31st Congress, 1st Session. Rep. No. 407. Ho. of Reps.

AGRICULTURAL BUREAU.

July 31, 1850.

Committed to the Committee of the Whole House on the state of the Union, and ordered to be printed.

Mr. Littlefield, from the Committee on Agriculture, made the following

REPORT:

The Committee on Agriculture, to whom were referred resolutions of several State legislatures and of agricultural societies, and also certain petitions, on the subject of the establishment of an agricultural bureau in connexion with the Department of the Interior, have had the same under consideration, and ask to be discharged from the further consideration of said resolutions and petitions, and that the same be laid on the table.

Mr. Bennett, from the same committee, made the following

MINORITY REPORT.

The Committee on Agriculture, to whom were referred the resolutions of several State legislatures, agricultural societies, and various petitions, &c., in favor of establishing an agricultural bureau, have had the same under consideration, and a minority of said committee have adopted the following report:

Agriculture employs the great body of the nation, and is the fundamental interest of society. A large majority (over three-fourths) of the people are engaged in its various pursuits. All other interests are dependent upon it. It furnishes means for subsistence, materials for manufactures, and articles for commerce. Whatever adds to the productions of the soil, adds so much to national wealth and prosperity, and is felt in every department of labor and every pursuit of industry.

And yet this great, paramount, national interest, by far the most important of any, has been entirely neglected by government. To this the light of science has never been extended, or any legislative aid been given. It has been left to the solitary exertions of individual energy, and the chance improvements of individual enterprise.

Our country is, and always will be, essentially an agricultural one. We have a vast extent of territory, embracing every variety of soil, climate, and productions; but in no department of knowledge is there so much left undiscovered and unexplored as in that relating to the laws of nature, as connected with agriculture, in regard to each and all of these. The science of agriculture is yet in its infancy. Farmers have not the

means for general and extended observations, or the time for study and investigation, necessary to fix principles and arrive at useful results. Agriculture is not studied or regarded as a science, but conducted in a confused and inconsistent variety of modes, according to long practice, without understanding its first principles.

Agricultural societies, in many of the States, have been voluntarily established, to correct this in some degree; and, although very imperfect as to the means of general information—not having the benefit of the labors of scientific men, devoting their time to experiments and study, to collecting facts and observations from many and different sources, by which alone general principles can with certainty be traced and ascertained, and limited as they are in the ability of extending and diffusing the information obtained—still their success has exceeded the most sanguine expectations, and proves how much, under a proper system, might be accomplished.

The establishment of an agricultural board was recommended by Washington and others of the earlier Presidents, and by our late lamented Chief Magistrate. And it is time something should be attempted in aid of this, the first and greatest interest of our country, from which all others derive their sustenance and support.

Washington's views on this subject are presented in few words, clearly and forcibly, as follows:

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

An agricultural bureau, properly conducted, would enable every farmer to have the benefit of scientific experiments and study, and of chemical analyses, as fully as if he had been at all the labor himself, and to reap the fruits of the most extended research and investigation in regard to everything relating to agriculture—the management and fertilization of the soil; the analyses of plants, and of mineral substances valuable for farming purposes; the cultivation of crops; the introduction of new, and the improvement of old, grains, vegetables, and fruits, and their adaptation to different soils and climates; the raising of domestic animals; the use of labor-saving machines; the best methods of lessening the expense, and increasing the quality and quantity, in the production of all the great staples of the country: in short, to give them the benefit of every advancement in agricultural science and knowledge, or which may be obtained from every useful improvement or discovery of practical interest and ad-

vantage to the farmer. By this means, every acre of cultivated land would also be made more productive and valuable.

All other pursuits have the aid of science and legislation—in the schools of law, divinity, and medicine; in military and naval academies; in light-houses, harbors, and coast surveys; in the care and protection extended to commerce and manufactures. *Agriculture* alone—the *universal* interest, the basis and foundation of all—has been overlooked or forgotten. "It has no academy to investigate and apply its science—no board, with the patronage of government, to discover its laws, elucidate its principles, or determine its statistics—no bureau to direct its course to prosperity—no organization to secure its interests. Bearing a large share of the burden of taxation, it is suffered to be the drudge of the state."

An agricultural bureau would afford a speedy remedy, give dignity to labor, and elevate agricultural pursuits, attracting to them men of education, such as are now struggling to engage in professions already crowded to overflowing.

In every point of view, we regard the establishment of such a bureau not only as an act of wisdom and sound national policy, but of justice to the largest, most deserving, and neglected portion of community. We have many petitions in its favor, and no remonstrance against it. The expense—five hundred dollars to a State, a large share of which will be saved (if not all) by discontinuing the agricultural desk and lessening the expenses of the Patent Office—is unworthy of a moment's consideration, in opposition to the advantages to be derived from a system which, it is believed, when adopted and put into successful operation, will be of greater benefit to the whole country—to all parties, sections, and *employments*—than any other measure, requiring so small an expenditure, ever before adopted, if not greater than that of any other measure whatever.

The minority of said committee are therefore in favor of granting the prayer of said petitioners, and report a bill for that purpose.

HENRY BENNETT.
JOSEPH CASEY.
E. RISLEY.
E. DEBERRY.

JULY 15, 1850.

The annexed was furnished the minority of said committee by the gentleman now having charge of the agricultural desk in the Patent Office, and contains valuable information and views upon the subject.

The bill proposes to establish a board of agriculture, to consist of five persons, after the plan recommended by President Washington, with a slight modification to adapt its official duties to the advance of agricultural chemistry, and kindred sciences, made within the last sixty years.

One person is to be a skilful analytical chemist, to labor constantly at the analysis of marls and other fertilizers, and such staple crops as ought to be studied and well understood by the farmers of the country. The person having charge of the agricultural desk in the Patent Office is now almost daily solicited to make a chemical analysis of earthy substances found in beds which are believed to be gypsum, green sand, marl, or some other mineral valuable for agricultural purposes. At present there is no provision whatever for making these very desirable researches. Hence

the bill appropriates a sum for the purchase of a chemical apparatus and chemicals for the use of the board. Every chemical analysis performed in the bureau, whether of fertilizers, soils, or their products, will be made known in the annual reports made for the benefit of the public.

In addition to collecting agricultural statistics, making an annual report, and maintaining an extensive correspondence, the Commissioner of Agriculture, with the aid of his assistants, will be able to procure, not only from the several States, but from all parts of the world, and annually distribute, some 300,000 packages of the best varieties of wheat, corn, rye, barley, clover, and grass-seed; cuttings of fruit trees, sugar cane tubers, and all other improved varieties of plants adapted to the climate of the United States. The little that has already been done in this way has demonstrated that with a more efficient organization for the economical collection and distribution of the seeds of the best varieties of grain, &c., a service may be rendered to the country worth millions to the farming interest. A few facts will suffice to place this branch of the subject in its true light.

The National Intelligencer of June 27, 1850, has the following editorial remarks:

"*A valuable new wheat.*—We were yesterday shown a few heads of wheat, from a field of twelve acres on the farm of Mr. J. E. Coad, in St. Mary's county, (not far from Piney Point,) in Maryland, of so remarkable a quality as to deserve a special notice. The grain is a bearded white wheat, with large heads and grains, the average height through the whole field being at this time full six feet, of a most vigorous growth. Besides the product of this field, it is remarkable that the field from which these stalks were taken is the only field in the neighborhood in which *rust* is not visible.

"The seed of this wheat was obtained by distribution from the Patent Office, the description of it being *a bearded white wheat, producing forty bushels to the acre;* a product which, or very nearly which, is expected, from its present appearance, to be realized from the field of Mr. Coad."

Clover for the South.—The Tallahassee (Florida) Sentinel gives the following interesting account of seeds distributed at the Patent Office:

"Some three years ago a small quantity of Chilian clover-seed was sent to Gov. Brown from the Patent Office at Washington. Having tried many experiments in grasses and been successful in none, he threw the seed carelessly into the ground, altogether out of respect to the persons who sent it, and in no other expectation than that it would spring up, flourish awhile, and die as soon as it felt the sun of our mid-summer. But, contrary to all his anticipations, it seemed to brighten with the sun, to care nothing for the droughts, and has now been flourishing vigorously, summer and winter, for three successive years, without care or attention, and is, as we understand, a foot or eighteen inches high. This clover, we are told, (for we have not seen it) is more like the Lucern grass than the English clover, but is a trifoil, and bears a bluish blossom. In Chili, the custom is to feed the year round, alternately upon three enclosures; and so plentiful and cheap grazing does it afford, that a horse in that section is worth somewhere about ten dollars.

"It is the opinion of Gov. Brown and others, who have seen this clover, that it will do well in Florida, and furnish the great thing needed to complete this as a farming country, to wit: a good nutritious grass for stock.

An effort will be made to save seed from the little patch we have spoken of, but as it seems to ripen at no particular time, there is a difficulty in doing so. Application should be made for more from the Patent Office; but probably, if upon further observation there should appear to be no good reason to doubt the entire success of this grass in Florida, the better way would be to send for a quantity of it to our consul at Valparaiso, or to the United States chargé at Chili. If we could only secure a grass which would make us fat and cheap stock and a plenty of it, and serve as clover is made to do in the northern States, as a most economical and efficient fertilizer of the soil, we could not fully estimate the substantial value of the acquisition."

It is confidently believed that this plant will be worth millions to the southern States, and a quantity of seed has been ordered from Valparaiso for distribution.

Nearly every variety of wheat distributed has been attended with useful results. Single seeds of Mediterranean wheat have, without subdivision of the plants, produced fifty-two stalks, and fifteen hundred plump seeds at harvest. Although the art or science of improving cereals has received little attention in the United States, there can be no doubt of our ability to reduce the cost of growing wheat and corn, both for home consumption and export, at least fifty per cent. Chilian wheat is selling for thirty-one cents a bushel, from which flour is manufactured and sent to California in large quantities. Mr. Brassingault (reliable authority) states that he has seen wheat fields on the table lands of Peru that "*had borne good crops of wheat every year for two centuries.*" Every farmer knows that this can only be done by fertilizing the land in a more economical way than is done in this country. In Peru, guano is the manure relied upon to give annual crops on the same land. In Egypt, the annual overflow of the Nile answers the same purpose. As much good may be done by careful experiments in the preparation and use of night soil as in the distribution of valuable seeds. There is now enough of the elements of wheat wasted every year in the United States as would suffice to add 500,000,000 bushels to our annual harvests. It is this annual loss of the land material for making good crops which makes their production cost more by fifty per cent. than is necessary.

A BILL to establish an agricultural bureau in the Department of the Interior, and to promote the interests of agriculture.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States in Congress assembled,* That there shall be established and attached to the Department of the Interior an Agricultural Bureau, to advance and promote the interests of agriculture, the head of which shall be called the Commissioner of Agriculture, to be appointed by the President, by and with the advice and consent of the Senate, and who shall receive a salary of two thousand five hundred dollars per annum, and perform the duties hereinafter mentioned.

SEC. 2. *And be it further enacted,* That it shall be the duty of said commissioner to collect and diffuse agricultural statistics and information; to advance the science of agriculture; to procure from the several States and other parts of the world and distribute the best varieties of

wheat, corn, rye, clover, grass-seed and other seeds, cuttings of fruit trees, sugar-cane tubers, and of all new or improved varieties of seeds, grains, vegetables, fruits, and plants, adapted to the climate of the United States; to procure and put into operation a chemical laboratory, at a cost not exceeding three thousand dollars; and cause to be made all desirable analyses of minerals and mineral waters, and such as relate to the composition or improvement of soils, the feeding of domestic animals, the preparation and preservation of provisions and breadstuffs, the manufacture of sugar, and such other manufactures as may be important to or connected with agriculture. And also cause to be made the analyses of marls and other fertilizers of the component parts of grains, vegetables, fruits, and plants, of the productions, crops, and great staples of the country, such as ought to be well understood, and such others as may be deemed useful or beneficial for farming or agricultural purposes. And to make annually a full report to Congress, containing an account of such experiments as may have been made, and such discoveries and information as may have been obtained, and upon all subjects connected with said bureau.

SEC. 3. *And be it further enacted*, That there shall be appointed in said bureau, by the Secretary of the Interior, a chemist, whose salary shall be two thousand dollars per annum, a chief clerk with a salary of one thousand five hundred dollars per annum, a recording clerk whose salary shall be one thousand two hundred dollars per annum, and one messenger whose salary shall be seven hundred and fifty dollars per annum, and whose several duties shall be assigned to them by the said commissioner; and they shall be employed in the discharge of the duties required to be performed in said bureau, to advance agricultural science and information, collect and diffuse the same, and perform the other duties required by this act, under the general direction of said commissioner.

SEC. 4. *And be it further enacted*, That there is hereby appropriated, to pay the salaries aforesaid, organize said bureau, purchase and put into operation the said chemical apparatus, and defray the contingent expenses of said bureau for the fiscal year ending the thirtieth of June, one thousand eight hundred and fifty-one, the sum of fifteen thousand dollars: *Provided*, There shall not be expended under any pretence any greater sum for any of the purposes mentioned in this act than such as are therein specially appropriated, and at no time to exceed the amount appropriated.