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PROCEEDINGS

OF THE

Associated Agricultural Convention,

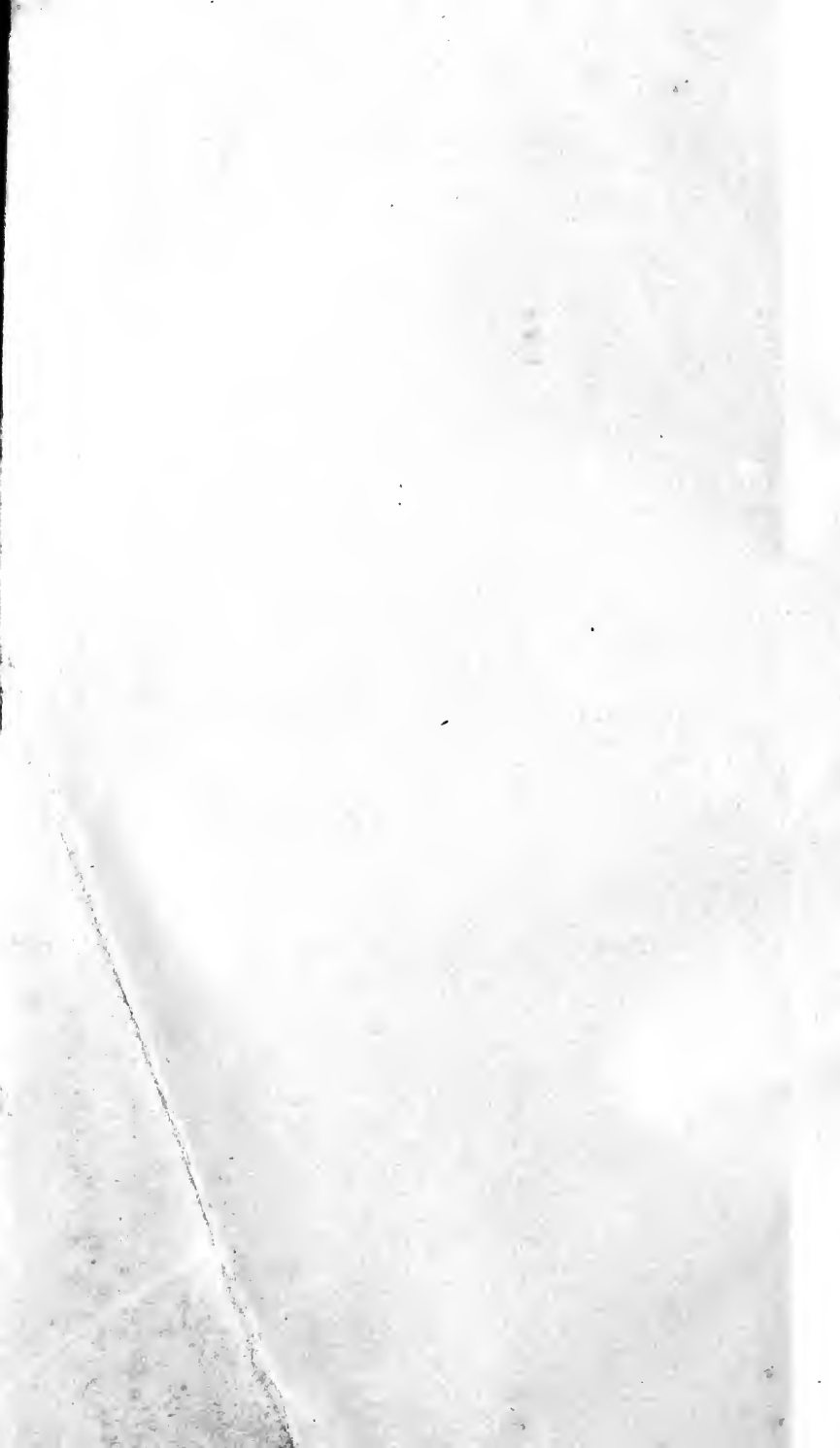
HELD AT THE

STATE HOUSE IN BOSTON,

Thursday, March 20, 1851.



BOSTON:  
J. M. HEWES & CO., 81 CORNHILL.  
1851.



CALIFORNIA

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OF THE

Associated Agricultural Convention,

HELD

AT THE STATE HOUSE IN BOSTON,

Thursday, March 20, 1851.

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BOSTON:

J. M. HEWES AND CO., PRINTERS, 81 CORNHILL.

1851.

COPY OF THE CALL  
OF THE  
ASSOCIATED AGRICULTURAL CONVENTION.

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At a meeting of the Board of Trustees of the NORFOLK AGRICULTURAL SOCIETY held at Dedham, January 28, 1851, the following proposition was adopted:

“That the President and Secretaries be a Committee to mature and adopt a plan for a Convention of Delegates from the various Agricultural Societies of the Commonwealth, to be holden at some convenient time and place, the object of which shall be to concert measures for their mutual advantage, and for the promotion of the cause of Agricultural Education.”

In the discharge of their duty, the Committee have addressed communications

|                          |                                             |
|--------------------------|---------------------------------------------|
| HON. LEVI LINCOLN, . . . | President of the Worcester County Society.  |
| JOHN W. PROCTOR, Esq.,   | “ “ Essex County Society.                   |
| HON. E. D. HOAR, . . .   | “ “ Middlesex County Society.               |
| MORGAN LEWIS, Esq., .    | “ “ Berkshire County Society.               |
| HON. SETH SPRAGUE, .     | “ “ Plymouth County Society.                |
| J. H. W. PAGE, Esq., .   | “ “ Bristol County Society.                 |
| HON. WILLIAM CLARK, .    | “ “ Hampshire, Hampden & Franklin Counties. |
| GEN. JEREMIAH MAYO, .    | “ “ Barnstable County Society.              |
| JOSIAH HOOKER, Esq., .   | “ “ Hampden County Society.                 |
| GILBERT MONSON, Esq.,    | “ “ Housatonic Society.                     |
| ALFRED BAKER, Esq., .    | “ “ East Hampshire Society.                 |
| HON. HENRY W. CUSHMAN,   | “ “ Franklin County Society.                |
| HON. GEORGE DENNY, .     | “ “ Westboro’ Society.                      |

All of the gentlemen above named have responded, and they cordially approve the plan of the Convention, and unite in calling it.

In the further discharge of their duty, therefore, the undersigned beg leave to announce that a Convention of the several Agricultural Societies of the Commonwealth will be holden at the *State House in Boston, on Thursday, March 20, 1851.*

In order to increase the interest and usefulness of the occasion, the Officers and Trustees of the above named Societies, and such delegations as may represent them are respectfully invited to attend.

The Convention will first assemble in the Green Room, at 10 o’clock, A. M., for the purpose of organization; and at 3 o’clock, P. M., and 7 o’clock in the evening in the *Hall of the House of Representatives*, the use of which has been granted for the accommodation.

MARSHALL P. WILDER, }  
EDGAR K. WHITAKER, } *Committee*  
EDWARD L. KEYES, }

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CALIFORNIA

# PROCEEDINGS.



THE Convention assembled in the Green Room, and at 10 o'clock was called to order by Hon. MARSHALL P. WILDER, President of the Norfolk Society.

On motion of Mr. PAGE of Bristol, JOHN W. PROCTOR, Esq., of Danvers, was chosen President pro tem., and Hon. EDWARD L. KEYES, Secretary pro tem.

On motion of Hon. Mr. GARDNER of the Bristol Society, that gentleman, Professor FOWLER of Amherst, Col. NEWELL of Essex, Hon. GEORGE DENNY of Westboro', and Rev. Mr. SANGER of Dover, were appointed a Committee to report a plan of organization and list of officers.

A Committee consisting of WILLIAM S. LINCOLN from Worcester, Gen. NEWELL from Essex, Mr. SIMON BROWN from Middlesex, Mr. LAWTON from Berkshire, Mr. SPRAGUE from Plymouth, SAMUEL A. DEAN from Bristol, ELISHA EDWARDS from Hampden, Hampshire and Franklin, R. S. MERRICK from Hampden, Mr. KEYES from the Norfolk Society, GILBERT MONSON from Housatonic, SIMEON CLARK from East Hampshire, Mr. DENNY from Westboro', Mr. HUBBARD from Franklin, ZENAS D. BASSETT from Barnstable, and Mr. GRAY, from the State Society, were appointed a Committee to obtain a list of the delegates in attendance.

The Committee on Organization returned and reported as follows :—

### *President.*

Hon. MARSHALL P. WILDER, of the Norfolk Society.

### *Vice Presidents.*

- Hon. JOHN C. GRAY, . . . of the State Society.
- Hon. LEVI LINCOLN, . . . " Worcester County Society.
- JOHN W. PROCTOR, Esq., . . . " Essex County Society.
- Hon. E. R. HOAR, . . . " Middlesex County Society.
- MORGAN LEWIS, Esq., . . . " Berkshire County Society.
- Hon. SETH SPRAGUE, . . . " Plymouth County Society.
- J. H. W. PAGE, Esq., . . . " Bristol County Society.
- Hon. WILLIAM CLARK, . . . " { Hampshire, Hampden and  
Franklin Society.

|                              |                                   |
|------------------------------|-----------------------------------|
| Gen. JEREMIAH MAYO, . . .    | of the Barnstable County Society. |
| JOSIAH HOOKER, Esq., . . .   | “ Hampden County Society.         |
| GILBERT MONSON, Esq., . . .  | “ Housatonic Society.             |
| ALFRED BAKER, Esq., . . .    | “ East Hampshire Society.         |
| HON. HENRY W. CUSHMAN, . . . | “ Franklin County Society.        |
| HON. GEORGE DENNY, . . .     | “ Westboro' Society.              |

*Secretaries.*

HON. E. K. WHITAKER of Needham,  
 HON. E. L. KEYES of Dedham,  
 WILLIAM S. LINCOLN, Esq., of Worcester,  
 SAMUEL A. DEAN of Taunton.

The blessing of Heaven was invoked upon the Convention by Rev. M. HUNTINGTON of Boston.

The President then arose and addressed the Convention as follows:—

GENTLEMEN OF THE CONVENTION,

I tender you my grateful acknowledgements for the honor you have conferred in electing me to preside over your deliberations. This mark of distinction is due to my superiors, many of whom I see around me; but I am always happy to coöperate in any measure with such ability as I possess to advance the time-honored and world-sustaining art of Agriculture.

This Convention has been called at the suggestion of the Norfolk Society, and standing here as her representative, it may be proper to remark that although we are assembled in conformity with the invitation of the Committee, yet I beg leave to assure you, that there has been no disposition or desire, on her part, to assume the head of the agricultural family; her only object was to awaken a more cordial spirit of intercourse between kindred associations, and to consult together and devise measures for the mutual improvement of all.

The Norfolk Society is among the younger members of this family, and has solicited this meeting to obtain wisdom from her seniors, rather than with the expectation of imparting it to any.

At a meeting of her Board of Trustees, held January 28, 1851, the following proposition was adopted:—

“That the President and Secretaries be a Committee to mature and adopt a plan for a Convention of Delegates from the various Agricultural Societies of the Commonwealth, to be holden at some convenient time and place, the object of which shall be to concert measures for their mutual advantage, and for the promotion of the cause of Agricultural Education.”

In the discharge of their official duty, the Committee corresponded on the subject of their appointment with the Presidents of kindred associations, all of whom cordially approved of the Convention, many of whom I had the happiness to see present at this time, and others who are expected before the close of the session.



It may perhaps be expected that your presiding officer should propose business for the Convention. There are many subjects which may be introduced, and which, in the opinion of the chair, require attention, but the suggestion of them will more properly emanate from a Business Committee, who may be charged with the duty of presenting such topics as are deemed most important.

It may not however be improper, in this stage of proceeding, to allude briefly to a few points which may be deemed worthy of consideration.

Among these may be named,

1. The expediency of so arranging the annual exhibitions of the various local Societies, as to permit of more frequent intercourse and interchange of civilities, for the promotion of the great object of their organization.

2. The propriety of adopting a more uniform system as relates to premiums, and the principles upon which they are awarded.

3. It may be important for the Convention to inquire into the expediency of constituting a Central Committee, consisting of representatives from the various County and District Societies, who may meet semi-annually for consultation in regard to their general interests. Individual Societies can accomplish much, but associated effort, more.

4. It is also to be hoped that the cause of Agricultural Education, now about to receive the consideration of the Legislature, will not be overlooked in the deliberations of this body, and if it be the opinion of this Convention that agriculture may be promoted by the application of science, that such a sentiment may be expressed in terms so explicit as not to be misunderstood, and that the aid of Government may be solicited for this purpose.

And, Gentlemen, I submit, in view of the present condition of agriculture in our Commonwealth, whether there is not occasion for the assembling of this Convention,—whether there is not a necessity for improvement in this most important branch of human industry, and for the patronage of Government to place it on a par, at least, with other arts in point of wealth, honor and influence. For if agriculture is the parent of all arts,—if it is the basis upon which rests individual and national wealth and prosperity,—if it is intimately connected with the virtue and happiness of the community, then it is the duty not only of philanthropists to foster it, but also of Government to extend to it her right arm for protection, and to make it one of the first objects of her guardian care and protection.

If education is essential to the full development of any art, and to its application to the purposes of active life, it follows that the great interest of agriculture, from whose bounty we are fed and clothed, has paramount claims to *any* or *all* others; and that the Government which makes no provision for its advancement, cannot be considered as having that regard which is due to its best welfare and permanent prosperity.

Government may provide the means for the education of a few, for the learned professions, but does this excuse her from the obligation to provide equal advantages for the rest of her sons,—for the farmer as well as for the clergyman, the lawyer, or physician. Massachusetts, with enlight-

ened policy, has espoused the cause of education, and by wise legislation has rendered her system of Common Schools so perfect, as not only to command the respect and admiration of her sister States, but of the whole civilized world; thus furnishing her sons, wherever her name is known, with a ready passport to the most cordial civilities and amenities of life. What a glorious spectacle is her system of education, with her four thousand school houses scattered all over the State, and studding her soil with gold more precious than mines of gold! To what an elevated position has the Commonwealth attained by the blessings conferred on her sons through life-giving and healthful influences which flow from these fountains of knowledge.

We make no objections to what she has done for educational and charitable institutions, and internal improvement; but why is it that she made no provision for the professional education of the farmer?

Agriculture should especially receive the encouragement of Government because it embraces more than three-fourths of our population, because from it is derived a very large proportion of its revenue, and because the large class, who are engaged in it, are, to a great extent, the conservators of the public good in times of danger and peril. Agriculture is the prominent pursuit. It employs more capital and labor than all other trades and professions, and in proportion as it prospers will the welfare of the community advance. But how has agriculture progressed with other callings in Massachusetts?

Facts warrant the assertion that there is occasion for great improvement. This is apparent from the rapid increase of population and the comparative decrease of agricultural products in this State. By the Report of the Vaccination Committee, it appears that although since 1840 there have been added to the area under improvement in Massachusetts 342,000 acres of land which at that time were classed as "*unimproved*," or "*unimprovable*," and although the tillage lands have been increased sixteen per cent. at the same time, yet the grain crops have increased only ten per cent., showing a relative depreciation of six per cent.;—and although during the same period the upland and other mowing lands have increased nearly fifteen per cent., yet the hay crops have been increased only about three per cent., showing a relative depreciation of twelve per cent.

In 1840, the population of Massachusetts was 737,700, requiring at 4 bushels per head, 4,426,200 bushels of bread stuffs for their subsistence. Of this, the soil produced 3,705,261 bushels, leaving 700,000 bushels to be supplied by foreign production. But in 1850, the population of the Commonwealth is *one million*, an increase of thirty-three and two-thirds per cent., requiring *six millions of bushels of bread stuffs* for consumption, of which she raises but about *three millions*, leaving *three millions* of bushels to be supplied by foreign production, showing an absolute decrease in her cereal grains of more than 600,000 bushels; and should the inhabitants of this Commonwealth increase in the same ratio for the next, as for the last ten years, and without a corresponding increase of the grain crops,

shall, at the close of that term, be dependent on foreign resources for nearly *five millions* of bushels of bread stuffs annually.

These facts show that however productive other labor may have been, agriculture has not progressed proportionably with the other arts. It should, therefore, receive the special attention of Massachusetts in SELF DEFENCE; for unless our farms can be made more productive and profitable, we shall continue to be dependent on other portions of our country for a large share of the necessaries of life, and her sons will look to other and more fertile lands for a residence.

Agriculture should receive our SPECIAL ATTENTION, for although we may for the present purchase with our manufactures the grain and beef and other products we consume, yet the time will come when the manufacturer and mechanic will place himself down by the side of the producer, thus saving the expense of transportation to both, and when Massachusetts will be obliged to rely, more than she now does, on the products of her soil for the support of her population.

Shall we learn wisdom by this experience? Or shall we continue the exhausting process of perpetual cropping, without the application of science to restore the productive energies of the soil? So devastating has been this practice, that *one thousand millions of dollars*, it is estimated, would not more than restore to their primitive richness and strength, the arable lands of the United States, which already have been partially exhausted of their fertility; and that, should this prodigal system continue to the close of the present century, the natural fertility of all the remaining American territory, will, long before that period, have been abstracted.

Is it not, then, a question of vital importance to the Commonwealth whether the great interest of agriculture shall remain stationary, or whether it shall move on in the line of improvement with the other departments of human industry? It is undoubtedly wise policy to encourage and foster any species of industry which is adapted to the wants and conditions of a community; but just in proportion to the prosperity of the agricultural interest, will ultimately be the ratio of success in all the other great industrial pursuits.

Who doubts that our lands are capable of yielding more than double their present productions with little or no increase of expense? How many thousands of acres there are in the Commonwealth, also, which produce no income whatever, and which, in reality, are the richest portions of our soil, and by the application of science may be made to produce abundantly? If, therefore, we desire to retain the young farmers of our Commonwealth,—the bone, muscle and sinew of society, and the future pride and support of the State,—we must place within their reach the means of producing a result so desirable.

Similar advances may be realized by the application of science in the improvement of our cattle, horses, swine, &c., and in the saving and scientific application of manures.

Take an example :—

We have 150,000 cows in this Commonwealth. Suppose science enable these, or improved breeds, to yield *one* additional quart of milk per day; this, at three cents per quart, would increase the productive capital of the State \$4,500 per day, or \$1,642,500 per year; or if *two* quarts per day a gain of more than *three million dollars* annually.

We have 70,000 horses in the State, and which might, by a better knowledge of the principles of breeding, be improved so as to command at least *fifty dollars* each more than they are worth at present; this would increase their value *three millions and five hundred thousand dollars*. Who doubts that with a better understanding of the laws of agricultural chemistry, and the proper adaptation of crops and manures to the soil, that our cereal grain might be increased *ten bushels* to the acre without additional expense; this would add *several millions* of dollars to the present amount of products.

Doubtless these results can be attained, or science is a chimera, and the laws of animal and vegetable physiology a delusion.

It is susceptible of proof that the loss of manure in the Commonwealth by misapplication and waste, is more than two millions of dollars per year. Now suppose this enormous loss were appropriated scientifically, who could estimate the additions which it would make to the products of the soil?

We need information in all these branches of husbandry. We have materials, but they need system, coöperation; they need the encouragement and patronage of Government. We have already stated that we make objections to what the Commonwealth has done for educational and charitable purposes. Our Common School Fund now amounts to nearly a million of dollars; but great as are the blessings which have flowed from this why should not a portion of the State income, from the same resources be appropriated for Agricultural Education?

With the view we have taken of the present condition of agriculture in this Commonwealth, is it not the imperative duty of all associations like those we represent, to enlarge their fields of usefulness, and to awaken, if possible, a more earnest interest not only in the minds of our State and National legislators, but throughout all classes of the community on the most important subject?

But, Gentlemen, I forbear from extending these remarks.

In conclusion, if agriculture can be promoted by the application of science, then it is the manifest duty of Government to extend to it the hand of protection.

Massachusetts is world wide renowned for her system of education. Let her perfect it by extending it to all of her sons,—to the farmer as well as the professional man. Let her legislators take up the subject in earnest. Let them look at the matter with no narrow or grudging policy, but with generous and enlightened liberality. An appropriation now of a *few thousand dollars* for this cause, will add; ultimately, *millions* to the productive capital of the State, and will be of more substantial benefit to her citizens than any similar appropriation ever made.

Massachusetts has always taken a leading part in most of the great enterprises which mark the progress of society, and we trust that she will not now hesitate to promote by her legislation an interest, which more than any other will redound to her future glory and permanent prosperity.

Gentlemen of the Convention, I congratulate you on the large attendance of delegates, all of whom I am most happy to meet on this occasion, and I doubt not that the results of this meeting will not only be productive of good to ourselves, but it is hoped will be of some advantage to those who may come after us.

On motion of Rev. Mr. SEWALL, the following gentlemen were appointed a Business Committee:—Rev. C. C. SEWALL of Norfolk; GEORGE DENNY of Worcester; PAOLI LATHROP of Hampshire; J. W. H. PAGE of Bristol; B. V. FRENCH of Braintree; ALLEN W. DODGE of Hamilton; ISAAC DAVIS of Worcester; E. L. KEYES of Dedham, and Mr. SPRAGUE of Bristol.

It was voted that an invitation be extended to the Governor, Lieutenant Governor, members of the Council and both branches of the Legislature, to attend the afternoon and evening sessions of the Convention,—and Rev. Mr. SANGER of Dover, was appointed messenger to deliver the invitation.

The Convention then adjourned to 3 P. M., to allow the Business Committee to attend to their duties.

#### AFTERNOON SESSION.

The Convention assembled in the Representatives Hall at 3 o'clock. The attendance was quite large, and among those present were many of the leading agriculturalists of the Commonwealth.

Rev. Mr. SEWALL, from the Business Committee, reported for the deliberation of the Convention the following preamble and resolutions:—

*Whereas*, Agriculture, the parent of the Arts, is essential to the subsistence and preservation of the human race, and embraces in itself the elements of national wealth and power,—therefore, be it

*Resolved*, 1. That the encouragement and advancement of Agriculture should be with us, as it has been with other civilized nations, a leading object of public regard, to be cherished by a generous public sentiment, and liberally sustained by the resources of the Commonwealth.

*Resolved*, 2. That it is expedient to establish a Central Board of Agriculture, to be composed of delegates from the various incorporated Agricultural Societies of the Commonwealth, whose duty it shall be to meet semi-annually, or oftener, if it shall be deemed expedient, and to recommend to the several Societies uniform rules of action, and to take into consideration all subjects pertaining to the interests of Agriculture.

*Resolved*, 3. That, whether acting as individuals, or as Representatives, the citizens of the Commonwealth are bound to encourage the application of science to all those branches of industry which minister to human comfort and happiness, and thereby to the wealth and prosperity of the State.

*Resolved*, 4. That Agricultural Schools having been found, by the experience of other nations, efficient means in promoting the cause of Agricultural Education, which is so essential to the prosperity of farmers and to the welfare of communities, it be-

comes at once the duty and policy of the Commonwealth to establish and maintain such institutions for the benefit of all its inhabitants.

*Resolved, 5.* That the several plans for an Agricultural School, recently reported by the Board of Commissioners appointed for that purpose, are worthy the professional consideration of the people of Massachusetts, and their Representatives in the General Court, as indicating the feasibility and practicability of an establishment with that exalted character which the State has secured by the endowment of kindred institutions, designed, like these, for the diffusion of useful knowledge among the people.

*Resolved, 6.* That inasmuch as Agriculture is the chief occupation of her citizens in the Commonwealth, in the organization of its government, should be provided a separate department of Agriculture, with offices and honors commensurate with the importance of the duties to be discharged, of the abilities to be required, and of the labors to be performed.

*Resolved, 7.* That the several County and local Agricultural Societies, (and the adopted children of the Commonwealth,) by their pioneer efforts in diffusing useful knowledge among the people; by their agency in arousing and directing the energies of the farmer in the course of modern improvement, and by the encouragement they offer to every worthy effort of agricultural skill and industry, recommend themselves still more powerfully to the protection and patronage of the Legislature.

*Resolved, 8.* That the Convention respectfully suggests to the Legislature the propriety and expediency of reserving the entire proceeds of the sales of the public lands of the Commonwealth,—from and after the period when the Common School shall have reached the maximum fixed by the act of 1834,—for purposes of education and charity, with a view to extending that aid and encouragement to a system of Agricultural Education which the importance of the subject so imperiously demands.

Upon motion of Mr. SEWALL, the resolutions were taken up in order, with the exception of those relating to Agricultural Schools, which were deferred until the last.

The first resolve was read and adopted on motion of Mr. KEYES of Dedham.

The second resolution was next read, whereupon Col. PAGE, President of the Bristol County Society, addressed the Convention as follows:—

MR. PRESIDENT—

I do not like to have this resolve pass in silence. I think there is matter there which will commend itself to the judgment of every gentleman who has given the subject of agriculture and Agricultural Societies in Massachusetts any consideration. We have had Agricultural Societies in various parts of this Commonwealth. Each has gone on, in its own way, to accomplish the good objects which are proposed by all. In this State, sir, the action of each of these Societies has been isolated, confined to itself, communicated, with very few exceptions, to nobody, except those who happened to be present at the annual exhibitions; and even, sir, when a report is annually prepared, as it has been in the two years of the existence of your Society, and in Essex and one or two others, it is a local matter, after all, and finds its way into the hands of but very few of the practical farmers of the Commonwealth. The result of this state of things, sir, is a want of centralization, this want of coöperation, has limited the benef-

Agricultural Societies are capable of accomplishing. The objects for which premiums are awarded are substantially the same, so far as my observation of the bills of fare has gone, throughout the Commonwealth; differing somewhat according to the peculiar features of the industry in the different parts of the Commonwealth; but, on the whole, they are about the same. The amount of premium offered differs very essentially. The amount of encouragement which it is thought necessary to bestow upon different branches, differs very materially in different places, though the subject is of equal importance in different parts of the Commonwealth. The mode of operation, the mode of putting on paper that which is thought worth recording, and the extent to which that is done, differ materially in one County from another. There is no concentration. There is no permanent recording. There is no distribution of information. So that these Societies, though they have accomplished vast good, have failed, in my judgment, to accomplish the greater amount of good that they might have done.

The proposition before you is for the organization of a Central Committee. The details of the constitution of that body are not carried out in the resolve. But the idea has been suggested that it should be composed of some of the officers of the different Societies of the Commonwealth; that they should periodically meet, as suggested in the resolve itself, to devise and recommend to the other Societies some uniform mode of action; and that they, beyond that, should take into consideration all those subjects which are useful in Agricultural Societies.

Now it seems to me that this proposition needs only to be stated, in order to commend itself to the approbation of every gentleman. It is a very innocent matter, at any rate. Whether the Commonwealth of Massachusetts shall or shall not extend that aid to agriculture which it has given already to almost every thing else,—whether the action of this day shall result in any important good or not to the farmer of Massachusetts,—whether any dollar shall now or hereafter be appropriated to the promotion of agriculture or not, this matter is required equally to be done under the existing state of things, and under any possible future state of things,—whether you have schools or not, you wish your Societies. They are necessary in order that little County collections may be made, and that the farmers may there interchange views and may get ideas which they will reduce to practice. They will be necessary in order that men may encourage each other by acting together, to talk over these subjects of common interest. If you have your Agricultural Schools or not, carried on under any plan, still I think you need these same Agricultural Societies, as their business is distinct entirely from that of your Agricultural Schools, each working in its own department in the same great cause. And, in any event, while you have these Agricultural Societies you will need this central organization in order that they may all stand on the same platform, that they may have the same object in view, and the same general mode of carrying out and attempting to accomplish that object.

For one, sir, I shall be exceedingly glad to have that Committee appoint-

ed, if for no other reason, that they may take this one topic into consideration. It has been a great pleasure to me, out of my own County attend the agricultural exhibitions in other parts of the Commonwealth should be very glad, on one occasion in a single year, to see all the Agricultural Societies together, in order that I might institute a comparison between one and the other; in order that I might institute a comparison between all the others and that of my own County; that we might take part in that in which we excel, and that we might improve in those things in which others excel us. But now each Society goes on in its own way; each Society has its own meeting when it chooses; and it has happened before, that meetings have sometimes been held on the same day in adjoining Counties, on successive days, so that one cannot attend both. It is supposed that this central association, formed of delegates from each of the Societies, would come together at stated periods, and have meetings other than stated ones whenever occasion may require; that facts of interest may be laid before them; that the light of minds from all parts of the Commonwealth may be brought to bear; that they may devise rules which may be presented to the several Societies throughout the Commonwealth and that we might, by concerted action, accomplish that, which, by acting separately, it has been heretofore impossible to produce, and probably to time, in the past desultory mode of action, would be impossible to produce.

As I said in the outset, I rose merely because I desired that this matter should be explained by somebody, and should not be permitted to pass in silence. I have said that I supposed this would commend itself to the judgment of each person, when he considered it. I may be mistaken. I hope that this, as well as all the other resolutions, will receive not only a silent vote, one way or the other, of the gentlemen, but that we shall have the spoken word, in order that we may know what members think of these matters from every part of the Commonwealth.

SPEECH OF JOHN W. PROCTOR, ESQ., PRESIDENT OF THE ESSEX COUNTY AGRICULTURAL SOCIETY.

MR. PRESIDENT—

I am exceedingly glad to hear from my friend, the President of the Boston Society, the exposition of his views in relation to this matter. I had had some little experience in connection with one of the Societies in the Commonwealth in the County of Essex, and fully accord with most of the views that have been suggested, and believe that there is room, by delegates coming together from the different Societies, of very much improving their mode of administering the affairs of the Societies. I think, sir, that the Societies owe to the Commonwealth something of this kind. They have not been established, many of them, about thirty years. The Commonwealth has appropriated \$5,000 to \$7,000 annually, for the support of these Societies. Generally, if I understand it, sir, they are in a good degree



favor throughout the Commonwealth. I believe they are thought, in their different spheres, to have done much useful service.

I believe, sir, that the members of these Societies entertain the hope that they have so commended themselves to the Legislature, that they may reasonably expect an increase of the bounty of the State for their support. If they are to have that increase, or if they are not, they are in duty bound so to use whatever they have as to make it benefit agriculture.

Now the remark has been made, that the meetings of the different Societies conflict with each other. Several of these meetings come on the same day. It would be well that there should be an understanding that they should come one after the other, so that individuals could go into other Counties and see what was done there; that they could, by their practical observation, carry home that which they might find valuable. In this way the objects of the premiums would be suggested to them, and the manner of offering them. In this way there might be very great improvement in the discharge of the duties of Committees in reporting on the subject.

I believe, sir, it has been found by the gentleman who has prepared the annual abstract which has been published by the Legislature, that in different Counties there is a very great variety of the degree of attention paid in preparing those reports. In some Counties it has been an object to make those reports worthy of notice; to make them the means of disseminating useful knowledge. And when they are embodied together, a useful book is furnished. If the State is to be at the expense of publishing annually the reports of the several Counties, it is very desirable that the digest should be drawn up in such a form as to be creditable to the State. Any gentleman who has examined the reports of the State Agricultural Society in New York, will find that it gives a fund of original information,—a treasury of valuable knowledge every year. Constitute this Board, and Massachusetts, though far inferior to New York in size and means, would still come into respectable comparison with her as affording useful information on this subject.

I was pleased with the suggestion made. I only make these remarks that gentlemen should understand the object contemplated. And until the Legislature shall carry out the more general recommendation of the establishment of a Board of Agriculture, as one of the departments of the State, it seems to me proper that the Agricultural Societies, who are now the foster children of the State, should be so far organized as to do this as well as they can.

#### REMARKS OF HORATIO C. MERRIAM, ESQ., OF TEWKSEBURY.

MR. PRESIDENT—

I have been exceedingly interested in the remarks of my friends. The one who last spoke,—the President of the Essex County Society,—is of thirty years standing in this cause; and my friend, behind me, from Bristol County, is not far behind him. If I understand the object, it is to concen-

trate our efforts by a Central Board, and spread our information through community.

We now have local Boards of Agriculture. Our County Societies local Boards. Did our organization stop here, I should, with all my heart,—though I do not now oppose the resolution,—I should, with all my heart go for the resolution. But we have some County Societies; and we have a perfect establishment for the whole Commonwealth. We have County Societies and the State Society. It seems to me that this establishment would be superseding the State Society, would be reflecting upon those good and zealous men who constitute its Board of Trustees, and would suggest whether having County Societies and a State Society, the latter having a general superintendence, it would not be better and more respectful to them to pass a resolution requesting them to discharge the duties here referred to a Board. And they are anxious to do them. Their zeal is ample. Their funds are ample. I have no doubt but that they will perform all the duties to be accomplished by a Central Board. I think the State Society is a Central Board. I would suggest whether a resolution requesting the State Society to take the matter of acting in this matter into consideration, would not be more respectful.

#### REMARKS OF THE HON. EDGAR K. WHITAKER.

MR. PRESIDENT—

The suggestion of the gentleman who has just taken his seat, seems to be an important one. But I do not know as I should fall into it immediately, for a reason which I will give. To my mind there is something exceedingly gratifying in the occasion which has collected together at this meeting. If I mistake not, I see gentlemen here, delegates from all the Agricultural Societies of the State, who have come for the purpose of discussing if we cannot get up a new interest in the cause of agriculture. It seems to me, in correspondence with this movement, if we are to carry out what these friends have come here to do,—if we are to carry it out with earnestness, that we would better concentrate what of effort we desire from the men who have come here rather than from the old State Society. No man can entertain a higher respect than I do for the men connected with the old State Institution. But as no one can mistake from the expression of interest upon the face of every man in this hall, those who have come here have come with the idea of creating some new interest, some new movement somewhat different from what has characterized the different Societies which have been organized in years past.

The gentlemen who have addressed the Convention upon the resolution which is now before it, have very properly explained what is the object of this resolution. But they have not said what I think may very well be said, and with saying that, I shall take my seat. It seems to me that what is proposed to be carried out in this resolution is very fully exemplified in what we see here to-day; and that is, the gratifying circumstan-

that on a call issued, gentlemen without hesitation have come up here for the purpose of seeing whether we cannot do something for agriculture. And, in accordance with that desire, it is proposed to bring the active minds of the State, who want to see improvement, into a Committee who shall examine in detail the matters on which the different Societies are interested, and see if something cannot be done to waken the people to more interest in this department of industry, which seems almost to have been forgotten, though it was once the main interest of the State. We may accomplish what we want to see carried out by the movement without difficulty. We may feel satisfied, from what we see here to-day, that with a Committee organized as is proposed, something will be obtained which will create the new interest we wish to secure. I think that the faces we see here to-day are the best proof of this; and I hope that not only will the resolution be passed, but that gentlemen will feel that that is not the last of it; that if they are to carry any thing into effect in their County organizations, they should meet at once for the purpose of selecting out the most active minds they have, for the purpose of doing something in the different departments of agriculture.

I think that this resolution is one of the most important ones that can come before the meeting; and I rose because I did not think that by again neglecting this matter, or by referring it back to the old organization, however respectable, we should carry out the object which is proposed by the Committee.

SPEECH OF HON. SETH SPRAGUE, PRESIDENT OF THE PLYMOUTH COUNTY AGRICULTURAL SOCIETY.

MR. PRESIDENT—

It was not designed by the Committee that that resolution should at all reflect upon or interfere with the character or operation of the State Central Society. It was intended to carry out some details in the operation of the County Societies which the State Society could not well effect. The gentleman who first spoke, and the gentleman from Essex, have explained this matter.

The State Society have done much for agriculture in importing different breeds of cattle, and distributing them gratuitously in different parts of the Commonwealth. They have done a great deal for agriculture; and gentlemen who have been eminent in public life, who have now gone to their graves, and who were devoted to agriculture in the arduous labors they performed in connection with that Society, deserve our highest acknowledgements. But the State Agricultural Society cannot make arrangements for the time of the Agricultural Societies to hold their meetings. The State Agricultural Society cannot well arrange the premiums and the details of the operation of the several County Agricultural Societies. They have no means of doing it. It is utterly out of their power to do it.

Now this Board will be composed of gentlemen knowing the wants of

the several Agricultural Societies and their manner of doing business. They can there consolidate their views and information and carry out details as regards the premiums, the reports, the publications, and the various operations of the different Societies. Many of our premiums, given by our Agricultural Societies, do very little good. They are a name. We give, in the Plymouth County Agricultural Society, a premium for the best milch cow. Now we have no report of the sizes or damages of those cows. We have no report of their blood; whether they are of one breed or another,—of their shape or their size; but we have merely a report of the quantity of milk and the feed which they have had. This affords us very little opportunity for improvement. It is so with our working oxen. We want the information that some gentlemen in the Commonwealth have desired. We want, as the gentlemen have said before, to know something of what they have learned. And if we have any thing to communicate, we will communicate with them. This is the grand object; and it seems to me that it might be carried on without interfering with the State Society. It is not intended to interfere, and if it should be thought that it does interfere with that Society, I hope that it will be so managed as that it will not do

SPEECH OF THE HON. JOHN C. GRAY, PRESIDENT OF THE STATE AGRICULTURAL SOCIETY.

MR. PRESIDENT—

I think it becomes me, in the first place, as representing the State Society, to acknowledge the liberality with which gentlemen, as well as those who have hesitated in supporting the resolution as those who have given their support, have spoken of the State Society. But my opinion agrees with that of my friend who has just taken his seat. I see nothing in the resolution which reflects upon the State Society. While I say that the State Society, or the gentlemen who have had the administration of it, have done all in their power to promote the interests of agriculture, and would have been happy if their power had been greater, I feel as if I may say to them that they will feel no objection to this resolution. The State Society, if they have done any thing for agriculture, are bound to say that their labors have been fully appreciated. They were the earliest Societies in existence, and I believe that from the beginning they have been treated with the utmost liberality as well from the government of the Commonwealth as from the County Societies.

But I have said more than once, that if the State Society has conferred any benefit upon the Commonwealth, one of the greatest has been this, that by the impulse which they gave to the study and practice of agriculture, whatever it may be deemed to have been, they led to the formation of the County Societies. They were, if they may be allowed to call themselves as teachers, in the situation of many other teachers, who very seldom taught their scholars to go beyond themselves. The local Societies have the advantages which no Board of a State Society, or of any one Society

well have, because the officers who compose any one Board, though having the interest of the State in view, cannot well be collected from all parts of the State, because they cannot well meet without inconvenience. I understand that this resolution contemplates that the State Society shall be represented as well as the local Societies in this Board which it is now proposed to establish. I have only to say that any measure calculated to bring together the knowledge which exists in the agricultural districts of the Commonwealth in this way, or in any other way, in my opinion ought to meet and would meet the full concurrence of any member of the State Society, or of any other Agricultural Society in the Commonwealth. I am entirely satisfied that we have one object, and I cannot see, for my own part, any thing in this resolution to which the Society to which I have the honor to belong would find any cause to object.

The question was then taken and the resolution adopted.

Col. PAGE then offered the following resolution, which was adopted.

*Resolved*, That the President and Secretaries of this Convention be a Committee with power to take measures for the organization of the Central Board of Agriculture, as recommended by the first resolve, and that such Board be authorized to petition the Legislature for an act of incorporation, if they shall think it expedient.

The question was taken on the third resolution, and it was adopted.

The sixth resolution was taken up, on which Mr. French spoke as follows :—

#### REMARKS OF THE HON. B. V. FRENCH, OF BRAINTREE.

MR. PRESIDENT—

This proposition is so expedient, and commends itself to the approbation of so many, that perhaps it should pass without remark. But I can see much in it to interest every mind. We should have an organization which can combine and unite the interests of the several Societies, by means of which communications can be kept up between them. In New York this is left with the Secretary, who corresponds with the other organizations and looks after the interests of the various Societies. A few evenings since, this proposition was suggested to me, and it struck me that we did want a place which would answer for a kind of head-quarters, where we could exhibit agricultural implements, models of every thing that could interest the farmer, such as a Committee could approve of, and where a person can go and see the instrument which is most valued by the Committee. I think this is a resolve that is calculated to do an immense amount of good to the cause.

HON. GEORGE DENNY.—The resolve was considered a very innocent one,—that agriculture was of so much importance that it demanded the same stand among the people that the other branches of education had. The machinery which sometimes should be connected with it was not determined upon, but was left to the future.

HON. EDWARD L. KEYES.—These resolutions, it may have occurred to the gentlemen who have seen the report of the late commission, are based on that report. This resolution is but one of their recommendations. It is, simply, that a State department of agriculture should be established. Of course, the details are to be in accordance with the purposes and objects of the department. The department of the militia has its Adjutant-General and its arsenal. The educational department has a Board of Education and Secretary, and agents. It is proposed that this department of agriculture shall have a Board, and a Secretary, who shall lecture, collect statistics in relation to agriculture, make digests of the reports, and publish such facts and statistics as will be necessary to promote the welfare of agriculture. This resolution simply acknowledges the principle. The details are to be arranged, provided the principle is adopted, by persons having charge of that matter.

SPEECH OF J. H. W. PAGE, ESQ., PRESIDENT OF THE BRISTOL COUNTY AGRICULTURAL SOCIETY.

MR. PRESIDENT—

When the resolutions were prepared, I think that this one had a different order from that which it now holds. It probably depended, when adopted, somewhat upon some resolutions which are now placed last in order of consideration. But as it does not seem to be clearly understood, I will leave to explain what I understand it to mean. Perhaps there is no other person who understands it as I do. The views which I throw out will be crude ones, and may pass for what they are worth.

The report of the agricultural commission has not fallen into the hands of many gentlemen in the remote part of the State. How fully it has been understood in this part of the Commonwealth, I am unable to say. I will beg leave to read a section to which this resolution has reference. The section refers to a plan for the promotion of agricultural education, that goes before it, but will be sufficiently intelligible by itself.

Section third is as follows:—“The undersigned recommend the establishment of a State department of agriculture, to consist of a Board of Commissioners and a Secretary, whom they shall annually appoint, which Board shall sustain a similar relation to agriculture and the schools connected with it, as the Board and Secretary of Education do to primary schools.”

This recommendation of the Commissioners, sir, as I said before, refers to a previous recommendation of theirs for the establishment of an agricultural college or a system of agricultural schools. And a part of the recommendations in this section would presuppose the existence of such institutions, and a part of the duties would be dependent on such existence. But, sir, it occurs to me, that whether an agricultural college or an agricultural school of any class shall or shall not be established, there is matter worthy of consideration presented by this resolve. A large class of duties are assigned to that Secretary, which might well be performed, and to

great benefit of the Commonwealth. If these colleges do not exist; suppose none of the institutions are ever established; there are duties there which would be profitable, if faithfully performed in my part of the State, and I apprehend elsewhere also.

“The duty of the Secretary shall be, under the direction of the Board, to give lectures in various parts of the Commonwealth whenever it may be deemed expedient, on the science and practice of agriculture.” That subject has been hinted at again and again at agricultural meetings for years. The hint is thrown out in the enthusiasm of the moment, when the people are thought to be more agriculturally inclined than at any other time, and then is forgotten.

A wise man going among the people would do undoubtedly a vast deal of good to the farmers and to their sons. I am of the opinion, that the establishment of such a Secretaryship, in efficient hands, would be as effective an instrument as could be established for the improvement of agriculture.

Sir, our young men want something more than their fathers know how to teach. What is known now by the farmer about farming? Precisely what was known about it fifty years ago, with very little variation! I heard an anecdote from one of the Committee to-day which illustrates the position of our young men. They are intelligent, and like to know something as well as to do something. The anecdote is this. A wealthy farmer, with a large farm, died recently in this vicinity. He left five sons, ranging from ten years, upward. He is hardly cold in his grave before they determine to give the farm up. When remonstrated with they say, “We want to know something. We shall know just as much as our fathers did, and we wish to know more.” Now it is a fact that our young men want to know more than their fathers. It is desirable that this knowledge shall not be like the Indians’ knowledge, traditionary, handed down from generation to generation. But we want the printed page that the farmer can take in his hands as he sits by his fireside, and that his sons can take in their hands in their leisure hours,—the printed page, upon which are the results of the practical knowledge of wise men, brought to bear distinctly upon this subject. Now I pray to ask, if you do nothing else here for this vastly neglected branch of industry, how you can do a better thing than to say that you will send out into the community just such a man as is spoken of here. He will not only carry knowledge to the young men, but he will create a thirst for knowledge. I think that the time is ripe for this, and much more. But to confine myself to this matter. I think that the time is ripe for the Commonwealth to take this step, at least, and that the people will say amen to their action, however liberal, in sending them such knowledge as that.

Well, sir, that is one thing that the Secretary will do. He will go forth as a scientific and practical farmer, to enlighten the people throughout the Commonwealth. He will carry information and he will gain information. But, then, it is proposed that he shall “receive the returns of the incorporated Agricultural Societies, and make a digest of the same in

the form of an annual report to the Legislature," instead of having it duty of the Secretary of the Commonwealth, who has, I believe, always delegated it to other hands, who have annually formed an abstract and thrown it through the press. The Secretary of the Commonwealth is not enough to do. He never has done this duty personally, and I think never will do it except through other agencies. It is proposed to place it in the hands of a man whose life is agricultural, the breath of whose nostrils is agriculture, who eats it and drinks it, and who is given up to agriculture, accomplished in it throughout. Make it his duty to do it, and I will venture to say that it will be not only as good a book as is now produced, but one which will be read throughout the Commonwealth. It will contribute to make it better in this way. He will suggest to the local Societies what are the subjects to which their minds should be directed. He will have the elements in a far better condition than the Secretary of the Commonwealth has ever received them from the Secretaries of Agricultural Societies.

The Secretary is required "To collect agricultural statistics and information in the various departments of this science; to correspond with local Societies in this and other lands." When gentlemen read this report of the agricultural commission, they will find a vast amount of information. When I took it up, I did not lay it down till I had read it through. I have been practically acquainted with agriculture all my life, and I thought I knew a little of what has been done in this country and on the other side of the Atlantic. But when I had read that book, I came to the conclusion that I did not know any thing about it. I think others will find out the same, though they may not be as ignorant as I was. He is to "correspond with local Societies in this and other lands;" perhaps to correspond with other Governments, and find out what the Autocrat of all the Russias, the President of the French Government, the rulers of all the little dependencies in Germany, and what even Queen Victoria thinks of this point. Sir, I have wandered from the subject, but you have brought your hammer down yet.

Here is an instrument by means of which the Secretary can get information from all over the world, and this little report will tell him where he can get his information. He will produce a volume which will be valuable to the practical farmers, and not to the book-farmers alone, (though I speak that word with a great deal of respect, and not with the sneers which some have used,) applicable to all farmers all over Massachusetts.

The Secretary shall have it a part of his duty to devise the means of improving agriculture in general throughout the Commonwealth. Well, if the government of the Commonwealth should, in their wisdom, see fit to establish an agricultural college and an agricultural school, it seems to me that this thing would be necessary. This kind of organization, this bureau of the Government would be necessary in order to carry that plan into effective operation, and to bring it to a point so that it can act in connection with the local Societies that now exist. If those schools are not estab-



nd, then this precise thing, so far as it can be applicable, is needed by the people of this Commonwealth in order to bring to a focus the information that is had now and is to be had all through the State, and to put life into our Societies and make them more active in promoting the cause of agriculture.

REMARKS OF THE HON. MR. BROOKS, OF PRINCETON.

MR. PRESIDENT—

I am very loath to rise in this meeting. I do not know as I shall say any thing to the purpose, not being accustomed to speak in public. This resolution seems to squint towards a college. If it has that tendency, I shall be opposed to it; for I do not believe that the farmers are prepared to spend money in instituting a college. I think it would do them no good whatever. This resolution seems to interfere with one which has just passed. We have passed a resolution for a Central Board, making it their duty to collect this very information and compile it into a book. It seems to be the same duty here. If that is the case, two such resolutions are not necessary. As for lecturing to the people, I doubt whether that is advantageous for the very best reason to my mind in the world,—that the lecturer will not know what to say; that he has no data on which to make out any speech, because science, as I understand it, is based upon facts. What facts has this Commissioner that are applicable to agriculture in this State? I say, sir, generally speaking, no fact. And why, sir? Because the science of agriculture has not yet grown up in this country. We are dependent entirely upon Europe, as I understand it, for our agricultural science. You may pile this room full of European agricultural books, and you may condense all the knowledge which they contain applicable to this country into a primer. Therefore, if this gentleman goes out to lecture, he has nothing to found his lecture upon. And to be dependent upon Europe is of little or no use to us, inasmuch as our circumstances, our facts, our influences are entirely different in connection with agriculture here, from what they are in Great Britain or in Europe.

I have not had the pleasure of reading the report of the Commissioner. I did not get it into my hands till yesterday afternoon. But I understand it gives an account of a vast number of agricultural schools in Europe. Suppose we take the Prussian system; do you believe it can be carried out here? I believe that the farmers will not agree that it can do good. For that reason, and for the reason that I have said that we have no science yet formed, it seems to me that an agricultural school cannot be a benefit.

There is another reason. We must begin at the end; that is, we must begin at the bottom. We must create ourselves. This Board, so far as it might be made useful, is a very good thing, sir; and if it does not squint towards a college, I might be in favor of it. It might be useful in collecting information all over the State. The gentleman says that young men abandon their farms because they cannot improve. Perhaps that may be

the case. If so, it is for the reason that I have said,—that we have no American science. We have no data to go upon. We have only our own experience.

SPEECH OF PROFESSOR WILLIAM C. FOWLER, OF AMHERST.

MR. PRESIDENT—

It has already been distinctly stated, and, as I believe, generally distinctly understood, that whether there should be any schools established or whether there should be any college established or not, a Central Board, as is contemplated in this resolution, may be of great service to the people in this State and to the agricultural interests of this State. I believe, therefore, that the gentleman who has just spoken can consistently vote for this resolution irrespective of any future decision as to the establishment of a college or of schools for the promotion of agriculture.

We have no American science, it is said; we have no Massachusetts science, it is said, on the subject of agriculture. Mr. Chairman, I leave to say that science is the same the world over.

*Mr. Brooks.*—I say we have no science, because the science of agriculture in Europe is not applicable to our condition.

*Mr. Fowler.*—Science is, in itself, the same the world over. In its applications it may be varied according to circumstances. The application of science to agriculture in this country may vary from its application in England on consequence of the peculiar circumstances connected with our climate or soil. We must, therefore, first determine what these peculiar circumstances are, and then we shall know how to employ science in aid of agriculture in our own country. If it be true, as the gentleman says, that we have no American science and no Massachusetts science, then upon this assumption, his, the very first thing which we ought to do is to have an American science, and a Massachusetts science. (Applause.)

But leaving the ground assumed by the gentleman, I come back to the true ground, namely, that science is the same all over the world. It is our business to see to it that its applications to the art of agriculture in Massachusetts are such as they ought to be. In the first stages of civilization, art precedes, science follows. In the advanced stages of civilization, science precedes, art follows. All the higher processes of the useful arts are dependent on science.

There have been, Mr. President, as you well know, immense additions made during the last fifty years to science in general, and to those particular sciences which relate to agriculture. This is true of chemistry, of geology, of mineralogy, of botany, and vegetable physiology, of zoology and animal physiology. Accordingly, the Governments of Europe, as we learn by the excellent report of the agricultural commission, lately published, are extensively taking measures, by means of agricultural colleges and schools,

apply these sciences to the art of agriculture, and next, to communicate extensively a knowledge of the applications thus made, for the general benefit of the profession of agriculture. I would take the liberty to recommend to the worthy gentleman who last spoke, to read this report before he makes objections to a plan for the improvement of agriculture in Massachusetts, based on that report. You need only to read this work, or one of the reports of the Patent Office, or the better class of agricultural newspapers, in order to know that there have been immense additions to agricultural science, strictly so called, and to those sciences in general which may be applied to the art of agriculture.

The fact, indeed, seems to be generally admitted that there has, in one quarter and another,—among men of science and the cultivators of the soil,—been a great increase of knowledge, both theoretical and practical, on this subject. But the light is scattered, not concentrated, and, therefore, not effectual. It is light such as has, by some, been supposed to exist after God said, "Let there be light, and there was light," and before the sun was created. According to this theory, they suppose that the light thus diffused through space, thus ineffectual, thus incapable of being applied to any useful purpose, was collected by the Creator and concentrated in the sun, which he "set in the firmament of the heaven, to give light upon the earth," so that "the greater light should rule the day, and the lesser light the night," and order thus be brought out of chaos.

Something like this may be true of the science and of the practical skill which is scattered over the land and the world. What we need is an organization, under the authority of the State, which shall collect this scattered light, whether in this or in another hemisphere, so that it shall become effectual, and not any longer be "light shining in darkness, and the darkness comprehending it not." What we need is an organization which shall collect the light of science and of practical experience into an agricultural Institution, as into a focus, from which it can go forth, as from a radiant point, over the Commonwealth and the country, and, if you please, the world.

I trust, therefore, Mr. President, that the gentleman, distinguished as he is for his zeal and success in farming, admitting, as he does, the importance of having a Board of Agriculture established, will unite with us in sustaining the resolution.

#### SPEECH OF JUDGE MACK, OF SALEM.

MR. PRESIDENT—

It has been said, sir, that we have no science. It is too true that we have not science on the subject of agriculture in Massachusetts. And this fact makes it imperative that we take some means by which we can collect facts. All science has been built up upon facts. And unless we take measures to collect them upon the subject of agriculture, we never shall have any science here. There is science enough upon the subject of agriculture

in the world; but it is not fitted to our own circumstances. What, shall we do? We should collect facts and apply them to our own situation. How is this to be done? Have we means to accomplish this? I think the history of our Agricultural Societies shows that we have not had the means adequate to this purpose. I think there has been more said than done by our Agricultural Societies.

I remember to have attended the first Agricultural Society that I have ever met in this Commonwealth. It was in Berkshire County; and, if my recollections are correct, there were many things as far advanced at that time as they are at present. I saw as good an exhibition of cattle as with a few exceptions,—consisting of the English breeds introduced by the State Society,—as I have seen since. After all the parade of Agricultural Societies, why is it that we still remain stationary?

I would allude to the remarks made by the President, in the other part of this forenoon. It does appear from those statistics that we have not progressed. We have had a great deal of talk. We have not made advances. And why is this? Every thing that we have done is loose. We meet together and talk about crops and cattle, and there is nothing specified. There is an application made for a premium, the details of the improvement are not so specific, so determined, that we can apply them in other countries. Nobody can apply them better, even after the explanation is given, than which the large crops have been raised. We cannot apply them any more accurately to practice than before the experiments were made. The result is, we do not make our experiments specific enough. We do not determine exactly the process by which they are done. We want that knowledge that can be obtained by experience. Speculations are worth nothing. We want something that will put the thing to the test. The remarks upon the right and left have been the cause of my rising.

It occurs to me that the cause of our failure, after so much battling, is that we have not reduced things to practice by actual experiment. When a crop is to be raised, and the result a certain amount is produced with so much manure and so many days' work, we find perhaps that another crop of equal value and equal quantity may be produced on a different kind of land; and you have nothing to show which is the best way. It seems to me that this is the thing we want. This institution, which it is proposed to establish, will be the instrument to produce this. You must make experiments, exhibit them, and show what results can be produced in one way and what in that way. If we can furnish information from other countries, modify it so as to make it applicable to our own situation, show wherein it is not applicable, and gain what we can from it, we shall gain much by the establishment of this institution towards the result which we desire.

## REMARKS OF RICHARD BAGG, JR., ESQ., OF WEST SPRINGFIELD.

MR. PRESIDENT—

Sir, bred to the pursuits of agriculture, I am content to be reckoned among her people.

We do not, perhaps, appreciate science as a *help* to agriculture. We are not familiar with the language of science. We are almost astounded by the *name*. We *are*, however, *accustomed to labor*, and note its results, and sometimes we venture to compare the present with the past, and in this way endeavor to determine our course and measure our progress. Have we made no progress? Why, sir, the country that not “long ago” luxuriated in her native wilderness, *now* glories in her matchless might, her unmeasured power, her unequalled privileges,—she counts her children by millions, and justly boasts that their habitations are the abodes of elegance and refinement. This is *our* country,—*we* are her children.

Sir, LABOR, GUIDED BY INTELLIGENCE, has done this. The talismanic influence of labor, guided by intelligence, is seen in every part of New England, and this eulogium pertains to those who inhabit her hills and cultivate her valleys as well as those who people her thousand villages and her more noted marts of trade. Is this science?

Brethren of the Plough,—Let us not deceive ourselves by supposing that we have a *separate* interest. Let us not be seduced from “following the old paths,”

“The ways our fathers trod,”

which have literally “dropped fatness,” and which are known to point in the *right* direction, for others of doubtful issue. Let us rather hasten *on*,—

RIGHT ON,

—“As the eagles fly,  
Right on to a glorious destiny.”

## SPEECH OF THE HON. AMASA WALKER.

MR. PRESIDENT—

Before we admit that confusion exists in relation to agriculture, and all this chaos which the learned gentleman from Amherst supposes, the question naturally arises, how happens it that, at this late period, there should be so much chaos and confusion with reference to agriculture? For I believe that they do exist; that there is all this chaos, confusion, uncertainty and the want of application of true science to agriculture. And why, sir? We have had occasion to notice recently some very good reasons why all this should be true; and the general reason is this, sir.

We have a great number of Agricultural Societies in different parts of the Commonwealth. Those Societies carry on their operations throughout the year. They have their exhibitions. They offer their premiums.

They have their reports. And what does it all amount to? It amounts to this,—that all these different Societies, as a general remark, have been operating upon different principles, that is, without any well established and uniform principle; and hence they do not arrive at any well established and uniform results.

For instance, in the article of Indian corn, what do we ascertain from the reports of all the Agricultural Societies in this State? We ascertain nothing that is true in regard to any one point in regard to the raising of Indian corn in this Commonwealth, because we have no uniform system in which statistics are made. For instance, in one Society they have weighed, and in others measured; and in three Societies that I know they include a portion of the stalks, allowing seventy-five pounds to a bushel. Statistics which must be based on such various methods of ascertaining the quantity of an article raised, do not establish any thing.

Just so in relation to the product of milch cows! We have no statistics which can be brought all together, by which an average can be made of the product in different parts of the Commonwealth. My learned friend, from Amherst, used the right figure, “perfect chaos.” It proves nothing.

This is the fact in relation to agriculture so far as I understand the matter. If this be the fact, what must be done? What is contemplated in the resolution? A Central Board! A Board of Agricultural Education! A Board of Agricultural Statistics! A Board which shall establish a conformity of action among all the Societies, so that their statistics will be valuable. We all feel the vast importance that has been given to the cause of education by the establishment of the Massachusetts Board of Education, and the vast improvement that has been produced in our common schools in consequence of the action of that Board. I suppose we had there a Board similar to what is wanted in agriculture, if we wish to accomplish what our friend from Worcester County desires,—a Board which shall establish uniform returns from all the Counties.

We do establish such a Board with regard to education. Every district school in this Commonwealth has to make its returns precisely on the same data and the same principle. Then we can make out our aggregates, we can make our deductions, and we can learn lessons of wisdom in relation to our schools. Now I suppose that precisely this is wanting with regard to agriculture. And since this State makes liberal grants every year to the Agricultural Societies, would it not be right, would it not be expedient that the State should require systematic and regular returns, the same as are made from the common schools; and unless those returns are regularly made, according to the prescribed form, that the Society should receive the bounty of the State. Without that, I have no hope of the thing being done.

From the position in which I stand, [Secretary of the Commonwealth] I have had this subject brought home to me. The returns have been sent to me. They are all chaos. But by the assistance of a very able gentleman, a sort of collection has been made from the returns of all the Societies.

ties. They are somewhat interesting, at least, but they do not prove any thing. And my mind has come to the conclusion, very recently, that if we hope for any progress in agriculture, we must have a Central Board; we must have every thing arranged as it is in the Common School Board; and we must have one mind devoted altogether to agriculture. Out of the million we can easily spare a single mind. What mind in the Commonwealth is devoted entirely to agriculture, I mean to the broad field of agriculture, to the theory and practice of agriculture? I do not know any such one. Is the President of any of our Agricultural Societies, or the Secretary, or the Treasurer, thus devoted? No! They do what they can, and we are much obliged to them for it. But we want one mind devoted to the subject.

You have seen what the Secretary of the Board of Education accomplished. It surprised us all. Yet I think far greater results would be accomplished if we had a Secretary of the Board of Agriculture, who should lecture, who should try to ascertain facts, and who should try to awaken a general interest in the subject of agriculture. If this were the case, if such a Secretaryship were established and sustained, and such a Board established, nothing than that could be more gratifying to the farmers of the State.

SPEECH OF HON. DR. GARDNER, EX-PRESIDENT OF THE BRISTOL COUNTY AGRICULTURAL SOCIETY.

MR. PRESIDENT—

There are so many gentlemen who wish to speak, that I shall detain the Convention but a moment. I felt constrained to say something, because I was highly gratified at the remarks reiterated again by my worthy friend from Princeton. The other evening we had a preliminary discussion, and my honorable friend from Princeton and myself had a little controversy in that meeting. The gentleman stated then, as he does now, that European science and American science are very different. At that time, being very modest, I hesitated very much to question the gentleman's accuracy. But I did suppose then that science was science all over the world. I supposed that so far as regards chemistry, geology, and all other sciences pertaining to agriculture, what they had learned in Europe we might learn; that a chemist there analysing air and finding it contained oxygen, hydrogen, &c., would merely find the same article essentially which a chemist analysing air here would ascertain. I supposed the same with regard to agriculture. My worthy friend questioned all this. Now my main object in rising was to congratulate myself that my reverend friend from Amherst had backed up my position.

I hope the gentleman from Princeton will not regard me as personal, but I am in favor of science. I am in favor of the resolutions also on your table. I have taken occasion, as I said the other evening, to examine the report of the commission, and though I was in favor of some of the

propositions on that occasion, I stated that I was not in favor of the two, but was in favor of the following three.

I would establish this Board. I think it would be one of the best things we could do. I do not precisely agree as to the effect of the local Societies. I believe they are doing a vast good. I believe every town in the County of Bristol has felt the effects of the Bristol County Society. I believe if you make the additional appropriation of one hundred dollars to every Society, raising a thousand dollars, that these Societies will do more than at present. I hope that this Board of Agriculture will be established; but I differ somewhat,—I regret to say that I differ at all, from a part of the report of the Commissioners. I am in favor of striking a single line. It is this;—"Which Board shall have power to locate, organize and put in operation the college contemplated by the foregoing commendations." I doubt somewhat whether the people are fully prepared for the college at present. But I would establish the Board and adopt other recommendations which the learned commission have seen fit to propose.

The Hon. Mr. Brooks responded in a few remarks.

#### SPEECH OF MR. WHIPPLE, OF MIDDLESEX COUNTY.

MR. PRESIDENT—

Whatever those resolutions may have contemplated, it seems that the discussion has turned upon the subject of education. I look upon that from an agricultural point of view, as of more importance than any thing that can be suggested. I have paid some considerable attention to the subject of farming for a great many years. My mode of farming is different from that of others. If I should state the result of my mode of farming, you could not make a farmer here believe it. There lies the difficulty. You cannot make them believe the truth. You have an article appearing in the papers blackguarding the position you take. If I say what is true in relation to farming, and what I know to be true, I shall be contradicted at once.

Take the subject of ploughing. And when we speak of that, we must speak of it in connection with education. For it is nothing more nor less than education to know how to raise a crop in the easiest and best way.

Much has been said upon the subject of science. Science is the same here as in Europe. But, sir, what attention have you paid to science here? I appeal to the gentleman on the other side from Amherst, although he has talked about science. What does he know about *practical* science? I, sir, am speaking of practical education and of practical science, sir.

Now, sir, get the books into your common schools. Introduce chemistry. Instead of delving into Colburn's Arithmetic, understand the nature of your soil according to the laws of chemistry. These are the positions



take in relation to farming. And when the statement is made, let the man look and judge for himself, and not give us the lie. That is what I ask.

Who pretends to know the origin and the cause of the potato rot? Why has not every body known the cause long ago? It is because they have not attended to the subject properly. When I tell a man the cause, he don't believe it. If I should state it here, I should be met with the reply, "I don't believe it."

*Voices.*—"Let us have it."

*Mr. Whipple.*—You shall have it. But I shall run the risk of being told, "I do not believe it," from every farmer in the hall. I complain of that treatment. Before you tell me you do not believe it, I ask you to investigate it chemically and properly, and then tell me whether it is not true. I can go into that question, though I suppose it is not in accordance with the resolution.

*The President.*—The question is on the establishment of a Board of Agricultural Commissioners and a Secretaryship.

*Mr. Whipple.*—What is the use of this? Why, they say they will give a vast amount of information. Why, sir, who will read it? They may write a long account of the potato rot, about its being caused by the influence of the atmosphere. Who will believe it? I don't. Of what importance is it to send our children to Cambridge for an education? Sir, it is all theoretical. There is nothing practical there. Give us the practical skill, and add whatever you choose in farming or any thing else. The potato rot is the result of an insect, which fixes itself upon the plant and destroys it. Sir, if there be any gentleman here who does not believe it, I wish I could have an opportunity to exhibit to him a sample that I have of a house plant. I could there show you the insect. Every man who cultivates house plants knows that they will die under the weight of insects unless they are kept off. If these insects will kill the house plant, and if you find the same insect upon the potato plant, why should not that die also? \* \* \*

*Mr. PAGE*, of Bristol, made a few additional observations.

*Mr. BROWN*, of Concord, made a short and practical speech, suggesting that if the Secretary should only present a single new idea to his auditors in each of his lectures, it would prove very valuable to the farmers; illustrating his position by stating that if he should only teach them how to analyse the soil in such a way as to be able to determine what are the constituents of a given amount of earth, and what parts are wanting in order to make it yield the largest crop of a certain article, an incalculable amount of good would be derived by the community.

The Convention then adjourned.

## EVENING SESSION.

The Convention was called to order at 7 o'clock, by the President. The seventh resolution having been taken up for consideration, the Chair came upon his Excellency, Governor Boutwell, who arose and addressed the Convention as follows :—

MR. CHAIRMAN—

I hope that the gentlemen of the Convention, from the call of their President, will not infer that I am here prepared to give information upon particular resolutions before this body or upon the subject of agriculture generally. It was only since I came into the hall, this evening, that I expected to speak; and only within the last five minutes, that I knew a resolution that was to come before you.

This resolution has reference to what has been accomplished already by the Societies which exist in our State. They constitute a part of the present system of agricultural education. There are various town Societies,—few in number at present, but efficient in their operation,—which constitute another part of this system. And it would seem expedient that efforts are to be made to extend and elevate agricultural education, and those means which exist ought to be employed.

The first question which a Convention of this character would naturally consider, is, whether there is a necessity for improvement in agricultural education? And, upon this point, I suppose there would not be much difference of opinion; for it cannot but be as true of agriculture, as of every other department of industry, that it is to be advanced and perfected by the exertions and labors of intelligent and scientific men.

It cannot be denied, that while other departments of industry in this Commonwealth, and in this section of the country to a considerable extent have had the benefit of scientific education and scientific improvement, agriculture, in this respect, has been almost entirely neglected. If, then, we concede that there is a necessity for agricultural education, and for improvement in it, we are to inquire, Who are to be the teachers? What are the means to be employed? and, Who are the men or individuals in the community to be taught?

It would seem proper that we should avail ourselves, so far as possible of the means which exist. We should use what we possess, if it be sufficient, rather than attempt to create more than is absolutely necessary. Now, if we have institutions that to any considerable extent can be made available for these purposes, for the present,—even though they should be inadequate for the future,—I apprehend it would be regarded proper, on our hands, that we should use those institutions and those means.

In some countries, science may be in the possession of a few individuals in the community, and may be used in such a way as to control and give direction to the manual labors of other men. But in this country science

not in that way to be applied. We have no masters controlling large bodies of laboring men. But if we are to educate the farmers of this Commonwealth, it must be by educating the great mass of them. The majority must in some way be reached. It will not do to give to certain individuals the *science*, with the expectation that certain others are to apply that science without knowing something of the reasons which exist for its application.

We are, then, to carry the knowledge to the great mass of the people. And the question is, How is it to be done? If we educate a few men, it may happen, and very likely will happen, that from the nature of their pursuits, they will be unable to approach and communicate with the mass, so as to make their knowledge available in this department of industry.

It is not more than twenty years since, that we had two classes of teachers in our public schools. And it is not too much to say that they entirely failed. The one class was composed of young men sent out from our colleges into the interior towns and small districts of the State; and, as a general thing, it may be said that they failed to produce the result which good teachers ought to produce.

We had another class which acted as teachers. They came from the mass of the people. They possessed some of the qualifications for teachers, but they were deficient in many particulars. Neither of these classes met the wants of the community. Now it may happen that we shall constitute a class of men who, in some respects, will resemble the young men who went out from the colleges to the district schools; and if we do, they will most certainly fail to accomplish the results which we expect.

We have instituted, with regard to our common schools,—and, I take it, we can reason somewhat from analogy,—we have instituted Normal Schools to furnish instruction to young men and women as teachers. They go there for the purpose of qualifying themselves as teachers. And, I take it, these institutions have accomplished most perfectly the object which the State and their patrons had in view at their establishment.

Now we are, in some way or another, to connect the science of the college and the laboratory with the labor of the farm. And the great question I apprehend is, How is this to be done? It was said here, the other night, at the Legislative Agricultural Meeting, that if you take young men and send them to college, for the purpose of instructing them in science, with the expectation that they would go out and instruct the farmers of the State, they would fail. I thought there was some force in the remark.

Now we want, in the agricultural system of education, a class of men who shall combine the science of the school with the labor of the farm. Now, to my mind, it is apparent that they must be drawn in the main from among the farmers themselves.

You must begin with the farmers, and work up,—infusing into the great mass of the people an increasing desire for scientific knowledge, which shall enable them to apply agricultural sciences to agriculture itself.

In what way, then, can you reach the great body of the farmers of the

State most effectively? I think we may do it by using, to some extent, Agricultural Institutions which exist,—the Town Societies and the County Societies. As in the common school system, the people have been led to maintain it voluntarily, so, I take it, the agricultural system of education should be maintained voluntarily in the small communities of the State. We cannot establish any great system, which shall act upon the people directly and exclusively. You may encourage agriculture, but its support must come from them.

We have a school fund to encourage education. It furnishes a small amount only to each child; but it has encouraged education to such an extent, that most of the towns make liberal appropriations to the support of common schools. It is generally believed that, if we had a fund so large that its income would equal in amount the sum now raised for the support of common schools, that our system of instruction would be inferior to what it is. As I have no doubt that it would be so.

Hold out, then, the inducement to the people to educate themselves, and you will succeed. If you have an institution to educate men to agriculture among the people, you will do something in that way. If you were to adopt the system of employing a certain number of scientific men, as we have employed common school lecturers, you might create an educational feeling which would be efficient. For example,—if there are at this moment, fifty town Societies, and if you were to employ a certain number,—perhaps five scientific men,—whose duty it should be, in the summer season, to go where these institutions exist, (and nowhere else, so that their establishment may be encouraged,) to receive and communicate information in relation to manures and crops; and if, in the winter, it were their duty to give lectures adapted to the wants of these localities, I take it you would do a great deal of good.

And if your munificence were confined to the towns where these associations exist, lecturers would increase as rapidly as the demand; and without extraordinary effort, you would introduce a system of agricultural education which should reach every young man,—give him information, and cause inquiry among the great body of agriculturalists. It would be the duty of those individuals to collect and distribute information, so that you would have a great system of lectures and experiments extending over the whole Commonwealth.

Mr. President,—I rose with the intention of not speaking at any length, and I have already occupied some time. These ideas, I dare say, will differ from those of most gentlemen of the Convention; but I think the great truth will stand, that this system, however it may be constituted, must be maintained by the voluntary action of the people themselves. The State can do nothing more than encourage it.

## SPEECH OF MR. BUCKMINSTER, EDITOR OF THE PLOUGHMAN.

MR. PRESIDENT—

I am very much pleased by the observations made by His Excellency, the Governor. I think the County Societies have been doing a vast deal of good. I am in favor of your doing something more,—of getting up a Board of Agriculture. I am very much pleased that his Excellency speaks of town Societies. We have forty or fifty in the Commonwealth. I know not why they should not be encouraged as well as the County Societies. In the large Counties of Middlesex, Essex and Worcester, there are towns which are not accommodated. They have Societies which have discussions. Now I want the Legislature to encourage them, and give them appropriations in proportion to the funds they may raise.

I was surprised to hear the assertion, this afternoon, that we had made no improvement in agriculture for forty or fifty years past. These gentlemen want to set aside the old system and begin anew. What principle are we to begin upon? The honorable gentleman from Princeton has told you that we must take Professors from Europe and bring them here. I am glad to hear that His Excellency did not recommend that. If there is any useful agricultural knowledge in the country, I ask you where it is. It rests with the practical farmers. They possess all the practical knowledge which is of any value. Chemists may talk as much as they please, with high flown language. The farmers have the practical knowledge.

The word, science, has been used. Science, we are glad to learn, is knowledge. Farmers understand that. There was one gentleman a little alarmed at science. He would not have it. Now, Mr. President, what is the use of telling us, farmers, that there has been no improvement for a dozen years past? I live in the vicinity of Worcester. Forty years ago it was the practice there, among all farmers, to let their cattle run at large, saving none of the manure; and not one man in forty attempted to increase his manure by carting in substances to preserve the essences. Fifty years ago the hogs ran in the road, and no manure was saved from them. Have not we made improvement? Your foreign chemists and your foreign professors will all tell you that manure is the very foundation of all production connected with agriculture; and yet gentlemen will tell you, and repeat that we have made no improvement with regard to farming, even when we produce four or five times as much on a given piece of land as we used to make forty or fifty years ago. I want this thing well understood. Let us look at the fact. The gentleman from Brookfield has told you some facts with regard to what we have obtained from foreigners. We have been led astray ten times by chemists where we have got real information from them once.

But I would not undervalue chemistry. A farmer cannot do any thing unless he makes more from his farm than he spends. What we want is to circulate the knowledge we possess. I know there are some farmers who

never make any improvement. What we want is to wake these gentlemen up. And the way to do it is the very mode suggested this evening by His Excellency, the Governor. I have seen no better plan than that. I will prove of it.

MR. KEYES.—I move the adoption of this resolution, and that the question be taken now for the reason that the discussion has seemed to turn upon another resolution which is to follow. I hope we shall take the question now upon this, which is simply in favor of additional appropriations for the County Agricultural Societies. It is not so important that we should discuss this very thoroughly, as our passing the vote in its favor will not bring the money. It is to pass another ordeal before that can be accomplished.

THE PRESIDENT.—The chair entertains the same views, and hopes the vote will now be taken on the resolution.

The resolution was thereupon adopted.

The fourth and fifth resolutions, which were passed over in the afternoon, were now read by the chair.

THE PRESIDENT.—There is a gentleman present who made the investigations in relation to these schools in Europe, President Hitchcock. I have no doubt the Convention will be pleased to hear from him.

#### SPEECH OF PROFESSOR EDWARD HITCHCOCK, OF AMHERST.

MR. PRESIDENT—

I have nothing to say upon this subject because I have already said much, more than I ought to have said, probably, in my report which I had the honor of presenting. And as it has been communicated or distributed to the members, I feel exceedingly embarrassed in saying any thing additional. I did not come here to-night with a view of making remarks, but only of meeting gentlemen whose names I have frequently heard connected with the subject of agriculture as well as with other important objects of interest in the Commonwealth, and for the purpose of enjoying myself by an expression of the sympathy I have felt for them at a distance.

*The President.*—The chair will take this opportunity to remark, that though the report has been distributed, there are but very few gentlemen in this assembly probably who have read it.

*Mr. Hitchcock.*—I fully agree, sir, with the remarks which have been made by His Excellency, and other gentlemen whom I have heard to-day on the importance of using other means for promoting agriculture besides establishing a school or schools. I hope no gentleman will imagine that

the establishment of a school, however judicious a plan is adopted, is going at once to make any great change in our agriculture. It is only *one* of the means which are employed in Europe for that purpose. I am not going to compare the means. I do believe that Agricultural Societies are indispensable. It is one of the reasons why I could wish to see schools established, that they may form a channel by which we may communicate with the agricultural world, by which we can receive information of what is doing in other parts of the world, of what is doing in the cultivation of land, in the raising of stock, and in a multitude of subjects connected with agriculture. If you had a school, it would be a channel through which there would come this information; and it would be a sort of ordeal to pass through.

Now there comes floating somehow or other on the winds, an account of an improvement in agriculture. An individual farmer hears of it, and undertakes to make the experiment. He fails perhaps. Then he is disgusted with every thing of the kind. Now one grand object of a school of this kind, is to try experiments, to try suggestive experiments. For it is an indispensable adjunct of all the schools in Europe that I visited, with the exception of only one in Edinburgh, that they should have a farm connected with the school; that they should live upon the farm; that the professors and officers, at least a part of them,—those who have the management of the whole concern, should engage in actual labor on that farm. Some of them do not do it for wages and some do. But they all engage, more or less, in the duties of the farm, in the work on the farm, and in every kind of work, too. Even those who do not expect to labor in after life, but who expect to have the superintendence of the labor of others, all go through the work.

I have mentioned in this report the case of a school in France, about twenty-five miles from Paris, where the director of the school, a scientific man, conducted us out to the piggery; and there we met the young men connected with the school, evidently from wealthy families, all of them, including the director himself, with their frocks on. But I noticed that all the young men were engaged in some business about the farm. Each one had his duty to perform. One was to attend to such a thing, and another to such a thing. There was one young man who had a broom and a pail of water, and who was cleaning an ox's leg in a stable. The director whispered to us that that young man was the son of a wealthy banker.

The truth is, the farm is considered an indispensable adjunct to the school. Unless those who have the management of it show better crops than others in the neighborhood, the Government withdraws its patronage. And they do show better crops. I never saw better ones than those at Glasnevin, near Dublin. There oats were raised eighty bushels to the acre; and other crops, wheat, flax, beans and potatoes in the same exuberance. This removes one of the great difficulties about these schools. I do not wonder that people shrink from making additional experiments, when they hear that this application of lime is going to work wonders, or

guano, or something else, and when they have already made the experiment once and failed. A great many suggestions which are made by chemists are tried by the farmers with failure. I do not wonder that they fail. And, after all, they say, this science does not answer. We would better follow our fathers. That is to some extent true.

The first object of an agricultural school, as I understand it, is to collect together the experience of the best farmers in Europe or in the world, and to make that experience the basis of their operation. For, after all, the principles of science although certain, if we understood them, yet are not well enough understood now to be in all cases applied with certainty to the growth of plants. We acknowledge that. And, therefore, I would place first in the advantages of an agricultural school, the getting together all that experience, the important experience which farmers have had on the subject of farming, and testing it on the farm connected with the school, and then, if it proves good there, to recommend it to the public generally.

But as we are now situated, one farmer takes one method and another another; and it is difficult to ascertain what is best, what is correct. And that is one of the advantages of these Societies; that they serve to collect these scattered rays, to bring them together to a focus, and to make clear what is the best result of this experience. But, after all, we must have the sciences taught in such a school, and we may hope to get a great deal of advantage from it. For no man will deny that the plants which are raised upon a farm grow according to the principles of botany and physiology, in far as those principles are understood.

Now botanists and physiologists have learned some things about how plants grow, what they require for food, what is the best mode for them to thrive. There is a great deal more to learn, and we want these schools to find it out.

The chemist, too, can tell us something about the composition of the soil. He tells us that often a crop fails because there is not half per cent of a certain ingredient. There are a great many other things which may be told in future. We may hope a great deal from the application of a greater variety of the principles of science.

Bur, sir, I say that this business of raising plants, as men who conduct a farm do it, is a very complicated affair and a very delicate one. I have been a lecturer on chemistry for twenty years. I do not now lecture on chemistry. I have tried a great many experiments during that time. But I do not know of any experiments so delicate as the farmer is trying every week. I do not know any so difficult. The experiments of the laboratory are not to be compared with them. Will not a knowledge of the principles of chemistry help a man in his agricultural pursuit? Knowledge is not perfect yet. Will not such an acquaintance guide him somewhat? You have half a dozen sciences which are concerned in the operations of a farm. There is the science of meteorology, the condition of the atmosphere, the state of the weather, storms, sunshine, temperature; all these things have to be taken into the account. There is to be a delicate



balancing of all these, as every farmer knows. A man who would understand the delicate operations of farming, must know something about chemistry. The chemical operations are constantly going on in a plant.

That brings in another science,—physiology. He must know the laws of life, how this or that influence will affect the growth of plants; just as a physician has to learn physiology in order to know how this thing or that thing will affect the life of individual men. You have then the science of physiology to be applied extensively. And so I might speak of botany and physiology, which are very much concerned in agriculture, the character of the soil, and a number of other sciences.

To suppose that a man is going to be able, at the present day, without any knowledge of these sciences, to make improvements in agriculture by haphazard experiments, is, it seems to me, absurd. Now if we can gain, from the establishment of a school, a little advantage at first, we shall gain a great deal in time. We learn one thing after another, so as to make progress. That is what is doing in Europe. They have found there unless they have these schools, that scientific men, who are distinguished, will not attend to the matter of conducting these experiments, so that benefit will result. The French Government have just established a school at Versailles, at the old kingly domain. And this is one of the reasons they have given for it,—we must have, they say, men who will devote their attention to this subject, who will push their discoveries to get some new thing, not expecting, at once, to obtain any great improvement.

Now these principles, the principles resulting from experience, the principles resulting from these sciences, can all be taught the young men who go to those schools. And it takes a great while to learn them. They are not applied extensively in our country, although we are making some progress. Only think, sir, this whole matter, the most difficult of all the arts, depending upon experiments the most delicate, and influences the most potent, for success or failure, whose dynamics, if I may so say, being such as to require the most acute mind, is all left for each individual man to find out. The wonder is, that the farmers of New England have done so much, not that they have not done more; because they have one of the most difficult of all tasks to perform. And hence it does seem to me that a school is important, as one of the means for assisting in obtaining this information; not that it is going to work wonders. The people must come up to it.

It does appear to me that the question about the establishment of Agricultural Schools in Massachusetts, is merely a question of time after all.

The subject has made such rapid progress in Europe, within a few years, that I was perfectly amazed to find the facts develop themselves as they did, one after the other, to discover such a multiplicity of facts with regard to them. Gentlemen who have not seen this report will, perhaps, be surprised when I tell them that I give there an account of 350 schools, of three different grades. Though some of them have been in operation for fifty years, the most have been recently established. Gentlemen there did not seem to know how many schools there were.

I recollect getting acquainted with the Chevalier Bunsen. I thought I should know from him all about the number of schools in Prussia. He gave me a list of four schools in that country. When I went there I found thirty. Probably he had not heard of them. Some of them were very small. In France there are seventy-five. In Ireland they have fifty. The Irish schools pleased me more than any others except the French. I had an opportunity, in Ireland, of hearing examinations of the young men. They were called in from the farm and asked questions on the subjects of practical agriculture, as to draining, and how to adapt crops to different soils, and other matters of that sort. And, then, as to agricultural chemistry, they were asked, What would you do in such and such circumstances? What does a soil with such and such properties need? and so on. I do not believe there is a class of students of any kind in our country, who would be able to answer one tenth of the questions which those young men answered, very readily. And going out, as they do, to take charge of other schools, they will accomplish much for the benefit of unfortunate Ireland, and being concerned with their own hands in raising these crops, for other farms applying in the field those principles which they learn in the school. I do not know how it strikes others, but it did strike me that it was a good way to promote agriculture. The Societies are doing much, but it seems to me that these schools are to elevate the Societies.

I think it is only a question of time about the establishment of some kind of school. I confess I feel a little State pride in the matter. I should be glad to have Massachusetts take the lead. In almost all the States there are *talking* about Agricultural Schools, but they do not, any of them, seem to have *acted*, as yet. Perhaps New York may have established one.

*The President.*—The bill has not yet passed the Legislature.

*Mr. Hitchcock.*—I confess I should be glad to have Massachusetts take the lead and have the school started first. I found Massachusetts stood at the head in the matter of common schools. Every gentleman in Europe, when I spoke of schools, would immediately refer to common schools and to the superior reports of the Secretary of our Board of Education. That was exceedingly gratifying. They have the start of us in Agricultural Schools on the other side of the Atlantic, but they have not in this country, and I should be glad to see Massachusetts going ahead.

The remarks of His Excellency are very proper. The people must be ready for this thing. Such is the nature of our institutions, that if the people do not wish a school, the Government cannot sustain one. If the people are not ready to force the Government to help them, it will do no good. That was the case in Europe. Individuals there, even from the year 1774, struggled and sacrificed their property and their lives in this cause. They were repelled by the Government again and again before they could get any assistance. Then they would start a private school, and would find it a very heavy affair, as any such school must necessarily be. It must be a weighty

concern, and individuals, one would suppose, would sink under it. But the thing has been done there, and the Government has been, as it were, compelled to take hold of it. There is a feeling among the people which makes the Government feel as if it must act. And availing themselves of the general peace in Europe, they have been trying to establish schools of agriculture.

REMARKS OF MR. SANGER OF NORFOLK COUNTY.

MR. PRESIDENT—

I rise for a specific purpose, and with great diffidence, after the learned gentleman who has just spoken. But he alluded to the high rank of our common schools, and to the reports of the Secretary of our Board of Education. I rise for the purpose of stating a fact. It was only thirteen or fourteen years since, in the very room where we are now assembled, that the subject was proposed and discussed whether we should establish Normal Schools. And I remember, sir, that one of the most intelligent and able members of the House of Representatives from the city of Boston, rose here and said it was one of the most preposterous things in the world to think of fitting teachers for our common schools. If there was a demand in the community, his argument was, there would be a supply for that demand. How was it to be supplied, was the question. This gentleman endeavored to oppose the introduction of Normal Schools, and others did the same. But against all opposition, during that very winter when it was first proposed here, the plan was adopted. And we now know the consequences. Thirteen years only have convinced every man in this Commonwealth of their great value, their inestimable value, which no money can possibly represent,—the value intellectual and moral, and I hope religious, to this Commonwealth and to the country, and the great reputation we have obtained by means of these Normal Schools.

Mr. Sanger closed with a few additional remarks bearing upon the establishment of Agricultural Schools.

MR. PARKER, of Framingham.—I think, sir, that the friends, after listening to the remarks of the eloquent Professor, will confess that two things are generally conceded; first, that there are scientific principles which may be applied successfully to agriculture, which is a feeling that prevails, so far as I know, throughout the entire community; beyond that I think there is a very general conviction that the applications of these principles is a very difficult matter.

MR. PARKER made a few additional remarks, elaborating these two propositions.

MR. BAGG again addressed the Convention as follows :—

MR. PRESIDENT—

Agricultural Education is our great theme. It has become a very popular theme. The *phrase* is quite familiar, and yet we hardly know what is meant by it.

Our fathers are held in grateful remembrance, as philanthropists, because their first public acts were to lay broad and deep in the virgin soil of New England, *foundations* for those educational and religious institutions which have contributed, more than any thing else, to give her importance and her sons influence. Before this audience I hazard nothing in saying that New England is a *favoured* spot. Not that she is fanned by the soft breezes of the "sunny South," not that her lands are superior, or even equal, to the rich bottoms of the West, where the soil, fat with the tribute of ages, pays an hundred fold the labors of the husbandman, and gives without being impoverished; but most highly favored with the means of moral and intellectual improvement. In this respect New England is the *bright spot* of the Union, and from this spot what a multitude of sons have gone forth to be bright, guiding stars to their countrymen.

Let it not be supposed, however, that intelligence is a natural production, indigenous to the soil of New England. It is the result of that *educational system*, whose genial influence permeates her every nook and corner, not only teaching "the young idea how to shoot," but teaching also the great lessons of *self-reliance* and *self-control*; disciplining New England's mind to *conflict*, to patient, persevering, arduous *effort*, and *accustoming* by these means, to *overcome* every obstacle.

*Such mind has resources*,—resources flowing at every step of its progress. Such *mind* can never be entirely baffled; it is made *enthusiastic* by difficulties, and is never enervated by success. Such mind *must* accomplish its purpose, and *will* even though the "iron be dull." Such mind, applied to the cultivation of the soil, will never assume the garb of the mendicant and "beg in harvest."

This system of education makes *men*, and to determine its influence upon agriculture, let us inquire whether under any other "system" and on any other "spot," can be found an *agricultural* people superior or even equal to the people of New England in *moral* and *intellectual attainment*, or more capable of *developing the agricultural resources of the soil they live upon*.

Sir, let us not forget what we *have*, in looking and wishing for what we have *not*. Let us not neglect to improve the price already in our hands wherewith to get wisdom, with the delusive idea that the State is about to furnish wisdom "without price."

Let us remember that if the State provide the means and appliances for a scientific course of agricultural study, the young man must "wake up from his drowsy nap," and *qualify himself* "to go up higher."

HON. E. ROCKWELL HOAR, of Concord, being called on by the chairman spoke as follows :—

MR. PRESIDENT—

Although I feel as much surprised as gentlemen who have preceded me, in addressing you, yet I have none of their embarrassment, because I take the call upon me as a matter of course. I have been unable to attend this meeting during the day. I have come in this evening solely for the purpose of expressing my own sympathy and that of the Society with which I have the honor to be connected, and wish, with your leave, sir, to content myself for the remainder of the evening with being, as I have already been, a gratified listener, and a listener only to what may be said.

SPEECH OF MR. KING, OF RHODE ISLAND, IN RESPONSE TO THE  
CALL OF THE CHAIR.

MR. PRESIDENT—

I can best return the compliment which I have received at your hands by being as brief as possible. The two great evils agriculture has to contend against, are torpor and prejudice. The torpor has been dealt with by the Societies in existence. Not many years have elapsed since the old farmer used always to turn out of his house during the summer to do his work. All the warm season he was occupied with his crops; and in the winter he was too lazy to do any thing at all. How stands the case now? Let this crowded house this evening answer. (I had the pleasure of addressing the farmers of Barre, a few evenings since; and, in spite of the storm which prevailed, the effects of which we see even now in our streets, the hall was filled to overflowing.) That old torpor has been driven away by the persevering efforts of Societies. They began their operation, and I am not so young but what I remember their commencement, and have continued their exertions faithfully to the present time. Men found that the secret in every combat was combination. The old fable of the bundle of sticks was brought into practical operation.

But there is a terrible power, yet to encounter; and that is prejudice. There is no one of the operations of life in which there is so much prejudice as in the farming community. Prejudice is there the child of ignorance. The question then comes up, How is this prejudice to be encountered? It is to be encountered by education. The man with maturity of years has grown up with all his prejudices. The old gnarled oak must stand as the winter of its youth has left it; but the young twig remains. And there is no one here too old or too young to carry his recollections back to his mother's knees. There is the first school. Let a child be supposed to be rather smart, and immediately he is marked out as the lawyer of the family. Let him hoard up his pennies, and make good bargains with his playmates, and he must be a merchant. But let him be a blunderhead, and he is the farmer of the family. He takes in this prejudice from his mother's lips.

Let him learn, at the start, that the farmer's occupation is the noblest of all. Let him remember that Washington called it "the most useful, the

most healthy, and the most noble occupation of man." We want nothing stronger than that. Let him know that the farmer's path can be the path to greatness. There are men, I might say, perhaps, within the sound of my voice, who have passed directly from behind the plough almost to the pinnacle of political honors.

We come now to the common school. I am for introducing into this the principles of agriculture. Let the young man gain learning in this department from the work translated by Mr. F. D. Skinner. I was in hopes that His Excellency was about to conclude his valuable suggestions by remarks, which he might have made much better than myself, by showing that the system he approved was not inconsistent with the policy proposed in the resolutions under consideration. When there has been a bad result to any experiment, it is because experience did not go out with science. Experience went out alone. The consequence was mortifying failure. Too frequently does science alone go forth into the fields in the pride of its strength and challenge the man who holds the plough to combat. It is a most unequal combat. But let experience and science combine their forces and they are invincible.

REMARKS OF THE HON. ENSIGN H. KELLOGG, SECRETARY OF THE  
BERKSHIRE SOCIETY, IN RESPONSE TO THE CALL OF THE CHAIR.

MR. PRESIDENT—

I fear that if you should set me to talking, I should carry the discussion inadvertently to some of the bills which have been so long under consideration here. As our friend of the Middlesex Society said, I came in here as a listener, and not to take part in any discussion. I can only say that I take a very lively interest in all matters pertaining to agricultural education. And feeling such an interest, I have frequently thought of the means that might be applied by the government of the Commonwealth to promote that education; of new means that might be introduced for that purpose; but I have not matured anything myself upon the subject that would be worth giving to you.

I have been accustomed to hope, however, that science, as applied to agriculture, might be pursued as a study in our colleges more fully than before; and that it will be thought best to introduce a department in connection with that. It has seemed to me that provision for the education of this Commonwealth in agricultural science should be made very common and free,—as free and as common as education in our common schools. It seems to me that the great body in our Commonwealth, in order to reap a corresponding benefit to that which is now reaped in our common schools, should receive it early in life and at their own doors. Whether that can be done, I cannot say. But certainly an effort can be made to advance the cause in that way, as well as by promoting it through Agricultural Societies.

## REMARKS OF MR. SHEPHERD OF NORTHAMPTON.

MR. PRESIDENT—I will not say that

“ He who by the plough would thrive,  
Himself must *either hold or drive*,”

but that he must *both hold and drive*; for science has not only reduced the draft of the plough one half, but holds the plough, and has almost removed the necessity of handles; for on our alluvial fields of the Connecticut valley you may see the plough guiding itself, and turning a beautiful furrow without a holder.

Agricultural pursuits are embraced by all classes with great zeal and interest, but by none in the most perfect manner. The practical farmer wants scientific knowledge, and the scientific agriculturalist suffers for want of that practice with which he would blend his principles.

We, practical farmers, have not the means of uniting in a perfect system the two. We must look with interest to the period when the community is aroused to its duty in establishing a school for the promotion of agriculture, in which scientific and practical knowledge shall be taught, and where chemistry, in the hands of skilful teachers, would analyse the soil in various parts of the State, and the plants to be cultivated, that we might know the kind of manure to use best suited as food for the crops we wished to raise. In short, we want a union in the most thorough and business-like manner, of scientific and practical agriculture.

Those of us who have made experiments in this most difficult of all sciences, are often discouraged by the amount of time and expense required to ascertain any fact out of the regular beaten track, and after all we can do, are dissatisfied by the uncertainty attending our imperfect efforts.

The Massachusetts farmer has many difficulties to contend with, but he has the disposition and energy to overcome those obstacles as fully as any cultivator of the soil in this or in any country, and as he is the most a man who rises above difficulties, may we not expect much from those who have been in the practice of it their lives long?

Much depends upon the men who first direct in this school. If we are to have those who look mainly to the emoluments of their office, without any particular knowledge of the business, and have not their hearts and energy involved in the cause, or, if like another institution of this State, a merchant or mechanic is to be selected to conduct the affairs of a farm, we cannot succeed; we want the enthusiasm and perseverance in this cause exhibited by our much esteemed President of Amherst College.

We have the best materials and mind to proceed in this enterprise; let Massachusetts take the lead, and glorious success will follow our efforts, if persevered with the energy and economy that meets a reward in our New England farming.

On motion of Hon. GEORGE DENNY, President of the Westboro' Society, it was

*Voted*, That the Central Board, provided for in the second resolution, consist of three delegates from each incorporated Agricultural Society, and that the President and Secretaries be requested to inform the Societies of this resolution.

On motion of Hon. JOHN W. PROCTOR, President of the Essex County Society, it was

*Voted*, That the President and Secretaries of the Convention be authorized to procure the publication of as many copies of the proceedings of the Convention, for distribution to the various Agricultural Societies represented, as they may deem expedient, and draw on said Societies for their due proportion of the expense of the same, and for the expenses of the Convention.

The Convention then adjourned.

MARSHALL P. WILDER, *President*.

|                     |                        |
|---------------------|------------------------|
| EDGAR K. WHITAKER,  | } <i>Secretaries</i> . |
| EDWARD L. KEYES,    |                        |
| WILLIAM S. LINCOLN, |                        |
| SAMUEL A. DEAN,     |                        |

REPORTED BY DR. J. W. STONE, BOSTON.

*The following is the list of Delegates who were present at the Convention.*

*Massachusetts State Society.*

John C. Gray,  
Robert C. Winthrop.

*Worcester County Society.*

George Denny,  
John Brooks,  
William S. Lincoln,  
Anthony Chase,  
Stephen Salisbury,  
Isaac Davis,  
James Easterbrooks,  
Ephraim Mower,  
Thomas W. Ward,  
Harvey Dodge,  
Jos. A. Reed,  
Jos. N. Bates,  
Otis Adams,  
Benjamin Flagg.

*Middlesex County Society.*

E. R. Hoar,  
O. M. Whipple,  
Samuel Chandler,  
S. Brown,  
S. S. Richardson,  
M. W. Marsh,  
Jos. Manning,  
Jabez Stevens,  
Stephen Morse.

*Essex County Society.*

J. W. Proctor,  
Moses Newell,  
Josiah Newell,  
James Stevens,  
Elisha Mack,  
James Duncan,  
Benjamin Porter,  
Lewis Allen,  
Jeremiah Coburn,  
Andrew Nichols.

*Bristol County Society.*

J. H. W. Page,  
Johnson Gardner,  
Cromwell Leonard,  
Jacob Deane,  
Isaac Wood, Jr.

*Hampshire, Hampden and Franklin Society.*

Henry Shepherd,  
Richard Bagg, Jr.,  
Francis Brewer,  
E. Edwards.

*Hampden County Society.*

Paoli Lothrop,  
John Mills,  
Francis Brewer,  
Col. Nettleton,  
G. S. Chapin,  
R. Bagg, Jr.,  
Silas Root,  
David Mosely,  
Mr. Noble,  
Col. Wilson,  
Col. Parks,  
Mr. Barnes,  
Jos. Brown, 2d,  
Alured Homer,  
R. S. Merrick,  
G. O. Bliss,  
Dr. Holcomb.

*East Hampshire Society.*

President Hitchcock,  
Edward Dickinson,  
Professor Fowler,  
Ithamer Conkey,  
Alfred Baker,  
Simeon Clark,  
A. C. Marshall,  
Baxter Eastman,  
L. D. Cowles,

Myron Lawrence,  
Leonard Barrett,  
J. B. Woods,  
Alvan Smith,  
Henry Forbes,  
Joseph Smith,  
Elijah Cowles,  
George J. Lyman,  
Lorenzo Gaylord,  
R. B. Hubbard,  
Horace Lyman,  
Luke Earle,  
N. W. Aldrich,  
Silas Ball,  
Lucius Ferry.

*Worcester Co. North Soc.*

Seth Caldwell,  
Edward Denny,  
Jos. N. Bates,  
Luke Houghton.

*Berkshire County Society.*

E. H. Kellogg,  
A. G. Welch.

*Plymouth County Society.*

Seth Sprague.

*Norfolk County Society.*

B. V. French,  
M. P. Wilder,  
E. K. Whitaker,  
E. L. Keyes,  
Samuel Walker,  
Cheever Newhall,  
Elijah Perry,  
C. C. Sewall,  
George W. Beale,  
Ward Adams,  
Archibald Dewitt,  
Truman Clarke,  
A. D. Capen.



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