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ADDRESS

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BY WILLIAM S. KING, ESQ., EDITOR OF THE BOSTON "JOURNAL OF AGRICULTURE."

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ADDRESS.

BY WILLIAM S. KING, MANTON, R. I.

Mr. President and Gentlemen, of the New Hampshire Agricultural Society,—

It is a truth, that all have their PREJUDICES. There is no man, no class of men, no nation, that has not prejudices, peculiar to the individual, the class, and the people.

The Lawyer, reared with a reverence for black-letter, and the mould of age, bows with a delighted awe before some statute, with its steel-trap clauses, that has come down to us, from the days of "good Queen Bess." The prolix statement of a small matter, ingeniously avoiding all reference to the facts aimed at, and rendered still more obscure by an interlarding of villainously-bad Latin, he regards as the very "perfection of human reason;" and we have seen him contend, with an energy worthy of a better cause, for the retention of abuses, that, to him, were hallowed by Time.

Physicians, of every school, are filled with prejudices. The *Allopath*, pointing back with pride to Æs-

culapius and Hippocrates, and to the myriads, who have consented to be killed or cured, secundem artem, is eloquent of the beauties of the bolus and the blister;with Epicurean gusto, he descants on the excellence of Castor-oil, and the beautiful effects of Calomel Jalap;— Emetics, purgatives, tonics, and febrifuges, if we may believe him, are the very poetry of practice. Your Homeopath the while, - with his horror of bloodletting and blistering,-regards his Allopathic brother as little better than a diplomaed Spanish Inquisitor,a graduated and licensed butcher. This disciple of Hahnemann woos you to your grass-covered couch and final sleep, with sugared pills, and limpid drops. Hydropath raves of the luxury of a plunge-bath in a dark pool, with the thermometer at 3°; and holds up for your admiration the wet sheets, wherein you may shiver, then sweat, back to health. The Grahamite toils for a pallid cheek and sunken eye, by gormandizing bran bread and saw-dust puddings. In humble imitation of Nebuchadnezzar, he grazes on greens and cresses. Not one of these, because of the spectacles of prejudice, can see a grain of good in his brother. And, as with the practitioners, so it is with the patients; the blind followers of the blind.

The DIVINE, who has to do with the concerns of eternity;—to prepare the souls of fellow-sinners for a world and a judgment to come,—we might well hope to find free from prejudice, in the contemplation of the mighty interests committed to his charge. But no! Pastor and people look upon the narrow path which

they themselves tread, as the very best, if not the only road to heaven. The Presbyterian is prejudiced against the formalism of the Episcopalian, who insists upon kneeling, when he prays, and standing when he praises God. The Baptist has his prejudices against your Presbyterian, because he does not assent to the essentiality of immersion to salvation. The Methodist roundly rates his Baptist brother, for not admitting the benefits of a migratory ministry. And all fall afoul of the unfortunate Unitarian, who refuses to look through any of their spectacles, and hand him over to unconditional damnation.

The Merchant mixes with all sorts of men in his business; finds it to his interest to please all; and, as one of a class, is, perhaps, more free than many others, from prejudices.

The Mechanic partakes much of the same character. The Politician is a perfect pile of prejudices. In his eyes, his opponents have no one good quality; his friends, no faults. Bring forth from the crowd a candidate for any office in the gift of the people,—from keeper of the pound to President,—and he, who was yesterday a worthy man and member of society, is to-day pronounced by opponents, (if we credit their vituperative assertions,) an unfit associate for felons. And the higher the office, the more bitter the Billingsgate. If, hereafter, the hand of History, searching among the records of the past, should by evil chance clutch a bundle of party papers,—and the wrong bundle, at that,—future ages would read with astonishment, that

the world, where a free press was enjoyed, had been governed by a set of scoundrels, that would disgrace Pandemonium.

But to approach a step nearer to our subject, and to to-day's audience; your horse-man has his prejudices; insomuch, that he who is charmed with the graceful gait and fine form of the Black-Hawk tribe, can find nothing to admire in the well-knit frame and muscular action of the other Morgan horses; while, on his part, the Morgan man repays the prejudice, with interest. The lover of short-horns has his prejudices in favor of a square build and majestic size. The Devon breeder boasts that his favorite will come, sleek and well-conditioned, from a pasture where the Durham would die of starvation. And the patriotic Yankee crows a very "Chapman" note upon the merits of "Our Native Stock."

Nations have their prejudices. "My son," said a turbaned Turk, as he pointed out to a young Mohammed, in the streets of Constantinople, a Parisian dandy, tricked out in the latest lady-killing fashion; "My son, if ever you forget God and his prophet, you will come to look like that!" And the eyes of the horrified little Turk, following the direction of his father's finger, gazed on the Frenchman, through the mist of Moslem prejudice. The Greenlander, guzzling train oil with a relish, pities the poor John Bull, who stuffs himself with beef and plum-pudding. The wild Indian, who trod the Western prairie, looked upon the white man,

and the comforts of civilization, as the wolf regarded the lot of the collar-marked house-dog.

Not many months ago, the principal countries of the Earth were represented at an "Exhibition of the Industry of all Nations;" and, with her elder sisters, came the Cinderella of the family,-Young AMERICA. Haughty Austria paraded there her gorgeous furniture and rich hangings. Sunny France sent her Sevres ware; her ornaments of gold and her ornaments of silver; rich jewels and silks;—all that could captivate the eye of taste and refinement. Great Britain crowded her own Crystal Palace with her rich and extensive contribution. Italy, Spain, Greece, Prussia, even Turkey were represented there in gold and silver, and precious stones, statuary, and fine fabrics; but Cinderella had brought with her only the implements of her toilher daily companions,-which constant practice had enabled her to improve upon. There were plows, such as the American farmer uses; differing much from the favorite patterns of Englishmen, and all others. There were her reapers; her flour; her meat-biscuit; and many an other valuable and useful contribution.

But blear-eyed Prejudice stalked through the long aisles of the Palace of Glass; and in all the show of this trans-atlantic sister, the older nations of the earth could see no good thing. She was the subject of their scorn, and the point of their jests. "Do you wish to be in solitude," said a presumptuous official, "go to the United States quarter,—the prairie land!"

It was our fortune to have there, among others, one man, who deserves honorable mention at this farmer's festival,—the Commissioner from the State of New York, B. P. Johnson; then, as now, Secretary of the NEW YORK STATE AGRICUTURAL SOCIETY. For many dreary weeks, he stood almost alone; sad and desolate, amid the neglected contributions of his country. Who chanced to visit us, came to sneer. "These Yankee plows," said an unusually unprejudiced visitor, one day, "may do well enough among the rocks and stumps of America; but they are not comparable, for general work, to our English plows, or even to the Belgian." "Do you know," retorted Johnson, "that in our country, we have fields, without a fence, or a rock, or a stump, larger than your whole island of Great Britain; and these plows are found to work well there, as they will work well anywhere. This flour is made from the wheat, you see yonder; and the wheat was grown on land plowed with implements like these; that crop of wheat averaged 62 1-2 bushels to the acre, weighing 63 pounds to the bushel." So with the reapers. The London Times paraded an account of the American department, and christened McCormick's machine, "a cross betwixt a flying-machine, a tread-mill, and an Astley's chariot." "That flying machine must be tested on the field," insisted the sturdy Johnson, "and let them laugh that win." The tread-mill was tried. The grain, green and storm-soaked as it was, went down before it, as if it were the shears of Fate; and loud, though late, were the honest congratulations of our discomfited critics. The introduction of the American Reaper, alone, was by common consent, allowed to compensate England for all the gross expenses of the Exhibition. In like manner, the plows were found to work well on English land. And, finally, the bitter opponent of all that is American and republican,—that same London Times—confessed that the United States, by their contributions for ensuring the good of the many, instead of pandering to the luxuries of the few, had carried off the palm, in this World's Tournament.

Why was it, that at the eleventh hour, only, was justice done to one of the competing countries? Why did thousands, whose voices were afterwards loudest in praise,—to their honor be this said,—for so long a time speak, but to scoff? Prejudice had pre-occupied their minds, and jaundiced their vision.

As this is a Farmer's Festival, and a great proportion of the thousands before me are farmers, I shall not enter farther upon the wide field of man's Prejudices; but confine myself to a description of The Prejudices of Farmers. And if, as we have seen, all classes of men, and all nations have prejudices, what wonder is it, that the farmer has his prejudices! In thus declaring, I simply pronounce him to be a man, and not unlike other men.

The first of these prejudices, that now occurs to me, is that against, what many of you are pleased to term in scorn, Book Farming. It would be exceedingly amusing, were it not for the painful reflections that, at

the same time, occur to one, to mark the look, and tone, and manner of ineffable disgust, with which one of our old-time farmers mentions a new-light cultivator, who subscribes to agricultural papers that inculcate science, and is silly enough to search in printed books, for information to direct his labors. "The field, The Field," says old Father Stand-still, "is the school-room for me; the plow-tail is the desk I want, and Nature's great page, the only book that I peruse."

What is called Book-farming, is simply the appropriation of the experience of other farmers; which they, or others for them, have thought proper to print. If a farmer, known to you to be a good farmer and a truthtelling man, tells you that by a system of management, differing somewhat from yours, he has nearly doubled his crops, you listen with widely-opened ears; you store in memory every particular of his proceeding, and you determine to pursue another year, that plan that has so well answered the purposes of your neighbor. But, if this very man, desirous of benefiting a whole community by his experience, and having too much business at home to go abroad repeating his success from man to man, by word of mouth, shall write out his experiment, and cause it to be printed in a book, or periodical, that moment it becomes a part of book-farming, and ceases to have virtue, in the eyes of many. There is a magic in types, it would seem, that converts what is wisdom when spoken, into folly when printed.

But the species of Book-farming that above all others call into play the prejudices of working farmers, is the printed advice of men, who work more with their brains than with their hands;—of men, who observe the operations of others, and carry into practice, by the hands of hired help, what commends itself to their judgment, by its fruits;—of men, who regard agriculture as a science.

What is this but a prejudice against Mind;—against Mind, as applied to agriculture? This prejudice is unreasonable, not to say absurd. It declares that God has given to the farmer reason; but not that he may apply it, as other men do, to the advancement of his calling; so that every year shall witness improvements in husbandry, as every year witnesses improvements in mechanics, or other sciences; not that by its exercise he shall be a better farmer, ten years hence, than he was ten years ago, or than his grand-father was before him;—for the thorough-going old-fashioned farmer scouts the idea of improvement; he is contented to tread in the tracks of his progenitors, neither asking nor caring whether or not there is any safer and better path.

Now, I am prepared to say,—and, I think, to prove, that every other branch of industry, and every occupation of man, has advanced toward perfection just in proportion as Mind has been brought to bear upon it; and there can no reason be given, why agriculture should be an exception.

War, as a serious occupation of man, is the only one that contests antiquity with agriculture. As soon after the fall, as there were human beings enough to consti-

tute a respectable fight, we had WAR. And the history of every nation, that has come down to us through the mists of tradition, or appears on the chronicler's page, is little less than a narrative of their broils and contentions. For many centuries, brute strength was the only force applied to attain victory; hence the horses of ancient history are all prodigies of muscular power, as well as of prowess. But, by and by, the mighty interests at stake, brought MIND into the conflict, and mere muscular force ceased to be pre-eminently esteemed; for the gigantic strength of an Ajax became very weakness before the little pellet of lead, that Mind had prepared and propelled. In the days of the Trojan war the puny person of Napoleon Bonaparte would have contrasted strangely with the huge bulk of the contestdemigods; but it requires little wisdom to assure us, that with a battalion, such as earned for him, by their rolling discharges at Aboukir, the name of King of Fire; or with a battery, such as swept the ensanguined plain of Borodino, the Grecian heroes would soon have been hurried in an unseemly flight to a disorderly embarkation; or the walls of Troy been battered about the ears of its defenders in a day.

The "consummation devoutly desired" in battle, is to slay, maim, and capture as many of the opposing host as possible; and the records of blood will testify that ten thousand can now be murdered, mutilated, or imprisoned with greater ease, than a score were killed of yore. Mind has worked the change; and now the fate of armies is decided, not by the actual shock of

arms, but by the skill of most accomplished chess-players on the bloody board. Our Mexican war has given us a terrible fame, as a martial people, and we are justly proud of the prowess of our troops; yet all previous history will bear me out in the assertion, that a change of generals would have changed the tide of success. The Austrians, who had conquered the French in Italy and threatened them with death by the sword or by starvation, were in turn chased, like sheep, over the mountains, as soon as one Mind was added to the forces of the defeated French.

It is difficult to evade the conclusion, that the mind of one man may be equal to the combined force of toiling thousands; yet farmers are found, who, in practice, deny that the application of intellect could at all advance their interests.

Let us look at Commerce,—Commerce is the carrier of Agriculture, but *Mind* has been brought to bear upon its operations; and in place of the unsafe craft, that once "crept cautiously from head-land to head-land," the mighty steamship is now employed to draw together continents; and there is not a sea, however remote, that is not plowed by an American keel; nor a wind, whether loaded with sleet at the pole or warmed by the sun's hot breath at the equator, that does not fill an American sail and unfold her glorious stars and stripes.

Manufactures are but the maid-servants of Agriculture, toiling and spinning in her halls; *Mind* has offered her aid; and the old hand-looms are garretted, to

make room for machinery, that seems to possess an almost diabolical intelligence,—a miraculous power.

Our Mechanics have given to the farmer the Plow and the Reaper, the Drill and the Cultivator, the Hay-Cutter and the Grain-Thresher, the Fanning-Mill and all the other improvements in agricultural implements, of which farmers sometimes make boast. And they have been able to do these things by an application of mind to their occupation;—by the study of books, as containing the experience of the more eminent mechanics;—by earnest thought.

But to come to the second prejudice of farmers. As a class they say, that especial Education is not necessary for them;—an education, adapted to their occupation, as farmers, to teach them more than they now know, of their own business; thereby enabling them to improve upon the doings of their predecessors, as other classes of men have done;—an Agricultural Education, looking directly at their intended business for life.

The Shipwright, before he is able to launch upon the deep, those models of marine architecture, which, whether propelled by sails or steam, have alike carried our starry flag in triumph on the sea, has, in his youth, been apprenticed to a finished master of his craft; he has, so to speak, studied the alphabet of his trade under a competent teacher; and has pored, dreary hours long, over models, and lines, and rules laid down in books. No one of my hearers supposes, that the improvements made in ship-building, whereby, even before the introduction of steam on the ocean, we had already diminished the distance to the English coast from our own, by full one-half in twenty years, are the result of accident, or of fortunate guess work. No! constant study alone enabled the builders to improve upon every model, that was launched; until now, the work of our ship-yards is the admiration of the world. It may be here added, as an argument for education, that the conceded superiority of our ship-wrights even over those of our mother country,—Noble Old England,—is universally and unhesitatingly attributed to the fact, that our ship-builders are more generally men of inquiring minds and of education in their business.

The Mason, who rears your house-walls, and spans the swift stream with the striding arch, has had his years of apprenticeship and education. Much of his knowledge must come from books, but he does not therefore despise it.

The Painter, who sketches, with magic pencil, the glowing landscape, or "the human form divine," has prepared himself to execute those masterly touches, by previous care and study.

The Lawyer is educated with a steady view to his future profession.

The Physician acquires from books, and from observation, the knowledge of the healing art; that renders him a minister of mercy in our dwellings.

The Divine, whose errand is to warn the sinner to "flee from the wrath to come," and to comfort the part-

ing soul, about to wing its way on a dim and untried journey, learns to understand and to expound the will of his Heavenly Master, by continued perusal of the writings of the good and the learned.

All professions, all trades, all other occupations of men testify to the advantages of especial education; but the farmer is yet unconvinced. Men are not born with a natural knowledge of law, or of mechanics; so that after a little observation of the practice, they can take high rank in their respective occupations; but the farmer claims that he has, from youth, all the knowledge of his business that is necessary; and a few years of practice completes the education. If we allow that we merely desire to equal those who have preceded us, it may be that we can keep close to them, by walking in their footsteps; but the tendency of the age is to improvement;—the design of our Maker appears to be, that each generation of man should excel, in knowledge, its predecessor; -but it is idle to expect improvement, where all are content to be imitators.

The object of an agricultural education is, undoubtedly, to make *practical farmers*; and here, at the outset, we stumble over a prejudice, as to what constitutes a practical farmer.

My purpose here, as all know, is not,—cannot be,—to ridicule my hearers. I have too high a respect for those who called me hither,—for those who now so kindly listen to me,—for the great subject that we are discussing,—for my own character,—to attempt to throw ridicule upon any whom I address. But you

yourselves shall be judges of what yourselves declare to be a Practical Farmer.

To decide whether a stranger, who calls himself a farmer, has a right to the title, is not your first glance cast upon his clothes, to see if they be farmer-like; and your next upon his hands, to find if they are hardened by manual labor. If a man, in a black broadcloth dress coat, having hands fair to look upon, and uncalloused by contact with the plow-handle, presents himself to your notice, as a practical farmer, your politeness may or may not prevent you from laughing in his face, at the obvious absurdity of the claim; but you laugh none the less, in your sleeve, as you set him down for a fancy-farmer.

Now, Sirs, what right have you to deride this man's pretensions; and, off-hand, to pronounce that he is not a farmer, as accomplished as yourself, or even able to teach you what you have not yet learned, in your own occupation? It is because you consider that a practical farmer, is he, and he only, who labors with his hands; this would make them tough; and the necessities of his occupation would compel him to wear more homely apparel. Is it true, that this it is, and this alone, labor with the hands,—HARD WORK,—that makes the practical man? Then is your hired help, who follows the plow, day in and day out; who shivers in the wintry stable, and sweats at the harvest, many an hour when you are occupied about other affairs, a better practical farmer than you; for he often works more. Then is the ox, that he drives, the most practical, for

he wears rougher and tougher garments, has harder hands, and does more hard work, than either of you.

Farmers! you greatly mistake the meaning of the word practical. Stand with me upon the quarter deck of a ship, as she strips for a battle with the storm. The bullying winds roar. The threatening sky descends and contracts. The angry waves lift up their heads. The tempest-tost bark, now piercing the sky with her trembling masts, now driving headlong into the yawning trough of the sea, is freighted with human souls. they not now, if ever, need the services of a practical sailor to conduct them safely through the environing perils? Who then is he, to whom all eyes instinctively turn, as under God, their only hope? Is it that stalwart son of the sea, whose strength is the boast of the ship's company; -who can "swim farther, dive deeper, and come up drier, than any man in the crowd;"-who can "hand, and reef, and steer;"-who can mount the riging, with a squirrel's agility, and tie all the fast-knots, and sliding knots, that are the sailor's pride; and splice, or "lay a cable, with the next man;"-is this he, who is selected as the best practical sailor, to command the craft, in her hour of danger? Far from it, friends. The practical man, for the occasion, is you dapper little fellow, with soft, white palms; sporting, mayhap, a seal ring; and dressed, as if inclined to give to tar and pitch, and all other defiling substances, a wide berth. He it is;this man, who has been educated for his position, and who directs the labors of others,—he it is, who is the practical sailor.

If, then, in the hour of danger, when death rages for his prey, and the yawning sea shows the ready grave, men acknowledge the might of mind; why is it, that farmers will persist in undervaluing it? and will set up sinews before it?

As we cast our eyes over the country, we see it traversed in every direction by roads of iron; mighty hills are demolished, wide valleys are filled up, and swift streams are spanned by viaducts. The neigh of the steam-horse wakes the echoes, far and near; as with eyes of fire and with breath of pitchy smoke, he rushes along his iron road with the roar and strength of the avalanche. Now if there are things that practical men can surely do, the piling of dirt and stones into a long narrow heap; and the digging down of banks of earth; and the hammering of iron and the putting together of bolts and nuts and plates, must be among them. But we do not give to the thousands of brawny workmen, who ply pick and spade, the honor of building the railroad; nor do we credit to the faithful smith, who, obedient to directions, has wrought out a rod, and again hammered out a plate, the performances of the finished locomotive.

By and by,—as all now admit that a man may be a finished practical sailor, who does not defile his palms with pitch, oakum, or rattlin-stuff; and as one may claim to be a practical builder, rearing huge structures of granite, bridging rivers, and moving mountains, who does not harden his hands by the use of spade, pick, or crow; so will we acknowledge that a man may be a

practical farmer, competent to the management of acres, who does not toil all the day long at the plow-tail. To farm well, as to direct any other operation well, the foreman, whether he be master or man, must thoroughly understand how things ought to be done; and then the proverb will be found to hold true of farming, as of most things else,—"the eye of the master is of more value than his hands."

A great bug-bear to plain farmers, and a lion in the path of agricultural advancement, is Science; and this constitutes a third, in our list of PREJUDICES.

You have allowed yourselves to indulge the idea that a scientific farmer is one who goes a-field with his mouth crammed full of hard words, and his arms filled with gallipots from the drug-store. The manure for an acre of land, you have made him declare, he can carry in one vest pocket; and thereupon you retort, that the resultant crop he will be able to convey home in the other. Common opinion has stuffed his coat pocket with books, and his hat with pamphlets; and even from out his bosom peep papers, covered with calculations and estimates. Thus armed by the bookseller and the apothecary, you push him forth to the hayfield. Ask him when ought hay to be cut,—in the flower or in the seed,—and he answers from "Vol. 6, page 281." Speak of the depth of plowing or the quantity of manure to the acre; and you cause him to squat on the wall, till he can consult the tables of contents of a score of treatises, and read out the recorded experience of a hundred theorizers.

This man of print and pepper-boxes is not entirely the creature of your own creation; there are originals of this portrait,—men of mere pretensions to scientific acquirements, the more supercilious and presuming in proportion to their shallowness. These are the chaps who have created in the minds of farmers a prejudice against that science, of which they pretend to be teachers. These pretenders, these mere book-farmers build theories, and then try to twist and squeeze facts to accord with them.

A genius of this class once wandered into a country village. A thriving store-keeper of the place had lately added to his articles for sale, hides and leather; and as an appropriate sign, had drawn a calf's tail through a small knot-hole, leaving the bushy end hanging down. As he came once in a while to admire the effect of his own ingenuity, he observed a man draped in black, with white neckerchief and gold spectacles, intently observing, for hour after hour, this pendant tail.

- "My friend," said he at length, "do you want to buy hides?"
- "No;" abruptly answered the observer, without removing his eyes from the calf's caudal appendage.
 - "Are you a drover?"
- "No, I am a philosopher; and I am trying to satisfy my reason, how the calf got through that knot-hole."

These are the men who have brought ridicule upon science, instead of concentrating it upon themselves.

Now Science is simply knowledge reduced to a system; and this system, which has worked wonders in every other department of industry, we commend to you. Of water, Science has built bridges thousands of miles long, and upon this race-course of nations she has placed and propels steamers and sailing craft, plying with the regularity and despatch of an ordinary ferry-boat. The Sun has been instructed as a portrait-painter. The Lightning is harnessed as an express-man. And of late, we learn that the air we breathe has been made to labor in the cylinders of Ericsson, with a force superior to steam. These are the triumphs of Science, —of systematic knowledge.

Justice calls Science to her aid. They descend into the tomb. The dead are made to speak, and tell the terrible tale of their violent death.

With strained eye Science searches the heavens, to manifest the wondrous works of God. Twinkling plainly before her upraised glass is a star millions of miles distant. With patient calculation she traces the route traversed by this eye of heaven, back to its far-off source; and tells to her astonished hearers that this light, which has travelled at the rate of 20,000 miles in a second, has been 3541 years in coming from its distant home. Bessel, a Prussian, has discovered the distance of a fixed star to be sixty-three billions of miles from us. Sixty-three billions of miles! The mind of man refuses to conceive of such distance; he can but express it in figures.

Science, with reverent tread, approaches the very council chamber of the Creator; and, from off the outspread plan of the universe, reads his yet untold decrees. She tells of the day,—and names the very day and the hour and the fractions of a minute,—when "the face of the sun shall be darkened, and the moon shall refuse her light. She tells of the coming of the fiery comet. Nay, more. She dares to say that the completeness of the Divine plan of the universe, requires that a planet should exist, where none has been found; and hard upon the heels of the daring assertion comes the announcement of the discovery of the required planet.

Science thus bridges oceans, conquers time and space, and wrenches their secrets from the heavens; but farmers yet are found, who say that it cannot aid them to grow beans,—that it is not practical!

The washer-woman laughs at science, as she stands over her wash-tub, and uses soap. The smith smiles at the pretensions of scientific men, when he tires a wheel. But how many years of dabbling in grease and ashes would have enabled the woman to make a recipe for soap! And how many tons of iron would be heated and cooled before the blacksmith, of his own observation, would fathom the mystery of expansion and contraction!

Science is villified and ridiculed because she has not already explained all the secrets of Nature; and because, when inquired of by the farmer, she often errs. Allow to her as many years in the field of Agriculture, as she

has enjoyed,—yes, enjoyed and improved,—in other fields, and the results, which she will present,—not sell, but present,—to you, will be quite as astonishing and quite as incalculable in value. But cramped within confined limits, hooted at when she appears abroad, how is it possible that Science can do herself justice.

The practical farmers,—fondly so styling themselves,—have had in possession "the cattle on a thousand hills," and the thousand hills themselves, for over five thousand years; but are now unable to tell how many pounds of hay go to a pound of beef. And in this vast assemblage we could not agree with unanimity upon such questions as these;—whether is it better, to plant large potatoes or small?—to top corn, or to cut it up at the butt?—to strip off suckers or not?—to cut grass in the flower or in the seed?

These are plain questions, which one would suppose might be answered by a thirteen-year-old boy, of ordinary observation; but five thousand years of feeding and killing and cutting up, and of planting and reaping and gathering into garners, have not enabled the farmer to decide these and other mooted points. Is it, then, an exaction on the part of Science, to demand "a clear field and no favor" for ten or twenty years, at least? Is it unreasonable?

Few valuable inventions or improvements have resulted from guess-work, or from following in the cidermill-track of an established routine. So the farmer may vainly hope to improve upon the knowledge of his predecessors, if he studies only to follow in their footsteps;

and the success that is the result of chance, and not of calculation, is a poor dependance for him, who relies for his daily bread upon the bounteous yield of the soil. A certain system is necessary to obtain facts; and by these facts we must alter and amend our system. Most good farmers, even among those most loud-mouthed in decrying Science, are, in the main, scientific farmers. great operations of their farms are conducted upon a system, born of observation and experience. Thus they know, by a series of observations, that it is not well to sow wheat upon newly-manured land; but in preference plant corn there, and follow it with a wheat crop. But they will not carry this system into the details of farmmanagement, and learn the whys and the wherefores,the causes and effects,-by the same system, watchful and long-continued, that taught them the prominent Science unlocks these mysteries, shows the facts. reasons of things and tells to the inquiring farmer, that an over-supply of ammonia will force his wheat, when sown on land dressed with green manure, into a rank and unnatural luxuriance :-- that the stalk will be weak in texture and unable to support the head of grain; and that the wheat will lodge.

Precisely thus, medical men, before the day of Hervey, were acquainted with the fact, that a bandage tightly encompassing the arm or leg, would cause the veins to stand out like whip-cords; but until Science enabled Hervey to proclaim his theory of the circulation of the blood, no reason could be given for the phenomenon. Ere Jenner lived, it was known that milk-maids

were liable to an eruptive form of disease, caught of the cows; it was noticed, too, that those thus attacked were not subject to the small-pox: but Science,—a series of observations, directed by an enlightened reason,—proved to him, alone, from these generally known facts, that Vaccination was a perfect shield from that dreadful scourge. Thus farmers know the leading facts, which are not only important, but indispensable to successful cultivation; but it is the scientific farmer, only, who makes of these a key to unlock the inner chamber of the temple of knowledge; he it is, who uses every fact as a stepping stone to reach a higher.

Scientific Agriculture is the cultivation of the earth by rule, and not by guess-work. Indeed, when and where guessing ends and system begins, then and there is the birth, and the birth-place of Science.

How many farms, gentlemen, within the reach of your observation, are, by this definition, scientifically cultivated? On how many is the depth of the plowing gauged by the depth of the soil, the character of the subsoil, and a wise intention to render the fertile loam deeper year after year, inch by inch? How many farmers of your acquaintance, who enter on a farm with a soil three inches deep, undertake, as they well and easily might, to render it in ten years, twelve inches deep? I would tell you here, that the experiments of thousands of farmers have proved, that by thrusting the point of your plow one inch, or three-quarters of an inch deeper at each plowing and bringing to the sur-

face so much of the inert subsoil, to be operated on by the atmosphere and to be benefitted by the manure year after year, you will to this extent increase your active fertile soil, and gradually create another farm, as it were, under your old one. But this would be scientific farming; and, consequently, in the opinion of too many farmers, mere nonsense; notwithstanding that facts, plenty as blackberries, confront them with evidence.

On how many farms in this State, or in any State, is the manure applied with sufficient knowledge of the component parts, and consequently of the wants, of the On how many is the manure itself prepared and preserved, so that it retains all of its valuable constituents? Why, gentlemen, if one were to say that plants, to thrive, require food in certain proportions; and that if one of the necessary substances is not present in the soil, and is not supplied in the manure, the plant cannot thrive; and that in proportion as you have or apply the precise quantity of each ingredient necessary, so nearly do you come to getting the maximum crop,you would set it down at once, in scorn, as scientific farming! And yet how else do you account for the fact, that one man grows a hundred bushels of corn to an acre and another but twenty? Why, clearly, because the land whereon grew the hundred bushels was naturally, or by scientific treatment, in a proper condition for corn-bearing,-had in its womb all the necessary kinds, and enough of each kind of food, that the young and the growing plant required for its leaves,

its stalk, its tassel and its ear. And how do you account for the fact, that you do not get an equal crop on the same ground the next year? Why, because the first crop has eaten up a good share of the food in the ground-pantry; and the third season, (if any man is silly enough to try corn again on the same ground, without having supplied food by manure,) the third crop would find the shelves pretty well cleaned; and the progeny of that year would be pigmies.

On how many farms in New Hampshire is an accurate calculation made of the cost of growing different crops, so as to decide which is the most profitable to raise? On how many farms is an account kept of outlay and income from each field and each animal, that the prudent husbandman may know where is the mouse-hole in his meal-bin? This is not done because it would be scientific farming. To be sure, a merchant who pretended to carry on an extensive business without keeping books, and without taking now and then "an account of stock;" or who continued to deal in certain styles of goods, without knowing whether he was making or losing money by the operation, would be held insane. But surely that is no reason why a man, who prides himself on being a plain practical farmer, should farm by arithmetic.

Do farmers hereabout, or farmers generally anywhere, attempt gradually to improve their seed by early and judicious selection; and by always planting the best, instead of reserving the worst for that purpose; or do they sell all that is fit to be sold, and keep the

poorest for home use and for seed? This gradual improvement of seed, such as Mr. Brown, on an island in Lake Winnepesaukee has made in corn—known as Brown corn—and as many others have made in many plants, and fruits, and flowers, by the simple selection of seed, with judicious cultivation,—this smacks rather too much of Science, for a practical farmer.

Scientific Agriculture recognizes the fact, that manures are not economically applied, to exert their best influences, upon soils where water too much abounds: and recommends drainage. "And so," say you, "does every practical farmer, who knows beans." Well, perhaps every practical farmer does not "know beans," or he would recognize them in a good share of the readyburned coffee, that he buys! At any rate, how different the operations of the systematic and of the guess-work drainer. The first discovers the secret springs, that supply the superfluity of water; and so locates his drains, and so to cut off the vein before it opens on the surface. While nine-tenths of your practical men dig ditches in the lowest part of the meadow, where the water stands:-forgetful that an ounce of prevention is worth a pound of cure. This subject of drainage opens too vast a field for me to venture upon it at this time.

This same rule of prevention causes your scientific farmer to do all things in season. He stirs up the earth between the drills of his crops, with the hoe or cultivator, to kill the weeds, before they attain to great size, and strength, and appetite. There is no such glutton as your weed. Like a sharper among honest folks,

it defrauds the legitimate owner of what rightfully belongs to him. With coolest impudence, it steals from the young and tender plant three fourths of its food, and grows in consequence three inches to its one; Mr. Weed over-tops it; he bullies it, as it were, after reducing its strength by starvation. By and by, he claims the ground as his own, and flourishes in undisturbed possession. He becomes seedy at length; establishes a large family, in good quarters to rob succeeding crops of potatoes and carrots; and is only uprooted and punished when he has about run the length of his evil course.

Agriculture is understood to express, not merely the cultivation of the land, but also all the operations incidental to it, or consequential upon it. Accordingly, we find Science in the Stock-YARD. The same enlightened system, that prevails in the field, is introduced here. Acting upon the well-established rule that "like begets like," she selects fit moulds, and builds up breeds of cattle for the shambles, square and ponderous, like the lordly Durhams; and again for the yoke she prepares the beautiful and agile Devon; for the milk-pail she reserves families of each of these breeds, in which big udders and profuse secretions of milk are hereditary. For the churn she shows the gentle Jersey cow; seven quarts of whose milk will yield a pound of butter.

Among Swine, this same wise System, — a synonyme for Science — has produced the Suffolk, the Middlesex, and other breeds, that run to fat, as naturally as a turtle-fed alderman;—they eat, they grunt, they sleep their

lives away, until they have attained to a very Lambertism of obesity: and then, with a gurgling in the throat they change into pork and are laid down in the barrel.

These noble horses, too, whose ardent neighth comes even now to our ears, were fashioned by Science! Ask the breeder if the fine points of his prancing steed are come by chance? and he will indignantly tell you, No. He was bred systematically, or, as we chose to call it, "for short," scientifically. He has regard to the best points of sire and dam, and with careful consideration has produced the animal we admire.

Science is at home in the manger and in the manure cellar. She tells us what feed goes to the making of bone and muscle for the young and growing calf; and what makes fat on the stalled ox. She tells us what gives speed,—because it supplies the wear and tear of tendon and bone,—to the racer; and what will lap the lazy pig in Elysium, until he wakes to the sight of the gleaming knife, struggles, groans and dies.

So with the manure heap, she is a safe and learned counsellor. She tells you that, when exposed, its strength is washed away by the rains; and darkening the current of yon bubbling brook, is carried away from you, forever. She bawls in your deaf ears, "house it; prepare a cellar beneath your barn, or at least, a roof to protect it from the thievish element." She points out to your wilfully blind eyes the escaping gases, disengaged by the sun, and flying off upon the wind's wings. Doing nothing by halves, she holds out to your closed and retracted hand, absorbents and divisors

—such as charcoal dust, and peat, and muck. She tells you of the value of Guano and other fertilizers, and instructs you in the mode of applying them.

In the Garden, and the Orchard, and the Green-house, Science has been made welcome, and we see her doings there. The mean Crab has become the blooming Baldwin; the bitter Sloe, or the Wild-Bullace, has been changed into the precious Plum; the Beam-tree has no longer its small and acerb berries, but bears bouncing Bartletts. The wild Cole-wort, that grew, small and thriftless, on the sea-shore cliffs, has been improved into the big-headed Bergen Cabbage. Pitiful weeds or insignificant field-flowers are made blooming ornaments of the garden and the green-house. Here, in Horticulture, may be seen some of the rarest triumphs of Agricultural Science.

In view of what has been said of Scientific Agriculture, many of my hearers will say,—"Why, if this is your scientific farming, we have been scientific farmers all our lives without knowing it. We plow, we manure, we drain, we breed cattle and swine and horses, we house our manure, we prune and scrape our trees, and everything—just as you say Scientific Agriculture commands,—upon a system that practice has proved to be correct."

Gentlemen, fellow-farmers, I am fully aware of the fact, that many of the sturdiest opposers of Science are, practically, Scientific farmers, denouncing Science as a name without examination or inquiry.

A fourth prejudice of farmers is against, what are sneeringly denounced as, New-fangled notions.

New-fangled notions! And why may not the newfangled be as valuable as the old-fangled notions? Gentlemen, we make the manifest mixtake of looking backward, toward the infancy of the world, for knowledge; and towards its darkness, for light. Does wisdom come of experience? We have the experience of all the farmers from Abel's day, down to your President Nesmith's; and our own little stock, added thereto, to be handed down to our children. Does wisdom come of travel and observation? We can now, with ease and comfort, fly over a hundred miles of road; where our forefathers with difficulty accomplished one. Does wisdom come of reading? We have libraries of books, where our ancestors could boast of single volumes. And yet we prate, constantly, of the wisdom of our forefathers, and we denounce, what they never had a chance of knowing, because it has not the aroma of antiquity about it. Gentlemen, I reverence age, as much as any one; but if wisdom comes of age, on the heads of this generation are the hoar-frosts of five thousand years; and we, who now live, are the true, grey-bearded, ANCIENTS!

We have thus more years to boast than our forefathers; we can acquire more knowledge by travel, and a comparison of notes than they, because of our increased facilities; we have all the learning of their day, and more, handed down to us; we have all their experience, with our own added lot; and yet we are told to regard these men—with their no more than equal intelligence, and inferior privileges, as oracles. We don't ride to mill now, as some of our grandfathers did, with the meal in one end of the sack; and, to balance it, a stone in the other. Why then should we keep up other of their antiquated notions? One of two things must we choose;—either to acknowlege, with mortification, that the race of men has dwindled in intellect; or that the prejudices, so prevalent against new-fangled notions,—merely because they are new, and conflict with the experience of a gone generation,—is absurd.

One more point, and I have done. We find Prejudices at our firesides. The fond mother — who sees in the unfolding mind of her young son evidences of more than ordinary intellect,—thinks that his talents will be thrown away, or hid under a bushel, if he is made a farmer of; and straightway determines, in her own mind, that her darling shall shine as a lawyer, or "wag his jaw in a pulpit." The poet has said of woman, that

When she will, she will, you may depend on't; And when she won't, she won't; and there's an end on't.'

And those of us who have wives—all of us, know how much of truth there is in the description!

Mr. President, I see the reproachful glances cast at me by the fairer portion of my audience, for this apt quotation; and I hasten to add that another poet, equally well versed in human nature, and of equal authority, writes thus:

"The lords of creation men we call, And they think they rule the whole; But they 're much mistaken after all, For they 're under woman's control."

There is much of truth in both these descriptions.

But let me not, Sir, while I occupy this responsible position, appear, even in jest, to undervalue woman; faithful, untiring, devoted Woman! Man's first, last, best comforter on earth. Cradled upon her bosom, and shielded in her protecting arms; we pass, happily, the helpless years of infancy. She is our guardian and guide, in youth; the friend and faithful counsellor of our manhood; and our heavy head rests in death, as at birth, upon the true heart of woman!

Oh, Woman! your's is a noble destiny! To you is committed the charge of the generation to come. To know what the world will be, when we are laid

"In the deep stillness of that dreamless state "Of sleep that knows no waking joys again!"

We need but to ask, "What are the mothers, now?" In your hands, for evil or for good, is (under God,) the fate of the world. The old gnarled oak can be bent into no position; but that, in which the winds and the frosts of its youth have left it; but the tender twig, hereafter to be, perhaps, the pride of the forest, is under your control: "just as the twig is bent, the tree inclines." If then the generation of farmers, who are to succeed us, do not cause the glad earth to smile, amid the rich abundance of her good gifts to man;

it will be, because the women of this generation have not rightly reared the men of the next.

It is a prejudice of some, Sir: that woman is defrauded of her rights, by the laws, enacted by man. Old grannies in pantaloons, and pantaletts, preach the doctrine of the equality of the sexes; and contend that woman should hustle and elbow, among the dense crowd, a lane to the polls; while, in placid dignity, at home, she may be moulding a mind to sway the State; - that she is down trodden and oppressed, because not eligible by the breath of popular favor, to posts of preferment. Woman is eligible to a seat in the kingdom of God; and one of her highest, holiest, happiest, duties is to hasten the coming of His kingdom on earth, by preaching His truths to the listening and believing ear, that is now all her own,—the child, in the innocence of his early years. His throne on earth, is in the hearts of her husband and children; through them, ruling the world; and in them, peopling Heaven.

To return to the prejudices at home, Sir; it is but the necessary consequence of the prejudices, we entertain against the application of mind to agriculture; that talents are looked upon as buried, if their possessor is brought up as a farmer; — he has no theatre, we say, whereon to display his abilities. Hence, when we see rising up at our fire side, a fine boy with rich promise of rare faculties; instantly we decide, that he must be liberally educated, that hereafter he may shine as "a bright particular star" in one of the professions, — the Law, Medicine, or the Ministry.

Does he give evidence of possessing a shrewd and calculating mind, — he is at once put in training for a merchant; that he may rival those princes of trade, whose

> "——argosies, with portly sail, — Like seignors, and rich burghers of the flood; Or, as it were, the pageants of the sea, — Do over-peer the petty trafickers, That curt'sey to them, — do them reverence — As they fly by them with their woven wings."

The boy is educated from his early youth, with a view to a certain profession or business; and he is made to feel,—we are all willing to acknowledge,—that, if he expects success, he must depend upon the exercise of his intellectual faculties;—he must apply, not his hands only, but his mind also, to his occupation.

Do I do wrong to point your attention, fellow farmers, to the fact: that herein we stultify ourselves and debase our own calling, — making it a mere matter of thews and sinews, — while we cry up the professions, and trade, as calling for the exercise of those faculties, which, alone, make man superior to the brute creation? Can we wonder, that our children should regard farming, as a "low business for a lad of spirit;" and that, deserting the homestead, they crowd the professions, and the counting houses of merchants, as the avenues to wealth and distinction; — too often finding them the roads to disappointment and beggary; or if successful, equal with their highest hopes, too often

ready to acknowledge, at the summit of their ambition that

"——'tis better to be lowly born,
And range with humble livers, in content;
Than to be perked up in a glistering grief,
And wear a golden sorrow."

WE, Sirs, we have filled the cities with our children; we have driven them into temptation, and amid the haunts of vice; when, unprotected by saving home influences,—the father's word of warning and the mother's bed-side prayer,—they have too often filled the drunkard's or the gambler's grave; or, broken in health and spirit, come home but to die. And we have done this by undervaluing and degrading our own calling.

And in thus educating our children, we stultify ourselves; because we deny our own definition of a PRACTICAL MAN; we confess that he who writes the legal documents is not, necessarily, the practical lawyer; but, rather, he who uses the labor thus performed; and that he, who packs up the boxes and bales of merchandize, and toils in the drudgery of the store, is not the practical merchant, but a mere porter;—in a word, that mind makes the Man.

Mr. President and Gentlemen, I have now, to the best of my ability, discussed the subject in hand. Faithfully, so far as I knew it, I have declared "the truth, the whole truth, and nothing but the truth." If to-day, I have opened the eyes of one individual in this mighty assemblage, to the influence and effect of his Prejudices, my labor has not been spent in vain. Gen-

tlemen, we may boast of our achievements abroad and of our glories at home; but as "he that ruleth his spirit" is better "than he that taketh a city," so no campaign is so glorious, as that which shall terminate in the overthrow of our Prejudices.

GENERAL PIERCE being recognized by his fellow-citizens, and called forth when the address was concluded, was greeted with enthusiastic cheers, silence being restored, Gen. Pierce spoke as follows:

GEN. PIERCE'S REMARKS.

A speech from me, Mr. President would be out of place, and if it were otherwise, I would not mar the fine effect of what has been so appropriately and eloquently said by the gentleman who has just resumed his seat, by following with any crude remarks of my own. I hope that the address will be printed, and that it will find a place in the dwelling of every farmer in the State.

This has been one of the bright, pleasant days, which now and then cast their radiance over our pathway—dispelling the rigid expression from the brow of care—animating, with a rich glow, whatever meets the eye, and quickening within us all the sources of innocent enjoyment. I have in common with this vast audience, felt its power; and the satisfaction it has brought was at the moment alloyed only, by the regret, that such holidays, when practical improvement, delightful relax-

ation, and genial sympathy, were so happily blended, were not of more frequent occurrence.

The exhibition is, in all respects worthy of the State; the preparation and arrangement highly honorable to the gentlemen to whose hands they been committed, and to this county, so distinguished for the grandeur of its mountains, the beauty of its lake scenery, and the intelligence, industry, and probity of its sturdy population.

More than this will not be expected of me under existing circumstances. I came to see, to hear, and enjoy, not to speak; and I must ask my friends to excuse me, expressing only the hope, that, the reflection of "the Great Spirit" might never be cast upon a population less prosperous and happy.

^{*}Designation of Winnipissiogee; the Indian name of the beautiful lakes in the centre of Belknap county.











