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GOV. ADOLPH O. EBERHART

TO THE

LEGISLATURE OF MINNESOTA

1911

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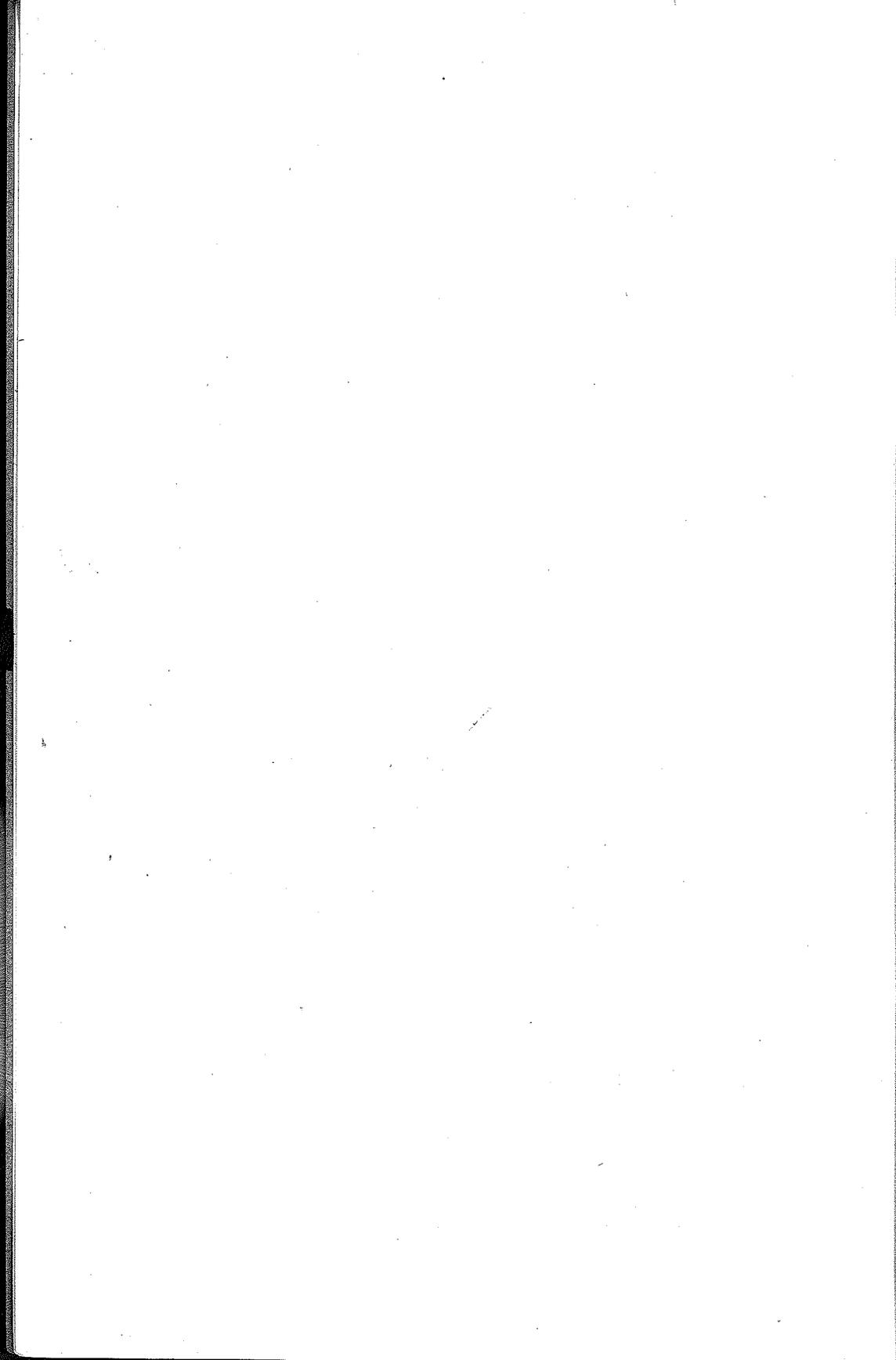
GOV. ADOLPH O. EBERHART

TO THE

LEGISLATURE OF MINNESOTA

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SYNDICATE PRINTING COMPANY
MINNEAPOLIS



Gentlemen of the Senate and House of Representatives:

In accordance with time-honored precedent and the express mandate of our state constitution, I have the honor to communicate to you such information and recommendations as seem most expedient with reference to the condition of the state and the administration of its affairs.

The people of Minnesota, in the election of 1910, have seen fit to place the control of all branches and departments of state government in the hands of the Republican party, thereby charging that party with a double responsibility. This act of confidence on the part of the people confers upon the legislative and executive branches of our state government, not only the opportunity, but the solemn duty and mandate of helpful and responsive co-operation to the end that the will of the people and their highest public interest and welfare shall find a prompt and hearty response in wise and progressive legislation as well as vigorous and efficient administration. In this cause I pledge you the most earnest and effective co-operation within my power as chief of the executive department, and to you I look with the utmost confidence and expectation for support in carrying into legislative enactment the practical reforms which the needs of our commonwealth and the progressive thought of our time demand at our hands.

In this message, I shall in some measure depart from established custom, and in addition to recommendations covering the needs and requirements of the various departments as shown in their several reports, I shall present to you the general condition of our great commonwealth, and recommend such change of administrative policy as after the most careful study and investigation I firmly believe to be necessary, in order that, on the one hand, we may stop all sources of waste and loss, and, on the other, so improve, conserve and develop our great natural resources as to insure the greatest blessings of permanent progress and prosperity to this as well as future generations.

Our state constitution defines government as "instituted for the security, benefit and protection of the people, in whom all political power is inherent, together with the right to alter, modify or reform

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such government, whenever the public good may require it." I believe that the time has arrived in the history of this state, when the public good, or, to use the language of the constitution, when "the security, benefit and protection of the people" demand a radical modification and reform in certain phases of our state administration.

We have just completed the first half century of our development as a state. We have passed the pioneer stage of our history and are now acknowledged as one of the strongest, most progressive and resourceful commonwealths of the republic. We are no longer dependent upon pioneer experiments and ancient makeshifts. We are prepared to establish our system of state government on the most scientific and progressive principles of civics and economics. We live in an era of progress, industrial and material, political and moral, the most marked in the history of our country, or in the history of the world. In the shaping of our state government, and the administration of our institutions and public resources, we are entitled to the best principles and most efficient methods. Before the installation of any reform, however, we wish to assure ourselves that it can stand the test of experience as practical and business-like, that it conduces to public economy and efficiency, and that it represents the true interests, welfare and prosperity of all the people as a whole.

IMPORTANCE OF EFFICIENT ADMINISTRATION.

No state in the Union emphasizes the importance of efficient administration in a greater degree than Minnesota. When the constitution was adopted more than fifty years ago, no one could have anticipated the phenomenal growth of the state and the tremendous resources contained within its domain. In order to keep pace with the rapid development various changes have been made from time to time and the administration of state affairs has been the subject of a vast amount of ineffective and unsystematic legislation. There has been a tendency to create a large number of boards or commissions through which the business of the state is largely transacted. The purpose of the legislature in creating these boards or commissions has been to keep pace with the rapid development of the state without apparently increasing the cost of administration. In many instances the result has been the further complication of the administrative machinery without adding to its efficiency. As an instance it might be cited that there are today not less than seven educational

boards aggregating forty-nine members, scattered all over the State of Minnesota, and any question involving all the educational interests of the state would necessitate the convening of these several boards, which is not only difficult and expensive, but impractical. There are two absolutely essential elements in successful business administration which are often lost sight of in the enactment of legislation, the definite fixing of responsibility and the securing of perfect co-operation.

The governor is the chief administrative officer of the state, and is rightly held responsible by the people for the enforcement of the laws and the efficient administration of the business affairs of the state. Under our present laws the governor is constituted an active member of not less than sixteen boards, some of which administer affairs during the year running into the millions. Anyone can readily see that it is absolutely a physical impossibility for the governor to be advised with reference to the details of such enormous business transactions that he may intelligently act for the best interests of the people of the state. As prominent examples I would mention the drainage and timber boards. The State of Minnesota spends large sums of money every year for drainage, and I have every reason to believe that the expenditure of this money by the drainage board has brought the best results, but as a member of the board I cannot of my own knowledge assure the people of the state that the best results have in all cases been obtained. The drainage problem is an extremely important one, in that it affects not only the lands to be drained, but also the growth of valuable timber and the flooding of other land areas as well as the entire moisture and rainfall situation. It is one that requires a great amount of expert knowledge and no member of the drainage commission can possibly devote the necessary time thereto. This situation is also applicable to the timber and forestry boards and in some degree to several other boards.

Let us suppose for the sake of argument, that mistakes have been made, that the money appropriated for drainage and other purposes has not been judiciously expended and that the results in all cases have not been satisfactory, the first question would be the fixing of responsibility. Should a state officer, whose time is fully taken in the performance of duties connected with his office, and who has neither time nor means of information as to the business transaction in question, be held responsible? Even if this question could be answered in the affirmative, it would be extremely difficult

to locate the responsibility in any particular case, because of the large number of members and boards involved.

In the second place, under the present system of organization, with a large number of nominal and perfunctory boards in charge of the affairs of state, there is no way of securing such co-operation as is essential in efficient business administration. The boards are uniformly too large. The members reside in every portion of the state, and even if they could be assembled at any one time and place it would be extremely difficult to agree on any single proposition and to secure uniform support in the execution thereof.

According to the report of the state auditor, the state collects and disburses over twelve million dollars annually, and if a private business institution transacted its business by similar methods, it could not long exist in the present field of active competition. Our state has been exceptionally fortunate in securing honest and intelligent officers, and the fact that the state has made such great progress with so few charges of mismanagement or graft is a great credit to the men in charge, but positively no argument in favor of the system and cannot possibly convey any assurance for the future. Bearing in mind the two essential elements of successful business administration, fixed responsibility and active co-operation, there are several departments of state that can be cited as models. The dairy and food, insurance, banking, and public examiner's departments are all properly organized with a responsible head in charge of each and deputies as well as inspectors specially skilled in their work and devoting all of their time thereto. In the board of control and tax commission every member is specially skilled in the performance of the duties of his office, devotes all his time thereto, and the business of each board is organized and transacted along lines of efficiency and merit. In all these cases there is no question as to responsibility and if all the business of the state were transacted along similar lines the results would unquestionably be far greater.

Perhaps the only remnant of the theory that purely political considerations are sufficient for reward at public expense is the present fee office. There is no possible defense for the existence of this office today. The fees collected do not belong to the officer, but to the state, and the state owes the officer a sufficient compensation for his work, including necessary expenses, and no more. No state officer should be dependent for his support upon the amount of fees

collected. If these fees aggregate a larger amount than necessary to amply compensate him for his work and necessary expenses, he is appropriating money that belongs to the state, and if they are insufficient for that purpose, he is rendering services to the state without proper compensation. Perhaps no offices in this state can illustrate this more forcibly than those connected with the oil and boiler inspection, and surveying of logs and lumber. The inspection of illuminating oils could be turned over to the dairy and food department with practically no additional expense, which would result in saving the state in fees disbursed for the inspection of oil approximately \$40,000 annually, the total amount of fees collected during the fiscal year ending July 31, 1910, being \$53,560. The dairy and food inspectors should test the oil in making their inspection trips throughout the state. This would make the inspection more rigid and effective as the inspectors would be free from local influence and independent of the amount of fees collected, all of which should go into the state treasury. With reference to the boiler inspection the same argument can be used. The total cost of boiler inspection for the year 1910, as nearly as can be ascertained from the incomplete returns filed, was about \$32,500, an amount greatly out of proportion to the services actually rendered. But conceding for the sake of argument that efficient services have been in all cases rendered, the system is still radically wrong in principle. To require a boiler inspector to travel from five to ten miles and pay his own livery fare in order to inspect a boiler and receive therefor the fee of three dollars, when the city inspector, who spends practically no time in traveling, receives the same fee, is a practice so wrong in principle as to require no argument. When in addition thereto it is required that he shall collect three dollars for the inspection of a little threshing engine boiler and the same amount for a large boiler of several hundred horsepower capacity located in a school or business building, upon the safe condition of which hundreds of lives are constantly dependent, the practice becomes still more absurd. Besides, there is not a boiler inspection district in the state organized with reference to the amount of work involved.

In the case of oil inspection, this department should be entirely abolished and its work performed by the dairy and food department. In the case of boiler inspection, this work should be performed by expert inspectors in the labor department, who should be amply compensated for their work and who should travel throughout the state in the performance of their duties, devoting

all their time thereto. The fees collected should be based on boiler capacity and paid into the state treasury. With reference to the inspection of logs and lumber, this should be performed by inspectors under the forestry commissioner, and the fees collected therefor turned over to the state as in other cases.

According to a conservative estimate, not less than \$100,000 now paid for inspection service in the three departments mentioned, should be used by the state for much better purposes, and it is safe to say that the same inspection could be made with better results for less than half of the present cost. It should be distinctly understood that this is not reflecting upon the men in charge of this work. They are uniformly good men and discharging the duties of their respective offices as far as the laws permit. The inherent defect is in the system itself.

For the purpose of bringing this scheme of reorganization definitely before the legislature, I shall discuss the contemplated changes in the administrative affairs of the state with reference to four great subdivisions or bureaus, those of public domain, public health and safety, education, and revenue and accounting.

Within the bureau of public domain, I shall discuss a department of state lands, a department of forestry, department of geology and mines, a department of game and fish, a department of waterways, a department of agriculture and immigration, and a department of public highways.

Within the bureau of public health and safety, a department of public health, a department of dairies and foods, and a department of labor; within the bureau of education, a department of education, and a department of state institutions; and within the bureau of revenue and accounting, a tax commission, a railway and warehouse commission, a public examiner, a department of banks, and a department of insurance.

It is not essential that the various subdivisions should be arranged as herein suggested, or that the departments thereunder should be so denominated, nor is it essential that the officer in charge should be known as a commissioner. These are only means of designation, and other terms can be used as conveniently and effectively, but the classification herein suggested is only one of the many that might be arranged, and one that would seem to be the most logical. The working out of such a scheme is one for the legislature, and

my only purpose in submitting this plan is to secure greater administrative efficiency by fixing responsibility and securing co-operation.

BUREAU OF PUBLIC DOMAIN.

In the organic act establishing our state boundaries, the general government assigned to Minnesota 54,196,480 acres of the national domain. The government survey describes 2,447,360 acres of this as water surface, leaving a land surface of 51,749,120 acres, or an area one-fourth greater than that of the combined New England states. An examination of government land office records from the date of the first homestead act down to June 30, 1909, indicates that something over one-third of our total state domain, or approximately 18,000,000 acres, has been patented to settlers under the several homestead acts. Timber culture entries in Minnesota, under the act of 1877, aggregate approximately 2,100,000 acres, and timber and stone entries, under the act of 1878, account for 1,275,000 acres additional. Under the homestead, timber culture, and timber and stone acts actual settlers have received from the general government about 45 per cent of Minnesota's total domain, or approximately 23,400,000 acres. Grants to railroads, including both state and congressional grants, aggregate something over 13,000,000 acres, which is a fraction more than 25 per cent of the total land area. About 6,000,000 acres have been sold or otherwise transferred to lumber and mining companies, speculators, soldiers and settlers by cash sales or various kinds of scrip, and the remainder represents public land belonging to the general government and to the State of Minnesota.

The amount of unappropriated lands belonging to the general government open to settlement in Minnesota, as shown by the land office report of 1909 is 1,450,955 acres, of which 187,000 acres are unsurveyed. In national forest reserve Minnesota has approximately 1,204,486 acres. The total unsurveyed acreage of the general government in Minnesota, including lands in reservations, is estimated at 2,290,000 acres, which, with 1,260,000 acres surveyed and open to settlement, bring the total Minnesota holdings of the general government up to 3,550,000 acres. Government administration of Minnesota lands up to date has been restricted chiefly to logging a portion of the reservation forests, construction of reservoirs at Mississippi headwaters, improvement of some of the streams, and some study of geology and drainage. Industrial operations of the general government in Minnesota are connected chiefly with the logging

of ceded Chippewa lands. During the fiscal year ending June 30, 1909, there were cut from these lands 94,000,000 feet valued at \$601,000, and in 1908, 157,500,000 feet valued at \$4,770,000 with about 200,000,000 sold and not yet cut. The average price paid for timber cut was \$6.51 per thousand. The total cost to the Indians for superintending, sealing and recording the logging for six years was \$189,000, an average cost of 25 $\frac{3}{4}$ cents per thousand feet. Besides selling to manufacturers unmerchantable timber within the limits of the Minnesota national forest reserve, the government has established the policy of opening strictly agricultural lands within the reserve to settlement and entry under the homestead laws.

MINNESOTA STATE LANDS.

Under the various acts of congress granting lands to the several states, Minnesota is entitled to 9,600,118.47 acres, as follows:

School lands	2,977,523.39 acres
Agricultural college lands	124,439.28 acres
Internal improvement	500,000.00 acres
Swamp lands	5,853,520.68 acres
Public building lands	6,395.12 acres
Salt spring lands	46,080.00 acres
University lands	92,160.00 acres

Up to July 31, 1910, patents had been received from the general government for the several classes of state lands, as follows:

School lands	2,950,060.77 acres
Agricultural college lands	94,439.28 acres
Internal improvement lands.....	499,652.51 acres
Swamp lands	4,493,941.48 acres
Public building lands	6,395.12 acres
Salt spring lands	44,930.60 acres
University lands	91,682.96 acres

Total 8,181,102.72 acres

This leaves a balance of 1,419,015.75 acres, according to the records of the state, yet to be approved and patented.

Approximately 2,800,000 acres of school, university, agricultural, college, internal improvement, swamp and salt spring lands have

been sold, and the proceeds invested for the various educational and other permanent trust funds, which on July 31, 1910, are reported by the auditor, as follows:

Permanent school fund	\$21,002,571.37
Permanent university fund	1,448,798.97
Internal improvement land fund.....	2,944,597.87
Swamp land fund.....	1,581,255.20
	\$27,077,223.41

The auditor, as ex-officio state land commissioner, reports on hand unsold in the possession of the state and its institutions at this time 2,486,405 acres, as follows:

School land	940,570.54 acres
University land	22,170.95 acres
Internal improvement land.....	7,757.71 acres
Swamp land	1,515,906.14 acres

In addition to the above holdings, the auditor estimates that there is still due from the general government 600,000 acres of selected swamp and indemnity school lands, bringing the total up to approximately 3,000,000 acres, as the total public domain to be administered in the interest of our public schools and other state institutions, as well as the general public.

DEPARTMENT OF STATE LANDS.

The necessity of amending our present laws and methods of handling state lands, with the organization to that end of a separate state land department, is now generally admitted. Our present ex-officio land commissioner, State Auditor Iverson, advocated such change in his report of two years ago, reiterating his position at this time, and a bill to that end was introduced in the last legislature but failed of passage because of certain constitutional difficulties. The attorney general, in his report to your body, condemns the present land laws and methods of land sales as archaic and obsolete, and frankly says: "If the State of Minnesota expects to sell its land, and induce settlers to buy the same, in my opinion the law should be so amended as to permit of sales being made every day in the year by the respective county auditors, and upon terms that, while fair not only to the state and the settler, will also be in the nature of inducement to the latter."

Among the vital and practical reasons for the proposed reform in our land laws and administration, therefore, are the following:

First, to make the state agricultural lands accessible and available to actual intending settlers.

Second, to realize for our schools and other public institutions full and just values for their lands.

Third, to place unsold lands, with their timber and other products, under businesslike administration, improving and developing their resources, and protecting them from fire, depredation and waste.

Fourth, to provide for a thorough survey of the lands and their resources, with maps, topography, inventory of resources, classification as to their value for agriculture, mining or forestry purposes, with appraisals as to values.

Fifth, to co-operate with other respective public domain departments of the state with reference to the various lines of development and improvement, such as drainage, highways, forestry, agriculture, waterpowers, waterways, geology and mines.

Sixth, in separating the land department from the auditor's office, to make the latter an independent check upon the accounts and business transactions of the land department as contemplated by our constitution in creating the office of auditor.

Before the above reform in our land laws can be carried into legislative effect, however, it appears wise and apparently legally necessary to submit the proposition to the people in the form of a constitutional amendment.

Article VIII of our state constitution, governing the sale of swamp lands, contains this provision: "**All swamp lands now held by the state, or that may hereafter accrue to the state, shall be appraised and sold in the same manner and by the same officers, and the minimum price shall be the same less one-third (1-3) as provided by law for the appraisal and sale of the school lands under the provisions of title one (1) of chapter thirty-eight (38) of the General Statutes.**"

Chapter 38 of the General Statutes of 1878, thus referred to, is the chapter which makes the state auditor ex-officio land commissioner, gives him full supervision of the lands and their sale, and

provides for the present method of handling and selling state lands. If the state swamp lands, under this constitutional provision, are to be handled and sold by the present method and officials, it would scarcely be practicable to create a new land department and different land laws for handling other classes of lands, and it is therefore necessary that by the authority of the people under a constitutional amendment the proposed land reforms be established in their entirety.

In order that the state lands may be sold to best advantage it is very desirable that sales should be made at all times on a basis similar to the handling of private lands, but this involves a legal question and also one of public policy. The legal question is raised by the proviso in Article VIII of the constitution, governing the sale of school lands, which reads:

“Provided, that no portion of said lands shall be sold otherwise than at public sale.”

The term “public sale” is legally interpreted to mean advertisement and public auction. In 31 Minn. 286, Judge Dickinson so interprets it, when he says: “The sales are to be at auction.” So in a number of decisions from other states, we find that courts interpret public sales as in pursuance of legal notice and by auction or public outcry.

It is not necessary that the policy of public sale, as required by our constitution, should be entirely abolished. When the public lands have been properly appraised, the commissioner should be authorized to make sales to bona fide settlers at all times and still continue to make smaller public sales at more frequent intervals, say, every thirty or sixty days, when in his judgment the public interests can best be subserved thereby. These sales should be conducted under co-operation of the departments of immigration, agriculture and forestry, in such a way as to be best adapted to the convenience of settlers, the requirements of business, the plans of conservation, and so as to preclude the need of withdrawing from our school lands the constitutional safeguard under which the people have seen their permanent school fund become the greatest in the world.

The proposed constitutional amendment should amend Article VIII of our constitution in such way as to remove the old statutory limitations laid down in Chapter 38 of the General Statutes of 1878, and give present and future legislatures full power to handle the

land question by the best up-to-date methods, including the power to create a separate land department, conduct sales as business conditions require, co-operate with other state departments in managing and improving the lands and handling the products, and, in short, placing our public lands and natural resources on the modern basis of science applied to business, with the present and permanent interests of the state protected at every point.

Upon this last named subject, I desire to lay special stress. The office of state auditor is created as a check upon all the financial operations of the state. The auditor is the watch-dog of the treasury and the chief guardian of our accounts. The greatest financial operations of the state are those relating to our vast land, timber, mineral and water power possessions—the heritage of our school children and rich enough to produce a future income estimated all the way from \$100,000,000 to \$200,000,000. How grossly inconsistent and illogical is therefore our position, when, instead of having the auditor's department maintain an independent check upon each item of this great volume of public business by not allowing one dollar to pass except by his official draft or warrant, we abolish all such check upon every public domain transaction, by placing them directly in charge of the officer selected by the people and the constitution to do this important checking service. Neighboring states, owning only a small fraction of public domain as compared with ours, have separate land departments, while in Minnesota the land commissioner for fifty years has been his own auditor, with no direct and systematic daily check upon his land, timber, and mineral transactions such as the auditor himself gives all other departments and business, except the one or two examinations by the public examiner in recent years, which cover only a limited phase of our land business. No one realizes the public wisdom and necessity of amending the old system improvised in pioneer days more keenly than the state auditor himself, as shown by his report, and let me say, in closing this chapter, that nothing proves more conclusively the ability and character of the public officials whom Minnesota has elected to this office than the great trust fund and land heritage which they have preserved.

DEPARTMENT OF FORESTRY.

The original forest area of Minnesota is estimated at over one-half of the total land surface of the state, or approximately 28,000,000 acres, of which perhaps 18,000,000 represented pine and ever-

greens. About one-half of the original forest area yet remains, though materially depleted by fires and cuttings. In other words, the present forest area may be estimated as covering less than one-fourth of the state, or approximately 13,000,000 acres. Part of this is hardwood, though the greater portion is pine and pulp-wood, chiefly located on the northern wooded plateau of the state, where it is of inestimable service in protecting the sources of our streams, including the headwaters of the Mississippi, the Minnesota, Red River of the North, the Rainy River watershed, the St. Louis and St. Croix, and the streams which flow into Lake Superior.

Of our total wooded area 1,204,486 acres are set aside as a national forest reserve and nearly 2,000,000 acres more represent unsurveyed government forest lands largely in the Indian reservations, making a total of over 3,000,000 acres of national government holdings in Minnesota. The state forest reserves, including the Burntside reserve of 20,000 acres in St. Louis county, Itasca State Park with 15,000 acres, the Pillsbury Forest Reserve near Cass Lake, and about 4,000 acres of donations and acquisitions in Carlton and other counties, aggregate about 40,000 acres, but of the total 3,000,000 acres of state lands nearly all is in the timbered section of the state and perhaps not less than 2,000,000 acres may be considered subject to the forestry administration of the state. The remaining forest area, perhaps eight million acres, is in private hands, including homestead settlers, timber and stone claimants, lumber companies, railroad companies, and various investors in stumpage lands. The total standing timber in twenty-one counties now partly covered by forests is estimated by the forest commissioner at about twenty billion feet, nearly one-half of which is supposed to be pine. At the present average lumber cut of a billion feet a year, it would take about twenty years, without the help of forest fires, to complete the denudation of a state which once had one of the greatest and most varied forest areas.

It would seem as though the necessity of placing the public forest under scientific and businesslike administration were so plain to the general public and to the members of this legislature, that any argument should be unnecessary. The state has just experienced another chapter of horrors in connection with the Rainy River Valley forest fires, which should be sufficient to demonstrate the necessity of improved forest administration. But the Hinckley, Chisholm and Beaudette fires, with their losses aggregating millions of dol-

lars' worth of property, and numerous human lives, tell only a part of the sad story. To this we must add losses by trespass and depreciation, and loss by neglect of growing forests as well as loss of opportunities for reforestation. It is estimated that the aggregate forest resources of Minnesota are worth \$100,000,000, which is the strongest possible argument for adequate methods of protection, development and administration.

The state also has a large area of cut-over lands that are valuable chiefly for reforestation, and the same applies to a considerable area of our swamp lands. When we read the reports of European state forests and note what earnings are derived from forest lands, we begin to appreciate that timber is one of the most valuable crops that soil may produce and that land of little or no value for farming may be made a generous revenue producer by scientific forestry. Let us consider, for a moment, a few European examples reported by our state forest commission. Bavaria's state forests comprise 2,150,000 acres, or about the forest area of Minnesota's state lands. The average value of Bavaria's forest lands is \$50 per acre, or five to ten times the present value of much of our northern domain, and the total forest revenue exceeds \$8,000,000 per annum, with a net revenue of \$3,000,000 after paying all salaries, wages, local taxes, improvements and other costs of administration. Austria has state forests of about 2,500,000 acres, on which about \$1,800,000 a year is expended for administration, including reforestation, and yet there has been an average net profit of about \$700,000 per annum for twenty years over and above the cost of administration, improvement and development. Denmark's state forest of 140,000 acres earns about 30 per cent over and above the annual cost of administration, notwithstanding liberal expenditures for planting. In France state forests aggregate 2,800,000 acres, and those belonging to municipalities and public institutions amount to 4,800,000 acres. Her forests cost about 70 cents per acre for administration and yield an annual income of \$2.70 per acre, netting \$2.00 per acre profit, or applied to a forest area similar to that owned by our state, there would be a total net income of about \$4,000,000 over and above the cost of administration. The public and semi-public forests of Norway approximate in area the state timber lands of Minnesota. In 1904-5, Norway's expenditure for forest administration was 644,000 crowns, with revenue of 1,000,000 crowns; in other words, the revenue exceeded expenditure by over 75 per cent, although 1,500,000 trees were planted. Prussia's state forests reach

the grand total of 7,000,000 acres. During the ten years ending 1908, her annual expenditure for forest administration was \$12,700,000 and the annual revenue \$24,900,000. Today a net income of \$2.50 per acre is earned and the forest area increased by sowing and planting 50,000 acres a year. At the same time forest products of Prussia have increased by scientific methods of administration for seventy-five years until the average yield per acre has grown three-fold and the net income has grown nearly ten-fold. Saxony's state forests earn \$5.30 net revenue per acre, while those of Wurtemberg earn \$6.00. The net earnings of 2,000,000 acres of forest in Switzerland vary from \$3.00 to \$9.00 per acre. In Zurich, the famous forest of Sihlwald, worked since 1680, now earns a net annual profit of \$12.00 per acre.

In scientific forestry administration, Sweden has made most wonderful progress. Her net revenue over cost of administration increased from \$300,000 in 1880 to \$2,000,000 a year at the present time. In 35 years, Sweden by purchase and reforestation has increased its state forest area 45 per cent, 600,000 acres thereof being acquired by purchase. During a similar period Minnesota has received nearly ten times that amount in government grants, without a dollar of expense for investment. Minnesota today consumes about double the amount of lumber which it produces, while Sweden, next to Russia, is the greatest exporter of lumber in the world.

The forest problems of our state have been sadly neglected. For protection against forest fires, Minnesota spends less than one-fourth of what is required for effective results, and in the way of practical forest administration conducts only a few scattered experiments with nothing like a comprehensive scientific and businesslike system of forestry. The cost of forest fire protection should be borne by the benefited forest property on the basis of an insurance risk, private timber holdings paying their pro rata share of the cost. On this basis, the cost of fire protection need not be materially increased against the general taxpayer, and then only as he gets liberal returns for insurance against loss. Protected lumber companies and other private stumpage owners can well afford to pay their cost of protection on the same basis as the state, and both public and private interests should co-operate in securing this protection. As regards the details of forest administration, the legislature will find splendid examples in the experience of both European and American states, and I doubt not that Minnesota's trained lumber and forestry ex-

perts in both scientific and business fields will be able to develop a system adapted to our practical needs, whenever the legislature extends the legal authority and votes the appropriation for the establishment of a thoroughly organized department of forestry.

As showing that our timber lands justify on business grounds reasonable expenditure for administration, I present herewith the auditor's statement of pine lumber cut from Minnesota state lands for the past six years:

	No. of Feet.	Amount Obtained.	Average Per M.
1905.....	52,518,325	\$325,992.23	\$6.72
1906.....	63,849,250	430,505 34	6.74
1907.....	54,244,810	446,539.70	8.23
1908.....	70,360,550	549,559.97	7.81
1909.....	25,692,170	217,011.26	8.45
1910.....	14,255,600	116,732.05	8.19

The above receipts are from pine logging only. Expert forestry administration would largely pay for itself in utilizing grades and classes of timber, pulp-wood and fuel, which the state as yet makes little attempt to market. Revenue from wise and scientific cuttings and sales, and the removal of dead and down timber, would pay for cost of administration, while at the same time aiding the growth of young timber of desirable classes. I believe that, even from the beginning, Minnesota will find scientific forestry a source of revenue, instead of expense, and that, if we stop the present loss and depletion without further delay, we shall each year find our state forest a growing source of public revenue, and a blessing to the people instead of, as today, a source of peril to life and property.

DEPARTMENT OF GEOLOGY AND MINES.

After mining and shipping to the furnaces 254,000,000 tons of iron ore, the world's record of production, Minnesota has now definitely located a body of ore, amounting to 1,347,596,000 tons, which is one-third of the available and merchantable ore of the United States and upon which taxes are paid into the state treasury. Minnesota iron ore shipments this season exceed 30,000,000 tons, which is 72 per cent of the total production of the Lake Superior region, about 60 per cent of that of North America, and perhaps one-fifth that of the world. And yet Minnesota has no state department of mines, and not even, in operation at this time, the usual geological survey, found in most of the states of the union.

Our educational institutions, notably the public schools, university and agricultural college, lead the world in wealth and income from these mines. It has long been apparent that mineral resources which promise our schools and university a future income of more than \$100,000,000 require detailed expert administration. Our state geological survey, created from the proceeds of the government "salt spring land" grant, was discontinued over ten years ago, at the height of its usefulness, and before it had completed its work. Lines of work suggested by its director such as a special examination of all state lands for mineral purposes, a soil survey of the state, and a survey of the waterpowers and waterways, are still incomplete because of its discontinuance. Other Northwestern and Mississippi Valley states, such as Wisconsin, Michigan, Illinois, Iowa and Missouri, which together possess and control for educational purposes but a small portion of our wealth, all conduct permanent geological surveys and some of these states as well as many eastern and western states have separate departments of mines.

The original geological survey grant made by congress to Minnesota in 1857 conveyed seventy-two sections, or 46,080 acres. Of this grant, Minnesota has received to date 44,907 acres, and is entitled to 1,149 acres more, which should be selected forthwith. From the proceeds of the sales and stumpage and other receipts the total revenue realized since the organization of the state aggregates \$340,000. There still remains unsold about 4,500 acres of cut-over lands located on the Vermillion range, which, with the 1,100 acres due from the government, makes an estate of about 5,600 acres besides a balance in the treasury to the credit of the survey of a little over \$10,000. From the standpoint of good business management there can be only one thing to do and that is to treat the above estate and credit balance as a nucleus of a fund for a new geological survey and department of mines, and, following the example of Wisconsin, Michigan and Missouri, make such additional appropriations from year to year as are necessary to maintain a department of geology and mines worthy of our great mineral industry and resources.

Among the first duties of the new state department are:

First, a thorough-going geological and mineralogical survey of all state lands, so that the state will know the mineral value of its 3,000,000 acres of public lands.

Second, a geological survey of the new and undeveloped iron ranges in the counties of Crow Wing, Carlton, Morrison, Cass, Otter Tail, Beltrami, Koochiching and Itasca, similar to that made of the Vermillion and Mesaba ranges.

Third, a geological survey of the state at large with reference to stone, peat, clay, road material, and other miscellaneous geological resources.

Fourth, a detailed administration of state mines and leases for the development and protection of public revenue for our educational institutions.

Fifth, a general supervision of the mining industry and the enforcement of laws pertaining thereto, so as to fully protect the interests of the state.

The expense of such administration will be returned in revenue to the state many fold. Mine royalties and leases this year earned for our state institutions over \$325,000, and in twenty years the state treasury has realized from its mines \$1,850,000, not including taxes. The state tax on iron ore this year is \$618,000, which is over thirteen times the state tax from iron ore in 1900. In the past four years, since the organization of the Minnesota Tax Commission, the state treasury alone has realized \$2,450,000 from iron mine taxation, not to mention the still larger revenue contributed by the mines to the support of town, county, village and city government and for roads, bridges, and schools in the iron-producing counties. The United States government, which has a comparatively small direct interest in our mines, has established both a geological survey and a bureau of mines, and equipped them with a force of high-class scientific and practical men as well as laboratories and assay plants. Wisconsin, whose iron resources are perhaps one-fourth of ours, has a geological survey force whose work has achieved for that state a national reputation. Missouri has not only a bureau of geology and mines with a state geologist in charge, but also a bureau of mines and mine inspection, with a corps of mine inspectors. Ohio has a geological survey with a state geologist and several assistants and likewise a mine inspection department. Illinois has both a geological commission and a state mining board with a staff of officers and inspectors. The Dominion of Canada has a geological survey, established in 1868, for the support of which the government in 42 years has paid out \$2,800,000, the appropriation for 1909 being \$240,000.

The iron ore product of Minnesota for this season, worth about \$135,000,000 at the lower lake docks, is greater than the entire mineral product of Canada, and fully equals in value the mineral products of Wisconsin, Michigan and Illinois combined. In addition thereto, the state has large interests in 276 mineral leases and 83 mines with a total estimated mineral wealth of more than \$100,000,000, the greatest school and university endowment in the world. Consequently, the prompt and thorough organization of a state department of geology and mines with a revision of our laws governing mines and mineral leases, is a paramount duty which this legislature cannot afford to shoulder upon future legislatures.

DEPARTMENT OF GAME AND FISH.

Nature has richly endowed the State of Minnesota with game and fish. It is one of our natural resources, in the conservation of which the state has been most fortunate.

The total disbursements of the department for the year 1910 amount to \$95,407.17. Out of 504 prosecutions, there have been only 32 acquittals, and the sum total of fines for the year 1910 amounts to \$8,624.45.

A suggestion is made in the report of the commission which I believe worthy of particular consideration, namely, that some method be instituted whereby it may ascertain the amount of game killed in the state from year to year, in order that it may determine with greater accuracy what ought to be done to preserve the game in the future.

Minnesota has a larger number and also a larger area of inland lakes than any other state in the union, and fishing, both as a sport and an industry, is constantly increasing. The fame of our summer resorts and beautiful lakes attracts thousands of visitors from distant states annually.

One of the best investments made by the state is the improvement of our fish hatcheries so as to increase the supply of fish. The total distribution of fish-fry for the years 1909 and 1910 amounts to 199,886,967, which is an increase of 100,505,667 over the years 1907 and 1908.

DEPARTMENT OF WATERWAYS.

One-fifteenth of Minnesota's surface consists of lakes and streams. Our water area approximates 4,000,000 acres. The elevation of this water area ranges from seven hundred to eighteen hundred feet

above the sea, the average altitude of our lake and stream reservoirs being about 1,200 feet above sea level. We have about 7,500 meandered lakes, most of them future sources of power and transportation facilities. The source of the Mississippi lies 900 feet above the point where it leaves the southern boundary of the state. The Red River of the North has a fall of 700 feet within the state, the Rainy River 600 feet, and the Minnesota and St. Croix about 300 feet each. In addition to these well known streams, great water powers exist on the St. Louis, and a score of rivers which flow from our northern watered plateau into the Great Lakes and Hudson Bay systems. It is estimated that the aggregate power of known available falls and rapids in Minnesota is about 500,000 horsepower, of which considerably less than one-half is now utilized for industrial purposes. In other words, the available waterpower of the state, as at present surveyed, is equivalent to over 8,000,000 tons of coal per annum, developed into industrial power. Minnesota has no coal mines, but its waterpower, which is never consumed, and should be as great one hundred years from now as today, if properly conserved and developed, is approximately equal, in amount of available horsepower, to the average coal product per state of the twenty-eight coal producing states. The high commercial value of all power supply is determined, first, by the degree of inexhaustibility; second, by the low initial cost of production; and third, by its proximity to the mills without high cost of transportation. Coal is brought to Minnesota at an average cost of about \$2 per ton for transportation, in addition to the value of production at the mines. Moreover, the coal supply of the best coal producing states will be exhausted in a comparatively few years, and the most of the coal product must gradually rise year after year to the prohibitive point. The time may come when Minnesota, by the complete utilization of its lakes and streams, according to estimates of competent engineers, will develop for the purposes of power, light and heat, not less than 1,000,000 horsepower. When this time arrives few states in the union, however enormous their present coal supply, will be able to compete with Minnesota in abundance of cheap power. Many of these waterpowers are on public lands, all of them are on streams controlled by the state and nation.

Besides the resources of our water powers, there are the resources of our waterways. The Mississippi river as a water power, developed Minneapolis, Little Falls, and other milling towns. The Mississippi as a waterway created St. Paul, St. Cloud, Red Wing, Winona and a score of other river towns. The waterways of Minnesota were the

channels of early immigration and settlement and were responsible for pioneer development. But the greatest waterway asset of the state is Lake Superior. The cheap and easily available transportation facilities of the Great Lakes system are wholly responsible for the development of our iron ore wealth and for the larger share of our logging, lumber, coal, wheat, flour and general jobbing business. As compared with the average rail charge of \$7.80 per ton for a haul of one thousand miles, the Great Lake route transports a ton of iron ore one thousand miles for 80 cents and brings back a ton of coal for 30 cents. This is the miracle of transportation, which has been perhaps the greatest factor in northwestern development. It is our great transportation asset, Lake Superior, that places Duluth for all business purposes as near as Chicago to the Atlantic seaboard, while situated five hundred miles nearer the markets of the Pacific and the great trade empire which lies between Lake Superior and Puget Sound. Minnesota lies, not only at the head of the Great Lakes system, but of the Mississippi River Valley watershed. Through the Soo Canal, Minnesota and the great industrial region behind it ship to the Atlantic seaboard a tonnage four times that which passes through the Suez canal. Down the Mississippi to the Gulf and through the Panama canal, Minnesota, within the lifetime of many of those within reach of my voice here today, will ship southward through the great improved channels of our greatest national waterway a commerce that will vie that which now passes eastward via the Lakes. The day will yet come when the internal commerce of America's great industrial center will pass through the Great Lakes system into the Mississippi by a Lakes to the Gulf route, of which Minnesota is the pivotal center and distributing point. The fact that the waterway can carry a given freight tonnage at about one-tenth of the expenditure of power required by the railway, makes every navigable lake and stream and connecting canal a vital asset and factor in the industrial life and commercial development of our people.

Closely associated with our waterways problem is that of drainage and reservoirs. The problems of waterpowers and waterways and drainage are alike a subject for the hydraulic engineer. The waterway is the trunk of the drainage system, the drainage ditches which reclaim millions of acres of wet lands are the small veins and capillaries which articulate with the main artery system of which the principal trunk is the great navigable waterway. Minnesota has 6,000 miles of county drainage ditches which reclaim 4,000,000 acres of wet lands, at an expenditure of nearly \$9,000,000. Minnesota also

has a state drainage system which has constructed eleven hundred miles of drainage ditches and reclaimed 1,100,000 acres of wet lands, at a cost of about \$1,400,000. In other words, the total public ditches dug by the state and counties of Minnesota approximate 8,000 miles in length and have reclaimed about 5,000,000 acres at a cost of \$10,000,000. The average cost of drainage per acre is therefore about \$2, whereas the average benefit is from \$5 to \$10 per acre.

The water resources of Minnesota are not restricted to surface water. It has been demonstrated by geological investigation that a good share of the central and southern portion of our state holds in its underground sandstone strata artesian supplies that perhaps are not excelled elsewhere in this country or on the globe. Hundreds of our Minnesota lakes are fed by artesian supplies and the cities of central and southern Minnesota already have several thousands of deep wells which tap the sandstone strata for pure water for their domestic and industrial uses. Science has recognized for generations that no artificial filtration system equals nature's great sandstone filters which purify waters taken from the surface and conveyed many miles through pores of solid rock. In a great and growing state like ours, with a rapidly increasing city and village population constantly polluting our streams, the possession of great natural resources of artesian water is a prime factor in the health, comfort, strength and vitality of civilized life.

The water resources of Minnesota, therefore, comprise a big chapter in our scheme of conservation and development. Water powers, waterways, drainage and artesian supply are a source of wealth, income, life and development worthy of high recognition on the part of the state, and give ample field for the organization and activity of the best scientific and business talent. It goes without saying that a department in charge of at least one commissioner, devoted to the conservation and development of our water resources, will earn its cost manifold. The revenue resulting from a single waterpower or the commercial advantage of a single waterway may warrant the support of such a department for a decade. Among the lines of work which this department should at once undertake are the following: A complete survey of the navigable streams of the state, including the gauging of the currents; a census of the developed water powers; a survey and estimate of undeveloped water powers; a survey of the entire drainage area of the state and of the sections which need drainage; a complete map of Minnesota lakes and streams showing elevations and topography, and indicating the location of waterpowers and navigable channels;

a rainfall map, giving the location and capacity of deep wells; a plan for the co-operation of the state with the federal government in connection with waterways, waterpowers and drainage; an investigation of the laws and administration of various states and countries with relation to water resources, and the submission of a proposed revision of Minnesota laws governing this subject.

DEPARTMENT OF AGRICULTURE AND IMMIGRATION.

Minnesota possesses the greatest agricultural resources of any state in the Union, and yet it is one of the few states which have no centrally organized department of agriculture. Of her 45,000,000 acres of agricultural lands, less than 50 per cent are under cultivation, and this 50 per cent should yield, under proper methods of administration, from 50 to 100 per cent greater returns than are now realized.

The general government gives to agriculture one of its best equipped federal departments. Mississippi valley states, such as Iowa, Wisconsin, North and South Dakota, Missouri, Illinois, Indiana and Ohio, all have state departments of agriculture. The same is true, not only of the Pacific coast states, but of such Atlantic coast states, as Massachusetts, Connecticut, New York, New Jersey and Pennsylvania, which are noted chiefly for their manufacturing resources and interests, rather than agriculture. As showing what other states are doing in this line, Missouri has one of the best organized departments of agriculture, in charge of ten officers and specialists. This department works in harmony with the agricultural schools and colleges, the livestock breeders, corn growers, state dairy association, swine growers and breeders, sheep breeders, highway engineers, and home-makers conference. It remains for the great mining and manufacturing state of Pennsylvania to cap the climax with the most elaborately organized agricultural department. The Pennsylvania department appears to be modelled somewhat after that of the general government, with a secretary of agriculture, and such special bureaus, as dairy and food, livestock, veterinary science, agricultural chemistry, and specialists in all the various branches of agricultural science and industry. Before the organization of that department in 1895 there had been a steady decrease in the value of the state farm production for over twenty years, the value of the 1890 product being one-third less than that of 1870. The wonderful results of this organization appeared immediately in the census returns of 1900 when the farm products of Pennsylvania showed a gain in value over 1890 of 70 per cent

Minnesota in 1909 turned out an agricultural product estimated as worth over \$427,000,000, or about \$215.00 for each man, woman and child within the bounds of our commonwealth. This farm production is admittedly the foundation of all material progress and prosperity. But with less than one-half of our agricultural soil under plow, and with the product of this fraction much below what it should be under the best methods of intensive farming, it is apparent that the maximum of our agricultural production should be fully three times that of the present output. The possibilities of scientific agriculture in Minnesota therefore, are worth our most profound consideration and care.

Minnesota is the first state in the Union in wheat production, with a record yield of 94,000,000 bushels; but the 1909 average of 16.8 bushels per acre, though above the average for the country at large, is only half that of the best wheat sections of Europe or even that of Minnesota in the earlier days. We produce in a year about ninety million bushels of oats, sixty million bushels of corn, twenty million bushels of potatoes, and are leading in barley and flax production; but each of these crops could be increased at least 50 per cent by the general introduction of seed selection, crop rotation, fertilization and such other scientific methods of tillage as would restore and increase soil fertility. Our progress in fruit growing, truck gardening, livestock, poultry, and dairying during the past twenty years has been phenomenal. In creamery butter we have led the states in capturing national and international trophies; and Prof. Haecker proves to us that if the average dairy herd of Minnesota were brought up to the standard of the best herds, the annual income from dairying alone would be increased more than \$25,000,000.

The state has done much to encourage scientific agriculture; what we now need is to make co-operative and effective under a well-directed central organization the many lines of agricultural activity now in progress in the several directions. We have one of the greatest agricultural colleges and farm schools in the country, with three fairly well equipped experiment stations, and a farmers' institute or traveling lecture course. We have built up the greatest state agricultural fair in the United States. We have a successful and efficient state dairy and food department, a livestock sanitary board, an immigration board, forestry department, highway commission, drainage commission, and among its associate agricultural organizations Minnesota has one of the greatest horticultural soci-

eties in the world, the most successful butter and cheesemakers' association, and progressive associations of livestock breeders, fruit growers, bee and poultry raisers. These several institutions, commissions, departments and societies, each in its own line, have performed a vast service in our educational and industrial development, but the greatest efficiency and economy of energy have not been realized because of lack of co-operative organization. Every one of these organizations would find its power for practical good in reaching the people and developing the industries of the state greatly increased if there were a central state department bringing all of these scientific activities into practical working co-operation toward direct and definite ends. The agricultural college and farm school, which are now educating the rising generation, need the co-operation of various state departments and associations to carry the results of their educational work and experiments to the present generation of farmers now operating our 156,000 farms. The state fair needs similar co-operation to make the fair a greater power for industrial and educational influence. The dairy department, forestry department, highway commission, drainage commission, immigration board, and the various allied associations, can all perform a vaster practical mission for state development if their combined efforts are mutually and reciprocally co-operative along the lines of least resistance, instead of each toiling alone, often with scant public knowledge or appreciation and feeble support within its own circumscribed field. Organization, concentration of systematic and scientific effort, is the law of successful development in every branch of the business world; and the people of the state would do well to recognize this fundamental law of business success, if public institutions shall be permitted to keep step with the rapid march of business prosperity.

That greater organization in agricultural education and industry is absolutely essential even in our own state, is well known and generally admitted. An appalling annual loss of soil fertility from unscientific methods of tillage has been demonstrated to a mathematical certainty. The late federal census returns show an actual decrease in number of farms in several of our older counties, amounting to as high as 200 to 300 farms per county. As many as twenty-eight Minnesota counties, located not only in the older southern districts, but in the central and western sections of the state, show less population in 1910 than in 1900. The deserted farm, the product of the old-style, one-crop farming, which has laid waste great areas of once valuable territory in eastern states, has

begun to make its appearance even on the borders of the virgin soil of Minnesota. Of the half million young people in our schools and colleges, our present facilities for agricultural education reach less than one per cent, and the amount of knowledge regarding scientific methods of agriculture which reaches the great masses of our 300,000 farmers and farm hands is too small to warrant computation.

As a business investment, the census of 1910 values our present 155,759 farms at \$1,259,510,000, not including farm machinery, livestock and products on hand, which would perhaps swell our total farm investment to approximately \$1,500,000,000. Then there is nearly as great a potential agricultural area, including individual state and federal lands yet to be converted into farms. In regard to the large domain of state lands, including school, university, swamp and other institutional lands, the state stands in the relation of a direct proprietor and manager, and has duties as such in the way of improvement, drainage, forestry, roads and general agricultural management not only in the interest of our educational institutions, but also in justice to the struggling settler whose claims are surrounded by public lands exempt from taxation, we cannot conscientiously neglect longer our plain duty as chief land proprietor.

IMMIGRATION.

Lands, forests, mines, water powers, waterways, and highways are of no avail, except as they serve the people. Conservation and development are without purpose, unless there are men, women and children to be blessed thereby. Natural resources receive value in proportion to the population served. It is the function of the department of immigration to bring to our lands the population; and our immigration commissioner has made a record in performing this function.

The \$70,000 expended by the commission during four years in advertising Minnesota have produced several hundred thousand inquiries from intending settlers, increased the sales of state, federal and private lands, brought investors and farm tenants, raised farm values, increased business, and materially aided state development. The special Minnesota immigration car, recently hauled through the states south of us by the generous co-operation of one of our railway companies, and visited by twelve hundred farmers daily, is an example of the enterprise with which the state is now being advertised.

At the same time with more adequate appropriations and co-operation there is little doubt, that much greater results could be accomplished. For lack of such provision intending settlers arrive,

and there are no guides and cruisers to show them the lands, no agencies at hand to make the sale, no schedule of land prices on file, often times no available roads to the lands, and, in general, no opportunity to get state lands at all, except to wait and take chances on comparatively unknown lands with a crowd at some distant public auction sale.

In order to secure the best results, there must be a radical reorganization of our administrative methods, so that there will be effective co-operation between the immigration department, on the one hand, and the land, forestry, agricultural and other departments on the other.

Our immigration is justified only as it serves a public purpose in developing Minnesota, placing settlers on its lands, creating a market for the land holdings of our public institutions, and adding to the income and heritage of our public schools and university, and the only way to accomplish that purpose is to make the several departments for the conservation and development of the public domain co-ordinate and co-operative in their organization and methods of administration. When thus organized the appropriation for immigration and advertising purposes should be not less than \$100,000 annually.

DEPARTMENT OF PUBLIC HIGHWAYS.

What veins and arteries are to the human body, such are streets and avenues to the city, and public highways to the public domain. Without highways the public domain is inaccessible, and as far as the public is concerned, a wilderness. Highways make the public domain respond to the needs and activities of human life. They are essential to industry, trade, settlement, and general development. Minnesota is one of the twenty-two progressive good-roads states which maintain a state highway department. We have made a modest beginning in the development of a state highway system, and are moving slowly in the right direction. In four years, under the 1-20 of a mill levy, \$264,000, or an average of \$66,000 a year, has been available as state aid and distributed among the counties on the basis of \$1.00 paid by the state as against \$2.00 by the county, and nearly all the counties have availed themselves of this allotment and complied with the regulations of the State Highway Commission. Under the 1-4 of a mill tax, which is available under the constitutional amendment, on the condition of the state paying one-half the cost of the state road, it is possible for this legislature, on the present state valuation, to provide the state highway system with an

annual appropriation of \$300,000. This provision will place Minnesota in the rank of the eight leading states in good-roads legislation. We would then be able to give our state highways as much state aid as New Jersey or Virginia. The only states which still boast of more liberal provisions for a state highway system are Massachusetts with \$500,000 a year, Washington with \$650,000, Connecticut with \$750,000, Pennsylvania with \$1,500,000, and New York with \$3,500,000. In view of the fact that a small state like Connecticut, with one-half of our population, one-sixteenth of our area, and 25 per cent less valuation, spends on its state highway system two and one-half times the \$300,000 appropriation to which we are looking forward, it is apparent that Minnesota is still very conservative. As compared also with Virginia, which has one-half of our area and assessed valuation, and expended last year \$329,000 for state highways, we are conservative. New Jersey has a slightly larger population than Minnesota, but only one-tenth of our area, and during the past four years in which Minnesota has distributed a total of \$264,000 for state aid to highways, New Jersey has expended \$1,250,000. Pennsylvania has spent \$9,500,000 since 1903, and New York \$14,000,000 since 1898, as highway improvements in states which have areas only a little more than one-half that of Minnesota, showing how the oldest and wealthiest states look upon an improved state highway system as a factor in state development. Among other of the oldest states which have become recent converts to the good roads idea is Maine, which increased its state aid from \$50,000 in 1906 to \$321,000 in 1910, and New Hampshire, which last year trebled its former state aid to \$375,000. Minnesota has just double the area of Maine and New Hampshire combined, almost twice their combined population, and approximately double their combined assessed valuation, and yet we will have to double our proposed state aid to overtake them in highway progress.

Notwithstanding the usual hardships and handicaps under which a new experiment like the state highway system labors, our state highway commission and its capable engineer already make a substantial showing of practical results. State aid in these four years has improved 570 miles of roadbeds, gravelled 184 miles of road, macadamized 39 miles, laid 10,000 feet of metal and concrete culverts, and built 54 bridges with a total length of 1,895 feet. With the assistance of progressive railroad companies, four hundred car loads of broken stone have been delivered to counties for road building. Doubtless there will be laid before you during this session a bill for a greatly improved and strengthened state highway act.

One of its purposes is to serve as an enabling act to put into effect the new constitutional amendment. Another provision will authorize the county board of each county to appoint a competent road builder as county superintendent of highways, who shall act under the supervision of the state highway commission, in harmony with the plan successfully adopted by some of the Atlantic States. The act may likewise authorize the state highway commission and its engineer to name district engineers for the various sections of the state in accord with New York, Massachusetts and Connecticut plan. Certainly, the proposed act should give our state engineer a salary more nearly commensurate with his responsible expert duties.

In addition to the above provisions for developing the efficiency of our state highway system, there is another subject to which I desire to call your attention, and that is the necessity of public highways through our public lands in aid of settlement and development as well in co-operation with drainage and forestry improvements and patrol protection against forest fires. It is not just, that the state, which is the chief landed proprietor in our northern domain, should neglect the duty of such proprietor in providing roads for public use, and thereby throw the entire burden of road improvement upon struggling settlers who own only a small part of the territory adjacent thereto. The state should do its share in road building as in drainage and forest improvement, and in this respect the co-operation of the state highway department with the other departments in charge of the public domain will be of utmost importance.

DEPARTMENT OF PUBLIC HEALTH.

No question coming before the legislature at this session deserves more earnest consideration than that of public health. We have saved several millions of dollars annually by guarding against plant and animal diseases, and are now beginning to realize how untold millions are wasted annually through our neglect of preventable and curable human diseases, lack of sanitation in cities, homes, and schools, lack of safeguards against railway, mine, and factory accidents, food adulteration, impure milk and water supply, all of which come properly within the scope and jurisdiction of the department of public health.

According to the report of the state board of health, there occurred in this state 8,075 deaths from preventable disease during the year 1908, and 8,426 deaths during the year 1909. Though this condition is appalling and represents an enormous economic loss

to the state, yet it is small when compared with the loss represented by the number of recovering or living cases of preventable disease. According to the same estimate, there were 76,159 such cases in this state during 1908, and 74,926 cases during the year 1909. Considering the wage earners' loss of time, the cost of medical care, nursing and medicines, the demoralization of business, and the impaired physical condition of those who are suffering, there can be but one course for the legislature to pursue, and that is to increase the authority of the board and supply the necessary funds.

The great problem to be solved is one of prevention rather than cure, and consists largely in the enforcement of sanitation laws in our cities, schools, and homes. That the present board of health has been efficient and rendered the state inestimable service there can be no doubt, but the possibilities of the future cannot be measured by the achievements of the past. In this department, perhaps more than in any other, it is absolutely essential that there should be co-operation with other departments. Scarcely a question of any importance in the departments of education and labor comes up for consideration that does not also involve some question of public health. Under the present system of organization, however, this co-operation is very difficult. The secretary of the board in charge of this work is the servant of a large board scattered all over the state. To convene the board as frequently as desired is not only expensive but difficult. Besides, it is of utmost importance that this department should co-operate with the public health forces and equipment at the state university. In the economic and efficient administration of state affairs, there should be no duplication either of officials or equipment. Our state university should furnish the best kind of laboratory equipment and skilled service, both of which are essential in the administration of public health. The state should encourage closer relations between its educational institutions and the administrative service, thereby not only insuring better service to the public but strengthening the institutions. In the sanitary inspection of cities, school and hotels, in planning and constructing water mains and sewers, and in the analysis of drinking water the university should furnish a large amount of expert help, and the benefits resulting from such co-operation would be mutual. The function of a great university is not merely academic. It provides scientific aid and means of development in every phase of vocational, business and professional life. The state health department should be authorized to inspect and control sanitation of hotels in the state. Under the present statutes, hotel

inspection has been very unsatisfactory. The inspection service in hotels, as elsewhere, should be on a salary basis and the fees collected for the state treasury. But this department can accomplish little when handicapped by such lack of support as in the past. The importance of the department warrants larger appropriations, and no member of the legislature can justify himself in refusing to appropriate the necessary funds for protecting the health and life of his constituents. I therefore recommend for your most careful consideration the needs of this department.

DAIRY AND FOOD DEPARTMENT.

One of the most effective departments in the state service today is the dairy and food department. Its inspection service is uniformly good and this is unquestionably its strongest element of success. This success has not been confined merely to the dairy interests, but has stimulated to a considerable degree many food industries within the state, notably the canning industry. The enactment and enforcement of strict pure-food laws are essential in the interest of public health and this department should be accorded hearty co-operation in its efforts.

By reason of its better organization, the dairy and food department should have charge of oil inspection. This would give more effective inspection with very little additional expense to the state.

DEPARTMENT OF LABOR.

Minnesota is advancing to the front as one of the greatest industrial, manufacturing, and commercial states in the Union. As such, it can never attain the highest degree of prosperity unless its labor is efficient and intelligent and receives at the hands of the state such consideration as will secure the most adequate protection. It has become a recognized principle by employes and employers alike, that the greatest degree of mutual success can be secured only when the responsibility of protecting labor and those dependent thereon is made a charge upon industry itself. The best interests of both require that industry shall contribute in the first place to the safeguarding of labor so as to prevent the occurring of an accident; and in the second place, in case such accident occurs, it shall contribute a reasonable compensation to the injured, and in case of death, to those dependent upon him. For this purpose, the last legislature authorized the appointment of a commission to report to this legislature a workmen's compensation act. This commission

has labored diligently and will unquestionably make a thorough and comprehensive report.

In accordance therewith, I recommend the enactment of such a law, believing it to be for the best interests of both employes and employers, as well as the state at large.

In the prevention of accidents, it is essential that the inspection force under the labor department should be especially qualified for the work so that the employers may have confidence in the efficiency of the department and carry out the mandates with reference to the protection and safeguarding of labor. During the year ending July 31, 1910, according to the report of the commissioner, there occurred in this state over 10,000 industrial accidents. When the claim is further made that 50 per cent of these are preventable, it is either a sad reflection upon the state in neglecting to enact proper legislation to make the labor department more effective, or upon the labor department itself in failing to render the state the highest degree of efficiency. In either event, it emphasizes the importance of securing the most thoroughly qualified inspection service.

In this connection it is important to emphasize also the strengthening of our child labor laws. The best interests of society require that child labor should be reduced to a minimum, and wherever it becomes necessary to employ such labor, the state should throw its strong and protecting arms around the child and enable the labor department to enforce its edicts.

The woman's labor department has been exceptionally successful and the only thing that prevents it from rendering still greater service is the lack of funds, and I would respectfully recommend that the necessary appropriations for this section, as well as the department in general, be provided.

A separate boiler inspection department is neither economical nor wise. This work should be performed by competent inspectors under the labor department, who should devote all their time to the service, all fees to be collected by the state.

DEPARTMENT OF EDUCATION.

Forty per cent of the entire volume of revenue collected and disbursed in Minnesota during the past year for state, county, city, village, and township government, approximately \$16,000,000, was expended for public education. The state appropriations for educa-

tion were \$5,200,000, being two-thirds of the net cost of state government. Almost exactly 22 per cent of our population, or about 441,000, is enrolled in our high and graded, semi-graded, and rural schools, as compared with 17 per cent for New England, and 16 per cent for New York. As showing the per capita investment for education in our various schools, the superintendent of public instruction finds that we paid last year \$18.79 per capita for 222,000 pupils in semi-graded and rural schools, \$34.72 per capita for 218,000 pupils in high and graded schools, \$81.30 per capita for about 3,600 in normal schools, and \$177.39 per capita for 5,369 attendants at the state university and agricultural schools and college. The investment in our 8,600 school houses exceeds \$28,500,000, there having been constructed during the past two years 520 buildings, at a cost of \$4,200,000. Our permanent school fund today exceeds \$21,000,000, an increase of \$1,293,000 from proceeds of timber, mineral and agricultural lands during the past two years. The teachers number over 15,000, and the school libraries contain 1,200,000 volumes.

Minnesota was founded by North Atlantic pioneers who felt the need and saw the power of education in building a state. For half a century it has been our boast that Minnesota stands in the front rank of educational progress. The purpose of our educational system is to develop in the youth whatever is best, noblest, and purest in America citizenship. When the cornerstone of our educational institutions was laid we were fortunate in possessing the wisdom of a Ramsey and a Pillsbury, who secured for all coming generations the greatest endowment and permanent income of any educational institution in the world. In designing and erecting the superstructure, we were fortunate in securing the services of a Folwell, a Kiehle, and a Northrop who have brought forth a state educational system of national merit and reputation; and today we are again fortunate in securing as the leader in our educational work a man with the exceptional educational qualifications administrative ability, and earnest enthusiasm of the president-elect, Dr. Vincent of Chicago. We are proud of the opportunity to pay our tribute to the gigantic educational work of President Northrop by electing him president emeritus of our university for life, and to heartily endorse the movement of the alumni association to erect a \$300,000 men's building on the campus as a lasting memorial of his invaluable service to the state; and with no less pride and pleasure do we welcome his successor and pledge to him our co-operation in per-

petuating here in Minnesota the greatest university and the greatest educational system known to the world.

In no other cause are the people of this state more liberal, and in no other source of expenditure and taxation do they take greater pride than in the success of our educational institutions, and rightly so. Our public educational system is the most powerful factor in producing good citizenship, the foundation of our government and society, and its efficiency must thereby be determined by the average opportunities and results it affords to the 441,000 children in our schools. In a state and country like ours, education must be successful in removing all barriers of birth, occupation, nationality, sect, wealth, and social environment, that it may fuse into American citizenship everything that is best in manhood and womanhood as a foundation for civic stability, harmony, progress, and happiness.

With that purpose in view, no state department has more important functions to perform than that of education, and yet there is perhaps not a department today which is handicapped in its efficiency by such complicated executive machinery. This condition caused the state educational association to recommend the appointment of a commission for the purpose of making a thorough investigation of all educational matters and report to the legislature of 1913. The advisability of appointing such commission is somewhat doubtful. There is no doubt that such a commission would render the state good service in making this investigation and report, but the greatest danger comes from the fact that if such a commission is appointed, it will have a tendency to postpone all educational reforms for at least two years. There are certain essential elements recognized as sound by all leading educators, one being the appointment of a non-partisan educational commission of not less than three, to be composed of leading educators, especially skilled in the various phases of education, and appointed for a term of not less than six years.

The expansion of the public school system and the increasing multiplicity of educational institutions call for greatly increased administrative force and greater specialization of work. Thirty-three states have enlarged the scope and powers of the state department of public instruction by creating state boards of education. Arduous demands upon our state department of public instruction in supervising a school system which calls for the expenditure of nearly \$16,000,000 of local taxes and state appropriations annually,

suggest that the time has come in our educational history, when the administration of all educational affairs should be placed in the hands of a strong state board of education. This board should be non-partisan and removed as far as possible from politics by giving the members six-year terms, terminating alternately one every two years. The board members should have specialized training and duties; one a specialist in common and industrial schools, another in higher education, and the third in school finance. To this board should be entrusted the management of all educational affairs and institutions of the state with the exception of the normal schools and the state university. It should appoint the state superintendent, the state librarian, and all inspectors in the entire school system, all of whom should be likewise selected with reference to educational qualifications and without regard to political affiliations. I am well aware of the fact that in order to carry out these recommendations a constitutional amendment will be necessary, because the constitution requires the appointment of the state superintendent of public instruction by the governor, but in the meantime if such a board is provided for by this legislature, the recommendation of the board with reference to a state superintendent would undoubtedly govern. That such a commission would greatly simplify the administration of educational affairs, there can be no question. The result would be the substitution of one efficient and active board for a number of largely nominal and perfunctory boards, and would remove all educational institutions and inspection service from political influence, placing them upon a purely educational basis. These considerations seem to me sufficient to urge upon the legislature the establishment of such a board and the submission to the people of the necessary constitutional amendment.

A similar provision should be made with reference to county boards of education, so that the county superintendent can be selected purely with reference to merit and qualifications. If the legislature deems this inadvisable, there should be submitted for adoption by the people a constitutional amendment requiring county superintendents to possess specific educational qualifications.

In laying before you the needs of our educational work for the next two years, I desire especially to present the case of the institutions that lie at the foundation of our educational fabric—the rural school and its ultimate development, the consolidated school. It is the rural school which furnishes the test of our educational system, but the old district school no longer conforms to modern

educational and economic conditions, and the solution is the consolidated school. The old rural school with its little one-room building, bare walls, benches, wooden bucket and tin dipper, its narrow course of inferior teaching, its unattractive and unsanitary construction, demands our attention and support. State aid, consolidation, broadening of the curriculum, the services of high-class teachers, the introduction of modern methods and equipment, are duties which we owe to the rural schools. There are 2,200 one-room schools in this state with an enrollment of less than 20, and 340 with only 10 pupils or less. The total average expenditure of these schools is \$390 a year, and the average attendance is 97 days for each pupil. Consolidation of small districts into a larger district with a central building, is the prime measure for the solution of this problem, and the act of 1901 provides the first step in that direction. But few consolidations have followed, and the state must provide inducement. The agricultural conference held at the university last summer urged that the legislature extend state aid of \$500 to \$1,000 for a period of five years as an inducement to consolidation, subject to the approval of the department of public instruction. This recommendation I heartily approve.

Farming is every year becoming more and more specialized, more difficult, and calls for more modern, practical, and efficient methods. Each successive year places a higher premium on intelligence, requires a more complete understanding with reference to the details of farm management, crop rotation, preparation of soil, selection of seed, raising of livestock, and the use of complex and expensive machinery.

The training required under these new conditions must be brought to the country boy and girl. Universities and colleges which teach agriculture and home economics reach less than one per cent of the country youth. The evolution of the consolidated school and the complete change of inherited and time-honored academic ideas concerning methods and purposes of education have advanced rapidly during the past decade. We are now beginning to recognize the cultural as well as informative value of vocational studies and are beginning to place vocational studies in high schools as well as in the upper grades of elementary schools. The consolidated school is a new American institution in process of creation, which will provide for the country boy and girl the primary and secondary education in an institution owned and conducted by the community in which the farm home is situated so that the pupil

may remain under parental care and guidance until a considerable portion of his education has been completed.

The advantages of the consolidated school are so well known as to make anything but a mere mention unnecessary. First, under proper methods of transportation, a large number of children can be assembled so as to enable the teachers to properly grade the classes and divide the school work between study and recitation.

Second, a complete and thorough vocational as well as academic education requires special equipment and specially trained teachers, such as agriculture, home economics, manual training, and music, studies absolutely essential and yet invariably unobtainable in the small district school.

Third, by surrounding the consolidated school with a plot of five or ten acres of field, an incentive is given to make experiments in permanent improvements, beautifying of school grounds, and a practical application of the various phases of agriculture.

Fourth, the larger school buildings can be constructed under modern methods of sanitation and with better school room equipment.

Fifth, owing to the size and wealth of territory covered, it forms a larger administrative union, and furnishes a better basis for financing the school, and thereby securing greater efficiency.

Sixth, not being seriously affected by fluctuation in school population, it becomes a more fixed institution.

Seventh, the consolidated school becomes a centrally located rallying point for country life, forms a convenient social center for the entire community, furnishes a suitable auditorium and meeting place for local activities in the interest of the general public.

Eighth, it encourages the growth of literary and debating societies, social clubs, reading circles, athletics, and various kinds of entertainment, thereby increasing the opportunities of country life and making it more interesting.

The principal argument used against the consolidation of the rural school is that of expense. The experience of eighteen hundred completely consolidated schools and two thousand partially consolidated schools in thirty-two states of the Union has completely demonstrated that the average expense is very little above that of the best district school, and when the items of transportation of pupils to and from the consolidated schools, and the study of a large number of branches not taught there, as well as the

greater efficiency, are taken into consideration, the consolidated school becomes the cheapest school in our entire educational system.

DEPARTMENT OF STATE INSTITUTIONS.

During the past biennial period there has been no occasion to criticize the management of our state institutions, and the state board of control is entitled to great credit for its work.

The hospitals and asylums are crowded beyond capacity, and the legislature should provide for the necessary extensions. Inmates are given uniformly good care and comparatively few complaints have been made. Perhaps the greatest neglect on the part of the state is in failing to provide a reformatory for women. The law permits the commitment of women to the state reformatory, but there is no provision whatever for their care after arrival. Women sent to this institution have usually reached some considerable degree of delinquency and it is manifestly wrong to place them in the same cell-houses with men. The suggestion made by the board of control that a new institution be provided with two separate departments, one a reformatory and the other a prison for women, should be adopted, as it is essential to the proper treatment and reformation of these inmates.

Another question of considerable importance with reference to the care of criminals is the enactment of a law authorizing the court, except in case of murder, to impose an indeterminate sentence. The ancient ideas and methods of punishment were far different from those of today. It was then a question of punishment and the idea of reform received little consideration. Today the primary question is one of reform and punishment is a secondary consideration. The experience of this and other states, as well as the verdict of most criminologists, agrees on the question of abolishing capital punishment, and I am firmly convinced that there would be more convictions for murder in the first degree if either capital punishment were abolished, or imposed only in extreme cases, and then only upon the order of the court or the unanimous recommendation of the jury. The old argument against its abolition on the ground that the board of pardons would frequently reduce the life sentence is amply refuted by the records of the present state board of pardons, and the question is before this legislature entirely upon its merits. I believe the interests of justice and humanity demand the repeal of the law and I am con-

vinced that the state would secure more convictions in capital cases and that consequently crime in general would be reduced by the abolition of this antiquated practice in criminal procedure.

In providing for the indeterminate sentence there should also be enacted a law to regulate the paroling of convicts. While ordinarily I am opposed to the creation of boards, I believe that where special expert services are required for limited periods only an exception should be made. For the purpose of paroling prisoners confined in the state prison and reformatory there should be established a state board of parole, consisting of the chairman of the board of control of state institutions, a citizen of the state versed in criminology, and either the warden of the prison or the superintendent of the reformatory, as the case may be, constituting the third member.

The Minnesota state prison is recognized as a model institution of its kind, and the construction of new buildings is progressing rapidly. In the manufacture of farm machinery the state has taken an advanced step and the output of 231 mowers and 70 binders during the past season will undoubtedly demonstrate the importance of this work.

With regard to transportation of patients and prisoners, I heartily agree with the state board of visitors and the warden of the prison that this should be done by nurses and servants of the various institutions to which the patients and prisoners are to be sent. This system would be less expensive and would place the patients and prisoners at all times under proper care and charge.

Some conflict has arisen with reference to the investigation of complaints made by inmates of state institutions. The taking of testimony by the board of control and the state board of visitors separately is a duplication of time and expense, and the legislature should establish some co-operation between the two boards that would make duplication of work unnecessary.

SOLDIERS' HOME.

As years roll on we realize more and more the debt we owe the veterans of the Civil war. Those who so valiantly fought to preserve this great nation are worthy of your most careful consideration and attention.

The population of the Soldiers' Home is 37 greater than a year ago, and 112 greater than two years ago. Nevertheless, the total

expenditure for maintenance for the fiscal year 1909 was \$101,805.17, while the cost for 1910 was only \$98,957.68, a reduction of \$2,847.49.

There is a steadily increasing demand on the part of old soldiers to enter the institution as infirmity comes upon them and they are unable to care for themselves. In view of this fact and in response to the earnest request of the board of trustees, the Soldiers' Home should be given greater accommodations, and I would urge you to make an appropriation for another cottage.

The old folks' building, where the wives, mothers, and widows of veterans live, does not afford sufficient room and an additional wing should be constructed.

Recent appropriations have not been sufficient to keep the institution in the best of repair and nothing should be left undone which would add to the comfort and happiness of those to whom we owe so much.

STATE HISTORICAL SOCIETY.

The state historical society, an institution whose value to the commonwealth increases as the years go by, has reached a point where steps should be taken to provide it with a permanent and suitable building, and one that could be devoted in part to the uses of a state museum. This society has considerable resources of its own, but as a part of the state's early organization it has always received some measure of state support. At present the society occupies quarters in both the new and old capitols which are wholly inadequate to its purposes and yet which could be utilized to advantage by the growing executive departments if they were available.

THE OLD CAPITOL.

The disposition of the old capitol building is a subject that must sooner or later be considered by the legislature. At present it is occupied in part by state officials and in part by private organizations, while much of otherwise available space cannot be utilized because of needed repairs. The overcrowded condition of the new capitol makes necessary some permanent provision for the minor departments, but until such plans can be worked out a reasonable appropriation should be made for keeping the old building habitable.

TAXATION AND COST OF GOVERNMENT.

Cost of government in Minnesota for the last fiscal year, ending July 31, 1910, as estimated by the state tax commission is as follows:

Year ending July 31, 1910:	Total Net Cost.	Per Capita.
State government	\$7,527,000	\$3.36
County and township.....	19,606,000	8.75
City and village.....	16,259,000	7.26

Total..... \$43,392,000, making \$20.00 an approximate average per capita.

The tax commission likewise presents for comparison Minnesota's estimated portion of the cost of federal government, namely, \$22,000,000, or about \$10 per capita. The comparison between the cost of state government and our share of the cost of federal government is striking; state government costing us only about one-third of our share of the federal cost. State government also represents only a small percentage of the cost of local government, being less than one-half the cost of either county and town government or city and village government. Of the total cost of state, county, and municipal government, state government represents about one-sixth, and for this one-sixth part of the governmental cost the state government renders to the counties and to taxpayers substantial returns for its stewardship.

So far as the general taxpayer is concerned, the state government cost last year only \$3,250,000, or about \$1.50 per capita, and one-fifth of this was borne by the steel company and iron ore interests. As compared with \$3,250,000 which general taxpayers paid into the state treasury last year, the state collected more than four times as much, or \$14,800,000 from all sources, distributed as follows: \$3,250,000, general taxes; \$5,640,000, special taxes, such as taxes on corporate earnings and inheritances; \$2,500,000, earnings of departments and institutions; and \$3,410,000, receipts from lands, royalties, stumpage, investments, interest, and miscellaneous. Accordingly, in return for the \$3,250,000 contributed by general taxpayers, the state government reimburses this amount and collects \$11,550,000 additional from other sources. In disbursing these collections, the state government distributes to the general taxpayer in the eighty-five counties \$5,200,000 for education, \$3,400,000 for institutions of correction and charity, while the three main divisions of state government, legislative, judicial and executive, require for support only about \$1,200,000, or less than 10 per cent of the aggregate collections.

The total assessed valuation of Minnesota, as equalized by the tax commission for 1910, is \$1,222,400,000, an increase of \$130,780,000, or 12 per cent, over 1909. Of this valuation, approximately \$210,000,000 is personal, an increase of nearly \$17,000,000 over 1909. Real property is assessed for 1910 at \$1,012,400,000, an increase of \$113,800,000. Increases in real values over 1908 were \$44,400,000 on mineral properties, \$44,900,000 on city property, and only \$24,400,000 on acre property.

Iron ore valuation for 1910 is \$224,669,000, an increase of \$20,100,000 over 1909, and \$44,400,000 over 1908. In 1906, before the organization of the tax commission, iron ore valuations were \$64,400,000. In four years taxable iron ore valuations have been increased by the tax commission over \$180,000,000, or 280 per cent. Omitting reference to the much larger revenues which iron mines turn into local county, city, village, township and school district treasuries than into the state treasury, the latter alone now receives from the steel company and other iron ore interests, as the state's share of the 1910 tax, \$618,000, as against \$180,000 in 1906, an increase of \$438,000, or 240 per cent, in four years. Farmers and other land owners of Minnesota may be interested in the fact, that, of the total assessed valuation amounting to \$593,000,000 on lands, exclusive of city and village lots, \$224,600,000, or not quite 40 per cent, represents mineral land values. All things considered, Minnesota under present laws and administration appears to be making good in the direction of scientific and just taxation.

Your honorable body will receive from the tax commission an exhaustive report on state taxation, one of the ablest and most comprehensive ever submitted on that subject. Without attempting a synopsis of its contents, I desire to emphasize a few of its recommendations.

First, a county assessor, acting in co-operation with the state tax commission, elected for each county, to take the place of the present haphazard township assessment system, appears to be the first necessary step toward a uniform, intelligent, scientific and just valuation of the state.

Second, instead of attempting, what is apparently impossible, to raise the assessed valuation to the full 100 per cent of actual value, as required by law, and thereby upset the present basis of bond issues and fixed salaries, amend the statutory basis of valuation to agree with custom, and assess all property at 50 per cent of true value.

Third, as to logs and lumber, scale and assess the logs on the ground where cut, instead of at the point where manufactured.

Fourth, the inheritance tax law should be amended, with new rates and classifications, on a basis similar to that favored by the last legislature, giving the tax commission full powers of administration.

Fifth, in regard to taxation of railroad companies, whenever it is ascertained that railroad property, under the present tax rate, is not carrying its just and full share of the state tax burden, the tax should be increased to a basis of equality with other property.

Amendment of the railroad gross earnings law should include an amendment making railroad taxes payable semi-annually, like real estate taxes. Part of the great volume of railroad revenue should come in September in time to meet the annual school appropriations, and thereby obviate the necessity for temporary loans. Because school aid has to be paid in October and railroad taxes do not arrive until February and March, the state for years has been making temporary loans, on which the interest bill for the eight years, 1903-10, inclusive, amounts to the large sum of \$70,351.56. Although authorized by legislatures, these loans for current expenditures appear to be contrary to the spirit of article 9, sections 5-7, of the state constitution. With the approval of the auditor and treasurer, I therefore recommend semi-annual payment of railroad taxes, as a means of avoiding revenue deficits and the resulting loans and interest charges.

Telephone taxes for the two years ending July 31, 1910, were \$284,000, compared with \$195,000 for the two years ending July 31, 1908, an increase of \$89,000, or 45 per cent. Examination by the public examiner's department, pursuant to supreme court decisions, recovered \$22,854 of net revenue. Under the authority of the 1909 gross earnings act, the joint administration of the tax commission and public examiner's department, relative to telephone accounts and taxes, resulted in adding to the tax list for the year ending July 31, 1910, as compared with 1909, a total of 187 new companies, \$1,047,680 of additional gross earnings, and \$31,360 of increased taxes. Further legislation is now desired giving statutory form to the executive rules and decisions construing and applying the gross earnings act, especially with reference to co-operative, mutual and rural telephone lines and telephone accounting, in order that all classes of companies may be dealt with justly and in accord with their respective business conditions.

STATE FINANCES.

At no time in the history of the state were the finances in better condition. The revenue fund is larger by nearly a million dollars than it was a year ago. I fully agree with the state auditor and the investment board that \$850,000 should be appropriated for the purpose of retiring state capitol certificates. This will reduce the interest-bearing debt of the state and place this amount in the school fund, where it can be loaned to counties and municipalities for public improvements. A large number of loans approved by the investment board are still pending for lack of funds, and since it is unquestionably poor business policy to sell bonds owned by the state on a depressed bond market, I would respectfully recommend that the legislature immediately authorize the retiring of capitol certificates in the amount suggested, so that the pending applications for municipal and county loans can be granted to that extent.

RAILROAD AND WAREHOUSE COMMISSION.

It is now an admitted fact that state and federal control of public service corporations is essential to the best interests, not only of the people, but of the corporations themselves. The important service rendered the state by our railroad and warehouse commission is becoming more and more recognized, and there is no one today who seriously questions the effective work of this commission. One of its most important acts in the past has been the valuation of state railroad properties with a view of determining what shall constitute a fair rate, and the commission is now investigating express companies for the same purpose.

In the Minnesota rate cases, the master in chancery seriously questions the authority of the commission to make a general investigation and determination of what shall constitute a reasonable rate. If there is, in fact, any doubt as to the authority given to the commission by the state, it should at once be remedied by appropriate legislation. These rate cases are now pending in the courts; they have been ably handled by the legal department and by the special counsel engaged for that purpose, and the state can rest assured that its interests are being carefully guarded and that when the final decision is made by the supreme court of the United States, it will at once and for all time determine the authority of the state with reference to the control of traffic and rates within its borders.

That the problem of determining what shall constitute a just rate within the state is extremely difficult cannot be seriously questioned. Under the present accounting system, the railroads show the cost of train service for the system as a whole. In order to determine the cost of state traffic, it is desirable that the accounts should be kept so as to show the cost of local and through train service separately, the cost of switching as between freight and passenger business, and the quantity of interstate and intrastate business carried on by both through and local trains in this state.

The speedy development of our rural communities and the building of suburban electric lines opens up another field of regulation. These electric lines will soon become active factors in the transportation business, and their operation should, therefore, be subject to the railroad and warehouse commission, similarly with the railroads. Again, until Minnesota secures the services of a public utilities commission, the control of telephone and telegraph lines should also be placed under this commission, for it is important that these essential factors in state development, upon which the public at large is at all times dependent, should be under the control of the state.

DEPARTMENT OF PUBLIC EXAMINER.

Public revenue received and disbursed by state, county, and municipal government in Minnesota today approximates \$40,000,000 per annum. As a check upon irregularities in accounting and illegal expenditures, the legislature of Minnesota many years ago created the department of public examiner, to whose scrutiny the great volume of financial operations by the state are subjected. The public examiner is also required by law to check and verify the statements of all corporations paying gross earnings taxes, which implies the examination of about \$150,000,000 of corporation earnings annually. He also exercises supervision over school district, township, and village accounts, upon request of the county board. The law creating the department is fully justified by results, and other states are following Minnesota's example. From a financial standpoint, this department has been an exceptionally good investment, as it has recovered into the state treasury enormous sums of money, but even though it could not discover one mistake in a year's transaction, its existence as an accounting office is fully warranted. But the great volume of work required is much beyond the physical capacity of the present force, and the legisla-

ture is fully justified in providing the examiner with such expert help as is reasonably necessary for the performance of the duties required by law, their salaries to be commensurate with the expert character of the work required. The exacting requirements of this age of science and finance demand expert accounting, and the state must keep step with the march of progress.

STATE BANKING DEPARTMENT.

The last session of the legislature, in compliance with the general request of the bankers of Minnesota, created a separate state banking department by taking the supervision of these institutions from the department of public examiner and placing them under a superintendent of banks. The new department began business August 1, 1909, and has been in operation one year and five months. The result from every point of view justifies the wisdom of the legislature and of the bankers' association in creating the new department, which has at all times had more than sufficient work to occupy the attention of the entire official force. An exceptionally gratifying showing, both as to the growth of prosperity in the state, and the success of banking enterprise under the new regime, is made by the records of this department. During the year ending Nov. 10, 1910, there was a net increase of forty new banks, of \$20,000,000 in deposits, and of \$22,900,000 in total bank resources, a gain of 22 per cent for the year. On that date there were in Minnesota 686 state banks with deposits aggregating \$108,000,000, and total resources in the sum of \$126,240,000, which is more than three times the number of banks and volume of deposits and resources represented by the state banking system in 1900. A state banking growth of 200 per cent in ten years certainly bespeaks progress. Including national banks there has been an eight-fold increase in twenty-five years, until today there are 970 banks in the state, with deposits aggregating \$340,000,000.

The federal comptroller of the currency is by law authorized to exercise his discretion in issuing a charter to a bank where the amount of local business does not justify its organization, and in cases where the application is prompted by local spite or jealousy. In this state there is a demand for similar authority on the part of the superintendent of banks with reference to applications for state charters. Such restrictive power, when properly exercised, is of value in safeguarding the interests of depositors, but since the exercise of such discretion may in many instances work a hardship, I would suggest that the grant of power be carefully safeguarded.

DEPARTMENT OF INSURANCE.

It is a recognized fact that Minnesota has one of the best insurance codes in the country. Our insurance laws, which were enacted largely in the 1907 session of the legislature, and which have been so ably and rigidly administered ever since, have placed insurance on a sound basis in our state.

In the year 1900 the total amount of premiums collected for fire insurance were \$4,233,409; in 1909, the total amount received was \$7,632,023, showing an increase of \$3,398,614.

The total amount of premiums collected by legal reserve life insurance companies in 1900 was \$3,879,103.97; in 1909 the amount aggregated \$7,503,360, showing an increase of \$3,624,256.03.

A similar growth is also shown by the casualty insurance companies. In the year 1903 the total amount of premiums collected was \$1,151,987; in 1909, \$2,248,017.78, showing an increase of \$1,096,030.78.

Since the pernicious fee system was abolished the state has received considerable revenue from this source. During the year 1904 the state received \$29,999.35 in fees. In 1905 the fee privileges of the insurance commissioner were abolished with the result that in 1910 the department collected \$71,633.36, showing an increase of \$41,634.01 during a period of six years.

MINNESOTA NATIONAL GUARD.

The importance of a thoroughly trained and equipped national guard has often demonstrated during the past biennial period. Its services as a forest fire patrol and in connection with the relief work at the Beaudette disaster cannot be too highly commended. With reference to officers, discipline, training, and equipment, the Minnesota National guard and naval militia hold a leading rank. In connection with other states, they have won signal honors and reflected the greatest credit upon themselves, as well as the state. This record is especially deserving of credit, when it is borne in mind that Minnesota contributes less per capita for the support of her national guard and naval militia than most other states of the Union. Therefore, in justice to these splendid organizations, and in order that their standard of efficiency may be increased, the state should be more liberal in its appropriations and provide for suitable armories, upon which the efficiency of the guard is necessarily dependent.

PRIMARY ELECTIONS.

The principle of primary election is justly in keeping with the modern idea of popular government. Its application to the present conditions has not been satisfactory, and the legislature should make every effort to remedy existing defects. To permit the voters of a minority party to determine the nominations of the majority party is conceded to be unjust and requires no further comment. As long as our government is a party government, the fundamental principle that each organization should be permitted to make its own nominations cannot be disregarded. That the solution of this problem is difficult, no one will deny, but it is the duty of this legislature to give the matter most careful consideration, and I have confidence in its ability to reach a successful solution, in order that the law may operate more justly.

REAPPORTIONMENT.

Of all the important questions to be decided by the present legislature, that of reapportionment will be watched with the greatest interest by the people of the state. Our government was founded upon the principle that taxation without representation is unjust and every step forward since has been in defense of that great principle. Since the organization of our state there never existed greater inequalities as to representation. In some sections of Minnesota 12,000 people elect a senator and in other sections it requires 62,000; in some sections 5,000 people elect a representative and in other sections it requires 32,000. Section 2, article IV, of our Constitution, guarantees to the people of the state fair representation in the law-making bodies, and that guarantee should be sufficient authority for legislative action at this session. In addition thereto, both political parties have pledged themselves in the strongest terms possible to carry the will of the people into effect as expressed by their representatives in both conventions and to give the people of the state a fair reapportionment law at this session. With these conditions confronting us there cannot possibly be a valid excuse for any member to oppose the enactment of a law supported by every principle of right and justice, secured to the people of the state by the constitution, and definitely promised to the people by both political parties through their representatives in convention. Nothing but purely personal and selfish excuses can be assigned as reasons for opposition to this measure. It is true,

small districts are unwilling to give up their present ratio of representation, but there is no way in which that ratio can be maintained without very large increase in both the senate and house of representatives. No increase should be made in the senate or house of representatives, especially in the former. The Minnesota senate is already too large as compared with other states in the Union. In the interest of better legislation, as well as adequate representation, Minnesota would be better off with a constitutional limitation of fifty senators and from 120 to 125 representatives. That number would be sufficient for all purposes, and, as applied to the senate, as great as other states in the Union.

Reapportionment was one of the most important issues in the past campaign, and I stated in positive terms on every occasion my position with reference thereto. The splendid majority given me by the people of the state can safely be construed as an emphatic endorsement of my position on that question, and as an expression of confidence that I would use every effort to fulfill the promise made.

RELIEF OF FOREST FIRE SUFFERERS.

Reference should be made at this time to the effects of the forest fire disaster in northern Minnesota, and the necessity for relief of the settlers who lost their homes and personal effects in that disaster.

The prompt and generous response of the people of Minnesota to my call for relief has so far provided means for meeting the temporary needs of this situation, but I am advised by the Red Cross Relief Committee that something in the way of further aid must be extended to these people. I would therefore urge the legislature to consider this matter at an early date and extend such relief as shall be adequate and equitable.

CONCLUSION.

It is not difficult to anticipate that there will be considerable opposition to many of the reforms herein advocated. Be that as it may, I wish to impress on the members of the legislature that my only ground for urging this reorganization is to secure greater efficiency in the administration of state affairs and to enable the people of the state to better safeguard their great heritage of natural resources. I would particularly urge upon the legislature with reference to the creation of any new offices, that special fit-

ness and qualification be the only requisites for appointment, and that scientific and business principles be applied as in private business. To place the control and management of our great public resources and the management of our institutions in the hands of a political machine is a proposition which no patriotic citizen in these progressive times can endorse.

All the recommendations herein are made after most careful and earnest consideration and without any reference whatever to my political future. I am fully convinced that they are right and whether they may be popular or not is immaterial. I shall leave them to your fair and free consideration without any interference on the part of the executive department, believing that your conclusions with reference thereto shall be just and for the best interests of our beloved state.

The great state of Minnesota, the richest and most progressive commonwealth of our country, now calls us to a new career, a career of such material, industrial, and intellectual development as will result in the greatest blessings to all our people. That we shall be successful is certain. We are not a product of material forces. We have already passed through one of those internal moral struggles which becomes at once the best test of citizenship and stability of government. We have outgrown the old ruts and are opening new highways along every field of thought and action, political, industrial and social. Every public question has become one of right, of fairness, of honor, and of a "square deal." At no time in our history have the rank and file of men and women been imbued with a higher and firmer moral determination; with a truer instinct and more intelligent comprehension of the highest needs of society; with a stronger grip on what makes for the enforcement of law and good government; with a higher aspiration for the moral and material uplift of the masses; with a truer recognition of principle and personal worth in public life; with a stronger effort to uphold the purity of the home, the efficiency of the school, and the sanctity of the church against the domination of evil; and with a more earnest desire to abolish special privilege and secure equal rights to all. Such conditions should enable us to solve all problems successfully, to establish the highest ideals of civic righteousness in public and private life, and to secure an honest and efficient administration in every branch of our government.