marston, and others. High-

land exhibition, at Middlefield, September 14–15. Middlesex county South society, at Framingham, September 20–21; 221 entries of stock, and 654 of produce and manufactures; address by Governor N. P. Banks, on “Industrial Exhibitions.” Middlesex county North society, at Lowell, September 21; address by Ex-Governor George S. Boutwell, on “The Necessities and Duties of the Great Profession of Agriculture.” Green Mountain exhibition, at Worthington, September 21. Hampden county society, at Springfield, September 21–22; a humorous poem was delivered by Dr. J. G. Holland, who said:

“The pigs are here—that *litterary* brood,
So much contemned, so little understood—
The pigs, that like our literary men,
Sleep in the *straw*, and live upon the *pen*—
The pigs, that through all time perpetuate
That wondrous thing that purchased man his mate,
And pays us for the ruin wrought by Madam,
With the old *spare-rib* sacrificed by Adam!”

East Franklin exhibition, at Montague, September 28; Professor Ward, of Bernardstown, orator. Worcester county, West society, at Barre, September 27. Norfolk county society, (organized in 1849, under the auspices of Hon. Marshall P. Wilder, who has been annually re-elected President,) at Dedham, September 27–28; a highly successful exhibition, comprising drawing, plowing and spading matches, with a banquet, at which nearly a thousand persons listened to addresses from President Wilder, George B. Emerson, Esq., and Rev. A. L. Stone—an abstract of the last named gentleman's remarks are appended. Franklin county society, at Greenfield, September 27–28. Middlesex county society, organized in 1794, held its *sixty-fifth* annual exhibition on its fine grounds near Concord, September 28; Rev. Mr. Stebbins, of Woburn, orator. Worcester county South society, at Sturbridge, September 28. Hampshire, Franklin, and Hampden counties society, at Northampton, September 28–29. Essex county society, (organized and chartered in 1818 under the auspices of Timothy Pickering,) at Danvers, September 28–29—the plowing match was warmly contested by twenty teams; the address was by J. J. H. Gregory, Esq., of Marblehead, whose subject was “Observation and experiment on the part of the agriculturist with reference to the elevation of his nature and the improvement of his calling;” there were addresses at a banquet, by Richard S. Fay, Esq., Hon John B. Alley, M. C., and others. Hingham exhibition, at Hingham, September 28–29; addresses at a banquet—the school children were treated to a ride

on a wagon, decorated with evergreens, and drawn by thirty-one yokes of splendid cattle. Housatonic county, at Great Barrington, September 28-29. Worcester county society, (the parent institution, from which four others have been formed in that county,) held its forty-first annual exhibition at its grounds, near Worcester, September 28-29—the display of cattle was very fine, and a lively interest was excited by the plowing and drawing matches; an address was delivered by the Hon. Josiah Quincy, Jr, of Boston, on “Material Fertilization, and how it may be obtained”—Hon. John Brooks, of Princeton, after a brief speech complimentary to that gentleman, moved that C. L. Flint, Esq., the able Secretary of the State Board of Agriculture, be elected an honorary member of the society, which was carried with applause, and Mr. Flint handsomely acknowledged the compliment. Worcester county, North society, at Fitchburg, September 29-30; Ex-governor George S. Boutwell, orator; on the morning of the first day of the exhibition, a cavalcade of citizens, with a band, met and escorted to the grounds a procession of yoked working oxen, half a mile in length, formed of “town teams,” one town sending forty-five yoke. Mountain Farmers’ Club Exhibition, at Plainfield, October 4. Plymouth county society, organized 1819, at its fair grounds, near Bridgewater, (which cost with the buildings \$17,500,) October 5-6. Barnstable county society, at its grounds near Barnstable, October 5-6—an abstract of the address by Dr. George B. Loring, of Salem, is appended; remarks were made at the banquet by President Phinney, Hon. Marshall P. Wilder, William Sturgis, Dr. Loring, C. L. Flint, Professor Clark, Major Rogers, J. B. D. Cogswell of Milwaukee, and Judge Marston, who announced that Hon. William Sturgis of Boston, had presented to the Barnstable society his check for \$1,200. Berkshire county society, its forty-ninth annual exhibition, at Pittsfield, October 5-7. Hoosic valley society, near North Adams, October 5-6; address by Professor Tatlock, of Williams’ college. Eastern Hampshire society, at Ware, October 6; address by W. S. B. Hopkins, Esq., of Ware. Essex North, Horti-agricultural exhibition, at Newburyport, October 11; address by Gorham P. Sergeant, Esq., of Byfield. Martha’s Vinyard society, at West Tisbury, October 11-12. Nantucket county society, at Nantucket, October 12-13. Hampshire county society, tenth annual exhibition, at Amherst, October, 12-13; address by Dr. Winship, of Roxbury, who claimed to be the strongest man of the times, and displayed his strength by lifting eight casks of nails, weighing 800 pounds,

and other feats; at a subsequent banquet, Dr. Hitchcock, of Amherst college, made some remarks, in which he alluded to the orator and to a gymnasium just founded there, saying during his life he had been engaged in three gymnasia, viz: "The agricultural, the chemical and the geological;" of these he considered the first by far the most important, and some times almost wished himself again on the farm, handling the rake and axe.

ABSTRACT OF REMARKS BY REV. A. L. STONE.

Mr. Stone, after having been introduced to the ladies and gentlemen seated at the long tables in the society's hall, said, in substance: It is a pleasant surprise to me to find the agricultural interest represented by so many of the gentle and more domestic sex. And yet their presence on such an occasion I believe to be in every respect legitimate and wholesome, for their proper connection with this interest is intimate and vital. The original description or definition of a wife is that she is an helpmeet for man. Just in what way, or in what variety of ways, this fitting help is to be rendered, that original document does not set forth. The practical answer exhibits diversities so varied as never to repeat themselves. Sometimes this sphere of helpful fellowship is very much restricted, and again almost indefinitely broadened. The wife of the German farmer limits this sphere only with the boundaries of his estate. Her nursery is out of doors in the open field. Its canopy is the leafy shade; its carpet, the green turf or the soft brown mold. There her little ones roll and tumble and sleep all day, while she keeps even stroke with her husband in the day's toil. On a day's ride in the diligence through a pleasant portion of Bavaria, I amused myself by jotting down the occupation of a dozen or so of ladies, as I met them in succession. The first two were equipped with the deep, heavy-bladed, short-handled, unwieldy hoes of the country, and were hoeing potatoes on a hillside; the third was plodding along on the road barefooted, bare armed, &c., with a burden on her head that would have broken the back of a moderate-sized mule; the fourth and fifth were swinging scythes with the regular action of the practiced farmer, one of them leading the procession and keeping well ahead. Of the succeeding three, one was raking hay, one was pitching, and one sat on the top of a load, loading, while the only man of the group was driving the oxen. The next four were attendants upon house-masons, and were carrying bricks and mortar on their heads up tall ladders, with an ease of step and balance that argued them experts at their trade. I have seen women in that same country holding a plow, and in some instances assisting a dumb ally—I mean a four-legged one—to draw the same agricultural implement.

I suppose that some of us should not exactly covet this style of female co-operation, even in the stress of harvest season. But the question occurred to me then, and has again occurred to me here, whether there were not some sort of co-operation the wives and

daughters of our farmers could render their lords in that calling, and if so, what? Now, I take it, it is the desire of every true wife to have at least an intelligent sympathy with her husband's calling. There is here and there, perhaps, one sustaining the relation of a wife, to whom it is enough to share her husband's revenue, leaving out his cares and toils as trifles not worthy her regard. There may be here and there a husband whose ambition is to keep his more delicate half in blissful ignorance of all his out-of-door work, whether plowing or financiering. But I suppose the old-fashioned and better notion is that of reciprocal sympathy between these fellow-pilgrims.

I never would marry a couple, if I knew it, who had any other idea of the tie, no matter what the fee might be. And perhaps I may be permitted to add, that with right views on this point, I am ready to join any number of couples together, with a trifling pecuniary proviso.

But if the sympathy of which I have spoken be an intelligent sympathy, it should take some pains to be informed. I believe that an agricultural literature, and we may say with just exultation that we have now an agricultural literature, is quite as healthful and stimulating a literature in the drawing-room as that which deals in fashion-plates and love-sick heroines. I don't think it would be unwomanly, in short, for the wives and daughters of our farmers to be able to converse wisely and wittily upon agricultural topics, with their husbands and fathers, or with gentleman visitors. Such a conversation might easily vindicate itself in contrast with the vapid frivolities making so much of the staple of drawing-room chat.

It would do no harm, either, for these ladies to have a general familiarity with the out-of-door pursuits of those to whom they are thus allied, even if that were gained by an occasional walk afield, instead of a shopping excursion.

A visit now and then to the stable and the farm-yard might save the fair explorer from such a blunder as happened once to a metropolitan friend of mine, of the same sex. Being in the country, and smitten deeply with rural tastes, it occurred to her one morning that it would be quite romantic to play milkmaid. So she took a pail and went forth, but not meeting with any great success in the operation, it was discovered that she had made a slight mistake in regard to the sex of the animal she waited upon.

But let the ladies of our agricultural homes make those homes centres of intelligence, culture and refinement; let them feel and show a just and generous pride in the calling to which they are thus allied, and a disposition and an ability to vindicate its true honor, as compared with any other; let them give their rejoicing and sympathetic presence on such occasions as this; let the younger rank of these ladies place their delicate, soft hands, for life, as readily in the large, brown hand of the practical farmer as in the soft and whiter palm of a merchant's clerk or a professional aspirant.

The speaker said he could not look upon the farmer without regarding him as a heroic wrestler with nature. With him every

season was a campaign, and every harvest a victory; and may God crown you all with a blessing, as you are already crowned with honors.

ABSTRACT OF ADDRESS BY DR. GEORGE B. LORING.

In commencing, Dr. Loring briefly reviewed the dawn of agriculture in New England, and said he could not sufficiently admire the tenacity with which the sons of the early farmers had adhered to those acres, toiling on the land with temptations of the sea all about them, and the stronger temptations of more fertile soils continually beckoning them away. In passing, he paid a fitting compliment to the thrift and intelligence of the people of the Cape. In speaking in general terms upon the subject of agriculture, he said it was education alone which could make the farming of New England what it should be. Nothing else would so conduce to the thrift and independence of our farmers. Only intelligent labor could be truly profitable. The most intelligent men, other things being equal, could plow the straightest furrow, raise the best crops, select the best cow, drive the slickest team, and accomplish the most work in the easiest way. The excellence which the art of agriculture in England had attained, was attributable to the science and intelligence which had ruled the mass of laborers. The same intelligence was needed by the small farmers of New England to render their efforts successful. The business of farming in this country rested in the hands of the people, and it was for them to say whether it should be well done or ill. The speaker drew a forcible comparison between the labors of the foreign tenantry and of our independent yeomanry, and spoke of our inducements to labor and to develop the art of agriculture. There was no reason why there should be better farmers in Europe than in our own country. The soil and climate of New England gave a bounteous response to well regulated industry. The products of our soil were in proportion to our skill and industry in cultivation. The drainage and manuring, judiciously applied, returned a hundred fold on the investment. Dr. Loring enlarged with force upon the importance of the cultivation of the mind of the farmer. A cultivated mind created its own opportunity; was watchful of every passing hour, ingenious in making a moment of leisure for its own purposes. No laborious occupation properly demanded more mental culture than farming, and none furnished better opportunities of attaining it. The importance of cultivating a taste for reading was also dwelt upon at considerable length. Books were friends which never failed. No life beside the farmers offered such advantages for indulging in communion with books. Agricultural literature formed a most important chapter in the history of the world. Could English literature be deprived of the efforts of those who wrote upon agriculture, it would lose one of its chiefest charms. Follow your own Coleman in his enthusiastic researches, and you might live in all the freshness of glowing country. The last State report on agriculture introduced you to the rural homes of a happy people,

whose hills and valleys are alive with growing crops, and with flocks and herds; and when you had faithfully toiled through the last leader of your favorite editor upon the great doctrine of popular sovereignty, or upon our foreign relations, or have supped full of horrors upon murders and robberies, or have been lashed into indignation at some newspaper abuse of your best friend, lay this all aside, and take up your last agricultural journal. Do you not fill at once with an indescribable satisfaction that you have kept the good wine until now?

Farmers should remember, continued the speaker, that through mental cultivation they had arrived at their modern improvements in agriculture; and these afforded the necessaries of life at moderate prices. In order to maintain our social and civil organization, we must furnish the producing classes with the most economical mode of working and living. Perhaps we shall never cultivate the soil better than did the Egyptians, or Saracens, or Romans, or than now do the Chinese; but we must do it with less demand upon human time and strength, by the use of labor-saving machinery. Improved machinery was the result of free institutions.

The speaker recommended the establishment of agricultural schools. Such schools had brought the agriculture of France to a high degree of perfection. He said we want the rudiments of agriculture taught in our schools, and asked if it would not be as useful as algebra, or a smattering of metaphysics. He said we wanted a greater number of competent editors for our agricultural journals, well educated and competent judges and committees, agricultural colleges and model farms—not farms cultivated by little wanton boys, as a punishment for unruly conduct, and where no definite and systematic mode of cultivation can possibly be adopted, but farms where young men will learn the theory and practice of cultivating the earth under the instruction of well qualified teachers.

Dr. Loring closed by expressing his admiration of the New England farmers, and by advising their sons to remain at home, in the peaceful and happy pursuits of their fathers.

MICHIGAN.

The State Agricultural Society—organized March 23, 1849—held its exhibition where it has been located since 1850, at Detroit, October 4–7. The weather was propitious until the last day, and all the arrangements were of a most liberal and extensive character, owing to the exertions of the able and indefatigable Secretary of the Society, R. F. Johnston, Esq. The entries exceeded those of any previous year, both in number and quality, the fair being open for the first time to competition from all States, the *State of Canada* included. The premium list was over \$3,000, judiciously divided.

The display of cattle, (we quote from a correspondent of the *Country Gentleman*,) was very creditable, especially the short-horns, in which class Michigan took the lead, although the contest was

a sharp one; the breeders of this State have been paying much attention lately to first class animals. The horses on exhibition comprised the best stock at the West; a trotting match came off between "Magna Charta," the famous competitor of "Ike Cook," at the National Fair at Chicago, and two other horses, who were soon distanced, the former making his mile in 2.47. The sheep, swine, and poultry, made a good appearance, and there was also some choice fancy stock. One Cochin China was so enormous, that he was said to be entered in the class "for all work."

The leading attraction of the fair was Waters' steam plow, which moved about the grounds to the great delight of the spectators. There were no plows attached to it on this occasion, but it is stated that the inventor has already engaged to plow over ten thousand acres with it in Illinois next spring. Day's shingle machine, and Daines' drain tile-maker attracted much attention. The displays of fruit, flowers, and produce was good.

On the third day, Governor Banks, of Massachusetts, accompanied by Senators Bingham and Chandler, was escorted to the grounds by the military and fire companies, where he made an eloquent and instructive address to the vast crowd which thronged the place.

LOCAL EXHIBITIONS IN MICHIGAN.

Kalamazoo county society, fourteenth annual exhibition, at Kalamazoo, September 21-23; address by Gen. F. W. Curtenius, President of the Society. Northern Lenawee county society, at Tecumseh, September 21-22. Eaton county society, at Charlotte, September 26-28. Berrin county society, at Niles, September 27-29. Allegan county society, at Allegan, September 28-29. Genesee county society, at Flint, September 28-29. Jackson county society, at Jackson, September 28-30. Kent county society, at Grand Rapids, September 28-30. St. Joseph county society, at Centreville, September 28-30. Ionia county society, at Ionia, September 29-30. Van Buren county society, at Paw-Paw, September 29-October 1. Lenawee county society, at Adrian, October 5-6. Macomb county society, at Utica, October 10-12. Washtenaw county society, at Ann Arbor, October 11-13. Hillsdale county society, at Hillsdale, October 12-13. Oakland county society, at Pontiac, October 12-13. Lapeer county society, at Lapeer, October 18-20.

MINNESOTA.

There is a State Agricultural Society in Minnesota, organized in 1854, but no advices have been received of any exhibition held by it during the year 1859.

LOCAL EXHIBITIONS IN MINNESOTA.

Scott and Carver county society, at Shicopec, September 28-29.
Hennepin county society, at Minneapolis, October 5-7. Wabashaw
county society, at Wabashaw, October 13-14.

MISSISSIPPI.

The State Agricultural Bureau held its exhibition at the grounds near the city of Jackson, November 7-12, as fixed by the constitution. The grounds had been put in complete order, and an amphitheatre with seats, a large exhibition hall, and a machine hall had been erected. Mr. Rham, (who gained the grand gold medal of honor at the National Exhibition of 1858,) brought from Richmond a steam-engine, with saw-mill attached, and was prepared to run all machinery brought on the ground. The premium list was a liberal one, with an entrance fee of ten per cent. of the premium to persons not members of a county agricultural society in the State, and five per cent. to persons producing satisfactory evidence of such membership. No account of the exhibition has been received, except that an account of the operations of the Board was given by the President, Colonel T. J. Hudson, and an address was delivered by Hon. A. M. West.

LOCAL EXHIBITIONS IN MISSISSIPPI.

Munroe county society, at Aberdeen, October 18-20. Marshall
county society, at Holly Springs, October 25-29.

MISSOURI.

The fourth annual exhibition of the St. Louis Agricultural and Mechanical Association was held at its grounds, September 26-October 1. A partial description of these unequalled grounds is given on page 61 of this volume. The amphitheatre is 305 feet in diameter, and is capable of accommodating thirty-six thousand spectators, (one-third of them seated,) around an area having a diameter of 225 feet, with a pagoda 45 feet high in the centre. A new building was erected for the display of textile fabrics at the exhibition of '59, with an additional range of stalls, and many other improvements. The premium list was, as usual, large, and well calculated to attract a large concourse of exhibitors and of spectators. Two premiums of \$1,000 each were offered for the best horse and for the best bull. Heavy rains interfered with the pecuniary success of the exhibition, but the receipts more than defrayed the expenses. On Wednesday, it was estimated that there were 65,000 on the grounds.

The display of cattle was large and excellent, comprising many

of the herds which had been exhibited at the National Exhibition at Chicago, and the most noted horses of the country were present, including *Lexington*, the veteran monarch of the turf. The other departments of the exhibition were well filled, and the excellent arrangements of President Barretts were promptly carried out, when the weather permitted.

LOCAL EXHIBITIONS IN MISSOURI.

Randolph county society, at Huntsville, August 31–September 3. Clinton county society, at Plattsburg, September 13–15. Lewis, Knox, and Shelby counties, Union exhibition, at Newark, September 13–17. Southwestern society, third annual exhibition, at Bowling Green, September 20–24. Boone county society, at Columbia, September 27–30. Central exhibition, at Booneville, October 3–8. Lawrence county society, at ——— October 4–7. Moniteau county society, at Tipton, October 10–13. Green county society, at Springfield, October 11–14. Adams county society, at Quincy, October 12–14.

NEBRASKA.

A territorial exhibition was held at Nebraska city, October 21–23, and was “called a success by the Territorial papers.” Local exhibitions were held by the Cass county and by the Otoe county societies.

NEW HAMPSHIRE.

The State Society held its tenth annual exhibition at Dover, October 5–7. This society was organized at Manchester in the winter of 1848–49 by a few gentlemen, among them Hon. Frederick Smyth, (since so prominently connected with the United States Society,) who has continued to take an active interest in its welfare, and has been for some years its Treasurer. There was at that time but one county society in the State, but since then, although numerous local organizations have grown into vigorous institutions, the State Society has gradually increased in its hold upon the estimation of the public, and its exhibitions have become public festivals. They not only stimulate the yeomen and mechanics in different sections of the Granite State to healthy competition with their neighbors, by showing them what improvements are being made in stock, produce, implements, and manufactured articles, but they gather together the scattered members of the State family, to unite with those at home in a holiday circle. In no section of the Union are exhibitions more systematically planned, or more promptly and efficiently conducted, than are those of the New Hampshire State Society.

The President for 1859 was William F. Estes; the Secretary, Aaron Young; the General Superintendent, Captain S. Hanson, and the Chief Marshal, Col. George H. Peirce.

The grounds, about thirty acres in extent, were within the city limits, and were well fitted up, and supplied with water and other conveniences. There was a track one-third of a mile around, within which was the plowing match. Large tents were erected for the exhibition of produce, fruit, flowers, and manufactured articles, and in a building for the business offices of the society, there was an abundant supply of refreshments for committees, and for members of the press. The premium-list was liberal. Private purses of \$100, \$50, and \$25 were offered for the best trotting stallions. The highest regular premiums for horses was \$30, for oxen \$15, for sheep \$12, for mowing machines \$15, for ladies' driving \$10, ladies' riding \$6. The receipts were about \$6,000.

There was a fine show of cattle, the Durhams taking the lead. A yoke of grade Durham working oxen, six years old, each, girthed nine feet and six inches, and their joint weight was 6,500 pounds; a grade Durham steer, five years old, girthed nine feet, and weighed 4,000 pounds. There were eighty-five yoke of working oxen, all grade Durhams or Devons, and a team of twenty yoke from Rockingham county merited high praise. There were about forty sheep, including some of the New Oxfordshire, which resemble a grade of Spanish Merino. The show of horses was good, and there were several exciting "trials of speed," especially when the ladies competed. The dames went off very well at first, but soon engaged in a reckless scrub race, which ended in a general smash-up, in which one driver was thrown under the horses' feet.

The address was delivered by Hon. Jacob Collamer from the stand. It was a most uncomfortable position, and the roaring of the wind, the general commotion and discomfort would have disheartened the most sanguine and eloquent orator in the world; but notwithstanding, at least 5,000 persons listened out of the 12,000 on the ground. He considered the objections to farming in New England, and showed conclusively that neither the soil or the climate were such as to warrant an exodus of agriculturists to the west. It was an instructive and eloquent address, as were other briefer ones, delivered at the "farmer's talks" held in the evenings.

LOCAL EXHIBITION IN NEW HAMPSHIRE.

The Connecticut River Valley association, located at grounds of the Sullivan county society, Charlestown, September 20-22, would

have had a fine exhibition, had the rain not poured down in torrents throughout the three days—the managers nevertheless awarded and paid all their premiums; Dr. George B. Loring, of Massachusetts, orator. Hillsborough county society had intended to hold two exhibitions, one at Weare, September 22–23, the other at Milford, September 29–30; owing to the weather they were postponed, and held at Milford, October 4–5. Cheshire county society, at its spacious grounds near Keene, September 27–28. Belknap county society, at Laconia, September 28–29. Merrimack county society; first annual exhibition at grounds near Concord, where the State Exhibition was held in 1857, September 28–30; President, Walter Harriman, orator. Merrimac river association, second annual exhibition at Nashua, October 12–13, on grounds recently fitted up; brief addresses were made by Hon. Frederick Smyth, (of the United States and the State Agricultural Societies,) Governor Goodwin and Ex-President Peirce, the latter congratulating the farmers on the success of their exhibition, which gave so pleasant a holiday; in his opinion the American people have not holidays enough, and he regarded these exhibitions as productive of great good in bringing people together, and in encouraging them to open their hearts to each other.

NEW JERSEY.

The State Agricultural Society held its fifth annual exhibition at the city of Elizabeth, September 13–16. The premium list was liberal, ranging down from \$15 for best cattle and horses, \$10 for best sheep and swine, and \$5 for best fruit; an entrance fee of \$5 was required for every single horse or pair of matched horses, but those which actually competed for premiums had \$4 refunded. The regulations were excellent, adding to the reputation of W. M. Force, Esq., the Secretary of the Society, who had the management of the exhibition. The society has entirely recovered from the disastrous effects of the third annual fair, which left it \$1,500 in debt, and it is doing much good by securing and disseminating information.

The number of entries were: cattle 109, horses and mules 177, sheep, swine, and poultry 96, farm and home products 207, home made and factory articles 63, mechanical department 407—total 1,059. The display of horses was excellent, embracing some of noted races, and there were some fine cattle, imported and native, among them Mr. Van Sickle's cow Rose, who gave from June 1st

to June 10th, forty-eight pounds of milk a day, which yielded altogether 21 lbs. 10 oz. of butter. The same gentleman exhibited a pair of two year old matched steers, broke to drive in yoke and single and double harness; they were each marked with a white stripe about a yard in width around the waist, while the fore part, rump and legs were red.

There was a fine display of fruit, although the crop of peaches had been nearly cut off. The weather was pleasant, and thousands of people turned out in their holiday attire to view the fine native and blooded cattle, the fancy, serviceable and fast horses, the fat pigs, mammoth sheep, the great and small vegetables, luscious fruits, beautiful flowers, and hundreds of other useful and ornamental articles which go to make up such exhibitions.

LOCAL EXHIBITIONS IN NEW JERSEY.

Cumberland county society, at Bridgeton, September 28. Somerset county society, at Somerville, October 4-7. Warren county society, at Belvidere, October 11-14. Salem county society, at Salem. Newark county society, at Newark.

NEW YORK.

The State Society held its nineteenth annual exhibition near Albany, October 4-7. A historical sketch of this society, by its experienced and respected secretary, Hon. B. P. Johnson, was published in the "*Journal of the United States Agricultural Society*," for 1853-4; and its subsequent operations show an equal success. In a report made last year to the General Government, Mr. Johnson said: "The advancement made in this State, since the establishment of public exhibitions by this society, in 1841, is most encouraging. In every department of our agriculture there has been improvement—that of cattle, horses, sheep, swine, and poultry being most marked; and we can now favorably compare with any part of the world. Our wealth has thus been greatly increased. In implements and machinery of agriculture, we have progressed in a most gratifying manner. Many visitors at our fairs remarked that, had the society done nothing else than to secure the improvement in implements on exhibition, the State would have been amply compensated for all the outlay which had been made to promote agriculture." The exhibition of 1859 was even an improvement on its predecessors, and high praise was officially awarded to President Conger for his exertions in promoting its success. Sanford Howard, Esq., editor of the *Boston Cultivator*, said of it: "It has been the fortune of the writer to attend most of the shows of this society for

the past fifteen years, and also to attend similar exhibitions in many parts of the country. Comparing this with any other display of the society, or any other association in America, we have no hesitation in saying that it exceeds all we have attended. It may be that some parts of other exhibitions have been equal or superior to the same parts of this; but on a general comparison, we presume this is unequalled."

The officers of the New York State Society can say, with just pride, that their exhibitions have been strictly confined to the legitimate objects of its charter, "*To improve the condition of Agriculture, Horticulture, and the Household Arts.*" "With fine weather," said Mr. Tucker, of the *Country Gentleman*, "it has been shown that the public interest in a purely agricultural exhibition manifests a gratifying increase. The past week saw no 'trials of speed.' The society, having never had recourse to a horse mania, or to any side issues to attract attention to her shows, stands forth to represent the rural interests of the State. For the farm, she points to implements and modes of culture; for the stock-yard, to improvements in domestic animals *of all races*; for the garden, to all that is useful and ornamental in fruits and flowers and vegetables; for the dairy, the housewife, the mechanic and the manufacturer, to whatever, by promoting their several ends, may tend to increase the general prosperity and comfort. All these several objects are objects of permanent utility and interest. Balloon ascensions, trotting matches, and catch-penny 'elephants,' of every kind, may 'draw' during their day. It is no more than the experience of the past nine years has abundantly taught us, that every body instituted for the promotion of agriculture should avoid descending to other and lower ways of gaining a temporary popularity." By way of endorsement to this assertion, Secretary Johnson informs us that the number of entries was three thousand five hundred and fifty-one, and that the receipts were \$18,111 33.

The grounds, which were about two miles north of Albany, were about forty acres in extent, *thoroughly under-drained*, and fitted up with all requisite buildings and accommodations for exhibitors and the public. "The arrangements," said Secretary Johnson in his *Journal*, "were more complete and convenient than on any former occasion; and the location of the grounds was such that the executive committee were enabled to carry out what they have long desired. The plan upon which the erections were made, prepared by a committee selected for the purpose, and adopted by the board,

gave to the exhibitors in every department a fair opportunity of conveniently exhibiting their articles, and of securing an examination by those in attendance. Instead of being scattered over the entire area, the buildings were arranged on the sides of an open area of one hundred and fifty feet in width—passing through the entire ground; and the public were at liberty to examine the articles without traversing the whole enclosure. The cattle, arranged in their order by themselves, in comfortable stalls; the horses in a convenient portion of the grounds, separate from the rest of the exhibition, in stalls, enabled the officers to carry out what had long been desired—a control over the exhibition in this department. Sheep, swine and poultry were also conveniently arranged—and, taken as a whole, we have never seen a show ground so conveniently arranged for exhibitors and visitors. The sketch which we have given of it will convey to the reader the advantages it possessed. The erections were well adapted to the purposes of the society, and did great credit to the local committee and the builder. Many were fearful that the erections would not be filled; but the day previous to the opening required an additional building, and a large number of stalls for cattle and horses. The first day of the fair gave unmistakable evidence that this was to be *the great* fair of the society; and in the number of entries, in the quality of the stock, implements, machinery, domestic goods, new inventions, fruits, and flowers, it may with safety be said that it has not had its equal in this State, if it has in the Union.

“This year, as the last, the society had the pleasure of exhibiting to the public the gratifying advance which had been made by the society. The number of exhibitors exceeds any previous year. The exhibitors in the leading departments are not confined to a few individuals, but are widely dispersed throughout the State—the society thus accomplishing what has steadily been its object, the diffusion of its improvements throughout the State. All the officers of the society, with one exception, were present during the fair, and were fully employed, from its commencement to its close, in the discharge of their duties.”

The well-arranged programme was punctually and efficiently carried out by Major M. R. Patrick, the general superintendent; and the procession of prize animals, exhibited under his direction on Friday, is said to have been the finest ever witnessed on the American continent. “The horses, of course, were fine, and the cattle, embracing all the foreign breeds of Short Horns, Devons,

Ayrshires, Herefords, Alderneys and grade animals, attracted universal attention," even eliciting the admiration of gentlemen from the famous stock-growing regions of the west. Not only the adjacent States, but the British Provinces, contributed to this UNEQUALLED EXHIBITION OF '59!

The annual address, by Hon. John A. Dix, was thus briefly noticed in the *Country Gentleman*: "The speaker, after alluding to the fact that twelve years ago he had read before the society the last words written by Silas Wright, proceeded to the discussion of his subject—the same on which Governor Wright had written, and one which has, moreover, during the interval, grown into still greater importance—viz: the value to the farmers of this country of their foreign grain and provision markets. We have not room to give any outline of the remarks which followed; their main purpose was to show that our foreign exports of farm products are increasing and must continue to increase; to direct inquiry as to whether we possess the means of supplying the promised foreign demand, and if not, how our means of production are to be enlarged; to point to our wastefulness of natural fertility and common disregard of fertilizers; and, finally, to the great agricultural advantages we really have, if we only rightly use them. General D.'s conclusions will be read with interest when the address appears in the society's transactions, to which it will be a valuable contribution."

The evening meetings held at the rooms of the society, at Albany, constituted, as usual, an important feature of the exhibition. We extract from the *Country Gentleman* the

DISCUSSION ON SOILING CATTLE.

Hon. Josiah Quincy, of Massachusetts, said that, in connection with the subject of soiling, one of the first questions asked is, how much land does it require to keep a cow? I have learned that one square rod of grass, barley, oats, or corn, is sufficient for the food of a cow a single day. The best fodder for the purpose of soiling is grass, oats, Indian corn and barley. My system is this: I use grass until July; about the 5th of April, oats are planted at the rate of four bushels per acre; they are also planted on the 20th of April and the 1st of May. This lasts through July and August; and corn so planted will remain succulent for about ten days. The southern variety of corn is then sown in drills, in the quantity of three bushels the acre, which furnishes food for September and October. Barley is then planted ten days apart, which lasts till vegetables come on. In winter the feed consisted of hay, cotton seed meal, and roots. [Mr. Quincy here spoke of the advantages arising from this system, which he alluded to in his remarks the previous evening, and continued.] The great increase in the soiling

system is as seven to one; that where only one cow was kept without this practice, seven can be kept by it; and I have demonstrated that one acre of land, in a good state of cultivation, will afford sufficient food to keep three cows through the season. [Here the gentleman alluded to the manner of using liquid manure, as practiced by Mr. Mechi in England, which consists of a series of pipes in the ground, through which liquid manure is forced by means of steam power—which has before been described in the *Country Gentleman*—and he also spoke of the system of manuring in Scotland, by which their lands have been made to produce from five to seven crops in one year, and further remarked.] It has been well said that there are three important elements or principles which constitute a good farm; the first of these is manure, the second is *manure*, and the third is MANURE! I place but little confidence in patent fertilizers, so great is the adulteration in most kinds, but strongly urge each farmer to raise his own manure upon his own farm. Muck I use as an absorbent, by placing it in a gutter in the stable for my cows—which gutter is eighteen inches wide and four deep. There is a cellar under the stable, into which the manure passes. I am sorry to say that I keep only about twenty cows. In the morning and evening these are let out in the yard, where they remain a few hours, as it is not necessary that they have a great amount of exercise. My cows are perfectly healthy, having never lost an animal; and this system appears to agree perfectly with their health and comfort in every respect. They do not suffer from drouth or loss of pastures. The mowing is usually done in the morning, and the cows are fed five times during the day. I think one man would be employed half of his time in feeding twenty cows, if the fodder was not too remote from the stable. One other advantage of the soiling system was, that it added in importance and numbers to the list of farmers in our country. Mr. Quiney then concluded: The temperature of the ocean is always the same, and has the same influence upon the surrounding atmosphere—so it is with the farmers of America. From their quiet and retired homes, they are the men who in peace or war are ever ready to serve their country when she calls. I have always had for my neighbor a family who has occupied as prominent and honorable a position in American history as any other. One of this family, one hundred years ago, kept a school in Worcester, then considered an inland town. I need not add his name was John Adams. Later in life, I once asked him when he thought the bond was severed between England and this country—if at the signing of the Boston “Port Bill” or the meeting at Independence Hall in Philadelphia? “Oh, no!” he answered, “for when I kept school in Worcester, and heard the FARMERS talk, then I knew that separation must take place.” [Cheers.] And so let it be now; and let the farmers prove, by their love and adherence to the common good of our country, that they have not degenerated, but that the same blood flows in their veins now that warmed the hearts of the farmers of the Revolution. [Cheers.]

Mr. Gedney, of Westchester, said: I draw out my farm manure in spring, and then turn it under for corn, after which wheat is sown with top-dressing of bones. I keep twenty cows, from which I save in one year about one hundred hogsheads of liquid manure, by means of a series of spouts and a large tank, constructed for the purpose. The liquid is pumped from the tank, and sprinkled upon the land as a top dressing. In six months it will increase the product of grass per acre three-fourths. Keep my cows up in stables all summer—i. e., at night.

Mr. Stewart of Hamburg, Erie county, said: For three years I have practiced soiling, and find it a benefit both to land and animals. In the course of my experiments, I have found that one acre cut is equal to four acres in pasturage. The manure that is saved by this system more than pays all the expenses attendant upon it; and the saving in fences would in most localities also pay all expenses. The increase in the value of the animals is also about five fold. I practice feeding cut straw, steamed and mixed with one pint of corn meal to the bushel. This I find makes better feed than an equal amount of timothy. I think one man can care for fifty cows, and milk ten of them in addition, if the feed is close by. By this method I make \$500 per year more than by the old system of pasturage. For feed I use roots till 20th of May, and then cut clover until after haying. Have raised corn, and consider it the best fodder for the purpose, as it comes nearest to grass. I have also found that butter made from it, will keep longer than that made from any other feed. For winter, I mix carrots and oil meal with cut straw, and give three bushels per day to each cow. Food is steamed before it is given out.

Mr. Gedney considered one acre sown with corn in June, equal as food for milch cows to ten acres of rowen. Had found no advantage from using steamed provender.

Mr. Geddes made some interesting statements, in which he said each farmer must adapt his own plans to his own case. If I improve the system of agriculture and the product of my farm, under my own management, that is my aim and end. If you, under a different treatment, become successful, and improve your farm thereby, I am not to point out to you a different mode.

Several others present gave their views, which proved nothing more than that each one has his own opinions in regard to soils and their management, and to manures and their application.

LOCAL EXHIBITIONS IN NEW YORK.

Broome county society, at ———, September 6–8. Saratoga county society, at Saratoga Springs, September 6–8. Washington county society, at Fort Ann, September 7–8. Sandy Creek exhibition, at Washingtonville, September 8–9. Moravia exhibition, September 9. Bainbridge exhibition, September 12–13; B. S. Sill, M. D., orator. Oswego county society, at Mexico, September 13–15. Rensselaer county society, at Greenbush, September 13–16;

Hon. L. Chandler Ball, orator. Smyrna exhibition, September 13-14. Chatauque county society, at Jamestown, September 13-15. Cayuga county society, at Auburn, September 14-16. Delaware county society, at Bloomville, September 14-15. Genesee county society, at Batavia, September 14-15. Schuyler county society, at Watkins, September 14-16. Warren county society, at Luzerne, September 14-16. Perry and Castile exhibition, September 14. Smithville exhibition, September 14-15. Union exhibition at Medina, September 14-16. Queens county society, at Hempstead, September 15. Galen exhibition, at Clyde, September 15. Susquehanna Valley exhibition, at Unadilla, September 15-16. Union exhibition, at Adams, September 15-16. Lebanon exhibition, at Smith Valley, September 16-17. Chenango county society, at Norwich, September 20-22. Cortland county society, at Homer, September 20-22. Dutchess county society, at Washington Hollow, September 20-22. Livingston county society, at Geneseo, September 20-22. Onondaga county society, at Syracuse, September 20-22. Orleans county society, at Albion, September 20-22. Westchester county society, at North Salem, September 20-22. Harpersville exhibition, September 20-21. St. Lawrence international exhibition, at Ogdensburg, September 21-24. Franklin county society, at Malone, September 21-23. Jefferson county society, at Watertown, September 21-22. Lewis county society, at Lowville, September 21-22. Orange county society, at Goshen, September 21-22. Tompkins county society, at Ithica, September 21-23. American Institute exhibition, at New York, September 21-23. Tonawanda Valley exhibition, at Attica, September 21-22. Wayne county society, at Lyons, September 22-23. Essex county society, at Elizabethtown, September 22-23. Byron and Bergen exhibition, at Byron, September 22-23. Hartland exhibition, September 23-24. Fulton and Hamilton county society, at Mayfield Corner, September 27-28. Cattaraugus county society, at Little Valley, September 27-29. Erie county society, at Buffalo, September 27-29. Madison county society, at Morrisville, September 27-29. Oneida county society, at Rome, September 27-29. Putnam county society, at Carmel, September 27-29. Wyoming county society, at Warsaw, September 27-28. Coventry exhibition, September 27-28. Green county society, at Cairo, September 28-29. Monroe county society, at Rochester, September 28-30. Ontario county society, at Canandaigua, September 28-30. Otsego county society, at Cooperstown, September 28-29. Steuben county society, at Bath,

September 28--30. St. Lawrence county society, at Canton, September 28--30. Brookfield exhibition, September 28--29. Canase-raga exhibition, at Dansville, September 28--30. Delaware Union exhibition, at Deposit, September 28. Dryden exhibition, September 28--29. Skaneateles exhibition, September 28. Union exhibition, at Trumansburg, September 28--30. Fredonia exhibition, September 29--30. Oxford exhibition, September 29--30. Queens-bury exhibition, September 29--30. Otselic exhibition, October 5--6. Hammond exhibition, October 6--7. Columbus exhibition, October 11--12. Palmyra exhibition, October 11--13. Seneca county society, at Waterloo, October 12--14. Yates county society, at Penn Yan, October 12--13. Schoharie county society, at Schoharie, October 13--14.

NORTH CAROLINA.

The State Agricultural Society held its seventh annual exhibition at Raleigh, October 18--21; Hon. David Outlaw was announced as the orator, and we regret that no account of the exhibition has been received, as President W. R. Holt has a high reputation as an energetic and successful agriculturist, under whose direction this society cannot fail to prosper.

LOCAL EXHIBITIONS IN NORTH CAROLINA.

Mechlenburg county society, at Charlotte, October 26--29; Hon. D. M. Barringer, orator. Union Society, at Petersburg, Virginia, (in connection with the Virginia State Society,) November 1--4. Cumberland county society, at Fayetteville.

OHIO.

The State Board of Agriculture held the tenth annual State Exhibition at Zanesville, October 20--23. John H. Klippart, Esq., the Secretary of the Board, states that "the location of this exhibition at Zanesville was regarded as a test of the propriety of continuing the migratory system, by those opposed to itineracy. So far as the legitimate objects for which the Board was organized are concerned, the Zanesville Exhibition was perhaps the most successful fair ever held by the Board, and even so far as finances are concerned, it has not left the Board in as embarrassed a condition as some of the previous exhibitions. Were the Ohio State Board of Agriculture a joint stock company whose sole object is to obtain large dividends, the Zanesville Exhibition could not be regarded in any other light than a downright failure; but the object of the Board is the encouragement of agriculture, and the development of the agricultural resources of the State. Every one accustomed to visit exhi-

bitions, present at Zanesville, pronounced it the finest collection of live stock, implements, machinery, &c., ever brought together in the State.

“The fairs of 1856 at Cleveland, 1857 at Cincinnati, and 1858 at Sandusky, embraced the following numbers of entries :

	Cleveland.	Cincinnati.	Sandusky.	Zanesville.
Cattle.....	219	184	210	188
Horses.....	464	300	426	424
Jacks and mules.....	22	25	13	11
Sheep (number of animals).....	357	318	398	473
Swine.....	58	58	90	54
Poultry.....	82	24	51	63
First department.....	1,202	909	1,188	1,213
Second department, machinery, engines, &c.....	328	409	340	351
Third department, manufactures, &c.....	669	485	413	411
Fourth department, farm products.....	201	113	353	348
Fifth department, horticultural.....	444	399	318	424
Sixth department, fine arts.....	185	92	232	82
Aggregate.....	3,029	2,408	2,844	2,829
Average.....	2,777.			

“From the above it will be seen that the exhibition of live stock was larger in the aggregate than any previous State Exhibition in Ohio; in machinery, engines, farm implements, &c., fully up to the average; in farm products, above the average; in vegetables, fruits, and flowers, much above the average, and falling short only in manufactured articles and fine arts—two departments which are not directly connected with agriculture. If, then, we consider the articles on exhibition, which are the product of, or are directly connected with agriculture, the account will stand as follows: Entries at Cleveland, 2,175; at Cincinnati, 1,830; at Sandusky, 2,199; at Zanesville, 2,336. Thus proving beyond all cavil, so far as the object of the Board is concerned, that the Zanesville Exhibition was the most successful of any fair ever held by the Board.

“Notwithstanding several drawbacks, receipts at the gates were about \$9,500. The account of the total expenditures, (exclusive of premiums,) as well as the gate receipts at the previous exhibitions, is as follows, viz :

	Receipts at Gate.	Expenditures.
1850—Cincinnati.....	\$7,284 96	\$9,026 88
1851—Columbus.....	8,309 04	12,077 80
1852—Cleveland.....	13,260 00	12,087 07
1853—Dayton.....	13,996 37	16,299 12
1854—Newark.....	8,824 58	12,653 60
1855—Columbus.....	9,745 54	12,266 79
1856—Cleveland.....	16,649 20	13,528 34
1857—Cincinnati.....	16,894 75	17,009 39
1858—Sandusky.....	11,000 00	16,450 13
1859—Zanesville.....	9,500 00	10,350 00

“The other receipts are made up from appropriations by the legislature of show licences, and escheated lands; by subscriptions from the city where the exhibition is held, by rent of dining hall and other refreshment stands on the ground, and from sales of lumber used for enclosure, stalls, &c. It has been customary, in the conduct of the Board, to dispose of the lumber after the exhibition to the best possible advantage—the amount thus realized always fell short of the original cost. With these elements before us, let us look at the worst possible picture which may be drawn of the Zanesville Exhibition. The premiums offered by the Board amount to a fraction over \$8,000, but the amount *awarded* is \$4,615 only.”

Total gate receipts.....	\$9,500	
Do. entry do.....	771	
Do. rent of dining hall.....	500	
Do. subscription of Zanesville.....	3,000	
Received from State appropriation.....	2,000	
Total.....	————	\$15,771
Total expenditures for fitting up grounds, printing, &c, estimated at..	10,350	
Do. do. premiums.....	4,625	
Total liabilities.....	————	14,975
Surplus.....		796

“In addition to the above sum, the Board yet owns all the lumber, which originally cost nearly \$6,000. The contingent expenses will more than absorb the balance on hand, but the Board will not be embarrassed; it will be able to meet all legitimate liabilities on presentation, without being under the necessity of sacrificing the lumber. It is due to the citizens of Zanesville to state that they entertained with generous hospitality, as far as their faculties for accommodation extended, all of the thousands of visitors that felt disposed to accept the proffered invitations.”

The above statement not only gives some valuable information on the different State exhibitions in Ohio, but relieves the officers of the State Board from ungenerous criticisms. The editor of the *Ohio Cultivator* censures the action of the judges of implements and machinery, saying: “The public had the assurance, last spring, that a thorough examination and trial of implements should be had at Zanesville, so that an intelligent judgment might be passed upon their working merits, that the public might put confidence in the decisions; but this expectation was sadly disappointed, and awards were made on the most flimsy assumptions, involving the reputation of implements and machines, whose merits can only be known by actual and thorough trial. All this is worse than a farce; it is

an outrage upon the mechanical genius of the country, and a delusion in the eyes of the public. Better if this whole department had been left to the unrecorded verdict of the people." This manner of awarding premiums to implements and machines is becoming a subject of general complaint.

LOCAL EXHIBITIONS IN OHIO.

Independent exhibition at Bedford, September 1-2. Independent exhibition at Salt Creek, September 1-3. Brown county society, at Georgetown, September 6-9. Independent exhibition at Twinsburg, September 7-9. Fayette county society, at Washington, September 7-9. Clermont county society, at Bantam, September 7-9. Hamilton county society, at Carthage, September 13-16. Ashtabula county society, at Jefferson, September 13-19. Geauga county society, at Burton, September 13-15. Franklin county society, at Columbus, September 13-16. Independent exhibition, at Salem, September 14-16. Jeffersonville county society, at Steubenville, September 14-16. Marion county society, at Marion, September 14-16. Erie county society, at Huron, September 14-16. Madison county society, at London, September 14-16. Lorain county society, at Elyria, September 14-17. Guernsey county society, at Cambridge, September 15-16. Gallia county society, at Gallipolis, September 15-16. Clinton county society, at Wilmington, September 15-17. Portage county society, at Ravenna, September 19-21. Brown county society, [Independent,] at Ripley, September 20-23. Preble county society, at Eaton, September 22-23. Independent exhibition, at Plymouth, September 27-29. Belmont county society, at St. Clairsville, September 27-29. Highland county society, at Hillsboro, September 27-29. Greene county society, at Xenia, September 27-29. Lucas county society, at Toledo, September 27-29. Medina county society, at Medina, September 27-28. Clermont county society, at Olive Branch, September 27-30. Champaign county society, at Urbana, September 27-30. Adams county society, at West Union, September 27-30. Independent exhibition, at Madison, September 28-30. Independent exhibition, at Richfield, September 28-30. Tuscarawas county society, at Canal Dover, September 28-30. Geauga free exhibition, at Claridon, September 28-30. Columbiana county society, at New Lisbon, September 28-30. Seneca county society, at Tiffin, September 28-30. Fulton county society, at Ottokee, September 28-30. Defiance county society, at Defiance, September 28-30. Union county society, at Marysville, September 28-30. Pickaway county

society, at Circleville, September 28--30. Ottawa county society, at Fort Clinton, September 28--30. Knox county society, at Mt. Vernon, September 28--30. Putnam county society, at Ottawa, September 29--30. Hancock county society, at Findlay, October 3--5. Logan county society, at Bellefontaine, October 3--6. Independent exhibition, at Orwell, October 4--6. Independent exhibition, at Wellington, October 4--6. Mahoning county society, at Canfield, October 4--5. Darke county society, at Greenville, October 4--6. Cuyahoga county society, at Cleveland, October 4--6. Clark county society, at Springfield, October 4--6. Butler county society, at Hamilton, October 4--7. Licking county society, at Newark, October 5--6. Noble county society, at Sarahsville, October 5--6. Wood county society, at Bowling Green, October 5--6. Stark county society, at Canton, October 5--7. Muskingum county society, at Zanesville, October 5--7. Lake county society, at Painesville, October 5--7. Morrow county society, at Mount Gilead, October 5--7. Harrison county society, at Cadiz, October 5--7. Wyandotte county society, at Upper Sandusky, October 5--7. Sandusky county society, at Fremont, October 5--7. Wayne county society, at Wooster, October 5--7. Monroe county society, at Woodfield, October 5--7. Montgomery county society, at Dayton, October 5--8. Van Wert county society, at Van Wert, October 6--7. Independent exhibition, at Greenfield, October 12--14. Delaware county society, at Delaware, October 12--14. Hardin county society, at Kenton, October 12--14. Summit county society, on their large and well fitted-up grounds, at Akron, October 12--14. Morgan county society, at McConnellsville, October 12--14. Crawford county society, at Bucyrus, October 12--14. Trumbull county society, at Warren, October 12--14. Ashland county society, at Ashland, October 12--14. Independent exhibition, at Cuyahoga Falls, October 23--24. Carroll county society, at Carrolton, October 25--27.

The following lines were written by Col. Harris, Editor of the *Ohio Cultivator*, and sung at the Franklin County Fair, September, 1859.

ODE TO OHIO.

Air—Star Spangled Banner.

When the God of our fathers looked over this land,
 To choose out a country most worthy possessing,
 Where the rivers and plains ever beauteous and grand,
 Might so constantly smile on the light of his blessing.
 From Erie's broad waves to the river below,
 The Scioto's sparkle and the Muskingum's flow,
 And the graceful Miamis together rejoice,
 And bless the All-Father with silver-toned voice.

'Twas here the good angel encamped with his host
 To cheer the brave woodman 'mid his toil and privation,
 Whose sturdy ax fell, never grudging the cost,
 To rear up such a State as the gem of the nation;
 Then join all your voices in grateful acclaim,
 'Tis the triumph of toil in Jehovah's great name,
 Our sons and our daughters together may sing,
 The Might is the Right, and the Farmer is King.

And here we are gathered, from farm and from town,
 To behold and rejoice in each other's possession,
 So let the world wag, in its up and its down,
 We are proud of a hand in this noble profession,
 Where the sweat of our face shall earn us our bread,
 And the angels of peace shall pillow our head,
 We are joined in a band no tyrant can sever—
 Hurrah for the Farmer, for ever and ever!

OREGON.

When admitted into the Union, Oregon had but two regularly-organized county agricultural societies; but six others were organized during the past summer, and initiatory steps were taken for the formation of a State society. Three delegates from each county society were appointed, and have probably ere this met in convention, to organize a State society and to arrange preliminaries for holding a State Exhibition in 1860; while the Executive Committee of the Fruit Growers' Association, (in accordance with a resolution adopted at the annual session,) will confer with the convention with the view of merging that association into the State Society.

LOCAL EXHIBITIONS IN OREGON.

Linn county society, at Albany, September 28--29; address by L. F. Grover, Esq., in which he reviewed the resources and products of Oregon in a forcible style, and eloquently urged the people to renewed efforts in adding to the wealth and prosperity of the State, by making use of the many advantages which our soil and location give over most of her sister States. Lane county society, at Eugene City, October 11--12; address by Governor Whiteaker. Benton county society, at Corvallis, October 13--14. Yamhill county society, at McMinnville, October 20--21; address by A. S. Watt, Esq.

PENNSYLVANIA.

The State Agricultural Society held its ninth annual exhibition at Powelton, near Philadelphia, (on the ground where the National Exhibition was held in 1856,) September 27--30. The grounds were fitted up under the superintendence of President Taggart and Secretary Heister, in an economical but attractive and convenient manner. There were halls, stalls, pens, an amphitheatre, and an artificial lake, which furnished a supply of water for the trial of

steam fire engines. The schedule of premiums amounted to over \$8,000, and the exhibition was a pecuniary success. Many distinguished gentlemen were present.

The display of horses was fine, especially the Morgan Black Hawks; there was a good show of cattle; excellent sheep and swine; a fine collection of products and flowers, and numerous implements and machines, including two caloric engines, and a new stump extractor.

LOCAL EXHIBITIONS IN PENNSYLVANIA.

Mercer county society, at Mercer, September 14--15. Bucks county society, at Newtown, September 12--13; address by Senator David Taggart, of Northumberland county—there was great competition for the butter premiums, for which there were seventy-eight entries. Erie county society, at Erie, September 21--22. Clarion county society, at Clarion, October 4--5. Chester county society, at Westchester, October 14--15. The *Record* says that this exhibition "was a most triumphant affair. In the quantity and variety of articles on exhibition, the good arrangement of every department, and the number of people in attendance, it was very far superior to any exhibition ever held in Chester county—indeed, most intelligent gentlemen, familiar with the history and progress of agricultural societies, very freely express their opinion that it was unrivalled by any county exhibition ever held in the United States. The receipts of the fair were about \$2,000—far greater than at any former fair. There were entered for exhibition 130 horses, 170 head of cattle, 101 sheep, 111 swine, 36 loaves of bread, 189 glasses of jellies, and 185 of preserves, and a many-headed monster team of oxen, and several teams of mammoth horses.

RHODE ISLAND.

The Aquidneck Society held its eighth annual exhibition on its well fitted up grounds at Middletown, near Newport, September 20--22. The weather was inclement, but there was a good display of horses, cattle, sheep and swine. The working oxen were principally Durham and Devon grades, and the sheep South Downs. The garden products were numerous and abundant, and there were fine lots of butter and cheese. The annual address was delivered by J. Stanton Gould, Esq., of New York, a native of Newport.

ABSTRACT OF MR. GOULD'S ADDRESS.

After describing the nature and component parts of grass and its species, he proceeded to exhibit statistics showing the importance of its cultivation. Six-tenths, he said, of the whole cultivated area

of the State of New York is occupied by grass. We are indebted to it for all the meat, and wool, cheese and butter which we produce. Its annual value in the State of New York was sixty million dollars. The average production of the meadows of New York is 96 tons of dry hay to the hundred acres, while the county of Kings, the most fertile in the State, was 160 tons to the hundred acres. The difference between the average production of the State and county was not on account of the superiority of the soil or climate, but of the skill of its farmers. He proceeded to classify grass into five distinct varieties: 1, Jungle; 2, Aquatic; 3, Marine; 4, Agrarian; 5, Meadow, all of which were intended for some useful purpose.

It is the business of practical agriculture to find out what that purpose is, and to place it in the locality and under the conditions best suited to its most profitable development. The soil best adapted to the growth of the most valuable grasses is a strong calcareous soil, resting on a clayey sub-soil. Such would resist drouth and heat, and make a fine durable sod. There were five principles to be kept in view in seeding lands for meadows:

1. We must sow a variety of seeds.
2. We should only sow such grasses as flower at the same period.
- 3d. The seeds sown should be exactly adapted to the soil and climate.
- 4th. We must stock our meadows with the most nutritive grasses.
- 5th. The meadows on a farm should be so arranged as to come successively to maturity.

These principles, although universally admitted to be correct, are almost habitually neglected in practice. He then stated the kinds of grasses adapted to various kinds of soil. Lucerne (not a true grass) is admirably adapted to sandy soils resting on porous subsoils. Meadow foxtail grows well in sandy loams, which are not too dry, and also in heavier loams. Orchard grass grows well in dry, slaty, as well as sandy soils. Italian rye grass flourishes in Europe, and its most congenial home is a tenacious, moist, fertile soil. Hard fescue is adapted to dry soils, and relished by sheep. Tall meadow oat grass, and soft grass, and red and white clovers are suited to sandy soils. For calcareous loams, the following varieties seem specially adapted: Kentucky blue grass, timothy, annual spear grass, sweet scented vernal, upright brome grass, and white and red clovers. Adapted to moist and tenacious clays, are perennial rye grass, crested dog tail, red top, wire grass, and oat grass. He then proceeded to show the best manner of insuring the germination of seeds, and laid down the principles to be observed in manuring grasses. Bone dust occupies a very conspicuous place among the manures suited to the improvement of grass. Lime is extensively used, and is of special use on dry pastures, liable to burn in hot weather. It may be beneficially used in connection with common salt, by dissolving 800 pounds of salt in water used for slacking one and a half tons lime, to be slacked in small heaps, and to be used in a week. Shoddy, soot, and guano compost, also peat, were good for various lands. One-sided manuring was very dangerous. He

then unfolded the principle of irrigation, and showed the important benefits of it. It has proved to have the effect of diminishing the number of poor grasses, and increasing the number of the better ones. Slow moving streams are richer than more rapid ones, and those running through alluvial are better than those running through primitive soils. It has been found that flat lands are not benefited by irrigation, unless they are underdrained. There are thousands of streams in the State of New York, which are now wasting their treasury of fertility at the tide waters, which, if skillfully distributed over our grass lands, would incalculably increase their fertility, and add correspondingly to the wealth of the State. It has been demonstrated that 6,000 cubic yards of the waters of the Vaucluse or the Vosges contain all the elements of an ox, and the Garrone carries to the sea every day more guano than is imported into France in a year. The principal object of the discourse was to show in simple language the value of a more increased cultivation of grass, and the advantages which would result from it.

SOUTH CAROLINA.

The State Agricultural Society held its fourth annual exhibition at its valuable grounds, at Columbia, November 8-11. A spacious amphitheatre had been constructed, and the arrangements made by R. J. Gage, Esq., Secretary and Treasurer, were excellent. There were nearly two hundred horses entered, some of them of the best English blood, and among the cattle were Devons, Durhams, Ayrshires and Brahmins. The Cotswold sheep of R. S. Porcher, of Pickens, were much admired. There was an excellent display of implements for southern use, including a large collection of plows by different makers. The show of products and fruit was good, while the elegant counterpanes, the quilts, the tapestry, crotchet and tidy work, show the highest order of taste and skill, both in comfort and unique designs.

LOCAL EXHIBITIONS IN SOUTH CAROLINA.

Lawrens district society, exhibition at Lawrensville, address by Col. D. Johnson. Fairfield district association, exhibition in October. South Carolina Institute, at Charleston, November 15-19. Beech Island Planters' Club, exhibition of results of experiments with fertilizers in growing cotton.

TENNESSEE.

The State Agricultural Bureau—organized in 1854—held its annual exhibition on its grounds (worth \$50,000) at Nashville, October 10-16. The premium list was about \$3,000; and we regret having neither received a promised report of the exhibition or a copy of the opening address, delivered by Captain M. F. Maury, U. S. Navy.

At the same time, a Planters' Convention was held at Nashville, composed of delegates from the Southern States. Resolutions were passed recommending to the several Southern States the establishment of State Boards of Agriculture, with auxiliary county societies; the adoption of a plan for collections and publishing annual agricultural statistics, and semi-monthly reports of the growing cotton crops in all the counties of each State; also appointing a committee to apply, through Congress, to the Navy Department, for a corps of engineers to survey the Mississippi valley, with a view to the improvement of the levee system; also recommending the publication of a periodical to be devoted to the cotton and sugar interests.

LOCAL EXHIBITIONS IN TENNESSEE.

Marshall county society, at Lewisburg, September 13-17. Maury county society, at its excellent grounds at Columbia, September 19-24. Middle Division exhibition, at Shelbyville, September 26-October 1. Lincoln county society, at Fayetteville, October 3-8. Hickman county society, at Centreville, October 4-8. Wilson county society, at Lebanon, October 5-8. Shelby county society, at Memphis, October 11-15. Western Division exhibition, at Jackson, October 18-22. Warren county society, at McMinnville, October 19-21. Carroll county society, at Huntingdon, October 27-29. Eastern Division exhibition, at Knoxville, October 27-29. Each of the three "Division" exhibitions receives \$1,000 per annum from the State treasury.

VERMONT.

The State Agricultural Society held its ninth annual exhibition at Burlington, September 13-16, on the grounds which it had previously twice occupied, and which has been improved each time in the completeness of arrangements and general convenience of the accommodations for exhibitors and visitors. The Vermont State Society (we learn from the *Brattleboro Phoenix*) was organized at an exhibition at Middlebury, September 11, 1851, gotten up by two or three enterprising individuals, acting under the advice and with the full approbation of a large number of the leading agriculturists of the State, but with the responsibility of success or failure on their own hands. The exhibition was so large and the results so satisfactory that the society, in 1852, accepted the proposition of these same gentlemen to hold a second exhibition at Rutland, in September of that year. Both of these exhibitions were large and well attended, but no premiums were paid, for none were offered.

In 1853 the Directors of the Society voted to offer a premium list amounting to between two and three thousand dollars, giving their personal guaranty that the premiums should be paid, and running the risk of success or failure. Under these circumstances the exhibition of 1853 was held at Montpelier; that of 1854 at Brattleboro; that of 1855 at Rutland, and that of 1856 at Burlington. In the fall of the last named year, the legislature of Vermont, five years after the first application therefor, granted the society an act of incorporation, which act was accepted, and on the 8th day of January, 1857, the society was duly organized according to the provisions of said act. From this date its corporate existence commenced, and its founders point to its annual exhibitions as their reward, and as a justification of their judgment and the value of their labors.

Previous to 1853 the exhibitions were creditable; they attracted much attention, and elicited commendation from all quarters, but as no premiums were offered, no record of the number and character of the entries was kept. Since that time there is accurate data by which to determine the progress of the society and the increasing interest felt in its operations. From the records of its transactions during the seven years now just passed, there has been compiled the following tabular statement of the number of entries in the three principal departments of stock, which will be found interesting and instructive. It is stated that in 1853 the classification was somewhat imperfect, as it was the first attempt of the society to arrange a premium list. In the department of cattle many of the entries under the head of Durhams and Devons should properly come under that of mixed breeds; for it was not until the following year that full and satisfactory pedigrees of blood stock were required. In the classification of sheep the Spanish and Silesian varieties were kept distinct for two or three years, but as the latter variety has since been excluded from the list, they have been put all under one head. The totals are found by counting each pair of horses, oxen, and steers as two animals:

HORSES.....	1853.	1854.	1855.	1856.	1857.	1858.	1859.
Sherman Morgan....	34	32	70	76	102	88	96
Woodbury do.....	18	40	43	46	51	52	74
Bulrush do.....	7	11	9	13	37	33	37
Hambletonian, &c..	15	26	49	48	33	65	71
Matched pairs.....	19	11	27	39	35	51	58
Geldings and mares.	65	46	105	124	144	136	127
Foreign horses.....	16	43	12	49	13	36	24
Totals.....	193	220	342	434	450	512	545

CATTLE	1853.	1854.	1855.	1856.	1857.	1858.	1859.
Durhams.....	14	17	17	11	16	32	39
Devons.....	29	19	22	20	18	38	21
Herefords.....	6	7	9	1	—	2	10
Ayrshires.....	5	—	5	—	1	—	3
Mixed and native...	22	45	35	82	48	66	40
Milch cows.	9	3	—	—	4	5	5
Oxen, pairs.....	18	118	26	20	57	6	17
Steers, pairs.....	15	30	10	34	19	33	21
Fat cattle	—	5	3	27	10	18	7
Foreign cattle.....	4	16	3	1	—	4	4
Totals.....	155	408	166	250	249	243	205
SHEEP.....	1853.	1854.	1855.	1856.	1857.	1858.	1859.
French merinos.....	129	154	106	15	15	42	14
Spanish do.....	267	229	231	93	140	256	225
Mixed.....	51	56	74	35	35	89	31
Long and M. woolled	93	27	99	100	67	137	118
Totals.....	540	469	410	243	257	424	388

It is stated that the above tables, while they indicate a gradual but steady growth from year to year in the number of animals in nearly all of the several classes, do not tell the whole truth. If the yearly increase is gratifying, the improvement that has been made manifest, if not directly stimulated by these successive exhibitions, is still more encouraging. In all the departments of stock the animals that have been bred during the last four years are far in advance of those that were on the stage when the exhibitions were first held. The essential points and qualities that give character and usefulness to the animals in these different divisions, are more perfectly and more constantly developed in the breeding of to-day than in that of ten years' since. This change is so great as to be patent to the most casual observer. Yet the highest premiums paid were \$15 for best horses, \$12 for cattle, and \$10 for best sheep, with prizes of \$50, \$30, and \$20 for trotting horses.

The weather was windy and inclement during the greater part of the exhibition, but it was well attended. The above tables show the numbers of fine horses, cattle, and sheep exhibited. In swine, poultry, vegetables, fruits, maple sugar, butter, and cheese, the exhibitions of the society have never been, for some unexplained reason, fair indications in number and quantity what they should, and might easily be. The quality this year was much better than the average of past years, and the amount fully equal. The Mechanics' and Floral Halls contained some excellent specimens of native industry as well as of foreign skill. The number of agricultural implements and labor-saving machines was large. Among them were "Howe's Platform Scales," which received the first premiums at the National Exhibition of 1858; a potato digging machine, &c.

A large number of invited guests were present, including Major General Wool and Governor N. P. Banks of Massachusetts, who delivered an address, of which the following is an outline sketch, reported for the *Boston Journal*:

ABSTRACT OF THE ADDRESS OF GOVERNOR BANKS.

After a few off-handed prefatory remarks, in which he said his address was for an audience in-doors, rather than out-doors, he alluded to the old times—the first settlements of Vermont, and the trials which had beset her hardy sons at the beginning. He should speak, he said, upon Industrial Exhibitions.

The origin and growth of popular institutions is a study of public interest. It is only by tracing an idea from its origin to its complete development—following it from its inauguration in barbaric life, through constant transformation, as it enters advanced conditions of society, until it develops its influence and the extent of its power in the highest periods of civilization, that we can thoroughly comprehend the character of a popular idea, and measure its influence and value. Among the ideas or institutions which mark the limits of arbitrary power and the triumphs of popular interests, industrial exhibitions justly attract a large share of public attention in both hemispheres. The industrial exposition of the world's wealth has a history of its own, and is as firmly established by its triumph as the principle of government itself. It began with the organization of society, and found its first flush of honor in the feeble efforts of agriculture, in its primitive condition, to breathe the breath of life into its first offspring—the trade of individuals and the commerce of nations. The industrial exhibition of modern times had its origin in the trading fairs of the earliest civilization. In this connection, the state of Roman society—arts and agriculture and trade—was enlarged upon, and the encouragement given by modern governments.

Originally established to secure advantages afforded by stated and convenient markets, the ancient fair was enumbered with all the restrictions which the watchful jealousies of localities and trade could invent. They excluded from exhibition or sale all articles that were not, upon the narrowest regulations, entitled to such privileges, and, as far as they were able, narrowed down the advantage to the simple object of pecuniary compensation. The fair retained this character until institutions of modern civilization had transformed the materials of which society was composed. The principal book sales of Germany are made at the fairs of Leipsic. Public and private charities are often aided by the attraction and novelty of the fairs. In other parts of the world, less affected by political changes, it holds its ancient sway and power. The Russian fair at Novogorod, the largest of the present day, is attended by 200,000 persons, and sales are made to the amount of \$20,000,000.

On the eastern coast of Africa an annual fair is still held, in a locality where, except for a brief period in each year, the jackall and hyena have undisputed dominion. The fairs of the present

day originate from societies. A little more than a century since, the Society of Arts in London offered prizes for excellence in the higher manufactures of carpets and porcelains, and made public exhibition of the specimens offered. In this society originated, a century later, the great exhibition of 1851. The Royal Academy strengthened the popular taste for works of art by exhibitions of engravings, paintings and sculpture. The science of music had its share in the inauguration of the grand idea of industrial improvement. But these were specialities, merely. They contemplated nothing like a complete development of a nation's progress in industry and art, much less that of the whole world.

The first exhibition recognized as a national institution was held in France in 1798. It was repeated at intervals for about twenty years, when France inaugurated her systematic exposition of national industry and art, which, continued till now, has had a marked influence upon European products. The leading cities and towns of Great Britain, stimulated by the example and by local interests, have at various times made exhibitions; but these were local. English cities excluded the products of Ireland; excluded the Irish towns. Birmingham was the first to depart from the narrow principle of exclusion, in 1849.

The great success of the French exposition of 1844, suggested to English associations the expediency of enlarging the sphere of local societies. The Society of Arts in London, over which Prince Albert presided, led off; and the movement resulted in the great Crystal Palace exhibition. The features of that exhibition, and its effect upon industry the world over, were dwelt upon briefly.

The Industrial Exhibition should present, in one form or another, the life of the people, and the character of the age it represents—its products, its habits, its labor, its leisure. What is not exhibited in products, should be witnessed in the people themselves. But it is among the wonders of life that the most manifest and indispensable aids to human effort in every age and every land, should have been successfully resisted for extended periods of time. The introduction of machinery, gas, pure water, railways, and many of the common articles of food, have met with such opposition. Products with capacity to endure every soil and climate have, by such prejudices, been restricted to special latitudes. Even in New England, where young men are leaving health and home for the newer country of the west, and a little more land—even in New England, one-half of the soil, and sometimes of the best capacity, is, out of custom and usage, unimproved and useless. The surest method of breaking into such customs, that have held men in poverty, is to bring them together, not for a single object, but for every practicable purpose and interest.

The reflex influence of industrial occupations on governments was considered at length; and it was shown that revolutions were brought about by mismanagement on the part of governments, turning the products of industry into wrong uses, as instanced by the French revolution. Referring to our own exhibitions, it was asked why the three following grand objects should not be united in one grand

system—the exhibition of the productive power of governments and the people; the philosophic analysis and comparison of results and methods; the attractions and pleasures of private and public festivities. In what manner can we unite the private and pecuniary interests of all persons? By uniting the purposes of trade with the ordinary objects of exhibition and observation. Why should the elements of strength that sustained this institution with governments and the people, with despots and democrats, for thousands of years, be excluded from the exhibitions of our time? The multitudes here to-day are gathered from every part of the State to witness the strength of the State, the extent of its acquisitions, the riches of its industry, the achievements of its invention and discovery, working harmoniously in purpose and process with the laws of nature and of God!

They come from every walk of life—both sexes and of every age. Welcome all! thrice welcome! This is the day of the people—a regular bread and butter day. Hosts and guests are one! We come to see and hear what is and what is to be in the kitchen and the parlor for the coming year—what shall be the order of our life, and how to accomplish it? What is the size of potatoes, and how many in a hill? How about the rot? (Thank God, not a sign of it yet.) Where are the fattest cattle, and how are they fed? Who has the fastest nag, and what is his time? Let us see the reaper that rides the field like a ship at sea, and cuts down the yellow grain as the Italians and French did the Austrians at Solferino. Is there any improvement in the people? Are the young to grow up wiser and better than their fathers? These are the things we desire most to know—

We are the people!
 Not one is for a party,
 But all are for the State;
 The rich man helps the poor,
 And the poor man loves the great.
 Our lands are fairly portioned,
 Our products fairly sold,
 And we are what our fathers were,
 As in the honest days of old.

We come just as we are. There is no shame in us. If we are intemperate, profligate, idle, vicious, disorderly, you will see it. If we are quiet, inquisitive, and interested—if order vainly seeks for disorder, with a policeman out of employment to aid her, you will know it. It is vain for a multitude to assume virtues to which it has no title. We have a life interest in all things here. It is by them we live, and in the triumphs of industry over all obstacles is our hope of prosperity and happiness.

As you make an immediate pecuniary interest predominate in all parties to industrial exhibitions, you will greatly enlarge the scope of inquiry and experiment. Profitable sales are better for the producer than high premiums, and the judgment of those who back their opinions by planking the rhino, will be more satisfactory than the awards of commissioners, for the producer and consumer should be brought together. They cannot fail to suggest the necessity of close inquiry to those interests as to the best methods of

culture, of preparation for exhibition, and upon such an interest it will be easy to engraft an earnestness of investigation that is now seldom or never known.

The great triumph of the world's exhibition at London, was less in the articles presented for inspection, than in the lectures upon the progress of art and science by Playfair, Whewell, De la Bache, and other *Savans* upon the general influence of the exhibition—metallurgical processes and products, naval architecture and kindred subjects, delivered by request of the Council of Arts. It would be fortunate, if we could engraft upon our system of exhibitions similar instruction upon subjects related to national prosperity. Would not this be accomplished by coupling the interests of trade with the inquisitiveness of curiosity? By such means, assemblies could be enlisted for longer periods of time, and directed to higher ends than at present. It is a natural desire that seeks to couple rational pleasures with such popular exhibitions.

Physical recreation is essential to our mental and moral culture. It is as essential for artisans and farmers to know how a man with a voice like a willow-whistle can be transformed to a full-chested and strong-lunged stentor, how tiny limbs and puny frames, by exercise and right living, may attain something of the tendons and flesh of Hercules, as to know by what process cattle may be reared in three years for the market, instead of six. Why not? Are not *men* of as much consequence to the world as the most delicious of tenderloin steaks? One who can hear a musket shot at his ear without moving a muscle of his face has an attribute of power which none of us have; and at the first public disaster, a riot, or conflagration, or scene of danger, we should see the superiority of his training over ours. If every man knew his full capacity of power, it would be a different world in which we live. "Measure us," should be our constant cry.

The usual accompaniment of industrial assemblies, and of all American festivals, is a plentiful supply of public addresses, followed by poor dinners, usually, and then—more speeches. No occasion is free from this public speaking; no sense of propriety restrains us, and the only rule that seems to be implicitly followed is, that the less it seems to be required, the more we have. He put in a protest for the speakers; it was not always their seeking. Those who rule the world do it by other than oratorical powers. This is true of all its leaders.

He made a wide distinction between rhetoric and talk. Plain talk is mighty. It has the same relation to ideas that oratory has to sound. It creates men—not only those who are talked at, but those who talk.

Jefferson's system of agricultural societies was taken up and considered—the multiplication of town societies, which would thus embrace the entire community.

The introduction of music was urged as another element of culture.

In conclusion, it was remarked that he had seen in our own New England homes, life stripped of everything but the barest existence

and the dullest labor—no fruits or flowers; not a shot gun; not a saddle horse; scarcely a vegetable growing; nothing that ministers to the beautiful; all the old sports dropped; not a jest left to throw at a dog. If we hope to retain our young men on their paternal acres, we must show them that it does not doom them to the joyless labor of the galleys, the fasts of Anchorites, or the solitudes of Celibates. Let it be seen that if agricultural or industrial toil does accumulate in our iron coffers the golden sorrows of the *millionaire*, it returns for honest labors the only substantial and permanent independence. Let its serene contentment and laughing pleasures, as well as its solid compensation of health and happiness, be written in our countenances, seen in our enjoyments here, in our industrial festivals, as it is redolent in the atmosphere of our prosperous, laborious, happy home.

LOCAL EXHIBITIONS IN VERMONT.

Champlain Valley exhibition, at Vergennes, September 8–10; Hon. Erastus D. Culver of New York, orator. Rutland county society, at Rutland, October 3–5; addresses by Senators S. Foot and J. P. Hale, and others. Addison county society, sixteenth annual exhibition, at Middlebury. The arrangements for this exhibition were excellent, the grounds comprising twelve acres, besides a Floral Hall, 130 feet in length, and Mechanics' Hall, which is about 100 feet in length. The track is a good half-mile track. The buildings were filled to their utmost capacity with the varied products of the industry and enterprise of the county, the entry books having closed with nearly nine hundred entries. The most prominent features of the exhibition were the displays of horses and sheep, for which the county is so famous. Of horses, Black Hawks were the most numerous; and of sheep, the Merinos were in the ascendant. Exhibitions were held by the other county societies in the Green Mountain State, the farmers of which were told by John G. Saxe, in a humorous poem, that they—

“Took most pains
With the nobler grains
Of higher value, and finer tissues,
Which possibly one,
Inclined to a pun,
Would call—like Harper—the ‘cereal issues?’
With wheat the lands were all a-blaze;
'Twas amazing to look at the fields of maize;
And there were places
That showed *rye*-faces,
As pleasant to see as so many graces.
And as for hops,
The annual crops
(So very extensive that, on my soul,
They fairly reached from pole to pole!)
Would beat the guess of an old foggy,
Or—the longest season at Saratoga!
And they raised tomatoes,
And lots of potatoes,

More sorts, in sooth, than I could tell;
 Turnips that always turned up well;
 Celery all that they could sell;
 Grapes by the bushel, sour and sweet;
 Beats, that certainly couldn't be beat;
 Cabbage—like some sartorial mound;
 Vines, that fairly *eu*-cumbered the ground;
 Some pumpkins—more than they could house, and
 Ten thousand pears, (that's twenty thousand!)
 Fruits of all kinds and propagations—
 Baldwins, pippins, and carnations,
 And apples of other appellations."

VIRGINIA.

The State Agricultural Society, (after unsuccessful negotiations with the Central Society at Richmond,) held its seventh annual exhibition at Petersburg, November 1-4, on the grounds of the Union Society of Virginia and North Carolina. "The show of horses of all classes, wrote a correspondent of the *American Stock Journal*, was excellent. The Durhams were badly represented, many of them being deficient around the girth, but there were some fine high-grade spayed heifers and fat steers. Mr. Strandburg, of Maryland, and others exhibited some good Devons, and there were two very splendid Devon heifers, bred by Prince Albert and Mr. Turner, of England. They looked splendidly, and as if they had fared sumptuously from their birth. Though in very high condition, they had not the substance of some of the same breed shown at the Maryland exhibition. A few Ayrshires and a few Alderneys were exhibited. The sheep and pigs exhibited were nothing extraordinary. Mr. Delany, the most extensive importer and breeder of Short Horns, sheep and horses, Col. Ware, and several others whose names are familiar to me as breeders and exhibitors, were not at this show." The exhibition of samples of home-made cloth, blankets, quilts, and counterpanes was highly commended

LOCAL EXHIBITIONS IN VIRGINIA.

Northwestern society, at Wheeling island, September 13-16.
 Southwestern society, third annual exhibition, at Wytheville, October 12-14.
 Lynchburg society, at Lynchburg, October 18-22.
 Valley society, chartered 1858, fourth annual exhibition, on its grounds at Winchester, October 18-21.
 State Central society, (with which the United States Society was associated in holding the National Exhibition of 1858,) at new grounds fitted up by it near Richmond, October 25-29; a portion of the address, by Hon. A. H. H. Stuart, is given below.
 Rappahannock River society, at its grounds in Fredericksburg, (where the first exhibition in Virginia was held,) November 8-10; John Seddon, Esq., orator; at a tournament on

the last day, Miss Catharine Collins, of Caroline county, was the recipient of the set of jewelry awarded by the successful knight, and also of the gold cup awarded by the second knight. Seaboard society, at Norfolk, November 8-11. Rockbridge county society, at Lexington, November 23-24; address by Rev. John Miller, who is also a practical farmer.

ADDRESS BY HON. A. H. H. STUART, OF VIRGINIA.

Gentlemen: In obedience to your request, I appear here to-day, to speak to you in behalf of the agricultural interests of our State. Although distrustful of my ability to offer anything worthy of the occasion, or calculated to interest or instruct the enlightened audience which now surrounds me, I am encouraged to make the attempt, by the conviction, that the same spirit of courtesy which prompted your invitation will induce you to look with indulgence on the imperfections of my discourse.

In preparing for the discharge of my duty, the first difficulty I had to encounter arose from the magnitude of my subject, and the multiplicity of its relations to the other great interests of society. It presents itself in so many and such attractive aspects, as to create embarrassment in making a selection of those most appropriate to the present occasion.

I know that it is customary, at anniversaries like the present, to speak of the importance of agriculture as one of the great interests of society; to trace its history and progress; to discuss its relations to the natural sciences; to explain the diversities of soil, and the systems of cultivation appropriate to each; to indicate the proper rotation of crops, and the best means of augmenting production; to descant on the charms and beneficent influences of rural life, and to bestow merited praise on the public spirited projectors and patrons of associations like that which I now have the honor to address.

Either of these topics would present a theme alike attractive and instructive, but, for reasons which I have deemed satisfactory, I propose, on the present occasion, to pass them all by, and to devote the hour that is allotted to me to the development of some practical views of the relations of agriculture to the other great industrial interests of our country.

It is unquestionably true that Agriculture is the most important interest of society. It is the principal source of production, and is, therefore, the basis of all other interests. It supplies the raw material for a large proportion of our manufactures, and infuses life and activity into all the operations of commerce. It gives occupation to a larger per centage of our population than any other pursuit, and it employs a larger amount of capital than all others combined. But it is not an isolated interest. It cannot prosper alone. It is intimately connected with other interests, and its success or failure is, in a great degree, to be measured by the condition of those interests.

He who limits his views of agriculture to production only, can

have but an imperfect idea of the subject. He has looked at it in but one of its aspects. To comprehend it fully, he must embrace a much wider field of inquiry, and understand, not merely how the earth can be made to yield its richest returns to the husbandman, but, also, how those returns can be made most available for his comfort and happiness.

Of what value is production, without consumption? Of what use are abundant crops, unless some fair equivalent can be obtained for the surplus over the wants of the producer?

A correct view of the agriculture of a country, therefore, must embrace the consideration, not only of the modes by which the largest crops can be raised, but also of the means by which they can be best disposed of; or, in other words, how the best markets can be provided, and the best prices maintained.

The function of agriculture is to produce—of manufactures, to convert—and of commerce, to exchange. And, as it is obvious that a large portion of the productions of the soil are comparatively of little value, until they have been converted, by the processes of manufacture, into new forms, and the surplus has been exchanged for such commodities as the producer may need, it follows, as a necessary consequence, that there must be an intimate relation between agriculture, manufactures, and commerce.

It will readily be conceded, that if all the labor of the world was directed to the production of food, the surplus, above the wants of the producers, would be of little or no value, because there would be no demand for it. As every one would raise enough for his own use, he would not find it necessary to look to his neighbor for a supply. The surplus above the wants of the farmer would therefore be useless, and left to perish in the fields in which it was produced. To give value to it, a demand must be created for it. In the absence of such a demand it would soon cease to be produced. This demand can be created only by multiplying the occupations of the citizens, or in other words, by withdrawing a portion of the population from the production of food, and directing their labor to other pursuits. When this is effected a demand is created proportioned to the number of laborers, who are thus rendered consumers instead of producers, and the foundation is laid for the interchange, between the different classes of laborers, of the fruits of their respective branches of industry. This interchange constitutes, in the first place, the barter—and, in the more advanced stages of its progress, the commerce of the world.

The prosperity of the farming interest, then, depends upon the preservation of the proper relation between production and consumption. If an over proportion of the people are engaged in production, the supply will exceed the demand; the market for the products of the soil will be depressed, and the interests of agriculture must languish. If, on the other hand, occupation can be given to a large portion of the population in the mechanic arts, in manufacturing, in mining, in navigation, and in commerce, the demand for the fruits of agriculture will be increased, their prices enhanced, and the farmers must prosper.

The benefits resulting from this division of labor are two fold. It tends, not only to enhance the price of what the farmers has to sell, in consequence of the increased demand for it, but also to cheapen what he may have occasion to buy, because of the increased competition among those who furnish such commodities as he may need.

These are elementary principles of social economy which are, theoretically, familiar to every intelligent man. But, unfortunately, they are too much neglected in practice. I hope, therefore, I shall be pardoned for presenting them in their simplest form, as they have an important bearing on the line of thought to which I wish to direct your attention.

Whether the proper relation exists in Virginia, and the United States, between production and consumption, is a question which deserves your most serious consideration. The intelligent superintendent of the census of 1850 estimates that three-fifths of the adult population of the United States are engaged in the cultivation of the soil; and the statistics of our own State show that near one-half of the adult male population are farmers, or, in other words, producers of provisions. In the term farmers, I do not include hired laborers, who are employed on farms, but only the independent proprietors or tenants, who cultivate separate farms.

The census tables of 1850 show that the whole number of white adults in Virginia, engaged in the various professions and occupations at that date, was 226,875. Of these, 206,807 were farmers; 46,989 laborers; 1,374 planters; and 3,747 overseers.

These figures would seem to indicate that too large a proportion of our people are engaged in the production of food; and the present low prices of almost every article of provisions confirms this impression. A larger quantity is produced than can be sold for remunerative prices. Every improvement which may be made in the system of farming will tend to a still further depression of prices, by increasing the supply. And when we contemplate the rapid settlement, now in progress, of the almost boundless grain-growing region of the Northwest, a region of unparalleled fertility, we must acknowledge that the prospect is by no means encouraging to the farmer. High prices in this country have always been the effect of a foreign demand. This demand will always be, as it has been, fluctuating; for it depends, not only on natural causes, such as the failure of crops abroad, but upon political events which may disturb the tranquillity of Europe. American farmers are, therefore, compelled to look more to the condition of things abroad than at home in making their estimates as to the breadth of land they shall seed, and the probable prices they will receive for their crops.

This fluctuation of prices is one of the most serious evils that can befall any country; it unsettles the value of every species of property. When prices are high the tendency is to speculation, to incur debt, and to form habits of expenditure, which, although they might not be deemed extravagant, if high prices were to continue, must prove ruinous when, by some change in the policy of the great powers of Europe, or other cause, the foreign demand is cut off, and prices sink to their natural level.

The inquiry then forces itself upon our attention, how is this evil to be corrected?

The most effective remedy that I can suggest is, to diversify the occupations of our people—to withdraw a large number of them from agriculture, and to direct their labor to other pursuits—to build up home manufactures—to stimulate the development of our mineral resources—to encourage domestic commerce, and all the mechanic arts, and thereby create a demand for the products of our farms at home. By adopting this policy, we will diminish the number of producers—increase the number of consumers—and make some progress towards the establishment of a more just relation between the supply and demand.

And here, to prevent misconception, I wish to say in advance, that I do not propose, upon an occasion, and before an audience like the present, to enter into a discussion of any of the controverted questions connected with the jurisdiction of the Federal Government over this subject. Whilst I entertain very decided opinions on these questions, and have not hesitated, under suitable circumstances, to express them, I desire carefully to abstain from introducing into this discourse anything that could offend the sensibilities of the most fastidious, or be regarded as invading a field which, unfortunately for the best interests of the country, has been dedicated to partizan strife.

When, therefore, I speak of the encouragement of domestic industry, I throw out of view, for the present, any legislation by Congress directed to that end, and limit myself exclusively to such encouragement as can be afforded by the enlightened enterprise and public spirit of our own people, aided by the co-operation of our own General Assembly.

No one will deny that every furnace, and forge, and foundry—every woolen, and cotton, and tobacco factory—every shop for the manufacture of shoes, and clothing, and saddlery—every mine that is opened—every house that is erected—every ship that is built—in a word, every enterprise that gives mechanical employment to our people, tends to promote the interests of the farmer, by increasing the demand for what he has to sell.

Let us, then, for a moment survey the extent of the field which presents itself for the employment of the labor of our countrymen.

The statistics of our foreign commerce show that the aggregate value of merchandize imported into the United States in the year 1858 was, in round numbers, 282½ millions of dollars, and in 1857, 360¾ millions of dollars. If we analyze the tables, it will be found that of this latter amount, about 100 millions worth could be produced, and ought to be produced, in our own country, by the labor of our own people. For example, we import of—

Copper, in various forms.....	\$3,617,000
Iron	15,209,000
Lead	2,305,000
Paper	597,000
Gloves	1,559,000
China and Earthenware.....	4,037,000

Linseed.....	\$3,003,000
Wine, in casks.....	2,448,000
Wine, in bottles.....	1,825,000
Brandy.....	2,527,000
Grain Spirits.....	1,125,000
Molasses.....	8,250,000
Sugar, brown.....	42,614,000
Sugar, white and loaf.....	154,000
Tobacco.....	1,358,000
Cigars.....	4,221,000
Salt.....	2,031,000
Coal.....	772,000
Glass.....	1,166,000
	<hr/>
Making an aggregate of.....	99,819,000
	<hr/>

Virginia alone could supply the iron, coal, copper, lead, salt, tobacco, glass, and kooline, for China, and earthenware for the whole Union. Louisiana, Florida and Texas ought to produce the sugar, molasses and rum; and other States should produce the wine, brandy, distilled spirits, linseed, and many other articles now imported, in quantities sufficient for the consumption of our population. And yet, with a climate and soil adapted to the growth of all that we need, except tea, coffee and spices—with mountains and valleys filled with iron, and coal, and salt, and copper, and lead, and gypsum—we leave them all but partially developed, and draw our supplies from foreign countries!

An apt illustration of Virginia policy is to be found in an incident, which will probably be remembered by many of the inhabitants of this city, as it occurred within a short distance of the spot on which I now stand.

About twenty years ago it became necessary to erect a banking house in Richmond for the use of the Exchange Bank, then recently incorporated; and although the structure is probably erected on a stratum of granite, and certainly stands within a mile of the finest granite quarries in the Union, the granite of which it is constructed was imported from Quincy, in the State of Massachusetts!

If the articles which I have enumerated among the imports were, as they should be, produced in the United States; if the laborers necessary to produce them were consumers instead of producers of provisions, it is easy to perceive what an increased demand would be created for the breadstuffs, live stock and other products of our farms. An ample and a steady market would spring up at our own doors for everything we have for sale, and prosperity and comfort would spread through all our borders.

* * * * *

No nation ever possessed such a heritage as we enjoy. Providence has lavished on us every blessing in the richest profusion. With a territory stretching from the Atlantic to the Pacific ocean, and almost from the Tropical to the Arctic region, we embrace within our limits every variety of soil and climate, and an aptitude for every production essential to the comfort and happiness of man.

If we were isolated from all the rest of the world, we have within our own borders every material element of national prosperity and greatness. And, as if with the design of securing perpetual harmony and union between the different parts, Providence has wisely ordained a natural and necessary division of labor between them, by adapting each to particular staples and occupations which are unsuited to the climate and soil of the others. The southern States produce the cotton, sugar, rice, and tobacco necessary for the whole country. The north supplies the skill and labor to manufacture the raw material into such fabrics as are required by the other sections. And the middle States furnish the food for the north and south. Neither can successfully compete with the other in its peculiar department of industry. Each is benefited by the exchange of its surplus productions for those of the others, and they thus reciprocally minister to each other's wants. And by a remarkable departure from the general law of nature, which requires large streams to seek their outlet to the ocean by the shortest route, the great father of rivers, instead of flowing eastward to the Atlantic, pours his vast volume of waters in an almost due southward course, from the northern limits of the confederacy to the Gulf of Mexico; thus passing through all the great divisions of our country, and furnishing a highway for commerce between them, unequalled in extent and excellence on the face of the globe.

If the climate, soil, and productions of our whole country were similar, competition and rivalry might engender ill feeling between the different parts. But each has its separate gift, and their natural diversities, instead of being elements of discord, are sources of union, harmony, and strength.

But, like the foolish Corinthians, some of our people are disposed to indulge "in vain glory, envy, corrupt emulations and repinings," which are alike opposed to truth, charity, and patriotism.

To all such, may we not, reverently paraphrasing the language of the Apostle, say—

"For as the body is one, and hath many members, and all the members of that one body, being many, are one body, so ALSO IS OUR COUNTRY!

"For by one spirit are we all baptised into one body, whether we be Jew or Gentile—bond or free—and have all been made to drink into one spirit—the spirit of the Constitution!

"For our confederacy is not one member, but many. If the north shall say because I am not the south, I am not of the Union, is it, therefore, not of the Union?

"And if the east shall say, because I am not the west, I am not of the Union, is it, therefore, not of the Union?

"If the whole country were manufacturing, where were the cotton and sugar growing?

"If the whole were agricultural, where were the commercial and manufacturing?

"But now hath the wisdom of our fathers set the separate States, every one of them in the Union as it hath pleased them.

"And if they were all one *State*, where were the *Union* ?

"But now are they *many States*, yet but *one confederacy*.

"And the *East* cannot say unto the *West*, I have no need of thee; nor, again, the *Northern States* to the *Southern*, we have no need of you!

"And whether one member suffer, all the members suffer with it; or one member be honored, all members rejoice with it!"

These are the teachings of inspiration! And I appeal to my fellow-citizens, in all parts of the country, if they do not convey to us an instructive lesson of practical wisdom and patriotic duty!

Let us, then, in everything that affects the interests of our country, cultivate a comprehensive, catholic, national sentiment! Let us discard from our confidence and our councils all "fanatical agitators" who attempt, by any device whatever, to array one portion of the Union against another! Let us remember that, while each section has its appropriate function to perform, each is essential to the welfare and security of the whole. Let us bear in mind that "the liberty and independence we possess are the work of joint councils and joint efforts—of common dangers, sufferings, and success." Instead of fostering local jealousies, and striving to inflame one section against another, let me urge you, fellow-citizens, in the impressive language of Washington, to raise up your minds and your hearts to a just appreciation "of the immense value of your National Union to your collective and individual happiness, so that you may cherish a cordial, habitual, and immovable attachment to it; accustoming yourselves to think and to speak of it as a palladium of your political safety and prosperity; watching for its preservation with jealous anxiety; discountenancing whatever may suggest even a suspicion that it can in any event be abandoned; and indignantly frowning upon the first dawning of every attempt to alienate any portion of our country from the rest, or to enfeeble the sacred ties which now link together the various parts!"

WISCONSIN.

The State Agricultural Society held its ninth annual exhibition at Milwaukee, September 26–30. The grounds—about twenty acres in extent—were located on high land about two miles from the central portion of the city, and were fitted up with temporary buildings for exhibitors and officers, and a trotting course three-quarters of a mile in circuit. The weather was rainy on Monday and gusty on Friday, but fair the remainder of the week; yet the attendance was not large. The entries were only 1,400 against 2,000 at Madison the year previous; and the receipts for entries and at the gates only \$5,309 49 against \$6,332 54 the year before. The premium list was admirably arranged, and, with the other arrangements, reflected great credit on Secretary Powers.

The show of horses, we learn from the *Wisconsin Farmer*, was

sufficiently excellent to justify the rising fame of the State, as the Vermont of the Northwest in horse matters. The cattle were in no way behind the shows of former years, in quality—the Devons, especially, are obviously on the increase in the State, coming much nearer the Durhams in the number on show than formerly. Sheep and swine were not abundant. A great number of mechanical inventions, labor-saving machines and works of utility, farming implements, and novel machines and beautiful specimens of art and skill were on exhibition. There were many exhibitors from other States, among whom may be mentioned the proprietor of a very superior “plaster,” from Grand Rapids, Mich. The stone contains from sixty to seventy per cent. of pure sulphate of lime, the balance being iron, salt and magnesia; it is cut and polished into beautiful slabs for tables, &c., or makes an excellent fertilizer when ground.

An excellent and practical address was delivered by Hon. Abram Lincoln, of Illinois. We make the following extracts:

ADDRESS OF THE HON. ABRAM LINCOLN, OF ILLINOIS.

* * * * *

My first suggestion is an inquiry as to the effect of greater *thoroughness* in all the departments of agriculture than now prevails in the northwest—perhaps I might say in America. To speak entirely within bounds, it is known that fifty bushels of wheat, or one hundred bushels of Indian corn, can be produced from an acre. Less than a year ago I saw it stated that a man, by extraordinary care and labor, had produced of wheat what was equal to two hundred bushels from an acre. But take fifty of wheat, and one hundred of corn, to be the *possibility*, and compare it with the actual crops of the country. Many years ago I saw it stated in a Patent Office Report that eighteen bushels was the average crop throughout the United States; and this year an intelligent farmer of Illinois assured me that he did not believe the land harvested in that State this season had yielded more than an average of eight bushels to the acre. The brag crop I heard of in our vicinity was two thousand bushels from ninety acres. Many crops were threshed, producing no more than three bushels to the acre; much was cut, and then abandoned as not worth threshing; and much was abandoned as not worth cutting. As to Indian corn, and, indeed, most other crops, the case has not been much better. For the last four years, I do not believe the ground planted with corn in Illinois has produced an average of twenty bushels to the acre. It is true that, heretofore, we have had better crops, with no better cultivators; but I believe it is also true that the soil has never been pushed up to one-half of its capacity.

What would be the effect upon the farming interest to push the soil up to something near its full capacity? Unquestionably it will

take more labor to produce *fifty* bushels from an acre, than it will to produce *ten* bushels from the same acre. But will it take more labor to produce fifty bushels from *one* acre than from *five*? Unquestionably, thorough cultivation will require more labor to the *acre*; but will it require more to the *bushel*? If it should require just as *much* to the bushel, there are some *probable*, and several *certain*, advantages in favor of the thorough practice.

It also would spare a large proportion of the making and maintaining of enclosures—the same, whether these enclosures should be hedges, ditches or fences. This again, is a heavy item—heavy at first, and heavy in its continual demand for repairs. I remember once being greatly astonished by an apparently authentic exhibition of the proportion of the cost of an inclosure bears to all the other expenses of the farmer; though I cannot remember exactly what that proportion was. Any farmer, if he will, can ascertain it in his own case, for himself.

Again, a great amount of “locomotion” is spared by thorough cultivation. Take fifty bushels of wheat, ready for the harvest, standing upon a *single* acre, and it can be harvested in any of the known ways, with less than half the labor which would be required if it were spread over *five* acres. This would be true, if cut by the old hand sickle; true, to a greater extent, if by the scythe and cradle; and to a still greater extent, if by the machines now in use. These machines are chiefly valuable, as a means of substituting animal power for the power of men in this branch of farm work. In the highest degree of perfection yet reached in applying the horse-power to harvesting, fully nine-tenths of the power is expended by the animal in carrying himself and dragging the machine over the field, leaving certainly not more than one-tenth to be applied directly to the only end of the whole operation—the gathering in the grain, and clipping of the straw. When grain is very thin on the ground, it is always more or less intermingled with weeds, chass and the like, and a large part of the power is expended in cutting these. It is plain that when the crop is very thick upon the ground, the larger proportion of the power is directly applied to gathering in and cutting it; and the smaller, to that which is totally useless as an end. And what I have said of harvesting is true, in a greater or less degree, of mowing, plowing, gathering in of crops generally, and, indeed, of almost all farm work.

The effect of thorough cultivation upon the farmer's own mind, and, in reaction through his mind, back upon his business, is perhaps quite equal to any other of its effects. Every man is proud of what he does *well*; and no man is proud of what does *not* do well. With the former, his heart is in his work; and he will do twice as much of it with less fatigue. The latter performs a little imperfectly, looks at it in disgust, turns from it, and imagines himself exceedingly tired. The little he has done comes to nothing, for want of finishing.

The man who produces a good full crop will scarcely ever let any part of it go to waste. He will keep up the inclosure about it, and

allow neither man nor beast to trespass upon it. He will gather it in due season and store it in perfect security. Thus he labors with satisfaction, and saves himself the whole fruit of his labor. The other, starting with no purpose for a full crop, labors less, and with less satisfaction; allows his fence to fall, and cattle to trespass; gathers not in due season, or not at all. Thus the labor he has performed is wasted away little by little, till, in the end, he derives scarcely anything from it.

The ambition for broad acres leads to poor farming, even with men of energy. I scarcely ever knew a mammoth farm to sustain itself, much less to return a profit upon the outlay. I have more than once known a man to spend a respectable fortune upon one; fail and leave it; and then some man of modest aims get a small fraction of the ground, and make a good living upon it. Mammoth farms are like tools or weapons, which are too heavy to be handled. Ere long they are thrown aside at a great loss.

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LOCAL EXHIBITIONS IN WISCONSIN.

Iowa county society, at Dodgeville, September 6-7. Grant county society, at Lancaster, September 13-14. Dodge county society, at Juneau, September 14-16; D. S. Curtis, orator. Webster county society, at Fort Dodge, September 14-15. Pierce county society, at Prescott, September 14-15; Professor J. W. Hoyt, orator. Sheboygan county society, at Sheboygan Falls, September 14-15. Waukesha county society, organized 1854, at Waukesha, September 14-15; Professor J. W. Hoyt, orator. Columbia county society, at Portage City, September 20-21. Dane county society, organized 1856, at Madison, September 20-22. Rock county society, at Janesville, September 20-22. St. Croix county society, at Hudson, September 20-21; Professor J. W. Hoyt, orator. Waupaca county society, at Waupaca, September 20-21. Jefferson county society, at Lake Mills, September 21-23. Richland county society, at Richland Centre, September 21-22. Walworth county society, at Elkhorn, September 21-23. Green county society, at Monroe, September 22-24; N. L. Stout, orator. Winnebago county society, at Oshkosh, September 22-23. Kenosha county society, at Paris, September 23-24; Hon. H. P. Harvey, orator. Lake county society, at Libertyville, September 27-28. Manitowoc county society, at Manitowoc, October 3-4; Professor J. W. Hoyt, orator. Fond du Lac county society, organized 1852, at Fond du Lac, October 4-5. Brown county society, at Green Bay, October 5-6; Professor J. W. Hoyt, orator. Waushara county society, at Wautoma, October 12-13.

The Secretary's Table.

ROOMS OF THE UNITED STATES AGRICULTURAL SOCIETY,
356 Pennsylvania avenue, Washington, D. C., January, 1860.

When it was determined by the Executive Committee of the United States Agricultural Society to issue its publications as a Quarterly Magazine, to be called the "*Journal of Agriculture*," those who proposed this appellation were of opinion that there would be no lack of volunteer contributors. It was thought that gentlemen occupying high positions in the various departments of theoretical and applied agriculture, would cheerfully contribute the result of their observations and experience, in articles of more elaborate research and more elevated tone than is required for the newspaper press.

These hopes have not been realized. A large number of gentlemen of acknowledged ability have been applied to, either personally or by letter, yet but one of them has furnished an article for publication. Unprovided with means wherewith to secure the services of contributors, or even to procure foreign journals from which to make extracts, the Secretary has been forced to use such materials as his official correspondence afforded; and the Society's Seventh Volume, of which this is the closing number, is in fact what it should have been entitled: *The Journal of the United States Agricultural Society*. As such, he respectfully submits it.

It is for the members of the United States Society to determine whether they desire a continuance of this Chronicle, or whether they desire to make their publications equal to those in active and influential operation abroad. In either case, the present Secretary will gladly retire from the editorial position, which he has filled under the most disadvantageous circumstances, cordially thanking those Officers and Members of the Society who have appreciated the difficulties under which he has labored.

THE REPORT ON THE EXHIBITIONS OF 1859, compiled from every attainable source, will give an idea of what may be done, when the United States Society shall have become more generally recognized as a receiving and distributing reservoir of practical information. What facts have been collected and embodied, show that the exhibitions of 1859 have been unusually interesting, and that Agriculturists, throughout the length and breadth of the Union, have everywhere given proof of improvement in stock-raising and in the modes and applications of culture. Should the United States Society determine to continue the collection of accounts of Exhibitions, it is to be hoped that Secretaries of State and local societies will more generally respond to the requests for information. Accounts of the familiar discussions at Exhibitions and at the meetings of Farmers' Clubs, condensed and arranged, would form a valuable addition to the agricultural literature of the country; for the decisions of these councils of practical men are of great value. Addresses at Exhibitions, when they contain useful suggestions or tested theories, deserve a wide circulation; and even when they are but the rhetorical flourishes of politicians, it is well to place them on record, for reference at that no very distant day, when these same eulogists of agriculture may be called upon to give a more practical demonstration of their interest in the advancement of husbandry.

AN AGRICULTURAL BUREAU.—The Secretary of the Interior, in his last annual report, said: "The intrinsic importance of agriculture and the number of our people engaged in this pursuit justify the expenditures annually made for its improvement. Experience has demonstrated the incalculable benefits which the farmer has derived from the discoveries of science, and the diffusion of intelligence has generally removed his aversion to change in the modes of cultivation."

Thus far, the agricultural operations of the General Government have been conducted under the direction of the Commissioners of Patents, whose laborious legitimate duties have left them but little opportunity for superintending the clerks, writers, and agents, the preparation of reports, or the purchase and distribution of seeds. It is not therefore to be wondered at, that subordinates, often unqualified for the positions which they have managed to secure, have been convicted of gross mismanagement, plagiarism, and useless expenditures.

This state of things has made the announcement doubly welcome, that the Secretary of the Interior proposes to establish a Bureau of Agriculture, and that he has invited the Hon. Thomas G. Clemson to organize it, and afterwards to act as its head. The selection is an excellent one, and the Agriculturists of the Republic will congratulate Mr. Thompson, and each other, that he has found "*the right man for the right place.*" A gentleman of rare scientific attainments, Mr. Clemson is also a practical farmer, who carries his theories into successful and profitable practice. Distinguished abroad as an accomplished diplomatist, and recognized there and at home as a scholar possessing high attainments, he is no less esteemed by his neighbors for the success which has attended his labors in regenerating a worn-out plantation near this metropolis, where he has resided since his return from Belgium.

ANNUAL MEETING.—The United States Agricultural Society will hold its Eighth Annual Meeting at the Smithsonian Institution, in Washington City, on the second Wednesday of January, 1860, when the business required by the Constitution will be transacted.

Officers and Members of the Society are respectfully notified to attend, and a cordial invitation is extended to State and other Agricultural Associations to send delegates, that there may be a general representation of Agriculturists, "in Congress assembled," to protect and sustain their interests, acting as a national organization on such matters pertaining to Agriculture as may be deemed appropriate. Gentlemen from other lands who may be interested in the acquisition and diffusion of Agricultural knowledge, are also invited to attend, and to participate in the proceedings.

Important Agricultural topics will be publicly discussed, among them "the establishment of a Department of Agriculture;" "the steam-plow;" "Physical Geography, in its relation to Agriculture;" "Agricultural Statistics of the next Census;" "the culture of Sorgho and Imphec;" "under-draining;" and "forest-trees."

Gentlemen having other topics pertaining to the advancement of Agriculture, which they may wish to introduce or to have discussed, will please refer them to the Executive Committee, through the Secretary, that a place may be assigned them on the daily programme.

Delegates are requested to bring copies of the publications of the Societies which they represent—one for the Library of the U. S. Society, and others for foreign interchange.

Propositions from cities at which the next Annual Exhibition of the Society is desired, will be received and considered.

The Medals, awarded at the Chicago Exhibition, have been ordered at the United States Mint, at Philadelphia, and *will be sent by Express*, when ready, if the Secretary of the Society receives instructions to so forward them. The Diplomas and Certificates will be delivered, sent by Express, or Mailed if the postage is remitted. The postal charge for a Diploma, on a roller, is ninety cents—for a Certificate, folded, six cents.

ENGLAND.—At the December meeting of the council of the Royal Agricultural Society, the names of ten gentlemen were selected from the seventy who had applied in writing for the office of Secretary, which had been temporarily filled by Mr. Brandreth Gibbs since the dismissal of Mr. James Hudson. These ten candidates appeared in person, successively, before the council of the society, and answered such questions as were propounded. The balloting was then commenced, and after several trials, Henry Hall Dare, Esq., was chosen. His salary will be four hundred pounds per annum, with a house, fuel, and lights—equal to \$2,500.

The society has filed its claim as a creditor under the deed of assignment executed by Mr. Secretary Hudson (since deceased) for £1,771 8s. 6d., which will nearly cover the amount of his defalcation. It is represented as having funded property to the amount of £10,000, and a cash balance at its bankers of £2,000. In future, a professional accountant will keep its books and accounts.

The council of the society have determined to employ a literary editor for their *Journal*, who is to receive an annual salary of five hundred pounds; and notice was published that candidates might send in their names up to the 20th inst. Premiums, varying from fifty to two hundred and fifty dollars each, have been offered for essays for the *Journal*—on the agriculture of Berkshire; on the application of manure; on the influence of prices on farm management; on late improvements in dairy practice; on the proper office of straw on a farm; on farm capital; on seed-beds for agricultural crops; on adulteration of seeds; and on any other agricultural subject. The topics are sufficiently varied to open the competition to all parts of the kingdom.

The premium list for Royal Society's Exhibition of 1860, at Canterbury, states that the judges will commence their examinations on Monday morning, July 9th, and the exhibition will close on the Thursday afternoon following.

The Eleventh Winter Exhibition of the Birmingham and Midland Counties Society was satisfactory, although there was a falling off in point of numbers as compared with the year previous. There were 109 entries of cattle, 44 of sheep, and 81 of pigs. The first premium for short-horned oxen over three years of age, together with the breeder's silver medal, were awarded to Mr. R. Stratton, of Broad Hinton, for an animal which had gained the first premium and the extra premium of £20 at the Smithfield Exhibition of 1857; but the next week, at Darlington, Mr. Stratton's ox was defeated by one belonging to the Duke of Cleveland. Prince Albert (for the first time) received the breeder's silver medal for a Devon ox.

ENGLISH BREEDS OF SWINE.—The *London Field*, of December 3d, says: There is no portion of the live stock of the farm so necessary and profitable as a good assortment of pigs. The store-pig, in turning over the manure in the fold-yard, not only feeds upon the grain, which would be otherwise wasted, but the same time regulates the fermentation of the manure. The swill of a farm-house where there are from six to eight cows kept is, to it, much more than bare support. By nature it is constituted to collect the fragments of every kind of farm produce, and therefrom appropriate, as from the smallest drop of oily or rich matter obtained, by the cleansing of the milk and other cooking utensils, that proportion of flesh and fat-forming matter, which must be lost to any other animal but itself. The processes by which the flesh of the pig is converted into various kinds of meat, together with the facility it is prepared for the market, must render the position it occupies in the live stock of the farmer well deserving his notice. In the keeping properties of pork, bacon, and hams, when salted, dried, or smoked, the science of cookery, as practised in Great Britain and Ireland, is greatly enriched. Each district could enumerate its savoury list of dishes peculiar to itself, and the constitution of almost all of which will be found to consist of the flesh of the pig, in its multiplied form of conversion into meat. The porkers of the London market afford from the beginning to the end of the season a species of viand, which, in point of delicacy and flavor, is almost unsurpassed. The cottager, mechanic, and agricultural laborer find the addition of a pig contribute materially to their domestic comfort. A slice from their own fitch of bacon gives a double relish to the meal. That this class of live stock is increasing in quantity and quality we are enabled to judge from the prominence they occupy at our agricultural shows. The quality of the animal has undergone, and is still undergoing, a very marked improvement. At the Christmas Smithfield Club and Birmingham shows, there have been exhibited specimens of a first-rate class possessing those properties which are, in the estimation of the improvers of the breed, of the first importance—namely, free growers, and, at the same time, readily fattened. The Colleshill breed, as exhibited and improved by the Earl of Radnor on his Berkshire estate, which are wholly white, exhibit all those proportions that can be desired, while they possess the above-described qualities. We have a greater number of varieties of swine than we have of any other of our meat-producing animals on the farm. We might say that almost every county in England has

its own breed of pigs. Those breeds common to Berkshire, Hampshire, Hereford, Shropshire, and Yorkshire are considered best suited for bacon; while the breeds of Buckingham, Essex, Oxford, and Sussex are better adapted for pork. The Norfolk and Suffolk breeds are in high repute in the London market as porkers. The latter kinds having a dash of the Chinese breed in them, are well suited for the London butcher and the meat salesman; they are thick and broad-chested, possessing the advantage of early maturity, tenderness, and fineness of flesh, with lightness of offal. We have the following joints from the two-quarters of the porker: the hind quarter contains the leg, the loin, and the spring; the fore quarter the hand, the fore chine or spare-rib, and the cheek. Grain of different sorts is used for the purpose of feeding pigs; and no kind of food will fatten them quicker and produce finer meat than crushed barley. But, in order to render the feeding of pigs on a large scale profitable, recourse must be had to the application of heat in preparing food for them, on which the stomach may act freely. The boiling and steaming of roots exert a change in the food so favorable to the operation of feeding, in comparison with the giving of it entirely raw, that we strongly recommend the process on the score of efficiency and profitableness.

LOUIS NAPOLEON AS A FARMER.—Louis Napoleon farms very extensively. In addition to the farms on the Crown lands and on estates which have been acquired for him in Sologne and Landes, he occupies, as tenant of the State, a vast tract in Champagne. At the present time the extent of land farmed by the Emperor is about 50,000 acres. The extent may be increased considerably at any time by reclaiming lands in his possession, but not in cultivation. The number of farms is twenty-six, and nine additional farms are to be formed in the course of the year and incoming spring, thus making thirty-five farms. The number of new steadings and those in course of erection is twenty. Beside the lands farmed, there are grazings in the domains or parks of St. Cloud, Versailles, Madon, St. Germaine, Champagne, Fontainbleau, Biarritz, Senart, Vincennes, &c. Portions of these are in grass and portions are forest. In addition to the estates at Sologne and Landes, the Emperor has purchased a property in the south of France, near to Bayonne, consisting of 2,500 acres, which is being drained and put under cultivation. The lands were originally a morass; part is still to reclaim. It is understood that after the estate has been thoroughly improved, it will be presented by the Emperor to the present Minister for Foreign Affairs, Count Walewski. In the centre of the barren lands of Bretagne, the cousin of the Emperor, Princess Baciocchi, is reclaiming an extensive estate out of heath. The whole lands farmed by the Emperor, are being reclaimed and cultivated upon the systems the best suited for the character of the soils, climates, and situations. These farms are in different parts of France, and chiefly in the less improved districts.

CULTIVATING HOPS.—A valuable discovery in the cultivation of hops has just been communicated to the French Academy. Like most agricultural improvements, it has been the result of observations made by a laboring peasant. It consists in making the plant run in a horizontal direction, instead of climbing up the pole. This is managed by means of a low trellis work of the simplest construction. The advantages of this mode of culture are numerous. In the first place, it enables the grower to investigate the plant while growing, and cleanse it from the numerous insects which injure it to so vast an extent; then it is protected from the sun, which always destroys the upper shoots; it obviates the great destruction of hops in stormy weather, when the wind lays low whole hop grounds from the height of the poles; and, most of all, it enables the gathering of the cones to take place without uprooting the plant, besides permitting the selection of the ripest ones at first, and preventing the great loss which arises from the necessity of tearing down the whole plant to get at the ripest blossoms.

WORKS FOR WINE-GROWERS.—A recent letter from Paris mentions two new works on the growth of the vine and the processes of extracting and preserving the precious juice. One is Chemistry applied to Viticulture and Onology, being a course of lectures delivered in the cities of Dijon and Beaune, by M. C. Ladrey, Professor of Chemistry in the Faculty of Sciences at Dijon, the capital of Burgundy; the other—Theoretical and Practical Indications for the working or preparation of wines, and particularly of the *vins mousseux*, the forming or sparkling wines, by H. J. Maumene, Professor at Rheims, Champagne. The two Professors have furnished, in the most instructive and intelligible details, all the information which the vine-grower or amateur can need or desire. Competent judges write in unqualified commendation of these books.

ALDERNEYS.—Herds of Alderneys and Guernsey cows and heifers were offered for sale at the Smithfield and other winter exhibitions.

NEW YORK STATE AGRICULTURAL COLLEGE, at Ovid, New York.—A pamphlet has just been issued, containing the charter, ordinances, regulations and course of studies of this institution. A portion of the college buildings are erected, and will be ready the coming spring for the accommodation of one hundred and fifty students. The farm connected with the college contains about 700 acres of land, of great variety of soil, and admirably adapted to the objects of the institution.

Major M. R. Patrick—educated at West Point, and formerly in the army, but since the close of the Mexican war engaged in agricultural pursuits—has been elected President of the institution, and a better selection could not have been made.

Professor Wm. H. Brewer has been appointed agricultural chemist, and is in every way well qualified to discharge the duties of that important position. Suitable persons will be selected to fill the other positions; and it is hoped that an institution so important to the agriculturists of New York and of the country will soon be in successful operation.

The Board of Trustees comprises some of the most distinguished agriculturists in the State, viz: Hon. John A. King, *Chairman*; B. P. Johnson, *Secretary*; William Kelly, Henry Wager, Wm. Buell, A. A. Post, Joel W. Bacon, J. B. Williams, E. P. Prentice, Samuel Cheever, Addison Gardner, M. R. Patrick, Rufus K. Delafield, Alexander Thompson, Arad Joy, James O. Sheldon, and Benj. N. Huntington.

THE MARYLAND AGRICULTURAL COLLEGE was inaugurated in October last, and is in successful operation, under the efficient direction of Charles B. Calvert, Esq., President of the Board of Trustees. The State of Maryland appropriated \$6,000 per annum for its perpetual support, on condition that \$50,000 should be raised by private subscription for its establishment. The college farm is situated in Prince George's county, Maryland, about nine miles from Washington, on the line of the Baltimore railroad, and comprises 428 acres of soil adapted in character and variety to the purposes of experiment. The site of the college is a commanding eminence, upon which a portion of the proposed buildings for the college has been erected. The completed portion is a wing constituting about one-third of the whole structure, 120 feet by 54. Agricultural science, in all its departments, is to be learned practically, and simultaneously with the theoretical instruction of the text-books. The farm, in its general management, it is proposed to make a model and an example of the best modes of culture in the several departments of agriculture. It is of course to be stocked with the best breeds of cattle, sheep, hogs, &c., &c., and the most approved implements and machines. The plan includes, likewise, a commodious workshop, with motive power sufficient for all its purposes, and with space enough for exercise and instruction in such of the mechanic arts as are required by agricultural pursuits. "This institution," as was happily remarked by President Calvert, when it was inaugurated, "is calculated to do more good than any other in the country. Its object is to diffuse that peculiar knowledge which will increase the products of the soil, by the most economical expenditure of time, labor and money, and to place the cultivators of the soil in the high and dignified position to which they were justly entitled."

Hon. Jacob Thompson, Secretary of the Interior, made a few well-timed remarks at the inauguration, in which he gave the following outline of what an American Farmer should be. "He must," said the Secretary, "to be a farmer, first own a tract of land. He must be so much of a lawyer as to know the difference between *meum* and *teum*, and to be assured that his title to his land is good. For this purpose he must at least dip into the preface of Blackstone. He must also be as much of a mechanic to enable him to know when his hired mechanics do their work well; so much of a chemist as to know the soil of his land, what will grow best on it and how to manure it; so much of a doctor as to enable him to physic his slaves when they are sick; so much of a farrier as to understand when his horses are well shod, well attended and cared for when sick. He must be also an engineer to such an extent that he will be able to ditch well, to know what soil to turn up and what to leave alone. In short, a farmer must know everything. The young men, he said, who come to this college will have to control labor. Great responsibility would therefore rest upon them. They must learn to have a clear head, pure heart, and to live honest, sober, upright lives."

THE FARMERS' HIGH SCHOOL OF PENNSYLVANIA.—Governor Packer, in his recent message to the Legislature, says:

"The aid which the Legislature has hitherto extended to the establishment of the Farmers' High School of Pennsylvania, strongly evinces their high appreciation of the advantages which it is anticipated will grow out of that institution. While it must be admitted that knowledge is as essential to the art of farming as it is to all the other employments of life, we cannot but feel deeply interested that a community so peculiarly agricultural as we are should have all the advantages of an education which combines

in itself as well the knowledge of the practical art of agriculture as scientific acquirements in all those branches of learning which are especially applicable to its profitable pursuit. A school where agriculture is practically taught is a new field to which our attention has been called; and one which, because of its great importance, well deserves our attention. It embraces the principle that, while youth are taught habits of industry, they are impressed with the proud consideration that the labor of their own hands contributes to their acquisition of knowledge. And thus, too, education is brought within the reach of many a bright genius, who would otherwise struggle and languish for the want of the means of acquiring it. Our school, within its limited means, has been in successful operation during the past year; having under its charge one hundred boys, who, while they are carefully instructed in all those branches of science which pertain to a high order of education, are daily engaged in all the practical operations of the farm—fitting them to return to rural life, and to infuse throughout the State an amount and kind of knowledge which must ultimately produce a most beneficial influence upon this most cherished branch of industry. The practical workings of the school, for the past year, have impressed the trustees who have it in charge with the highest hopes of its complete success. The great interest which is everywhere felt throughout the Commonwealth, in the further extension and progress of the institution, commends it to our care and protection."

IOWA AGRICULTURAL COLLEGE.—The trustees of this institution, we are informed, have selected as its site a farm in Story county. It contains about 648 acres; of which about 150 acres is good timber land, 100 of creek bottom, and the remainder rolling prairie. There is some wet land on the high prairie, as well as on the bottom, all of which can be made tillable land without much cost of draining. It is proposed to build plain, substantial houses for the college, commencing with one capable of accommodating 100 students; and in time completing three separate buildings, sufficient for 400.

The land cost \$5,400. Sundry expenses in locating, surveying, getting title, etc., about \$450. Work done upon the land and preparation for building, \$600—leaving \$3,550 in the treasury. This falls short, by about \$2,500, of the requisite sum for building house, barn, and fence, and breaking 160 acres. In the way of assets, the board have Story county bonds, bearing 7 per cent., to the amount of \$10,000; \$2,800 in subscription notes, payable in two years, a part of which can be worked in in the improvements; 3,000 acres of wild land in the vicinity of the college, and 3,200 acres near Monroe, in Jasper county.

AGRICULTURAL PROFESSORSHIPS IN VIRGINIA.—In addition to the late Col. Cocke's donation of \$20,000, Hon. Wm. C. Rives, in whose hands \$10,000 had been placed by a friend of his, not a resident of Virginia, to be appropriated to the causes of Agricultural Education in that Commonwealth, has definitely concluded to give it to the Virginia Military Institute, towards the advancement of a second chair in the school of Agriculture, to be denominated the chair of Natural History, Animal and Vegetable Physiology, &c.

MICHIGAN AGRICULTURAL COLLEGE—It is stated that the Michigan Board of Education have changed the programme of the Agricultural College, and established the following Professorships: 1. Agricultural Chemistry. 2. Botany and Vegetable Physiology. 3. Zoology and Animal Physiology. 4. Civil and Rural Engineering. 5. Theory and Practice of Agriculture. We gather the foregoing from a correspondent of the *Marshall Statesman*, who calls this a *marked change* in the course of study at this college. He believes it demanded by the people of the State. There are 250 acres of the farm in an arable state, and it is now designed to teach the students *scientific* and practical agriculture. The same correspondent asserts that, "in consequence of the new programme, all of the college professors resigned." A letter of more recent date gives reason to hope for a satisfactory arrangement of all difficulties, without any change in the government.

LECTURES IN WISCONSIN.—D. S. Curtis, Esq., of Madison, Wisconsin, is delivering familiar lectures to the people of that region, with the following specific objects in view:

First—To induce farmers to adopt a deeper and more thorough system of cultivation.

Second—To stimulate in them an ambition for a higher standard of intellectual acquirements; and

Third—To prompt them to assert and assume their proper and proportionate control in political economy and official stations of the State and Nation—their ranks containing above five-sixths of the voters, and furnishing full that proportion of the support and expenses of our Government—while agriculture is more neglected by the law-maker than any other interest.

AGRICULTURAL LECTURES AT YALE COLLEGE.—Professor Porter, of the Department of Natural Science, Chemistry and Agriculture at the Scientific School connected with Yale College, New Haven, has completed his arrangements for the most thorough course of Agricultural Lectures ever given on this continent. The cost of attending the entire course will be only ten dollars, and the following programme will give an idea of the value and interest of the lectures. The first lecture will be delivered on the first of February.

First week.—Science in its Relations to Agriculture.

Chemistry.—Prof. S. W. Johnson.

Meteorology.—Prof. B. Silliman, Jr.

Entomology.—Dr. Asa Fitch.

Vegetable Physiology.—Daniel C. Eaton.

Second week.—Horticulture and orcharding, &c.

Pomology (in general).—Hon. Marshall P. Wilder.

Grapes.—Dr. C. W. Grant.

Berries.—R. G. Pardee, Esq.

Fruit Trees.—P. Barry, Esq.

Fruits as Farm Crops.—Lewis F. Allen, Esq.

Agricultural Chemistry.—Prof. S. W. Johnson.

Third week.—Agriculture proper.

Drainage.—Hon. H. F. French.

Grasses and Irrigation.—I. Stanton Gould, Esq.

Cereals.—Joseph Harris, Esq.

Hops, Tobacco, &c.—Prof. W. H. Brewer.

Cultivation of Light Soils.—Levi Bartlett, Esq.

English Agriculture.—Luther Tucker, Esq.

Agricultural Statistics.—Prof. John A. Porter.

Fourth week.—Domestic Animals, &c.

Principles of Stock Breeding.—Hon. Cassius M. Clay.

Stock Breeding in the United States.—Lewis F. Allen, Esq.

Breeding for the Dairy.—Charles L. Flint, Esq.

Horses.—Sanford Howard, Esq.

Root Crops, and Sheep Husbandry.—Theodore S. Gold.

Pisciculture.—John C. Comstock, Esq.

Rural Economy.—Donald G. Mitchell, Esq.

HARRIS'S REVISED WORK ON INJURIOUS INSECTS.—This work, (we learn from the *Boston Journal*.) is progressing with as much dispatch as its character and prospective permanence and value will warrant; but it will scarcely be ready for publication in less than a year from this time. Its preparation for the press is supervised by Prof. Agassiz and the Secretary of the Massachusetts Board of Agriculture. The text will be copiously illustrated with steel and wood engravings, in the very highest style of the art. The drawings are by two gentlemen who came to this country with Prof. Agassiz, and who have, perhaps, no peer in their line of art. We allude to Sourel, of France, and Burkhardt. Before their drawings pass into the hands of the engraver, they are submitted to the scrutiny of Prof. Agassiz, whose quick and accurate discernment of the forms and colors of nature enables him to pass upon them a critical judgment. The engraver is Henry Marsh, of Boston.

Appended to the matter contained in the work of Dr. Harris, there will be notes from several scientific gentlemen of Europe and America, who have been engaged for this service. Among others is Baron Osten Sacken, of the Russian Legation, the highest living authority in the order of the *diptera*. Dr. Leconte, of Philadelphia, the highest American authority on the *coleoptera*, will furnish notes upon that order. Dr. Morris, of Baltimore, one of the best authorities upon the *lepidoptera*, will furnish notes upon that order. Prof. Kirkland of Cleveland, will also furnish notes upon the last named order, and make other contributions to the work. Prof. Agassiz will also probably furnish notes, and write the introduction to the work. The letter-press and paper will be made to correspond with the high literary and scientific character of the book; and, on the whole, it will undoubtedly surpass any similar work of the kind ever published in America, while it will be entitled to rank with the best works upon natural history in Europe. It will be a credit to the State of Massachusetts, under whose auspices and at whose expense it is to be edited and published. The appropriation for this purpose was \$8,000. Twenty-five hundred copies are to be printed for the State, and a portion of them are to be distributed among the members of the late Legislature, agricultural societies, town and public libraries, &c., &c.

JOURNAL OF THE ROYAL AGRICULTURAL SOCIETY, Vol. XX, Part 1.—This, the first part of the volume for 1859, did not appear until September. It contains many interesting papers, among them: On the Preservation of Timber, by Dr. Richardson; Beetroot Distillation, by Monsieur Tréhonnais; American Agricultural Implements, by Dr. Eddy; Steam Cultivation, by Mr. Clarke; Climate, by Dr. Vöelcker; Grass Land Manure, by Lawes & Gilbert; and on the Agriculture of Jersey and Guernsey, by C. P. le Cornu.

HOW TO FARM PROFITABLY, or the Sayings and Doings of Alderman Mechi, is the title of an English work recently brought to this country. It will be, of course, regarded with suspicion, as the work of a "fancy farmer;" but Alderman Mechi is a man who has applied himself earnestly and practically to the work which he discusses. Here are detailed at length the experiments and the improvements which the writer made in irrigation, draining, application of manures, subsoiling, alternation of crops, use of implements, rearing of animals, &c., &c., through all the round of practical farming. The writer is confident that "the subterranean glazed pan over which the plow has slid for a thousand years will be torn up by steam power, and the joyous roots of the plants will testify their exultation by a more vigorous surface vegetation, highly gratifying to the British stomach." In the last words the Aldermanic speech has the traditional savor of the Aldermanic appetite.

TRANSACTIONS OF THE CONNECTICUT STATE AGRICULTURAL SOCIETY for 1858. This volume—the publication of which has been unavoidably delayed—contains much valuable material, especially the Report of Professor Johnson on "Fertilizers," and Dr. Miner's essay on "Sea-weeds as Manure."

THE AMERICAN HERD BOOK, containing Pedigrees of Short-horn Cattle, with introductory notes by LEWIS F. ALLEN, Vol. IV. It is creditable to our country, (says the *New York Observer*.) that already it has four such volumes of record of valuable stock in this family. Nearly three thousand original pedigrees are found on the pages of this volume alone. Such a work is indispensable to all breeders and dealers in Durham stock, if they would understand their business; and the volume will instruct and benefit a large class outside of breeders and dealers. It is interesting to trace the history of all good stock from its origin, and to notice its improvement. We look with confidence to the day when we shall return to the mother country specimens of stock superior to any received from it.

THE FARMER AND GARDENER, published since September last at Philadelphia, is a handsomely printed quarto of sixteen pages. It is edited by A. M. Spangler, assisted by able writers, and published at one dollar per annum.

THE NEBRASKA FARMER, recently established, is a neat looking monthly quarto of sixteen pages, well printed, and conducted by R. A. Furness, at Brownsville, Nebraska Territory. Price, one dollar per annum.

THE WISCONSIN FARMER commenced its twelfth volume on the 1st of January. It is a well printed octavo magazine, published semi-monthly at Madison, Wisconsin, and ably edited by D. J. Powers, Esq., and Professor J. W. Hoyt. Price, one dollar per annum.

THE COUNTRY GENTLEMAN: Published weekly at Albany, New York, at \$2 per annum, by Luther Tucker & Son. This ably conducted and valuable paper has been improved at the commencement of its fifteenth volume, and its veteran editor-in-chief is nobly realizing his hope of "infusing new life and spirit into each succeeding volume, and of bringing each, with the benefit of greater experience, the expenditure of larger means, and the command of wider resources." Mr. Tucker, senior, commenced the publication of the *Genesee Farmer* some thirty years ago, and published it until he removed to Albany, in 1840, to become the proprietor and senior editor of the *Cultivator*, which position he still occupies, with high honor. Mr. Luther H. Tucker, the junior editor, has recently returned from a visit to Europe, where he creditably represented the agriculturists of America, and gleaned much valuable information, which has and is appearing in the *Country Gentleman*. Mr. J. J. Thomas, the associate editor, is well known to the members of the United States Agricultural Society, as the author of its most valuable document—the "Report on Reapers and Mowers."

THE AMERICAN STOCK JOURNAL, published at New York by D. C. Linsley, is a highly interesting and valuable periodical to all engaged in the breeding and management of domestic animals. Dr. George H. Dadd has taken charge of the Veterinary Department.

THE AGRICULTURAL REPORT OF THE PATENT OFFICE FOR 1859, has been promptly prepared by those gentlemen now in the Agricultural Division of the Patent Office, and transmitted to Congress some six months earlier than in years past. This will enable the public to receive it within a few months after its date.

Among its varied contents are papers on—Veterinary Science and Art, by Professor Rallston; Acclimation of Animals, by Dr. Craig, U. S. A.; Administering Medicines to Domestic Animals, by Dr. Wagenfeld; Vegetable Fibre, by Dr. Schæfer; The Productions of the Ionian Islands, by S. R. Parsons, Esq.; Fertilizers, by Hon. T. G. Clemson; Rearing and Management of Saxon Merinos, by Baron Von Speck; Farm Journals, by Mr. Gaw; Fruits of Japan, by Townsend Harris; List of Agricultural Patents granted in 1859; Notices of Agricultural Societies, &c., &c., &c. This brief glance at the titles of the more important papers will give an idea of the value of the report.

GOVERNMENT PROPAGATING GARDEN.—The drainage of this garden proves to have been imperfectly executed, and many of the lines of tile-drain will have to be re-laid. The attempt to heat the forcing houses by the warmth developed from the fermentation of sorghum plants and stable manure was found to be impracticable, as there was no process by which the heat could be regulated. After a thorough trial, it has been found that when manure was first thrown in, the heat emitted exceeded a temperature of 150 degrees; this would probably continue two or three days, or perhaps a week. Then it would gradually decrease, until finally all the heat would be exhausted, when a new supply of manure must be thrown in, which repeated applications were both expensive and troublesome. Again, when the weather was pleasant and the outside atmosphere moderately warm, the temperature of the heat within might be at its height, and could not be diminished. They are now heated by means of flues from a furnace, which are found to answer every purpose, though steam would be preferable were not the office circumscribed in its operations by the limited amount of funds.

The culture of the tea-plant in these forcing houses has thus far equalled the expectation of the most sanguine friends of the enterprise, and the Commissioner has offered them to members of Congress for distribution in those sections where the shrub will probably flourish in the open air. A few plants have also been sent to those in more northern latitudes who can protect them in green-houses during the winter. They are accompanied by a circular, giving the replies of R. Fortune, Esq., of England, to interrogatories concerning the culture of the plant in India and China. This will be a valuable guide to those who propose to embark in tea culture.

Several thousand grape cuttings and seedlings are in a healthy condition. They have been collected in New Mexico by Major Williams, in southern Europe by Mr. Parsons, and in New England by Mr. Weber. Reports from these agents will appear in the next agricultural Report of the Patent Office.

The wax plant and an oil tree from Japan, the sycamore fig, the seedless pomegranate, the camphor tree, the cork-oak tree, several trees valuable for dyeing purposes, and other productions which it is thought may be usefully grown in this country, are also being experimented on at the Propagating Garden.

STEAM ON COMMON ROADS.—It is stated in *The Practical Mechanics' Journal* that Messrs. J. Whitham & Son, Leeds, England, have recently constructed and shipped for San Francisco, one of Barran's Traction engines for common roads, to be reshipped from thence around Cape St. Lucas, through the Gulf of California, and up the Colorado river to Fort Yuma, from whence it goes inland some thirty miles to the borders of the Great Desert. Its purpose is to travel sixty miles back and forth across this Desert, carrying its own water, and conveying ore from and provisions to the Mariposa copper mines; a work hitherto and at present done by mules, driven by half-breed Mexican Indians. It drew thirty-five tons of pig iron, and 120 men, at the rate of five miles per hour on a level road.

ZEBRAS IN HARNESS.—In the last century the Queen of Portugal had a team of eight zebras, which probably came from Angola. M. Correa de Serra, the perpetual secretary of the Academy of Lisbon, told M. Dureau de la Malle, in 1802, that he had often seen her Majesty about Lisbon with her zebra equipage; and one of the royal stables in Lisbon is still called the stable of the zebras.

"HANDLING".—The premium heifer Beauty's Butterfly was so exhausted with the "handling" of her examiners at the Smithfield winter exhibition, that she lay down, and many prophecied that she would never leave the grounds alive. Hurdles were placed around her, and by careful nursing she recovered.

ABSTRACT OF CORRESPONDENCE.

[Quarter ending January 10, 1860.]

ALABAMA.—The State Society proposes to have a medal struck, to be awarded at its exhibitions.

CALIFORNIA.—At the exhibition of 1859, the exhibitors numbered over 750, the visitors over 20,000, the receipts from memberships and admission tickets \$27,000.

CANADA.—The Provincial Exhibition of 1860 has been located at Hamilton. The newly elected President of the Provincial Agricultural Society of Canada is John Wade of Coburg; 1st Vice President, Hugh C. Barwick, of Woodstock; 2d Vice President, F. W. Stone, of Guelph, who is a life-member of the United States Agricultural Society, and was a successful exhibitor at the Chicago Exhibition.

CONNECTICUT.—The State Agricultural Society will meet at Hartford on the 11th inst., and the Grape Growers' Association will meet the evening previous. Professor Johnson, Chemist to the State Agricultural Society, has published a report on reducing whole bones into a pulverized condition, (without grinding or the use of oil of vitriol,) by a process of *fermentation*. This is but a portion of the useful labors of Professor Johnson, who has rendered the farmers of Connecticut a great service by his analysis of muck, peat, bones, and the "fertilizers" now offered for sale.

DELAWARE.—The Kent county society is holding regular meetings, at which valuable papers are read by Dr. Ridgeley and other agriculturists.

FLORIDA.—Several successful efforts have recently been made in Florida for the cultivation of lemons, from seed and graftings. The *Charleston Courier* mentions a specimen sent to that office from the plantation of Col. T. L. Nancy. These were Sicily lemons, from imported seed, after several years' cropping in Florida. They are pronounced to be admirable in size and appearance, and excellent in flavor.

GEORGIA.—Successful results have followed experiments in cultivating "upland rice," which yields a good crop on wornout pine land, where corn will not grow without manure.

A second importation of Cashmere goats has been made into this country, for Hon. W. H. Stiles. The first lot imported was sold to Mr. Richard Peters, of Atlanta, from which importation all the crosses and half-breeds in this country have sprung. Mr. Stiles has eight of them, and they are no less curious than valuable—something of the size and shape of our native breeds. They differ widely in their hair, which grows so luxuriously as to give them the appearance of a sheep with an immense fleece on it. The experiment having been thoroughly tried as to their thriving in our climate, and resulting satisfactorily, there can be no doubt of the value they will be to our country. The uses to which the hair is put are numerous. Camlet and worsted goods and ladies' fabrics, as challies, mousseline de laine, gentlemen's clothing for summer wear, hosiery, &c., promising a beauty, strength, durability, lustre, and permanency of color far superior to the wool of the sheep or the alpaca. These goats are found in the Himalaya mountains, and have to be brought about a thousand miles before they reach a shipping port. They are not sheared like the sheep, but the fleece is pulled off twice every year. An ordinary fleece weighs between three and four pounds—the New York price, \$8.50 per pound, making at least \$51 a year for each goat, while there is no cost in feeding them, for they are as frugal and hearty as the common goat. Their great value in this country is the splendid cross with our common goat, the half breed being nearly as valuable every way as the full breed. The expense of keeping them is a mere trifle, as they live on briars and foliage not touched by other animals.

INDIANA.—In the year 1775, Minard Sturgess, grandfather of Prof. Sturgess, of Hanover College, emigrated to Indiana, bringing with him the first hive of bees ever seen in the Wabash Valley. The Indians, who had never seen any before, after being stung a few times, called them the white man's fly, while the French settlers became very much alarmed for fear the bees would injure the fruit by sucking the blossoms.

KANSAS.—A fine lot of Durhams and Devons, as, also, imported Suffolk hogs, have been introduced in Anderson and Douglass counties, and the farmers are giving attention to the improvement of the stock of the country. During the present year, however, several hundred head of good cattle died with what is called "the Spanish" or "Texas fever," a disease which in almost every instance has proved fatal. It has been quite prevalent for a few years, both in Kansas and Missouri; and if any person can suggest a remedy, it will be of much benefit in the advancement of cattle raising upon the prairies of the West.

KENTUCKY.—At the annual meeting of the State Agricultural Society, held at Frankfort, December 7th, Col. L. J. Bradford, of Bracken county, was unanimously elected

President, with a Vice President and Directors for each district. The receipts of the past year were \$11,149 89, the expenditures \$7,352 71, leaving a balance in the treasury of \$3,797 18. A recent assessment shows the number of hogs in the State, in 1859, to have been 815,538; an increase of 176,241 head over the number in 1858.

LOUISIANA.—In the year 1852 the production of sugar in Louisiana was 236,547 hogsheads. Last year it was 440,000 hogsheads, but this year, says the *Sugar Planter*, the results of observation in a part of the State where the crops more rarely fail than in any other, and the concurrent testimony of planters in other sections, have brought us to the conclusion that the yield of this season will be less than that of the last by over one hundred thousand hogsheads.

MASSACHUSETTS.—A State Exhibition, under the direction of the Board of Agriculture, will probably be held in September next, at Springfield. By direction of the Board of Agriculture, the Secretary, C. L. Flint, Esq., has prepared No. 1 of a proposed series of tracts on Agriculture, for distribution among the farmers of the commonwealth. No. 1 is a valuable treatise upon the culture of the grasses—a subject of great importance to the farmers of Massachusetts. An edition of forty thousand copies will be printed, and any farmer in the State can obtain a copy of the pamphlet free, by mail, by sending a request enclosing a penny-postage stamp. Subsequent tracts will treat of the grain crops, the cranberry crops, neat cattle, &c., &c.

MAINE will probably soon have a Department of Agricultural Chemistry, properly endowed, attached to some of the seminaries of learning already established. The Androscoggin Agricultural Society has taken the initiative steps to secure a donation of \$15,000 from the State, and a private subscription of the same amount.

MINNESOTA.—The members of the Minnesota Legislature, now in session at the city of St. Paul, have organized from their body an Agricultural Club, which meets in the capitol one evening in each week, to talk over the various productions of the State, to compare experiences, and generally to discuss all subjects bearing upon the interests of agriculture. At their meeting on Wednesday evening, December 28, we see that wheat-growing was the subject of investigation. The counties were well represented by several delegates; and from these we learn that, even in that mellow and fertile soil, the bulk of experience went in favor of deep plowing. The estimates of the average yield of wheat to the acre varied from twenty to twenty-five bushels. Mr. Ford (Ramsey county) had stated before the United States Agricultural Fair the average of the State to be twenty-five bushels, but now thought he was then too high.

MISSOURI.—The "St. Louis Vine and Fruit Growers' Association" contemplate planting a vineyard of 1,000 acres. It is estimated that not less than 5,000,000 acres in southern Missouri present rare attractions to the vine-dresser, while favorable localities exist in all parts of the State, in which the grapes can be cultivated to advantage.

NEW MEXICO.—Although large numbers of sheep are raised in this territory, they are never sheared, and the fleece does not enter into the calculation of their value. The flocks having been herded during the winter among the valleys of the mountains, are early in the spring driven in by the shepherds to the haciendas of their proprietors, which, for the most part, are in the immediate valley of the Rio Grande del Norte. While the sheep are grazing in the mountains, and while being driven to and from their winter quarters, they lose quite a large portion of their fleece among the bushes and prickly shrubs of the country. In driving a large flock through some patches of thorns, it is not uncommon for the sheep to lose from one to two thousand pounds of their wool. This is left hanging to the bushes and is gathered up by the Peons, properly sacked, taken to the merchants or freighters engaged in the commerce between New Mexico and the States, sold for a trifling sum, (for the ignorant and lazy natives, or "greasers," have no idea of the value of the wool,) and by these traders is forwarded to the frontier towns. Last summer trains arrived at Kansas city, bringing as many as ninety thousand pounds of this wool, gathered in this manner. Shearing sheep is never done, though some of the more scientific and industrious of the Peons will take off a fleece with a common butcher knife—rather a tedious and savage operation.

NEW BRUNSWICK.—At the recent annual meeting of the St. John Agricultural Society, Thomas Davidson was elected President, and R. Sands Armstrong Secretary, with other officers.

NORTH CAROLINA.—Professor Buckley says, that in no part of the United States have we finer apples than in the mountain regions of North Carolina, and they are mostly from seedlings originally planted by the Indians. Silas McDowell, of Franklin, in Macon county, has devoted more than twenty years to the selection and grafting of those best native apples, and he now has an orchard of more than 600 apple trees, which bear fruit

equal if not superior to the best northern kinds. There is said to be a line or belt on the mountain sides about three hundred feet above the adjoining plain or valley, and extending upwards several hundred feet, where fruit trees always bear, because the belt is free from frost. If this be true,—and believe its truth has been pretty well tested by experiment,—the mountains of North Carolina might supply the South with an abundance of the choicest fruit, if the means of transportation were good.

PENNSYLVANIA.—It has been proposed to hold the next exhibition of the State Society, on the spacious grounds of the Lucerne County Society, in the Wyoming Valley, now accessible by railway from all parts of the State.

RHODE ISLAND.—The manufacture of hay rakes is a large business near Woonsocket. Since the 1st of September Wilcox & Son have shipped to California 800 dozen of hand rakes and 250 horse rakes, and more are to follow.

SOUTH CAROLINA.—A cargo of 1,000 bales of hay has been landed at the port of Charleston, by the Dutch bark Netherlands, from Rotterdam. The *News* says, that "it is equal in quality to any of the northern hay, and will pay a good profit." The progress of the geological survey of the State has been stopped, although Mr. Lieber will remain in office another year to complete the office work, and to superintend the publication of the fourth volume.

TEXAS.—Wool-growing is becoming an important business in Texas, and will soon rival the cotton-interest. The woolen factories of the South consume more than is offered in the New Orleans market, and agents are sent to Texas to engage it. G. W. Kendall, Esq., was one of the first pioneers in Texas wool-growing, and his sheep now number several thousand. More recently other gentlemen have gone thither, and they receive remunerating prices for their "clips," although generally badly put up, different qualities being mixed together, unwashed and matted with burrs or dirt.

UTAH.—A letter in the *Mountaineer*, of Salt Lake city, Utah, written from Washington county, has the following: "Our prospect for a good harvest of cotton in this place is very flattering at present. We have already picked between two and three thousand pounds, and feel sanguine that we have yet five or six thousand pounds to pick."

VIRGINIA.—The Farmers' Assembly met during the Petersburg exhibition, and elected the officers of the State Agricultural Society for 1860. John R. Edmunds, of Halifax, *President*; Chas. B. Williams, of (Richmond) Henrico, *Secretary and Treasurer*. A resolution was adopted declaring it to be expedient "to hold the next fair at the Metropolis of the State, and to hold there all succeeding fairs;" and the raising of a committee "with full powers to arrange for the holding of the next fair accordingly, if provision can be made therefor satisfactory to the committee." Another committee was appointed to memorialize the General Assembly of Virginia to pass a law requiring the Commissioners of the Revenue to take annually the agricultural statistics of the Commonwealth. The thanks of the society were unanimously voted to Edmund Ruffin, Sr., Esq., for his services as president.

The Central Society at Richmond, which now has fine grounds sixty acres in extent, proposes to hold a horse show and horticultural fair in May next.

WISCONSIN.—The board of officers for 1860 was elected at the Milwaukee exhibition. B. R. Hinkley, Waukesha county, *President*; F. W. Hoyt, Dane county, *Secretary*. Professor Hoyt is one of the editors of the *Wisconsin Farmer*, published at Madison.

The *Milwaukee Sentinel* estimates the wool crop of Wisconsin for the past year, at one million of pounds. The average price is estimated at from 39 to 42 cents a pound. At 41 cents the amount would be \$410,000. Much of the wool was so badly put up that it brought an inferior price, solely from the neglect of the owners. Every farmer in the State could keep a flock of sheep, and realize a handsome income from the lambs and wool annually, without restricting his other farming operations. Farmers have been so much given to wheat growing that the production of other articles has been comparatively neglected.

BAKER'S ISLAND, in the Pacific, has been provided with a wharf and fixtures for loading guano.

AFRICAN COTTON.—Dr. Livingston writes from the interior of Africa that the natives offered for sale "cotton of two kinds, one indigenous, short in the staple, but very strong, and woolly to the feeling; the other very fine, and long in the staple. We brought a number of specimens of their spindles and yarn, and as it was quite equal to American uplands, did not offer them any American seed. The cotton-plant is met with everywhere; and, though burned down annually, springs up again as fresh and strong as ever."

DELEGATES who may attend the Eighth Annual Meeting, are requested to hand in their credentials, and to annex their Post Office address, that an account of the meeting may be sent to them.

THE MEDALS AWARDED AT CHICAGO were ordered without delay at the United States Mint at Philadelphia, where they are struck from fine gold and silver, or the best bronze, thus avoiding any chance for the deceptions often practiced by those who manufacture these valued testimonials of merit for associations.

The Grand Gold Medal of Honor, and a large number of the silver medals, were finished in due time, and forwarded to Washington by John McGowan, Esq., of the Executive Committee. But, for the reason given in the annexed letter, some weeks will probably elapse before they can be finished, and engraved with the names of the exhibitors to whom they have been awarded.

MINT OF THE UNITED STATES,
Philadelphia, January 5th, 1860.

Dear Sir: The delay in furnishing the balance of the medals ordered by the United States Agricultural Society is owing to the press on which they are struck having given out. It is in course of repair, and as soon as finished, your medals will be made without delay.

Very respectfully,
JAMES ROSS SNOWDEN, *Director,*
Per H. R. LINDERMAN.

JOHN MCGOWAN, Esq.,
Of Executive Committee U. S. Agricultural Society.

THE PUBLICATIONS of the society for 1857, '58, and '59, can be supplied to life members who have not received them at the business office, or they will be sent by mail if the postage is remitted.

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OBITUARY NOTICES.

DAVID THOMAS, an able writer on agricultural and horticultural topics, died at his homestead near Union Springs, Cayuga county, New York, aged 84 years. He came from Pennsylvania to the early settlement of Scipio, Cayuga county, N. Y., and being a civil engineer, he was employed more as a surveyor than in the labors of his farm; yet such was his passion for Horticulture, Pomology and Floriculture—being an accomplished botanist—that his domain at Greatfield, two miles east of Aurora, was soon celebrated for its fine fruits and beautiful flowers. He was one of the first contributors to the Agricultural Press of the State, and the young *Genesee Farmer* was often graced and enlivened by articles on the proper culture of fruits and flowers, from his practical pen. Appointed by Governor DeWitt Clinton to the responsible position of Chief Engineer of the Western Division of the Erie Canal, Mr. Thomas built a new house on his farm, with an observatory on top overlooking the broadest expanse of the Cayuga; here on shelves were numerous geological specimens he had himself collected. His ornamental and fruit trees were now increased, his flower garden extended, and its beautiful specimens greatly augmented. But as age and infirmity crept on, he became more and more dependent on costly mercenary help; and rather than see his beautiful flowers run wild, and his fruit trees a prey to insects, he sold the beautiful domain and retired to a comfortable cottage near the sparkling lake waters at Union Springs. Here, as his physical infirmities increased, his mind and memory partially gave way; yet Providence dealt kindly with him, for he might often be seen on a genial summer's day among the flowers of his now narrow border, or the evergreens in his door-yard, enjoying their fragrance and beauty; a comfort kindly vouchsafed to compensate us for the privations and infirmities of age.—*Rural New Yorker*.

THOMAS NUTHALL, the distinguished botanist, died at his residence near Liverpool in September last, aged 73. Mr. Nuthall was one of the highest botanical authorities, an extensive traveler and most accurate observer. Every student of American botany, and every florist, knows and reverences his name. His contributions to our knowledge of American forest trees and our flora generally are second only in importance to those of the great men who immediately preceded him in laborious pioneer investigations.

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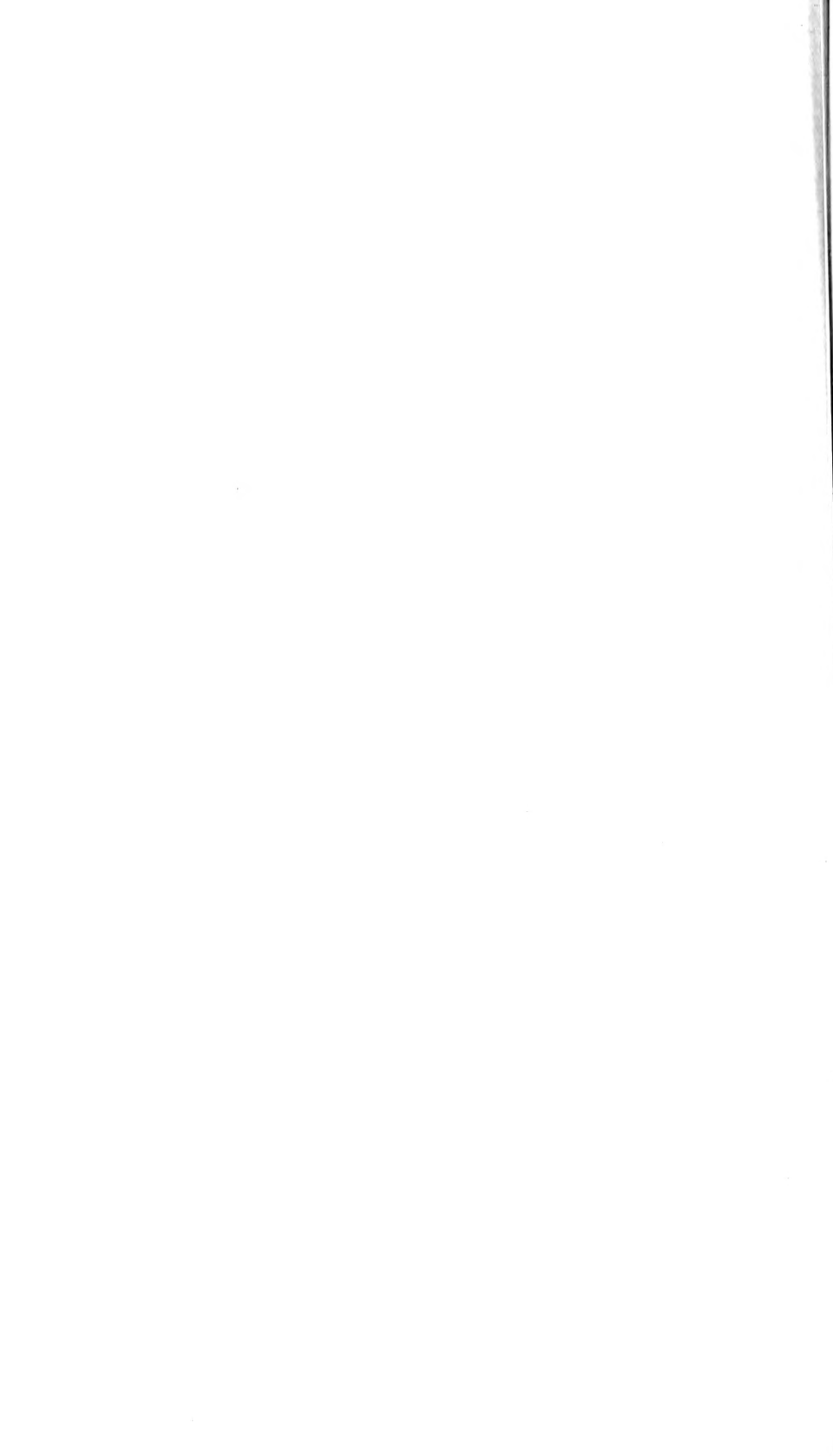
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I N D E X .

	PAGE.
Address by President Tilghman.....	9, 31, 199, 217, 224
Address by Senator John J. Crittenden, of Kentucky.....	203
Address by Senator Stephen A. Douglas, of Illinois.....	207
Address by Hon. Alvan P. Hyde, of Connecticut.....	288
Address by Henry Hull, Jr., Esq., of Georgia.....	299
Address by Richard Owen, M. D., of Indiana.....	308
Address by Rev. A. L. Stone, of Massachusetts, (abstract).....	332
Address by Dr. George B. Loring, of Massachusetts, (abstract).....	334
Address by J. Stanton Gould, Esq., of New York, (abstract).....	354
Address by Governor N. P. Banks, of Massachusetts, (abstract).....	360
Address by Hon. A. H. H. Stuart, of Virginia.....	366
Address by Hon Abram Lincoln, of Illinois, (extract).....	373
Alabama, information from.....	185
Alabama, Local Exhibitions in.....	49, 285
Alabama State Agricultural Society.....	48, 84, 185, 285, 385
American Herd Book, Short Horns, Vol. IV.....	383
Annual Meeting U. S. Agricultural Society for 1859.....	9
Annual Exhibition U. S. Agricultural Society.....	193
African Cotton.....	81, 387
Agreement with Hotel-keepers at Chicago.....	179
Agricultural Bureau proposed.....	377
Agricultural Chemistry.....	134, 191
Agricultural Division of Patent Office.....	81, 180
Agricultural Education, resolutions on.....	28
Agricultural Lectures at Yale College.....	382
Agricultural Patents.....	80
Agricultural Professorships in Virginia.....	381
Agricultural Report of Patent Office.....	13, 25, 29, 78, 181, 384
Agricultural Schools, their chances of usefulness.....	98
Agricultural Statistics.....	37
Archives of American Agriculture.....	105
Arizona, Information from.....	185
Arkansas, Information from.....	84, 185
Arkansas, Exhibitions in.....	49, 286
 Bishop, Hon. Wm. D., Commissioner of Patents.....	 180
Bread Region, the.....	123
 Connecticut, Information from.....	 186, 385
Connecticut, Local Exhibitions in.....	53, 298
Connecticut State Agricultural Society.....	51, 287, 383
Columbian Agricultural Society.....	114
California, Information from.....	84, 185
California, Local Exhibitions in.....	50, 287
California State Agricultural Society.....	49, 185, 286, 385
Canada, Information from.....	185, 385
Canada, Exhibitions in.....	50
Cotton.....	82
Country and City Life.....	73

	PAGE.
Cuba.....	81
Cultivating Hops.....	379
Delaware, Information from.....	385
Delaware, Exhibitions in.....	53, 298
District of Columbia, farms near.....	186
Domestication of the Elk.....	28, 40
Drainage.....	184
English Breeds of Swine.....	378
Essay, by Professor Francis G. Carey, of Ohio.....	89
Essay, by A. L. Elwyn, M. D., of Pennsylvania.....	98
Exhibition of 1859, located at the Northwest.....	21, 192
Exhibition of 1859, Premium List.....	136
Exhibition of 1859, Awards of Premiums.....	227
Farm Drainage, a Work by Henry F. French.....	184
Farming by Steam.....	126, 182, 253
Foreign Information.....	81, 83, 126, 284, 378, 379
Fruit Culture in the Northern States.....	46
Harris' Revised Work on Injurious Insects.....	382
Illinois, Information from.....	84, 186
Illinois, Local Exhibitions in.....	54, 303
Illinois State Agricultural Society.....	54, 84, 186, 303
Indiana, Information from.....	186, 385
Indiana, Local Exhibitions in.....	55, 306
Indiana State Agricultural Society.....	55, 84, 186, 305
Farmers' "Talks".....	325, 213, 344
Georgia, Agricultural Information from.....	186, 385
Georgia, Local Exhibitions in.....	53, 299
Georgia, State Agricultural Society.....	53, 298
Inaugural Exercises at Chicago Exhibition.....	199
Inundations, a Solution of the Problem of the.....	44
Iowa, Information from.....	186
Iowa, Agricultural Exhibitions in.....	58, 321
Iowa State Agricultural College.....	84, 381
Iowa State Agricultural Society.....	58, 84, 320
Kansas, Information from.....	84, 186, 321, 385
Kansas, Local Exhibitions in.....	322
Kentucky, Information from.....	186, 385
Kentucky, Agricultural Exhibitions in.....	57, 322
Kentucky State Agricultural Society.....	56, 322, 385
Lectures and Lecturers at New Haven.....	382
Louis Napoleon as a Farmer.....	379
Louisiana, Information from.....	84, 187, 386
Louisiana, Local Exhibitions in.....	323

	PAGE.
Maine, Information from.....	187, 386
Maine, Local Exhibitions in.....	59, 327
Maine State Board of Agriculture.....	58, 84, 323
Maryland, Information from.....	187
Maryland, Local Exhibitions in.....	58, 329
Maryland State Agricultural College.....	187, 380
Maryland State Agricultural Society.....	57, 85, 187, 328
Massachusetts, Information from.....	59, 187
Massachusetts, Local Exhibitions in.....	59, 329
Massachusetts Society for the Promotion of Agriculture.....	59, 85, 329
Massachusetts State Board of Agriculture.....	59, 187, 329, 386
Mechi's Sayings and Doings.....	383
Members U. S. Agricultural Society.....	86, 192, 388
Medals awarded for Reports of Exhibitions.....	387
Michigan, Information from.....	187
Michigan, Local Exhibitions in.....	61, 85, 336
Michigan State Agricultural College.....	188
Michigan State Agricultural Society.....	60, 335
Model Farm of Prince Albert at Windsor.....	43
Morrill Land Bill, Discussion on.....	18
Minnesota, Information from.....	188, 336, 386
Minnesota, Local Exhibitions in.....	85, 337
Mississippi, Information from.....	188
Mississippi, Local Exhibitions in.....	62, 337
Mississippi State Agricultural Bureau.....	62, 337
Missouri, Information from.....	188, 386
Missouri, Local Exhibitions in.....	61, 188, 338
Nebraska, Information from.....	188, 383
Nebraska, Exhibitions in.....	62, 338
New Brunswick, St. John Society.....	386
New Hampshire, Information from.....	188
New Hampshire, Local Exhibitions in.....	63, 339
New Hampshire State Agricultural Society.....	62, 338
New Jersey, Information from.....	188
New Jersey, Local Exhibitions in.....	64, 341
New Jersey State Agricultural Society.....	63, 85, 340
New York, Information from.....	188
New York, Local Exhibitions in.....	65, 346
New York State Agricultural College.....	284, 380
New York State Agricultural Society.....	64, 85, 188, 341
New Mexico, Information from.....	386
North Carolina, Information from.....	189
North Carolina, Local Exhibitions in.....	67, 348
North Carolina State Agricultural Society.....	66, 348
Notices of New Works.....	184, 382, 383
Ode to Ohio, by Col. Harris.....	352
Ohio, Information from.....	189
Ohio, Local Exhibitions in.....	68, 351
Ohio State Agricultural Society.....	67, 85, 348
Obituary Notices.....	16, 88, 388

	PAGE.
Oregon, Local Exhibitions in.....	353
Oregon, Organization of a State Society.....	353
Pennsylvania, Information from.....	189, 387
Pennsylvania Farm High School.....	380
Pennsylvania, Local Exhibitions in.....	69, 354
Pennsylvania State Agricultural Society.....	69, 189, 353, 387
Premiums awarded at Chicago.....	227
Presentation of Grand Gold Medal to Mr. Rahm.....	19
Presentation of Premium Colors to Chicago Cadets.....	217
Propagating Garden of the Patent Office.....	181, 384
Reaping Machines first used.....	124
Rhode Island, Information from.....	189, 387
Rhode Island, Local Exhibitions in.....	69, 354
Rhode Island, Society for the Encouragement of Domestic Industry....	69
Royal Agricultural Society of England.....	81, 212, 378, 383
Rules of Exhibition of 1859, at Chicago.....	136
Secretary's Table.....	76, 180, 283, 376
Sheep-Shearings at Arlington.....	112
Society for Promoting Public Economy.....	111
Soiling Cattle, discussion on, at Albany.....	344
South Carolina, Information from.....	189, 387
South Carolina, Local Exhibitions in.....	69, 356
South Carolina State Agricultural Society.....	69, 356
St. Louis Agricultural Association.....	61, 85, 188, 337
Steam Plowing in England.....	126
Steam Plows at Chicago, Report of Committee.....	253
The Country Gentleman.....	383
Tennessee, Information from.....	189
Tennessee, Local Exhibitions in.....	71, 357
Tennessee State Agricultural Bureau.....	71, 356
Texas, Information from.....	190, 387
Utah, Agricultural Information from.....	71, 190, 387
Vermont Farmers, described in rhyme, by J. G. Saxe, Esq.....	264
Vermont, Information from.....	190
Vermont, Local Exhibitions in.....	71, 364
Vermont State Agricultural Society.....	71, 357
Virginia, Information from.....	190, 387
Virginia, Local Exhibitions in.....	71, 365
Virginia State Agricultural Society.....	71, 365
Wisconsin Agricultural Lectures.....	381
Wisconsin, Information from.....	190, 387
Wisconsin, Local Exhibitions in.....	73, 375
Wisconsin State Agricultural Society.....	72, 372
Washington's Views on a National Agricultural Society.....	105
Works for Wine-Growers.....	379

