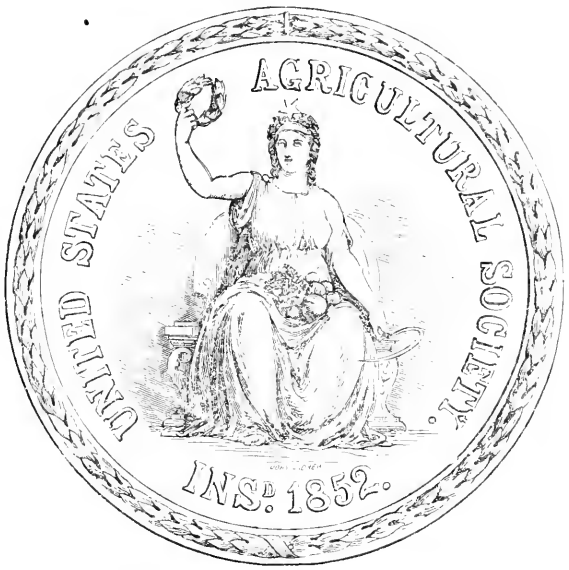
THE

# QUARTERLY

# JOURNAL OF AGRICULTURE,

PUBLISHED BY THE




FOR JULY, 1859,

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AT CHICAGO, ILL., SEPT. 12–17.

EDITED BY BEN: PERLEY POORE,
Secretary of the Society.

WASHINGTON, D. C.
1859.

THE QUARTERLY

# JOURNAL OF AGRICULTURE.

PUBLISHED BY THE

UNITED STATES AGRICULTURAL SOCIETY.

VOL. VII. JULY, 1859. No. 2.

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WASHINGTON, D. C.

*Published at the Rooms of the United States Agricultural Society, and mailed to Life and Annual Members.*

W. H. MOORE, PRINTER.

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## OPERATIONS OF THE UNITED STATES AGRICULTURAL SOCIETY.

*The Journal of Agriculture* is published quarterly, and mailed free of charge to Honorary, Life, and Annual Members of the Society. Gentlemen not connected with the Society, who may desire to receive it, are invited to enrol themselves as Members. *Life Members* receive an elegant Diploma, all the publications of the Society, free tickets of admission to all exhibitions, and their share of such seeds and cuttings as may be procured for distribution, without any additional assessment or payment beyond the admission fee of ten dollars. *Annual Members* receive the publications of the Society, paying a fee of two dollars. County or town societies have the privilege of making their President, Secretary, or Treasurer *ex-officio* a Life Member, in which case the society will receive the publications, &c. Remittances for membership can be made by mail to Hon. B. B. French, Treasurer U. S. Agricultural Society, Washington, D. C.

*A Secretary's Office, Library, and Reading Room* has been established at No. 356 Pennsylvania avenue, Washington City, where the members of the Society, and others interested in agricultural improvement meet as brothers at a common home, and find a collection of objects in which they have a common interest. Many State and County societies have contributed their published transactions, premium-lists, the names of their officers, and other information, which has been duly registered, and they have received the publications of the Society in return. A majority of the agricultural and numerous other publishers have contributed their periodicals and newspapers, and thus aided in forming a Free Agricultural Library at the National Metropolis. Donations of models, specimens of fertilisers, and engravings of cattle or agricultural implements, are also solicited.

*Annual Exhibitions.*—These have been held at Springfield, Mass.; Springfield, Ohio; Boston, Mass.; Philadelphia, Pa.; Louisville, Ky., and Richmond, Va., each exhibition distinguished by some national feature. They have been self-sustaining, the receipts meeting the disbursements of upwards of one hundred and twelve thousand dollars for premiums and expenses; and they have not only increased the efficiency of State and Local Associations, but have called together larger assemblages of people than have ever been convened upon other occasions, embracing not only our most intelligent yeomanry, but gentlemen of every art and profession from every portion of the wide-spread Union, evincing that the national pulse beats in unison with our own, and that the public voice is responsive to the call. ☞ The *Seventh Exhibition* will be held near Chicago, Illinois, Sept. 12–17, 1859. No pains will be spared to render it worthy of the vigorous region in which it is to be held, and of the nation which the Society represents. This number of the *Journal* contains the first edition of the Premium List, which offers liberal awards for the various classes of Domestic Animals, Fruits, Flowers, Native Wines, Farm and Garden Products, Specimens of Mechanical Ingenuity, and Agricultural Implements. See page 136.

*Annual Meetings.*—Seven of these have been held at Washington city, and they constitute in reality the central "Board of Agriculture," recommended by the Farmer of Mount Vernon. Gentlemen from almost every State in the Union, (many of them delegates from Agricultural Associations,) have annually assembled to discuss such topics as have been presented, calculated to advance the cause of agricultural improvement; interesting and valuable lectures have been delivered by practical and scientific farmers; reports have been submitted by committees specially appointed to examine new inventions and theories, and by delegates who have been accredited to the agriculturalists of other land; and there has been a general interchange of opinion.

*The United States Agricultural Society* was founded in June, 1852, by a national Agricultural Convention, (called by the direction of twelve State Agricultural Associations,) at which there were present one hundred and fifty-two delegates, representing twenty-three States and Territories. It has since been in active operation, receiving the confidence, patronage, and favor of American agriculturists, and co-operating with State and Local Associations. If it has not accomplished all which its founders anticipated, or which its present officers desire, it has furnished pleasing evidence of its growing prosperity and usefulness. All who wish to aid in awakening an extended and general interest in the cultivation of the soil, are respectfully invited to enrol their names with those who have founded this National Agricultural Organization, and who desire to make it worthy of the great interest upon which the prosperity and happiness of our country is dependant.

Washington, D. C., July, 1859.

# JOURNAL OF AGRICULTURE.

VOL. VII. JULY, 1859. No. 2.

## HOW AGRICULTURE CAN BE SUSTAINED, AND ITS PERMANENT PROSPERITY PROMOTED.

BY PROFESSOR FRANCIS G. CAREY, OF COLLEGE HILL, OHIO.

It is a stereotyped truth, that a correct system of agriculture lies at the very basis of our national prosperity. Its importance will be magnified the more we consider it. In its physical, social, political, and moral bearings no subject should command more the attention of the political economist, the statesman, and the philanthropist. Ours, too, are essentially an agricultural people, and this pursuit employs more capital and more labor than all others combined. With its progress is identified every important interest of this great nation.

It becomes, then, an *important problem*, *In what manner this interest can be best sustained and its permanent prosperity secured.*

The exchange of friendly salutations which the present occasion affords to those engaged in this noble pursuit, is an opportunity that all must highly appreciate, and one from which we have reason to hope great benefits may arise to ourselves as individuals and to the public at large.

Agriculture, though as old as civilized society, has been practiced up to the present time as a very simple art, while as a science it has occupied no very conspicuous place in the estimation of the learned, or figured largely in councils and cabinets.

To compel the earth to produce the largest return with the least possible outlay of time and labor, has constituted the chief study of the American farmer and planter; hence, productiveness of crops and destructiveness of soil have been the two most prominent features of our agriculture, while to secure large farms and to lay them under the severest contribution, has been the effort of the more enterprising; and when the soil is exhausted or ceases to be remunerative, it is abandoned for new fields, the occupants exulting in the thought that there is a vast area yet intact in the far west; thus the soil in the older States is worn out. Even in the great agricultural States of Pennsylvania and New York, where formerly large crops

of wheat were grown, the soil is now incapable of producing this cereal, and the yield per acre in portions where still cultivated is constantly diminishing. The farmers of Ohio, in many places, are now seriously asking the question, Shall we continue the culture of wheat, or shall we abandon it; and if it is abandoned, what shall be substituted for it?

In view of such reckless system of tillage, what shall be done? All along our eastern slope, from Maine to Georgia, we may see vast tracts of once fertile land turned out to common, impoverished and exhausted, incapable of producing any thing, much less a remunerative return, still, like an army of locusts, the march of emigration is westward, devastating and destroying, leaving a desert in their track. And now that facilities for travel and transit are so much increased, our people, with true Anglo-Saxon rapacity, are extending with unwonted strides the same vandal policy to the wild woodlands and prairies of our vast western domain; and these multiplied facilities, so far from improving agriculture, are stimulating industry to the highest pitch, bringing into requisition increased numbers of labor-saving machines, thereby drawing more rapidly and with less expense of time and labor the elements of fertility from the soil, making merchandise of them to foreign countries, rendering its impoverishment the more extensive, speedy, and certain.

The reaper, the mower, the gang-plow driven by steam, the ten thousand patented and unpatented machines which ingenuity is furnishing, and which are so liberally encouraged, are but so many engines to aid in this work of destruction, so long as the same exhausting, reckless system is continued. We are setting the combined powers of nature, with all the genius and skill of man, to draw the life-blood from the soil with more than Briarian strength.

Depletion, constant depletion, has been the inculcation and practice enforced by precept and example, despite the efforts of all who have exercised guardianship over these matters. If any more powerful argument can be made, or necessity pleaded, for the interposition of proper statesmanship than the one furnished in the startling fact, that of the one hundred and twenty-five millions of acres under cultivation in these United States, we are worse than wasting its capabilities to an extent not less than three hundred millions of dollars annually. I know not where that argument can be found—a sum literally incalculable, and yet this exhaustion is yearly accumulating in geometrical ratio. True, this *physical atrophy* is going

on so slowly that it is not felt. It is now upon our limbs, but will soon pervade our very vitals unless arrested. Certainly, some more rational system must supplant the present, or a dread future is before us.

Some are ready to ask, May we not look with confidence to the numerous agricultural societies, farmers' clubs, and lyceums now formed and forming for the rapid improvement and ultimate renovation of our system of tillage? These have had and will continue to have their beneficial effects; they lead to investigation and awaken a spirit of inquiry.

The numerous fairs held by State and county associations, bring together experienced and successful cultivators to exhibit the results of their well-directed efforts and skill, and a generous rivalry in the different departments of agriculture, horticulture, and mechanical improvements is secured. Yet, after all, but few important facts, and fewer general principles touching improved culture, are elicited or brought into available form. There can be no extended classification of facts and analyses had, such as are necessary to the discovery of general laws, in the hurried manner in which these fairs are necessarily conducted; and too frequently these exhibitions are so managed as to make the chief interest to consist in feats of horsemanship or some more ridiculous device to catch the multitude, with no higher motive than *to make it pay*—a grand commentary, surely, on the taste and intelligence of our people.

Many are disposed to trust in the general improvement of the country—to the progress of the age in arts and machinery, but not only these do not reach the evil, but tend directly, as we have seen, to enhance and aggravate it.

Another method has been recommended in some parts of our country, and adopted with partial success, viz., the appointment of lecturers, who shall impart suitable scientific instruction to those disposed to listen.

But two important difficulties meet us here: The first to secure men qualified to lecture, and the 2nd, no less insurmountable, to find interest and capability in communities to appreciate or apply the information given. Besides, our scientific men are themselves rarely practical men.

Without mentioning other expedients for revolutionizing or improving our present defective system of tillage, we assert that all relief must come from science—*applied science.*

The deeply interesting but occult problems found in agriculture,

cannot be solved without institutions adapted to the proper education and liberal enlightenment of this class of those who are to be the leaders, at least. We must establish institutions that shall not stop with the mere theory, but such as shall unite theory with practice, under a rigid system of analyses and examination of phenomena, carried forward through a numerous and long continued series of experiments, and under a great variety of circumstances.

Now, it is a notorious fact, that while there is no science in which so many laws of nature must be consulted and understood, the general and prevalent feeling has been, that to be a farmer and a successful one, too, almost no education at all is needed. This has arisen in part from the fact, that as agriculture is both a science and an art, the class who thus undervalue it, have never looked upon it in any other light than a very simple art. This view has been prevalent with the learned and the illiterate alike, and yet the deficiencies of our present system of tillage has been most apparent to all, the facts furnished being too startling not to have commanded every one's notice, and to the more reflective they have been such as to excite alarm. As to the remedies for their correction, there is more contrariety of view. Some, with stolid indifference, are ready to say, iron necessity, gaunt famine, with his bony fingers, must stand before us ere proper action will be had; that as long as we have plenty of territory yet unoccupied, no efforts at reform need be attempted: But these are not the inculcations of the political economists, the statesman of enlarged, liberal, and enlightened views, or the great conservators of the public weal in this republic of *the people.* We believe, with all their neglects and deficiencies, they are right, and when the time comes, *and come it will*, they will act, and act efficiently; and if once they take this matter in hand, in good earnest, the days of demagogues, charlatans, and political mountebanks are at an end. Let but the measure recommended in conformity with the principle expressed in the late Report of the Secretary of the Interior, become the settled policy of this government, viz., "*to elevate agriculture, so essential to our wealth and prosperity as a nation, at least to an equality with other pursuits,*" and a new order of things would soon be inaugurated, and we verily believe the people would endorse and sustain it this very day.

But the restoration and the sustentation of our soils, the increase and improvement of our crops, and other mere material and physical advantages, important as they are—and certainly in this money-loving age they must be conceded to be especially so—we propose

to secure to ourselves and to our children, in addition to these, *vastly higher and more ennobling results* by the adoption of such enlightened policy as we propose. It is no other than to make *men*, to make SOVEREIGNS, who shall become the safe custodians of the "GRAND MAGNA CHARTER" of our liberties. A system of industrial university education, such as we would urge upon your attention, would dignify labor most successfully, and while it would add to our physical comforts and multiply and greatly magnify our social enjoyments, would give stability to our free institutions.

The prestige of power and distinction are now wanting to this pursuit, and nothing but education can supply this essential attribute. The insignia of war and the battle field are not the accompaniments of the quiet and peaceful pursuit of husbandry. The sword has been the sceptre. Its successful champions have been regarded as earth's most distinguished, glorious, best. CONQUEROR, GENERAL, in the nomenclature of the world's ethics, have been titles most conspicuous, and the best passport to civil office and place.

The giant power of this nation is in the plough. *Its trophies* should be our boast. But this humble instrument can never attach to it the pomp and splendor of the sword, which still dazzles in the sunlight and gleams in cherished splendor in the distance. The power and grandeur which comes from the plough, must arise out of an enlightenment which no mere adventitious circumstances can supply—no such dazzling magnificence as bravery attracts.

We complain of the slow progress agriculture is making, and we set ourselves to divine the cause. It stands before us written as with a sunbeam. It has not in itself that dignity which you rightly claim for it, and never can have in its present low estate. Its daily round of toils, without mind, enlightened and elevated by thought, can have no attractions—no high claims to favor. 'Tis education alone that can impart to it true dignity. "The mind is the urn that scatters beauty o'er all the universe." On what, then, is based our hopes of a brighter day to this important—the most important pursuit of man? It is in the abiding conviction that a better sentiment—a redeeming spirit has taken possession of many minds, and silently, yet surely, working a revolution among the people.

The facilities for intercommunication—the spread of books and papers to an extent unknown before in the world's history, are among the means efficient in this work. How intimately do the physical improvements of the day, too, blend with human progress. The moral power of the railroad will never be estimated; it ramifies

every interest, and adds importance and influence to every individual man, and every pursuit. By it, the luxuries of other climes are ours, and the wealth of every land flows with the freedom of the atmosphere. The stone from the mountain, the iron, the silver, the gold from the mine, the very earth upon which we tread, the air we breathe, and the sky upon which we gaze are invested with a value hitherto unknown.

Here is again brought into requisition, and stimulated with new impulse, that vital element to mental, moral, or physical progress, furnishing alike its incentives and rewards, viz: INDUSTRY.

This very element, with her skill and enterprise has, as with an enchanter's wand, turned wastes into fruitful fields, and brightened the scene with all the glories of a refined civilization, insomuch that it is hard in these days to find place for the no-occupation gentleman. Modern civilization has assigned to the idler no place! The questions once were, what do you know? and who were your ancestors? But now the great interrogatory of these stirring times of ours is, what can you do? And he that by his precepts or practice decries these utilitarian tendencies, deserves to be neglected and despised: for he is doing all in his power to restore the night of barbarism, from which the world is emerging, and roll back that tide of improvement which is now, by well-directed industry, blessing and restoring it to a second Eden. It is in obedience to this, Heaven's great ordinance, that we owe all that is glorious in the present or cheering in prospect: for it is by the worker that this dark world of ours has any hope of a resurrection.

Never was mind more fully aroused than at present. This is shown abundantly by our constantly increasing catalogue of useful inventions, and we need but give to this spirit a direction and support to effect still greater and more stupendous results. It remains for us to give to the planter and farmer the advantages to be derived from the prosecution of the sciences directly in the line of their own pursuit, and then give to him the position now most successfully obtained on the hard-fought field, where the glory of an enemy vanquished is the prize sought by the general, and the number slain the measure of his prowess. There is no prestige of antiquity can throw around this calling its own proper dignity, and furnish to it the lustre and laurels of distinction and eminence. It has its classic story; it has been the theme of the poet, philosopher, and sage; it dates back to a patriarchal age—to the time when Adam in the garden dressed the first budding plants and watered

the first blooming rose. There is no reason, if antiquity could impart dignity, why this should not be the most honored—the most honorable of human pursuits. 'Tis not in that iron necessity which compels all trades to look to this calling for food, for raiment, and for shelter, that will place the cultivator of the soil in his proper position; 'tis not in any or all these combined to do it. This much desired consummation can only be effected by *properly dignifying labor*, which must be secured by placing within the reach of every young man of industrious habits the means and the motives of an extensive and liberal education, with the distinct object of fitting him for the higher attainments in his own chosen pursuit. As well may we expect to gather grapes of thorns, or figs of thistles, as to reap a rich harvest of blessings from the seeds we are now sowing. The remedy we seek can only come from knowledge—from a sound, thorough, liberal, and at the same time practical education. Our present collegiate institutions do not answer this necessity, they are mostly but the types of a mediæval age, modified, it is true, but not Americanised; aristocratic and not republican. Many of the States are putting forth noble efforts for the establishment of colleges—industrial universities.

The bill now before Congress for an appropriation of a portion of the public domain, to each of the States and Territories, to assist in the permanent endowment of such institutions in every State, is indicative of progress in the right direction. Never, since the formation of our government, has a more important measure been submitted to them for their calm, decided deliberation and action. Morrill's Land Bill, to provide colleges in behalf of agriculture and the mechanic arts, if carried out, would not only be the index, but the harbinger of a more advanced civilization than history records.

Since the war notes of our successful struggle for civil liberty ceased to vibrate, the plough, loom, and anvil, supported and sustained by a prosperous agricultural community, have filled the land with their trophies. Capital and labor, successfully united in the hands of the farmer, mechanic, and merchant, have advanced our country in a comparatively short period to unexampled wealth, eminence, and power. The agricultural pursuit, though rich in its mines of immaterial wealth, of science and thought, has up to this time been content with its material treasures; and while contributing its full share to all the enterprises and institutions that have for their object the ennobling and dignifying of man, those means and facilities most essential to a like elevation of those engaged in this occupation have

been neglected, so that the present state of agricultural science may be characterised by an accumulation of facts all unclassified and unarranged, like brick and stone piled around the site of some noble edifice about to be erected, awaiting the hand of some master-builder, equal to the task of putting together the scattered materials and constructing therefrom a systematic whole.

Without further detail, then, we are brought to the inevitable conclusion that if we would improve our present defective system of agriculture, if we would secure its permanent success, and make our land the glory of all lands, we must have institutions, well endowed, adapted to such as would be eminent agriculturists. And it is high time, if the SWORD have her colleges supported by law, the PLOUGH should have hers, believing that it is as much a matter of national policy to know *how to feed men scientifically as it is to kill them.*

In conclusion, we ask you to cast your eye along our broad valleys, and over our green hills and widely extended plains, and inquire who are to people this wide domain now received fresh blooming in virgin fertility from the hand of the Creator, and give to it its physical and political development? Who have already subjected its ocean to steam, and spanned its depths with the mystic wire? Who have ribbed its land-surface with iron, and sent the locomotives whirling to and fro with the speed of the wind? We answer, the producers, the workers, north and south. It is to them we would open the portals of science all over this broad land, that they might not only become intelligent, but educated; toiling not only in the field, but in the more ennobling mines of scientific thought; that while the physical wealth shall be greatly augmented, so likewise will the moral and intellectual, and in their aspirations to be men, our farmers, many of them, should become statesmen, and such as would be worthy of the distinction.

We claim that it is the imperative duty of a people possessing a country of such acknowledged fertility and boundless resources, to persevere in such efforts and instrumentalities as will introduce a new social order of things, and lay deeper foundations for a purer and more exalted civilization than history records.

That here amid such fertile and broad valleys, and boundless prairies, agriculture, so long baffled by the stubbornness of other soils and more uncongenial climes, should reach a higher state of perfection than ever before; that she should scatter broadcast, not only her pomonal riches, strew her flowers in profusion, and pour

her cereal treasures round the hearthstone of every home, *but dignify by a higher mental culture than ever before;* that our manufacturing industry should not only be made to excel by calling forth the resources of every productive power, putting into requisition every hardy and needy hand, and sitting as a presiding and propitious genius on the skirt of every forest, and by the bend of every stream, *but that those who toil shall become wiser and better;* finally, that our commerce, by which products are so magically transformed to gold, may not only lade her trains and ships, bring back the choicest commodities of other countries, and thus crown the physical triumph of this teeming land, *but that a higher intellectual culture crown the whole.* And we rejoice to know that the tendency is rapidly to this point—that the west and northwest are alive to this interest. All that is required is a consolidation of the powers and forces now in existence. Science and art will yet wield the sceptre of influence over all the forces in antagonism. "And while there are many who look on this great triumphal procession of the ages, as it moves on with its enginery of labor and its enblazonry of art, from the great '*owldom*' of the past, the star-lit rookery of books and myths, and forms and creeds, and croak most sadly over this material age, as they call it, and long for the return of the reign of words of drivelers and of dogmatizers," we say let them croak. With all their learning, they have not learned the signs of the times. *This consummation so devoutly to be wished will surely come.*

## EDUCATION OF THE AGRICULTURIST.

No man is so high as to be independent of the success of this great interest; no man is so low as not to be affected by its prosperity or decline. Agriculture feeds us; to a great degree it clothes us; without it we could not have manufactures, and we should not have commerce. These all stand together like pillars in a cluster, the largest in the middle—and that largest is agriculture. The cultivation of the earth is the most important labor of man. Man may be civilized, in some degree, without great progress in manufactures, and with little commerce with his distant neighbors; but without cultivation of the earth, he is, in all countries, a savage. Until he gives up the chase and fixes himself to some place and seeks a living from the earth, he is a roaming barbarian. When tillage begins other arts follow. The farmers, therefore, are the founders of human civilization.—*Daniel Webster.*

## AGRICULTURAL SCHOOLS—THEIR CHANCES OF USEFULNESS.

BY A. L. ELWYN, M. D., OF PHILADELPHIA, PA.

As much interest is excited in many parts of the country as to these places of instruction, and in several of the States the legislatures have been pressed to establish them, even the National Councils entreated to give lands for their foundation, and two or three of the States have after a strong struggle succeeded in putting such places in operation, it will not perhaps be improper or untimely to inquire of what use they are to be, and what or how much good they can do. There is no doubt a strong feeling in favor of what is called education, in this country; whether it be a correct one, or whether we understand the meaning of the word, or are devising the best means of extending the thing itself, it is not worth while at this time to ask.

As a mere general proposition, it may be stated that education must be in harmony with the prevailing public opinion, with the prevailing mental condition, with the tastes, habits, &c., of a people.

As these schools of agriculture are entirely new among us, it is a natural and proper question to ask, whether they are wanted, and whether there is a sufficient popular taste for them to make them at once and decidedly of advantage, or whether they are premature attempts, based on some speculative or imaginary good, and so far beyond the feelings and ideas of those for whose benefit they are intended, as to make failure inevitable, and all that was projected a mortifying disappointment, and a useless and unavailing endeavor.

It is a truth that minds sometimes exist who can penetrate the future, who can gather up the links of a long chain of thoughts, to a length much beyond their own lives, or even their own age; who can project and advance themselves so far out of the present as to mingle with, almost see a part of the events and passions of coming times.

Such men, and the ideas they put forth, are generally suspected or misunderstood by the dullness, the stationary, stagnant mind, of the period in which they live. They are, for a long time, the abused, despised, or ridiculed martyrs of their schemes, and so continue till what they have long foreseen becomes to all a marked

and obvious necessity. It has been manifest to all who kept along with the course of events, or could form conclusions from them, that agriculture, considered by most men as a plain practical pursuit, where all that was dull found repose, and all that was active was deadened in its spirit, was rapidly rearing itself into a power and exalting itself to a liberal profession. It is, we think, beyond dispute, that for some years in Europe, and to a considerable extent in this country, more mental effort has been given to the penetrating and examining the profound secrets and sublime mysteries of this art, than to any other, or it may be than to all others.

The art of governing men, the dealing with and controlling human passions, have their limits. The means are small, the subject temporary, the ends passing away with, and mingling with time and its events, till on the broad disk and wide surface of things they seem but floating and fleeting shadows. But in agriculture, a mind venturing on its examination enters not upon a waste, but upon a field so rich, so gorgeous, and so extensive, that it is amazed and almost baffled by its immensity; nature opens on him with a collection of treasures so vast and various, that the most powerful and the most audacious understanding shrinks into modesty at the view. There are a thousand labyrinthine passages to move upon, a thousand cross paths to traverse, a thousand portals to open, till in the perplexity and confusion the strongest, the most constant, and the most untiring, find that they are mastered, and that all they can do is to take in their hand some one thread, and follow to its end, as far as they have strength to move with it, the single narrow avenue of science they have chosen. The few years a man has of active mental power, is hardly enough to solve a single problem. Even with the most powerful effort or series of efforts that the most powerful understanding can make, or has made, there is hardly an unshaken result in science. Every endeavor seems but a preparation for another, a clearing the way for the work of some other. Like the sea, the surface of the mind is ever and unceasingly ruffled by thought, and sometimes stirred into storms; but its waves ever break upon and are bounded by a shore where often very little is found but the ruins that they have borne; yet there is constant demand for effort, and while man is formed as he now is it will be ceaseless. Doubt or despair are not elements of genius, and no true lover of knowledge ever gives way while he has strength, or till the lance shivers in his hand by the force of his own blows.

There are beauties so enticing, hopes so alluring, prospects so

cheering, objects so exciting, that he cannot hesitate, but moves buoyantly ever onward. It may be he has done but little in comparison with what there is to be done, but if he have established one fact, he has so far developed a mystery, and advanced a step over the threshold of nature. He has not lived for nothing, though it may be when age has chilled his mind, he may look back and see with pain the wreck of ideas that lay strewn along his path, and find confirmed the maxim of the great philosopher, that he "appeared a child picking pebbles beside the great ocean of truth."

It would be a mere waste of money and labor to found and endow institutions so elevated in their range of study, or so unpopular or little suited to the national tastes and ideas, that no one would enter them. There is, too, another difficulty to overcome in calling such places into existence—that of finding teachers for them, for these cannot be called forth at will, but come only when there is a body to be instructed, who demand their services and reward their labors. But agriculture has two departments, for which preparation must be made in all places where it is to be taught; its philosophical and its practical. It is a serious matter to bring these together, so that the one may not affect, neutralize, or injure the other. It is doubly difficult in this particular art, since its practice requires manual dexterity, mental rest, and as a general rule, wherever either of these is one's strongest quality, it causes the neglect of the other. Yet if agricultural schools mean anything, they certainly design to call forth thought, to make men understand in the work they are to go through, its object and its end, as well as the mode of doing it. But in what condition would a country be whose farmers were philosophers and not practical men. What would be its cultivation, if mind and not muscle was expected to do its work. There is very little doubt that a general famine would soon make philosophical farming an undesirable and an unsafe pursuit.

Still it is a fact, that agriculture has been advanced and improved by the man of thought, and not by the practical man; or to state the thing in a manner somewhat less invidious, it is intelligence, and not routine or custom, not those fixed habits, which dull, chill, and contract the understanding, that have made the innovations and improvements of which this noble art may now boast. It is this intelligence these schools are to call forth, and in so doing, how they are at the same time to give it practical power and a practical direction, is a matter of very considerable perplexity. Unfortunately, it is a matter which those engaging in agricultural

instruction must meet at the very opening of their labors, and can in no way evade. If it be not settled satisfactorily to the public mind, all that has been done, all that is to be done, will be as nothing. The structures that have been reared will fall in ruins, or stand as monuments of folly; and time, talents, treasure, have been wasted, or given to the world as mere warnings of the hazards of ill digested or badly conceived projects.

It is usual in this country, whenever a new project is started, to look to Europe and see what has been done there. The idea is natural, and to some extent commendable; but we must be cautious in this, and remember that our country in no way resembles the nations of Europe, not in institutions alone, but broadly, largely, and completely differs from them in the ideas of the people. From the general diffusion of intelligence in this country, there is a constant pressure, a constant moving on with all those who have a fortune to make, or a path to clear. There is nothing stationary among us as in Europe, nor is intellect classified as there; nor is education inaccessible here, as among large bodies of those in old countries. Still, with whatever favor we may regard this condition of things, it has its unfavorable side. One of its consequences is, that no demand exists for the higher order of talent, and no encouragement is offered to it in those severer departments of knowledge which require time and effort to attain. Even in Europe there is much difficulty in finding that combination of qualities, which unites science with tact and skill, in a practical art; yet without something of these last, of what value is the director of a farm school? An intimacy with chemistry, natural philosophy, or natural history, will not compensate for such ignorance, and we have very little doubt, that the reason why the schools of Europe have not done all that was expected from them, is the want of men to conduct them. We shall feel this still more bitterly, if we are foolish enough to turn agricultural schools into universities with a high range of studies, and a corps of professors to teach them.

There are other portions of this great problem of agricultural education on whose solution we are now opening that must have a particular attention. One is, is the education to be general or special, and for what portion of the community is it intended?

Whether these schools are founded for a general or a special purpose, will depend very much on the condition and character of the primary education of the region where they are established. If the elementary instruction be tolerably thorough, a class will exist ready

to be advanced to something higher, ready to take advantage of such opportunity, or even to demand it. In such circumstances there can be very little doubt as to what the range of studies should be. The mental activity already developed and in movement will indicate it. But there are parts of the country where the primary instruction is extremely imperfect, giving nothing more than those meagre elements, which, when the real labor of life is seriously begun, are nearly forgotten, or can hardly be traced. It would be an act of extreme folly to take minds so meanly prepared, and so imperfectly furnished, and place them where the instruction was of a high order. There is now and then a strong mind, backed by a strong will, that can master knowledge of this grade; but the larger number, even all but an extremely small number of exceptions, would withdraw, baffled and disappointed from the attempt.

The question then will be, Are these schools to be places for the attainment of general knowledge, agriculture being more or less prominent, or are they to be places where this art is taught practically, and where youths will be made to appreciate the importance and the necessity of the labor of the mind and of the body? Such schools have a great end in view; they are not only to draw forth and animate intelligence, but to give it direction.

In doing this their first great purpose is, besides making every youth fully aware of the necessity of labor, also to make him to feel that toil and thought may go together, without the one being enfeebled, or the other roughened by the contact. There is a difficulty in this, and the difficulty seems to consist in the idea, an old far-descended impression, that physical toil has in it something degrading; yet we hear much of the dignity of labor, as if men could live in the world or the world could go on without it, or as if there were occupations free from this duty of man, and as if certain persons could inhabit this sphere and be mere spectators of the roll of events, as if they and their fortunes were things apart, and not depending or allied with the world's machinery or its movements. It is true that there is no dignity in labor, except so far as it implies an integrity of purpose, and a desire to be independent of the hard fortune meeted to us, unless it be united with an intelligence that directs its ends. The youths at West Point are obliged to perform the duties of common soldiers, and in so far as they understand these they make the better commanders. A body of these young men would win more battles than three times the number led by ignorance, and commanded by the same quality, however strong or

muscular it may be; and the youths of our naval school will be far more efficient seamen and commanders by being taught the practical details and the philosophy of their profession at the same time. The same influence will be exerted on agriculture, when those who do its work are made intelligent by education, and made to feel that they are engaged in an occupation as full of honor as any other. These schools are not to be established for a class. All who enter them must labor. Agriculture is to be learnt in its most minute details, and all idea of degradation in the plough, the spade, or the manure heap, is to be utterly excluded. Our country wants a complete displacement of that kind of false pride that leads the young men of the country to imagine there is something too humiliating, too plain and simple, in the operations of a farm for their vaulting, high-stepping ambition; that to rush into cities, to crowd into professions and trades, to live by one's wits, to demean one's self by servility, to learn arts, tricks, cunning, till dishonor too often follows the access of their fortunes, has in it something more gratifying to their self conceit, more plausible and more flattering to a vanity that has not been made modest by disappointment or broken by necessity.

Farmers as a class know very little of any labor but that of the body. Their minds are dulled by toil, and routine and custom take the place of thought. As a general rule this may be true, but it must be borne in mind that necessity haunts them through their lives; that painful, exact, and severe labor are the attributes and elements of their avocation; and beginning, as most of them do, with debt and a small capital, it is an evidence of the most earnest industry, of the hardiest exertion, to meet, to endure, and to conquer the weight of encumbrances, the rough handling of mental solicitude, and that array of troubles that beset them in the vicissitude of seasons, which lie down with them at night, rise with each morning's sun, and move with them step by step throughout their lives. To such men, or to the sons of such men, it would be foppery to offer an education, burdened with the refinement of science; they could not appreciate it, and it would be ruin to them to accept it. To work is their duty and their necessity; from this there is no escape, and no farm school can prosper or be useful, even in a small degree, in which the impression of this imperious necessity is not firmly fixed, and the mind of every youth made to feel, not only that personal toil is honorable, but that his character, his success, and his fortunes rest upon it. It is schools of this kind we wish to

see established; that the class to which we allude may receive such an education as will give them an intelligent view of their profession in all its details, and lead them to love and to study the high purposes of nature, and all the magnificent objects she, in her bounty, lays lavishly before them. There is no difficulty in establishing schools which may, by courtesy, be called agricultural, where the taste for agriculture may be created and cultivated, where even its practice may form some part of their design; as far as they go, these are valuable, but they are not intended for the working farmer, and it would be unfortunate for him if he entered the walls of one of them. Their design is to give to men of liberal means a more extended field of knowledge, to widen their sphere of action, to put them in contact with, and make them familiar with the great and substantial basis of the industry of nations. So far they are of great importance, and should in every way be encouraged, but beyond this they do not avail much. They may form a sympathy for labor, but they do not create a love for it. They may give an esteem for the child of labor, but form no desire to share his toil. They may encourage a love for the country, in itself an immense good, for there is in the depths of every, or nearly every bosom, a poetical sentiment, a natural and irresistible affection, that draws men towards rural scenes and rural life; and there have been very few of the best and most eminent men, the wearied man of business, the harassed man of care, the perplexed man of thought, who have not, at some time, looked to them as offering all the world can give of tranquillity and repose.

But it is not worth while to establish schools for the development of the poetical sentiment, or to attract men to the country, or to give opportunities, or to increase the desire for retirement. To the great mass of mankind life is a stern, practical reality. To very few does it ever offer more than a passing wish, or a fugitive hope, that it may be something else, or something better; no one feels this more than the man of labor; to him, there is no other poetry in his occupation than in the increase and the amount of his profits; and no one has a more bitter assurance of this than the farmer, who too frequently sees, upon the inclined plane of his fortune, the expenses going up and the profits going down.

The education to which we allude, and to which we give our adherence, is not one that sharpens the mind, but debilitates the machinery with which it works, nor one that while it makes agriculture a liberal occupation, at the same time creates a contempt

for the toil and practice of it. To follow a plough is in fact as worthy as trade; and to manage a farm requires far more mind, vigilance, attention, and labor than most of the departments of business. It is true that it has enemies to encounter, more generous and less artful than man; that storms and vicissitudes of seasons, the immediate representatives of the powers of heaven, baffle his efforts, still nature is his constant friend, and her smiles lighten his labor, and make it prosperous.

## THE ARCHIVES OF AMERICAN AGRICULTURE.

COMPILED BY BEN: PERLEY POORE, OF MASS.

*First Attempt to Establish a National Agricultural Organization.*

The establishment of a central organization for the promotion of agriculture, to be located at the home of the Federal Government, was first proposed to the people and to the Congress of the United States by George Washington. "Never," (says the cultivator of Sunny Side,) "had he virtually ceased to be the Agriculturist. Throughout all his campaigns he had kept himself informed of the course of rural affairs at Mount Vernon. By means of maps on which every field was laid down and numbered, he was enabled to give directions for their several cultivation, and receive accounts of their several crops. No hurry of affairs prevented a correspondence with his overseer or agent, and he exacted weekly reports. Thus, his rural were interwoven with his military cares; the agriculturist was mingled with the soldier; and those strong sympathies with the honest cultivators of the soil, and that paternal care of their interests to be noted throughout his military career, may be ascribed, in a great measure, to the sweetening influences of Mount Vernon.*" When again called from his well cultivated acres, to ascend the Presidential chair, he strenuously advocated the advancement of agriculture, and a national system "placing the cultivators of the soil, and their instruction and excitements to improvement in their art, under national patronage. He was anxiously solicitous in this patriotic endeavor. It was not imputable to him that it failed. Had he been fortunate enough to accomplish it, no action of his life would have deserved more celebrity and public gratitude."†

On the 4th of July, 1785, General Washington was elected an

* Life of George Washington, by Washington Irving.

† Sketches of Gen. Washington's Private Character, by Richard Peters.

Honorary Member of the "Philadelphia Society for the Promotion of Agriculture,"* recently established at the seat of government, in the proceedings of which he always afterwards expressed a deep interest. Agriculture was a favorite topic in his voluminous correspondence, and among those from whom he sought rural information, were Arthur Young and Sir John Sinclair of England. A perusal of the proceedings of the "British Board of Agriculture," founded by Sir John Sinclair, evidently inspired General Washington with a desire to see a similar institution established in the United States, although he was aware, from the opposition manifested against all national or federal measures, that it might not be popular.

In reply to a suggestive inquiry made by Sir John Sinclair, General Washington wrote, on the 20th of July, 1794: "It will be sometime, I fear, before an Agricultural Society, with Congressional aid, will be established in this country;—we must walk as other countries have before we can run, smaller societies must prepare the way for greater, but with the lights before us, I hope we shall not be so slow in maturation as older nations have been. An attempt, as you will perceive by the enclosed outlines of a plan, is making to establish a State Society in Pennsylvania, for agricultural improvements. If it succeeds, it will be a step in the ladder; at present it is too much in embryo to decide upon the result."

In a letter to the same distinguished agriculturist, dated July 10, 1795, General Washington wrote: From the first intimation you were pleased to give me of this institution, I conceived the most favorable ideas of its utility;—and the more I have seen and reflected upon the plan since, the more convinced I am of its importance in a national point of view, not only to your own country, but to all others which are not too much attached to old and bad habits, to forsake them, and to new countries that are just beginning to form systems for the improvement of their husbandry."†

In September, 1786, Sir John Sinclair again urged upon his illustrious correspondent the establishment of a central Agricultural Association. "The people of this country," (he wrote,) "as well as of America, learn, with infinite regret, that you propose resigning your situation as President of the United States. I shall not enter into the discussion of a question of which I am incompetent to judge; but, if it be so, I hope that you will recommend some agri-

* Minutes of the Philadelphia Society for the Promotion of Agriculture.

† Letters on Agriculture from His Excellency George Washington, &c. Edited by William Knight.

cultural establishment on a great scale before you quit the reins of Government. By that, I mean a Board of Agriculture, or some similar institution, at Philadelphia, with Societies of Agriculture in the Capital of each State, to correspond with it. Such an establishment would soon enable the farmers of America to acquire Agricultural knowledge, and, what is of equal importance, afford them the means of communicating what they have learnt to their countrymen."*

This suggestion was doubtless seconded by Col. Timothy Pickering, of Massachusetts, then Secretary of State, who had during a temporary residence in Pennsylvania been elected the first Secretary of the Philadelphia Society for the Promotion of Agriculture, and who was a zealous advocate of concert of action among agriculturists. The "Farewell Address" had been published. In the "President's Speech," delivered on the 7th of December, 1796, when Washington met the two Houses of Congress for the last time, he said:

"It will not be doubted that with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population, and other circumstances of maturity, this truth becomes more apparent, and renders the cultivation of the soil more and more an object of public patronage. Institutions for promoting it grow up, supported by the public purse; and to what object can it be dedicated with greater propriety? Among the means which have been employed to this end, none have been attended with greater success than the establishment of Boards, composed of proper characters, charged with collecting and diffusing information, and enabled by premiums, and small pecuniary aids, to encourage and assist a spirit of discovery and improvement. This species of establishment contributes doubly to the increase of improvement, by stimulating to enterprise and experiment, and by drawing to a common centre the results everywhere of individual skill and observation, and spreading them thence over the whole nation. Experience accordingly has shown that they are very cheap instruments of immense national benefits."†

A few days afterwards, on the 10th of December, General Washington acknowledged the receipt of the letter from Sir John Sinclair containing the suggestion quoted above, and stating that the rapidly closing scenes of his political life left him but little time to devote to Agricultural matters. "I did not however," he wrote, "omit the occasion, at the opening of the session, to call the attention of that body to the importance of agriculture. What will be the re-

* Letters of Sir John Sinclair, Bart.

† Messages of the Presidents of the United States.

sult, I know not at present; but if it should be favorable, the hints which you will have it in your power to give, cannot fail of being gratefully received by the members who may constitute that Board."

That General Washington took a deep interest in the adoption of his recommendation, and that he was anxious to enlist prominent agriculturists, as well as Congress in carrying out his plan, is shown by the following letter, addressed by him to Judge Peters, who had a fac simile of it appended to the second volume of the Transactions of the Philadelphia Society for the Promotion of Agriculture:

"Dear Sir: Herewith you will not only receive the Outlines, &c., (asked for yesterday,) but the appendix thereto;—and other productions from the same quarter; which, when you have done with, be so good as to return.

"These, or some of the Papers, may be of use to a committee, if Congress should incline to take up the subject of Agriculture.

"Your observations, with the return of the papers, will be very acceptable to Dr Sir, Yr. obdt. & Affec.

"G. WASHINGTON.

"10th Decr. 1796.—[Superscribed] Richard Peters, Esq."

The Senate, in an address in answer to the speech, drawn up by Senator Read of South Carolina, and adopted after having been discussed and amended, said: "The necessity of accellerating the establishment of certain useful manufactures, by the intervention of the Legislative aid and protection, and the encouragement due to agriculture by the creation of Boards, (composed of intelligent individuals,) to patronize this primary pursuit of society, are subjects which will readily engage our most serious attention." No action was however taken on the recommendation of the President by the Senate.

The House of Representatives, on going into a Committee of the Whole House on the President's speech—"*Resolved*, That so much of the President's speech as relates to the promotion of Agriculture, be referred to a select committee, and Mr. Swift, Mr. Gregg, and Mr. Brent, were accordingly appointed." Mr. Swift was an able lawyer from the rural town of Windham, Connecticut; Mr. Gregg, an educated farmer from the interior of Pennsylvania, and Mr. Brent represented an agricultural district in Virginia. They doubtless had before them the papers referred to in General Washington's letter to Judge Peters.

On Wednesday, January 11th, (as we learn from the "Annals of Congress,") "Mr. Swift, from the committee to whom was referred

that part of the President's speech relative to the promotion of Agriculture, made a report recommending the institution of a Society for that purpose, under the patronage of government, which might act as a common centre to all other societies of a similar kind throughout the United States. No public provision is contemplated except for the salary of a Secretary, and for stationery; but if the state of the Treasury should make even this unadvisable, it is stated it might be carried into effect without pecuniary aid. The report is accompanied by a plan, the principal articles of which are, that a Society shall be established at the Seat of Government; that it shall comprehend the Legislature of the United States, the Judges, the Secretary of State, the Secretary of the Treasury, the Secretary of War, the Attorney General, and such other persons as should choose to become members according to the rules prescribed; that an annual meeting should be held at the seat of Government, at which is to be chosen the President, Secretary, &c., and a Board, to consist of not more than thirty persons, which shall be called the 'Board of Agriculture;' that the Society shall be a body corporate; that a report shall be made annually, &c. The report concluded with a resolution in these words:

"*Resolved*, That a society for the promotion of agriculture ought to be established at the Seat of Government of the United States.

"The report was twice read, and ordered to be committed to a Committee of the Whole on Monday next."

On Monday, the House went into a Committe of the Whole, on the report of the Committee of Ways and Means on the subject of further revenue, and during a prolonged debate as to the necessity for direct taxation, there was a conflict of opinion between the representatives of commercial and of agricultural constituencies, which perhaps made the friends of the resolution fearful that it would—if pressed to a vote—be defeated. Besides, it was associated with a recommendation for a Military Academy, which Mr. Jefferson had openly opposed, on the ground that "none of the specific powers given by the Constitution to Congress would authorize it."*

Three days after the termination of his Presidential career, the

* Col. John Taylor of Caroline, in one of his admirable essays signed "Arator," censured Congress for their action in recommending a Society, which he called a "toy for its amusement," and said: "This toy was found to be unconstitutional, because it would add but little to the power of the general government, and the infant was turned to graze in impoverished fields. The constitution was *construed* to exclude Congress from the power of fostering agriculture by patents or bounties, and to give it the power of fostering banks and manufactures by patents and bounties."

6th of March, 1797, and when about to return to rural life at Mount Vernon, the "haven of his hopes," General Washington wrote to Sir John Sinclair: "I am sorry to add, that nothing *final* in Congress, has been decided respecting the establishment of a National Board of Agriculture, recommended by me, at the opening of the session. But this did not, I believe, proceed from any disinclination to the measure, but from their limited sitting, and a pressure of what they conceived, more important business. I think it highly probable that next session will bring this matter to maturity."

These brief extracts show clearly the desire of the "Father of his Country" to see a Central Agricultural Organization established, under the fostering care of the Federal Government, and they call for a conspicuous record on the monument now being erected to his memory, that "the encouragement of Agricultural Improvement and Information, was among the favorite wishes of his heart."

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*Establishment of Agricultural Fairs at Washington.*

Soon after the commencement of the present century, there was a general disposition manifested to encourage agriculture, and to use such fabrics only as were of home growth and manufacture. It was suggested by several prominent gentlemen residing at the federal metropolis, which was at that time literally "a city in the country," that the ready sale of cattle and of domestic products would be promoted by the holding of Fairs, or market days, as in Europe.* The municipal authorities approved the idea, and thus legalised it:

*An act providing for the establishment of semi-annual Fairs.*

*Be it enacted by the First and Second Chambers of the City Council of Washington,* That two Fairs be held in every year within the city of Washington for the sale of all kinds of cattle, goods, wares, and merchandise, on the first Wednesdays of May and November, under such regulations as the mayor may prescribe, of which Fairs he shall make due notification.

SAMUEL H. SMITH,
*President of the First Chamber of the City Council of Washington.*
NICHOLAS KING,
*President of the Second Chamber of the City Council of Washington.*

Approved August 25, 1804.

ROBERT BRENT, *Mayor.*

S. H. Smith, Esq., who signed the above act, was the founder of the "*National Intelligencer,*" and the Fairs were warmly advocated in its columns. An editorial article in that paper on the 17th of October, 1804, spoke of the coming fair as offering advantages to purchasers and to sellers, "while at the same time it can but prove equally beneficial to the agricultural interest of our country."

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* Fairs for the sale of Agricultural products were first established in this country at Weathersfield, Connecticut, October 20, 21, and 22, 1784.

The Fair was held on Wednesday, Thursday, and Friday, on "the mall at the south side of the Tiber, extending from the bridge at the Centre Market to the Potomac," the ground now occupied by the Smithsonian Institution. Before the next one was held, an attempt was made by additional legislation on the part of the city government to increase its usefulness, by offering inducements to agriculturists to bring their cattle and their produce, viz:

*An act supplementary to an act entitled An act providing for the establishment of semi-annual Fairs.*

*Be it enacted, &c.*, That for the better regulation of the semi-annual Fairs, the general superintendence thereof shall be vested in three persons, to be appointed by the mayor, who shall hold their office one year, and shall be called the board of directors for fairs, whose duty it shall be to make all regulations for providing accommodations, making notifications, receiving stall and stand rents, preserving order during the continuance of said fairs, and allow such compensation to persons employed for these purposes as may appear to them reasonable.

SEC. 2. *And be it enacted*, That the said board of directors are authorized and directed to open a semi-annual subscription and solicit donations, to create a fund, which shall by them be distributed at their discretion in premiums to persons who shall furnish at such fairs the best productions of the kind which may be considered the most desirable to promote.

SEC. 3. *And be it enacted*, That the sum of fifty dollars is hereby appropriated towards a fund for premiums, and the sum of fifty dollars for accommodations and other expenses which may occur.

SAMUEL H. SMITH,
*President of the First Chamber, &c.*
NICHOLAS KING,
*President of the Second Chamber, &c.*

Approved April 22, 1805.

ROBERT BRENT, *Mayor.*

Messrs. James Hoban, Joseph Hodgson, and Henry Ingle were appointed a "Board of Directors," and they announced on the 25th of April that the Fair would be opened on the first Wednesday, and remain open until the Friday afternoon following. They also announced that "premiums to the amount of one hundred dollars" would be "awarded to the best Lamb, Sheep, Steer, Milch Cow, Yoke of Oxen, and Horse actually sold at the Fair." A third Fair was held in November, 1805, after which they were discontinued.

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### *The Society for Promoting Public Economy.*

Early in the year 1806, Joel Barlow, Esq., then residing at Kalorama, in the vicinity of Washington, published the prospectus of a "National Academy," in which he enumerated among the foreign institutions to be copied in forming an American organization, the Agricultural Societies of England and the Veterinary School of France.

Meanwhile an institution had been organized by "members of Congress, officers of the federal government, and others devoted to objects connected with public economy. Meetings were held at

Mr. Hervey's, on Pennsylvania avenue, every Saturday evening, from 5 until 8 o'clock, and among the subjects considered were:

"4thly. Our mechanical economy, or the means of abridging labor by useful inventions, implements, and apparatus.

"5thly. Our agricultural economy, or the means of producing the most abundant and most reciprocal corps, under any given circumstance, without doing things by guess.

"6thly. The economy of our forests, or the best management of our latent resources there."

This was probably the association alluded to in the proceedings of the Philadelphia Society for the Promotion of Agriculture, on the 8th of April, 1806, when Dr. Mease, in describing a machine for hulling clover, recommended that the account "be published in the newspapers, and communicated to the Agricultural Society at Washington."

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### "*National Fair.*"

Under this head, the following announcement appeared in the Philadelphia "Aurora" of July 6, 1809, and it was copied in the New York and Washington papers:

"As many persons have been anxious to know when and where the show of sheep, cattle, manufactures, &c., is to take place, as sometime since noted in the papers, we think proper to state that several flocks, particularly fine Merinos, and other sheep, are already arrived, and that the *Fair* will be held at *Bush Hill*, in the northwest suburb of this city, on Monday next, 10th July."

No account of this first "National Fair" was given, so far as the compiler of this article has been able to ascertain, by any newspaper or correspondent. It may have been held by the "Philadelphia Cattle Society," which was organized in that year, and which held a Cattle Show at Bush Hill, on the first of October of that year.

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### *The Arlington Sheep Shearings.*

The determination throughout the Union to wear goods of domestic manufacture, gave an impetus to wool-growing, and the importation of choice sheep soon became a mania. A fine flock of French merinos was selected from the royal sheep-fold at Rambouillet, and brought over by Mr. Livingston; and Col. Humphreys sent from Spain a flock of 75 ewes and 25 rams, of pure Spanish Merino blood, of which 9 were lost at sea, and the remaining 91 were landed at Derby, Conn., in 1802. Large importations of Spanish Merinos were soon after made, and several flocks were selected for the District of Columbia by William Jarvis, Esq., U. S. consul

at Lisbon, who guaranteed the "Paulars" to be of "the true Leonese Transumante Merino blood," and the "Aquirres, in point of pure blood and fineness of wool, not excelled by any Cabana in Spain." Some of these sheep were sold at fabulous prices, and for some years wool-growing was the most prominent feature of American agriculture, while "sheep-shearings" were the farmers' festivals.

Prominent among these "sheep shearings" were those established and continued for a dozen years by George Washington Parke Custis, at "Arlington," his estate opposite Washington, on the Virginia side of the Potomac. Those associated with him in after life in the "United States Agricultural Society," will not wonder that large collections of prominent men used to accept his hospitable invitation to be present at these gatherings, where he entertained his guests beneath the marque used throughout the revolution by his illustrious guardian, George Washington. A programme of one of these rural festivals, as published in the Georgetown paper of the day, merits preservation:

PREMIUMS AT ARLINGTON,
*On the 30th April*, 1809.
SHEEP.

For the best Tup Lamb of one year, a Silver Cup, value 60 dollars.

For the best pair of Ewes of same age, a Silver Cup, value $40.

*Principle established.*

"To the Sheep which shall possess the best form and yield the most and best wool in proportion to its size, the premium will be adjudged."

To the man (being a native American) who shall clip a fleece, in shortest time, and best style, by clipping after the English fashion, $5.

*Manufactures.*

For the National Military Dress, or uniform of Morgan's Riflemen, with a complete statement of the expense accompanying the same, $20.

For the best five yards of Cloth, yard wide, and composed of cotton and silk, the silk to be derived from articles which have been worn out, as gloves, umbrellas, etc., $15.

For the best blanket of common size, $10.

For the best five yards of flannel, to be all wool, $10.

For the ball of wool Yarn, weighing one pound, which shall be spun to the greatest fineness on a wheel, to be ascertained by weighing any ten yards in the ball, $5.

To that family in the county of Alexandria, who shall make it appear, that they have made the greatest quantity of wearing Apparel of Domestic Manufactures, and used the least of foreign importations—

The largest prize Fleece.

To that family in said county who shall prove that to a given number of female children the most are good spinners—

The next largest fleece.

To the cultivator of the soil, in said county, who shall prove that he has manured most land from his own resources, in the last 12 months—Toll free at the Washington Mills for one year.

*Washington, Nov.* 20.

After the premiums had been awarded at these festivals, Mr. Custis would invite his guests to partake of liberal cheer beneath the Washington marque, and would then "call out" gentlemen from various sections of the Union, giving as his own contribution to the "feast of reason" interesting reminiscences of his childhood at

Mount Vernon. He would also always bring forward his project, (which may be found in the *National Intelligencer* of November 24, 1810) of establishing a National Agricultural Organization, to be incorporated with the government, and attached to a National University. It was also published in pamphlet form.

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### *The Columbian Agricultural Society.*

This society, established in 1809, was not only the germ of a national organization, embracing different States, but is entitled to the credit generally given to the Berkshire, Mass., Agricultural Society, of having held the first agricultural fair in America. As this is an interesting fact, (entirely overlooked in the historical account of agricultural associations, compiled by D. J. Browne, Esq., for the Patent Office Report of 1857, and by other modern writers,) a complete account of the organization of the society is given, as it was published in the *Georgetown Independent American.*

*Agricultural and Manufacturing Society.*

We have great pleasure in announcing to the public the formation of a Society, under the most favorable auspices, for the promotion of objects relating to agriculture and manufactures.

The following are the first proceedings of those who have so meritoriously laid the foundation of an institution pregnant with individual gratification and national good.

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*At a meeting of a number of gentlemen of the neighboring country held in Georgetown on Wednesday, the 1st of November,* 1809.

RESOLVED, That we will associate for the purpose of encouraging Home Manufactures and the rearing of Domestic Animals, by inviting exhibitions and distributing Premiums—that we will contribute each TEN Dollars annually, during three years, and that we will hold our meetings in Georgetown, in the district of Columbia.

*Resolved,* That Joseph Kent, of Prince George's county; Thomas Chramphin, of Montgomery county; Henry Manadier, of Anne Arundel county; John Mason, of Georgetown, and Tench Ringgold, of Washington county, be a committee on the part of this meeting, to make known their views to the citizens of the neighboring counties of Virginia and Maryland, and of the district of Columbia, and to invite such as may be disposed to encourage the objects in contemplation, to unite with us in rendering the proposed institution as extensively useful as possible.

*Resolved,* That a meeting of all the subscribers to the plan be held at the Union Tavern, in Georgetown, on Tuesday, the 28th inst., at 1 o'clock P. M., for the purpose of organizing the society, appointing a time for the first exhibition, making arrangements as to premiums, &c.

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*Georgetown, Col. Nov.* 2, 1809.

SIR—We have the pleasure to transmit to you the proceedings of a meeting held yesterday in this town, for the purposes therein designated.

Well persuaded that the plan devised will be of much advantage to the community by occasionally bringing together gentlemen farmers & others to emulate each other, in the productions of our country, we beg permission to recommend it to your notice and patronage, and to invite you to join your efforts to ours, to encourage the objects in contemplation, and to render the proposed institution as extensively useful as possible.

Should it meet with your approbation, we beg the favor of you to circulate the enclosed subscription paper among your friends for signatures, as early as your convenience will permit.

We hope to have the pleasure of meeting you on the 28th, but should it not be agree-

able to you to attend, be pleased to forward to us by mail or otherwise, directed to Gen. John Mason at this place, a list of the names you may obtain, so as to reach us previous to that day; as it will be essential, in order to fix the amount of premiums, to know at the meeting then to be held, the number of persons who have at that time joined the association. The original subscription paper you will please retain for further signatures.

We are very respectfully, sir, your obedient servants,

*Joseph Kent, Thomas Cramphin, Henry Maynadier, John Mason, Tench Ringgold.*

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We, whose names are subscribed, agree to associate for the purpose of forming and distributing premiums for the encouragement of home manufactures, and the rearing of domestic animals—to pay ten dollars each, annually for three years—hold our meetings in Geo. Town, and the first meeting for the purpose of organizing the Society, at the Union Tavern, in said town, at one o'clock, P. M., on Tuesday the 28th of Nov. 1809.

We understand that the circular letters of the committee have been addressed to, and favorably received by a great number of the largest farmers and most enterprising agriculturists, in the territory and the neighboring States; and that it is already ascertained that the fund will be large enough to enable the society to propose, at their next meeting, considerable premiums for the exhibition of various kinds of stock & manufactures, to be adjudged to those who shall merit them, sometime in the course of next spring.

How extensively and reciprocally useful must not a plan of this kind become? Gentlemen at a distance from each other, engaged in those important pursuits, will have an opportunity of imparting and receiving information on interesting subjects—of forming mutual connections and acquaintances—of exchanging and distributing stock of different and improved breeds—and in short by thus being occasionally convened at a central point, of diffusing throughout the whole country whatever advantages in stock or in manufacturing that may happen to be possessed, not only by any portion of this district, but by any individual member of that society.

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*Tuesday, November* 28, 1809.

A number of the subscribers to the plan for forming a Society for the purpose of encouraging Home Manufactures, and rearing domestic animals, met at the Union Tavern, in Georgetown, agreeably to a resolution of a number of gentlemen of the neighboring country, held at this place on the first instant.

John Teackle, Esq., was appointed chairman, and Nathan Lufborough, secretary.

Doctor Joseph Kent, from the committee appointed at the last meeting to procure subscribers to the Institution, made report of the names of a number of gentlemen who had subscribed, viz:

Henry Maynadier, Edward Lloyd, Charles Carroll, of C., Upton Scott, John Shaafe, Arthur Shaafe, Upton Bruce, John F. Mercer, John Mason, Tench Ringgold, William Crawford, William Mason, Nicholas Snowden, Osborne Sprigg, John M. Gantt, Joseph Cross, Joseph Kent, Charles Ridgeley, of H., Leven Powell, Isaac Duckert, Henry Gaither, Nathan Lufborough, Charles C. Jones, Thomas M'Kenney, Charles Worthington, Joel Barlow, Robert Graham, Alex. Henderson, John Williams, George Graham, George Mason, Henry Foxall, John Threlkeld, William Marbury, John Cox, Washington Bowie, Thompson Mason, William H. Foote, Walter D. Brooke, Edward M'Carty, Henry Rose, Richard M. Scott, James C. West, John C. Vowell, Nicholas Fitzhugh, William Moss, Thomas Cramphin, John Bowie, Thomas Corcoran, William Whann, David Wiley, Thomas Peter, Marsham Waring, James Dunlop, Walter Smith, William Lee, A. L. Joncherez, John W. Bronaugh, Thomas Davis, John C. Thomas, Richard Snowden, Thomas Snowden, Joseph Nourse, John Teackle, George Calvert, John Cook, Daniel C. Brent, Isaac Briggs, Bernard Gilpin, Roger Brooke, James Irwin, Robert Patton, Daniel Carroll, of Duddington, Daniel Dulany, Rinaldo Johnson, Wm. A. Dangerfield, George W. P. Custis, Samuel Ridout, Brice J. Worthington, Abhanassius Fenwick, Phillip B. Key, William Steuart.

On motion, ordered that John Mason, William H. Foote, Joseph Kent, David Wiley, and Isaac Briggs, be a committee to prepare a system of general rules for the organization and government of the society, and that they make report to this meeting.

After a short retirement, Gen. Mason, in behalf of the aforesaid committee, reported the following system of general rules, which were read, considered and unanimously adopted, viz.

1st. That the society shall be called, "The Columbian Agricultural Society for the promotion of Rural and Domestic Economy;" and be continued for the term of three years from the third Wednesday of May next.

2d. That there shall be hereafter in every year two general meetings of the society, to be held on the third Wednesdays of May and November, at such public house or other place, in Georgetown, as may from time to time be appointed, at which meetings the members present shall form a quorum, and be competent to do all business which may properly come before them.

3d. That the officers and agents of the society shall be a President, Vice President, Secretary, and standing committee, who shall be appointed at this meeting, and in every general meeting in November hereafter.

4th. It shall be the duty of the President to preside at the general meetings of the Society, and at the meetings of the standing committee—to hold correspondence, immediately, or by means of the secretary, with the members of the standing committee, and such other members of the society, or other societies, or such individuals in the United States, or elsewhere, as he may deem proper, for the purpose of obtaining and communicating information relative to the objects of the institution, and to be in all respects the organ of the society and of the standing committee, except as to the collection and payment of money.

5th. The Vice President shall be ex-officio a member of the standing committee, and in case of the absence, death or resignation of the President, shall supply his place.

6th. It shall be the duty of the secretary to make and preserve a record of the transactions of the society and of the standing committee; to collect, preserve, and under the direction of the society or president and standing committee, pay out all subscription or other monies due to them or subject to their controls, and at every meeting of the society, to exhibit such statement of his receipts and expenditures, as shall be to them satisfactory—and to do and perform such other matters and things as may be directed or enjoined by the president, by the standing committee or by the society.

7th. The standing committee shall consist of twenty members, selected from the several counties of the District of Columbia, and of the adjoining States. They shall hold their first meeting on this day, and at such other times and places as they may appoint, or as they may be called to meet by the President; the number convened, not less than five, shall form a quorum—it shall be their duty, when so convened, to determine upon, fix and make public such premiums, under proper restrictions, as they may deem most conducive to promote the views of the society; in the absence of the President and Secretary, or either of them, to make a temporary appointment of a suitable person or persons in his or their place, and in general to take such measures and do such things, under the direction of the society, as shall to them appear meet. And as individuals, it shall be their duty to pay a particular attention to the state of agriculture in their own neighborhoods, to the manner of raising and supporting stock, and to the progress of domestic manufactures—and in conjunction with such members of the society as may reside in their vicinage, to use their endeavors to correct such errors and to introduce such improvements, in rural and domestic economy, as they may be enabled to discover from their own experience and observation, or from their correspondence and connection with the society.

8th. All premiums shall be adjudged at one of the general meetings of the society, by a board of five members appointed by the President and standing committee, from among such disinterested persons as may be present.

9th. No person shall be allowed to exhibit any article for premium unless it has been raised, grown or made in some county of this District or of a State, in which there shall reside at least one member of this society, or any article for which a public premium shall have previously been given.

10th. The society will lay no claim to any article for which a premium has been awarded, but the owner or exhibitor may, immediately after the adjournment of the society on the day of exhibition, remove such article and dispose of it at pleasure.

11th. The subscriptions of the members shall be paid to the Secretary, on or before the 10th day of April in each year.

Whereupon, Osborne Sprigg, of Northampton, Prince George's county, Maryland, was appointed President of the Society, Thompson Mason, of Fairfax county, Virginia, Vice President, David Wiley, of Georgetown, in the District of Columbia, Secretary, and the following gentlemen a standing committee, viz:

*Counties in Virginia.*

Daniel Carroll Brent, John Brook, of Stafford.
Alexander Henderson, William Tyler, Prince William.
William Hayward Foote, Charles Love, Fairfax.
Wilson C. Selden, Wm. W. Bronaugh, Loudoun.

*Counties in Maryland.*

Charles Carroll, of Carrollton, Henry Maynadier, Ann Arundle.
George Calvert, Joseph Kent, Prince George's.
Isaac Briggs, John Bowie, Montgomery.
Philip Stewart, Clement Dorsey, Charles.

*Counties in the District of Columbia.*

Nicholas Fitzhugh, Wm. A. Dangerfield, Alexandria.
Tench Ringgold, John Mason, Washington.

Adjourned.

Immediately after the adjournment of the general meeting, the standing committee of the Columbian Agricultural Society met—present, Thompson Mason, Vice President, who, in the absence of the President, presided.

Joseph Kent, George Calvert, John Mason, Isaac Briggs, Tench Ringgold—together with the Secretary.

Ordered, That the proceedings of this day be made public, under the superintendence of the Secretary, and that he give to the President and gentlemen of the standing committee who are absent, notice of their appointment, and of the time and place of the next meeting of the committee.

Adjourned to meet again at this place on Wednesday the 13th day of December next, at 11 o'clock A. M.

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December 24, 1809.

At a meeting of the Standing Committee of the Columbian Agricultural Society, held at the Union Tavern, on Wednesday the 13th day of December, A. D. 1809, it was determined that the following premiums be given at the general meeting of the Society on the 16th of May next, viz:

Premium 1—*One hundred dollars*, for the best two-toothed Ram Lamb. Premium 2—*Eighty dollars*, for the next best two-toothed Ram Lamb. Premium 3—*Sixty dollars*, for the third best two-toothed Ram Lamb.

Best (applied to the above articles) as to quality of wool and quantity in proportion to carcase.

Premium 4—*Thirty dollars*, for the best piece of cotton cloth, proper for mens' coats or womens' dresses, not less than ten yards. Premium 5—*Thirty dollars*, for the best piece of cotton fancy patterns for vests, not less than ten yards. Premium 6—*Thirty dollars*, for the best piece of cotton cloth, suitable for pantaloons or small clothes, not less than ten yards. Premium 7—*Twenty dollars*, for the best cotton counterpane, full size. Premium 8—*Ten dollars*, for the best pair of cotton stockings, large size. Premium 9—*Thirty dollars*, for the best piece of hempen or flaxen sheeting, at least ten yards. Premium 10—*Thirty dollars*, for the best piece of hempen or flaxen shirting, not less than ten yards. Premium 11—*Thirty dollars*, for the best piece of hempen or flaxen table linen, not less than ten yards. Premium 12—*Ten dollars*, for the best pair of hempen or flaxen thread stockings full size. Premium 13—*Twenty dollars*, for the best piece of twilled bagging, of hemp, flax or cotton, at least ten yards. Premium 14—*Twenty dollars*, for the best piece of bed ticking, of hemp, flax, or cotton, or in part of all or either, not less than ten yards.

All premiums shall be adjudged at one of the general meetings of the society, by a board of five members appointed by the President and standing committee, from among such disinterested persons as may be present.

The society will lay no claim to any article for which a premium has been awarded, but the owner or exhibitor may, immediately after the adjournment of the society on the day of exhibition, remove such article and dispose of it at pleasure.

Reasonable proof will be required, that the several articles of manufacture have been, either spun or woven, in families from which they shall be exhibited.

The premiums will be paid in cash, or in plate of equal value, with suitable devices, at the option of the fortunate competitor.

Premiums to the amount of at least five hundred dollars will be given at the fall meeting of the society, for neat cattle, woollen manufactures, native dyes, written essays, &c.

It is earnestly recommended by the committee, that every member appear at the meetings of the society, dressed in home manufactures.

These details of the organization of a society which held the first cattle shows in America, and which did not confine its operations to the district in which it was located or to any one State, were

afterwards published in pamphlet form by Mr. David Wiley, the Secretary. When the time of the exhibition approached, the premium list was copied into the *National Intelligencer.* "Attaching the highest importance (wrote the editor) to the active development of our internal resources, and convinced that they are the mainspring of the permanent prosperity of the United States, it is with unfeigned pleasure that we insert a statement of the plan and measures of an association, whose respectability, zeal, and intelligence are the best pledges for its utility."

The first exhibition was held at the Union Hotel, Georgetown, on the 10th of May. It was, (said the *National Intelligencer* of the following Friday,) "attended by a numerous assemblage of members of the Society, amongst whom we noticed the President & his lady, the Secretary of State, the Secretary of the Treasury, the Secretary of War, the Comptroller, Register, &c., and many other ladies and gentlemen of respectability. This is the first exhibition held by the Society, which bids fair to exceed anything of the kind in the United States, and promises to be of great utility in the promotion of the Agricultural Arts, and particularly of the domestic manufactures of cotton, wool and flax, by exciting a competition, which cannot but be productive of good effects.

"There were exhibited a great number of sheep of the best breeds, amongst which were several half and three-quarter bred Merinos.

"At half past 11 o'clock, the room for the exhibition of domestic fabrics was thrown open, when many specimens were displayed highly honorable to the ingenuity and industry of those who produced them, and gratifying to those who have at heart the cultivation of the resources of the country. Some specimens of diaper, bed-ticking, and cotton bagging were particularly admired as equal to any imported.

"The result of the day was highly pleasing to all concerned; and the auspicious commencement of this Patriotic institution furnishes another in addition to the many evidences already existing of the public spirit of this district."

A venerable gentleman, now residing in Washington, who was present, describes the scene as one of great interest, the more especially as nearly every person present wore clothing of domestic manufacture. President Madison sported his inauguration suit, the coat made from the Merino wool of Col. Humphrey's flock, and the waistcoat and small-clothes made from the wool of the Liv-

ingston flock at Clermont. Gen. John Mason, then Indian agent, wore a suit of Nankeen, made from Nankeen cotton raised on Analostan island. The sheep were arranged in pens in the large yards of the hotel, (under the direction of Mr. Crawford,) and there were also several fine horses on exhibition, among them Dr. Thornton's "Carlo." This was a large brown bay horse, (imported by Robert Waln, who had been a member of Congress from Philadelphia,) with a pedigree reaching back thirteen generations to the Layton Arabian mare, and enriched by crosses with the best stock in England. Our informant recollects distinctly the admiration expressed by Mr. Madison after examining the horses and sheep.

The Secretary's official report states that the Committee on Sheep were: Henry Maynadier and Brice J. Worthington of Ann Arundle county, Maryland; William Hall of Prince George's county, Maryland; George Graham of Fairfax county, Virginia; and John Cooke of Stafford county, Virginia. The first premium of one hundred dollars was awarded to Solomon Cassidy, of Alexandria county, District of Columbia, for his lamb, weighing, unshorn and unwashed, 53 lbs., 5 oz.,—the fleece weighing 4 lbs., 13 oz. The second premium of eighty dollars was awarded to John C. Scott, of Strawberry Vale, Fairfax county, Virginia, for his lamb, weighing, unshorn and washed, 83 lbs.,—the fleece weighing 3 lbs., 14 oz. The third premium of sixty dollars was awarded to William Marbury, of Blue Plains, Washington county, District of Columbia, for his lamb, unshorn and unwashed, weighing 135 lbs., 8 oz.,—the fleece weighing 6 lbs., 12 oz. These, and the other sheep exhibited were shorn before the committee, and a premium was awarded to Mr. Edward Eno, "for shearing a sheep in the neatest, safest, and most expeditious manner." Two Merino rams were exhibited, sired by "Don Pedro," owned by Mr. Dupont, of Wilmington.

The committee on Domestic Manufactures were: William Marbury and John Cox of Washington county, District of Columbia; William A. Dangerfield of Alexandria county, District of Columbia; Gerard Brooke of Montgomery county, Maryland; and Joseph Cross of Prince George's county, Maryland. The premiums were awarded about equally to competitors from Maryland and Virginia.

The following proceedings of the next meeting of the next semi-annual meeting of the standing committee, (which were published in the *National Intelligencer*,) prove that the idea of having sales of articles exhibited at a Cattle Show was then first announced.

"Oct. 19, 1810.—At a meeting of the standing committee, held at the Union Tavern

Georgetown, it was voted to hold an exhibition on Wednesday, Nov. 21st. Ordered that George Calvert, William Marbury, Nathan Lufborough, John Cox, John Threlkeld, William H. Foote, and Andrew Smith, esquires, be a committee of arrangement to procure a suitable room for the exhibition of manufactures, and proper lots and enclosures for the cattle; to provide and distribute tickets for the admission of members of the Society and their families, and such other ladies and gentlemen as they may deem proper, and to do and direct such other things not inconsistent with the rules of the institution, as may be judged advisable, previously to and during the exhibition.

"And to afford still further encouragement to farmers and manufacturers, it was resolved, that all those who may have for sale cattle, sheep, or any articles of Domestic Manufacture, be invited to bring them to the exhibition, that convenient opportunity be afforded to exhibit them to public notice,—that stands, proper enclosures, and other accommodations be provided for them, and those who chose it have the benefit of a public auction, on the evening of the exhibition, and on the succeeding day at an early hour; it being understood that the auctioneer be paid by the seller a moderate per centage on the amount of all articles actually sold, and that the owners be at the expence of provender and attendance of their cattle and sheep. DAVID WILEY, *Sec'y.*

The Second Exhibition was held in what was then known as "Parrott's Grove," near the present Boyce estate, on the heights of Georgetown. The *National Intelligencer* of November 22 says of it: "The second semi-annual exhibition of the Columbian Agricultural Society was held at Georgetown yesterday. A large concourse of members and visitors, with their ladies and families, were present. Among the visitors were the President and family, the Postmaster General, the Treasurer, Auditor, the Russian Minister, Mayor, Mr. Barlow, Mr. Irving, and many other gentlemen and ladies of respectability. Owing to the late inclemency of the season, but few cattle were exhibited; but to compensate for this deficiency there was a great quantity of cotton and woolen domestic fabrics, comprehending much good cloth, blanketing, carpeting, hosiery, &c., &c. The blanketing appeared to be most admired, though much praise was given to several pieces of cloth and carpeting." The following full list of premiums was published in the *Agricultural Museum.*

Premium 1—sixty dollars for the best bull; to George Calvert, esq., of Prince George's county, Md.

Premium 2—sixty dollars for the best cow with her first calf; to Osborne Spriggs, esq., of Prince George's county, Md.

Premium 3—fifty dollars for the best fat bullock or spayed heifer, for beef; to William Stimbergen, esq., of Shenandoah county, Va. He was killed the next day at the slaughter-house of Mr. Krouse. He was six years old, and weighed as follows: Beef 1402, hide, 123, tallow 190, making 1715 pounds—head 50 feet 25, liver 48, making 129 pounds—blood 87, entrails 273, wastage 50, making 410. Weight of carcase as on foot, 2254 pounds.

Premium 4—forty dollars for the best piece of fulled and dressed woolen cloth; to Mrs. Ann M. Mason, of Analostan Island, Washington county, District of Columbia.

Premium 5—thirty dollars for the best piece of woolen kerseymere; to Mr. George M. Conradt, of Frederick-town, Md.

Premium 6—thirty dollars for the best piece of cloth, cotton warp, filled with wool, to show the wool on one side; to George M. Conradt, of Frederick-town, Md.

Premium 7—thirty dollars for the best piece of fancy patterns for vests, of wool and cotton; to Mrs. Martha P. Graham, of Dumfries, Prince William county, Va.

Premium 8—thirty dollars for the best piece flannel, all wool; to Mrs. Sarah M'Carty Mason, of Hollin Hall, Fairfax county, Va.

Premium 9—$20, for the best piece of flannel, part cotton, part wool; to Mr. George M. Conradt, of Fredericktown, Md.

Premium 10—$10, for the best pair of fine woolen knit stockings; to Miss Patsey Shackleford, of Culpepper Courthouse, Va.

Premium 11—$10, for the best pair of fine woolen woven stockings; none were offered.

Premium 12—$30, for the best pair of fine woolen blankets; to Mrs. Martha P. Graham, of Dumfries, Prince William county, Va.

Premium 13—$20, for the best pair of fine cotton blankets; to Mrs. Martha P. Graham, of Dumfries, Prince William county, Va.

Premium 14—$15, for the best pair of stout coarse blankets, for laborers; to Mr. George M. Conradt, of Fredericktown, Md.

Premium 15—$15, for the best parcel of flax or hempen sewing thread; to Mrs. Elizabeth Gunnell, of Minorca, Fairfax county, Va.

Premium 16—$40, for the best woolen carpeting in the piece; to Mrs. Elizabeth Maynadier, of Belvoir, Ann Arundel county, Md.

Premium 17—$15, for the best hearth rug; to Mrs. Elizabeth Maynadier, of Belvoir, Ann Arundel county, Md.

Premium 18—$20, for the best specimen of durable dye, with the receipt; to Mrs. Martha P. Graham, of Dumfries, Prince William county, Va.

The Third Semi-annual Exhibition was held on May 16, 1811, in "Parrott's Grove" which was then the property of Thomas Beall, Esq., in whose absence Mrs. Beall had placed it at the disposal of the Society. The *National Intelligencer* of the next day says, that "it was attended as usual by several hundred of the most respectable ladies and gentlemen in the district and neighboring counties of Virginia and Maryland; among whom were the President, Heads of Departments, and generally all the prominent officers of the government; the French Minister, our Minister to France, &c., &c. The show of sheep, Merino, mixed blood and native, was said to be as numerous and respectable as any ever seen in this country; the manufactures, exclusively domestic, attracted much admiration. The premiums were distributed as awarded by the judges; of which we shall hereafter give an account. The pleasantness of the day, the nature of the ground, shaded with forest trees, the fragrance of the flowers with which the various entrances to the enclosure were decorated, the presence of the music, and the good humor and gaiety which it contributed to diffuse, rendered the meeting unusually agreeable."

The Fourth Semi-annual Exhibition was held in Georgetown, on the 20th of November, and was fully reported in the *National Intelligencer* of the 21st and 26th. "The day was rainy and therefore unfavorable to the exhibition, especially of cattle. Of above a hundred that had been brought into the town and neighborhood, not more than six or eight were exhibited,—the state of the weather rendered it so inconvenient. The cattle exhibited attracted general notice, especially an extraordinary steer raised by Mr. Steinberger, of Shenandoah county, in Virginia. This animal is believed to be

the largest ever raised in Virginia: it is supposed he will weigh 2,700 lbs. on the hoof, and near 2,000 neat Beef. The show of Domestic Manufactures could not but be pleasing to every person present. The specimens of Woolen Cloth, Blankets, Flannels, Kerseymers, Carpets, Fancy Patterns, Cotton Cloth, &c., evinced the progress which our citizens are making in this branch of economy. Many of the articles were judged to be equal, some were thought superior, to imported fabrics of the same kind."

The Fifth Semi-annual Exhibition of the Columbian Society was held in Mr. Beall's grove, on the 20th of May, 1812, and was well attended, although the embargo and other warlike measures occupied public attention. The report in the *National Intelligencer* of May 26th, says, that "the exhibition of Domestic Manufacture was highly gratifying, in point of number of articles, variety, beauty and quality. There was a greater number of sheep shown than at any former meeting of the Society, especially of the fine wooled breed. The Judges of Sheep were the Hon. Joseph Kent of the House of Representatives, and the Hon. Thomas Worthington, of the Senate of the United States, and Clement Brooke and John Threlkeld." Among the premiums awarded were:

14. *Twenty Dollars*, for the best three-horsed plough to break up heavy land, to Wm. Thornton, of Montgomery county, Maryland.

15. *Ten Dollars*, for the best two-horsed plough to break up light land, to James Brown, of Montgomery county, Maryland.

16. *Ten Dollars*, for the best weeding plough, to go with one horse, to Soloman Cassidy, of Alexandria, D. C.

These ploughs were tested by:—"Isaac Pierce, Emmor Bailey, John Neeld, David Frame, and Joseph Canly, Esqrs., Judges of Ploughs." The premium list, adopted December 11th, and published December 19th 1811, had stated that the ploughs would be expected to "unite in their construction strength, durability, and simplicity, with steady and easy draught." This was doubtless the *first "field trial of implements"* in America.

Of the Sixth Semi-Annual Exhibition, held at Georgetown, on the 18th of November, 1812, there is no mention in the newspapers except the premium list, which was published in the *National Intelligencer* of the Thursday previous. The amount of the premiums offered was upwards of four hundred dollars—among them one of "twenty dollars for the best written essay on the mode of geering and working oxen, founded on experiments." Unfortunately, however, the war with England overshadowed everything else, and as the time had expired for which the Society had been organized, it was dissolved. But its successful exertions in awakening a more

general interest in the various departments of husbandry,—not only in the immediate vicinity of its exhibitions, but in the adjacent States,—merit a grateful remembrance by the agriculturists of America. Had the war-trumpet not have summoned many of its principal members from their peaceful enclosures to the tented field, there is good reason to believe that its circle of usefulness might have continued to increase. It had already reached the outer counties of Maryland and of Virginia, and it doubtless would have gone on enlarging its area of usefulness, until the cultivators of the entire Union had become interested in the *Columbian Agricultural Society!*

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The October number of the *Journal of Agriculture* will contain an account of the original establishment of the *Government Botanic Garden* at Washington city, which is now not only an ornament to the metropolis, but is of such practical utility in the propogation and distribution of rare plants, vines, and trees, that the Department of the Interior is wisely organizing a similar establishment, on an adjacent lot of the public land.

In the number for January, will be given the history of the *Agricultural Society of the United States*, founded at Washington in 1841, by the exertions of Solon Robinson, B. V. French, and other gentlemen interested in the improvement of agriculture.

After having given the history of the *Central Organizations* at the national seat of Government, the societies founded in the various States will be chronicled. All material for these ARCHIVES OF AMERICAN AGRICULTURE will be thankfully received, especially supplementary information or corrections of matter published. Great care is taken to give nothing but what is well authenticated, but the compiler acknowledges his liability to err.

## THE BREAD REGION.

[The following geographical outline of the region of the earth which produces "the staff of life," is from Schouw's work on "the Earth, Man, and Plants." By "corn" he means the cereal grains which are used for bread:]

"The *bread-line* extends the farthest north in Scandinavia, for in Denmark we meet—only within the fords, it is true—with barley and potatoes up to 79° N. latitude; from here it sinks both to the east and west. It is well known that neither Iceland nor Greenland possesses bread plants, although the south coast lies in 63½°, and that of the latter in 60 N. latitude; and that in the Feroe Islands, although lying between 61½° and 62½°, there exists but an inconsiderable cultivation of barley. On the east side of North America the bread-line sinks still farther to the south, for Labrador

and Newfoundland have no bread-plants, and the limit can scarcely be put here higher than 50°, consequently much farther south than in Denmark, where the plains abound in corn. It extends a little farther north on the western coast of North America, which, as is well known, possesses a warmer climate than on the east side. The few data which we find here, render the determination of the north limit rather higher than 75° or 78°. Turning from Scandinavia towards the east, we find a depression of the bread-line even in European Russia, here coming by 67° northward of Archangel. The curve is considerable in Asiatic Russia; at Ob the north limit of bread comes to 60°, at Jenesi, to 58°, at Lena, 67½°, and in Kamtschatka, which has only a slight cultivation of corn in the most southern part, it sinks to 51°—thus to about the same latitude as on the east coast of North America. The bread-line has thus two polar and two equatorial curves, the former corresponding to the western, the latter to the eastern sides of the continent."

## A HARVEST BY HORSE POWER IN 1842.

[The following report, which it is believed describes the first instance in which a field was *entirely* reaped by a machine, was communicated to the Maryland Agricultural Society for the eastern shore, in 1842, by Gen. Tench Tilghman, on whose land the experiment was made. It has never been published, and merits preservation as recording the commencement of a new era in American agriculture.]

The crop of straw during the present season has been unusually heavy wherever there was a good stand of wheat, and in those places where the wheat had failed there was a rank growth of weeds and grass caused by the heavy rains which fell just before the wheat was matured. The harvest has therefore been one of uncommon labor and difficulty, and has afforded an opportunity of thoroughly testing the improvements which have been made in the wheat cutter since its first introduction amongst us in 1836.

The original machines, of which I worked one for several years, were very imperfect, and besides numerous other objections to them, the one which was to me by no means the least, was that they could not be used without first clearing the way with cradles.

In 1841 I had a cutter made by the inventor, Mr. Obed Hussey, expressly to obviate this difficulty, the frame of which is differently constructed from any other which he has made. It is composed of two three-inch ash planks, about six feet long and one foot wide; between these side pieces, which are only fourteen inches apart, is contained all the machinery, consisting of one very broad cast iron wheel, to the spokes of which a zig-zag wheel is firmly bolted; this shakes one end of a lever, the other end of which is attached to the cutter, causing it to make 14 vibrations or 28 cuts for every ten feet of ground travelled over. In the forward end of this frame is a pair of shafts to which two horses are geared, one before the other. The horses and frame thus travel in the same track, and the injury to the wheat is but little if any greater than that caused by the pas-

sage of a single horse through it. On the right side of this frame is a platform extending out from the body of the machine a distance of five feet, and three feet in width, and on the front edge of this is the cutter.

In cutting without the assistance of cradles the machine is first passed up and down the head land or turning row at each end of the field or piece of land to be cut, thus clearing a space ten feet wide, which affords sufficient room for turning the machine. This being done, commence in the middle of a breadth of about one hundred feet, cutting the entire length of the piece, and return (the first time) in the same track, and continue widening out until the whole breadth is cut. The horses travel on the outside of the standing wheat, (except in cutting the first row,) and without disturbing the gavels or bunches of cut grain—the operations of binding, carrying together, and shocking up being carried on at the same time, and the wheat thus entirely secured without waiting for or detaining the machine.

I used from 5 to 7 binders, according to the heaviness of the crop, and had an extra force sufficient to secure the wheat nearly as fast as it was bound; the binders assisted in securing it for a short time every evening, as is customary in cutting with cradles. In this way I harvested a field of seventy-two acres in an hour less than five days, deducting only the interruptions occasioned by weather. There was not in the field during the whole time a single cradle, scythe, or reap hook; the lodged wheat being saved by the machine by cutting it all in one direction, so that it would lean towards the cutter. This field, which lies in front of my dwelling, is bounded on part of two sides by a creek, the shores of which have numerous indentations; it is divided by ditches into portions of almost every size, varying from twenty acres to an eighth of an acre; and I therefore consider that the quantity cut per day, which was nearly fifteen acres, may be safely regarded as the fair average work of the machine where there is no unnecessary loss of time.

Having thus described the performance of the machine, I think it proper also to state the difficulties which have occurred in using it, that my brother farmers for whom this is intended may know not only the truth, but the whole truth. These consisted in the occasional tightening of a few of the many rivets about the machine, all of which, except a few, remained perfectly tight These, like many of the accidents to which cradles are liable, might have been repaired in the field; but even this was unnecessary, as it was found all sufficient to make such repairs as could be done in a few minutes after night, and without the aid of a blacksmith. The machine has thus been kept in perfect repair, and is now ready for another harvest.

These machines are made by the inventor, Mr. Hussey, in Baltimore, at a cost of $125. He manufactures others of larger size at prices varying from $150 to $180. They are constructed to cut a swath of from 6 to 9 feet, and are intended to cut over more ground in a day than the smaller ones; but they require more horses to

propel them, and this renders it necessary to have the way cleared with cradles for a beginning.

I am not disposed to question the judgment of those who prefer the joint use of cradles and machines, but have satisfied myself that there is a decided economy in harvesting with machines where they are used without cradles. I have written this communication for the purpose of stating that a field of considerable size has been saved in good time by the cutter, and by the cutter alone.

TENCH TILGHMAN.

## FARMING BY STEAM IN ENGLAND.

[*From "All the Year Round," London, May* 14, 1859.

The poets of modern agriculture, the happy souls who farm a little, write a little, and talk a great deal at semi-agricultural, semi-scientific, and wholly social gatherings, are crying out in joyful tones with more fervor than ever—for it is not the first time—that the doom of the plough has been sealed, and that in five or six years those Clydesdale and Suffolk two-year old colts that now sell readily for £50 will be sold for £20, and, as for the old hairy-legged breeds, they will be to be had for asking! The more sober, like most of those who live to learn and live by learning, can't go quite so far or so fast. We remember that after more than twenty years' experience the broadcast sheet and the flail still even in England find usage and defenders within sight of the drill and the threshing machine, and that in Scotland crack farmers insist on doubling the work of their men and putting ten per cent. of it on their horses because they won't condescend to examine the value of the Southron-invented Bedford plough. But, although believing that as railroads have not in thirty years closed highways or filled up canals, it is not likely that steam power will ever entirely banish horse power, or even horse-drawn implements from our fields, we must with pleasure admit that 1859 has seen a scratch made on mother earth by the steam cultivation that will in future years be turned to as the mark of a practical advance in a theory that had very long been under the harrows of projectors and inventors.

A thick volume might be filled with the guesses that, in the shape of projects or patents, have preceded almost every really useful invention. The reaping machine may be traced back to the time of the Gauls, wheeled ploughs are to be found depicted in Saxon manuscripts, and something like Crosskill's clod crusher is described as a home-made instrument, one hundred years before the Royal Agricultural Society gave the Yorkshireman the clod-crushing gold medal. The French amuse themselves with setting against the triumph of Watt's steam engine the ingenious hints of Salomon de Caux, and have written a play, in which the Marquis of Worcester, who was not then born, is made to converse with and rob of his invention the maniac philosopher. Even of the electric telegraph faint traces are to be found in some ancient philosophical manuel.

Steam cultivation is one of those long-sought, although only recently caught, arrangements. For two hundred years projectors and inventors in two hundred patents have been guessing without success at the agricultural steam truth; but it does not seem that any attempt was made to cultivate land by steam power on a scale of importance, or in a continuous manner, until 1832, when Mr. Heathcote, of Tiverton, with Mr. Josiah Parkes for his engineer, commenced reclaiming Chatmoss by draining and steam ploughing. The reclaiming did not pay, and the steam ploughing, although continued for two or three years with great labor and ingenuity, did not answer, but the work indirectly led to the construction of the Parkesian theory of deep drainage, by which agricultural England has been revolutionised, and at least doubled in productive powers. The system adopted by Mr. Heathcote and Mr. Parkes, of dragging implements by ropes attached to and revolved by a stationary steam engine, is the only system which, up to the present time, has been found to answer, although the arrangement of the details and the materials of the ropes have been modified and improved.

In the following twenty-five years sixteen patents were taken out for cultivation by steam power, none of which were carried into execution; and in the last ten years nearly one hundred patents have been provisionally registered, and more than half that number specified. But out of this long array, in March, 1859, not more than six were before the agricultural public as at work, and not more than three prepared to make and sell their patented machinery. But, intermediately, two noblemen, Lord Willoughby D'Eresby, in Warwickshire, and the Marquis of Tweedale, in Scotland, had expended large sums unprofitably in endeavoring to cultivate by steam traction.

In 1848, the celebrated Talpa, in his Chronicles of a Clay Farm, one of the most charming books ever devoted to agricultural disquisitions, suggested that the problem of steam cultivation should be sought, not in the traction or propulsion of the established implements of the farm, but in a rotary machine, which should dig as it travelled round, and propel, or, as it were, hoe itself forward "with a sort of lobster's tail." On this ingenious idea a great number of inventors have been at work ever since, some at vast expense, but up to the present time not one successfully in an agricultural point of view. On one, the best of the attempts to realise Talpa's poetical notion of perfect steam cultivation, and which often worked admirably for an hour or two, more than ten thousand pounds were expended; but it could never be made to work without the hourly and costly attention of an army of mechanics, and, in spite of their aid, it continually broke down. If it were strong, it was too heavy; if it were light, it was too weak; and there the rotary locomotive theory of steam cultivation rests at present.

By a curious coincidence with the story of the origin of modern agricultural draining, told in the *Quarterly Review* of April, 1858, the most profitable system of steam cultivation was suggested by an

attempt to substitute machinery for manual labor in laying draining tiles. The inventor, Mr. John Fowler, produced before the Royal Agricultural Society, at Gloucester, in 1858, a contrivance for forcing a mole plough, drawn by a team of horses, through the ground at four feet depth, followed by a rope on which a line of drain tiles were strung. Step by step, he substituted a wire rope (a modern invention) for hemp, and a portable steam engine for horses, but when in 1855, at Carlisle, he had succeeded in laying pipe tiles with great accuracy in soils tolerably level and free from stones, he began, we imagine, to suspect that the great elements of success in machinery—that is, to supersede manual labor, speed, and economy—were wanting. Hence he was induced to moderate his ambition, and be content to plough a few inches instead of burrowing three or four feet; and there, after four years of enormously costly experiments, he has achieved the measure of success we shall presently relate. But he had a successful precursor in a self-taught mechanic—as far as he is a mechanic—and a real farmer, in the person of a gentleman bearing the not remarkable name of Smith, and, therefore, now distinguished by the title of his farm, as Smith of Wolston; a name which, in three years, has become deservedly famous throughout the English-speaking agricultural world.

The general effort of the agricultural improvements of the last twenty years has been to increase the *pace* at which agricultural operations are executed. The first change was to substitute fallow crops, such as roots, for instance, for the absolute barrenness by which land was formerly rested after an exhausting crop—a plan which is still all but universal among the peasant proprietors and métayers of France and South Germany. The second change consisted in making strenuous efforts to execute in autumn a greater part of the cultivation, which until recently it was the custom with the great majority of farmers to execute in spring. It was observed that weeds brought to the surface in the autumn naturally died more easily than in the spring, while the subsoil brought to the surface, and tough clay under any circumstances, was mellowed and ripened by winter frosts and winds.

Mr. Smith, of Wolston, was one of the many converts to the system of autumnal cultivation, and in studying the best means of carrying it out he came to the conclusion that the plough which buried the weeds, and left a large per centage to grow again in the spring, was a mistake, and that an instrument which would more nearly approach the action of the spade was the right implement. With this view he invented his subsoil plough, which stirs without turning over the soil, and his cultivator with curved tines, which breaks up the topsoil without reversing it.

But every farmer who has turned his attention to breaking up strong soils for autumnal cultivation has found himself beaten by the want of power to move the most useful kind of implements, and by want of pace to execute his work during and immediately after harvest before the autumn rains set in. A farmer holding twelve hundred acres of land in two farms, of which four hundred

acres are arable land, in a stiff clay district, writes us on this subject: "To get these worked up, I should require the power of seventy horses from the middle of August to the middle of September, but fifteen would do all my work for the rest of the year!"

The Farmer of Wolston tells us, in his letter to B. Disreali, M.P., "that a report of the Royal Agricultural Society on implements called his attention to the resources of steam power." At the Carlisle Show of 1855 he was awakened to the power of steam—ordered a steam engine from Messrs. Ransome, and an iron rope and tackle from Mr. Fowler, whose reputation had been established by his tile-laying machinery. Soon afterwards, arose fierce disputes as to priority of invention or adaptation between these two gentlemen; but to the public there is no interest in disputes, the merits of which, as far as the mechanical part of the question goes, few if any can understand or care to understand. As in the old gold and silver shield story, the Farmer and the Fowler are both right, and have separate and not opposing merits.

One certain fact is, that the Man of Wolston first saw and acted on his sound conclusion, that it would be much more easy, simple, and economical, to apply steam power to "cultivators and grubbers," which, to use his own expressive phrase, "smashed up the soil" and brought the weeds to the surface, than the old system of ploughs, which turn over the soil and bury the weeds; and in 1855–6 he successfully applied this system to the cultivation of about one hundred acres of his own farm.

At the Chelmsford Show, in 1856, Mr. Fowler produced his steam plough, which was strictly a plough, being a frame on which six or eight shares were arranged, of which half were at work while the others were alternately carried in front in the air. This he worked with such a measure of success on Mr. Fisher Hobb's farm, that Mr. Hudson, the celebrated agriculturist of Castlacre, Norfolk, and a cautious man, there and then declared himself a convert to steam cultivation, and offered to contract for having a good many acres ploughed if a machine were sent.

But, although ever since that day Mr. Fowler's steam plough has been constantly before the public, it was not until the beginning of this year, and until he had become the possessor of some score of patents, and until more than twenty thousand pounds had been expended, that he was able to make a decided stand, and announce that he was ready to take any number of orders at a price that farmers could afford to pay.

At Salisbury, in 1857, when the Royal Agricultural Society repeated their offer of a prize of 500*l.* for a steam plough, Mr. Smith, of Wolston, was excluded from the competition by a mistake in the conditions, (whether intentional or not we are not able to say,) which made it essential that the implement should *turn the soil over*, while, as already observed, it is an essential feature of the Wolston system that the soil should be thoroughly "*stirred and smashed up*," not turned over.

The ground for the Salisbury trial was not favorable to steam

cultivation. Fowler's plough alone, of three competitors, did creditable work: so creditable that the judges and stewards concurred in recommending that a part of the prize money should be awarded to it. But this recommendation was rejected by a majority of the council. And certainly, up to that date, Mr. Fowler had not produced a commercially useful machine—that is to say, a machine that could be trusted to work on without breaking down, that could be easily moved and set to work, and that could be sold at a price within the means of first class rent-paying tenant farmers.

In February, 1858, a paper was read before the Society of Arts, by a gentleman of well-deserved reputation as a contributor of Prize Essays to the Journal of the Royal Agricultural Society, which will become a curious bit of history in a few years; for the author, wild and wide of the reality of the subject, notices in succession, not only the successful Wolston and since successful Fowler systems, but half a dozen others, and praises and encourages almost all: even such mechanical absurdities as the Elephantine Traction Machine, which wears itself out hourly as it travels: and a scheme for bottling up compressed air and letting out from mains and elastic tubes to be laid down under and over a farm! and he concludes by recommending an entirely new implement, with a new "cutting and inverting movement," something like a barrel armed with sharp discs driven endways. In fact, the idea of an uninvented machine—a sort of mechanical nightmare to be propelled by an impossible motion!

At the Chester exhibition of the Royal Agricultural Society in July of the same year, Messrs. Howard exhibited Mr. Smith's machinery manufactured by them, and Mr. Fowler, his latest modification of his steam plough. After a serious trial the prize of 500*l.* was awarded to the latter, and the large gold medal to the former. It was considered by the engineers that Fowler had a better mechanical arrangement, and by the agricultural judges that he did at one operation what Smith did at two.

Smith's system, as exhibited by Messrs. Howard at Chester, consisted of two operations. The first with a strong speed-tined cultivator of a sort of anchor shape, which penetrates the ground 6 or 7 inches, tears it up, stirring much deeper than it tears. Secondly, with a larger instrument of the same kind, which, travelling in a transverse direction at the same depth, clears away any portions surrounded by the first, and reverses the whole topsoil, exposing a rough unequal surface to the action of the atmosphere; the two operations being completed at the rate of 3½ acres per day.

The comparative position of these rival cultivators at the close of 1858 was this: Mr. Fowler, with a costly and ponderous arrangement of machinery, doing very good and rapid work, had won prizes from the Highland, the West of England, the Irish, the Yorkshire, and the English Agricultural Societies in the order named.

Mr. Smith, with an ordinary portable steam engine, a wire rope, and machinery that cost some 200*l.*, had cultivated his own farm,

and reduced it to a tilth and degree of fertility that excited universal admiration, and had sold some twenty or thirty sets of his tackle to purchasers who also worked it successfully: especially in Worcestershire, Staffordshire, Beds, and Bucks.

Thus, while by a series of changes and improvements, Mr. Fowler contrived to obtain a greater amount of power and work out of a steam engine and rope drawing a set of ploughs, better arranged than any of the previous experimenters in the same direction, the Wolston Farmer had better appreciated the capabilities of steam cultivation, and, with the assistance of the most eminent plough-maker of the day, had produced a set of steam cultivating implements admirably calculated to carry out a system which, for distinction, we should like to name Wolsonising.

"On the Wolston Farm one hundred and ten acres of stiff clay arable land, by drainage and Mr. Smith's peculiar yet simple mode of cultivation, has become as fine and deep in tilth as a market garden, and requires just as little trouble to keep it in a clean and healthy condition." A writer in *Bell's Messenger* describes a field of ten acres at Wolston from which a tenth crop was about to be taken, in 1858–9, *without fallow*. "For five years this field had never been turned over on the old principle of ploughing."

Agricultural public opinion having been thus ripened, a great step in advance was made the other day by Mr. Fowler, which reduced the weight of his apparatus, exclusive of the steam engine, from three tons and a half to about twelve hundred weight, and the price from about 450*l.* to less than 250*l.* for a set of tackle and implements capable of performing every process of cultivation on arable soil, still retaining everything that was valuable in his successive improvements. If this be so—and we believe it is—then we may expect to see steam cultivation, within a very few years, introduced on every farm of deep retentive soil which now possesses a portable steam engine, and on hundreds of farms to which it will make its way, bringing with it the steam engine and divers other contingent improvements.

The following is an attempt to describe the working of the two systems—a very difficult task without the illustration of diagrams.

Mr. Smith uses an ordinary agricultural portable steam-engine of from eight to ten-horse power, which he fixes at one corner of a field, for choice of from ten to twelve acres. In front of the engine is a windlass, or capstan, with two drums, of a peculiar shape, with a coil of wire rope around it; and this rope is led over four anchored pulleys, one at each corner, and along each side of the field. The windlass attached to the fly-wheel of the steam engine by a driving band can be instantaneously driven in either direction. Four different ploughs, or cultivators, are used, as occasion requires. To the bow of the one in use, two ends of the rope are attached. An engine-driver, a man at the windlass, a ploughman, an assistant to shift the pulleys, and a boy, are the staff required. The plough cultivator begins by travelling along the more distant side of the field, between the two anchored pulleys; at the end of the first

journey the pulley in front is shifted, the engine is reversed, and in thirty seconds the plough is travelling back; and thus, by alternately shifting, bringing up each of the two most distant anchors, strip by strip the whole field is "smashed up" in parallel lines to the spot where the engine stands.

His plough No. 4 consists of a very strong frame, in which are fixed three subsoil ploughs, with a pair of wheels in front to guide it, and above the centre another pair to regulate the depth. The shares for breaking up clay soil in autumn are set to work six or eight inches deep, (a depth impossible with horse-power.) The "points of the shares become imbedded in the subsoil, and the whole mass, nearly a yard wide and six or eight inches deep, is torn from its position, and more or less mingled together, leaving for the most part the weeds or grass which it is desirable to destroy near the surface." An implement of greater breadth and more tines on light and moderately tenacious soils has been made to move more than ten to twelve acres in a day. But for a description of the four Wolston cultivators, those further interested must refer to the inventor's own pamphlets and pictures. The obvious drawback of the system consists in the loss of power by the friction of the rope along four sides, and consequent indirect traction. Common farm laborers have been repeatedly and easily taught the duties of Smith's system of steam cultivation. According to universal testimony, nothing can exceed the quality of the work and the satisfactory result in crops of all kinds.

Mr. Fowler employs a portable steam engine with a series of drums whose axle is fixed vertically beneath it; a wire rope, passed round the drum of a movable anchor, is stretched across the field to be ploughed, and the two ends are made fast to the plough, thus forming an endless rope. In working, the engine and the anchor move along the two headlands in parallel lines, and the plough before described, or any other implement—Mr. Fowler has been converted to the cultivator—moves forwards and backwards between the engine and the anchor by the reversing gear of the engine. It is evident that under this arrangement the action is more direct, less rope is required, and less power lost by friction than in the Wolston system. It is to be regretted that an arrangement has not been made by which Smith's admirable cultivators could be attached to Fowler's steam power; for Smith wisely repudiates ploughing, and "takes his stand on cultivation;" and it seems likely that on farms with fields of moderate size, and soil of not the most tenacious character, the Wolstonising plan will continue to be preferred. The results of Fowler's cultivation before he had succeeded in reducing the cost and weight of his apparatus to a portable and saleable standard, is well described in Morton's Farmer's Almanac, in a report of the Highland Society's trial at Stirling, in November, 1857: "The trenching plough (Cotgreave's) excited the greatest enthusiasm. Everybody knows the difficulty and expense of ploughing two furrows deep, and the time and labor necessary to reduce enormous furrow slices into a comminuted state. But this implement,

drawn at a speed of three miles an hour, turned down not a tough whole slice, but one of loose mould into the trench left by the preceding bout, and lifted up from an average depth of 12½ inches, and spread upon the top, not heavy, unwieldy masses, but divided and pulverised, a stratum of subsoil, equal to good digging by hand, at one-third or one-fourth the price." Now, in a paper read at the Central Farmers' Club in June, 1857, by Mr. Bond, which had the effect of giving an extraordinary impetus to the practice of autumnal cultivation of clay soils, and indirectly to steam cultivation, he described himself as using a common plough with two horses, followed immediately by a scarifier with six or eight horses, working at harvest time, as soon as the sheaves were shocked in rows, and these two implements went over the land twice: that is to say, they required labor equal to from sixteen to twenty horses to do less than two acres a day; and he added, thus confirming the theory and practice of the Farmer of Wolston: "The common plough is not suitable for autumnal cultivation; it buries the weeds instead of bringing them to the surface."

With these extracts we pause, and sum up with the following elementary information for the benefit of our bread and beef eating non-agricultural readers:

Stiff clay soils were the favorite farms of our forefathers in the days of the rudest agriculture, because they gave good crops in dry favorable seasons, with very little or no manure, and received on the rest of a fallow more quickly than light, or sandy, or chalky soils, for reasons which the chemists of this last quarter of the nineteenth century have discovered. But sheep-treading, root cultivation, or, as it is commonly called, the Norfolk system, brought light and chalk soils into favor, as arable farms and clays were neglected and left to poor farmers. When the Parkesian system of systematic, deep, thorough drainage was completed and established by an almost solitary successful instance of Government interference in a daily bread business (we mean Peel's Drainage Loan,) retentive soils regained a certain degree of favor. With the help of pipe tiles corn could be secured even in wet seasons, and sheep fed where sheep were unknown in the days of shallow bush drains. But retentive clay soils, in spite of systematic drainage, had, and have, a disadvantage which was little felt a hundred years ago, when a farmer could afford to go to sleep half the year, before "rapid concentrative," or what the French happily call intensive culture, was known. It requires extra horse power to work it; it can scarcely be worked at all when it is damp; and in damp weather the treading of horses' feet on clay does incalculable damage. Modern requirements insist on every acre being continually under crop, or seed, or labor. Clay districts, from their peculiarity, have fewer working days than less retentive soils. Clays, modern experience tells, as shown above, should be cultivated deeply, and in the autumn, as they are neither mellow nor clean in the spring, and the clay farmer who misses his autumn is running after his work all the following year, and never overtakes it.

It is not then necessary to enter into the question affirmed by the Royal Agricultural Society's Judges at Chester, and disputed by some sceptics, that steam cultivation is cheaper than horse labor—although we believe it; but we may rest the success, the triumph, the progress of steam cultivation on the fact that it can do an essential work of deep autumnal cultivation, which no number of horses practically yokable could do at all, with the rapidity peculiar to steam power, and without the enormous disadvantage of the consolidation of trampling horses' feet. Thus the drill saves the dry days of the sowing season, the reaping machine saves the harvest season, the threshing machine saves and supplies the market, and the steam cultivating engine saves the cultivating season and multiplies by six or eight fold the value of every day, dry enough to stir the soil on the old plan at the rate of an acre a day: thus increasing the crops to a degree that it is scarcely safe to state. With that unanswerable conclusion we will conclude content—although inclined to agree with the Farmer of Holston that on most farms of three hundred acres and upwards, of tolerably level land, a well-applied steam engine will save one-third of the horse power, and do the work twice as well as horses can do it, even on light land.

A friend inquires, "What about Halkett's Guide system of steam agriculture—the railway farm system?" Why, this only—that it is perfectly practicable, but would cost to apply about one-third more than the fee simple of most farms.

## AGRICULTURAL CHEMISTRY.

*From the London "Economist."*

That such a general knowledge of chemistry as most educated persons possess may be useful to the practical farmer none will deny, but that farmers can or ought to attempt to become scientific chemists, or that they can apply any purely chemical knowledge to the business of husbandry, are propositions few reasonable persons will affirm. At one time the most extravagant expectations were entertained of the benefits chemical discoveries would confer on agriculture, and farmers were frequently and solemnly enjoined to become chemical experimentalists.

Nobody deals more sensibly with the subject of agricultural chemistry than Dr. Voelcker, of the Cirencester College, and in his lecture on "its relation to the cultivation of root crops," delivered before the Royal Agricultural Society, we find its limits very justly defined. He believes that amongst the landed proprietors, their agents and the larger farmers, a more extensive knowledge of the sciences applicable to agriculture, especially the rising generation, is needed. All these want better instruction. But to teach the small farmer or the laborer chemistry is simply absurd. To either the pursuit would be waste of time. So chemistry should never be made the direct guide to the agriculturist. Science is, after all,

only the systematic arrangement of well authenticated facts, and the rising generation should be taught its general principles. But many "professors of chemistry have over-estimated their own powers, and *instead of explaining the experience of practical men*, they set themselves up as guides to the farmers; they have over-estimated the powers of the new science, and in consequence stumbled."

This is very just. Again he says:

"Agricultural chemistry in its application to farming is altogether a new science; and hitherto it has been, like every new knowledge, too vague and too general in its doctrines as well as in its researches. What is required at the present time is experiments made for a special purpose, researches carried on in the field as well as in the laboratory. We have need of the joint labors of practical men and men of science. There are multitudes of subjects which can only be properly investigated if the man of science heartily joins with the practical man, working cheerfully together, each in his own department. Nearer approach between agriculture and science, in short, is what is required at the present time. A general knowledge of the principles of farming, however useful to the practical farmer, never will help him to grow a large crop of turnips; he must have special training in practical matters in order to be a successful farmer. So it is with chemical knowledge. Men may have excellent general chemical knowledge, but if they have not special chemical knowledge in relation to farming, their labors will be of little direct utility to the agriculturist."

In reference to the culture of root crops, he says that generally ammoniacal manures, such as guano, are thrown away on roots; and phosphates are more profitable. Guano and superphosphate of lime both rather retard the germination of the seeds, but they push forward the young plant in its early growth. This we believe to form the true value of such manures, though perhaps this is over-estimated.

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Red-top.—Called in England "bent grass;" in Continental Europe "florin;" in the middle States of the Union "herd's grass;" and in New England "foul meadow." It has soft straw, an abundance of blades, delights in low, swampy land, and is less exhausting to the soil than timothy, as the straw has a lighter glazing of silex, and the ash contains but five per cent. of potash, while the ash of timothy contains thirty per cent. It is deficient in gum, starch, and sugar, and in its green state contains seventy-five per cent. of water.

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To Stop Leaks.—A composition of four pounds of rosin, one pint of linseed oil, and one ounce of red lead, applied hot with a brush, it is said, will stop leaks in roofs, water-butts, &c.

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The State of Ohio has purchased for her school libraries 1,000 copies of "Downing's Landscape Gardening," and 500 of "Darlington's Agricultural Botany."

# FIRST PREMIUM LIST AND REGULATIONS

OF THE

# SEVENTH ANNUAL EXHIBITION

OF THE

# United States Agricultural Society,

## AT CHICAGO, ILLINOIS,

**September 12th, 13th, 14th, 15th, 16th, and 17th, 1859.**

The Seventh Annual Exhibition of the United States Agricultural Society, will be held at the spacious grounds fitted up for the occasion, at Cottage Grove, in the environs of Chicago, Illinois, on Monday the 12th of September, Tuesday the 13th, Wednesday the 14th, Thursday the 15th, Friday the 16th, and Saturday the 17th.

ENTRIES.—Persons intending to exhibit must become annual members of the Society, and their entries should be made on or before Monday, September 12, at noon. Notices of intention to enter can be sent to the Superintendent of the Exhibition or the Secretary, by mail, and such notices will be registered according to the date of their reception. The Entry books will be opened at the Secretary's office, Chicago, on the 5th of September, after which each exhibitor will be furnished with cards, designating the class and number of his entry or entries.

No article or animal can be entered except by the *bona fide* owner or his authorized agent, and any person who may enter an article or animal belonging to another person, without authority in writing so to do, will forfeit all claim to any premium awarded, and be precluded from competing at any future exhibition of the Society.

Exhibitors are warned that the government of the Society have voted to strictly enforce the regulation by which, "when there is but one exhibitor, although he may show several animals or articles in the same class-division, only one premium will be awarded, to be first or otherwise, as the merits of the animal or article may be adjudged." Entries must specify the exhibitor's name and post-office address, and the age of the animal offered. Any fictitious entries, will subject the participants in the fraud to forfeiture of premiums awarded, and they will be precluded from competition at any future exhibition of the Society.

Should Judges not be satisfied as to the regularity of the entries in their respective classes, they will apply to the Secretary for information; and should there still be any doubt, after examination, or, if any animal or article is of such a character as not to be en-

titled to exhibition in competition, they will report the facts to the Secretary, for the consideration of the Executive Committee, that such course may be adopted as the case may require.

No exhibitor or exhibitor's agent can act as Judge on the class in which he exhibits. And, during the examination by the Judges, if any person interferes with them, by letter or otherwise, he will be excluded from the competition. But exhibitors, when requested, are expected to make verbal or written statements concerning their contributions. Such statements, if of interest, will be published.

Premiums will not be paid on animals or articles removed from the Exhibition, unless such removal has the special approval of the Executive Committee; and Premiums not claimed within Thirty days after the award, will be considered as forfeited.

The Treasurer will pay Premiums at the business office, on the ground, during the last day, and at the office in Chicago, during the week following; or will forward any Premium not so paid, in such manner as the person entitled to the same may direct. Silver Plate of equal value, if preferred, will be given in place of any cash premium, with a suitable inscription. The Medals, (which are struck at the U. S. Mint at Philadelphia,) will be ready for delivery at the annual meeting of the United States Agricultural Society, at Washington, in January, and can be easily forwarded by Members of Congress, or by express, to those who cannot attend in person.

Discretionary Premiums, Diplomas, and Medals, will be awarded by the Executive Committee, should objects of *special interest*, not provided for in any of the classes, be presented. All instruments, machines, utensils, and apparatus intended to be used in the preparation, culture, or seeding of the soil;—in the harvesting, transportation, or manufacture of produce;—or in the various requirements of agriculture;—or in promoting the comfort of agriculturists and of their families, will be admitted to the Exhibition.

Sales may be made by Exhibitors at any time during the Fair, under such regulation as the Superintendent may hereafter prescribe, but the articles sold shall not be removed without the authority of the Executive Committee. Sales by auction must be made by an appointed auctioneer, at such time and under such regulations as the Superintendent may prescribe.

Generous railroad arrangements will be made. Some of the principal roads have agreed to convey stock and articles free of charge, to and from the Exhibition. Others have already agreed to *carry back* stock and articles *free of charge*, on presentation of the Secretary's certificate that the same has been on Exhibition. On most of the Roads excursion tickets will be issued. When the railroad arrangements have been completed, they will be announced by the Superintendent of the Exhibition.

Exhibitors must place their animals or articles under the direction and control of the Superintendent of the Exhibition, but the Society will not be responsible for any damage that may occur. The Executive Committee invite especial attention to the various Regulations inserted in this Premium List, which will be strictly enforced,

as will such Regulations as may hereafter be promulgated by the Superintendent of the Exhibition.

Exhibitors must also see to the delivery of their articles or animals upon the grounds, give them their personal attention during the Exhibition, and attend to their removal afterwards; the Society cannot, in any case, make provision for their transportation, or be subjected to any expense therefore, either in their delivery at or return from the grounds; but all the expenses connected therewith must, as heretofore, be provided for by the exhibitors.

A Second Edition of this Premium List will be issued on the fifteenth of August, with such additional premiums as the Executive Committee may sanction, including the

VOLUNTEER PREMIUMS BY CITIZENS OF CHICAGO!

## *Cattle Department.*

[Regard will be had to the purity of blood, as established by pedigree, symmetry, size, and general characteristics of the several breeds of animals; and the Judges will make proper allowance for age, feeding, and other circumstances. *They are expressly required not to give encouragement to over-fed animals* in the breeding classes. Exhibitors of *Thorough-bred* stock will be required to furnish detailed pedigrees of the animals to be exhibited, in writing, at the time of making their entries. The standard authority in all cases of pedigree of cattle, will be the English and American Herd Books. Exhibitors must come prepared to have their cattle led into the ring when directed so to do by the Superintendent of the Exhibition, *precisely at the time specified*, and animals not so brought forward will (unless for some good reason approved by the Executive Committee,) be ruled out of competition.]

Class 1.—*The Herd Premiums.*

| | |
|---|---|
| For best Durham Bull and four Cows, or Heifers of any age, belonging to any one person | $100 |
| Next best | 50 |
| For best Devon Bull and four Cows, or Heifers, belonging to any one person | 100 |
| Next best | 50 |
| For best Ayrshire Bull and four Cows, or Heifers, belonging to any one person | 100 |
| Next best | 50 |
| For best Hereford Bull and four Cows, or Heifers, belonging to any one person | 100 |
| Next best | 50 |
| For best Jersey Bull and four Cows, or Heifers, belonging to any one person | 100 |
| Next best | 50 |
| For best four Cows, or Heifers, (not full blood,) belonging to any one person | 50 |
| Next best | 25 |

For best Herd of five fat Cattle, belonging to any one person $50
Next best..... 25
For best team of working Oxen, not less than ten yoke, from any county..... 50
Next best..... 25
For the best Herd of Cattle on the ground, imported or native, of all classes.....Diploma of Honor
For the Exhibitor of the Finest Herd, of all classes imported by himself.....Diploma of Honor
For the Exhibitor of the Finest American Herd, of all classes, bred by himself.....Diploma of Honor
For the Exhibitor of the Finest American animal, of any class, bred by himself.....Diploma of Honor

Class 2.—*Imported Durham Bulls.*

| | | |
|---|---|---|
| Three years old and upwards, | 1st premium, | $100 |
| Two years old and under three, | 1st do. | 50 |
| One year old and under two, | 1st do. | 25 |
| Under one year, | 1st do. | 15 |

Class 3.—*Imported Durham Cows and Heifers.*

| | | |
|---|---|---|
| Three years old and upwards, | 1st premium, | $75 |
| Two years old and under three, | 1st do. | 40 |
| One year old and under two, | 1st do. | 25 |
| Under one year, | 1st do. | 15 |

Class 4.—*Imported Devon Bulls.*

| | | |
|---|---|---|
| Three years old and upwards, | 1st premium, | $100 |
| Two years old and under three, | 1st do. | 50 |
| One year old and under two, | 1st do. | 25 |
| Under one year, | 1st do. | 15 |

Class 5.—*Imported Devon Cows and Heifers.*

| | | |
|---|---|---|
| Three years old and upwards, | 1st premium, | $75 |
| Two years old and under three, | 1st do. | 40 |
| One year old and under two, | 1st do. | 25 |
| Under one year, | 1st do. | 15 |

Class 6.—*Imported Ayrshire Bulls.*

| | | |
|---|---|---|
| Three years old and upwards, | 1st premium, | $100 |
| Two years old and under three, | 1st do. | 50 |
| One year old and under two, | 1st do. | 25 |
| Under one year, | 1st do. | 15 |

Class 7.—*Imported Ayrshire Cows and Heifers.*

| | | |
|---|---|---|
| Three years old and upwards, | 1st premium, | $75 |
| Two years old and under three, | 1st do. | 40 |
| One year old and under two, | 1st do. | 25 |
| Under one year, | 1st do. | 15 |

Class 8.—*Imported Hereford Bulls.*

| | | |
|---|---|---|
| Three years old and upwards, | 1st premium, | $100 |
| Two years old and under three, | 1st do. | 50 |
| One year old and under two, | 1st do. | 25 |
| Under one year, | 1st do. | 15 |

Class 9.—*Imported Hereford Cows and Heifers.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $75 |
| Two years old and under three, | 1st | do. | 40 |
| One year old and under two, | 1st | do. | 25 |
| Under one year, | 1st | do. | 15 |

Class 10.—*Imported Alderney Bulls.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $100 |
| Two years old and under three, | 1st | do. | 50 |
| One year old and under two, | 1st | do. | 25 |
| Under one year, | 1st | do. | 15 |

Class 11.—*Imported Alderney Cows and Heifers.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $75 |
| Two years old and under three, | 1st | do. | 40 |
| One year old and under two, | 1st | do. | 25 |
| Under one year, | 1st | do. | 15 |

[Discretionary premiums will be awarded to meritorious imported animals of breeds not above enumerated. Portraits of all Prize animals will be inserted in the *Journal of Agriculture*, if the owners will furnish the engraved cuts, ready for printing.]

Class 12.—*American Durham Bulls.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $100 |
| do. do. | 2d | do. | 40 |
| Two years old and under three, | 1st | do. | 50 |
| do. do. | 2d | do. | 20 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 13.—*American Durham Cows and Heifers.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $75 |
| do. do. | 2d | do. | 30 |
| Two years old and under three, | 1st | do. | 40 |
| do. do. | 2d | do. | 15 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 14.—*American Devon Bulls.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $100 |
| do. do. | 2d | do. | 40 |
| Two years old and under three, | 1st | do. | 50 |
| do. do. | 2d | do. | 20 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 15.—*American Devon Cows and Heifers.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $75 |
| do. do. | 2d | do. | 30 |
| Two years old and under three, | 1st | do. | 40 |
| do. do. | 2d | do. | 15 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 16.—*American Ayrshire Bulls.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $100 |
| do. do. | 2d | do. | 40 |
| Two years old and under three, | 1st | do. | 50 |
| do. do. | 2d | do. | 20 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 17.—*American Ayrshire Cows and Heifers.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $75 |
| do. do. | 2d | do. | 30 |
| Two years old and under three, | 1st | do. | 40 |
| do. do. | 2d | do. | 15 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 18.—*American Hereford Bulls.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $100 |
| do. do. | 2d | do. | 40 |
| Two years old and under three, | 1st | do. | 50 |
| do. do. | 2d | do. | 20 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 19.—*American Hereford Cows and Heifers.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $75 |
| do. do. | 2d | do. | 30 |
| Two years old and under three, | 1st | do. | 40 |
| do. do. | 2d | do. | 15 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 20.—*American Alderney Bulls.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $100 |
| do. do. | 2d | do. | 40 |
| Two years old and under three, | 1st | do. | 50 |
| do. do. | 2d | do. | 20 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 21.—*American Alderney Cows and Heifers.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $75 |
| do. do. | 2d | do. | 30 |
| Two years old and under three, | 1st | do. | 40 |
| do. do. | 2d | do. | 15 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 22.—*Grade Cows and Heifers.*

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $30 |
| do. do. | 2d | do. | 15 |
| Two years old and under three, | 1st | do. | 20 |
| do. do. | 2d | do. | 10 |

Class 23.—*Milch Cows, Imported or American.*

[A verified written statement must be furnished with each animal, giving: The age—the breed—the time of calfing—the quantity and quality of feed—quantity of milk given—and quantity of butter made.]

| | | | |
|---|---|---|---|
| Three years old and upwards, | 1st | premium, | $30 |
| do. do. | 2d | do. | 15 |
| Two years old and under three, | 1st | do. | 20 |
| do. do. | 2d | do. | 10 |

Class 24.—*Working Oxen, Steers and Driver's.*

[Cattle exhibited in county teams cannot compete as a single yoke for the prizes in this class. Working Oxen are to be thoroughly tested, as the Judges may direct.]

| | |
|---|---|
| Best yoke of Working Oxen four years old and over, | $20 |
| Next best, | 10 |
| Best yoke of Steers three years old and under four, | 15 |
| Best driver (not over 16 years old,) with yoke of Steers two years old and under three, | 10 |
| Next best, | 5 |
| Best driver (not over 16 years old,) with yoke of Steers one year old and under two, | 5 |
| Next best, | 3 |

Class 25.—*Fat Bullocks.*

| | | |
|---|---|---|
| Best Bullock, five years old and over, | | $25 |
| Next best, | | 10 |
| do. | three years old and under five, | 15 |
| Next best, | | 5 |

Class 26.—*Fat Cows and Heifers.*

| | | |
|---|---|---|
| Best Cow or Heifer, five years old and over, | | $25 |
| do. | three years old and under five, | 10 |

[Applicants for premiums in the 26th and 27th classes, and for the Herd Premium for Fat Cattle, must furnish verified written statements, of the manner of feeding the animals offered, giving the kind, quantity and cost of food, with other expenses connected with the fattening.]

## *Horse and Mule Department.*

[No horse can compete for more than one premium, except in the classes for trotters, and *unsound horses* will be excluded from competition.]

Class 27.—*Thorough-bred Stallions.*

| | | | |
|---|---|---|---|
| Four years old and upwards, | 1st premium, | | $100 |
| do. do. | 2d | do. | 40 |
| Three years old and under four, | 1st | do. | 75 |
| do. do. | 2d | do. | 30 |
| Two years old and under three, | 1st | do. | 50 |
| do. do. | 2d | do. | 20 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year old, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

Class 28.—*Thorough-bred Mares and Fillies.*

| | | | |
|---|---|---|---|
| Four years old and upwards, | 1st premium, | | $100 |
| do. do. | 2d | do. | 40 |
| Three years old and under four, | 1st | do. | 75 |
| do. do. | 2d | do. | 30 |
| Two years old and under three, | 1st | do. | 50 |
| do. do. | 2d | do. | 20 |
| One year old and under two, | 1st | do. | 25 |
| do. do. | 2d | do. | 10 |
| Under one year old, | 1st | do. | 15 |
| do. do. | 2d | do. | 5 |

[Exhibitors in classes 27 and 28 must file pedigrees with the Secretary on the first day of the Exhibition, tracing back to the thorough-bred English horse, through sire and dam. Authorities, the English Stud Book and the American Turf Register.]

Class 29.—*Morgan and Black Hawk Stallions.*

| | | | |
|---|---|---|---|
| Four years old and upwards, | 1st premium, | | $75 |
| do. do. | 2d | do. | 40 |

| | | |
|---|---|---|
| Three years old and under four, | 1st premium, | $50 |
| do. do. | 2d do. | 25 |
| Two years old and under three, | 1st do. | 30 |
| do. do. | 2d do. | 20 |
| One year old and under two, | 1st do. | 25 |
| do. do. | 2d do. | 15 |
| Under one year old, | | 10 |

[Exhibitors in class 29 must file pedigrees with the Secretary on the first day of the Exhibition, tracing back to the original Justin Morgan or Hills's Black Hawk, either on the side of sire or dam.]

Class 30.—*Stallions for all Work.*

| | | |
|---|---|---|
| Four years old and upwards, | 1st premium, | $50 |
| do. do. | 2d do. | 25 |
| Three years old and under four, | 1st do. | 30 |
| do. do. | 2d do. | 15 |
| Two years old and under three, | 1st do. | 20 |
| do. do. | 2d do. | 10 |
| One year old and under two, | 1st do. | 15 |
| do. do. | 2d do. | 10 |
| Under one year old, | | 5 |

Class 31.—*Mares for all Work.*

| | | |
|---|---|---|
| Four years old and upwards, | 1st premium, | $50 |
| do. do. | 2d do. | 25 |
| Three years old and under four, | 1st do. | 30 |
| do. do. | 2d do. | 15 |
| Two years old and under three, | 1st do. | 20 |
| do. do. | 2d do. | 10 |
| One year old and under two, | 1st do. | 15 |
| do. do. | 2d do. | 10 |
| Under one year old, | | 5 |

[The "Horse of all Work," or of "General Utility," is described as between 15 and 16 hands; quick lively ears; broad between the eyes; round barrel; short loins; well up in the shoulder; deep chested; square quarters; flat legs; short between knee and pastern and hock and pastern; speed equal to eight miles an hour on the road, and at least three miles at the plough.]

Class 32.—*Heavy Draft Stallions.*

| | | |
|---|---|---|
| Four years old and upwards, | 1st premium, | $50 |
| do. do. | 2d do. | 25 |
| Three years old and under four, | 1st do. | 30 |
| do. do. | 2d do. | 15 |
| Two years old and under three, | 1st do. | 20 |
| do. do. | 2d do. | 10 |
| One year old and under two, | 1st do. | 15 |
| do. do. | 2d do. | 10 |
| Under one year old, | | 5 |

Class 33.—*Heavy Draft Mares.*

| | | | |
|---|---|---|---|
| Four years old and upwards, | 1st premium, | | $50 |
| do. do. | 2d do. | | 25 |
| Three years old and under four, | 1st do. | | 30 |
| do. do. | 2d do. | | 15 |
| Two years old and under three, | 1st do. | | 20 |
| do. do. | 2d do. | | 10 |
| One year old and under two, | 1st do. | | 15 |
| do. do. | 2d do. | | 10 |
| Under one year old, | | | 5 |

Class 34.—*Carriage Horses in Pairs.*

| | | | |
|---|---|---|---|
| Geldings in harness, | 1st premium, | | $50 |
| do. do. | 2d do. | | 25 |
| Mares, do. | 1st do. | | 50 |
| do. do. | 2d do. | | 25 |

Class 35.—*Carriage Horses Single.*

| | | | |
|---|---|---|---|
| Geldings in harness, | 1st premium, | | $30 |
| do. do. | 2d do. | | 15 |
| Mares, do. | 1st do. | | 30 |
| do. do. | 2d do. | | 15 |

Class 36.—*Saddle Horses, Trotters or Pacers.*

| | | | |
|---|---|---|---|
| Stallions under the saddle, | 1st premium, | | $30 |
| do. do. | 2d do. | | 15 |
| Mares, do. | 1st do. | | 30 |
| do. do. | 2d do. | | 15 |
| Geldings, do. | 1st do. | | 25 |
| do. do. | 2d do. | | 10 |

Class 37.—*Ponies and Horsemanship.*

| | |
|---|---|
| Best display of horsemanship, by a lad under fourteen years of age, riding a pony, | $20 |
| Second best, | 15 |
| Third best, | 10 |

Class 38.—*Trotting Stallions, Geldings and Mares.*

Citizens' purse.—Particulars to be given in second edition.

Class 39.—*Trotting Stallions.*

| | | | |
|---|---|---|---|
| Six years old and over, | 1st premium, | | $100 |
| do. do. | 2d do. | | 50 |
| Under six years, | 1st do. | | 75 |
| do. | 2d do. | | 30 |

Class 40.—*Trotting Mares.*

| | | | |
|---|---|---|---|
| Six years old and over, | 1st premium, | | $100 |
| do. do. | 2d do. | | 50 |
| Under six years, | 1st do. | | 75 |
| do. | 2d do. | | 30 |

Class 41.—*Trotting Geldings.*

| | | |
|---|---|---|
| Six years old and over, | 1st premium, | $75 |
| do. do. | 2d do. | 40 |
| Under six years, | 1st do. | 50 |
| do. | 2d do. | 25 |

[Exhibitors in the four last mentioned trotting classes can have competed for premiums in any other classes.]

Class 42.—*Jacks, imported or American.*

| | | |
|---|---|---|
| Jack four years old and over, | 1st premium, | $50 |
| do. do. do. | 2d do. | 25 |
| Jack three years old and under four, | 1st do. | 40 |
| do. do. do. | 2d do. | 20 |
| Jack two years old and under three, | 1st do. | 30 |
| do. do. do. | 2d do. | 15 |
| Jack one year old and under two, | 1st do. | 20 |
| do. do. do. | 2d do. | 10 |
| Jack under one year old, | 1st do. | 15 |
| do. do. do. | 2d do. | 5 |

Class 43.—*Jennets, imported or American.*

| | | |
|---|---|---|
| Jennets four years old and over, | 1st premium, | $50 |
| do. do. do. | 2d do. | 25 |
| Jennet three years old and under four, | 1st do. | 40 |
| do. do. do. | 2d do. | 20 |
| Jennet two years old and under three, | 1st do. | 30 |
| do. do. do. | 2d do. | 15 |
| Jennet one year old and under two, | 1st do. | 20 |
| do. do. do. | 2d do. | 10 |
| Jennet under one year old, | 1st do. | 15 |
| do. do. do, | 2d do. | 5 |

Class 44.—*Mules.*

| | | |
|---|---|---|
| Pair draught mules in harness, | 1st premium, | $40 |
| do. do. do. | 2d do. | 20 |
| do. do. do. | 1st do. | 40 |
| do. do. do. | 2d do. | 20 |
| Single mule over three years old, | 1st do. | 30 |
| do. do. | 2d do. | 15 |
| do. two years old and under three, | 1st do. | 20 |
| do. do. | 2d do. | 10 |
| do. one year old and under two, | 1st do. | 10 |
| do. do. | | 5 |

## *Sheep, Swine, and Miscellaneous Department.*

[Exhibitors of Sheep will bear in mind that, "when there is but one exhibitor, although he may show several animals in the same class and order, only one premium will be awarded; that to be first or otherwise, as the merits of the animal may be adjudged; and when the animal is not deemed worthy of a premium, the Judges will, at their discretion, withhold it."]

Class 45.—*Long Wooled Bucks.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 46.—*Long Wool Ewes, not less than three.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 47.—*Middle Wool Bucks.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 48.—*Middle Wool Ewes, not less than three.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 49.—*Saxon Bucks.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 50.—*Saxon Ewes, not less than three.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 51.—*Silesian Merino Bucks.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |

| | | | |
|---|---|---|---|
| Under one year, | | 1st premium, | $15 |
| do. | do. | 2d do. | 5 |

Class 52.—*Silesian Ewes, not less than three.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 53.—*French Merino Bucks.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 54.—*French Ewes, not less than three.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 55.—*Spanish Merino Bucks.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 56.—*Spanish Ewes, not less than three.*

| | | | |
|---|---|---|---|
| Two years old and over, | | 1st premium, | $30 |
| do. | do. | 2d do. | 15 |
| One year and under two, | | 1st do. | 25 |
| do. | do. | 2d do. | 10 |
| Under one year, | | 1st do. | 15 |
| do. | do. | 2d do. | 5 |

Class 57.—*Grade Sheep, all breeds and ages.*

| | | |
|---|---|---|
| Best lot five ewes, | 1st premium, | $30 |
| Second best, do. | 2d do. | 15 |
| Best lot five wethers, | 1st do. | 20 |
| Second best, do. | 2d do. | 10 |

Class 58.—*Live Muttons.*

| | | |
|---|---|---|
| Not less than three, | 1st premium, | $15 |
| do. | 2d do. | 10 |

Class 59.—*Slaughtered Mutton.*

| | | |
|---|---|---|
| Slaughtered Mutton, | 1st premium, | $10 |
| do. | 2d do. | 5 |

Class 60.—*Cashmere Goats.*

| | | |
|---|---|---|
| Male Goat, | 1st premium, | $20 |
| do. do. | 2d do. | 10 |
| Female do. | 1st do. | 20 |
| do. do. | 2d do. | 10 |
| Three grade goats, | 1st do. | 20 |
| do. | 2d do. | 10 |

Class 61.—*Alpacas.*

| | | |
|---|---|---|
| Male Alpacas, | 1st premium, | $20 |
| do. do. | 2d do. | 10 |
| Female do. | 1st do. | 20 |
| do. do. | 2d do. | 10 |

Class 62.—*Camels, Llamas and Elks.*

| | | |
|---|---|---|
| Camel, trained to work, | 1st premium, | $25 |
| do. do. | 2d do. | 15 |
| Llama, do. | 1st do. | 25 |
| do. do. | 2d do. | 15 |
| Pair Elk, | 1st do. | 25 |
| do. | 2d do. | 15 |

Class 63.—*Shepherd's and Watch Dogs.*

| | | |
|---|---|---|
| Shepherd's Dog, trained, | 1st premium, | $10 |
| do. do. | 2d do. | 5 |
| Watch Dog, | 1st do. | 5 |
| do. do. | 2d do. | 3 |

Class 64.—*Large Breed Swine.*

| | | |
|---|---|---|
| Boars, two years and upwards, | 1st premium, | $25 |
| do. do. | 2d do. | 10 |
| do. one year and under two, | 1st do. | 15 |
| do. do. | 2d do. | 5 |
| Sows, two years and upwards, | 1st do. | 25 |
| do. do. | 2d do. | 10 |
| do. one year and under two, | 1st do. | 15 |
| do. do. | 2d do. | 5 |
| Sows and Pigs, | 1st do. | 20 |
| do. do. | 2d do. | 10 |

[Exhibitors will not be allowed to combine their lots for the purpose of competing for the premiums awarded to Sows and Pigs, nor can the same sow be entered for these premiums and also for those offered for Sows.]

Class 65.—*Small Breed Swine.*

| | | |
|---|---|---|
| Boars, two years and upwards, | 1st premium, | $25 |
| do. do. | 2d do. | 10 |
| do. one year and under two, | 1st do. | 15 |
| do. do. | 2d do. | 5 |

| | | |
|---|---|---|
| Sows, two years and upwards, | 1st premium, | $25 |
| do. do. | 2d do. | 10 |
| do. one year and under two, | 1st do. | 15 |
| do. do. | 2d do. | 5 |
| Sows and pigs, | 1st do. | 20 |
| do. do. | 2d do. | 10 |

Class 66.—*Live Fat Swine, all breeds.*

| | | |
|---|---|---|
| Over one year, | 1st premium, | $15 |
| do. | 2d do. | 8 |
| Under one year, | 1st do. | 10 |
| do. | 2d do. | 5 |
| Shoats, at least five, | 1st do. | 10 |
| do. | 2d do. | 5 |

## *Poultry and Game Department.*

Class 67.—*Larger Asiatic Fowls.*

| | | |
|---|---|---|
| Pair buff Shanghaes, | 1st premium, | $5 |
| do. do. | 2d do. | 3 |
| Pair black, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Pair white, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Pair Bramah Pootas, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Pair Cochin Chinas, | 1st do. | 5 |
| do. do. | 2d do. | 3 |

Class 68.—*Game, Fowls and their crosses.*

| | | |
|---|---|---|
| Pair Dominique game, | 1st premium, | $5 |
| do. do. | 2d do. | 3 |
| Pair English do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Pair Sumatra do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Pair Spanish do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |

Class 69.—*Barn Yard Fowls.*

| | | |
|---|---|---|
| Pair Speckled Dorkings, | 1st premium, | $5 |
| do. white do. | 2d do. | 3 |
| Best pair Hamburghs, silver penciled, | | 3 |
| do. do. gold, do. | | 3 |
| do. do. black, do. | | 3 |
| Best pair Polands, silver, | | 3 |
| do. do. golden, | | 3 |
| do. do. white crested, | | 3 |
| Best pair Bantams, white, | | 3 |
| do. do. black, | | 3 |
| Best pair Mongrel Fowls, of any grade, | | 3 |

Class 70.—*Ducks.*

| | |
|---|---|
| Best pair or trio, Muscovy. | $5 |
| Best pair or trio, Poland, | 5 |
| Best pair or trio, Aylesbury, | 5 |
| Best pair or trio, Rouen, | 5 |
| Best pair or trio, Java, | 5 |
| Best pair or trio, Top Knot, | 5 |
| Best pair or trio, Common, | 5 |
| Best pair or trio, Mongrel, | 5 |

Class 71.—*Geese.*

| | |
|---|---|
| Best pair Bremen, | $5 |
| Best pair Hong Kong or African, | 5 |
| Best pair Toulouse, | 5 |
| Best pair Wild, | 5 |
| Best pair White or Colored Swan, | 5 |
| Best pair Mongrel, | 5 |

Class 72.—*Turkies.*

| | | |
|---|---|---|
| Pair Domestic Turkies, | 1st premium, | $5 |
| do. do. | 2d do. | 3 |
| Pair White Turkies, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Best Wild Cock Turkey, | | 5 |
| Best Wild Hen Turkey, | | 3 |
| Best flock of Turkies, any kind, | | 5 |

Class 73.—*Guinea Fowls, Pigeons, &c.*

| | | |
|---|---|---|
| Pair Guinea Fowls, | 1st premium, | $5 |
| do. do. | 2d do. | 3 |
| Pair Pea Fowls, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Best lot Quail, | 1st do. | 5 |
| Best lot Prairie Hen, | 2d do. | 5 |
| Collection of Pigeons, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Collection of Rabbits, | 1st do. | 5 |
| do. do. | 2d do. | 3 |

Class 74.—*Collection of Poultry.*

A premium of $10.00 will be awarded for the best collection of poultry not less than one hundred in number, of which a sample of not less than five shall be exhibited (not to compete for any other premium) accompanied by a verified statement, which must be filed with the Secretary, at the time of entry, of the method of keeping; arrangement of the poultry-house and yards; the expense attending it; the number of eggs, their average weight, and how preserved; number of chickens raised, the market value of each, how prepared and packed for market, and where sold, $10

For the second best collection, as above, 5

## *Farm and Garden Product Department.*

Class 75.—*Grain and Seeds.*

[Certified evidence must be filed with the Secretary at the time of making the entry, that the products were the growth of the present year, on the competitors' land; the time of sowing and harvesting, with the quantity raised to the acre, must also be stated. The quantity specified of all articles entered must be ceded to the Society, that samples may be deposited in the cabinet at Washingington; the remainders will be distributed among agricultural societies at home and abroad.]

| | |
|---|---|
| Best sample white winter wheat, not less than one bushel, | $5 |
| Second best sample, | 3 |
| Best sample of red winter wheat, one bushel, | 5 |
| Second best sample, | 3 |
| Best sample of white spring wheat, one bushel, | 5 |
| Second best sample, | 3 |
| Best sample of red spring wheat, one bushel, | 5 |
| Second best sample, | 3 |
| Best sample of rye, 1 bushel, | 5 |
| Second best sample, | 3 |
| Best sample of oats, one bushel, | 5 |
| Second best sample, | 3 |
| Best sample of barley, one bushel, | 5 |
| Second best sample, | 3 |
| Best sample of buckwheat, one bushel, | 3 |
| Second best sample, | 2 |
| Best sample of newly introduced grain, valuable to the farmer, not less than one peck, | 5 |
| Best sample of millet, one peck, | 3 |
| Second best sample, | 2 |
| Best sample of seed of Chinese sugar cane, | 3 |
| Second best sample, | 2 |
| Best sample of white beans, one bushel, | 5 |
| Second best sample, | 3 |
| Best sample of peas, one bushel, | 5 |
| Second best sample, | 3 |
| Best sample of flax seed, one peck, | 3 |
| Second best sample, | 2 |
| Best sample of hops, not less than ten pounds, | 5 |
| Second best sample, | 3 |
| Best sample of Timothy seed, one peck, | 3 |
| Second best sample, | 2 |
| Best sample of Blue Grass seed, one peck, | 3 |
| Second best sample, | 2 |
| Best sample of Hungarian grass seed, one peck, | 3 |
| Second best sample, | 2 |
| Best sample of clover seed, half-peck, | 3 |
| Second best sample, | 2 |
| Best twelve ears of yellow seed corn, | 3 |
| Second best sample, | 2 |

| | |
|---|---|
| Best twelve ears of white seed corn, | $3 |
| Second best sample, | 2 |
| Best twelve ears of sweet corn, | 3 |
| Second best sample, | 2 |
| Best collection different varieties corn, | 5 |
| Second best sample, | 2 |

Class 76.—*Flour, Meal, &c.*

[Exhibitors must file with the Secretary, on making their entries, verified statements of the actual quantity of grain or corn used in the manufacture of each barrel of flour or meal, as the committee will take this into consideration in awarding the premiums.]

| | |
|---|---|
| Barrel of 196 pounds flour from red wheat, 1st premium, | $5 |
| do. do. 2d do. | 3 |
| do. white wheat, 1st do. | 5 |
| do. do. 2d do. | 3 |
| Best barrel Indian meal for transportation, | 5 |
| do. rye do. do. | 5 |
| Best sample wheat starch, | 3 |
| do. corn do. | 3 |
| do. farina from wheat or corn, | 3 |

Class 77.—*Other Staple Products.*

| | |
|---|---|
| Best bag Upland cotton, | $10 |
| do. Sea Island do. | 10 |
| Best barrel Cane sugar, | 10 |
| Best fifty pounds sugar from Sorgho or Imphee, | 10 |
| Best five gallons molasses do. | 5 |
| Best twenty pounds maple sugar, | 5 |
| Best bushel Upland rice, | 5 |
| Best bushel Lowland rice, | 5 |
| Sample English shipping leaf tobacco, 1st premium | 5 |
| do. do. do. 2d do. | 3 |
| do. Continental shipping leaf do. 1st do. | 5 |
| do. do. do. do. 2d do. | 3 |
| do. manufactured tobacco, 1st do. | 5 |
| do. do. do. 2d do. | 3 |
| Best pound of tea, American growth, | 5 |
| Best display of silk do. | 5 |
| Fifty pounds dressed flax, | 5 |
| do. dew-rotted hemp, | 5 |
| do. water-rotted do. | 5 |
| Fleece of long wool, | 5 |
| do. middle do. | 5 |
| do. Merino do. | 5 |
| do. Saxony do. | 5 |

Class 78.—*Garden Vegetables.*

| Best and second-best display of— | 1st premium, | 2d premium. |
|---|---|---|
| Irish potatos, a bushel, | $5 | $3 |

| Best and second best display of— | 1st premium, | 2d premium. |
|---|---|---|
| Sweet potatos, a bushel, | $3 | $2 |
| Onions, white, a peck, | 3 | 2 |
| do. red do. | 3 | 2 |
| do. yellow do. | 3 | 2 |
| Turnips, Ruta Baga do. | 3 | 2 |
| do. yellow do. | 3 | 2 |
| do. flat do. | 3 | 2 |
| Beets, turnip do. | 3 | 2 |
| do. sugar do. | 3 | 2 |
| do. Mangel Wurtzel do. | 3 | 2 |
| Parsnips do. | 3 | 2 |
| Carrots, white do. | 3 | 2 |
| do. orange do. | 3 | 2 |
| Salsify, three bunches, | 3 | 2 |
| Leeks, three do. | 3 | 2 |
| Celery, ten do. | 3 | 2 |
| Rhubarb, ten do. | 3 | 2 |
| Cauliflower, six heads, | 3 | 2 |
| Cabbage, six do. | 3 | 2 |
| Lettuce, six do. | 3 | 2 |
| Endive, six do. | 3 | 2 |
| Tomatoes, red, one peck, | 3 | 2 |
| do. yellow do. | 3 | 2 |
| Peppers, do. | 3 | 2 |
| Egg plant, do. | 3 | 2 |
| Lima beans, do. | 3 | 2 |
| Field peas, do. | 3 | 2 |
| Pole beans, do. | 3 | 2 |
| Bunch do. do. | 3 | 2 |
| Garden peas, greatest variety | 3 | 2 |
| Pumpkins do. | 3 | 2 |
| Squashes do. | 3 | 2 |
| Watermelons do. | 3 | 2 |
| Muskmelons do. | 3 | 2 |
| Collection garden vegetables, distinct from any exhibited for the above premiums, | 10 | 5 |
| Garden-seeds, growth of 1858–'9, with directions for planting on each paper, | 10 | 5 |

Class 79.—*Cured and Preserved Meats.*

[Exhibitors must furnish the Secretary, when they make their entries, verified statements of the manner in which their meats have been cured or preserved. Hams and canned meats must be cooked at such time as the judges may direct.]

| | | |
|---|---|---|
| Best barrel pickled or mess beef, | | $5 |
| do do. pork, | | 5 |
| Hams, cooked, | 1st premium, | 5 |
| do. | 2d do. | 3 |
| Best mutton hams, cooked, | | 3 |

| | | |
|---|---|---|
| Best bologna sausages, five pounds, | | $3 |
| Canned meats, at least one year old, | 1st premium, | 5 |
| do. do. | 2d do. | 3 |
| Best bushel of salt for meats, | | 3 |

Class 80.—*Dairy Products.*

[Exhibitors must file verified statements with the Secretary, before the 13th of September, showing that they manufactured the articles entered, and owned the dairies from which the same were made. Competitors for premiums for butter must also state in writing when the butter was made; the number of cows kept on the farm, the mode of keeping; the treatment of the cream and milk before churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substance has been employed; also whether in the use of any variety of salt, injurious results have occurred; if so, the variety, and where manufactured. Competitors for premiums on cheese must also state in writing, where and when the cheese was made: the number of cows kept, the treatment of milk, the kind of rennet used; how the curd was broken, scalded, and separated from the whey; the quantity and kind of salt used, how pressed, and how dressed. Unless these statements are made, Exhibitors will be excluded from competition.]

| | | |
|---|---|---|
| Twenty-five pounds of butter made in May or June, | 1st premium | $20 |
| do. do. do. | 2d do. | 15 |
| do. do. do. | 3d do. | 10 |
| Fifty pounds of butter made at any time, | 1st do. | 20 |
| do. do. do. | 2d do. | 15 |
| do. do. do. | 3d do. | 10 |
| Ten pounds of butter made at any time by a girl under twenty years of age, not in competition for other premiums, | 1st premium, | 10 |
| do. do. do. | 2d do. | 5 |
| One hundred pounds of cheese, over one year old. | 1st premium, | 20 |
| do. do. do. | 2d do. | 15 |
| do. do. do. | 3d do. | 10 |
| do. do. under one year old | 1st do. | 20 |
| do. do. do. | 2d do. | 15 |
| do. do. do. | 3d do. | 10 |
| Best display of old "pine-apple" cheese, | | 5 |
| Best bag of salt for dairy use, | | 5 |
| To the owner of the dairy which makes the best display in addition to premiums, | | Diploma of Honor. |

## *Horticultural and Pomological Department.*

[All fruits, flowers, and plants offered in competition for premiums, must have been grown by the competitor, and any one who may offer for premium what has been grown by another person,

will thereby forfeit all claim to any premium offered by the Society at this or any future exhibition. The Professional List includes all *more or less* engaged in the cultivation of trees, &c., for sale. Specimens offered in competition for any premium, cannot be offered for another. Judges will withhold awards where articles of sufficient merit are not offered. Exhibitors will be to arrange their specimens as the Superintendent may direct, nor can they remove them until after two o'clock in the afternoon of Friday.]

Class 81.—*Apples, Pears, Peaches, and Plums.*—Professional Exhibitors.

| | |
|---|---|
| For the largest and best collection of apples, not less than fifty named varieties, not less than three specimens of each | $50 |
| For the second best.....do.....do... | 20 |
| For the best thirty varieties, not less than six specimens each.. | 20 |
| For the second best.....do.....do | 10 |
| For the best twelve varieties, not less than six specimens each.. | 10 |
| For the second best .....do .....do | 5 |
| For the best dish of apples of one variety. | 5 |
| For the second best | 3 |
| For the largest and best collection of pears, not less than fifty named varieties, not less than three specimens of each.. | 50 |
| For the second best | 20 |
| For the best thirty varieties of six specimens each | 20 |
| For the second best | 10 |
| For the best twelve varieties, six specimens of each | 10 |
| For the second best | 5 |
| For the best dish of pears of one variety | 5 |
| For the second best | 3 |
| For the best collection of peaches | 10 |
| For the second best | 5 |
| For the best collection of plums | 10 |
| For the second best | 5 |

Class 82.—*Apples, Pears, Peaches, and Plums.*—Amateur Exhibitors.

| | |
|---|---|
| For the largest and best collection of apples, not less than fifty named varieties, not less than three specimens of each | $50 |
| For the second best.....do.....do | 20 |
| For the best thirty varieties, not less than six specimens each.. | 20 |
| For the second best.....do.....do | 10 |
| For the best twelve varieties, not less than six specimens each.. | 10 |
| For the second best.....do .....do | 5 |
| For the best dish of apples of one variety | 5 |
| For the second best | 3 |
| For the largest and best collection of pears, not less than fifty named varieties, not less than three specimens of each | 50 |
| For the second best | 20 |
| For the best thirty varieties of six specimens each | 20 |
| For the second best | 10 |
| For the best twelve varieties, six specimens of each | 10 |
| For the second best | 5 |

For the best dish of pears of one variety..... $5
For the second best ..... 3
For the best collection of peaches..... 10
For the second best..... 5
For the best collection of plums ..... 10
For the second best..... 5

Class 83.—*Fruit.*

For the best seedling apple, never before exhibited..... $5
For the second best..... 3
For the best dozen quinces..... 5
For the second best ..... 3
For the best nectarines..... 5
For the second-best..... 3
For the best hot-house apricots..... 5
For the second best..... 3
For the best raspberries, one quart..... 5
For the second best..... 3
For the best blackberries, one quart..... 5
For the second best..... 3
For the best hot-house pine-apples..... 5
For the second best..... 3
For the best hot-house strawberries..... 5
For the second best,..... 3

Class 84.—*Grapes.*

For the best new native or seedling grape, hardy, and equal or superior to the Catawba or the Isabella, a premium of..... $20
For the second best. ..... 10
For the best display of Isabella grapes, not less than twelve bunches..... 10
For the second best,..... 5
For the best display of Catawba grapes, not less than twelve bunches ..... 10
For the second best,..... 5
For the best display in variety of native grapes.. ..... 15
For the second best..... 10
For the best display of foreign grapes..... 15
For the second best..... 10

Class 85.—*Wines and other Beverages.*

For the best six bottles dry Catawba, 1858..... $10
For the second best ..... 5
For the best six bottles sparkling Catawba, 1858 ..... 10
For the second best ..... 5
For the best six bottles old Catawba..... 10
For the second best..... 5
For the best six bottles wine from the Herbemont grape..... 10
For the second best.....do..... 5
For the best six bottles wine from the Schuylkill or Cape..... 10
For the second best from.....do.....do..... 5
For the best six bottles wine from Isabella grape..... 10

| | |
|---|---|
| For the second best six bottles wine from Isabella grape, | $5 |
| For the best three bottles of Rhubarb wine, | 3 |
| For the best three bottles of Currant wine, | 3 |
| For the best three bottles of Blackberry cordial, | 3 |
| For the best keg of lager beer, | 5 |
| For the second best, | 3 |
| For the best dozen bottles of cider, | 3 |
| For the best dozen bottles of porter. | 3 |
| For the best dozen bottles of ale, | 3 |
| For the best dozen bottles of mineral water. | 3 |

Class 86.—*Floral Designs.*

| | |
|---|---|
| For the best Floral and Rural design, representing a cottage home, not less than five feet square, | $25 |
| For the best romantic design, representing mountain scenery, with water, not less than five feet square, | 25 |
| For the best "Temple of Flora" | 10 |
| For the best "Temple of Ceres and Pomna," | 10 |

Class 87.—*Flowers.*—Professional Exhibitors.

| | | | |
|---|---|---|---|
| Collection of dahlias, named, | 1st | premium, | $10 |
| do. | 2d | do. | 5 |
| Twelve dissimilar dahlias, named, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Best seedling dahlia, not before exhibited, | | | 3 |
| Boquet of dahlias, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of roses, named, | 1st | do. | 10 |
| do. | 2d | do. | 5 |
| Twelve dissimilar roses, named, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Best newest variety of rose, | | | 5 |
| Boquet of roses, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of verbenas, named, | 1st | do. | 10 |
| do. | 2d | do. | 5 |
| Twelve dissimilar verbenas, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Best new seedling verbena, | | | 3 |
| Collection of German asters, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of pañsies, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of gladiolus, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of ten week stock, | 1st | do. | 5 |
| do. do. | 2d | do. | 3 |
| Collection of flox, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of petunias, | 1st | do. | 5 |
| do. | 2d | do. | 3 |

| | | | |
|---|---|---|---|
| Collection of house-plants. thirty or more varieties, | 1st | premium, | $25 |
| do. do. | 2d | do. | 20 |
| do. do. | | | 15 |
| Pair circular boquets, | 1st | do. | 5 |
| do. do. | 2d | do. | 3 |
| Basket boquet for table, | 1st | do. | 5 |
| do. do. | 2d | do. | 3 |
| Suspended basket boquet, | 1st | do. | 5 |
| do. do. | 2d | do. | 3 |
| Collection cut flowers, | 1st | do. | 15 |
| do. do. | 2d | do. | 10 |
| do. do. | 3d | do. | 5 |

Class 88.—*Flowers.*—Amateur Exhibitors.

| | | | |
|---|---|---|---|
| Collection of dahlias, named, | 1st | premium, | $10 |
| do. | 2d | do. | 5 |
| Twelve dissimilar dahlias, named, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Best seedling dahlia, not before exhibited, | | | 3 |
| Boquet of dahlias, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of roses, named, | 1st | do. | 10 |
| do. | 2d | do. | 5 |
| Twelve dissimilar roses, named, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Best newest variety of rose, | | | 5 |
| Boquet of roses, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of verbenas, named, | 1st | do. | 10 |
| do. | 2d | do. | 5 |
| Twelve dissimilar verbenas, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Best new seedling verbena, | | | 3 |
| Collection of German asters, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of pansies, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of gladiolus, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of ten week stock, | 1st | do. | 5 |
| do. do. | 2d | do. | 3 |
| Collection of flox, | 1st | do. | 5 |
| do. | 2d | do. | 3 |
| Collection of petunias, | 1st | do. | 3 |
| do. | 2d | do. | 3 |
| Collection of house plants, thirty or more varieties, | 1st | do. | 25 |
| do. do. | 2d | do. | 20 |
| do. do. | 3d | do. | 15 |
| Pair circular bouquets, | 1st | do. | 5 |

| | | |
|---|---|---|
| Pair circular bouquets, | 2d premium, | $3 |
| Basquet boquet for table, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Suspended basket boquet. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Collection cut flowers, | 1st do. | 15 |
| do. do. | 2d do. | 10 |
| do. do. | 3d do. | 5 |

## *Household Department.*

[No article will be entitled to compete for a premium that has not been made in a family since July, 1858, and if required, exhibitors must furnish evidence that it has been so manufactured.]

Class 89.—*Domestic Productions.*

| | | |
|---|---|---|
| Wheat bread, three loaves, | 1st premium, | $5 |
| do. do. | 2d do. | 3 |
| Rye bread, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Unbolted flour bread, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Corn bread, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Home-made Fruit cake, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Home-made Pound cake, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Home-made Sponge cake, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Home-made Jelly cake, | 1st do. | 8 |
| do. do. | 2d do. | 3 |
| Home-made Ginger bread, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Display of cake, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Vegetables put up in can or glass, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Peaches, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Pears, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Quinces, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Plums do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Cherries do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Garden Fruit, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Preserved Apples in sugar, | 1st do. | 5 |

| | | |
|---|---|---|
| Preserved Apples in sugar, | 2d premium, | $3 |
| do. Peaches do. | 1st do. | 5 |
| do. do. do. | 2d do. | 3 |
| do. Plums do. | 1st do. | 5 |
| do. do. do. | 2d do. | 3 |
| do. Cherries do. | 1st do. | 5 |
| do. do. do. | 2d do. | 3 |
| do. Strawberries do. | 1st do. | 5 |
| do. do. do. | 2d do. | 3 |
| Assortment of Jellies, | 1st do. | 5 |
| do. | 2d do. | 3 |
| Apple butter, | 1st do. | 5 |
| do. | 2d do. | 3 |
| Peach butter, | 1st do. | 5 |
| do. | 2d do. | 3 |
| General assortment of pickles, all kinds, | 1st do. | 10 |
| do. do. | 2d do. | 5 |
| Assortment sweet pickles, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| do. sour pickles, | 1st do. | 5 |
| do. do. | 2d do. | 3 |

Class 90.—*Domestic Fabrics.*

| | | |
|---|---|---|
| Woolen carpeting, at least 20 yards, | 1st premium, | $10 |
| do. do. | 2d do. | 5 |
| Rag carpeting, do. | 1st do. | 10 |
| do. do. | 2d do. | 5 |
| Double carpet coverlet, | 1st do. | 5 |
| do. | 2d do. | 3 |
| Knit bed spread, | 1st do. | 5 |
| do. | 2d do. | 3 |
| White woven counterpane, | 1st do. | 5 |
| do. | 2d do. | 3 |
| Woolen blankets, | 1st do. | 5 |
| do. | 2d do. | 3 |
| Tow-linen, at least 10 yards, | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Flax linen, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Linsey, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Kersey, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Flannel, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Linen diaper, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |
| Cotton diaper, do. | 1st do. | 5 |
| do. do. | 2d do. | 3 |

Class 91.—*Knitting and Netting Work.*

| | | | | |
|---|---|---|---|---|
| Woolen knit stockings, one pair, | | 1st | premium, | $5 |
| do. | do. | 2d | do. | 3 |
| Woolen knit socks, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Cotton knit stockings, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Cotton knit socks, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Worsted stockings, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Silk stockings, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Woolen fringe mittens, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Woolen knit drawers, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Woolen knit shirts, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Netted worsted shawl, | do. | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Best netted sofa cover, | | | | 3 |
| Best pair netted chair cover, | | | | 3 |
| Best pair netted lamp mats, | | | | 3 |
| Net for covering fruit trees, | | 1st | do. | 5 |
| do. | | 2d | do. | 3 |
| Best fly-net for horses, | | | | 3 |

Class 92.—*Ladies' Work.*

[The premium will be awarded for excellence of workmanship, not value of material.]

| | | | | |
|---|---|---|---|---|
| Patchwork counterpane, | | 1st | premium, | $12 |
| do. | do. | 2d | do. | 8 |
| do. | do. | 3d | do. | 4 |
| do. | do. | 4th | do. | 1 |
| Shirt, with stitched bosom, | | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Pair of cloth cassimere pants, | | 1st | do. | 5 |
| do. | do. | 2d | do. | 3 |
| Best pair summer pants, | | | | 3 |
| Stitched vest, | | 1st | premium, | 5 |
| do. | | 2d | do. | 3 |
| Best summer vest, | | | | 3 |
| Best silk dress, | | | | 3 |
| Best thin dress, | | | | 3 |
| Best calico dress, | | | | 3 |
| Best silk bonnet, | | | | 3 |
| Straw bonnet or flat, | | 1st | premium, | 5 |
| do. | do. | 2d | do. | 3 |
| Handkerchief, needled worked, | | 1st | do. | 5 |

| | | | |
|---|---|---|---|
| Hankerchief, needle worked, | | 2d premium, | $3 |
| Infant's dress, | do. | 1st do. | 5 |
| do. | do. | 2d do. | 3 |
| Undersleeves, | do. | 1st do. | 5 |
| do. | do. | 2d do. | 3 |
| Skirts, | do. | 1st do. | 5 |
| do. | do. | 2d do. | 3 |
| Caps, | do. | 1st do. | 5 |
| do. | do. | 2d do. | 3 |

Class 93.—*Ladies' Ornamental Work.*

| | | |
|---|---|---|
| Embroidery in gold or silver, | | $5 |
| do. | chenille, | 5 |
| do. | silk, | 1st premium, 5 |
| do. | do. | 2d do. 3 |
| do. | worsted, | 1st do. 5 |
| do. | do. | 2d do. 3 |
| Worked covers for chairs, | | 3 |
| do. | for ottomans, | 3 |
| Worked cushions for sofas, | | 3 |
| do. | toilet cushions, | 3 |
| Crochet work, | | 3 |
| Lamp mats, a pair, | | 3 |
| Slippers, a pair | | 3 |
| Fancy work basket, | | 3 |
| Fancy card basket, | | 3 |
| Portfolios, needle worked, | | 3 |
| do. | in leather, | 3 |
| Portemonnaies, do. | | 3 |
| Ornamental leather work, | | 3 |
| Bead work, | | 3 |
| Painted card work, | | 3 |
| Moss work, | | 3 |
| Pine cone work, | | 3 |
| Shell work, | | 3 |
| Flowers of wax, paper or feathers, | | 3 |
| Wax fruit, | | 3 |
| Flowers in hair, | | 3 |
| Best evidence of taste and industry by a girl under 15 years of age, not a competitor for other premiums, | | 12 |
| Second best | do. | 8 |
| Third best | do. | 4 |

## *Agricultural Machine and Implement Department.*

[Exhibitors of machines and implements will make all necessary arrangements for *test trials*, when practicable, the United States Agricultural Society having declared, in 1857, "that for the awards upon the comparative excellence of competing machines, to be of real practical benefit to manufacturers, and more especially to farmers themselves, they should be made only upon the results obtained

by thorough working-trial of the same." In no case will a premium be granted to an implement on exhibition if it be not worthy of such distinction, although it may not have competitors; and in all cases the preference shall be given to those which perform their proposed labor with the greatest reference to economy. The object of Exhibitions and Trials being to show the *working qualities*, and *not the ornamental appearance* of machines, it is desirable and expected that the competing article shall not be of better quality than the average stock on sale at the warehouse; and if manufacturers desire to exhibit great excellence of workmanship and adornment in their implements, they are requested likewise to enter one of average excellence, with the price of the same attached. Each exhibitor should prepare, in writing or print, a condensed and lucid statement of the superiority claimed by him for his implement over others of a similar nature, which should be given to the chairman of the jury of awards in his Class, and he should be prepared to exhibit and explain the several points, if so requested. By so doing the labor of the jury will be much lightened, and the inventor or manufacturer be enabled to secure a complete attention to the important features of his machine or implement.]

Class 94.—*A substitute for the Plow.*

For that machine which shall supercede the Plow, as now used, and accomplish the most thorough disintegration of the soil, with the greatest economy of labor, power, time, and money, the

Grand Gold Medal of Honor.

[This is the largest and most valuable gold medal awarded by any Agricultural Association in the world. Four have been offered, and awarded, and as only one is to be given each year, the value is greater than if several were awarded at each Exhibition.]

Class 95.—*Ploughs.*

| | | | | | |
|---|---|---|---|---|---|
| Plough for general use, | | 1st | premium, | silver | medal. |
| do. | do. | 2d | do. | bronze | do. |
| do. | stubble, | 1st | do. | silver | do. |
| do. | do. | 2d | do. | bronze | do. |
| do. | sod, | 1st | do. | silver | do. |
| do. | do. | 2d | do. | bronze | do. |
| do. | clay, | 1st | do. | silver | do. |
| do. | do. | 2d | do. | bronze | do. |
| do. | prairie, | 1st | do. | silver | do. |
| do. | do. | 2d | do. | bronze | do. |
| do. | subsoil, | | | do. | do. |
| do. | side hill, | | | do. | do. |
| do. | level land (on side hill principle) | | | do. | do. |
| do. | digging potatoes, | | | do. | do. |
| do. | working cotton, | | | do. | do. |
| do. | draining, | | | do. | do. |

[There will be, (if possible,) a Ploughing Match, at which the Judges of Ploughs will witness them in use, and also have them tested by the dynamometer. They will take into consideration their

lightness of construction, ease of draft, and adaptation to soils of varying tenacity and degrees of resistance.]

Class 96.—*Tillage and Planting Implements.*

| | | | | |
|---|---|---|---|---|
| Serrated-disc roller, or clod crusher, | 1st | premium, | silver | medal. |
| do. do. do. | 2d | do. | bronze | do. |
| Best iron roller, in sections, | | | do. | do. |
| Best stump extractor, | | | do. | do. |
| Best scraper or leveller, | | | do. | do. |
| Harrows, | 1st | premium, | silver | medal. |
| do. | 2d | do. | bronze | do. |
| Corn planter, (horse,) | 1st | do. | silver | do. |
| do. do. | 2d | do. | bronze | do. |
| do. (hand,) | | | do. | do. |
| Grain drill, (horse,) | 1st | do. | silver | do. |
| do. do. | 2d | do. | bronze | do. |
| do. (hand,) | | | do. | do. |
| Best potato planter, | | | silver | do. |
| Broadcast Sowers, | 1st | do. | do. | do. |
| do. | 2d | do. | bronze | do. |
| Corn cultivator, | 1st | do. | silver | do. |
| do. | 2d | do. | bronze | do. |
| Horse-hoe for drills, | 1st | do. | silver | do. |
| do. | 2d | do. | bronze | do. |
| Best Liquid manure distributor, | | | do. | do. |

Class 97.—*Harvesting Machines and Implements.*

| | | | | |
|---|---|---|---|---|
| Mower and reaper, | 1st | premium, | silver | medal. |
| do. | 2d | do. | bronze | do. |
| Mower, | 1st | do. | silver | do. |
| do. | 2d | do. | bronze | do. |
| Reaper, | 1st | do. | silver | do. |
| do. | 2d | do. | bronze | do. |
| Best automaton rake, | | | silver | do. |
| do. horse do. | | | do. | do. |
| do. six hay rakes, | | | bronze | do. |
| do. six grain cradles, | | | do. | do. |
| do. six grass scythes, | | | do. | do. |
| do. six scythe snaths, | | | do. | do. |
| do. six hay forks, | | | do. | do. |
| do. six sickles, | | | do. | do. |
| Threshing machine, | 1st | do. | silver | do. |
| do, do. | 2d | do. | bronze | do. |
| do. and separator, | 1st | do. | silver | do. |
| do. do. | 2d | do. | bronze | do. |
| do. and winnower, | 1st | do. | silver | do. |
| do. do. | 2d | do. | bronze | do. |
| Best sweep horse-power, | | | do. | do. |
| do. railway do. | | | do. | do. |
| Fanning mill, | 1st | do. | silver | do. |
| do. | 2d | do. | bronze | do. |

| | |
|---|---|
| Best cloverseed harvester, | bronze metal. |
| do. feeding machine, | do. do. |
| do. dozen hay covers or caps, | do. do. |

Class 98.—*Barn and Granary Machines.*

| | | | |
|---|---|---|---|
| Corn and cob mill, | 1st | preminm, | silver medal. |
| do. | 2d | do. | bronze do. |
| Portable flour do. | 1st | do. | silver do. |
| do. | 2d | do. | bronze do. |
| Corn husker, | 1st | do. | silver do. |
| do. | 2d | do. | bronze do. |
| Corn sheller, | 1st | do. | silver do. |
| do. | 2d | do. | bronze do. |
| Corn-stalk cutter and grinder, | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Hay and straw cutter, | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Root do. | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Sorgho mill, | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Cider do. | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Hay press, | 1st | do. | silver do. |
| do. | 2d | do. | bronze do. |
| Best willow peeling machine | | | do. do. |
| Best cedar pails, not less than six, | | | do. do. |
| Best corn baskets, do. | | | do. do. |
| Best willow do. do. | | | do. do. |
| Best set wooden measures, do. | | | do. do. |

Class 99.—*Farm and Garden Tools.*

| | |
|---|---|
| Set garden tools, | silver medal. |
| do. | bronze do. |
| Carpenter's tools for farm use, | silver do. |
| do. do. | bronze do. |
| Best spades, (at least two,) | do. do. |
| Best shovels, do. | do. do. |
| Best heavy hoes, do. | do. do. |
| Best light do. do. | do. do. |
| Best iron rakes, do. | do. do. |
| Best chopping axes, do. | do. do. |
| Best mattocks, do. | do. do. |
| Best post argurs, do. | do. do. |
| Best jack screw, do. | do. do. |
| Best sheep shears, do. | do. do. |
| Best hedge do. do. | do. do. |
| Best grindstone, do. | do. do. |
| Best ox yoke, do. | do. do. |

Class 100.—*Agricultural Conveniences.*

| | | |
|---|---|---|
| Windmill for pumping, | 1st premium, | silver medal. |
| do. do. | 2d do. | bronze do. |
| Best self-opening gate, | | silver do. |
| Best portable saw mill, | | do. do. |
| Best large platform scales, | | do. do. |
| Best small do. | | bronze do. |
| Best farm pumps, | | do. do. |
| Best water rams, | | do. do. |
| Best wire fence, | | do. do. |
| Best drain tiles, (round,) | | do. do. |
| Best do. (sole,) | | do. do. |
| Best do. (horse-shoe,) | | do. do. |
| Best roof tiles, | | do. do. |

Class 101.—*Household Implements.*

| | | |
|---|---|---|
| Apparatus for heating houses, | | silver medal. |
| do. lighting do. | | do. do. |
| Best hand looms, | | silver do. |
| do. Spinning wheels, (flax,) | | bronze do. |
| do. do. (wool,) | | do. do. |
| Churns, | 1st premium, | silver do. |
| do. | 2d do. | bronze do. |
| Best butter worker, | | do. do. |
| Best butter moulds and stamps, | | do. do. |
| Best refrigerator, | | do. do. |
| Best cheese press, | | do. do. |
| Best cheese vat, | | do. do. |
| Best washing machine, | | do. do. |
| Best sausage meat cutter, | | do. do. |
| Best do. stuffer, | | do. do. |
| Best brooms, (half dozen,) | | do. do. |
| Best sewing machine, | 1st do. | silver do. |
| Best do. | 2d do. | bronze do. |
| Best collection earthen ware, | | do. do. |
| Best display kitchen utensils, | | silver do. |
| Best do. | | bronze do. |
| Best apple parer, | | do. do. |
| Best candles, | | do. do. |
| Best oil or burning fluid, | | do. do. |
| Best lamp for domestic use, | | do. do. |
| Best clothes horse, | | do. do. |

Class 102.—*Carts, Wagons, &c.*

| | | |
|---|---|---|
| Large ox wagon, | 1st premium, | silver medal. |
| do. do. | 2d do. | bronze do. |
| Large horse do. | 1st do. | silver do. |
| do. do. | 2d do. | bronze do. |
| Best small ox do. | | do. do. |
| Best small horse do. | | do. do. |
| Best milk do. | | do. do. |

| | |
|---|---|
| Ox cart, | bronze medal. |
| Horse do. | do. do. |
| Convertible wagon and sled, | do. do. |
| Wheel-barrow, | do. do. |

## *Mechanical and Manufacturing Department.*

Class 103.—*Machinists' Workmanship.*

| | | | |
|---|---|---|---|
| Stationary steam engine, | 1st | premium, | silver medal. |
| do. do. | 2d | do. | bronze do. |
| Portable do. | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Steam governor, | | | bronze do. |
| Brick-making machine, | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Stationary saw mill, | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Portable do. | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Shingle machine, | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Lath do. | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Barrel do. | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |

Class 104.—*Founder's Workmanship.*

| | | | |
|---|---|---|---|
| Agricultural boiler for stock, | 1st | premium, | silver medal. |
| do. do. | 2d | do. | bronze do. |
| Large oven cooking stove for wood, | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| do. for coal, | 1st | do. | silver do. |
| do. do. | 2d | do. | bronze do. |
| Family stove, for wood, | | | do. do. |
| do. for coal, | | | do. do. |
| Parlor stove, for wood, | | | do. do. |
| do. for coal, | | | do. do. |
| Fountains, of ornamental cast iron, | | | do. do. |
| Vases, do. | | | do. do. |
| Fences, do. | | | do. do. |
| Gates, do. | | | do. do. |
| Bedsteads, do. | | | do. do. |
| Verandahs, do. | | | do. do. |
| Pavilions, do. | | | do. do. |
| Settees, do. | | | do. do. |
| Chairs, do. | | | do. do. |
| Mantles, do. | | | do. do. |
| Grates, do. | | | do. do. |
| Brackets, do. | | | do. do. |
| Columns, do. | | | do. do. |
| Drain Pipe, do. | | | do. do. |

| | |
|---|---|
| Sinks, of ornamental cast iron, | bronze medal. |
| Best plate casting, | do. do. |
| Best machine casting, | do. do. |
| Best display of bells, | do. do. |
| To the Foundry which shall exhibit the largest collection of cast-iron articles, in addition to premiums, | Diploma of honor. |

Class 105.—*Worked Metals.*

| | | | |
|---|---|---|---|
| Trace and log chains, | 1st | premium, | silver medal. |
| do. | 2d | do. | bronze do. |
| Halter chains, | | | do. do. |
| Horse shoes, | 1st | do. | silver do. |
| do. | 2d | do. | bronze do. |
| Horse shoe nails, | | | do. do. |
| Cut do. | | | do. do. |
| Boiler and tank rivets, | | | do. do. |
| Anvils, | | | do. do. |
| Collection of blacksmith's tools, | | | do. do. |
| Bar iron—best specimens, | | | do. do. |
| Rod do. do. | | | do. do. |
| Plate do. do. | | | do. do. |
| Cast steel do. | | | do. do. |
| Blistered steel do. | | | do. do. |
| Tin plate do. | | | do. do. |
| Shears do. | | | do. do. |
| Bellows do. | | | do. do. |
| Shovel and tongs do. | | | do. do. |
| Screws do. | | | do. do. |
| Bolts do. | | | do. do. |
| Tacks do. | | | do. do. |
| Display of wire work, including fence, | 1st | do. | silver do. |
| do. do. do. | 2d | do. | bronze do. |
| do. brass do. | 1st | do. | silver do. |
| do. do. do. | 2d | do. | bronze do. |
| do. copper do. including still, | 1st | do. | silver do. |
| do. do. do. do. | 2d | do. | bronze do. |
| do. tin do. including roofing, | 1st | do. | silver do. |
| do. do. do. do. | 2d | do. | bronze do. |
| do. gas fittings and burners, | 1st | do. | silver do. |
| do do. do. | 2d | do. | bronze do. |
| do. lamps and candlesticks, | 1st | do. | silver do. |
| do. do. do. | 2d | do. | bronze do. |

Class 106.—*Builders' Workmanship and Materials.*

| | |
|---|---|
| Panel door and casing, | bronze metal. |
| Window sash and frame, | do. do. |
| Window blinds, | do. do. |
| Newell post and stair rail, (6 feet) | do. do. |
| Mantlepiece, | do. do. |
| Front yard gateway, | do. do. |

| | |
|---|---|
| Shingles, clapboards, and weatherboards, | bronze metal. |
| Sawed lumber, | do. do. |
| Chest of carpenter's tools, | do. do. |
| Collection of hinges, | do. do. |
| Latches and fastenings, | do. do. |
| Graining in imitation of wood, | do. do. |
| Painting in imitation of stone, | do. do. |
| Collection of window glass, plain and ornamental, | do. do. |
| Green-house sashes, wood or iron, glazed, | do. do. |
| Garden frames, wood or iron, glazed, | do. do. |
| Barrel hydraulic cement, | do. do. |
| do. lime, | do. do. |
| Composition for roof, (water, fire, and frost proof,) | do. do. |

Class 107.—*Cabinet Makers' Workmanship.*

| | |
|---|---|
| Set of cottage furniture, | 1st premium, silver medal. |
| do. do. | 2d do. bronze do. |
| Best ladies' sewing chair, | do. do. |
| Best rose-wood chairs, six, | do. do. |
| Best mahogany chairs, do. | do. do. |
| Best black walnut chairs, do. | do. do. |
| Best rose-wood sofa, | do. do. |
| Best mahogany sofa, | do. do. |
| Best black walnut sofa, | do. do. |
| Best bedstead, | do. do. |
| Best bureau, | do. do. |
| Best table, | do. do. |
| Best washstand, | do. do. |
| Best kitchen furniture, | do. do. |
| Best set of school furniture, | do. do. |
| Best set of cabinet-makers' tools, | do. do. |
| Best specimen of wood carving, | do. do. |
| Best mattrasses, of all kinds, | do. do. |
| Best rustic work for gardens, | do. do. |
| Best display of furniture, | Diploma of Honor. |

Class 108.—*Carriage-makers' Workmanship.*

| | |
|---|---|
| Two-horse close carriage, | 1st premium, silver medal. |
| do. do. | 2d do. bronze do. |
| do. open do. | 1st do. silver do. |
| do. do. do. | 2d do. bronze do. |
| One or two-horse carryall, | 1st do. silver do. |
| do. do. | 2d do. bronze do. |
| do. open buggy, | 1st do. silver do. |
| do. do. | 2d do. bronze do. |
| do. express wagon, | 1st do. silver do. |
| do. do. | 2d do. bronze do. |
| Omnibus, | 1st do. silver do. |
| do. | 2d do. bronze do. |
| Stage coach, | 1st do. silver do. |
| do. | 2d do. bronze do. |

Trotting sulkey, bronze medal.
Best display of carriages, Diploma of Honor.

Class 109.—*Saddlers' and Harness Makers' Workmanship.*

Heavy double carriage harness, 1st premium, silver medal.
do. do. 2d do. bronze do.
Light do. do. do. do.
Heavy single do. do. do.
Light do. do. do. do.
Wagon do. do. do.
Cart do. do. do.
Man's riding saddle, do. do.
do. do. spring seat, do. do.
Ladies' do. do. do.
do do. spring seat, do. do.
Saddle trees of various kinds, do. do.
Collection of driving and riding whips, do. do.
do. trunks and valises, do. do.
Best display of harnesses and saddles, Diploma of Honor.

Class 110.—*Coopers' and Plumbers' Workmanship.*

Best made water cask on wheels, bronze medal.
Best do. barrel for flour, do. do.
Best do. do. beef do. do.
Best do. do. pork, do. do.
Best do. do. liquids, do. do.
Best do. butter firkin, do. do.
Best sawed or split hoops, do. do.
Best pump for deep wells, do. do.
Best force pump, do. do.
Best garden syringe for plants, do. do.
Best hydraulic ram, do. do.
Best bathing tub, do. do.
Best display of plumber's work, do. do.

Class 111.—*Gun and Locksmiths' Workmanship.*

Double barrel gun, 1st premium, silver medal.
do. do. 2d do. bronze do.
Single do. 1st do. silver do.
do. do. 2d do. bronze do.
Rifle, 1st do. silver do.
do. 2d do. bronze do.
Breeching loading arm, 1st do. silver do.
do. do. 2d do. bronze do.
Fishing tackles, do. do.
Collection of locks, do. do.
Bell-hanging apparatus, do. do.
Iron safe, do. do.
Traps for animals, do. do.

Class 112.—*Curriers' and Shoe-makers' Workmanship.*

Side of sole-leather, 1st premium, silver medal.
do. do. 2d do. bronze do.

| | | |
|---|---|---|
| Side of upper leather, | 1st premium, | silver medal. |
| do. do. | 2d do. | bronze do. |
| Six calf-skins, | | do. do. |
| Morocco, different varieties, | | do. do. |
| Bridle leather, | | do. do. |
| Harness do. | | do. do. |
| Enamelled do. | | do. do. |
| Belting, manufactured, | | do. do. |
| Gloves, buckskin, | | do. do. |
| Mittens do. | | do. do. |
| Gloves, fawnskin, | | do. do. |
| Mittens, long fur and doeskin, | | do. do. |
| Pair men's dress boots, | | do. do. |
| do. heavy do. | | do. do. |
| do. light bootees or gaiters, | | do. do. |
| do. pumps or slippers, | | do. do. |
| Display ladies' gaiter-boots, | | do. do. |
| do. shoes or slippers, | | do. do. |
| Brushes for shoes, | | do. do. |
| Shoe pegs, | | do. do. |
| do. lasts, | | do. do. |
| Boot lasts, | | do. do. |
| Overshoes, | | do. do. |
| Best display of boots and shoes, | Diploma of Honor. | |

Class 113.—*Silversmiths' Workmanship, for premiums.*

| | | | | |
|---|---|---|---|---|
| Best silver pitcher, to be furnished at | $100, | silver medal. | | |
| do. teapot, | do. | 75, | do. | do. |
| do. sugar bowl, | do. | 50, | do. | do. |
| do. butter dish, | do. | 50, | do. | do. |
| do. dozen large spoons, | do. | 40, | do. | do. |
| do. cream jug, | do. | 25, | do. | do. |
| do. dozen teaspoons, | do. | 25, | do. | do. |
| do. cup, | do. | 10, | do. | do. |
| do. butter knives, | do. | 5, | bronze | do. |
| do. cream ladles, | do. | 5, | do. | do. |
| Best plated cake baskets, | | 10, | do. | do. |

Class 114.—*Manufactures other than Domestic.*

| | | | |
|---|---|---|---|
| Best piece black broadcloth, not less than 20 yards, | | silver medal. | |
| do. blue do. | do. | do. | do. |
| do. woolen carpet manufactured in factories, not less than 20 yards, | | do. | do. |
| do. cotton shirting, bleached, 20 yards, | | do. | do. |
| do. do. unbleached, | do. | do. | do. |
| do. oil cloth, | do. | bronze | do. |
| do. prints, | do. | do. | do. |
| do. mouselin de laines, | do. | do. | do. |
| do. black broadcloth, from American wool, 20 yards, | | silver | do. |
| do. blue broadcloth, | do. 20 yds., | do. | do. |

| | | |
|---|---|---|
| Best piece blankets, one pair, | | bronze medal. |
| do. flannel, 10 yards, | | do. do. |
| do. woolen shawls, from American wool, | | do. do. |

Class 115.—*Fire Engines and Apparatus.*

| | | |
|---|---|---|
| Steam fire engine, | 1st premium, | silver medal. |
| do. do. | 2d do. | bronze do. |
| Hand do. | 1st do. | silver do. |
| do. do. | 2d do. | bronze do. |
| Best hose reel, | | do. do. |
| Best hook and ladder truck, | | do. do. |
| Best fire escape, | | do. do. |
| Best display of leather engine hose, | | do. do. |
| Best fire caps, | | do. do. |

Class 116.—*Miscellaneous Manufactures.*

[Wholesale and retail dealers can enter in this class collections of their wares or merchandise, (not elsewhere mentioned,) excepting "patent" medicines or compounds, and the Judges will recommend such as they may deem worthy of Discretionary Premiums to the Executive Committee.]

## *Artistic and Scientific Department.*

Class 117.—*Paintings and Drawings.*

| | | |
|---|---|---|
| Portrait of animal or animals, in oil, | 1st premium, | silver medal. |
| do. do. do. | 2d do. | bronze do. |
| do. do. in water colors, | | do. do. |
| do. do. in crayon, | | do. do. |
| do. do. engraved, | | do. do. |
| Collection of fruit, from nature, in oil, | | do. do. |
| do. do. in water colors, | | do. do. |
| do. do. in crayon, | | do. do. |
| do. do. engraved or lithograp'd, | | do. do. |
| Collection of flowers, in oil, | | do. do. |
| do. do. in water colors, | | do. do. |
| do. do. in crayon, | | do. do. |
| do. do. engraved or lithograp'd, | | do. do. |
| View of a farm house, in oil, | | do. do. |
| do. do. in water colors, | | do. do. |
| do. do. in crayon, | | do. do. |

[The Judges will be instructed to report to the Executive Committee such other works of art exhibited as they may consider worthy of Discretionary Premiums.]

Class 118.—*Daguerreotypes, Photographs, &c.*

| | | |
|---|---|---|
| Daguerreotype of an animal or animals, | 1st premium, | silver medal. |
| do. do. | 2d do. | bronze do. |
| do. of a farm machine or implement, | | do. do. |
| do. of a rural scene, | | do. do. |
| Photograph do. | | do. do. |

[The Judges will be instructed to report to the Executive Committee such other "sun-pictures," plain or colored by hand, as they may consider worthy of Discretionary Premiums.]

| | |
|---|---|
| Best display of ornamental penmanship, | bronze medal. |
| Best specimen of book-keeping, | do. do. |
| Best do. farm journals and accounts actually kept, | do. do. |

Class 119.—*Architecture, Topography, &c.*

| | |
|---|---|
| Design for a farm house, (north,) | silver medal. |
| do. do. do. | bronze do. |
| do. do. (south,) | silver do. |
| do. do. do. | bronze do. |
| do. stable, | do. do. |
| do. granary, | do. do. |
| do. dairy house, | do. do. |
| do. poultry house, | do. do. |
| Model of bridge, | do. do. |
| do. gate, | do. do. |
| do. fence, | do. do. |
| Engraved map of a county, | do. do. |
| Map of an estate, | do. do. |
| Topographical sketch, | do. do. |

Class 120.—*Instruments, Apparatus, &c.*

| | |
|---|---|
| Surveyor's compass, | silver medal. |
| Barometer, | do. do. |
| Dynamometer, | do. do. |
| Thermometer, | bronze do. |
| Measuring chain, | do. do. |
| Rain guage, | do. do. |
| Set drawing instruments, | do. do. |
| Set grafting and budding knives, | do. do. |
| Set fleams, | do. do. |
| Set glass bottles for specimen's seeds, | do. do. |
| Medicine chest for farm-use, | do. do. |
| Lighting rods, | do. do. |
| Set chemical apparatus, | do. do. |

Class 121.—*Collections of Minerals, Woods, &c.*

| | |
|---|---|
| Collection useful minerals of Illinois, not less than two specim's, each variety, 1st premium, | silver medal. |
| do. do. do. 2d do. | bronze do. |
| do. any other State, | do. do. |
| do. minerals illustrating geology of Illinois, 1st premium, | silver do. |
| do. do. do. 2d do. | bronze do. |
| do. fossils of Illinois, | silver do. |
| do. woods do. | do. do. |
| do. stuffed birds do. | do. do. |
| Herbarium, do. | do. do. |
| Models of fruit, | do. do. |

Class 122.—*Chemicals, Chemist's Products, &c.*

| | |
|---|---|
| Samples of potash | bronze medal. |
| Samples of salæratus | do. |
| Samples of pearlash | do. |
| Samples of soda ash | do. |
| Samples of nitric acid | do. |
| Samples of sulphuric acid | do. |
| Samples of muriatic do. | do. |
| Samples of bromine | do. |
| Samples of iodine | do. |
| Samples of nitre | do. |
| Samples of alcohol | do. |
| Samples of ivory black | do. |
| Samples of prussian blue | do. |
| Samples of linseed oil | do. |
| Samples of copal varnish | do. |
| Samples of glue | do. |
| Samples of white lead | do. |
| Samples of washing soap, one box | do. |
| Samples of fancy soap, do. | do. |
| Samples of tallow candles, one box. | do. |
| Samples of fine do. do. | do. |
| Samples of castor oil | do. |
| Samples of lard oil | do. |
| Samples of lubricating oil | do. |
| Samples of alum | do. |
| Samples of sulphuric ether | do. |
| Samples of acetic acid | do. |
| Samples of formic acid | do. |
| Samples of alchyde | do. |
| Samples of collodion | do. |
| Samples of chloride of lime | do. |
| Samples of disinfectant | do. |
| Samples of vinegar | do. |

[Patent and other prepared Fertilizers can be exhibited in this class, but as their respective merits can only be ascertained by trial in the field, the Judges will not report on them.]

Class 123.—*Musical Instruments.*

| | | |
|---|---|---|
| Cottage square or cabinet piano, | 1st premium, | silver medal. |
| do. do. | 2d do. | bronze do. |
| Best grand piano, | | silver do. |
| do. church organ, | | do. do. |
| do. parlor do. | | do. do. |
| do. melodeon, | | do. do. |
| do. set of band instruments, | | do. do. |
| do. collection other instruments, | | do. do. |

## *Department of Agricultural Literature and Investigation.*

Class 124.—*Management of Farms and Plantations.*

For an account of the situation and soil, the manner and expense of cultivation, and the actual products—from Nov. 1, 1858, to Nov. 1, 1859—of the best managed Farm in the United States, on which Grain, Hay, Stock, Dairy Products, Fruit, Roots and Vegetables, (or a portion of them,) are the principal sources of profit, with detailed statements, properly verified, Diploma of Honor, and Silver Medal.

For the second best, do. Bronze do.

For an account of the situation and soil, the manner and expense of cultivation, and the actual products—from Nov. 1, 1858, to Nov. 1, 1859—of the best managed Plantation in the United States, on which Cotton, Sugar and Rice, (either or all,) are the principal sources of profit, giving detailed statements, properly verified, Diploma of Honor, and Silver Medal.

For the second best, do. Bronze do.

Class 125.—*Farm Crops of* 1859.

| | | | | |
|---|---|---|---|---|
| Best crop of | cotton, | not less than 5 acres, | dip. of hon. | and sil. med. |
| do. | fall wheat, | do. | do. | do. |
| do. | spring do. | do. | do. | do. |
| do. | Indian corn, | do. | do. | do. |
| do. | rye, | do. | do. | do. |
| do. | oats, | do. | do. | do. |
| do. | barley, | do. | do. | do. |
| do. | potatos, | do. | do. | do. |
| do. | cane sugar, | do. | do. | do. |
| do. | sugar from Sorgho or Imphee, | do. | do. | do. |
| do. | tobacco, | do. | do. | do. |
| do. | rice, | do. | do. | do. |
| do. | hay, | do. | do. | do. |
| do. | mangel wurtzel, | not less than one acr. | do. | bronze med. |
| do. | ruta bagas, | do. | do. | do. |
| do. | carrots, | do. | do. | do. |
| do. | beets, | do. | do. | do. |
| do. | beans, | do. | do. | do. |
| do. | peas, | do. | do. | do. |

[Statements of crops must be forwarded (free of expense) to the office of the United States Agricultural Society at Washington, before the 15th day of December, 1859, accompanied by samples of not less than five pounds weight, and accompanied by the following statements: 1.—Location of the land, kind and condition of the soil, crops raised the two preceding years, quantity and kind of manure used. 2.—Manner of preparing the land, quantity and quality of manure applied, and how applied. 3.—Quantity and kind of seed, when and how sown or planted. 4.—The time and manner of cultivating, harvesting, and preparing the crop for mar-

ket, with the actual yield by weight or measure, where the crop was sold, if disposed of, and its market value. 5.—A detailed account of the expense of cultivation. These statements must be thus verified:

——— County, ss.—A. B., being duly sworn, says, he is a surveyor; that he surveyed with chain and compass the land upon which C. D. raised a crop of ——— the past season, and that the land was in one contiguous piece, and that the quantity is —— acres, and no more. A. B., Surveyor.

Sworn to before me, this —— day of ——, 185 .

——— ———, Justice.

——— County, ss.—C. D., being duly sworn, says, that he raised a crop of —— the past season upon the land surveyed by A. B., and that the quantity of —— raised thereon was —— legal ———; and that the statement annexed, subscribed by this deponent, as to the manner of cultivation, expense, &c., is in all respects true, to the best of his knowledge and belief; and that the sample sent to the Society is a fair average sample of the whole crop. C. D.

Sworn to before me, this —— day of ——, 185 .

——— ———, Justice.

It must be borne in mind that these premiums are offered only for crops raised without unusual manuring or cultivation.]

## Class 126.—*Accounts of Experiments.*

For an account of the best and most thorough experiments made in draining land on one estate, showing the methods pursued, the improvements resulting therefrom, with a full detail of construction, with the attendant expense, verified and in a form for publication, Diploma of Honor and Silver Medal.

For the second best, do. do. Bronze do.

For an account of the best and most thorough experiments made in the irrigation of land on one estate, giving a statement of the manner of using the water; how applied, at what times and how long; the expense attending it; the increased crops, if any; and full details of the whole process, in preparing the fixtures and channels for the water; and if the same is used on hoed or grain crops as well as grass lands; a particular detail of the methods employed to use the water when needed, and to free the land from the same, Diploma of Honor and Silver Medal.

For the second best, do. do. Bronze do.

For an account of the best and most thorough experiments on one estate, (dating back at least five years,) in raising fruit trees, giving detailed accounts of the preparation and condition of the land, the varieties of fruit and how planted, the manner of cultivation, and the present condition of the orchard, Diploma of Honor and Silver Medal.

For the second best, do. do. Bronze do.

For an account of the best and most thorough experiments on one estate, (dating back at least five years,) in raising forest trees, giving detailed accounts of the preparation and condition of the land, the varieties of trees and how planted, the manner of cultivation, and the present condition of the plantation, Diploma of Honor and Silver Medal.

For the second best, do. do. Bronze do.

For an account of the best and most thorough experiments by one person, in domesticating and raising fish, showing their natural habits, food, haunts and feeding-grounds, with the best means of their cultivation, increase and cultivation,

Diploma of Honor and Silver Medal.

For the second best, do. do. Bronze do.

Class 127.—*Essays.*

[Essays must be sent in to the Secretary, at Washington D. C., before the 15th of December, 1858, and the name of the author must accompany his Essay, sealed up in an envelope, and not to be opened unless a premium is awarded to the writer. It is desirable that in writing the Essays only one side of the paper be used. No essay will be entitled to a premium, unless it shall be considered by the committee to be of sufficient advantage to agriculture to entitle it to a place in the transactions of the Society. It is expected that the essays will be founded mainly (and on scientific subjects, at least partly) on the writer's practical experience and personal observation or investigation; and when other authorities are quoted, distinct reference must be made. The award of superiority to any one essay over others on the same subject, will be made in reference to its probable greater utility to agricultural improvement, as well as to the ability with which the subject is treated. In matters designed to instruct or to guide practical labos, clearness and fulness of details will be deemed a high claim to merit, and next conciseness. Nothing necessary for instruction should be omitted without injury to the value of the instruction.]

A diploma of Honor and a Silver Medal for each best Essay on the following subjects, viz:

1. Agricultural Education, including the details of a system for an Agricultural College and Experimental Farm.
2. The best proportions between the value of land and other capital, and between the amount invested in the different departments of a farm, viz: land, labor, stock, implements and manures.
3. Meteorology, in reference to its connection with droughts and floods, with suggestions for anticipating them and guarding against their effects.
4. Concentrated manures, in reference to economy, improvement of land, injurious tendencies, preparation, application, &c.
5. Depth of culture for different soils.
6. On the development of latent properties in soils.
7. New Crops, with their relative profits and the extent to which they should be cultivated.
8. On Agricultural Exhibitions, and how they should be conducted.
9. On Insects injurious to vegetation, in any State.

Class 128.—*Premiums for Reporters.*

[The papers or periodicals containing reports of the Exhibition and meetings at Chicago, must be sent to the Secretary's office, at

Washington, before October 1st. Reports of other Exhibitions must be sent before December 1st.]

| | | |
|---|---|---|
| Published reports of the National Exhibition at Chicago, | 1st premium, | silver medal. |
| do. do. | 2d do. | bronze do. |
| Best published reports of any State Exhibition for 1859, | do. | do. |
| Best manuscript report of Exhibitions in any State for 1859, | do. | do. |
| Best Phonographic or short-hand reporting at the Farmers' talks, at Chicago, | do. | do. |

## AGREEMENT WITH KEEPERS OF PUBLIC HOUSES.

The subscribers, keepers of public houses, boarding houses and lodging houses, in Chicago, pledge ourselves, severally to the United States Agricultural Society, that we will not charge for board and lodging, *per day and night*, during the week of the National Fair, in September next, more than the amount set opposite our respective names, being the usual charges at our respective houses. Chicago, June 4, 1859.

| Names. | Houses. | Price. |
|---|---|---|
| Gage, Bro. & Drake | Tremont House | $2 50 |
| W. F. Tucker | Briggs House | 2 50 |
| B. H. Skinner | Metropolitan House | 2 00 |
| J. F. Smith | New York House | 1 25 |
| Taber, Hawk & Co | Richmond House | 2 50 |
| J. W. Humphrey | Massasoit House | 2 00 |
| W. L. & J. I. Pearce | Adams House | 2 50 |
| R. Somers | City Hotel | 1 50 |
| Stoddard & George | Revere House | 2 00 |
| Bissell & Goodrich | Matteson House | 2 00 |
| D. B. Blakeley | Sollitt House | 1 50 |
| Robert Hill | Garden City House | 1 50 |
| S. B. Appleton | Merchants' House | 1 25 |
| James L. Howe | Hatch's Hotel | 1 50 |
| M. H. Baxter | Foster House | 1 50 |
| Tripp & Hale | Sherman House | 1 50 |

☞ EXHIBITORS who may wish to secure stalls, pens, space or steam-power, or who may desire additional information concerning the Exhibition, will address

Col. HORACE CAPRON,
*Superintendent Seventh National Exhibition,*
Chicago, Illinois.

J. H. STICKNEY, son of Josiah Stickney, Esq., of Watertown, Mass., has recently received a diploma as a member of the Royal College Veterinary Surgeons of London. He is the first American who has ever taken his degree abroad. He will devote himself to this honorable branch of the medical profession on his return.

# The Secretary's Table.

Rooms of the United States Agricultural Society,
356 Pennsylvania Avenue, Washington, D. C., July, 1859.

## EDITORIAL ACKNOWLEDGMENTS.

We would acknowledge, with thanks, the complimentary notices of the first number of this Journal, which have appeared in various periodicals and newspapers. As yet, there have been but few articles offered for its pages, but those published in the present number have a national value, and we have the promise of others equally interesting. Upwards of two hundred volunteer correspondents, residing in different sections of the Republic, have forwarded items of information respecting the exhibitions, crops, &c., in their respective localities, and this information, digested and arranged, is now sent immediately abroad, in every direction. In proportion as gentlemen connected with Town, County, or State Societies become sufficiently informed as to the nature of the Journal, to feel that interest in it which will induce them to become contributors, will its usefulness be increased, and we again invite their co-operation.

## THE SEVENTH NATIONAL AGRICULTURAL EXHIBITION.

It will be seen by reference to the proceedings of the Executive Committee of the United States Agricultural Society, that its Seventh Annual Exhibition will be held in the environs of Chicago, Illinois, September 12th, and continuing during that week. The first edition of the large and attractive premium list will be found in this number of the *Journal*, and neither labor or expense will be spared to render the Exhibition of '59 worthy of the City in which it is to be held, of the "Great West" wherein it was located by vote of the Society, and of the United States of America, whose citizens will compete for the prizes. Col. Horace Capron, (formerly of Maryland, but now of Illinois,) has accepted the appointment of Superintendent, and a second edition of the Premium List, which will contain the complete Regulations, and the *Volunteer Premiums* offered by the citizens of Chicago, will be issued in a few weeks.

## THE PATENT OFFICE.—AGRICULTURAL OPERATIONS.

A clerical division of the Patent Office, (which is itself a subordinate section of the Department of the Interior,) is *at present* the only branch of our National Government charged with the advancement of the Agricultural interests of the country, in which four-fifths of the people are engaged. The appointment of a Commissioner of Patents' (after the office had been vacated by the transfer of Judge Holt to the Post Office Department,) was consequently regarded with interest by Agriculturists, and we can congratulate them on the selection, by the President, of the Hon. William D. Bishop, of Bridgeport, Connecticut. The new Commissioner was born at Bloomfield, New Jersey, in September, 1817, and at the age of seven years removed with his father to the State where he now resides. He entered Yale College in 1845, graduated in 1849, and studied law, but never practised, as the death of his father, who was a large contractor, obliged him to superintend the completion of several railroads. He has since devoted much of his time to railroad interests, as contractor, superintendent and president, and has acquired the reputation of being a progressive, energetic, and industrious man. In 1850, the Commissioner married the only daughter of Russell Tomlinson, Esq., a prominent

farmer in Bridgeport, and he has since then been directly interested in Agricultural pursuits, while his accomplished helpmate has been equally noted for her love of horticulture, and her devotion to rural life. An address delivered by him in 1851, before the Fairfield County Agricultural Society, is an able and a practical production, and he has been a useful member of several agricultural societies. Elected to Congress in 1852, the Commissioner was chairman of the Committee on Manufactures, and acquitted himself very creditably, but he was defeated at the last election on political grounds, receiving however nearly three thousand votes more than he had received at the time of his election. Retiring to his farm, he was unexpectedly tendered the Commissionership, and we doubt not that he will give his personal attention to every division of his bureau, especially that in which agriculturists are directly interested, and which has heretofore been left too much under the direction of subordinates.

As Congress ordered the manuscript of the agricultural portion of the Patent Office Report of 1858 to be handed to the public printer in June of the present year, it is to be hoped that it will soon be ready for distribution. It will contain a dozen pages of engravings, among them the portrait of a "Yak," or grunting-ox of Thibet, drawings of a machine for preparing arrow-root, and views of the "Garden of Propagation," one representing it as it is imagined that it will look, when all of the proposed conservatories shall have been erected, and other projected improvements shall have been made! It is to be hoped that the Report now in press will be superior to its predecessors, which have been severely criticised both at home and abroad. Monsieur J. B. Avequin, a well known French writer on Agricultural subjects, thus describes them: "Every year a volume (on Agriculture) appears, but it says very little. It is composed of correspondence without any value, addressed to the agricultural clerk of the Patent Office, by planters often utterly incapable of making a report. The clerk himself is unable to distinguish between the true and the false in these papers, and he presents them as he receives them, without discussion, without examination."

The success of experiments in propagating and hybridizing grape vines, &c., in the Government Botanic Garden and Green Houses, (which will be described in the next number of this *Journal*,) led the Secretary of the Interior to establish a Garden of Propagation on an adjacent lot of the public land, in the heart of the metropolis. It has been under-drained in the usual way by tiles, and the erection of proper conservatories has been commenced. Already, there is a large assortment of vines, plants, trees, &c., brought here by the agents who have been sent out for the purpose, or contributed by those who take an interest in the advancement of culture. Among them—we are informed by the *Constitution*—are grape cuttings from various sections of the Union, Hungary, and Egypt, "all to be tested in various ways, but especially by experiments having for their object the blending of varieties by hybridization, in order that the American retaining its vigor and exuberance, may have its acerbity, its 'ferocity,' as it is sometimes expressed, subdued through the influence of the older cultivated grapes of other climes; or that these may be reinvigorated through the influence of the more hardy American vines. The Egyptian varieties—the seedless and the lady-finger—of which there are eight or ten thousand plants, have been introduced by means of cuttings; the El Paso, of which there are one or two hundred thousand, have been produced from seeds. Here also is a forest of tiny pines, an inch or two in height, sprung from seeds brought from the Pacific coast; native plum trees, from seeds obtained in Arkansas and in Texas; radishes from China; onions from Egypt; Melochia, an Egyptian soup plant, the leaves of which are exceedingly mucilaginous and agreeable in flavor; the Pyrethrum Caucasicum, the dried flower heads of which produce the far-famed vermin-destroying powder; the wax-bearing Rhus of Japan, the product of which has recently created some

sensation in commerce; the hemp palm from China, of which a grass cloth is made; the olea fragrans, of China, from which the better varieties of tea derive their rich aroma; the seedless pomegranate of Egypt; the camphor tree; the cork tree; the Mahonia of Texas, which produces a fruit of great value for preserving; the osier willow from New England, which soon attains a height of eight or ten feet; American oaks from the acorn; the American larch; the products of one hundred and twenty-three samples of wheat; and more than fifty thousand healthful tea-plants, the seeds of which have been received from China within a few months. Some of these plants are just peeping above the soil, while others, more superficially covered with earth in the cases, germinated during the voyage, and are now a foot or more in height."

It was well said by the Secretary of the Interior, in his last annual report, that "in a country possessed of so great a variety of soil and climate it was wise to essay the propagation of every plant affording any hope of usefulness, especially as such success would more than compensate for all the cost and trouble attending many instances of failure." The experiments commenced here, carried on (as they doubtless will be under the supervision of Mr. Commissioner Bishop) by scientific and practical men, of unquestioned ability, can but be valuable, and it will give us great pleasure to send abroad to the numerous Agricultural Associations of the Republic, quarterly accounts of whatever the Patent Office may be doing to advance the great interest of the country. The new Commissioner has a broad field of usefulness open before him, and we feel confident that he will so direct the Agricultural division of his Bureau as to gain for it the confidence and the support of the Farmers, the Planters, the Horticulturists, and the Pomologists of the United States.

## FARMING BY STEAM.

We have copied into this number of the *Journal*, an interesting and instructive account of the efforts made in England to supplant the team-drawn plough by some implement, propelled by that mighty power which drags the train, whirls the wheel, and propels the ship—Steam! It will also be seen by reference to the Premium List, that the Grand Gold Medal of Honor annually awarded by the United States Agricultural Society, is this year offered "for that machine which shall supercede the Plough, as now used, and accomplish the most thorough disintegration of the soil, with the greatest economy of labor, power, time and money."

This premium is thus offered, because there are many well informed persons who regard all plans for steam-*ploughing*, in which the traction of an engine is substituted for that of a team of horses or of oxen, as merely transition schemes, only useful so far as they may develop the capabilities of steam-power for agricultural purposes. This is the view taken of the subject by a recent writer in the English *Farmer's Magazine*, who says that in endeavoring to avail ourselves of a new power, it is of the utmost importance that we should consider how, and in what manner, we can most economically make use of it. It by no means follows that we do all, if we simple try to adapt the new power to an old and established implement or system of culture. On the contrary, sound philosophy no less than common business prudence, leads us to consider whether a new implement or a new mode of culture will not probably be required before we can take advantage of the capabilities of a new power. If we look at what has been done in manufacturing machinery, we find that this principle is almost invariably acted upon: new machines with new processes, on the adaptation of a new power. It would be as easy as we hope it is unnecessary to cite numerous exemplifications of the truth of this. There is, indeed, everything to induce our agricultural mechanics, on the one hand, to think well as to the best means of availing themselves of the capabilities of this new power by the adoption of a new implement; and our agriculturists, on the other, on the introduction

of a new method of preparing land for the operation of this new implement. There is no such degree of perfection in the work performed by the plow, or such economy in the doing of it, as to induce a belief that our successors will be as much wedded to it as we are ourselves; on the contrary, we have shown that it posseses defects acknowled by all; and that these, in place of being overcome, may be aggravated by the application of a steady power like that of steam. If the plow is to be retained with steam as the traction power, those defects must be overcome if we wish to attain economy in the working power as well as efficiency in the work performed. But even granting that with these defects overcome, the work performed shall satisfy the cultural requirements of the question, there are many who think that sound mechanical reasoning inevitably leads to the conclusion, that a machine on a principle distinct in its operation from that of the plow will be required, to satisfy at once mechanical as well as its cultural requirements. Modifications of its mechanism may make the plow do good work; it is questionable whether steam power will enable it to do as cheap work as would be done by steam working an implement expressly designed to aid its peculiarities. There are at all events many reasons for supposing that the plough is not adapted to the new power; hence before much further outlay is made in the direction of applying the new power to the old implement, it will be as well to consider in *all* its bearings the important question: in what direction must efforts be made to avail ourselves of the power of steam for the cultivation of our lands?

The steam plough of Mr. J. W. Fawkes, of Lancaster, Pa., was to have been exhibited on the 15th, 16th, and 17th ult., at Oxford Park, about ten miles from Philadelphia. The editor of that valuable journal, the *Scientific American*, thus chronicles the exhibition: "Having taken a deep interest in the subject of steam ploughing, we accepted the invitation of Mr. Fawkes to be present, and expected to be highly gratified with the display. We regret to state that, from the defect of two pinions gearing into the wheel on the main drum, our anticipations were doomed to disappointment. On Wednesday, (the 15th,) after the plough had traveled round the race course, it was set to work, but had not proceeded above 30 yards when the cogs of the pinions referred to were ripped off, and further operations entirely defeated. We regretted the result as a great number of persons, like ourselves, who had come from a distance to witness the operation, felt mortified, both on their own account and that of Mr. Fawkes. He deserved better success, as his plough contains some good features and had made a very successful private experiment on the day previous. The plough is 18 feet long by 7 wide, has two horizontal cylinders of 9-inch bore and 15-inch stroke. The boiler is a 'vertical tubular,' and carries 150 lbs. of steam. The principle feature about it is that the whole frame and machinery are supported on a large rolling drum six feet wide and six feet broad. The power of the engine drives this drum, and it drags a gang of eight ploughs behind it in an adjustable angular frame. The motion from the crank-shaft to the drum-shaft is imparted through cog-gearing, and it was defective teeth in one of these cogs which caused the break-down. It will soon be in operation again, and, with better pinions, it will no doubt give satisfaction, and may yet be the successful competitor for the prize offered by the Illinois State Agricultural Society."

Before closing this article, we would inquire what progress Mr. Obed Hussey of Baltimore is making with the steam plough which he patented in 1859, and—if we mistake not—tested satisfactorily in 1856.

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Delegates to the National Exhibition.—At a recent meeting of the Kentucky State Agricultural Society, Messrs. Brutus J. Clay, L. J. Bradford, and Wm. Warfield were appointed Delegates to attend the Exhibition of the United States Agricultural Society, at Chicago.

## REVIEW OF NEW PUBLICATIONS.

FARM DRAINAGE.—The Principles, Processes and Effects of Draining Land, with stones, wood, ploughs, and open ditches, and especially with tiles; including tables of rain-fall, evaporation, filtration, excavation, capacity of pipes; cost and number to the acre of tiles, &c., &c. By Henry F. French, [Vice President of the United States Agricultural Society from New Hampshire.] New York: A. O. Moore & Co., Agricultural Book Publishers, 140 Fulton Street.

This pleasantly written work, is a valuable addition to the Agricultural Literature of the country, and can but attract attention to the necessity for systematic drainage which everywhere exists. Rain, penetrating the soil, carries warmth and ammonia with it to nourish the growing crops, but what cannot escape by percolation either goes off by evaporation, (thereby lowering the temperature of the soil and the atmosphere directly above it,) or it becomes stagnant, rendering manures inoperative, and nourishing aquatic plants. How important then is drainage, by which falling water can be conveyed through the soil, and channels provided for taking away any surplus of it? To use the words of a Scotch writer, on Drainage: "In its train follow every other improvement, and much of the perfection of husbandry is to be attributed to it; for although silent and secret in its operations, like wholesome medicines, draining has renovated the constitution of the soil, and suffused a healthful bloom over the face of the country."

Judge French has treated this important subject in his well known, vigorous off-hand style, making dry details interesting, and inspiring his readers with that degree of confidence which is essential to success in practice. He is evidently over-partial to the use of tile for drainage, although there are, within a morning's ride of his house, large fields in which stone-drains laid in 1831 are now in excellent condition, and occasionally the authors from whom he quotes vary in opinion, leaving the reader at a loss to decide which is correct. With these exceptions, the work is an admirable preparatory handbook for the use of every land-owner, and merits a place in every Agricultural library. The practical information which it contains is what farmers really need, rather than the speculative theories so widely diffused now-a-days, and it is to be hoped that it will incite thousands to remove that complete barrier to agricultural improvement, the lack of drainage.

THE AMERICAN HOME GARDEN. Being Principles and Rules for the Culture of Vegetables, Fruits, Flowers, and Shrubbery. To which are added brief notes on Farm Crops, with a table of their Average product and Chemical Constituents. By Alexander Watson. Illustrated. New York: Harper & Brothers.

A very fair idea of this excellent work may be gathered from its title. It presents much valuable information and ample directions, which, if applied, will enable any one who posseses a garden to produce therefrom with the least outlay of labor or means the most desirable fruits and flowers. All matters connected with garden cultivation, time of planting, seeds, scions, grafts, with notes on farm crops, chemical analyses, &c., are introduced and treated with evident ability. It is in short a work which seems almost indispensible to the amateur gardener and horticulturist, and will be useful to those of more practical experience.

A TREATISE ON THE THEORY AND PRACTICE OF LANDSCAPE GARDENING, ADAPTED TO NORTH AMERICA: With a view to the Improvement of Country Residences. Comprising Historical Notices and General Principles of the Art, Directions for Laying Out Grounds and Arranging Plantations, the Description and Cultivation of Hardy Trees, Decorative Accompaniments of the House and Grounds, the Formation of Pieces of Artificial Water, Flower Gardens, &c., with Remarks on Rural Architecture. By the late A. J. Downing, Esq. Sixth Edition; Enlarged, Revised, and newly Illustrated. With a Supplement containing some Remarks about Country Places, and the best methods of making them; also, An Account of the newer Deciduous and Evergreen Plants lately introduced into Cultivation, both Hardy and Half-Hardy. By Henry Winthrop Sargent. New York: A. O. Moore & Co.

This beautiful volume is a new edition of that admirable work of the late Mr. Downing, which is so well known and so universally esteemed as to make any commendation of it superfluous. Few works have ever appeared in our country which have done more practical good than this treatise; and very few men could have been taken away at the time of Mr. Downing's lamented death, whose loss would have been more felt than his. The value of this edition is enhanced by a supplement by Mr. Henry Winthrop Sargent, a gentleman admirably well calculated to edit Mr. Downing's book: himself the owner of a very beautiful estate on the North River, and thus practically acquainted with the beautiful art of landscape gardening.

COUNTRY LIFE: a Hand-book of Agriculture, Horticulture and Landscape Gardening. By R. Morris Copeland. Boston. John P. Jewett & Company.

This is a large work, profusely illustrated, by a well known Boston architect and landscape gardener, who has thus recorded his professional experience. The chapters upon all the subjects are remarkably full, and nothing, the tendency of which can illustrate or demonstrate any matter, appers to have been left unsaid. The "Farm," the "Kitchen Garden," the "Conservatory," the "Grapery," the "Flower-Garden," and incidentals to such, in numerous variety, receive due attention, and all is written in a style which renders the book exceedingly agreeable.

EXHIBITIONS FOR 1859.

| *States.* | *Places.* | *Time.* | *Secretaries and their addresses.* |
|---|---|---|---|
| Alabama, | Montgomery, | November 15–18, | Dr. N. B.Cloud, Montgomery. |
| Canada West, | Kingston, | Sept. 27–30, | |
| California, | Sacramento, | Sept. 27–Oct. 6, | O. C. Wheeler, Sacramento. |
| Connecticut, | | | H. A. Dyer, Brooklyn. |
| Georgia, | Atlanta, | October 24–28, | Jas. Camak, Athens. |
| Illinois, | Freeport, | September 5, | S. Francis, Springfield. |
| Indiana, | New Albany, | Sept. 26–Oct. 1, | |
| Iowa, | Oskaloosa, | September 27–30, | J. H. Wallace, Muscatine. |
| Kentucky, | Lexington, | September 13–17, | W. D. Gallagher, Louisville. |
| Maine, | Augusta, | September 13–16, | E. Holmes, Winthrop. |
| Maryland, | Frederick city, | October 25–28, | Samuel Sands, Baltimore. |
| Missouri, | St. Louis, | Sept. 26–Oct. 1, | G. O. Kalb, St. Louis. |
| Michigan, | Detroit, | October 4–7, | |
| New Jersey, | Elizabeth, | September 13–16, | Wm. M. Force. |
| New Hampshire, | | October 5–7, | |
| New York, | Albany, | October 4–7, | B. P. Johnson, Albany. |
| Ohio, | Zanesville, | September 20–23, | D. E. Gardner, |
| Pennsylvania, | Philadelphia, | September 27–30, | A. Boyd Hamilton. |
| Tennessee, | Nashville, | Oct. 5–7, | |
| Wisconsin, | Milwaukie, | September 26–30, | D. J. Powers, Madison. |
| Vermont, | Burlington. | September 13–16, | C. Cumings, Brattleboro'. |

## ABSTRACT OF AGRICULTURAL INFORMATION.

[Received by the Secretary during the quarter ending June 30, 1859.]

ALABAMA.—The wheat crops were good, and well harvested, but no larger than were those of last year.....A rainy spring interfered with the planting, both of corn and of cotton, but they are looking well, and stalks of cotton were found in bloom on the 1st of June.....The oat crop suffered from rust, and was a failure..... Twenty-one of the camels originally imported into Texas, are now on plantations in Alabama, where they give satisfaction. Major Wayne, U. S. A., who was sent abroad to introduce camels into this country, says: "As a southern man, from a cotton, corn, and rice growing section, I believe that in many respects we might use camels with advantage in our agricultural labors about the plantation, and in transporting produce and goods to and from the railway or market. So far as the negro is concerned, I am satisfied, from a knowledge of the nature and habits of both, that no animal better suited to him in all respects than the camel can be given to his management."

ARKANSAS.—The prospect for a good crop of cotton was never more promising, although the early spring was cold and wet.....The oat crop will be excellent, and the corn looks well.....Wheat has been considerably blighted, and in some sections touched by the rust, so the crops will fall short of that of last year, although more land was sown.

ARIZONA.—The influx of miners has caused a demand for vegetables, &c., but the amount of land suitable for tillage is small when compared with the extent of the country, and irrigation is requisite, although two crops a season can thus be grown. The pasturage is excellent and abundant, and not fifty years ago the rich "rancherias" of the Spanish settlers counted their cattle by the hundred thousand. The weak government of Mexico, which abandoned there herds to the forays of the Apache Indians, depopulated the ranges, but if these marauders can be checked, the stock farms will soon be re-established.

CALIFORNIA.—The State Agricultural Society now publishes a "Monthly Journal," edited by the Secretary, Rev. O. C. Wheeler..... ...The spring was rainy, cloudy, and cool.....A stalk of winter barley grown on Wheeler's ranch, Butte county, measured eight feet from the root to the head.....Mr. Engelfried, a brewer, has been experimenting on the sugar pine tree, which grows so abundantly on the Trinity river, and has satisfied himself that sugar and molasses, made from the pine, excels that made from the maple.....A herd of fine Devons, raised by Charles A. Ely, Esq., of Elyria, Loraine county, Ohio, (who took the first premium for Devons at the Fifth Exhibition of the United States Agricultural Society,) is on its way to California, across the plains.

CANADA WEST.—Fall wheat sown in good season, in well prepared ground, is looking well, although there was but little snow to protect it last winter. Few began to sow

spring wheat before the middle of April, but there is a large growing crop, and it is said that the "late frost" destroyed the fly, which was beginning to appear.....Corn, potatoes, fruit, and garden vegetables were seriously injured.

Connecticut.—A "penny-wise and pound-foolish" Legislature has reduced the customary appropriation to the State Agricultural Society from $2,500 to $1,000, thereby crippling the operations of this excellent association, which has done so much to advance the agricultural interests of the State..... .....Vegetation was of course checked, if not destroyed, by the "late frost."..... Cherry trees have been injured, and it is supposed by some unknown insect..... We are disappointed in not receiving a promised article on the Cattle-Breeders' Association.

District of Columbia.—Prominent among the agricultural improvements now being made in the vicinity of the Metropolis, are those on the estates of William W. Corcoran, Esq., under the direction of a well known Massachusetts farmer.

Florida.—Agriculture is not in a very flourishing condition, and many cotton-planters in East Florida are emigrating to Texas. The land there is sandy, and neither oats or wheat are raised; the greater part of the corn used is brought from Georgia, and the hay from the North, except a coarse variety of marsh grass.....Several severe storms have greatly damaged fruit trees.

Georgia.—Large crops were planted, and during the four months ending March 31, there were 1,344 tons of Guano, besides other fertilizers, sent by railroad from Savannah into the interior.....Crops were promising well, although in some sections of the State there was great want of rain.....Mr. Peters is very successful in crossing his cashmere goats with the common goats.....Dr. Bradwell, of Bainbridge, offers to be one of one hundred persons to give $1,000 each for the endowment of an Agricultural College.

Illinois.—The Chicago *North-Western Prairie Farmer*, excellent authority, re-asserts its conviction, that "the wheat crop of 1859, in the United States, will fall ten to fifteen per cent. below an average, even allowing the yield per acre to be unusually large."..... .....The State Fair Grounds, at Freeport, will cover forty acres of beautiful valley prairie, and all the buildings, arrangements, &c., will be of the most approved order..... ..... ...Great damage was done to crops by the "late frost," as in exposed places it was so cold that ice was formed.....A Cotswold buck, imported by the "Illinois Importing Association," recently sheared 19½ lbs. of dry wool..... Rats have done great damage to the crops in some sections, and the Logan County Agricultural Society offers among its premiums: $50 to the person killing the greatest number of rats from the 1st of June to the 4th of October; $30 for the second largest number; and $20 for the third.....The proprietors of the *Prairie Farmer* have offered $25 to the boy under 16 years of age, who shall raise the greatest number of bushels of Ruta Baga or Flat Turnips.

Indiana.—Although there was a scarcity of laborers in the spring, a large area was planted, and the crops generally look well, excepting in the northern counties, where the "late frost" left its traces, and where there are level, undrained, clay soils..... The State Fair grounds at New Albany are fully three times the dimensions of the grounds at Indianopolis, and are large enough to accommodate 100,000 visitors; the enclosure is substantial; the horse ring cannot be excelled, in any of its appointments; a natural forest covers about half the grounds, and shade trees have been planted along the fences, the aisles and the halls, to complete the shade.....The State Board voted to place the Geological Survey of the State under the charge of David Dale Owen..... .....Distillers are using the fruit of the Paw-paw, a bushel of which will produce two gallons of spirit.

Iowa.—The spring was backward, wet and cold, but when warm weather came the farmers improved it, in many places planting every bushel left of corn, oats and wheat .....The Hungarian grass will not be as extensively cultivated as it was last year, not having answered expectations.....President Buchanan has issued a proclamation for a sale of 1,669,501 acres public lands in Iowa, commencing at Fort Dodge on the 26th of September, and at Sioux City, October 3; the lands are on the northwestern part of the State, and at the head of the Des Moines river.

Kansas.—Heavy rains and consequent freshets in May and June, washed up the corn and hemp crops, carried away fences, and otherwise injured the farmers' prospects.

Kentucky.—The crops look well, and Agriculturists are prospering, as may be inferred from the fact that a farm of 170 acres, on the turnpike road from Paris to Lexington, was recently sold on credit, for $135 per acre.....Reports of the New York cattle markets show the advantages of introducing the Durham blood—one week 700 beeves

were sold that averaged nine cwt. each.....The fifth annual sale at auction by Mr. R. Aitcheson Alexander, the Prince of Kentucky cattle breeders, took place at his magnificent farm in Woodford Co., in that State, on Wednesday, the 1st inst. In all there were sold twenty bulls and bull calves, which brought in gross $2,720; twenty-one cows and heifers for $2,720; eleven Southdown bucks for $385; and three Cotswolds for $56. The total amount realized was $5,881.....Mr. R. W. Scott finds ready sale for about one hundred breeding ewes of his "Improved Kentucky" sheep at $25, which is his uniform price.

Louisiana.—A good yield of wheat and of rye, but oats injured by the rust, especially those sown late.....The cane is promising, and the planters are introducing several new inventions designed to economise fuel in the manufacture of sugar..... There is a demand for hydraulic engineers, whose skill will be available for protection against tides and overflows, for the best development of the numberless water-courses, for draining the swamp-lands and making them healthy as well as productive, and also for improving the dry fields, the sub-soil of which is too often filled up with stagnant water and putrid humidity, injurious to vegetation as well as to human life.

Maine.—A much larger breadth of land has been turned up by the plough this season than ever before. Grass, the great staple crop of the State, gives promise of an abundant yield; corn and oats look well, and although those favorite Yankee esculents—pumpkins and beans—were nipped, the farmers will have no reason to complain.....The State fair will be held again at Augusta, and as the ground used last year have not been changed, considerable expense will thus be saved.....Messrs. U. S. Treat & Son inform the editors of the Eastport *Sentinel* that their experiment in raising salmon by putting into a small lake at Red Beach a number of salmon, male and female, is likely to prove successful. They have discovered the young salmon in the lake and on the stream. They are a year old, and those seen were from ten to twelve inches in length, and very closely resemble the parent fish. The Messrs. Treat expect to see many thousands in the lake and stream this season. Recent discoveries made in France induce the belief that the parent fish will continue to produce, as they have remained in the lake for two years and appear in good condition.

Maryland.—The growing crops are looking well on the Eastern shore; on the Western shore, the present prospects are that the yield of rye will be heavy; wheat generally is looking well, though on light lands there has been too much rain for it, and the fly, joint worm, &c., have done considerable damade to some fields .....The State exhibition will be held at Frederick, commencing on the 25th of October, on a fine area of twenty acres, with every convenience. Among other valuable animals which will then be on exhibition, there will be two Navijo rams—one black, the other white—presented to the Agricultural college by Col. Miles and other Maryland officers now serving in the army in New Mexico..... .....The Professors of the State Agricultural College will be appointed during the present month, and it is expected that the institution will be opened early in September. The cost of board and tuition, covering all charges in all the departments, has been fixed at two hundred and fifty dollars per annum.

Massachusetts.—The "late frost" did much damage, but the loss was greater in labor than in the yield of any staple crop, as it was necessary to replant gardens, &c..... The hay crop will be a light one, as the grass was "winter-killed" in many localities..... An apple-tree on the land of Moses Pickard, of Rowley, recently blown down in a gale of wind, measured over sixteen feet around its trunk some three feet from the ground, and was sixty feet from one extreme of its branches to the other.....Market days have been successfully established by the Essex County Society.....Charles L. Flint, the able Secretary of the Board of Agriculture, has been authorized by the Legislature to prepare a new edition of the report by the late Dr. Harris, on the insects of New England injurious to vegetation. $8,000 was appropriated, and Mr. Flint has engaged the assistance of competent entomologists, who are prosecuting the necessary investigations.....The Massachusetts Horticultural Society propose to publish a Monthly Journal, to be furnished to members free of charge.

Michigan.—With the exception of the injuries occasioned by the "late frost," and an occasional failure of winter wheat, crops look well; some of the large peach orchards around St. Joseph's are uninjured, and apple-orchards will generally bear an average yield.....The farmers in the northwest section, discouraged by the repored failure of the wheat crop, have turned their attention to the breeding of sheep, and there has, for the past three years, been a continually increasing clip of wool sent forward to market from the interior of Michigan, in the aggregate amounting to some millions of pounds. The prices so far, have been higher, more uniform, and better sustained than those of

any other product of the farm.....Hon. J. R. Williams has resigned his position as President of the State Agricultural College, leaving eighty-one students there.

Minnesota.—Winter wheat looks well, and the large crops of spring-wheat and oats planted promise a remunerative harvest.....Large quantities of Ginseng root, (as species of *Panax*,) have been dug in the extensive belt of timber known as the "big woods," and it finds a ready sale at New York for export to China. It is a jointed, fleshy, taper root, as large as a man's finger, which, when dry, is of a yellowish white color, with a mucilaginous sweetness in the taste, somewhat resembling that of licorice, accompanied by a slight bitterness. The Celestials chew it as Americans do tobacco. The price of ginseng at the "diggings" in Minnesota is from six to ten cents per pound when green, and from twenty-five to thirty when dry; and it is estimated that five hundred tons will be dug and cured during the present season.

Mississippi.—Twenty-five bushels of wheat, harvested in De Soto county, May 23d, was sold in St. Louis on the 28th for five dollars a bushel. The wheat crop was not remarkably good, but there are fine stands of cotton, corn, rye and oats.....The thirteen year locust have again emerged from the earth, filling the air with their monotonous song.....The planters in the Mississippi valley are to meet in convention, at Vicksburg, on the 11th of July, to discuss the best method of constructing levees.

Missouri.—Crops look finely..... .....In St. Louis on the 9th at a sale of premium tobacco at the Planters' Warehouse, the first premium ($75) for manufacturing leaf, was awarded to Addison Tinsley, of Pike county. This tobacco was purchased by B. W. Lewis & Bros., of Glasgow, for $125 per 100 pounds. This is the highest price on record. Experiments and observations show that Missouri is destined to become the vine-growing region of North America. It is estimated that the vinyards have yielded an average yearly profit of three hundred dollars an acre since 1849, while some, for instance, Mr. Poeschel, of Herman, has made an annual profit of more than five hundred dollars for each acre.....The fourth Exhibition of the St. Louis Agricultural and Mechanical Association, which is to commence on the 26th of September, bids fair even to eclipse its predecessors. Large premiums have been offered, and several who have entered stock for the National Exhibition at Chicago, intended to take it afterwards to St. Louis. A horse railroad has been built from the city to the fair grounds.

Nebraska.—The quantity of land planted in corn has been greatly enlarged, and numerous orchards have been set out.....James Smith, of Douglas county, has purchased and brought home the Devon bull *Hercules*, and other fine stock has been brought into the Territory.

New Hampshire.—The "late frost" did great damage, and it is said by the weather-wise that it was the heaviest frost which has occurred in southern New Hampshire in the month of June, since the 17th of June, 1816, a period of forty-three years..... In many places apple and pear trees have been entirely killed by the usual alternations of the weather, and even the Baldwin apple and Bartlett pear have come in for their full share of damage.....Gov. Gardner, in his annual message, delivered on the 2d of June, complimented the Agricultural Societies, and said: "I am much gratified to know that a plan is now in progress to connect with Dartmouth College an agricultural department, where our young men preparing to be farmers, can get a scientific education, fitting them not only to be accomplished agriculturists, but wise legislators..... Charles H. Dana, of West Lebanon, has placed at the disposal of the State Agricultural Society one hundred dollars, to be given as a premium on the best kind of grape for culture in that climate. He proposes to conduct the experiment himself, planting all the vines received in the same location, and giving them the same cultivation.

New Jersey.—Corn and other crops are somewhat backward. There will be a plentiful supply of apples, and some white peaches, but the yellow peach crop will be very small.....There will be a fair yield of cranberries, also of whortleberries, which in some counties form a fruitful source of revenue. When they are ripe, thousands of dollars worth are gathered by women and children, and sold to hucksters who have teams going in every direction through the forests in pursuit of berries, and carrying them to the New York market. These hucksters pay from two to two and a half dollars per bushel, and still realize a good profit for their labor.....Within the past year, J. C. Taylor, Esq., of Holmdel, imported a Southdown buck, from the celebrated flock of Jonas Webb, which took the first prize at the Paris show, for which he paid the trifling sum of *two thousand dollars!* His stock is giving much satisfaction to his owner.

New York.—It appears that the damage done to the crops by the "late frost" is less than was at first apprehended, and that, (generally speaking,) nothing has been very seriously injured except vines and fruit.....The corn touched by it will grow again; and even if destroyed, it was not too late to replant both corn and potatoes. The weevil

and the grasshoppers have undoubtedly suffered more than the grain.....The hog-cholera" has broken out in droves at several distilleries, and proves very fatal..... .....Hon. A. B. Conger purchased some of the stock at the sale of Mr. Alexander, in Kentucky, for his stock farm, near Haverstraw.....Nine "wild horses" from the La Plata have been brought to New York city by Capt. Thomas.....The exhibition of the State Society, at Albany, will doubtless be graced by the fine horses and cattle of the Empire State, and of New England.

North Carolina.—The crops of wheat were injured both by the rust and by the joint worm.....Professor Buckley, who has recently explored the mountainous region, says that in no part of the United States has he seen finer apples than in the valley there. He endorses the assertion that there is a line or belt on the mountain sides, about three hundred feet above the adjoining valleys, where fruit trees always bear, because there is never any frost.

Ohio.—It was at first reported that the frost had swept away the hopes and labors of the husbandmen, but Mr. J. H. Klippart, the efficient Secretary of the Board of Agriculture, has examined the fields in the wheat-regions personally, and concludes that there will be three-fourths of what there would have been harvested under any circumstances. He says: "There have been many capital blunders made by those who do not understand the process of wheat-growing, and many fields have been pronounced ruined that were not so. The Monday after the frost was a day of clouds and sunshine alternately. Tuesday was a bright, clear day. On that day, much wheat presented the appearance of being shrunken, but has since recuperated, and filled up from the base or bottom of the berry. Wheat does not form a perfect kernel on the start, as does the fruit of the apple, cherry, peach, &c., and then swell out and enlarge; but the berry of the wheat, beginning at its base, builds up—if we may use the expression—from the foundation to the top. In very many fields, the frost affected the partially-formed berry, and gave it a shrunken, collapsed appearance, so that casual observers pronounced it ruined. Yet so long as the base of the kernel presented a minute green spot in which is stored—as the fountain head—the juices of the wheat, the grain was safe; and a few days demonstrated the fact that this green spot at the base furnished a recuperative force, that, beginning at the fountain head, infused new life into the grain, inflating the kernel—if you please—as you would a balloon, only distending the base, instead of the apex, first. Where the bearded and smooth wheat have been sown promiscuously, the killed of the two kinds are as seven of the bearded to five of the smooth—the bearded thus being proved to be the most tender."

Pennsylvania.—Wheat is advanced and promising; a few of the Hessian fly and midge have been seen in Lycoming county, and myriads of grasshoppers have made their appearance in Bucks county, where they were so abundant and so destructive last year... .....The State Fair will be held at Powelton, on ground offered by the Pennsylvania railroad company.....The Executive Board of the State Society have passed resolutions honoring the memory of their deceased colleague, Joseph Yeager, of Philadelphia.

Rhode Island.—It is feared that the incessant rains of June have retarded vegetation, injured growing crops, and caused the decay of early fruit. The June exhibition of the State Horticultural Society was nevertheless excellent, every product was contributed in full measure and in a high state of perfection, and the attendance was very large. The display of flowers was extensive, embracing roses of different varieties in profusion, sweet williams, fuschias, geraniums, peonies and honey-suckle. The bouquets were arranged with rare taste, and the society must feel that their efforts have been encouraged and sustained, and that renewed interest is being awakened in the subject. Dr. Durfee, of Fall River, Mass., (a successful exhibitor at several exhibitions of the U. S. A. S.,) carried away the premiums for grapes.

South Carolina.—The excessive rains in March and droughts in May, injured the growing cotton crop, but it has latterly improved in appearance, and ripe bolls were picked in the second week in June, at several places.....The stand of corn, although also retarded, now looks well.....Oats suffered from rust.....Ripe peaches from the orchard of Mr. James Purvis, near Aiken, were shipped to New York from Charleston on the 11th of June, and sold there at an average of $12 50 per box, containing one-and-a-half bushels..... Dr. J. P. Barrett, near New Market, is able to treat his friends with a cup of tea of his own growing, he having succeeded in cultivating the Chinese tea-plant, and the Chinese Olive (*Olea fragrans*) with which it is scented.

Tennessee.—Corn and all other crops except wheat, are reported generally promising over the State. Wheat, however, is an important exception, as Tennessee has become a large wheat-growing State.....The black-tongue is prevailing among the cattle in

the vicinity of Nashville....."From a report recently made by the Hon. Wm. S. Mundy, Secretary of the Sumner Cashmere Company, to the stockholders, we learn that near thirty thousand dollars worth of Cashmere Goats have been sold from their flocks during the past season, without disposing of a single pure blood, although one thousand dollars a piece has been offered for them—the sales having been made principally from grade males, sixteen thousand dollars worth of which have gone to the State of Kentucky, and such has been the demand for the native Goat for propagation, that common she Goats have been sold for ten dollars per head.

Texas bids fair to become the leading agricultural State of the Union, as she now has within her borders upwards of one hundred millions of acres of fertile public land, for sale at State prices, ranging from 50 cents to $1 per acre.....The "late frost" which was on the 23d and 24th of May, did not do much damage. Winter wheat was reaped early in May, and it was anticipated that spring wheat would be ready for the sickle by the middle of June—estimated average crop of each, 20 bushels to the acre. Corn looked well—estimated average yield 50 bushels to the acre on bottom land, and 30 bushels on the upland.

Utah.—Heavy spring rains will save an immense amount of labor in irrigation, and as the United States troops and the overland passengers make large purchasers of every description of produce, an unusually large quantity of ground has been planted..... .....The culture of cotton has been abandoned, owing to the lack of water, and minerals in the soil.

Vermont.—It is thought that the principal crops will recover from the visitation of frost..... .....The last maple-sugar season eclipsed even the famous one of 1857, in the absence of the yield. The town of Hardwick made 320,000 pounds; E. Pitkin, of Marshfield, made 3,000 pounds from 380 trees, and a farmer in Walden 6,000 pounds from 600 trees.

Virginia.—The crops have been somewhat injured by the frost, and in some places the wheat has been hurt by the fly and joint worm. A large crop of tobacco has been planted.....Sheep-raising is becoming profitable and popular in the upper counties.....Mr. Ludington, of Greenbrier county, has sold his fine Durhams which took premiums at the Exhibition of the United States Agricultural Society at Richmond, to Mr. A. Rogers of the same county;—D'Jalma, $2,000; Chance, $600; Red Rose, $500; and Bertha, $400.

Wisconsin.—The winter wheat was generally a failure, but there is every indication of a large and abundant yield of spring grain and corn. In those localities where the orchards have reached any size, there is a prospect of an excellent fruit crop..... ...Great preparations are being made for the State Fair at Milwaukie, which will doubtless be well worth attending.

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## RURAL LIFE.

*An Ode of Horace, translated by Ben Jonson.*

Beatus ille qui procul negotiis,
Ut prisca gens mortalium,
Paterna rura bobus exercet suis
Solutus omni fenore.
Neque excitatur classico miles truci,
Neque horret iratum mare,
Forumque vitat et superba civium
Potentiorum limina.
Ergo aut adulta vitium propagine
Altas maritat populos,
Aut in reducta valle mugientium
Prospectat errantes greges,
Inutilesve falce ramos amputans
Felicires inserit,
Aut pressa puris mella condit amphoris,
Aut tondet infirmas oves;
Vel cum decorum mitibus pomis caput
Autumnus agris extulit,
Ut gaudet insitiva decerpens pyra,
Certantem et uvan purpuræ,
Qua munneretur te, Priape, et te, pater
Silvane, tutor finium,
Libet jacere modo sub antiqua ilice
Modo in tenaci gramine.
Labuntur altis interim ripis aquæ
Queruntur in silvis aves,
Fontesque lymphis obstrepunt manantibus
Somnos quod invitet leves.

Happy is he that from all business clear,
As the old race of mankind were,
With his own oxen tills his sire's left lands
And is not in the usurer's bands:
Nor soldier-like started with rough alarms,
Nor dreads the sea's enraged harms:
But flies the bar and courts with the proud boards,
And waiting-chambers of great lords.
The poplar tall he then doth marrying twine,
With the grown issue of the vine;
Or in the bending vale beholds afar
The living herds there grazing are;
And with his hook lops off the fruitless race,
And sets more happy in their place:
Or the pressed honey in pure pots doth keep
Of earth, and shears the tender sheep.
Or when that autumn through the fields lifts round
His head, with mellow apples crowned,
How, plucking pears his own hand grafted had,
And purple-matching grapes, he's glad!
With which, Priapus, he may thank thy hands,
And, Sylvan, thine, that kep'st his lands!
Then now beneath some ancient oak he may
Now in the rooted grass him lay,
Whilst from the higher banks do slide the floods,
The soft birds quarrel in the woods,
The fountains murmur as the streams do creep,
And all invite to easy sleep.

ENGLAND.—The officers of the Royal Agricultural Society have made extensive preparations for the "Warwick Meeting," as they style their annual exhibition for this year, which is to be held at Warwich. Due notice was given that entries for Implements, Cheese, Wool, Farm-Gates, and Draining Pipes must be made before the first of May, and that entries for Live Stock must be made before the first of June—all entries received in each case after those respective dates, were, "without any exception, disqualified, and returned to the senders." Mr. Hudson, the Secretary of the Royal Society, has been "suspended," and Mr. Brandreth Gibbs has been asked to act in his place.

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IRELAND.—The report of the Spring Cattle Show held at Dublin, by the Irish Improvement Society, shows that the Durham or Shorthorn cattle, are gradually taking the place of the native breeds. Mr. Smith, one of the Judges, stated in some remarks as "an extraordinary thing, that while in England the breed of Shorthorns was almost restricted to certain districts—at any rate was not spread over the country as it appeared to be in Ireland—he thought he was justified in saying that Ireland appeared to be a nursery of Shorthorns; for whether he was in the beautiful and romantic Keny, or in the mountains of Wicklow, or the plains of Meath, Shorthorns appeared to thrive and flourish everywhere. He presumed that it was because this was really and truly the 'Green Isle,' and it seemed that where a Shorthorn got good grass, there it would thrive well."

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FRANCE.—The grand annual cattle show, at Poissy, near Paris, was held in April. It consists of 245 oxen, 310 sheep, 23 calves, and 89 pigs, a greater number of animals than at any previous show. There was ample evidence, says a correspondent, "that the French, by their imitations of English systems, and by crossings with English breeds, have greatly improved their oxen and sheep: and that even the breeds of native oxen, which have not been crossed, the Limousine, Garonneise, Choletaise, Charolaise, and Bretonne, have made marked progress. In a speech which Monsieur Rouher, the Minister of Agriculture and Commerce, delivered on distributing prizes to the most meritorious exhibitors, he referred to the anticipated modification of the sliding-scale of duties on grain, and assured the agriculturists that government would take due care of their interests. The Imperial Society of Agriculture, which met soon afterwards, decided, after a long discussion, that the sliding scale ought to be abolished, and that moderate fixed duties on the import and export of wheat ought to be substituted for it.

Mr. Tucker, in an interesting letter to the *Country Gentleman*, describing a "regional exhibition at Nantes, in May, mentions two items which he recommends for adoption at our shows:" First, to every animal and every machine there was attached a medal with a number, and there was a printed catalogue which contained a complete list of all, numbered to correspond. This catalogue was sold for 5 cents a copy, and in itself was worth double the price of admission to one who really wished to know what there was to see. Second, there was offered for sale at the same price Saturday morning, a complete list of the prizes awarded. This, although a matter of no little convenience, was practically less important, because notices giving the class, catalogue number, prize awarded, &c., has also been affixed to everything which had received either a premium or an honorable mention. When the visitor has thus the means of knowing clearly what it is he is looking at, such an exhibition becomes doubly instructive, especially when he can also determine the comparative merits of all and each, with light afforded by the judgment of those selected to decide officially upon them."

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CHEMICAL DISCOVERY.—Mr. Hoffman, a well known chemist, has invented an improved method of converting starch, corn, or other grain, into dextrine gum or grape sugar. He uses steam, diluted acid and water, at a much higher temperature than the boiling point of water, in an enclosed and steam-tight mash tub. To every bushel of grain about twelve gallons of boiling water are used, and an additional quanty in proportion to the pressure of the steam; one or two per cent. of the weight of corn, of weak and sulphuric acid is also employed. These are gradually added together, and mashed under steam pressure for two or three hours, the starch of the corn is converted into dextrine, and by the addition of chalk or marble dust to neutralize the acid while at the atmospheric pressure, and when all the acid has been neutralized, and the whole has stood for an hour or so, the starch gum can be obtained by evaporation; and grape sugar is obtained.

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VEGETABLE WAX.—A cargo of vegetable wax has been received from Japan, in an American vessel, at London, and our consul there has sent to the State Department specimens of the wax and berry. The latter, he states, grows in clusters similar to grape clusters, on trees varying from fifteen to twenty-five feet in height. The cost of the wax delivered in London is about eight dollars per hundred weight. The tree might be successfully raised and the wax manufactured in the southern States.

## UNITED STATES AGRICULTURAL SOCIETY.

A special meeting of the Executive Committee was held at the Rooms of the Society, Washington, D. C., on the 14th and 15th of June, President Tilghman in the chair. Letters were read from Messrs. Marshall P. Wilder, Fred'k Smyth, J. W. Ware, and Henry Wager, giving reasons for non-attendance, and approving of the action of the Sub-committee, of which they had been advised by letter.

President Tilghman, chairman of the special committee on the Annual Exhibition, with full powers, *Reported*, That on the 30th of May, he visited the State of Illinois in company with J. McGowan, Esq., and Col. Horace Capron of the Executive Committee, for the purpose of examining the locations for the next Annual Exhibition, which had been tendered by the citizens of Chicago and Peoria, and receiving any further proposals which might be made. After a personal inspection of the grounds, at each of these places, and a careful investigation of the proposals, the Sub-Committee decided unanimously to locate the Seventh National Exhibition, at the city of Chicago, and selected the 12th of September as the time for its commencement. A contract for this purpose was prepared and executed between the President of the Society and sundry citizens of Chicago, by which they have engaged to furnish ample grounds, fixtures, &c., &c., and have given a responsible guarantee that the receipts of the Exhibition shall not be less than $17,000. The contract itself accompanies the report, and will be found to secure the interests of the Society, whilst it cannot fail to confer important benefits on the city and those of its citizens whose public spirit and enterprise have led them to engage in it. The report was also accompanied by the following preamble and resolutions, passed at a meeting of the Cook County Agricultural and Horticultural Society, on the 9th of June, President Kennicott in the chair:

"*Whereas*, It is understood that the Executive Board of the United States Agricultural Society have decided to hold their annual exhibition in this city this coming fall, therefore

"*Resolved*, That we (the Cook County Agricultural and Horticultural Society) do not hold a fair at the usual time of holding our annual fair this season.

"*Resolved*, That we recommend that the Cook County Agricultural and Horticultural Society exhibit with and compete for the premiums offered by the United States Society."

After an examination of the contract, it was, on motion of Mr. Merryman—

*Resolved*, That the Executive Committee ratify and approve the action of the Sub-Committee, and that the President be further authorized to invite an Orator; confer with the President of the Cook County Agricultural and Horticultural Society; and take such further action as he may deem necessary to secure the success of the Exhibition.

The President nominated Col. Horace Capron, of Alden, Illinois, as Superintendent of the Exhibition, which nomination was—on motion of Mr. McGowan, confirmed.

The Premium List was then taken up, and after a prolonged examination and revision, a draft was adopted, and ordered to be published in the July number of the *Journal of Agriculture*, with the understanding that it is to be increased by the addition of a large number of "Volunteer Premiums" from citizens of Chicago, which will appear in a second edition, to be published in August.

Rolls of Judges and of Invited Guests were then made up, and business matters were disposed of. After which, the Committee adjourned, to meet again at Chicago, on the 8th of September, unless sooner called together by the President.

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New Members.—The following names have been enrolled since the publication of the last *Journal*, and several members are now actively engaged in enlarging the list in the different States in which they reside.

*Life Members.*—A. B. Conger, *Waldberg, near Haverstraw, N. Y.*; Solomon Foot, *Rutland, Vermont*; A. G. Fuller, *Sioux City, Dacota;* Geo. Merrick, *Northumberland, Pa.;* Geo. H. Penfield, *New York city*; M. M. Patton, Secretary, &c., *Hendersonville, N. C.*; Marcellus Ross, *Pittsfield, Illinois;* William Sutton, *Salem, Mass.;* J. W. White, *Madison, Wisconsin;* Henry Wager, *Rome, N. Y.;* Sylvester Mowry, *Tucson, Arizona;* and A. P. Cummings, *New York city.*

*Annual Members.*—John A. Kennicott, *West Northfield Ill.;* Thomas C. Connolly, *Washington, D. C.;* E. P. Walton, *Montpelier, Vermont;* William Lawton, *New Rochelle, N. Y.;* Charles Ballance, *Peoria, Illinois;* F. G. Carey, *College Hill, Ohio;* Ezekiel Holmes, *Winthrop, Maine;* Eliphalet Case, *Patriot, Indiana;* S. S. Bradford, *Culpepper C. H., Virginia;* D. S. Curtis, *Madison, Wisconsin;* S. P. Smith, M. D., *Cumberland, Md.;* J. W. Barrett, *St. Louis, Missouri;* Edward Lloyd, jr., *Easton, Md.;* F. M. Haw, *Queen Ann, Md.;* Le Grand Byington, *Iowa City, Iowa;* D. P. Holloway, *Richmond, Indiana;* Wm. Young Brown, *Omaha City, Nebraska;* Daniel McCook, *Pekin, Illinois;* Arthur M. Eastman, *Manchester, N. H.;* B. M. Rhodes, *Baltimore, Md.;* William A. Spence, M. D., *Montross, Virginia;* Charles J. Gilman, *Brunswick, Maine;* Joseph C. Lewis, *Washington county, D. C.;* JamesDavy, *Niagara Falls, N. Y.;* and Victor B. Bell, *Chicago, Illinois.*