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ADDRESS

DELIVERED AT THE

ANNUAL MEETING

OF THE

N. Y. State Agricultural Society,

AT THE CAPITOL, IN THE CITY OF ALBANY, JANUARY 22, 1852;

BY JOHN DELAFIELD,

PRESIDENT OF THE SOCIETY.

ALSO, AN

ADDRESS BY THE PRESIDENT,

ON PRESENTING THE MEDALS OF THE SOCIETY TO ITS MEMBERS WHO RECEIVED

AWARDS AT THE GREAT EXHIBITION IN LONDON, 1851.

ALBANY:

CHARLES VAN BENTHUYSEN, PRINTER,

No. 407 Broadway.

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THE agricultural year of the State Society has reached its latest hour, and with that hour the period of my probation closes—with that hour will terminate the duties which with temerity I undertook to fulfill. Conscious of love for the cause and devotion to its objects, a hope is indulged that your interests have not been neglected, and that all power is restored to you unimpaired.

Permit me to ask your attention, for a portion of this hour, while we glance at the past and attempt to penetrate the future; to ascertain the value of the labors you have caused to be liberally expended; the results derived from them; and the encouragement presented for continued and greater efforts.

If in any of my remarks there appears a freedom bordering on personality, let it be excused for the benefits which are concomitants to strong lights and shades; if any allegations startle the imagination of those who have viewed Agriculture as the dull, unintellectual lot of the ignorant, let investigation be roused to test the truth or to discard the fallacy of each proposition.

Three score years and ten have only now been numbered with the past since the site of this edifice, of this Capitol of the State, was covered with wild, entangled woods, giving shelter and concealment to a foe whose knife and hatchet caused wide-spread terror and dismay; these seats, occupied from year to year by patriots and statesmen, whose wisdom and able counsels guided us to national pre-eminence, now cover the ground where the wild notes of roving red men made the blood to course faster through the arteries of our fathers, and caused the timid mother to strain her infant closer to her bosom; all beyond the confines of this now populous, busy, and enterprising city was a wilderness. How few can at this day credit the dangerous and perilous situation of the families who then clustered in Albany, forming a city with only three thousand five hundred inhabitants! How few can call to mind events in the youthful days of men yet living, and connected with the perils of that period! To some few of us the month of August, 1780, is yet memorable, when the stealthy Indian, instigated by promises of reward, entered the residence of a gentleman in this city, (General SCHUYLER,) with the bold intent of his abduction; and the man yet lives, an honored and

respected farmer of Western New-York,* who was present, as a child, at that scene of treachery. And it may well be, there are some persons here present who can yet picture to the mind, from recollection, the alarm of a family, gathered in the shades of the evening around the family board, in supposed security—the domestics scattered about the premises, unmindful of danger—all listless, after the toil and heat of an August day—when suddenly the Indians were seen among the trees of the yard and gardens. Careful for the safety of his wife and children, General SCHUYLER hurried them to the upper apartments, and arming himself, prepared to resist the attack. It is foreign to our purpose to describe the agony of Mrs. SCHUYLER, when, on reaching the upper apartment, she discovered that her infant child had been left in the cradle in the lower room; with a mother's love, she was rushing to its rescue, but was detained by the General, whose third daughter, the late Mrs. STEPHEN VAN RENSSELAER, descending the stairway, snatched the slumbering child from its couch, was escaping with it, when a tomahawk was hurled, rending her garments, grazing her form; yet she escaped without serious injury, placing the child safe in the arms of the mother. Such scenes were not unfrequent at the recent period named, around this spot where we are thus peacefully and happily assembled. When the war notes of our successful struggle for civil freedom ceased to vibrate, the plow and the scythe were called into action; the hand which had wielded the sword, the spear, or the rifle, soon became accustomed to upturn the furrow or scatter the seed. The astonishing fertility and productiveness of the land, the pure atmosphere of our skies, and the blessings of freedom, induced crowds of adventurers from Europe to seek this land—a land flowing with milk and honey—yielding to Labor a rich reward. Commerce started into life, and, as a further consequence, the Manufacturing Arts followed in the train of successful Agriculture. The young nation exhibited the sagacity and wisdom of age, seeming to possess the virtues of the fatherland, without inheriting the prominent errors and vices or prejudices which darkened the history of European governments and people. With this remark, however, let us not forget what the mother has done for the daughter; let us admit, with kindest feelings, the gratitude we owe for our language and our laws; and let the mother rejoice in the beauty, vigor, and intelligence of the daughter. To supply food and raiment for the masses of human beings collected and increasing in cities and villages along the Atlantic shores, taxed the husbandman's industry, and overtasked his lands, inducing him to draw from the same soil, year after year, the various bread-yielding grains. The increase of wealth, from the employment of his labor and his land, hushed into silence

* Judge CHURCH, of Angelica, Allegany county.

the growing evils of diminished products; then, as now, men in their ignorance would attribute to *chance* or *accident* the fast failing fertility of their farms, the absence of remunerating equivalents. True it is, that while the Indian tribes hovered around our settlements, confining our exertions to narrow limits, the diminution of the earth's products did not materially depreciate the value of the soil; for the rapid influx of population gave to the grain field the new character of town lots or speculative grounds, driving the original proprietors, with their sons and daughters, to new lands in untrodden wilds, there to pursue and practice the same destructive systems as regarded fertility, and plant the germs of new villages. To many this statement will doubtless appear strange, to some extravagant; yet it has been pursued to this day—a wide-spread national evil.

We have it on record that the Father of his Country* declared, in 1792, that “*Systems* of agriculture we had none; our *modes* were within ourselves, and so devoid of calculation, that any attempt at illustration must fail, expose our defective practice, and be considered a beacon of our ignorance.” Mr. JEFFERSON, in his “Notes,” declared that, “Where our soil had lost its fertility by exhaustion, a less quantity should be occupied, and be *better* cultivated.” Yet then, as now, he found it difficult to ascertain the point of deterioration where culture should be increased, and to what extent be carried. In those days of destructive farming, the cultivator had no knowledge of the cause, nor any known means whereby to repair, the damage he inflicted on his farm; yet the statesmen I have named, owners and cultivators of large estates, saw and deplored the evils which in a measure retarded the public weal; and though science had not then pointed to the remedy, they predicted that the improvident course would have an end, notwithstanding the day might be far distant.

Admitting, then, that the Agriculture of fifty years ago was the result of labor applied *without knowledge*, without system, or calculation; admitting, also, that the evil continues at this day; it is due to the cultivators and farming interests of the State that an explanation be given for the tardy advance of Agriculture, as compared with the improvements in other arts and other departments of science. We need go no farther back than one hundred and sixty-four years to discover the *foundation* of modern natural philosophy: it was then Sir ISAAC NEWTON lived, and, witnessing the fall of an apple from a tree in his garden, conceived the first impressions of the law of *gravitation*. NEWTON then gave life to mechanical philosophy. In 1768—only eighty-two years ago—ARKWRIGHT forsook his employment as a poor hair dresser, to erect the first successful mill for

* General WASHINGTON, in 1792.

spinning. Forty-four years only have elapsed since steam was successfully applied to navigation on the Hudson river; a mighty power, which was at once adapted and applied to almost every branch of manufacturing industry, being a substitute for the labor of men and animals. In truth, we may say that within the last fifty years, science began to promote the welfare of mankind by discoveries in every department of knowledge; first stimulating the mind by abstruse inquiries into mathematics—then leading to the natural sciences, more particularly the division of mechanical philosophy; thus enabling man to apply his mind systematically to almost every art and science, save only the cultivation of the earth. It was reserved for Sir HUMPHREY DAVY to open the portals of science to the farmer, about the year 1813—giving to us only thirty-eight years to investigate and comprehend the properties of matter, and the applications of its divisions and subdivisions to our uses in all the various departments of Agriculture.

The discoveries of DAVY gave him rank among the most distinguished chemists of the age. Though, when a student, he was pronounced an “idle and incorrigible boy,” his taste for chemistry led him into the examination of material substances, and of the laws which regulated their *composition* and *decomposition*; he was thus led to the examination of soils and of the atmosphere; from that day the business of the farmer became a science as well as an art. The only science which could open to the agriculturist a knowledge of his soils and plants, his manures, or matters inimical, is independent of all other sciences for explanation of its principles; neither can any of its facts be ascertained or anticipated by mathematical reasoning.

Time and experiment have raised the science of chemistry to its eminence, and experiment only will open to us new principles or facts. Thus it seems evident, that the recent or later application of science to Agriculture may readily account for the hitherto slow advancement of improved farming, and the comparative want of knowledge among farmers. Thus, too, it will be seen that most classes of men had advantage over the cultivator of the soil by the earlier development of facts connected with their several pursuits. Minor causes have presented additional obstacles to improvement. A natural aversion to change long practiced habits, the power of prejudice, the retired life of the farmer—these have conspired, until within a few years, to render difficult the diffusion of information. Happily, these obstacles are fading before the influences of steam, the railways, and electric telegraphs. Every intelligent man now knows, and feels sensibly, that science makes us more expert, skilful, and useful in all works by which we can earn our bread; and experiences a thirst for information, a thirst which has from year to year been painfully aggravated by the neglect of our Legislatures to listen to the farmer's

wants—*wants*, in the earnest chace of which, “Dream after dream ensues; and still we dream that we shall still succeed, and still are disappointed.”

The prediction, in 1800, that the destructive system of the farmer would have an end, is now in the course of fulfilment. Efforts were made at various periods to rouse the energies of the people to withstand the growing evil of exhaustion; but it was reserved for the farmers of 1840 to remodel, and give to the State Agricultural Society a vitality, energy, and influence to break up old modes, to weaken long indulged habits of error and prejudice, and to draw men from the paths of thought in which they had moved for ages.

Among the first who stepped forward as benefactors, we find recorded on our earliest pages the names of E. P. PRENTICE, LUTHER TUCKER, J. McD. MCINTYRE, EDWARD C. DELAVAN, C. N. BEMENT, and J. B. NOTT, of this city (Albany); GEORGE VAIL, ALEXANDER WALSH, and H. D. GROVE, of Rensselaer; JEREMIAH JOHNSON, of Kings; J. P. BEEKMAN, of Columbia; ANTHONY VAN BERGEN, of Greene; ROBT. DENISTON, of Orange; WILLIS GAYLORD, M. D. BURNET, and ENOCH MARKS, of Onondaga; B. P. JOHNSON, of Oneida; J. M. SHERWOOD, of Cayuga; H. S. RANDALL, of Cortland; OLIVER PHELPS and MYRON ADAMS, of Ontario; G. V. SACKETT, of Seneca; WM. GARBUTT, RAWSON HARMON, and L. B. LANGWORTHY, of Monroe; JAMES S. WADSWORTH, of Livingston; T. C. PETERS, of Genesee; LEWIS F. ALLEN, of Erie; and L. A. MORRELL, of Tompkins.*

* The Society originated in 1832—warmed into life by the zeal and energy of a few friends of Agriculture. Among them we find the names of

LE RAY DE CHAUMONT,	<i>President.</i>
E. P. LIVINGSTON,	} <i>Vice-Presidents.</i>
AMBROSE SPENCER,	
JACOB MORRIS,	
ROBERT S. ROSE,	
P. S. VAN RENSSELAER,	<i>Recording Secretary.</i>
JESSE BUEL,	<i>Corresponding Secretary.</i>
CHARLES R. WEBSTER,	<i>Treasurer.</i>
H. W. DELAVAN,	} <i>Executive Committee.</i>
JOHN TOWNSEND,	
H. HICKOX,	

An act of incorporation was granted by the Legislature, in April, 1832; but little or no general interest was manifested on behalf of Agriculture for many years.

Judge BUEL, with a praiseworthy devotion, established “The Cultivator” in 1834, as the organ of the Society; and, under its patronage, presented to the farmers of the State many important and valuable papers. Judge BUEL continued his efforts with unabated zeal until his death, in 1839. It is well known among the people of New-York that Governor CLINTON was an early advocate for the establishment of an Agricultural Society, deeming it one of the most efficient aids to develop the agricultural resources of the State. A just tribute was paid to Governor CLINTON by H. BALDWIN, Esq., of Syracuse, during the first Fair held by the Society in Central New-York. Mr. BALDWIN was himself energetically engaged in promoting the objects of the Society at an early day; so also were Hon. S. VAN RENSSELAER, Judge SAMUEL CHEEVER, ARCHIBALD MCINTYRE, General J. J. VIELE, and many other true and zealous friends, whose names do not appear upon the records at the period named in this Address.

To the energy and well directed efforts of these men, to the spirit derived from them by their successors, is due the elastic spring which characterises our present agricultural endeavors, and whereby the application of science is made to impart new views, substantial improvement, renovated farms, and remunerating crops. The influences of your Society have given to the farmer better hopes; they have opened to his view a new soil, a new power, and a new mind, each more perfect for the production of comforts, happiness, and, above all, gratitude to the Giver of all good, for the inestimable benefits conferred upon us. To your Society, then, and to the intelligent farmers of New-York, who seconded its efforts, are we indebted for any recent advancement and improvement in our agricultural condition.

Here it may be asked, What advancement, what improvement is noticeable and can be claimed for this State, in regard to its cultivation, since 1841? In reply, let us refer to the census of the United States for 1840, and we find the utmost capacity of our systems and modes was the production of twelve bushels of wheat from an acre; in 1845, the average product, established by the State census, was fourteen bushels per acre; and by the United States census of 1850, we arrive at an *estimated* average of *thirteen* bushels per acre, thus exhibiting an improvement, in the article of wheat, of two bushels per acre in the last ten years.* This improvement may be more apparent when we state that, in 1845, our wheat crops occupied about one million of acres; consequently, the increase, if permanent, is an *annual* gain to the State, in this cereal, of about two millions of dollars. The

* Average products, &c., in 1845, per State census :

Wheat,	per acre,	14	bushels.
Barley,	do	16	do
Oats,	do	26	do
Rye,	do	9 $\frac{1}{2}$	do
Corn,	do	25	do
Buckwheat,	do	14	do
Flax,	do	100	pounds.
Potatoes,	do	90	bushels.
<hr/>			
	1825.	1835.	1845.
Cattle,	1,513,000	1,885,000	2,072,000
Milch cows,			999,500
Butter,			79,501,700
Cheese,			36,744,976
Horses,	350,000	525,000	505,000
Sheep,	3,497,000	4,262,000	6,444,000
Hogs,	1,468,000	1,554,000	1,584,000
Wool, pounds,			13,864,000
Population,			2,604,500
Farmers,			253,300

The U. S. census of 1850, gives to this State 13,000,000 bushels of wheat, and we safely estimate the wheat acres at 1,000,000.

question, then, as to recent improvement seems to be sufficiently answered, without spreading before you the details of other products.

Reference having been made to the census of the United States, it may be useful to draw attention to a remarkable defect (perhaps we may be pardoned for naming it as culpable negligence) in the action of the late session of Congress, when settling the form for the census of 1850: all inquiry has been omitted as to the quantity of cereal grains produced *per acre*—a fatal blunder in a document of such importance to the nation; a blunder depriving us of information in regard to the comparative conditions of one of the most valuable sources of the nation's prosperity. This subject is worthy of attention, because, although the State of New-York has done much to perfect our local statistics, yet much more is needed to bring the benefits of this branch of knowledge to the fireside of every farmer, that he may be made more familiar with the sources of demand and supply—that labor may ascertain the source and just proportion of remuneration, and that values may be less fluctuating, and the farmer less exposed to temporary and artificial influences upon markets. It is not to be expected that the mass of the people—and remember, that mass is the farming population—it is not expected they will enter into the study of political economy; for, with profound regret I say it, we have been thus far denied the advantages of seminaries or colleges appropriated to our uses, and to fit us for such useful studies. Yet the day is approaching when the beams of science will enlighten in some measure the homestead of every farmer, and his voice will be heard within these walls, where it has struggled to assert its just claims; his mind will yet be stored with knowledge in every science and every art, gilding his peaceful paths, ornamenting and aiding the pure pursuits of his life, giving character to the nation among nations, preserving our highest privileges, securing the best enjoyment of man in this world.

It has been shown that the once fertile soil of this State had been reduced to a degree devoid of power to yield remunerating products; that portions of it have been abandoned from time to time to other purposes, until the difficulty of procuring subsistence from exhausted farms has called aloud for wiser action or some remedial power. We have seen that patriots and honored men have stepped forward, and, by combined efforts under your State Association, have collected and disseminated knowledge; they became the leaders of thought; they foresaw that new paths of thought must be opened, new light diffused, old prejudices eradicated, erroneous practices arrested.

Look back once more upon the condition of this noble State, in the days of our fathers; read the descriptions by its early historians, and we are

made to know that it was indeed "a good land—a land of brooks and water, of fountains and depths that spring out of valleys and hills; a land of wheat, and barley, and vines; a land of oil, olive, and honey; a land wherein thou shalt eat bread without scarceness; thou shalt not lack anything in it; a land whose stores are iron, and out of whose hills thou mayest dig brass." We know how abundantly it responded to the husbandman's labor; and we have seen how it fell off by degrees, from an abuse (and ignorance, probably) of the riches and blessings stored in the earth—ignorance, too, of the healing and recuperative powers within its bosom.

Let the meed of praise be awarded to your Association for their efforts to restrain the evil, and to open the doors of knowledge to all who would partake; as far as its power extended this has been freely done, without measure or stint; to this hour its gates have been open to all—widely has it extended a hearty invitation to enter, and partake of every benefit and advantage. Among the means to effect the great objects in view, the Society has collected from the counties of this State, from other States of the Union, and from foreign lands, all useful facts for the promotion of Agriculture; it has encouraged the application of knowledge thus acquired, and, by results, has carried conviction to every candid, inquiring mind that the soil possesses powers sufficient, when well and properly cultivated; and that its elements, with their distinctive properties and uses, must be comprehended and understood. If your State Society had made no farther progress, it would have been entitled to the people's gratitude; but it has gone in advance of this great work: during the last ten years, it has recorded the facts now stated, comprising ten volumes of their Transactions, forming a treasury of agricultural knowledge, fully explanatory of the application of science to our profession, and keeping pace with experiment and discovery from year to year. These volumes present to the observing farmer, to the mechanic, to the merchant, to the man of science, and to the statesman, matter for thought, study, and application. We find on its pages well digested and arranged materials in the department of chemistry applied to Agriculture, which, in fact, is the exposition of the elements of all matter, *wherewith* and *whereon* we as farmers bestow our labor. Physics, more especially in the division of mechanics, as being the right arm of Agriculture, is carefully treated; natural history, also describing natural objects useful or injurious to our profession; we find, also, extended notices of the products of the State, with their quantities and cost of production. In fine, we find in these volumes of Transactions a combination of knowledge, exhibiting objects and properties upon which, in a great degree, depend our safety, our comfort, and our enjoyment of life.

Thus you have before you, in part, the labors of your Association.

Allusion might be made, with propriety, to the summer and winter exhibitions of your Society; their happy influences, not only as encouraging excellence and competition, but as furnishing the means for active exchanges of commodities. These festivals carry with them their own commendation; they illustrate the effect of agricultural life upon our character and condition; they are the *true* World's Fair, giving knowledge of our productions and ingenuity to all quarters of the world; inviting commerce to deal with us in the *useful* and *essential* objects of man's good; enriching our nation, so that "gold is laid up as dust, and the gold of Ophir as the stones of the brooks."* May our wise men and rulers never forget that pride and luxury will palsy the arm of Agriculture, and bring neglect upon honest labor! may their wisdom ever be directed to encourage the *useful*, without presenting any obstacle to the *ornamental*!

While we view the labors of your Society with satisfaction, and acknowledge the wisdom of our legislators in causing them to be spread widely among the people, we must not, we cannot shut our eyes to the truth, that we are but just emerging from dark ignorance; we must not flatter ourselves that we see plainly the broad and shining light of science; we are but in the shadows of the valley; we see the bright rays darting over the mountain's top into the far wilderness, strongly marking its outline, and shedding its genial glow upon us. Who among the sons of men can yet define the cause of the chemical differences of matter? Who can declare the temperature of the regions of space? Who can assign a reason for the irregular form of the continents of the globe, or for the position of the highest mountains or the lowest valleys? We know the facts, yet the cause is unknown; we see results, and signs of action, yet gather no insight into physical cause. We know the Source of all power and might; we know our duty to reverence and adore that Power—humbly and submissively to admit our feebleness, ardently to deserve and to desire, more and more, that knowledge which teaches us to avoid error—to do right. Our fathers saw clearly and felt that, to enjoy and be worthy of civil freedom, we should be prepared by instruction and education to understand our duties to God and to our neighbor; to effect this primary object they established Common Schools, which, like the stars of heaven, are studding our country's surface with precious gems, planting the root of prosperity, whose branches will spread till they cover the land. These schools, however, are chiefly elementary; they shed a general light, while greater lights are needed for the more perfect training of man's intellect. Academies, colleges, and universities are these greater lights, attracting all who love and honor

* The gold introduced into the U. S., in the year 1851, amounts to *about* fifty millions of dollars.

knowledge; they are the hallowed spirits watching our destinies, guiding us on the road to eternal life, driving far from us the ill omened birds of sadness which soar above our heads, and preventing a resting place for them or for their dark nestlings.

None will deny—no American will deny—that ignorance is degrading; all feel and admit that our public safety depends on the intelligence of the people; hence it is we have adopted systems for the wide diffusion of knowledge, made readily applicable to various positions and duties of life. All may see that, in proportion as this diffusion has pervaded the people, so have they prospered. So evident and satisfactory has been the result of our system, that we must view the mind of any man as insignificant which does not esteem *education* as the best means to preserve us from the deadly mischiefs of ignorance, and lead us in the way we should go. Look at *England*, as she stands high amid the nations of the earth, rightfully proud of many of the best scholars of the present day as well as the past; yet, with her masses of people untaught and uneducated, they are dependent upon foreign nations for sustenance,* and a powerful military array is too often needed to check the errors of ignorance. Look at *Scotland*, once degraded in ignorance; now educated, or possessing and *offering* the means of education to all her people. Where do we find a poor Scotsman? What nation is more proverbial for thrift? The contrast is strong, but true as regards the possession or absence of instruction or education. Stronger contrasts might be produced by naming continental nations of Europe; but where despots and tyrants reign, the people have no share in the blessings of knowledge; they have but one short lesson for life, quickly expressed in the words “Submission, Obedience”—blind and uncomplaining. How happy, how content ought we to be, that Tyranny and Corruption cannot inhabit the land where FREEDOM flourishes! We forbear comparison with our own country; each may do so for himself without self-reproach.

The legislators of this Empire State, who have occupied these halls, aware that their chief duty was to give strength and stability to our institutions, have, with commendable zeal and care, provided for the general instruction of the people, and by so doing have inculcated an imperishable sympathy—a

* The Live Stock imported into England from the Continent, in 1851, consisted of—
 Oxen, Cows, and Calves,..... 77,700 head
 Sheep, 190,621 “
 Swine, 12,801 “

The importation of *Wheat*, in 1851, exceeded 30 millions of bushels, and was an increase on the previous year.

The import of *Indian Corn* amounted to 13 millions of bushels.

The import of *Flour* was 5,516,004 sacks, equal to over 44 millions of bushels, or near 8 millions of barrels.

mutual interest—a personal interest—in all the affairs of the State. Who can examine into the expenditure of more than ten millions of dollars, devoted by them to our educational system since its establishment, without a thrill of joy at the wide-spread benefits, to which each one of us has contributed in proportion to our means. What a noble, munificent offering to Mind and its cultivation! yet how insignificant the offering, compared with the gigantic, immeasurable results of mind derived, by its means, to benevolence, virtue, and science! Look back once more; compare the past and present. In 1638 a small, glimmering light was seen in the East (in the village of Cambridge); there was seen the first light of its kind in this Western hemisphere; the *first printing press* owed its existence and erection to Cambridge, in Massachusetts; the next sprang into life in the city of New-York, in 1693; and the first newspaper printed in America was in 1704. In 1800, we had 300 printing presses in our Union, printing and publishing a hundred books and pamphlets annually; in 1825, six hundred presses were similarly employed; which, in 1830, had increased in number to 1200 improved machines; and, at this day, may be estimated at 2800, sending forth *five million impressions daily!* sending forth every work in literature, science, and the arts as rapidly as authors can supply ideas. This power of the press produces reaction, and stimulates the mind to greater efforts, exhibiting effects and results which almost defy expression.

Again: in 1793, nineteen colleges existed in the States; now, we have one hundred and twenty, or more. In this State, we had two colleges until 1812; but four in 1825; at this time we have eleven colleges, with an aggregate endowment of more than \$1,000,000. We have also 204 academies, enjoying a fixed capital of \$1,700,000. The colleges give instruction to the average number of 852* literary students annually, while the academies instruct about 18,000 pupils annually. These facts are presented to you in detail, purposely, that we may the more distinctly understand the position which is presently to be offered.

Self-love may induce us very complacently to view these advantages, and to believe that we are a well instructed people. 'Tis true only by comparison, however, with other sections of the world—only by comparing nation with nation. Yet our self-esteem is checked when we reflect that all “which hath been is now, and that which is to be hath already been;” that from birth every human being travels the same road or bye paths, seeking for information, distinction, and power. The only difference in our favor may be attributed chiefly to the art of printing, by which we have multiplied records or mementos of that which hath been, allowing to us a longer portion of our

* The number of children attending the common schools averages 800,000.

lives for the accumulation of *new* facts, and, by their use, to establish new principles leading to experiment. Who, then, can contemplate the three-fold system of education in this State, comprising the common or free schools, our academies, and our colleges, filled with the records of the past,—who can contemplate them without a high satisfaction as regards the general character of our people for virtue and knowledge?

With these views and facts spread before you, judge of the condition of the farmer of New-York: what participation has he in either branch of our noble system, which *does* or *can* offer to him instruction necessary for and adapted to the perfect understanding of his vocation or profession? None: no, not one exists in this State where a young man can be taught the theory and practice of Agriculture, fitting him to perform his duties in a perfect manner. “Four-fifths of our active population are employed in the cultivation of the soil, and the rapid expansion of our settlements over new territory is daily adding to the number of those engaged in that vocation. Justice and sound policy, therefore, alike require that the Government should use all means authorized by the Constitution to promote the interests and welfare of this important class of our fellow-citizens. And yet it is a singular fact that, whilst the manufacturing and commercial interests have engaged the attention of Congress and Legislatures during a large portion of every session, and our statutes abound in provisions for *their* protection and encouragement, little has yet been done directly for the advancement of Agriculture. It is time that this reproach to our legislation should be removed; and I sincerely hope that the present Legislature will not close their labors without adopting efficient means to supply the omissions of those who have preceded them.”

An Agricultural College—charged with the duty of collecting and disseminating correct information as to the best mode of cultivation, and of the most effectual means of preserving and restoring the fertility of the soil, and of procuring and distributing seeds and plants and other vegetable productions, with instructions in regard to the soil, climate, and treatment best adapted to their growth—could not fail to be, in the language of WASHINGTON, in his last annual message to Congress, a “very cheap instrument, of immense national benefit.”

Divinity, Law, Medicine, and Literature have their special colleges; surely Husbandry, being based on principles of science, should not be an outcast, neglected, abandoned to rise or fall as chance alone may direct. No, no; as cultivators, we need our special institution, to teach us *why* one system of tillage will succeed and another fail; the *reasons* for such difference; the principles which cause that difference; and instruct us in the benefits of the one—the loss ever attendant upon the other. *We need a*

College, where we can examine systems, theoretically and practically, to detect erroneous views—to hold fast on sound practices—to distinguish true from false principles.

Here it may be pertinent to remark that many of us, too often, and without consideration, inveigh against *theory* in Agriculture; and some men inculcate or urge *practice* as alone sufficient, or as possessing superior claims to our attention. This is a mistaken view of the farmer's true position. It is erroneous as regards every class of men; it is a contracted view, which must prevent or delay all improvement wherever it is held and maintained. The hour is too short to present proofs of inimical tendencies of such views to our respective farms and occupations; and must be content with the remark that THEORY is the very starting point of improvement—the conception of some new principle or action. PRACTICE is no more than a *repetition* of what has been done before, without reference to advance.

But though we often hear men claim to be altogether PRACTICAL, and seem to flout theory as a misty vapor, yet, where is the *practical man* so dull, so careless of his welfare, so reckless of his duty to his family and his country, *as not to be* a THEORIST? Permit me to take from this word an evil character, unjustly imposed; to give to it its fair standing among us, that it may not be a stumbling block to those who desire to advance in improvement. Suppose, then, an agriculturist who, for ten years, has closely followed the beaten track of his father; suppose such a man blessed in full measure with a growing family, whose wants necessarily demand a larger outlay as years bring on the child towards adolescence; his farm gives its accustomed yield from his accustomed practice, but not now in a ratio with the demands of his increasing family; prudence or necessity demands a change; what change? It matters not; his mind is roused to do some act to increase his store; that act is by him an innovation; he has stepped beyond old practice; he becomes, in fact, *a theorist*, and thus attempts one step toward improvement. If his idea or theory proves successful, he adopts it, and in time it becomes a habit or practice. Such, then, is the origin of all practices or habits; and every farmer who conceives an idea for the improvement of his farm, becomes, so far, a theorist.

It is absurd therefore for us to cling to a notion of being merely practical men, as it would doom us, if it were possible, to be left behind in the improvement of our farms and the acquisition of a competence. It is contrary to the spirit and to the mind of the American people; a spirit somewhat peculiar—so much so as to need a new term in our language to express it. The man whose practice is derived from sound *principle*, who compares results, who refuses to be an *imitator*—such a man must ever combine

theory and practice; he becomes, of necessity, expert and dexterous; he is intelligent, and is generally far, far more successful than the restrictive and merely practical man, who is sometimes, though now rarely, appealed to.

This distinction of terms ought to be better and more extensively understood among us farmers; for in truth, every intelligent, thinking cultivator is and must be theoretical and practical, and is or ought to be thankful to his Creator for giving him a power or capacity worthy of the position.

We need a College, to promote substantially the progress of Agriculture, as connected with the prosperity of the State. *We need a College*, because the principles of farming are intimately connected with science; our practical farming, our daily work, needs a large acquaintance with chemistry, anatomy, botany, physiology, mineralogy, climatology, zoology; neither can we be perfect masters of our work without some branches of mathematics. Many of these divisions of knowledge are well taught in some of our schools and academies. True, and they serve as an initiation to science; but *we* need an institution of a higher character—one devoted to the investigation of the sciences connected with Agriculture—able and ready at all times to give their results to every farmer and to every farmer's son. *We need a College*, because Agriculture demands appliances, extensive and various, for our uses—far, very far too large to form a branch or mere adjunct to another institution—and because our interests are sufficiently important to demand and occupy a college and farm consecrated to our objects and pursuits. Again: *we need a College*, because experience has for ages proved that art and science, as taught in all our colleges—that association with students of other pursuits, ever have attracted and drawn away our agricultural youth into other paths. In the present state of society, this is an inevitable evil; the causes have been already glanced at, and may not be remedied in our day. Another consideration may be offered, in the need that our farmers may ever find themselves like other classes of our citizens, equal in intelligence and knowledge with those of all foreign nations. Yet see how far short of means we are, as compared with some parts of Europe:

Agricultural Schools in Great Britain,.....	70
“ “ in France,.....	75
“ “ in Prussia,.....	32
“ “ in Austria,	33
“ “ in Russia,	68

And the State of New-York, *Not one!*
The effect of these European institutions is, excellent tillage, the appearance of fertility, and high cultivation.

We are warned, by the experience of foreign efforts, that agricultural schools have not been efficient without the aid of government; and we may reasonably suppose the abortive attempts in this country suffered from want of power. It seems conceded, also, that agricultural societies, though productive of great public good, cannot diffuse the details of knowledge needful for the farmer. It has been proved also that theories must be tested by practice; and such as are not well sustained by practice must be rejected. All primary schools and academies have proved insufficient in Europe for agricultural education, though they have been found good auxiliaries in preparing pupils for the main institutions. It has been well established, also, that two classes of students, having no concert of action as equals, and no sympathy for each other, cannot harmonize in the same establishment; one will obtain a precedence injurious to the other.

With necessity for a college pressing hard upon us—with the experience of Europe before us, to avoid their errors and adopt their wisdom—why do we hesitate? Why, from year to year, do we “drop our buckets into empty wells, and growing old in drawing nothing up?” The farmers of New-York have again and again knocked at the doors of these halls in vain. For what have they asked? Not for a monopoly, not for protection, not for any undue advantage. No, no; the farmer would not deign to ask, he does not need, any such unjust aid; but he *does* ask; and *claims*, an equal participation with all classes of citizens in educational means, that he may, with equal alacrity, with equal skill, perform his duty to the State.

An error of magnitude, as it seems to me, has pressed like an incubus on the movements for an agricultural college—the unnecessary magnitude and expense of the systems proposed; systems rather fitted to gratify vanity than to produce effective good. Stone palaces, sumptuous halls, and the elegancies of life have no natural or necessary connection with agricultural improvement; on the contrary, luxury, when attached to the farmer's establishment, is like a parasite, fawning but to destroy. Many who cheerfully contribute large amounts to the support of the State revenues, have viewed with regret proposals for profuse expenditures, being well persuaded that moderate appropriations, discreetly applied, will prepare the foundation of an institution with a suitable superstructure, adequate to our wants, fulfilling every needful purpose, an ornament to our State, a means of wealth to the people. Such an institution might furnish knowledge of every principle upon which productive cultivation depends; might develop new principles, explain and illustrate them, not by theory only, but by every practical operation, always reducing theory to practice. Such an institution may not educate an ornamental man, as such only; for the hand must be taught to labor, while the mind is taught to perceive, to remember, and to combine facts for *useful* purposes.

Give to the agriculturist such an institution, and every acre of the State will yield an increase; waste places and unwholesome swamps will disappear; instead of emigrating to dull prairie lands, where wholesome wheat cannot be grown, our farmers will cling with affection to the homes of their fathers; population will increase; demand will increase; wealth will increase; and Agriculture will stand side by side, co-equal, with any and every other art or science—honored and esteemed by all.

Feebly as I have treated this important theme, may it be kindly received and considered by all who feel an interest in the welfare of their State and Nation! I invoke for this great object the careful action of every County Society; I ask for it the close and careful investigation and zealous support of every farmer who desires the improvement of his estate; of every man, of whatever vocation, who truly loves his country.

And now, gentlemen of the Society, my brief term has expired—a term full of pleasant incidents and associations, never to be forgotten; and to your prompt aid, sound advice, and better experience do I attribute all that is worthy of commendation throughout the year. My last act is one of unmingled pleasure—an act which I doubt not will raise your Society still higher in the confidence of our brother farmers and of the whole people; I now introduce to you HENRY WAGER, your President elect.

In conclusion, let me urge you to greater efforts—to pursue a wise and temperate policy—a steady, onward action—in which all may plainly discover the high motive of preserving what is good, by reforming in time what is evil; thus you will from year to year bequeath to your successors an institution unimpaired, and which, by the blessing of God, will entitle you to the gratitude of men, of the State, and of the Nation.

A D D R E S S

ON

Presenting the Medals of the Society to its Members

WHO RECEIVED AWARDS AT THE

GREAT EXHIBITION IN LONDON.

~~~~~  
BY THE PRESIDENT, J. DELAFIELD  
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GENTLEMEN,—When the invitation from Britain's Queen reached our shores to send the works of our ingenuity and industry for exhibition in London, and in competition with like works from other parts of the world, the first impression on my mind was adverse to the proposition. This impression originated probably from recollections of the state of art and science and the condition of society in that country, during a residence of several years. Aware, also, of the difficulties to be encountered from the impracticability of any well arranged system or unity of action among our several States, a faint hope only was indulged that we could return from the World's Fair either gratified or satisfied. Viewing the mighty effort, at this day—its termination and recorded awards—the wonderful display of art, of skill, and of labor—the question may be entertained whether a preponderance of good or evil is to flow from the influences of the well intended undertaking. Honor and praise are justly due to Britain's Royal Prince for the conception and accomplishment of the vast design; a design of benevolence and good will to the human race. It is yet too early for any decided benefits or advantages to be manifest; neither has time elapsed sufficient to develop the influences fondly entertained by many.

Two distinct characteristics seem to have stamped their features on the Industrial Exhibition. The one is *UTILITY*, displayed in objects designed to promote the sustenance, the comforts, and the happiness of man; the other is *Ornament* and *Luxury*, chiefly combined to stimulate and gratify the senses.

The first character, *Utility*, was a distinctive feature in the productions contributed by the United States; while Luxurious Ornament highly distinguished the productions from Europe and from Asia.

If these distinctions are true, they are portentous as to the future; and we may well rejoice that *our* countrymen—that *you*, gentlemen, who are to receive an honorable distinction for talent devoted to *Utility*, belong to and are identified with the class of benefactors of the human race.

In all nations there are persons who, unhappily for themselves, disregard knowledge; who, having but little information, are content to live and labor under every disadvantage. They never rise above their fellows; for, as neither pleasure nor profit can be derived from them, they are compelled to labor generally with strong application of physical force, but none of mind; they have no idea of the value of knowledge, and the paths it opens to honor and wealth. This remark occurs to me as I view this mass of Essex county ore:* it is the rich and valuable ore, taken from the mountain masses belonging to the "Adirondac Iron and Steel Company." I have somewhere met with an apt illustration of the deficiency of knowledge, and the benefits of its due application, as evidenced in the proprietors of the Adirondac Company.† Thus, the man who disregards knowledge "would deny stoutly the existence of a knife blade in this mass of iron ore; yet there it certainly is—there it lies, where no labor can draw it forth in the present condition of this ore. Turn this mass, shape it as you will, it is neither knife, nor steel, nor is it iron; it is but *ore*. Fashion this ore as you may, it will not cut as well as the shell of an oyster; it needs knowledge to separate the iron from other matter; labor will not separate it, more readily than it will cause wheat to grow productively on a naked granite rock. We need to know that *heat*, intense heat alone, will separate the parts and give us iron. Yet heat alone will not give up the knife blade; other substances must be added to the ore to allow the iron to run as a liquid, escaping from all impurities. Yet *this* iron will not give up the knife blade; by other results of knowledge it (the iron) must become *steel*—steel of a peculiar property, and requiring niceties in the process which study and knowledge alone can give: it is from this steel the knife blade is derived. What an amount of *thought*, *invention*, and machinery is necessary to produce so simple a thing as a shilling knife! All the *strength* of all the men that ever lived could never extract a knife blade from this mass of ore!" And when at last the knife blade is brought forth, it may be asked with much concern whether it is now worth the handle, seeing the cost, the wear and tear of mind, of body, and of time consumed in its production. This ques-

* This ore has 70 per cent. of iron.

† "The Results of Machinery."

tion is not to be solved, as is sometimes attempted, by speculative theory or forced expedients; the quantum of demand, in fair, free, open competition, must decide it.

We are said to be a whittling nation; knife blades are therefore in demand. This pleasurable amusement, creating a demand for blades, has so sharpened our wits and extended our knowledge, that we now can reach the blade fitted for whittling, and blades for all cutting implements, with a comparative economy, securing to the maker a sufficient compensation. But whittling blades are luxuries, not necessities of life, and the production may be pushed too far, like many other non-essential objects; or some clever neighbor may exceed us in knowledge, and apply a process whereby he can afford to supply blades, undermining our accustomed profits. This, however, is the result of competition; it arises from the natural, legitimate, and noble contest for the acquisition and application of knowledge, compelling us to keep pace with improvement, or to apply the share of knowledge we do possess to such objects as from utility or ornament are in request, or to seek some other mode of life better suited to our talent.

As a farmer, these truths are always before me as applicable to our calling, whether as to making of knife blades or steam engines—cotton goods or woolen fabrics. It is now quite apparent that when my neighbor applies more knowledge to his soil than I do, he produces greater quantities of wheat or grass from an acre; and thus, wide awake, his profits increase while mine may recede. So again, like the manufacturers, we may collectively produce more wheat than is demanded for a season, and the value falls below our accustomed prices and wishes; we cultivate less, and in a year find ourselves reinstated in profits; if not, we turn to other grains or other objects connected with the *necessities* of life, and never fail, in any series of years, to find all that our reasonable wishes may require. Repining or complaining is of no avail; any endeavor to interfere with the free action of near or distant neighbors, with a hope of forcing better results to our own mismanaged or ill-judged proceedings, is ungenerous, unjust, and unworthy—ever tending to enmity, to the benefit of the few, and disadvantage of the many. These views naturally arise, when contemplating the successful organization of associations in our State, entering boldly into competition with the manufactures of other nations. It is a proud triumph for our industry and sagacity! Years of success have enriched our Eastern neighbors in various departments; nor are we behind our brethren in the application of industry, where circumstances demand its use and capital finds a safe return by its investment. We have an illustration in the movement to produce steel, of unsurpassed excellence or qualities, from the mountains of iron ore within our borders.

To the Adirondac Company belongs the honor of establishing, as I am informed, the first successful manufacture of *cast steel* in the United States, and I believe it stands alone and unrivalled in this very important business. With a stock recently on hand consisting of 300 tons of bar iron, 400 tons of pig metal, 120 tons of cast steel in ingots, 50 tons of finished cast steel, 100 tons of quarried iron ore, and other property, valued at one million of dollars, this association presents to us extraordinary features of utility and power.*

Its products were exhibited at the World's Fair, arranged in section No. 1, class No. 1, and for their excellence received from the Commissioners a *Prize Medal*.

To you, sir, (A. E. BROWN, Esq.,) as representing the Adirondac Iron and Steel Company, I now have the pleasure to present the Gold Medal of the New-York State Agricultural Society, pursuant to a resolution of the executive board, passed on the 9th day of May last. Your association is also entitled to the Society's Silver Medal, for the honorable mention bestowed on your cast iron and steel by the Royal Commissioners: it affords me much pleasure to present to you this additional testimonial of excellence.

Following the order of the sections and classes of the Industrial Exhibition, we find a display of American wheat, presented by Mr. THOMAS BELL, of Westchester; another prepared by General RAWSON HARMON, of Monroe; and one other by Mr. WILLIAM HOTCHKISS, of Lewiston; and thirty varieties of Indian corn, exhibited by Mr. B. B. KIRTLAND, of Rensselaer.

These varieties of our wheat and corn were arranged in the Crystal Palace, among the vegetable and animal products in use as human food. As wheat forms the principal nutritious food of the world, claiming the industrious application of labor over the greater part of Europe, throughout the temperate regions of Asia, along the northern kingdoms of Africa, and extending far into the northern and southern regions of the American continents; as it has been cultivated from time immemorial, and has produced in various climates and soils *many varieties*; it is surprising that so little is generally known of the distinct varieties best adapted to particular climates—it is surprising that in Great Britain, in our own country and State, we are yet to learn the variety which will yield the greatest and best amount of human food!

At the Industrial Exhibition, twenty-six premiums only were distributed for specimens of wheat; of these, *five* were awarded to British farmers, *three* to France, *three* to Russia, *three* to Australia, *three* to the United States, and one each, or severally, to other nations. We have reason to

* See pamphlet, entitled "Advantages of the Works and Property of the Adirondac Iron and Steel Company, for the Manufacture of Cast Steel," &c., &c.

believe that, among the varieties sent from this State, one or more were in all respects equal to the best specimen exhibited at the World's Fair.

To Mr. THOMAS BELL, of Westchester, much praise is due for zeal and care in presenting fine specimens of wheat from this State.

To General RAWSON HARMON, of Western New-York, this Society has often been indebted for his careful attention to the cultivation and production of many excellent varieties of wheat. To each of you, gentlemen, the Society presents a Gold Medal, in commemoration of services calculated to extend a better knowledge of our much loved State and increase the means of comfort to man.

To Mr. WM. HOTCHKISS, the Society is also indebted for his attention to this important division of our agricultural cares. To you, sir, the Society has the pleasure to present its Silver Medal, in consideration also of the honorable mention of the wheat exhibited by you at the Industrial Exhibition.

Though wheat is characterised as the most nutritious food for man in all quarters of the world, yet the Indian corn crop of the United States is not second in value to any product of the earth, cultivated in the Middle and Eastern States of our nation; nay, even in the rich cotton growing States, Indian corn is fast rising in importance, and will soon equal in value that important commercial product. This indigenous grain yields to the nation an annual average amount of *five hundred millions* of bushels; and has, within the last five years, attracted much attention as a life-sustaining food, more particularly at the period of Ireland's severe suffering, in 1847 and following years. Nations, as well as statesmen and farmers, have found it an object worthy of their consideration and esteem. Among the objects of interest exhibited as adapted as human food, were thirty-four varieties of Indian corn, presented by Mr. B. B. KIRTLAND, of Cantonment Farm, in Greenbush—an exhibition far more important, of greater value and true interest, than the famed diamond, (Koh-i-Noor,) or all the jewels of every European crown. To you, sir, (Mr. KIRTLAND,) the Society presents this Silver Cup, richly merited, not only because of the honor you have received from the Royal Commissioners, but also for your unwearied zeal as a member of the State Agricultural Society: though unconnected with the matter before us, I cannot resist this latter allusion.

Among the various products which received honorable mention from the judges in London were specimens of flax and hemp, presented by Mr. E. R. DIX, of Oneida. Both are objects of interest and importance to some of the States of the Union. Recent discoveries in the art of reducing the vegetable fibre to a condition for easy manufacture, have drawn additional interest to these substances. Believing, as I do, that the soil of this State

is to be better and more profitably employed in the production of vegetable matters more congenial to its elements and climatic influences, it will probably happen that the valuable and highly important recent discoveries will carry wealth and honor to more western regions, while our expert manufacturers will derive from them no less important advantages. To you, sir, (Mr. E. R. DIX,) the Society presents its Silver Medal, and rejoices in your successful efforts.

It must be within the recollection of many when a concert of *musical instruments* was rare; when song was only known by a simple ballad in sweet melody; when the attempt to execute a concerto was fatal to the character of the composer, whether it was HAYDN, MOZART, or ROSSINI; the very attempt was barbarous, and the result was murderous. The ill-proportioned harpsichord, no longer seen, the tinkling spinnett, or the imperfect, small square piano, were the instruments, with few exceptions, in the saloons of the wealthy, and in the parlors of those who aimed at the luxuries and refinements of life. They were costly luxuries; too costly to admit the application of perfected talent.

How changed our condition! Years have vanished like moments; for now, from the gilded halls of city wealth and rich refinement to the wilderness where yet prowls the wolf, sweet sounds are heard; Europe's best talent and most gifted powers seek eagerly our shores, and find a welcome amid admiring millions—all conversant with song; many, very many, adepts in the science of sound and of harmony. In our cities, villages, and hamlets, all do honor alike the precious gift. Again and again it has happened, as the Western traveller threaded his almost pathless track amid the forests—mile after mile adding weariness to fatigue—hour after hour, nay, whole days, wasting away without the cheer of a human voice—suddenly, when even Hope had become faint, he descried in the shadows of evening the dingy form of a rude log cabin; his ears were startled by well executed passages from pages of classic music, and the sweet cadences of perfect melody. From North to South, from the Atlantic to the Pacific, the charms and delights of music are discoverable.

But yet another extraordinary change has recently occurred: Mr. J. PIRSSON, of New-York, presented for exhibition a piano at the World's Fair, made in this country, made by native hands; this piano was offered in competition with the science, and ages of experience, in the Old World; the pupils of a few years' growth vying with pupils in the home of science! To you, sir, (Mr. PIRSSON,) the Society gladly awards a Silver Medal, for the skill and talent whereby an instrument of American manufacture has drawn forth the honorable mention of the British Commissioners of the Crystal Palace.

And now we turn from thoughts, soothing and pleasurable, to an object—important, 'tis true—an object, foreign to the eye of most who are here present; an object, the sight of which carries a chill to the heart, beating back the warm blood; an object, which I have no ability to treat with the encomium due to its merits.

It has been said that the medical profession is “a melancholy attendance on misery;” and again, with more truth, that “the educated physician is ever great in liberality, dignified in sentiment, prompt in beneficence, ready to exert a lucrative art where no hope of gain exists.” So far as our individual experience is a test, this declaration is doubtless true in all its force; and we may add, that the best sympathies of nature are his daily attendants, often performing an effective share of relief, where knowledge and art have ceased their aid. There is, however, another class of men alive to human woe, whose skill in mechanism entitles them to rank among the benefactors of their race, and, by the happy application of that skill, pointing to a position having a connecting link with those men (physicians and surgeons) whose habits lead pre-eminently to the indulgence of deep and comprehensive thought.

These remarks, thus connected, are brought to the mind by the award of a Prize Medal by the Royal Commissioners of the World's Fair to our countryman, Mr. B. F. PALMER, for *an artificial limb*—a work of art approaching, as I am informed, a symmetry of form equal to the models of ancient or modern sculpture; possessing, as a mechanism, a beauty of action and a finish hitherto unapproached, and, as an object of utility, to be appreciated as it deserves only by those who need the aid of this ingenious work.

It is stated that four hundred persons have found ease, comfort, and power of exertion by this invention—a number so limited as to distinguish Mr. PALMER for the liberality and beneficence which have been described as among the happy attributes of educated men; the love of gain can hardly exist where the means of so great benefits are within so small a circle.

To you, Mr. PALMER, we have the satisfaction of presenting the Gold Medal of this Society as a testimony of your skill, and your benevolence to man—for their successful application in alleviating misfortune, and restoring comfort and usefulness to suffering humanity.

Among objects not likely to attract the eye, there rested a pile of blocks in the American department, unattractive except to the man of science and the educated mechanic; they were specimens of AMERICAN WOODS—blocks of American forest trees, selected on the Pellham estate, in Ulster county, the highly cultivated residence of Mr. ROBERT LIVINGSTON PELL.

It has been said that, of all the productions of the earth, *wheat* is the most important for the sustenance of man; and here we may add, that of all the vegetable productions, the various woods of the forest are no less important and essential for man's uses and purposes. The consumption of our forests exceeds probably the limit of all present estimates. Their value seems to be appreciated by few; yet they are well known to the naturalist, and to those who inhabit the regions of peculiar products.

In all ages, man has been pleased with the bright or the strongly contrasted colored woods: the temple at Jerusalem was covered with cedar, the palaces of Europe are ornamented with strong-grained oak, the residences of our people are beautified with the maple, the walnut, and the oak of our forests, as well as the mahogany, the sandal wood, the rosewood, and others of foreign climes.

A single instance of the value of wood, for man's pleasure, will not fail to obtain attention; I allude to the sale of three logs of mahogany, some years ago, to the Messrs. BROADWOODS, of London. These logs were fifteen feet long, by three feet thick—to possess which, the BROADWOODS paid the sum of three thousand pounds sterling, or about fifteen thousand dollars.

Well may the too rapid destruction of our forests demand more careful consideration, to arrest the seeming wanton destruction and waste of millions in amount of valuable property; the day is approaching when the waste of wood may be felt as a national concern.

The specimens presented by Mr. PELL were seen, examined, and appreciated by many persons from the European continent; and, as an illustration of the interest produced, it may be stated, that a gentleman of France, connected, I believe, with the delegation from that country, came from the Exhibition to this country for the purpose of visiting Mr. PELL, and to purchase the collection of specimens then in the Palace. Others, however, had previously applied for them, and Mr. PELL had presented them to the Royal Commissioners.

In these specimens of our forest woods we have another instance of characteristic *utility*, as applicable to the American department. To Mr. PELL are we indebted for opening more widely the door to a knowledge of our forests; and I feel, sir, (to Mr. PELL) much pleasure in presenting to you, on behalf of the New-York State Agricultural Society, their Silver Medal, as an additional token of merit to the honorable mention of your woods transmitted to you from the Royal Commissioners of the Industrial Exhibition.

In the departments of mechanics and machinery, our State has much cause for satisfaction. Ingenuity and expertness are almost proverbially

connected with the American mechanic and artizan; and though but few specimens were sent from this country to the Great Fair, yet of and among the few was LEROW & BLODGET's sewing machine—a machine which obtained one of the Prize Medals. The saving of labor effected by this ingenious mechanism may be comprehended, when it is known, that ten trowsers can be made or six coats may be sewed together, by this machine in one day, under the guidance of a young girl; and I am informed, that a factory in New-York turns out *three hundred* trowsers per day, well made in all respects. To you, gentlemen, (LEROW & BLODGET,) the Society now presents its Golden Medal, congratulating you upon your successful ingenuity.

The accuracy and excellence of TOOLS, made in this State, have attracted admiration. All who attended the late Fair at Rochester will remember the display of edged and other tools by D. R. BARTON & Co., and W. W. BRYAN, of Rochester, and by L. & J. WHITE, of Buffalo; but American ingenuity, in this department, seemed most conspicuous at the World's Fair, in the varied forms and excellence of agricultural tools and implements. These were exhibited in an extensive variety by Messrs. A. B. ALLEN & Co., of New-York, and their merit was acknowledged by an honorable mention of their valuable display.

The perfect construction of agricultural tools comes closely home to the farmer's sympathy; for, though toil is not unpleasant, and his labors are ever beginning and never ending, he hails with joy every advance or improvement presented by the ingenious mechanic, in the hope that the high value of labor may not hereafter demand so large a share of his hard earned income.*

The neat and light, as well as accurately made tools and implements presented by the Messrs. ALLEN, did not fail to meet the approbation of many, and to obtain from the Judges of the Exhibition their honorable mention; in further commemoration of the event, I have the pleasure to present to them the Silver Medal of the New-York State Agricultural Society.

Among all the implements known and prized by the farmer, the PLOW is the chief; it is the only implement by means of which a thorough farm tillage can be accomplished. Without it, the merchant's occupation would be of little comparative worth, the artist would sigh for patronage, science would languish, and man be compelled to forego much of the comfort, luxury, and enjoyment he now commands. But fifty years ago the plow, like other implements, was a rough, imperfect tool;† hard, indeed, was the plowman's

* In this State, the farm laborer receives about 25 to 27 per cent. of the income of the farm. In Great Britain, he receives about 21 6-100 per cent. of the value of the products.

† Antique plows may be seen in the Agricultural Rooms.

task, and at best his work was little worth. Within twenty years this implement has been brought to great perfection; it is now moulded and shaped to meet our almost every need, to perfect tillage for every want. We may not doubt that further improvements will soon be made; yet, when we examine the plow made by PROUTY & MEARS, Boston, it seems bold to challenge improvement. The admirable work performed with this plow by American farmers has satisfied every wish, and the Prize Medal which it has secured in Great Britain presents the strongest proof of its estimation in that country.

To you, gentlemen, (Messrs. PROUTY & MEARS,) I have the pleasure to present this Gold Medal, on behalf of the New-York State Agricultural Society, and to assure you of the satisfaction felt in the success which has attended the efforts of your skill and ingenuity.

During a long series of years the farmers of Europe, and more especially of Great Britain, and their skilful mechanics, have diligently applied their inventive powers to the construction of A MACHINE FOR REAPING GRAIN. The fickle climate of the British Isles has ever kept the minds of their husbandmen vibrating between fear and hope through the seasons of harvest; a machine, therefore, to save time and labor in reaping, has been anxiously sought to displace the *sickle*, which to this day is in general use, except perhaps in Berwickshire and a few other localities, where an ill-contrived scythe and demi-cradle have been used. In 1815, Mr. SMITH, of Deanstone, made an abortive attempt at construction; he was followed by Mr. P. BELL, who was also unsuccessful; others followed, from year to year, with no better results. In this country, WILSON's machine was for a short time used on the banks of the Hudson river, but gave way, in 1836, to HUSSEY's admirable, simple, and durable reaper—a machine now extensively used in this and in other States. In 1843* Mr. McCORMICK perfected his now popular machine, which, at the Industrial Exhibition, in London, has obtained the approbation of agriculturists, who tested its powers and properties under many adverse circumstances, and yielded to it their admiration and prompt adoption.

To Mr. McCORMICK has been awarded one of the highest honors granted by the Royal Commissioners of the Great Fair—THE COUNCIL MEDAL. It is an honor, sir, (Mr. McCORMICK,) of which you may be justly proud; for your skill and talent have given to the world an implement or machine of rare utility, contributing largely to the general character of most American objects presented for the world's examination; its character of usefulness to

* Mr. McCORMICK claims the date of his invention in 1831. *Vide* Minor's *Mechanics* Magazine, 1834.

man directly aiding in the supply of sustenance at a reduced cost, and indirectly increasing his comforts and welfare.

The executive board of the New-York State Agricultural Society, and every member of the Association, must experience pleasure of no ordinary degree in witnessing the expert application of the mechanic arts, their properties and powers, to objects closely allied to the high calling of the farmer; they rejoice in your success, and hail it, together with other important and successful objects now presented here for their commendation and reward, as a proof that the bright dawn of knowledge is darting its rays over this agricultural nation. As an evidence of their satisfaction, and on their behalf, I present to you the Gold Medal of the Society.

The advance of science has recently brought to our knowledge the preparation and use of an article not only important as food, but also essential in the arts. We have had occasion to mention the high value of the Indian corn, and we might with advantage allude to many of its uses and properties; at present we must confine our remarks to a *new* product from this valuable grain, known as CORN STARCH, and yet another, as the FECULA OF MAIZE. It was in the winter of 1849-'50 that Mr. WILLARD and his associates, of Auburn, established extensive works at Oswego for the preparation of these important products—an establishment covering an area of 49,000 square feet. As the proprietors have to some extent held unrevealed the process by which they produce a *starch* more pure than the starch of commerce, we may not indulge in speculative curiosity; yet we can hardly doubt their great success is mainly attributable to perfect machinery, guided by science and talent.* The rapid and extended demand for these new products presents sufficient evidence of their character; as we are told that about three millions of pounds of this corn starch are demanded annually by the trade, notwithstanding the usual supply of wheat starch is undiminished. A remarkable feature of corn starch is the absence of impurities; upon being subjected to analysis, it is found that only $2\frac{7}{100}$ parts in 1000 are of other matter than pure starch. According to URE, wheat yields only thirty-five to forty per cent. of good starch, a material extensively used in arts and manufactures.

In addition to starch, the OSWEGO STARCH FACTORY produces from Indian corn a fecula peculiarly adapted to culinary purposes, presenting to our domestic economy one of the most acceptable, pure, and nutritious articles of food. Already has it become an indispensable household article, and is consumed largely at home and abroad. The factory, though in its infancy, consumes annually 150,000 bushels of corn, equal to about nine

* MESSRS. T. KINGSFORD & SON have the entire charge of the preparation and manufacture of the articles from the Oswego Starch Factory.

millions of pounds in weight. Hitherto, the quantities of starch used for laundry purposes and in our manufactories have been produced from costly wheats; though it may be found in many vegetable substances, such as potatoes, the horse chestnut, and other seeds. In England, where bread stuffs, particularly wheat, have been raised in quantities inadequate to the demand for food, attempts have been made to convert the viscid matter of *Lichens* into a gum for the use of calico printers, paper makers, ink makers—for the stiffening of silks, crapes, and the endless variety of dry goods, which, by means of these gums or starch, are made to appear of greater consistency. Most of these attempts had partial success; yet the making of starch from wheat has not been arrested.

The Oswego Starch Factory has happily introduced the use of Indian corn, as a grain producing a larger proportion of pure amylaceous properties than any other known vegetable substance; proffering to the American manufacturer another economic advantage, sustaining in a most legitimate manner sound rivalry and competition with all the world.

I am not aware whether the Oswego Factory has converted its starch into gum—a process easily accomplished by heat, and thus rendered soluble in cold water, which cannot be done while in its condition of starch. Here is another result of vast importance derivable from our Indian corn; and we can well conceive that, in a short period of time, the advantages now derived from the production of *corn starch* may grow into a national benefit.

To Dr. WILLARD and his associates of the Oswego Starch Factory we feel unfeigned pleasure in the presentation of this Golden Medal, for the merit of perfecting an establishment of so great importance as the Oswego Starch Factory, and for the credit conferred on your State by deserving and obtaining the Prize Medal from the Commissioners and Judges of the Industrial Exhibition. We feel, sir, an equal degree of satisfaction in presenting this Silver Medal to your association, in testimony of our estimation of your second product, the *fecula of maize*, for which you received honorable mention from the Judges of the World's Fair.

Gentlemen,—For many ages man depended more on physical force, and less upon knowledge. They knew but little of the properties of matter or of the laws which govern motion. Industry was inculcated, force was encouraged, patience coveted, and, with these attributes, he effected his desires—desires necessarily restricted, and demanding much self denial, because these attributes could never accomplish the frequent repetition of his wishes. In this our day, knowledge excites to experiment, and art, springing from science, creates new wants; these wants, acting upon our inventive genius, give the means for supply; thus, like the reciprocating

action of a perfect machine, the power and effect are in due proportion. Increasing or accumulating results are ever creating a necessity for power—for a greater supply to meet a greater demand.

If an opinion may be hazarded thus early as to the effects of the Industrial Exhibition, seen at this distance, it may not, as before intimated, be as favorable to the progress of man's happiness as has been fondly anticipated by many; because art has been stimulated *chiefly* in the production of articles which minister to luxury, to ornament, and to the non-essentials of truth and virtue in a people; and excess of luxury has never failed to bring distress upon the earth, upon nations as well as individuals. The remark is true, that "as the mind is enlightened it becomes more dignified;" but, if the mind submits to the enervating influences of ease and luxury, its vigor fails—its powers become latent.

In connection with these observations, we may notice the character of nations, as displayed in their respective offerings at the World's Fair. True, the highest effort of mind was there; the vigor of British intellect was conspicuous—European skill displayed the most surprising efforts of ingenuity—and Asiatic art secured the attention of admiring crowds. Our countrymen, in plain and simple forms, presented offerings whereby man should be sustained and his every essential want gratified; while no unnecessary or enervating appetite or desire was kindled, encouraged, or gratified. The unalloyed happiness of the human family seemed to be the aim of American effort—nearly all, possessing a magic influence, leading by their powers to wealth, fame, and honor. It may be said also that the offerings from the United States exhibited a *combination* of *theory* and *practice*, proving (with few exceptions) that science and experiment go hand in hand; repressing the bold presumption of mere enthusiasts, who would direct all things by their crude, abstract, and ill digested notions.

As the "end of all science is to enrich human life with *useful* inventions and arts,"* we have reason to rejoice in the skill of our fellow citizens, as recently displayed and rewarded in Great Britain; we have reason to rejoice in the elevation of mind derived from study, as well as from the practical operations of the factory or work shop; we have reason to rejoice in the advance of knowledge in our happy and favored land. While thus rejoicing, let us not expose ourselves to the errors of self sufficiency and arrogance; let us ever bear in mind that whatever talent we possess, whatever power or influence we wield, they are trusts committed to us—their number and importance being evidence of confidence reposed in the possessor, and of the high hopes and expectations looked for in return. We all have a duty to perform—

none beyond our respective powers—for that duty is in proportion to the talent each may hold; to perform our respective duties, we have been commanded and most affectionately invited. If we neglect it, a rigid accountability awaits us; if we obey, who can recount the high rewards of that obedience?

NOTES.

The Exhibition in London had for its declared objects “the furtherance of every branch of human industry, by the comparison of the processes employed and of results obtained by all the nations of the earth;” “the promotion of kindly international feelings, by the practical illustration of the advantages which may be derived by each country from what has been done by others.”

DAVID DICK (J. E. HOLMES, Matteawan, N. Y., Agent,) was awarded a Council Medal for his Anti-Friction Presses, which were among the most valuable of the machinery on exhibition; and the right to manufacture and use the machines in Great Britain and her Colonies was disposed of at a very large price. The award to Mr. D. having been paid previous to the Annual Meeting, his name does not appear among those to whom Medals were presented.

On the delivery to Mr. B. B. KIRTLAND, by the President, of the Silver Cup awarded him, Mr. KIRTLAND acknowledged, in very appropriate terms, the compliment which had been paid him by the Society.

Mr. JOHNSON, on behalf of Messrs. Prouty & Mears, and of Mr. McCormick; SOLON ROBINSON, Esq., editor of the Plow, on behalf of Messrs. A. B. Allen & Co.; and Hon. GEORGE UNDERWOOD, on behalf of the Oswego Starch Factory, made appropriate remarks in acknowledgment of the awards which had been made to the respective parties.

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