

STATE OF IOWA

Department of Public Instruction

DES MOINES

SUPERINTENDENT OF PUBLIC INSTRUCTION

RICHARD C. BARRETT

DEPUTY SUPERINTENDENT

ALBERT C. ROSS

STENOGRAPHER

BYRDELLA JOHNSON

STATE BOARD OF EDUCATIONAL EXAMINERS^e

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†MARY ALICE BRADRICK,	- - -	Chariton

* Term expires 1902.

† Mrs. Bradrick was appointed February 14, 1901, to take the place of Elizabeth Hughes, whose term expired November 21, 1900.

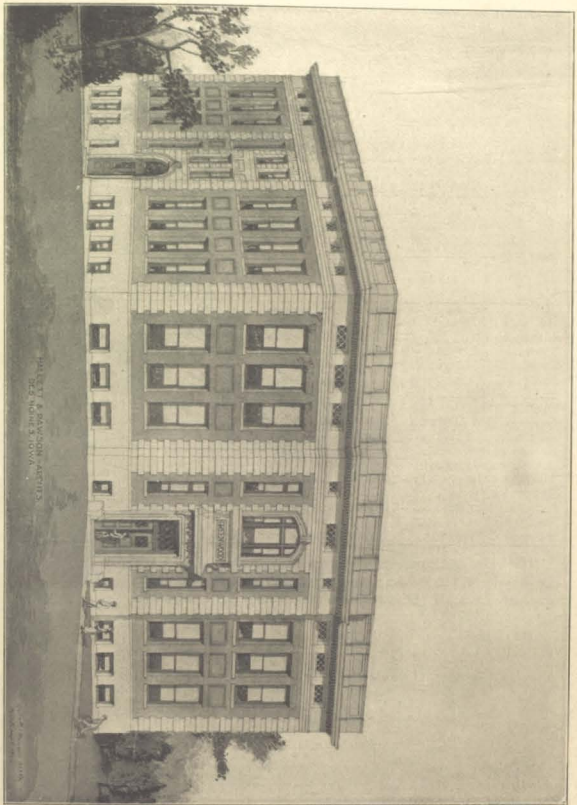
LETTER OF TRANSMITTAL.

STATE OF IOWA,
DEPARTMENT OF PUBLIC INSTRUCTION, }
DES MOINES

To His Excellency, Leslie M. Shaw, Governor of the State of Iowa:

In compliance with the provisions of law, I have the honor to submit to you the biennial report of the department of public instruction, for the period ending September 30, 1901.

RICHARD C. BARRETT,
Superintendent of Public Instruction.

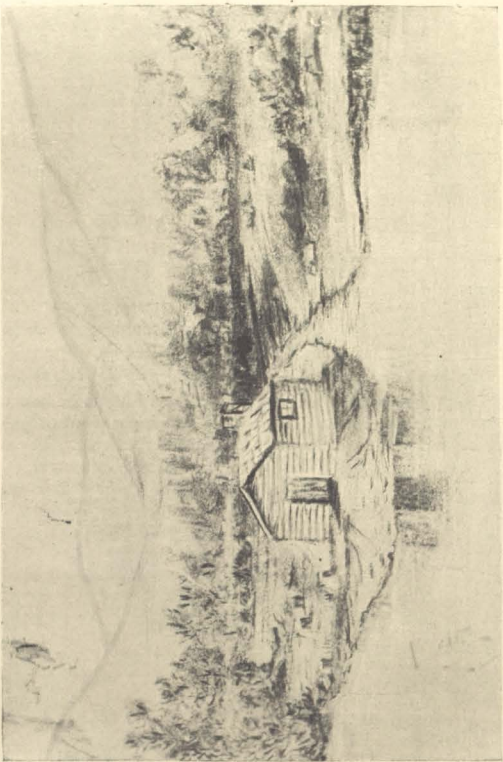


HASBETT & BOWEN ARCHTS.
DES. MOINES, IOWA.

Courtesy of Hallett & Benson.

MODERN SCHOOL BUILDING, DES MOINES, IOWA.

FIRST SCHOOLHOUSE IN IOWA. (See page 31.)



SUPERINTENDENTS OF PUBLIC INSTRUCTION.

TERRITORY AND STATE OF IOWA.

NAME.	COUNTY.	TIME.	POSTOFFICE.
William Reynolds.....	Des Moines..	1841-1842	Deceased.
James Harlan	Henry.....	1847 —	Deceased.
Thos. H. Benton.....	Dubuque....	1848-1854	Deceased.
James D. Eads.....	Lee.....	1854-1857	Deceased.
Joseph C. Stone.....	Johnson....	1857 —	Burlington.
M. L. Fisher.....	Clayton.....	1857-1858	Deceased.
Oran Faville.....	Mitchell.....	1864-1867	Deceased.
D. Franklin Wells.....	Johnson....	1867-1868	Deceased.
A. S. Kissell	Scott.....	1869-1872	Deceased.
Alonzo Abernethy	Crawford....	1872-1876	Osage.
C. W. von Coelln	Black Hawk.	1876-1881	Denison,
J. W. Akers.....	Linn.....	1882-1888	Chicago, Ill.
Henry Sabin.....	Clinton.....	1888-1892	Des Moines.
J. B. Knoepfler.....	Allamakee..	1892-1894	Lansing.
Henry Sabin	Clinton.....	1894-1898	Des Moines.
Richard C. Barrett	Mitchell.....	1898 —	Des Moines.

The office of Superintendent was abolished in 1842. Again in 1858 it was abolished and the duties were performed by the State Board of Education, of which Thos. H. Benton acted as secretary for five years.

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STATE OF IOWA

DEPARTMENT OF

Public Instruction.

THIRTIETH BIENNIAL REPORT

OF THE

Superintendent of Public Instruction.

INTRODUCTORY REMARKS.

These prefatory lines are written as the people of our country stand with bowed heads, mellow hearts, and tear-bedimmed eyes, shocked at the tragic death of our third martyred president, William McKinley. But ten days ago he stood among his people greeting with a glad, warm hand all who came to him. Joy and gladness abounded. Today from mountain, hill and valley come the memorial songs and addresses in his praise and in his memory. Eloquent lips tell of his boyhood struggles; his bravery upon the battlefield, in defense of his country; his distinguished services as statesman and president; his many qualities as a citizen; his considerateness as a husband; and his high character as a man. By his life and works he placed himself among the greatest of earth's noble men, and in the last hours of his earthly existence he showed all men how to die.

"God still reigns and the government at Washington still lives." These were timely words spoken by James A. Garfield, our second martyred president, to an angry mob on hearing of the assassination of Abraham Lincoln. But this is not enough for citizens to know. It is not enough that the government still lives. Is it strong? Is it backed by the great moral strength of those who enjoy its peace and protection? Are the agencies which it supports and encourages, financially and otherwise, giving back to it their best thought? Is the school, the home, the pulpit, the press, seeking to develop the BEST that is in men?

May teachers everywhere instruct our children in those things which are highest and best. May they be spiritualized more, if

not intellectualized less. May they be taught more of self-control, order, justice, diligence, obedience, and patriotism; and may such vices as lawlessness, disorder, injustice, profanity, and disloyalty be condemned. Pupils possessed of good morals make a moral government in school, and, in later life, a greater moral government in the nation.

May our schools, our teachers, our citizens, our state, and our country be kept from lawlessness and license; and may liberty, love, and a righteous moral government ever prevail.

THE COMMON SCHOOL.

In affirming that, all things considered, the children of the state enjoy better educational advantages today than ever before, I am not unmindful that there is still much that can be improved.

Well did Horace Mann say sixty years ago:

"We can never fully estimate the debt of gratitude we owe to our ancestors for establishing our system of common schools. In consequence of their wisdom and foresight we have all grown up in the midst of these institutions and we have been conformed to them in all our habits and associations from our earliest childhood. A feeling of strangeness, of the loss of something customary and valuable, would come over us, were they to be taken away or abolished. How different it would be if these institutions were strangers to us! If, every time we were called to do anything in their behalf, we should violate a habit of thought and action instead of fulfilling one! How different, if every appropriation for their support were a new burden! If every meeting for their administration were an unaccustomed tax upon our time, and we were obliged to await the slow progress of an idea in the common mind for the adoption of any improvement! Emphatically, how different, if the wealthy and leading men of the community had gathered themselves into sects and cabals, each one with his head against all the rest, unless when they should temporarily unite to resist the establishment of a system for the equal benefit of all! It is in consequence of what was done for us two hundred years ago that we are now carrying on a work with comparative ease, which, in many of our sister states, as well as in some foreign countries, must be accomplished, if accomplished at all, with great labor and difficulty. Can there be a man amongst us so recreant to duty that he does not think it incumbent upon him to transmit that system, in an improved condition, to posterity, which his ancestors originated for him?"

True, there may be localities where material things are placed above the advancement of educational interests, but with each succeeding year the boundaries of such are narrowed. The degree of improvement from year to year cannot, I think, be given with certainty. The general advancement of any great public enterprise rests with the people. The improving of a school system is no exception. Whatever the improvement in the past, the

people themselves and the school officers who represent them must be given credit for it. This will be true in the future.

While I would not place myself in the attitude of a critic, I may be permitted to say that our people have too long rested upon a record, that of having the lowest percentage of illiteracy, given us by the federal census in 1870. Some, I think, erroneously thought that because of this record our state had the best school system extant. Doubtless there are some who are of the same opinion, though for more than twenty years we could not truthfully claim the distinction of having the lowest percentage of illiteracy.

That legislative enactments often stimulate educational interest and zeal, I most heartily believe. Statutory provisions relating to taxes, assessments, municipalities, private corporations, etc., are not infrequently modified or repealed and others enacted. Experience teaches that as time passes conditions change, making necessary new laws. This is true of school systems and of school work in general. To illustrate: In the earlier history of the state, before the opening of factories and mines, it was unnecessary to enact laws relating to child labor, but with the opening of scores of mines and the establishing of factories throughout the state, all demanding laborers, the child labor problem becomes a most vital one. So it may be in other matters. Laws enacted a quarter of a century or more ago may be good, and yet not be the best, or be at all suited to present day conditions.

LEGISLATION.

Many of the laws governing school interests no longer serve the purposes for which they were passed. I have in mind the law relating to the holding of normal institutes. While in some instances the institutes are properly conducted within the lines intended for them, in a larger number they have become academies in a small way and are attempting to do the work that should be and is done in many cases in the high schools. The institute should be conducted for the benefit of the teachers *in active work*, and those intending to teach should obtain their academic training in regularly established schools. The institute has been a valuable factor in the training of teachers, but the law regarding it is in need of some modifications. The teachers are the servants of the state, and while they are compensated for their work in one sense, in a broader one they cannot be repaid. So highly are the services of teachers held in some states, and so desirous

are the people to retain those who are successful and experienced, that they have provided that institutes may be held during the school year at the discretion of the county superintendent, and that the same salary shall be paid to them while in attendance as the district pays per week for teaching. Some similar provisions should be enacted for the benefit of the schools of Iowa. It is now quite generally customary for institutes to be held during July and August. As a rule the weather is oppressively warm. For the reason that it is warm our public schools are closed, yet it is quite common to find from thirty to seventy teachers crowded into a small room. This I am firmly convinced is positively injurious to health, and results in but little, if any, good professionally.

The teachers of Iowa are loyal and uncomplaining. Though they are annually contributing about \$50,000 in fees for their own instruction in institutes to less than one-tenth that amount by the state, I have never heard an expression of dissatisfaction. They are, however, most appreciative, and their welfare should be thoughtfully considered. The advantages of having the teachers of a county meet in convention for a week or two during a school term when climatic conditions are favorable for study and recitation need not, I think, be dwelt upon here. Indirectly the adoption of the above plan would be of the greatest benefit to the schools through increased helpfulness upon the part of the teachers.

CERTIFICATES FOR GRADUATES.

Last year the general assembly, impressed as it was with the thought that it was one mission of the state to examine doctors, lawyers, and teachers, enacted a law regarding the licensing of applicants for certificates to teach, which discredits the work of the state's own schools. Examinations appear to be necessary evils, but I do not think them so important as to make it necessary to take away all discretionary power from the person or board examining. Formerly the state board of educational examiners could recognize certificates and diplomas of equal rank to our own, held by residents of other states, and could grant licenses without examination to graduates of the state normal school and the state university of Iowa. One great need of our state is good teachers, and every effort to encourage young people to enter the profession should be extended. The former law should, in my opinion, be re-enacted, and at the same time

the board of examiners should be given power to issue a state certificate to a graduate of any college in Iowa maintaining courses of study and professional and academic requirements equal in extent to those offered and maintained by the state normal school at Cedar Falls.

TWO-YEAR CERTIFICATES.

A two-year certificate issued by county superintendents now differs but slightly from a state certificate. Under certain conditions it may be necessary for the holder of such a certificate to pay six dollars in fees for the privilege of teaching a single year. This is an unjust burden, and some different arrangement for the issuance or duplication of these certificates is suggested. The suggestion that a two-year certificate issued by any county superintendent be made valid in any other county upon registration of the same by the holder in the county where he desires to teach has been proposed. This plan has merit.

EXAMINATION BY CITY SUPERINTENDENT.

The suggestion offered that teachers in city and town schools should be examined by the superintendent of schools would, if adopted, result in the greatest confusion. Since our law makes only a very indirect provision for a city superintendent, I believe that it would be unwise to impose upon him the legal duties of examining teachers. The whole question is of state-wide interest, and no attempt to settle it by local option methods should be encouraged.

EXAMINATION BY COUNTY SUPERINTENDENT.

County superintendents now issue certificates valid in their respective counties. Against the present plan is urged:

1. That county superintendents are not uniform in their markings. That so long as we have ninety-nine county superintendents we shall have as many different standards.
2. That the ideals of what teachers should be are so low in some counties that teachers holding first-class certificates in those counties could obtain only a second or third class in others.
3. That since the county superintendent is the product of a political party, he is expected to recognize his political friends in the granting of certificates.
4. That because of his authority to grant certificates, he is tempted, biennially at least, to be less stringent in the granting

of the same, and as a consequence schools are often supplied with immature and incompetent teachers.

5. That being the sole judge of the fitness of applicants, he often becomes careless and negligent. That of one candidate he demands a full and complete examination, while to others certificates are issued because of attendance upon the institute or teachers' associations.

6. That he often grants certificates for only three or six months for the purpose of obtaining an additional fee for a second examination in order to swell the institute fund.

7. That he is in some instances so partial as to grant certificates to teachers in certain grades who are so utterly lacking in scholarship as to be unable to pass the examination required of other candidates.

It is not contended by anyone that all of these charges are true in a single county, but that they are all true when the state as a whole is considered.

EXAMINATION BY STATE BOARD OF EXAMINERS.

It has been proposed that this board be granted power to issue all certificates, reserving to the county superintendent the right to veto the board's action if the candidate lack in moral character, aptness to teach, or ability to govern.

This plan would give uniformity of questions and the grading of manuscripts throughout the state. The adoption of the plan would remove entirely the objections enumerated above.

On the contrary, it is claimed that to deprive the county superintendent of the responsibility of examining teachers would mean to sever the only thread that now enables him to secure the co-operation of the teachers in the general educational work in the county. As proof of this it is cited that some holders of state certificates, having received from the state board of educational examiners authority to teach, have failed to co-operate with the county superintendent.

EXAMINATION BY COUNTY BOARD OF EXAMINERS.

It has also been proposed to establish in each county a board of examiners, of which the county superintendent shall be chairman, and give to it authority to examine and certificate teachers. This plan where tried in other states is reported to be quite generally satisfactory.

The subject of the examination and certification of teachers is

before the educational council of the state teachers' association for discussion at its coming session in December. This is cited to emphasize that the entire subject is unsolved, and is at present receiving the attention of our leading teachers.

The examination of teachers underlies the whole problem of schools, and is commended to the general assembly for its consideration.

In attempting to improve existing laws regulating the granting of certificates, certain things should be observed.

1. Teachers should be examined in only such subjects or grades of work as they are required to teach. It is unjust, if not absurd, to examine primary teachers in high school studies, and *vice versa*.

2. Candidates who have not attempted to fit themselves for teaching in special training schools should not be admitted. A successful teacher without training will be more successful if trained thoroughly in the best schools.

3. Teachers who have taught successfully for five years under the supervision of the state board of educational examiners should be licensed for ten or twenty years, or for life. Successful teachers should be relieved of needless work and worry, and given time to study and read along the lines of their chosen work.

4. In the examination and certification of teachers county lines should be ignored. Conditions in one county are so nearly the same as in another that the holders of high grade certificates should not be subjected to repeated and useless examinations and expense simply on account of a change of location. The crossing of a county line should no longer be considered a nullification of all scholastic power, aptness to teach, and ability to govern.

5. Graduates from normal schools and other institutions maintaining equivalent courses should be licensed to teach for five years or longer upon proofs of successful experience for a limited period.

FREE PUBLIC HIGH SCHOOLS.

A meritorious measure having for its object the promotion of "the efficiency of the public high schools of the state" was introduced, considered, and passed in the house of representatives in 1900, but failed to pass in the senate.

The bill provided: "*First*, that there be regular and orderly courses of study, embracing all the branches prescribed as prerequisites for admission to the collegiate department of the Iowa

state university. *Second*, that the said high schools receiving pecuniary aid under this act shall at all times permit the said high school board, or any of them, or any examiner appointed by said board, to visit and examine the classes in such high schools. *Third*, the said high schools receiving pecuniary aid under this act shall admit students of either sex from any part of the state without charge for tuition."

For some years Minnesota has had such a law, and Nebraska recently provided by legislative enactment for the free attendance at public high schools of such persons as shall have completed the common school course, and whose education could not be carried further in the public school of the district of the pupils' residence. Equal educational opportunities should be provided for all, and that this may be done I most earnestly urge careful consideration and legislative action.

SUMMER TERMS AT STATE SCHOOLS.

The summer terms at the university and the normal school for the benefit of those who are unable to attend at other times have been largely attended by many of the most progressive superintendents, principals, and teachers. Appropriations for their support should now be made permanent.

LONGER CONTRACTS WITH TEACHERS.

In 1898 the supreme court in the case of *Burkhead vs. Independent district of Independence* decided that the statutes of Iowa do not give to boards of directors authority to employ teachers for more than a single school year at any one time. As a consequence there is quite general unrest among superintendents, principals, and teachers, in cities and towns especially. For the year ending in September, 1900, there were fewer male teachers by six hundred in our school than were engaged in teaching the previous year, while the percentage of males decreased from thirty-nine per cent in 1870 to 20.4 per cent in 1899. Many men occupying positions considered among the best have voluntarily abandoned teaching, in part, because of the short term of service for which contracts may be drawn. Young men about to choose their work for life hesitate to enter upon a profession that offers only an annual contract.

The people themselves seldom choose an officer for less than two years. County and state officers are generally elected for two years; county supervisors and railroad commissioners are

elected for three years; judges of district court for four, and supreme court judges for six years. The people are, I think, not averse to this order. A board of directors is a continuous body, and might with perfect safety be given authority to elect its teachers for at least three years.

Legislative action of the sort would encourage men to enter upon and continue longer in the service of teaching, which is very desirable.

THE TRAINING OF TEACHERS.

A few years ago Dr. E. Schlee, Director of the Real Gymnasium at Altuna, Germany, said of us:

"If in every office the chief factor is the man, and in school the teachers, we have come to the weakest point in the American school system—professional teachers are wanting. That is to say that most teachers are deficient in the requisite scientific and pedagogic preparation for their vocation. The greatest number are women, and comparatively few make a profession of teaching."

Such criticism should create an ambition to enlarge our present plans for the education of teachers.

The report of this department gives the following data for the year 1900: Number of rooms in graded schools, 5,766; first class certificates issued, 2,917; number of persons holding state certificates, and diplomas, 1,285; total 4,242. This is 1,564 less than the required number of teachers to fill the rooms in graded schools.

During the period beginning in September, 1895, and ending in September, 1900, the number of rooms in graded schools increased from 4,777 to 5,766, or nearly one thousand. Whatever may be the plans inaugurated to educate teachers, there should be kept in mind that as the state increases in population and cities and towns expand and multiply, there will be an increased demand for more teachers, trained in the art and science of teaching.

During the year 1900, 7,728 third-class certificates were issued by county superintendents. Assuming that all the holders of these certificates are employed in public school work and have an average of twenty pupils each, there would be more than 140,000 children taught by those holding the lowest classes of certificates.

Of those licensed in 1900, 3,560 had no experience and 4,208 had less than one year's experience. Or, of the 18,906 teachers required to teach the schools of the state, nearly 8,000 have had less than one year's experience, while 12,615 in country schools hold certificates of the second and third classes.

The competency or incompetency of this large number of teachers, many of whom have never attended a high school, will represent the efficiency of our schools and the standard of our education for many years, and the state cannot afford to let them remain as they are. Provision for their professional training should be made in normal or other schools.

In 1892 President Homer H. Seerley, of Cedar Falls, in discussing "The Normal School Problem," proposed; "Let the state show itself in favor of teacher-education and teacher-training by properly equipping, creditably supporting, and fully developing its present state normal school."

At the time these words were written the normal school at Cedar Falls had two buildings and 706 students. Since then two new buildings costing \$138,000.00 have been erected and the enrollment this year is 2,017, exclusive of the training department which numbers 356. Thus has the state provided for its present school.

Again the president says: "Let the state found, equip and support other state normal schools; make them strong, effective and good, and allow the teacher-students to be thousands where there are now hundreds." This position is that taken by nearly all who understand conditions in Iowa.

At the uniform rate of two hundred graduates a year from our normal school it would require more than ninety years to supply the number of teachers required in the state, if all taught for life. Since the mass of the teaching body changes every four or five years, the greater appears the necessity for additional facilities.

It is to the best interest of every state to have superior teachers, and no greater blight can befall the people than to have its children placed under the control of those who are devoid of general culture and good scholarship.

Our citizens pay annually in local taxes \$9,000,000.00 for the maintenance of schools. Is it unreasonable to ask that the state provide skilled teachers? Without such there can be no assurance that the common schools are a benefit. It must see that the work of the common schools is well done.

"Men and nations are as they are taught," says one. "As a people elevate and sustain their educators, so will their educators be found, in time, the great instrumentality which brings them intelligence, freedom, prosperity and peace, and in the end, true honor and glory."

COMPULSORY EDUCATION.

In the Twenty-ninth Biennial Report of this department considerable attention was given to the question of school attendance. I would again urge upon all who believe in an education for all children the importance of this subject. A free school system is required by law, and the state should insist that the children are given at least the elements of an education.

What could be more just than to demand of all persons having control of children that they send them to some public or private school where the common school branches are taught in the English language for certain fixed periods each year, between certain ages? Only by doing so may the state hope to perpetuate itself in the highest and best order to future generations.

MEDICAL INSPECTION OF SCHOOLS.

During the past two years considerable attention has been given to the question of medical inspection in public schools. While but little in a practical way has thus far been done, the discussion of the subject has been wholesome, and it is the belief of those at present most interested, that the agitation has tended to arouse and interest parents and boards of directors.

The importance and necessity of having school rooms and buildings fumigated has also been kept quite prominently before the school authorities. I can conceive of nothing that would result in greater good than the proper inspection of public schools and buildings in our cities, by competent medical authorities.

WHAT TO DO WITH THE SURPLUS.

It was with undisguised pleasure that the school people learned that there had accumulated in the state treasury during the past two years a surplus of a million or more of dollars. In a state where so much has been accomplished for popular education, it should be unnecessary to urge that a large portion of this amount should be expended to extend and improve the school system. It will not be necessary if the friends of education will but unite. If we quibble over small and petty measures and forget that all school legislation should be for the sole benefit of the children, we may not hope for satisfactory returns.

To justly care for all the interests of a great commonwealth like Iowa is no small task. Each interest has its friends; but of such paramount importance are the educational interests that the friends of all others should assist in caring for them.

In the expenditure of public funds, actual necessities should be considered before making appropriations for other purposes. The severe losses at the state college of agriculture and mechanic arts at Ames, and the state university at Iowa City, by fire, call for large appropriations. These institutions are both having a steady growth, which calls for increased capacity, larger teaching force, and more equipment. To fail to meet the needs of these institutions now is to partially paralyze their present efforts and to cripple them seriously for a number of years.

The need of other normal schools is imperative. At least one should be established from the funds on hand.

For years the many friends who believe there is need of additional facilities for the training of teachers have asked each legislature for one or more normal schools. The need of such schools is as great as ever. Practically one-third of the whole teaching force of the state is without proper training for teaching even in the smallest schools.

In 1876 the legislature converted one of its buildings, no longer used for the purpose for which it was built, into a normal school. That this was a wise act few now question. At the present time the state has at Knoxville a set of buildings and ample grounds that could, in the opinion of many, including the state architect, be fitted at small expense for another normal school. It is proposed that this be done. This question is one of no little consequence and cannot be too seriously considered.

The reports from Marion, in which Knoxville is situated, and adjacent counties show that there are 700 teachers at work in the schools who have never attended schools higher than those conducted in the smaller towns, and many have only been in attendance upon the country schools. The same condition exists in other localities of the state to a great extent. The value of normal schools is unquestioned in the training of teachers for the higher positions. For inspiring and instructing those who teach for only a limited time they serve a high purpose.

This department only seeks to present the great need of trained teachers and the importance of speedy action. The location of any schools established must be determined by those charged with legislative authority to act. It is my hope that a broad view will be taken of this vital question by the Twenty-ninth General Assembly.

In at least one state, legislative action has provided that any rural school employing a first-class teacher and maintaining a

certain course of study, shall receive from the general state fund \$50 annually. A similar appropriation for rural schools in Iowa would encourage many small districts now heavily taxed.

Iowa should be represented educationally at the exposition to be held at St. Louis in 1903. It is well to exhibit the live stock and farm and dairy products, but the educational interests should be given a prominent place. For this purpose a suitable sum should be set apart.

The present normal school is now better equipped than ever before in its history, but its needs have not been met. An armory or modern gymnasium would now add to the efficiency of the present plant. A library building is requested, by the board of trustees, and while I think the demand for this is not urgent at the present, the time is not far remote when a fireproof building should be erected. At least \$25,000 should be appropriated for the purpose of providing free high school privileges for the country boys and girls.

TEACHERS' WAGES.

Iowa still continues to occupy a low place among the great states of the Union in the average annual salary paid teachers. According to the report of the national commissioner of education for the year 1899-1900, we paid the lowest average monthly salaries to teachers of the states of the North Central division except South Dakota. When we consider our wealth and our productive soil the showing is most unsatisfactory. Indiana, by law enacted this year, provided that the salary paid teachers shall not be less than an amount determined by multiplying two and one-half cents by the general average scholarship. The law has increased the pay of teachers, established a uniform rate of wages, and stimulated teachers to improve their scholarship.

TEXT-BOOKS.

Present laws provide that boards of directors may enter the market and buy at wholesale books and supplies intended for use in the schools under their supervision, and sell the same to the pupils at cost. Thus, any district is free to have the best books obtainable and at the least expense. Laws also provide for county uniformity of books, and for free books when the people of any district desire them. These laws governing the handling of text-books are very satisfactory to the people of the state.

During the present year between forty and fifty counties have

adopted or readopted a uniform series of books for a period of five years, and it is to be hoped that the people of these counties will not be embarrassed by any new legislation relating to the supplying of text-books.

While there have been some criticisms of the methods employed in some counties by the firms seeking to secure the adoption of books, it has not been alleged that the practical workings of the law have not been generally satisfactory.

Possibly instances may be cited wherein officers charged with the selection of books have directly or indirectly accepted some small valuable consideration other than the compensation allowed by law, conditioned upon their using their official influence or authority for the purpose of procuring the adoption of certain books. Should there be such cases, present laws relating to acceptance of bribes or the accepting of rewards for public duty should be most rigidly enforced. Present laws provide that any person who conspires for the purpose of corruptly influencing an officer's acts or votes shall upon conviction be imprisoned in the penitentiary or the county jail or be fined. I think that the enforcement of these laws will be more satisfactory to the people of the state than any that might be enacted providing for any radical changes in the supplying of school text-books and supplies.

INSTITUTE MANUAL.

Unification of the normal institute work of the state was undertaken by this department at the request of the educational council of the Iowa State Teachers' Association in 1900.

The manual for Iowa normal institutes was published, distributed and used generally in institutes during the past two years. Reports indicate that it was of great value.

THE HAND-BOOK FOR SCHOOLS.

Since the publication of the last biennial report this department has issued an edition of the Hand-Book for Iowa Schools. A copy of the same has been furnished for use in each school district of the state. Additional copies are retained for future distribution, and will doubtless supply the needs of the schools for a number of years to come.

IMPORTANCE OF COMMON BRANCHES OF STUDY.

The most important part of the hand-book is the course of study. An attempt has been made in the present edition to

emphasize the importance of the elementary branches in our schools. I am thoroughly convinced that in our efforts to enrich the course of study, there is great danger of our neglecting to give proper instruction in the common school branches. This is evidenced by the fact that many who attempt to secure admission to our higher institutions of learning are woefully deficient in the use of English, the elementary principles of arithmetic, and in the ability to spell our common English words and to write a legible hand. The lack of scholarship is also noted upon the part of those who enter our normal school, large numbers of them being obliged before being able to receive normal training, to receive a drill first in such subjects as are and should be taught in the secondary schools.

I believe that I cannot too strongly emphasize the necessity of those in charge of public schools giving greater attention than ever before to the common school branches of study.

EQUAL SCHOOL PRIVILEGES.

In my report for 1899 I called attention to the fact that we have 2,577 rural schools, with an average daily attendance of less than ten pupils. To aid boards of directors, the twenty-eighth general assembly, authorized them to levy in addition to the amount specified in section 2806 of the Code, such sum as may be necessary, not exceeding five dollars for each person of school age, for transporting children.

Small schools are to be deplored. It is doubtful if they give value received for 50 per cent of the money expended to maintain them. We often discuss many interesting questions, but none that are more important than how we may give equal school privileges to all children.

I think it is unnecessary to discuss here the question so apparent, that one child is entitled to the same school privileges and advantages as another. The pupil in the most remote rural community is entitled to the best there is. An answer to the question involves the problems of supervision, consolidation of school districts, transportation of children, libraries, text-books, apparatus, buildings, and teachers. These subjects have been discussed in a separate chapter.

SCHOOL LIBRARIES.

This report contains a special report on school libraries. The report shows a very satisfactory condition of library affairs. The

school districts have expended nearly \$50,000 for library books out of the district funds, and in addition \$28,426 raised from voluntary efforts on the part of patrons, pupils, and teachers have also been expended. The largest amount expended by the school districts is in Howard county, where \$1,995.78 were used to purchase books. The next largest is Marshall, with \$1,365.50. The following is a list of the counties having expended more than \$500 each for library purposes: Allamakee, \$579; Buchanan, \$897; Butler, \$643; Calhoun, \$532; Cass, \$947; Cherokee, \$678; Clayton, \$596; Clinton, \$971; Crawford, \$607; Davis, \$568; Delaware, \$573; Dubuque, \$614; Grundy, \$577; Hamilton, \$693; Hardin, \$579; Harrison, \$505; Iowa, \$798; Keokuk, \$738; Linn, \$902; Madison, \$861; Mills, \$660; Polk, \$593; Pottawattamie, \$713; Tama, \$687; Taylor, \$688; Wapello, \$650; Wayne, \$698; Webster, \$703; Winneschick, \$615.

Pa'o Alto heads the list, having raised the largest amount for library purposes by voluntary efforts. The county is credited with \$6,000. Mitchell follows with \$2,700; Buena Vista with \$2,170; Pocahontas with \$1,750; Webster with \$1,659; and Ida with \$1,600. Thirty-nine counties raised more than \$100 each, while thirteen raised between \$50 and \$100 each.

The total number of volumes now in school libraries is 453,554; of which 110,815 were purchased during the year. The report shows that 4,245 of the rural schools are provided with suitable library cases, and that 7,073 subdistricts and 2,335 independent districts have school libraries.

The present law has been in operation but one year, but reports generally agree that it is commending itself to the people.

ACCREDITED HIGH SCHOOLS.

The important work of inspecting and accrediting high schools has for some years been under the direction of the board of regents of the state university. On account of the broad and liberal policy adopted by the board, and the excellent spirit which those directly in charge of the work have shown, very much has been accomplished in the way of unifying higher education in the state.

The task of inspecting schools is never completed. Schools grow, teachers change, and courses of study are modified. To direct in the best way the school system that it may produce the results desired, should be and is the duty of the state. In Minnesota and some other states the inspection of schools is under-

taken by the state directly. A somewhat critical examination of the plan has convinced me of its advantages, and I believe that the adoption of a similar one in this state would enable us to achieve still greater results.

EDUCATIONAL GROWTH.

The following table shows the progress of the schools of the state during the past five years:

GENERAL SUMMARY OF IOWA SCHOOL STATISTICS.

ITEMS COMPARED.	1896	1901
Number of ungraded schools.....	12,526	12,623
Rooms in graded schools.....	5,002	5,875
Whole number of schoolrooms.....	17,528	18,498
Average number of days taught.....	160	160
Number of schoolhouses.....	13,686	13,922
Value of schoolhouses.....	\$15,867,415	\$18,223,749
Schoolhouses built during the year.....	293	233
Schoolhouses with flags.....	6,684	6,475
Enumeration between 5 and 21.....	720,175	735,159
Enrolled in school.....	543,052	562,662
Average daily attendance.....	345,242	373,547
Average number enrolled per teacher.....	30	29
Average monthly tuition, per pupil.....	\$1.89	\$1.98
Male teachers employed.....	5,814	4,757
Female teachers employed.....	24,507	24,088
Total different teachers employed.....	28,121	28,845
Average monthly compensation, males.....	\$38.28	\$41.53
Average monthly compensation, females.....	\$32.23	\$30.68
Teachers needed for the schools.....	17,861	18,984
Teachers enrolled in normal institutes.....	22,908	19,231
Expended for normal institutes.....	\$61,921	\$59,003
Schools teaching effects of stimulants.....	17,220	17,438
Number of volumes in libraries.....	176,519	453,454
Average compensation of county superintendents.....	\$1,226	\$1,242
Paid for teachers' salaries.....	\$5,205,287	\$5,747,339
For all other purposes.....	\$3,966,243	\$3,574,313
Total amount expended.....	\$8,271,530	\$9,321,652

The total amount paid for schools has increased more than \$1,000,000! The number of teachers required to supply the schools is \$1,123 greater in 1901 than in 1896. The value of schoolhouses has increased nearly two and one-half million dollars.

In cities and towns there have been marked growth and improvement. The high schools are now as a general rule well equipped and supplied with teachers well educated for their special work. There is also a larger number than usual of grade teachers who have qualified themselves for teaching in a superior manner.

"With us," said a college president only recently, "it is now a question of refusing to receive more students or enlarging our capacity." This condition may not exist at all higher institutions, but evidence is before us to show that it does in many.

The great material prosperity of the people of Iowa has made it possible for the youth to avail themselves of the advantages offered by our higher institutions, and this they are doing in larger numbers than ever before.

IN CONCLUSION.

In addition to the statistics which are required to be given, I have incorporated such other subject-matter as I have found to be of most general interest to the citizens of the state. Among the subjects to which special attention is directed are the consolidation of districts and the transportation of pupils, the education of teachers, the manual for high schools, recent school legislation in other states, reports from county superintendents, sketches of higher institutions of learning, and free text-books.

Much that is of general interest has been embodied under these headings. A careful reading of the reports from the different counties will give a more accurate and complete knowledge of educational interests than it is possible to obtain elsewhere. The sketches of state and private institutions have been prepared with great care by the presidents of the same, and for many years will prove of value. I am sure their importance will not be underestimated.

The country school continues to attract even greater interest than ever before, and for this reason a considerable portion of the report deals with it. Next to the great problem of how we may obtain and retain qualified teachers no question in connection with the administration of schools equals it.

The detailed statements of the board of educational examiners are published as required by the statute.

The university, the state college of agriculture and mechanic arts, and the state normal school have all advanced steadily. The presidents of these institutions are leaders, and the schools under their charge will always maintain a high standard. Parents in seeking an institution in which to educate their children need not go beyond the borders of the state so long as these men, supported by the best faculties the state can secure, can be retained.

City and town schools are annually developing rapidly.

Improvements in the way of more trees, larger libraries, better outbuildings and apparatus, are supplied the country schools. Teachers are enthusiastic and willing to co-operate in the general state work.

Since the publication of the last report the world has witnessed the closing of its most marvelous century. Remarkable in many ways, but in none more so than in the growth and development of a school system which makes possible the education of every child.

My own labors have been exerted to advance the general educational work of the state, and while much has been done to improve the schools it would be presumptuous for me to claim in any large degree the credit for work accomplished. The future alone can best tell to whom credit is due. I must, however, at this time acknowledge the debt I owe to the members of my official family, the board of examiners, the boards of trustees governing the educational institutions, county superintendents, boards of directors, and teachers. These have been the great agencies which carried forward the cause of education. Without their kind, helpful support my efforts would have been of little consequence.

By the continued co-operation of all the friends of education, nothing can stand in the way of the future greatness of our schools. As one who came up through the schools of the state I shall always rejoice in their prosperity and advancement.

Respectfully submitted,

RICHARD C. BARRETT,
Superintendent Public Instruction.

CHAPTER II.

CONSOLIDATION OF SCHOOLS AND TRANSPORTATION OF CHILDREN.

INTRODUCTION.

REPORTS FROM COUNTIES.

SUMMARY FOR THE STATE.

BUFFALO CENTER PLAN.

TRANSPORTATION IN CITIES.

IN OTHER STATES.

INTRODUCTION.

Half the independent districts and three-quarters of the sub-districts in Iowa have schools with an average daily attendance of less than twenty. Statistics collected two years ago show that seventy independent and two hundred and sixty-three sub-districts have an attendance of less than five; 502 independent and 2,705 sub-districts have an attendance of less than ten; 1,273 independent and 5,100 sub-districts have an attendance of less than fifteen; 1,950 independent and 7,379 sub-districts have an attendance of less than twenty.

Of the 21,034 teachers who were licensed in 1900, 3,560 had no experience whatever in teaching and 4,208 had taught less than one year.

Another significant fact is that of these 21,034 teachers licensed 7,228, or about one-third, held third grade certificates. Of this number 6,167 were issued to females, presumably young girls just out of school, many of them not having completed even the common school course. This department has advised the county superintendents not to issue third grade certificates except where it is unavoidable in order to procure teachers to supply schools that otherwise would have to be closed for want of teachers. This policy has been universally followed by the county superintendents of Iowa. They report that they issue third grade certificates only as a make-shift and for the purpose of filling the schools. They are issued for only one, or at the most two, terms, and it is admitted that persons holding third grade certificates are not properly qualified to teach. The number of second grade certificates was 13,828, of which 11,703 were issued to females. Thus it is seen that a large majority of the teachers of Iowa hold second grade certificates and that of the total number of certificates of all kinds issued and in force in the state during that year, more than eighty per cent were second grade or under. The total number of first-class certificates issued was 2,917 and the total number of state certificates and diplomas was

1,285. The number of certificates issued is greater than the actual teaching force because some of the certificates are issued for only parts of a year and not all the persons holding certificates are teaching.

There is hardly a graded school in the state, at least not in any town of 1,000 or 1,200 population, where the board of directors will employ a teacher who does not hold a first-class certificate. There are about 5,800 teachers in the graded schools, not counting the high schools, principals, etc., where teachers of the highest qualifications are employed. It is not difficult to see, therefore, what is left for the country school or why it is difficult in Iowa to procure first-class teachers for the rural schools under present conditions. The number of ungraded schools at the last accounting was 12,615. The total teaching force, therefore, was at that time, there being 5,776 rooms in graded schools, 18,381. The actual supply of teachers,—that is, the different persons licensed, being 21,034, this supply including all the third grade teachers,—is very little above the actual constant demand, which is increasing.

The present report of this department will show that these conditions have not materially changed. The proportions are about the same, and there is no question in the minds of experienced educators who have given careful attention to the question but that these conditions are related to each other. The number of inexperienced teachers would not be so great if it were not for the great number of small schools and the difficulty of securing teachers for them. If the standard of teaching in hundreds and hundreds of districts was not necessarily very low, it would be impossible for so many persons to secure employment as teachers without any preparation whatever for their work, beyond what they have secured in the common schools. Many of them have had little or nothing beyond the district school which they propose to teach. The best thought of the common school men and women of to-day is given to the question of how to improve the rural schools. The city schools are in the hands of the best educational talent that can be secured by the payment of liberal salaries to teachers, by supplying the best buildings that money and brains can produce, and by holding out the inducement of attractive surroundings to the teacher—an atmosphere of culture, the opportunity to be in and a part of the strenuous life of the city, with its many varied interests, entertainments and associations.

The country school labors under disadvantages in its competition for teachers and pupils, especially where it has but a small attendance. It is impossible for the teacher to properly systematize her work and classify the school. The classes are small, many times of only one or two pupils, so that there is no incentive to competitive excellence. The teacher's time is so cut up and spread out over a great number of subjects that it is impossible for her to do her best work in any of them and the interest of teacher and pupil is likely to lag. There are, it is true, many excellent rural schools, but this is due either to the fact that the attendance is large, or that by good fortune an exceptionally capable teacher has been secured. If the latter is the case, it is quite certain she will not stay more than a term or two, because better inducements will be offered her elsewhere.

There are hundreds and hundreds, and it is safe to say thousands, of districts in Iowa where these conditions are almost certain to prevail for many years to come. These districts are so small and their resources so limited that their revenues, without excessive taxation, are bound to be limited to such an extent that they cannot afford to employ teachers whose ability commands good salaries. It is only by consolidating these weaker districts and forming one strong district which can afford to have the best teachers, building and equipment, that the best educational advantages can be secured, without heavy additional expense.

The great educational need in Iowa, in the opinion of many of the strongest educators, is of a better trained teaching force. This need is felt most by the rural schools, because under present conditions only a few of them comparatively pay salaries sufficient to induce teachers who have had professional training to work in them. The salaries are so low that young men and women are discouraged from preparing themselves to teach because they can do better in other occupations. At least, if a young man or woman prepares for the teaching profession, it is with the view of securing a position in a good graded school, and having gained the professional training, such positions are easily obtained. The common schools get little or no benefit at present from normal schools except during the experimental stage of the teacher's career, while she is acquiring the experience which will qualify her for a position in the graded schools. The average salaries paid to teachers in Iowa during the year 1900 were: To males \$40.20 per month, and to females \$30.24. In 1897, the

committee of twelve reported salaries paid in different states as follows:

	Males	Females		Males	Females
Alabama	\$ 25	\$ 20	Missouri	\$ 40	\$ 34
Arkansas	33	30	Montana	60	45
California	67	56	Nebraska	35	30
Colorado	50	45	Nevada	85	60
Connecticut	30	30	New Hampshire	30	30
Delaware	35	33	New York	37	37
Illinois	30	25	Ohio	35	29
Indiana	40	35	Pennsylvania	42	33
Iowa	35	30	Rhode Island	40	36
Kansas	40	32	South Carolina	30	27
Kentucky	36	34	South Dakota	36	31
Louisiana	40	33	Utah	53	37
Maine	35	22	Vermont	39	27
Maryland	29	29	Virginia	28	25
Massachusetts	32	26	West Virginia	36	36
Michigan	29	25	Wisconsin	46	30
Minnesota	40	31	Wyoming	45	40

Iowa has improved since that time in the payment of salaries to men, but not to women. The great number of inexperienced third grade teachers, with whom their employment is merely a make-shift, both on the part of the teacher and the board of directors, keeps the average salary paid to women in Iowa very low, although not as low as in some other states.

The complaint is often made that the farmers' boys and girls want to leave the farm and go to the towns. The atmosphere of the cities and towns with its excitement, its society and its many attractions and allurements appeals to the young people. Younger and younger every year, it is said, they feel this discontent with rural life and they desire to get into town. How many towns and cities there are in Iowa where a goodly proportion of the population is made up of retired farmers who have left the country and moved into town to satisfy this craving on the part of their children. They have come, they say, to educate their children and give them the best they can afford. They have left the farm, often at great sacrifice, and many times, it must be admitted, with results not the best for the children. Not every boy and every girl who comes fresh from the country with good health and pure morals is able to retain those blessings under changed conditions in town. They have not been prepared for it; they have grown up under different surroundings and the new life may not be the best for them.

If these people who remove into town to educate their children could have a good graded school within easy reach of the home farm, offering to their children educational advantages equal to a town school, with well paid, capable teachers, a comfortable, well lighted, sanitary school building, and the enthusiasm of numbers and the inspiration of competition, is it not reasonable to suppose that they would have stayed on the farm and been better satisfied than they are now, having broken up the associations of many years and moved into town? In some parts of Iowa a strong and intelligent effort has been made to bring the country schools to a standard of efficiency equal to the best graded schools of the towns by closing several small schools and uniting the revenues of the districts in which they are located into one good central school to which the children are transported at the expense of the consolidated districts. Where this plan has been given a fair trial under approved methods it has been highly satisfactory. Indeed, the concensus of opinion in the educational world is practically unanimous that this is the only method by which districts which are now supplied only with small schools can be given adequate educational advantages, even for children up to the seventh or eighth grades. The system has been on trial for several years in the east, notably in Massachusetts, Connecticut, Indiana and Ohio, with results highly gratifying to the advocates of the system.

For the purpose of learning to what extent this remedy has been applied in Iowa, what the results are where it has been tried and how a trial of it would be likely to be received by the people where it has been discussed, this department asked the county superintendents of schools to report the situation in their several counties, giving both sides of the question, and especially were they asked to state the effect where experiments had been made. Their reports, which are summarized elsewhere, furnish reliable and quite complete information upon the progress of this forward movement in education in Iowa.

The purpose of this inquiry was to bring out, not merely the favorable side of this problem, but to present also all the objections that have been made to the adoption of the plan of consolidating small schools and transporting the pupils to a central school. In the solution of this problem it is necessary to know all that we have to meet to satisfy the people that it is a wise policy, just as every good lawyer in preparing for a trial tries to put himself on the other side to understand as fully as possible what he must

overcome in order to win his cause. We have set forth the objections in detail in every county, no matter how trivial they may be. If the objections are trivial they will be all the more easily overcome. If they have weight, then we should not try to avoid them, but seek to remove the causes for these objections. It will not do to ignore them. The people whose children are affected by this proposed change will not be satisfied with being told by a school-man that it is for their interest and they should not complain. They must be convinced through their own judgment that the plan is right. Those who know most about the new system and who have had experience in its practical operation are very confident that almost any reasonable person would be convinced of its merits if he would take the trouble to inform himself thoroughly concerning it and learn what it has done where it has been given a thorough trial. We hope in this brief study to bring together some practical suggestions and give to both the patrons of the schools who are discussing it and to the school-men of the country something new to think about bearing on this problem.

Briefly summarized, the advantages claimed for the system by the county superintendents, 95 per cent of whom favor the plan, are as follows:

1. It will secure better teachers.
2. It will reduce the per capita cost of education in the districts affected in nearly every case and without exception after the first cost of buildings, where buildings are required, has been paid.
3. It will insure better classification of pupils, so that both teacher and pupils may spend their time to better advantage.
4. Larger classes will stimulate competition and better effort and greater interest and enthusiasm among the pupils.
5. Supervision will be more thorough and more easily accomplished by the county superintendent and by the principal of the township or central school, where it is large enough to require a principal and assistant teachers. Certainly the county superintendents can give better attention to the schools if their number is reduced.
6. The attendance would be larger, as experience has shown.
7. Greater punctuality would be secured, as the children would all be brought to school before 9 o'clock in the morning.
8. Consolidation would provide better buildings and more apparatus and libraries without additional expense.

9. Longer and more regular terms of school would be the result of uniting the forces of several small districts into one strong central school which could be kept running eight or nine months in a year.

10. The health of the children would be better guarded where they are conveyed from their homes to the school in comfortable vehicles than where they have to travel through mud or snow for a mile or so to the school, as they often do under the present system.

11. The older children would be kept at home and in school longer than they can be at present, because the central school could provide advanced courses of study under a capable teacher. So the necessity of going to town to school would be put off several years. The course of study would be so arranged as to accommodate these older pupils at such time as they can be spared to attend school. This would tend to keep the boys and girls on the farm instead of encouraging them to leave it and go to the towns. This is one of the main purposes of this system.

12. It will improve the farm surroundings and add attractions to country life by stimulating a desire to know more about the works of nature. Colonel Francis W. Parker has pointed out the wonderful opportunities for elementary education to the child living on a farm.

13. In the central school there would be opportunity for the study of special branches which cannot be offered in the district school because the teacher lacks either the time or the ability to teach them.

14. In short, and to sum up, the opinion of the county superintendents is almost unanimous to the effect that the consolidation of small schools and the transportation of the pupils to a central school at the expense of the district would result in better schools at less or no greater expense.

The disadvantages which the county superintendents report are urged by the people, and by themselves in some cases, against consolidation and transportation, are numerous, and some of them have much force and cannot be successfully met in all cases without radical changes in conditions, and the erection of safeguards. This refers chiefly to the objection of bad roads. The picture presented in the table accompanying this report summarizing the objections to this system is a powerful argument for better roads. In fact, the chief objection brought against the system is the impassable condition of the country roads at cer-

tain seasons of the year. In brief, the objections pointed out, which are mostly suggested by school patrons, most of whom are imperfectly informed regarding the working of the plan, are as follows:

1. First, and in almost every instance, bad roads.
2. Fear that the expense will be greater than under the present system.
3. That the children are kept too long on the road and too long from home. It is said that children who live farthest from the central school would have to leave home before daylight and would not return until after dark in the winter time. Mothers fear that children will suffer from these long rides.
4. Careless drivers may be employed who will not attend to the comfort of the children, and whose influence upon the children will not be good.
5. The people object to the removal of the little schoolhouse from the neighborhood, since it furnishes in many places the only public meeting house. They say it will break up the Sunday-school, the literary society and other neighborhood gatherings. There is a sentiment concerning the little schoolhouse that objects to its obliteration from rural life.
6. Many farmers think that the closing of the school near their farm and the location of a central school several miles away would greatly increase the value of real estate near the central school and reduce the value of the farms farthest removed from it.
7. In some places it is claimed it will take the older boys out of school earlier than if they could attend nearer home where they would have more time nights and mornings to help about the farm.
8. The objection is often made that the children are wanted at home before and after school to help "do chores," and that if they must start early for a distant school and return late they will not be able to render this assistance, and will miss learning much of the practical work of the farm which they should acquire when young.
9. That the evil influences will be much greater in the central school with its large number of pupils of all ages and conditions, because they will not have the close supervision of the teacher which they received in the little district school.
10. That this centralization of schools will remove the school

from the people and will be a step away from democracy toward paternalism.

11. That many teachers will be thrown out of employment. It is even suggested by some of the superintendents that some of the little district schools are kept in operation to furnish jobs for relatives and friends of the directors.

12. That the children receive less individual attention in the large school than they receive in the small district school, where the teacher has time to give private instruction to nearly every pupil.

13. That it is doubtful if the graded school is better than the ungraded school.

14. That the children must wear better clothes when they attend the large central school than they would have to wear in the little district, thus adding to the burdens of parents.

15. That there will be greater danger of spreading contagious diseases where all the children in a township are brought together.

16. That children will suffer from having to carry cold lunches to the central school.

These objections must receive respectful, careful, and intelligent consideration if we expect the system of consolidation and transportation to be at all successful or generally adopted. Many of them can be easily removed by furnishing information upon what has already been accomplished in consolidation both in Iowa and in other states where it has been longer in vogue. This we have attempted to do in the reports from places in Iowa where it has been tried, and in quotations from reports from other states. Some of the objections, however, cannot be removed by argument, at least in many places. Conditions must be changed before the system can be successfully operated. The details of the plan must be modified to fit the peculiar circumstances of the locality in which it is proposed to introduce it.

If the country roads in Iowa were what they should be, transportation would become quite general in the state. In the spring and fall for a number of weeks every season, especially in the spring, the roads in many sections of the state are well-nigh impassable and it would be out of the question to undertake to make regular trips for any distance over a mile or two, and sometimes that would be equal to traveling ten times the distance under ordinary conditions. Improvement of the roads will there-

fore be the surest preparation for the transportation of the children in rural districts to better schools.

The superintendents were asked to give their judgment on how far children could be transported with safety to themselves and profit to the district. Their answers are widely different and are of course influenced by local conditions. In rough, hilly country and in places where the roads are especially bad, it is said that a journey of a mile or two is equal to traveling twice the distance where these difficulties do not appear. Under ordinary conditions, with fair roads and in fair weather, the majority think that five or six miles is not too far. But the average distance which it will be safe to undertake is not above three or three and a half miles, and if the routes can be so arranged that the children are not gathered from a distance greater than two miles from the central school, a great many objections now brought by parents against the system will be speedily removed. As the roads improve and the people understand the system better and see its advantages, probably longer routes may be planned, especially where the children to be transported are not the youngest. Many of the superintendents report that mothers hesitate to send their young children so far from home for the entire day when they are not entirely sure what care they will have.

Objection is made to the character of the drivers who are likely to be secured. This is certainly a well-grounded objection, which should receive the most careful attention from boards in making their arrangements for the transportation of children. In some places farmers' wives have acted as drivers and often parents have taken the contract to transport the children. In this connection the form of contract for transportation which has been in successful use in Madison township, Lake county, Ohio, is given herewith. All whose bids are accepted are required to sign a contract by which they agree:

"1. To furnish a suitable vehicle with sufficient seating capacity to convey all the pupils properly belonging to their route, and acceptable to the Committee on Transportation.

"2. To furnish all necessary robes, blankets, etc., to keep the children comfortable; and in severe weather the conveyance must be properly heated by oil stoves or soap-stones.

"3. To provide a good and reliable team of horses, and a driver who is trustworthy, and who shall have control of all the pupils while under his charge, and shall be responsible for their conduct. Said driver and team shall be acceptable to the said Committee on Transportation.

"4. To deliver the pupils at their respective stations not earlier than 8:30 A. M. nor later than 8:50 A. M., and to leave at 4:05 P. M. (sun time).

"Each contractor shall give bond for the faithful discharge of his contract in the sum of \$100, with sureties approved by the president and clerk of the board.

"The committee reserves the right to reject any and all bids."

One of the most important details in the system is to secure drivers who can be trusted to take care of the children and see that they are kept comfortable, and that proper discipline is maintained.

The effect of this system upon real estate values is often referred to as one of the objections raised by farmers. Many a farmer reasons like this: "If the little district school near my farm is closed and the children of this neighborhood have to be carried, three or four miles perhaps, to a central school, the farms near that school will become more valuable and my farm and others around here will depreciate in value. So I would better not consent to this scheme, because if I want to sell my farm I cannot get as much for it as I could if the school were within half mile or a mile." This objection has often the appearance of being reasonable and sometimes unanswerable, but it is really one of the easiest objections to be met. Where the system has been given a thorough trial the land values have not been affected as feared by some of the farmers. On the contrary, the value of all the land in the consolidated district tributary to the central school has been increased in value. It is not the accessibility within walking distance to a poor school that makes a farm valuable, but the accessibility, whatever may be the means of reaching it, to a good school. It is reported in the eastern states where the system has been tried that now when a farm is advertised for sale it is said that children are transported to a first-class central school, instead of offering as an inducement that the district school is within a mile of the farm. In Winnebago county, near Forest City and Buffalo Center, farms have been sold in the districts where consolidation has been adopted and transportation is furnished and the buyers have been well satisfied to pay an increased price for the land because of the exceptionally good educational advantages offered to the children. In fact, there is no instance on record where, after trying both systems fairly, the farmers preferred the inferior district school to the superior central school, providing the conditions of transportation and the details have been properly attended to.

The demand that the children shall be at home before and after school to do chores is an objection hard to meet. If parents desire-

to bring up their children to "do chores" to the neglect of their education, there is little use in appealing to them for better educational advantages for these children. Many farmers in Iowa send their children to towns to school on Monday morning and go after them Friday night. Thousands of children in Iowa are receiving their education in this way. Would it not be better if these children could leave home, let us say in some instances even as early as 7:30 in the morning, and not return until 5:30 in the evening, and be at home under the care of their parents and enjoying the home life? This is under the supposition that the children live at the extreme end of the route to the central school. If the central school was as good as the school in the town which these children now attend, would not the children and the parents both be better satisfied? In this connection it is suggested that the drive to school should begin at the point farthest from the central school. Much of the success of the system depends upon the arrangement of the routes.

With many patrons, and taxpayers who are not patrons, the question of expense is the first consideration, and many of them think that the cost of keeping up the consolidated schools will be greater than that of maintaining the little district schools. In one county it is reported that the directors think it is cheaper. In one county it is reported that "in small districts teachers receive a small salary for six or seven months. Patrons claim that this is cheaper and more convenient than to have pupils transported." In this county, where ninety-seven different persons were licensed in 1900, twenty-five had no experience and thirty-five more had taught less than one year. The number of third grade certificates issued was 136, and the number of first grade certificates issued was three. So the third grade teachers were licensed again and again, though unable to improve in grade. Notwithstanding the fact that in the county referred to is a large city with an excellent system of graded schools, the average monthly salary paid to the women teachers in that county is \$28.01. Comment is scarcely necessary. If the people are content to put up with cheap teachers six or seven months in the year, it is probably "cheaper" than to have good schools.

We believe that the prevailing sentiment in Iowa is that we can afford to have the best; that we want the best, even if it costs more. In Sioux county the superintendent reports that "rich farm lands, prosperity and the young, inexperienced teaching force will hasten the elimination of the small, weak districts.

Men of easy means are complaining of the meagre school advantages, and, since consolidation means a step toward graded schools, these men, who can and are willing to pay for better school advantages, will become real soldiers in the march of educational progress."

Several other superintendents reported, and this is the general verdict: Where the people can be satisfied that they are getting their money's worth, that the educational advantages are to be improved and their children given better opportunities for securing an education near at home, they will not hesitate, even if the expense is greater. Those who have given this subject the most study have complete faith in their ability to overcome this objection with all reasonable persons by showing them the numerous benefits which their children will derive from the better schools that will be provided for them by consolidation and transportation.

But it is by no means conceded that consolidation and transportation mean increased expense, although in some instances when the system is first adopted, and while the initiatory expenses are being paid, it may be somewhat increased. There is no doubt whatever that under ordinary conditions it costs much less to operate schools under this system than it does the small, scattered, inferior district schools. Experience has proved this. The cost of tuition per capita per year has been greatly reduced in many cases and in almost every instance the number of weeks of school has been increased. Reference is made to the reports from other states and to the reports from Iowa counties, notably from Winnebago, Pottawattamie, Black Hawk, Dickinson, O'Brien, Hancock, Wapello, and others, to substantiate this statement.

The objection to the removal of the schoolhouse from the neighborhood is one that will have to be given local consideration. Churches are now being built all through the rural communities of this state for the accommodation of the people for various kinds of public meetings, as well as for the use of the particular church organization which may own the building. These buildings are built by subscription from people of all denominations. They are for the common use of the community. If it is agreed that consolidation is a good plan the sentiment concerning the little schoolhouse ought not to interfere with it. Most of these buildings have but small value, and a district could afford to keep them in repair for meeting places if need be or the people could do it themselves, if they had no other meeting place

and thought it worth while to keep up the school building for this purpose. Is it not likely, however, that the people will be willing to go as far as the children and use the central school building for these purposes? These, however, are minor considerations which will not control if the chief objections are removed.

The claim that consolidation and transportation will take the older boys out of school sooner than if they could attend the little district school may have some foundation in some cases. Here again we come to the question of whether parents want their children to have the best education possible for them to obtain, or not. If they do, the boys will not be kept out of school to "do chores," not even if they have to go away from home altogether to obtain adequate educational advantages. Boys and girls of this class, who want to get an education and whose parents are ambitious for them to secure it, will be greatly benefited by the central school. They will be able to secure at home what otherwise they would have to get at the trouble and discomfort of leaving home entirely, at least for five days in the week. There may be isolated cases where the boys on the farm are obliged to be at home to work about the farm mornings and evenings, but the boy who wants to get an education will not be balked by this. He will get up a little earlier, perhaps. But these are the extreme exceptions and no system can be made to fit the exceptions to the disadvantage of the vast majority. Children who are so unfortunate as to have parents who think more of their "doing chores" than of securing an education will perhaps suffer some disadvantage from this system, but in Iowa such children, it is to be hoped, are exceedingly rare. Here again we see the disadvantage of long routes. We are convinced that in the introduction of consolidation and transportation in Iowa the routes should be as short as possible. It will be easier to get the system adopted in this way and it will be much more satisfactory to the patrons.

Some guarantee must be given to anxious parents who fear that the moral influences surrounding their children in the central school will not be good. They say that where a large number of children, old and young, with good and bad impulses, are brought together and spend the long noon intermission together without restraint, many of the children will learn things which it is better for them not to know and will be subject to the evil influences and bad companionships which they would largely escape in the little district school. This objection must not be

overlooked, because there is some reason for it. Sometimes the reply to this complaint is that the children must go out into the world some time and they may as well prepare for it one time as another. But this will not answer it. Many private schools are maintained solely because parents hesitate to subject their children to influences which go contrary to the pure atmosphere of the home. They think it is better for the child to arrive at a little riper age before he is subjected to these things and that he has time enough to learn them without taking the risks of meeting with all the temptations of life in his childhood. Therefore, it is highly important that safeguards shall be thrown around the children in the central school and on the way to and from the school. The teacher should know what is going on during the noon hour. Some supervision must be had to protect the children from the evil influences of the occasional bad boy or girl.

Children have been carrying lunches to school for ages and have come out of it pretty well and with good health. A large majority of the children who attend the district schools today carry lunches and no serious complaint is made about it. This objection is not of much consequence.

That the centralization of schools will remove the school from the people and will be a step away from democracy toward paternalism is a sentiment which probably does not prevail to any large extent, although it is mentioned by several county superintendents. A good many sub-directors now controlling district schools and using the patronage thereof for their own personal benefit will doubtless see the force of this objection, but the people will not feel it. Very few people will care who runs the school as long as it is a good school and the taxation to support it is not excessive. People will have the same voice in the election of the directors and the school will not be removed from their control.

It is earnestly to be hoped that all poor teachers will be thrown out of employment. That is one of the main objects of consolidation and transportation, and it should be clearly understood. The incompetent teacher must go and it is to be hoped that she will go by the thousands. From one or two counties this objection is heard. In one of those counties about half the teachers had taught less than one year.

Sometimes it is said that we ought to "stand up for the country school," which has turned out so many good men and women, instead of criticising it. Occasionally it seems that

some one thinks the effort to raise the standard of rural schools is in some way a reproach upon rural life. These are two great mistakes. Concerning the first, it may be said that no amount of assertion that he is well will cure a sick man, if he is really sick. The true physician tries to learn what is wrong and apply the proper remedy. That is what the advocates of consolidation and transportation are trying to do. And as to rural life, the whole theory of consolidation and transportation is that rural life, the life on the farm, is the ideal life, when the advantages of education, of culture, of society, are added to it. It is the purpose of this system to make life on the farm so attractive that the children will not want to leave it; that the parents will not have to leave it, and that the boys may be brought up to love it and carry it on, seeing its great possibilities, instead of running into town to begin the struggle to enter a crowded profession or to go into a business that will not yield them the financial returns or the health and happiness that are to be had on the farm.

REPORTS FROM COUNTIES.

The following questions were sent to every county superintendent in the state:

1. In how many different districts have pupils been transported?
2. In what school corporations has consolidation been tried, and with what effect?
3. So far as you have been able to learn, what is the general sentiment in your county regarding the closing of small schools, and the transporting of pupils to others?
4. What in your opinion are the advantages and the disadvantages of the consolidation of districts and the transportation of pupils?
5. Where the system has been tried, what do the patrons think of it?
6. If any objections are made to the plan, what are they; and how may they be removed?
7. What distance may pupils in your opinion be transferred with safety to themselves and profit to the district?
8. If in any instances pupils have been transported in your county, state briefly the history of the case, and with what success it has been tried.

We shall be glad to have briefly any thoughts or suggestions on this subject, not covered by these questions, which are simply suggestive.

The replies received are summarized herewith. They contain a vast amount of valuable information on the question of consolidation and transportation. They show what obstacles must be removed to secure the success of the system. Its advantages

and disadvantages are clearly pointed out. It is understood that wherever any experiments have been made they are referred to in these county reports. Where there is no account of consolidation or transportation, nothing has been done in that county. The most conspicuous features of these reports are:

First—That the county superintendents are almost unanimous in favor of the plan and nearly all of them give good reasons in support of this position.

Second—That the chief objection to the proper application of the system in Iowa is the bad condition of the roads at certain seasons of the year.

ADAIR.—Some townships are in favor of closing small schools but transportation difficulties prevent. The advantages of consolidation are better schools, fewer poor teachers and gradual advancement. The transportation question is the one to be discussed. Poor roads, careless drivers, cold weather, and the great anxiety of parents for children who are entrusted to the care of a driver who is not fit for the children to be with are the disadvantages. If the roads were different there might be some hope of getting at centralization, but in many counties it would be impossible to get through the mud to get the children to school in time.

ADAMS.—In some parts of the county sentiment is favorable to closing small schools and in other parts bitterly opposed. The chief objection is the difficulty of transportation and taking children so far from home.

4. Schools better classified; better instruction.

7. From five to seven miles.

ALLAMAKEE.—Some favor the plan, but more oppose it. The advantages are better schools, because of larger classes and more enthusiasm; better supervision and better attendance. The disadvantages are: In rough counties it would be impossible to gather the pupils on account of extra distance traveled to get to the schoolhouses; sacrifice of seven or eight good schoolhouses in each township and the erection of a large schoolhouse to accommodate all the pupils of a township; larger expense, requiring from five to eight teams to collect pupils, each team costing as much as to hire a teacher. Besides it would require from three to five teachers to manage the central school. These objections may be removed by showing that while they are inconveniences and extra cost the better results will amply justify the change for the same reason that the harvester is better in the grain field than the old-fashioned sickle. The plan that costs most is the best and better results follow

7. From one to five miles.

APPANOOSE.—There is some sentiment in favor of it. The advantages are many, the chief of them being that it would give the children in the country the benefit of a graded school the same as the children of the towns have. The great disadvantage is the transportation problem: Some children would have to be ready in the morning at an unseemly hour, and would of course not get home until late in the evening. The roads are often almost impassable. When the transportation problem can be solved satisfactorily this is the system in my judgment.

AUDUBON.—There are only a few schools in the county where it would be practicable to close them and transport the children to another school unless a central school was established. For that reason the question has not been discussed very much, but I think the people would favor it where it is practicable.

By consolidation the schools could be graded better. The children of the whole township would be brought together in one building, and so have the advantage of larger and stronger classes. The children of the rural districts would be given a chance to obtain as good an education at home as those who live in town. It would increase the attendance by keeping the older children in school longer. It would enhance the value of land in the entire township.

Some of the disadvantages would be the length of time that children living in the extreme corner of the township would be compelled to be on the road, and the poor condition of the roads at some seasons of the year.

The objections are the time children would be compelled to be away from home; the expense of transportation, and it is claimed it would depreciate the value of land that was located quite a distance from the school. The first objection is hard to remove. The only way I would know how to meet that objection is to improve the roads so as to reduce the time as much as possible. The last objection may be removed by showing that the value of land of the entire township will be raised.

7. Five or six miles.

BENTON.—Sentiment is manifested on both sides. As no vote has been taken in any corporation I am unable to say, but I believe in time the general sentiment may be created in favor of consolidation.

4. The educational advantages are certainly great. Pupils will have all the advantages of a graded school. A broader and deeper course of study can be given the pupils; the advantages of special teachers in the grades; the supervision of a superintendent, will all stand out prominently as advantages over the present plan.

6. The principal objections raised in this county are bad roads, more expensive, greater influence for evil on account of increased numbers.

7. Six miles.

BLACK HAWK.—Four districts have consolidated and are transporting children. Sentiment in the county is, as a rule, favorable and there is no dissatisfaction where the system has been tried. The following experiments have been made in this county:

Independent district No. 4, Waterloo township—Children furnish their own transportation, but the district pays tuition, and stabling of horses in town; attend West Waterloo; schoolhouse in district sold.

Independent district No. 4, Big Creek township—A man is hired by the board of directors to transport all the pupils to an adjoining district in Benton county; schoolhouse too old; abandoned.

Sub-district No. 1, Orange township—Pupils furnish their own transportation, but district pays tuition for pupils in West Waterloo; schoolhouse good new brick; locked up.

Sub-district No. 6, Lincoln township—One man hired for one year to transport all pupils in the district to an adjoining school in same township; schoolhouse in fair condition; locked up.

In all the above cases schools had too few pupils to maintain a good school.

Lincoln township has voted to consolidate all of the schools of the township (9), and voted \$5,000 to build a central schoolhouse. This was decided upon after a committee had visited other localities where the system had been tried and made a thorough investigation of its merits and its practical workings. The committee was composed of one man who was opposed to the experiment, one who was in favor of it and the county superintendent. The man who was opposed was completely convinced by what he saw.

Everything is in favor of consolidation. It means better equipment, better schoolhouses, better teachers, better schools, more schooling; keeps boys and girls away from the town at an age when they are most easily led astray, and gives the poor boy or girl an opportunity to get more education than they could get in any other way. One year in the consolidated schools is equal to two years in the district school. It raises the price of land. The only argument against consolidation is the long distance some pupils would have to be transported.

5. Most parents favor it.

6. Transportation is the only objection and that will gradually wear away as the people become accustomed to the new order of things.

7. That would depend upon the condition of the roads. In ordinarily good roads, five or six miles can be traveled in one hour, and the average country pupils take that time in going to the district school. A good team can walk four miles per hour, so in one hour the pupils, in ordinary times, can travel five or six miles with profit to themselves and the district.

Have some good sensible addresses made at farmers' institutes.

BOONE.—Nothing done, but sentiment in the county is favorable to closing small schools and transporting pupils to other schools.

BREMER.—The sentiment of consolidating school districts and transporting children to a school located in the center of a township is, as far as I have been able to ascertain, very favorable to such change when the proper time comes. I have discussed this matter with school officers and others interested in the schools, and I found them almost without exception in favor of the plan. All admit that it will cost less to maintain the school, that it will give the children better educational advantages and that it will give their children in time the advantage of attending a high school or a well graded school at home. The expense of changing from the present system to the proposed one seems to be the only thing in the way of making the change at this time.

BUCHANAN.—Two districts are transporting pupils and five have consolidated. The sentiment in the county is favorable to the plan and the parents are generally satisfied where it has been tried. The advantages are larger schools, increased enthusiasm and that districts will be able to pay salaries that will secure a far better grade of teachers. The objections are largely imaginary and may be removed by a better understanding of the plan. Ultra conservatism, prejudice, selfish motives, and failure of appreciation of the actual condition of the schools interfere with the adoption of the system. The experiments in this county are as follows:

WASHINGTON No. 3.—School has closed and pupils transported to Otterville where they have a two-room building. The experiment proved very

satisfactory, and in my judgment No. 3 would not have been reopened if a certain person had not lost a more lucrative position.

BUFFALO No. 7.—Two pupils are transported to No. 1, and proved satisfactory; school still closed.

In other districts schools were closed but no transportation provided.

BYRON No. 8. Reopened apparently to enable interested parties to keep teacher at home.

7. Three to five miles, depending upon the condition of the roads.

Experience has taught me that the campaign of education on the subject of consolidation must be carried on with more zeal than ever. The people must be shown that without excessive taxation it is utterly impossible to supply our rural schools with competent teachers under the present system. The rural children of Iowa are entitled to the best there is, and it is our bounden duty to keep up the fight for equality in school privileges until the country child has the same, if not better, educational advantages than are enjoyed by the children of our cities.

BUENA VISTA.—No district school has been closed permanently. Six have been closed temporarily but no pupils have been transported to other schools. The sentiment is at present divided. The majority are against the plan. I think, however, that the sentiment in favor of the plan is growing.

The advantages would be larger and better graded schools with more advanced classes. This would result in keeping the older pupils in school longer. Fewer and better schools would mean fewer and better paid teachers and, in general, a higher educational level in the rural districts.

Some of the disadvantages would be the great distance some pupils would have to go, and the bad influence which the removal of the sub-district schoolhouse would have upon the social and religious life of the people. The central school would mean the end of the rural Sunday-school and the evening debating societies, which have had a wide influence upon the character of the American people. Several efforts have been made to adopt the central school plan but they have been voted down by surprisingly large majorities.

Parents object that small pupils would be too far from home in case of sickness or accident. The roads are impassable part of the year. Reliable drivers cannot be had without great expense. The system gives unfair advantage to those living near the center of the township.

Pupils might be transported three or four miles with safety. Hence two or three schools for each township would be more practicable.

BUTLER.—One sub-district closed its school and the pupils attended the next school in the same township. One independent district closed its school and sent pupils to another independent district. One conveyance was used to transport five pupils to the Shell Rock school at a cost of \$4.00 per month. The other nine of the fourteen preferred to furnish their own transportation and were satisfied to have their tuition paid.

The sentiment is fast growing in favor of the closing of small schools and transporting to others. I think by consolidating we will have fewer but better qualified teachers, larger and more enthusiastic classes. It would enable better classification and gradation, and it would also be cheaper.

5. The great majority like it.

The only plausible objection I have heard is that young children ought not to be kept on the road so long as is often necessary.

CALHOUN.—No pupils have been transported at the expense of the district in any of the districts of this county. A few of the smaller schools have been discontinued and the pupils in those districts attend nearby schools and transport themselves without asking any transportation or transportation money from the school corporations. Nos. 4, 6, and 8, Sherman township, and No. 4, Lincoln township, have been discontinued. The plan seems to meet the approval of the people of those townships wherein it has been tried.

I think the plan of consolidation is favorably impressing the people in general. I believe it is the true way of solving the rural school problem. It seems the most plausible and most sensible way.

Some of the objections met here are that land will depreciate in those districts wherein there is no school; bad roads; long distance to travel; time on the road; also, a sort of prejudice against any change or modification of the old district plan. I believe that bad roads is one of the chief difficulties to overcome. I also believe that in some townships it would not be advisable to consolidate the whole township in one school, but into two, perhaps three.

Pupils may, in my opinion, be transferred with safety to themselves and profit to the district four miles, probably five.

Advantages of consolidation are numerous. In general—better schools, greater results, better teachers at better salaries, with really no greater expense.

CARROLL.—Sentiment in county does not favor the plan. It is the only hope of ever having efficient rural schools. Our school townships are none too large and the sub-districts may be successfully consolidated into one central school. The disadvantage is the difficulty of transportation.

CASS.—Nothing has been done but the people of the county look with favor upon the proposition to close small schools and transport pupils to others.

CEDAR.—Pupils have not been transported at public expense in any district. Sub-district No. 2, Red-Oak township, has been closed about a year and one-half and pupils sent to other schools, their tuition being paid from school fund. Fremont No. 4, Fremont township, will be closed for the remainder of the year and tuition of pupils will be paid in the Mechanicsville school.

The majority of patrons seem to favor maintaining the small schools.

I think that the plan of consolidation, if generally adopted, would double the efficiency of the schools. Teachers could do better work with two or three grades than with eight or nine. There is more enthusiasm in large classes than in small ones. Teachers would receive higher salaries and could afford better preparation. Not so many teachers would be required to fill the schools, hence the good teachers could be retained and the others dropped. The result would be better work. The main objection which patrons raise to consolidation is difficulty of transportation. I think that these objections will not be removed until the plan shall have been tried successfully in our own county.

So far as I know No. 2, Red Oak township, is satisfied.

7. Six miles. Many children walk from one and one-half to two miles. I think they could more easily ride six miles in a suitable conveyance.

CERRO GORDO.—Three districts have transported pupils but none have been consolidated. The plan is growing in favor. In Lake township one team has been employed for several years but has grown in disfavor by the patrons, therefore, last spring they voted to build another schoolhouse. I think the board had some difficulty in securing some one to haul the pupils.

Advantages:

- a. Better teachers will be secured.
- b. Larger salaries will be paid them.
- c. More efficient work done.
- d. Attendance more regular.
- e. Increased punctuality.
- f. Better associations for pupils (more pupils of their own age and class).

g. Closer supervision by the county superintendent.

Disadvantages:

- a. Long distance for some of the pupils to ride.
- b. Bad condition of the roads a part of the year.
7. Five miles.

CHEROKEE.—One district has closed its school and transported the children to another school. Sentiment is in an unsettled condition. The system has been so little tried in this county that people know very little about it and are divided in their opinions.

Advantages:

- a. Pupils in the country have the benefits of a graded school.
- b. Teachers may make special preparation for grades in which they are to teach.
- c. Interest and enthusiasm come from numbers.
- d. More personal work from teacher and longer recitation periods.
- e. Several teachers working together accomplish better results—exchange ideas.

f. Schools are better supervised, better supplied with apparatus, books and maps, and have better buildings.

Disadvantages:

- a. The chief disadvantages come from poor roads and the difficulty of securing proper conveyances and proper persons to transport pupils.
- b. Parents dislike to send children a great distance from home.
7. About four or five miles.

CHICKASAW.—Sentiment at present is not favorable. Advantages: Better classification. Objection: Increased cost. Show them their mistake.

CLARKE.—Sentiment is favorable to the plan. The advantages are better grading, better schools, better schoolhouses, and the attendance and punctuality will be improved. The only disadvantage is the difficulty of transportation.

7. Not more than six miles.

CLAY.—Some townships are quite favorable to the plan and some are very much opposed.

Advantages: We could certainly have better schools and better teachers,

and I should think the expense would be less per pupil after the plan was in operation.

The first expense, sending young children so far from home and lessening the value of farm property situated some distance from the schoolhouse are some of the objections.

Disadvantages: Too far to send children from home, bad roads, lack of confidence in bus drivers.

7. From three to four miles.

CLAYTON.—No experiments have been made, and sentiment is strongly opposed.

Advantages: Better teachers, more systematic work, better equipment, closer supervision by county superintendent, more enthusiasm, and other things too numerous to mention.

Disadvantages: It will take the older boys and girls out of school earlier than if they could attend school a mile or so from home. Transportation is inconvenient in this county, as about two-thirds of the people live off some distance from the road (public highway). Fathers, brothers, cousins, nephews, and great-grandfathers could not hire their relatives and so get a few paltry cents out of the district treasury and give in return no value. It seems to me that is the only reason why it should be fought by some people. Increased expense would follow transportation. This county is too rough to transport.

7. It depends upon the relief of the country—prairie counties, about five miles; in my county, not over two to two and a half miles.

CLINTON.—1. None. Pupils have been transferred but not transported.

2. Consolidation has not been tried.

3. There is a growing sentiment for the discontinuing of small schools, but it has not grown to such an extent as to become a general sentiment. I believe the *general* sentiment is adverse to it at the present time.

4. a. Advantages:

1. Better schools by reason of attendance being such as to insure enthusiasm and interest.

2. Most economic plan.

3. Insures better teaching.

4. A healthier educational sentiment is aroused.

b. Disadvantages:

1. Lack of means of transportation.

2. Bad roads affect attendance.

3. Where a large number of children are brought together, the moral life of a child cannot be closely guarded by a teacher.

5. They are favorable to it; that is, where pupils have been transferred to graded schools from small schools that have been discontinued, it has proven very satisfactory.

6. The greatest objections urged against consolidation are the depreciation of land values in remote parts of the districts, bad roads making transportation almost impossible at some seasons of the year, and the mingling of many children of all classes being against the highest moral development. For the first and last objections there seem to be no solutions, and for the second objection, good roads will remove it.

7. How far children may be transferred depends entirely upon local conditions and the age and the health of the children. In some places in this county transferring children six or seven miles would seem just as feasible as transferring them two or three miles in other parts. I would put the maximum distance at six miles.

CRAWFORD.—The system has been somewhat discussed and in localities is favored. The chief objections are rough roads and amount and length of time children must be gone from home.

7. Within a radius of two miles.

DALLAS.—Pupils in Union township have been transported to Dexter for about four years. The plan is a success and is approved by the people. The sentiment of the county is in favor of the system and it is in the interest of economy.

7. Three to four miles.

DAVIS. Sentiment is growing in favor of closing small schools.

DECATUR.—No transportation or consolidation but people look favorably upon the plan. No objections are heard and it has many advantages and few disadvantages.

7. Three to five miles.

DELAWARE.—System not tried and sentiment in county not developed. It would secure better supervision and better teachers. One of the objections made is that it would be necessary to build a house for the principal and the corps of teachers at the central school. If so, how will it lessen the expense?

7. Five to six miles.

DES MOINES.—Jackson township, a small township containing about twelve sections of land, has but two schools. Last winter it was decided to close one of the schools and transport the pupils to the other. They got into some trouble about whether the pupils should come out to the main road or whether the vehicle should go to each house. It was decided that the pupils should meet the wagon at the road, which made some of the patrons angry and they would not send their children to school. It will be tried again this year, I hope with better success. The sentiment in the county is about evenly divided. The system would secure better grading, allowing a teacher more time to each subject. It is less expensive, with a better grade of work. About the only objection is that some of the pupils must leave home early in the morning and arrive home late in the evening. Some say the small schools may in time become larger again and others think it would be more expensive. Bad roads is another objection.

7. About four miles.

DICKINSON.—Pupils in only one district, Lake Park, have been transported, and the sentiment is good in the county for the system. Thirteen schools will be closed this winter and the people are well satisfied. The plan insures better teachers, classification, grading, and better advantages in general. The objections are on account of bad roads and pupils being too long away from home.

Lloyd township voted \$3,500 for a center high school last March. The building is being built to be finished October 1, 1901. This plan closes nine sub-districts. A very few object to the plan. At first and in the voting, twenty three voted against the plan, but most of them are now in harmony with the idea. The success of this township practically means every town-

ship in Dickinson county having the same plan save two townships. The lakes dividing those, it will never be practical with one building.

Milford township and Excelsior township voted the same plan, but we thought best to wait a year and see the outcome of Lloyd, and if Lloyd is a success, these two will build buildings next year.

Silver Lake has three schools beside Lake Park in their township, but only a few months each year do they have any school.

The only thing which stands in the way is bad roads. They have been worked but little. It's my opinion that inside of two years we will have five center high schools, and the pupils in five townships will be transported to these schools.

7. Six or seven miles.

DUBUQUE.—In the small districts teachers receive a small salary for six or seven months. Patrons claim that this is cheaper and more convenient than to have pupils transported. In many cases they can establish a graded school and have better teachers. Some of the disadvantages are that the pupils will not be able to meet the wagon at a fixed time in all kinds of weather. Where the roads are rough and hilly, as is the case in some of the river counties, pupils will be exposed to the weather too long. Many of the larger pupils are needed at home to do chores. By closing the schools within a reasonable distance some of them would be deprived of school conveniences. Some of the objections may be removed by improving the roads.

7. Not to exceed four miles.

EMMET.—Consolidation has been tried in some districts temporarily with good effect, but the general sentiment in the rural districts appears to be very strongly opposed to it. Though frequently schools have been closed in this county and pupils transported, it has been because a suitable teacher could not be obtained or on account of lack of schoolhouse or because the school was small, yet we can scarcely say that we have tried consolidation and it would not be well to insist on trying it in this county. Some of the boards have put themselves in a position to try it but none have been brave enough to meet the opposition to an effective trial. The advantages of consolidation are:

- a. Better classification.
- b. Class interest.
- c. Elimination of weak teachers.
- d. Closer supervision.
- e. Better attendance.

The disadvantages are:

- a. Pupils farther from home.
- b. School farther removed from people.
- c. Difficulty of getting proper transportation.
- d. Pupils having to be longer away from home in winter.
- e. Timidity of parents.

FAYETTE.—No experiments have been made but the idea is growing in favor. The system would do away with many incompetent teachers. There would be longer terms, better wages for teachers and better classification of pupils. The disadvantage is in getting pupils to the central school. It would be better to take in small territory and avoid the difficulties of transportation.

FLOYD.—In four districts the pupils have been transported and the parents think it a better plan. It is growing in favor among the people. Several schools have been forced to close because they could get no teacher. Where pupils need not leave home before eight, and the roads are good or not bad for any considerable time during the year, and a driver of sense can be procured, the plan will stay where tried. One township voted on the proposition last March, but it lost by a small majority. It will probably be brought to a vote in another township next spring. Rural people are slow to take up with new notions where any expense is attached.

7. About five miles.

FRANKLIN.—The experiment of transporting pupils to a central school has not been tried in this county. The matter of transportation of children and the consolidation of schools has been discussed in farmers' institutes and in teachers' meetings, and the general sentiment is in favor of the movement. It is particularly true that where the attendance is small and the per capita cost of maintenance large, a change in the present system would meet the approval of the patrons of our schools. Some of the advantages of the consolidation of districts would be:

- a. An increased attendance.
- b. The employment of better teachers.
- c. A decrease in the average cost of tuition.
- d. And the procuring of more and better apparatus.

A better system of grading could be adopted, a closer supervision made, and the schools of the county raised to a higher standard if fewer and better schools were established.

FREMONT.—Transportation has been provided in one sub-district and the people are in favor of the system. It provides better schools at less expense. The attendance is more regular and tardiness has decreased.

GREENE.—The outlook is favorable for the system in this county. One small school has been closed and the pupils attend adjoining schools, furnishing their own transportation. We have one township high school, but the pupils furnish their own conveyance. In many cases it would be an advantage. It would make the school more effective. The objections are: *First*, the impassable condition of the roads at times; *second*, the extra expense of building a schoolhouse that will accommodate the children—“What shall be done with the buildings we already have?” the people ask; *third*, the fact that from remote parts of the township it will be necessary for the children to be one and a half to two hours on the road, thus necessitating their starting about seven o'clock and not getting home until nearly six o'clock in the evening. This means that in winter they must leave before daylight and not return until after dark.

GRUNDY.—Pupils are being transported in two districts—from sub-district No. 6, in Felix township, and from the rural independent district No. 2, Pleasant Valley township. In Felix township the school is small, and the pupils living almost as near other adjoining schools and the parents having no objections, it was an easy matter to close the school. In the other school conditions were not so favorable. Here there were many patrons whose children were grown up and not attending school wanting to lessen their taxes conceived the idea that they could run the school cheaper, closed it

and transported the pupils to other schools. This was not entirely satisfactory. We had considerable trouble with some of the patrons. One family sold their farm and left the district on account of the school privileges. In my opinion, even though the school is small, it would be better to hold a school than to have the neighborhood torn to pieces to save a few paltry dollars.

So far as I have been able to learn, the sentiment in this county is in favor of closing small schools, providing it will lessen the taxes to the patrons and give the children transported better school privileges.

In my opinion there would be no advantage in the consolidation of districts and the transportation of pupils. The claim, I know, is being made that we would have better school buildings, better teachers, cheaper and better schools, better attendance, and no pupils absent or tardy. Those who are opposed to consolidation claim that in the end there will be nothing gained by radically changing our school system. A few of their reasons are as follows: It would remove the school from the home. Farm lands farthest away from the schools would depreciate in value. Small children would have to ride too far to get to school. Parents would be deprived of the help of their children when they live a great distance from the school. When roads are in bad condition it would be impossible to get to school if the home was five or six miles from the school, as in many cases it would be. I believe that our country schools with all of their short-comings, as told to us by many leaders in the higher education, are better schools for the training of pupils in the common branches than the much exploited graded schools of today. I believe that more harm has been done our country schools by being talked down by many people who received their first training in them and who have risen to occupy many of the first places in the land, than can be remedied in the next decade. The way to make schools better is to uphold them. Although the country teacher may as a rule not be equal to the one in the grades, yet the constant drill and review the pupil gets will in my opinion more than make up for the difference if any exists. In the grades it is too much of a machine grind. The pupils have not the benefits of the review so essential in the common branches. Forced along or held back, as the case may be, in a machine-like grip until he is turned out a graduate in many cases knowing nothing more than that he is such graduate. If the leaders in education would encourage the patrons of the country schools by telling them the facts that the schools are good but can be made better; that the school system that we now have is as good as any known system; that better schoolhouses and better wages would in most cases mean better teachers and that those conditions would mean better schools, in my opinion would go a long way toward making our schools better. I am a believer in our school system as it is. I believe that it would not be best for our boys or our girls for us to fight their battles for them. That the walk of a mile or more through a storm may be the means of showing a child that he can do something. The great danger of our schools, as I see it, is, that we are training our children not to work with their hands. Boys and girls all over the country are being sent out of school not able to do anything in the way of common labor so that the professions are becoming congested and it is next to impossible to get the necessary help on the farm notwithstanding the fact that better wages are being offered for help of this kind than for almost any

other. In order to have a graded school conditions must be favorable for that kind of school. Parents must live a reasonable distance from the school and follow an occupation so that their children may attend regularly throughout the year. In the country the conditions are not the same as in the town, therefore it would be impossible to conduct the same kind of a school. In the country it is often necessary for the parents to keep the older children out of school for a part of the year to assist in the work on the farm. When they return they are behind their grade and either a special grade will have to be provided for them or may be they will be ashamed to fall behind and will drop out of school altogether, the very thing we are trying to avoid. In conclusion let me say, in my opinion, that if instead of telling the people that their schools are not good; that they need another system; that they ought to have something different than they now have, would tell them that our schools, so far as results are concerned, are the best in the world, that Iowa has the lowest per cent. of illiteracy of any state in the United States, that men who received their preliminary training in the country schools of Iowa are holding many of the best positions, politically or otherwise, in the world today, that we do not pay enough wages, that a teacher, if they expect an expert, ought to receive wages enough to live and lay up a little for a rainy day, that a teacher of the right kind ought to have at least fifty dollars per month, that we ought to offer some kind of an incentive to teachers to become experts in the common branches. I believe that along this line, rather than along the line of consolidation and transportation, we will find the true solution of the country school problem.

GUTHRIE.—The plan has not been tried. Sentiment is against it. I think four sub-districts might be consolidated. It would furnish a graded school. The disadvantage is the distance to be traveled, and people in this county think the expense would be increased. That is their great objection.

HAMILTON.—Transportation has been furnished in one district. The sentiment seems to be against the plan, though it would furnish better kept schools. The usual objections are bad roads, too great distance to be traveled, but in my opinion many hate to see the little old schoolhouse removed from their immediate vicinity. This is the real reason.

7. Eight miles.

HANCOCK.—Consolidation has been tried in the school townships of Garfield and Twin Lakes with satisfactory results. In two other districts it was decided to give up schools, but transportation could not be secured, and the schools were taught as usual. The sentiment seems to be decidedly in favor of closing smaller schools, but directors are afraid to do so for fear of offending school patrons.

Advantages of consolidation:

- a. Secures better classification of pupils.
- b. Insures better teachers.
- c. Better interest in school work on the part of teacher and pupil.
- d. Better buildings and apparatus.
- e. It is economical.

The disadvantages are imaginary rather than real, provided, however, that the distance is not too great and pupils have comfortable conveyance and careful guardians.

Some objections are:

- a. Bad roads.
- b. Difficulty of securing responsible drivers.
- c. Parents want the service of children after school hours.
- 7. Four miles.

HARDIN.—Transportation has been tried in six districts but there has been no consolidation of districts. Sentiment in favor of consolidation is growing and the people are ready for a little more radical legislation. In the six districts in this county where pupils have been transported to other schools the sentiment is unanimous for the system. The parents and children are strongly in favor of it. Five of the six schools were transported to graded schools and the results were so satisfactory that the one-room country schoolhouses in these districts have been permanently abandoned and permanent arrangements for tuition in the graded schools and transportation thereto have been made.

The advantages are better teachers, better schoolrooms, more apparatus, longer terms and better attendance. About the only objection is the probable increase in school expenses. The only way to remove this objection is by actually trying transportation.

7. About six miles.

7. About six miles.

HENRY.—Nothing done and sentiment in the county is wavering. The advantages are economy and better system. The objections are that too much time must be spent on the road, and by some that "Too many teachers will be thrown out."

HOWARD.—One township transported about a dozen children last winter, instead of paying tuition to another district, and it produced a good effect. The patrons are mostly in favor of the system. The sentiment in the county is conservative. The objections are that children are exposed in the cold too long and the older ones are absent at chore time. Better roads will remove many objections.

7. Not more than five miles.

HUMBOLDT.—During the past year transportation has been paid for out of the public funds in only one school district. The pupils from another have had their tuition paid by the school district in which they reside, but the district did not pay for their transportation. I think that consolidation will lessen the number of teachers, hence as a whole we can have better teachers. The objections are: part of the time the roads are very muddy; care of children on the road, and distance from home for small children. But back of this there is a spirit of conservatism, and in some instances prejudice against any general change in our system of public schools. I think that the membership of the school board should be smaller; that the directors should be elected from the school township at large; and that they should receive adequate compensation for their services, the same as other township and county officers do.

IDA.—Two districts in Ida Grove have been consolidated and the pupils transported with good results. Patrons are in favor of the system. The sentiment in the county is good.

7. Three to four miles.

IOWA.—The sentiment for and against the system, which has not been

tried in this county, is about evenly divided. The only disadvantage is in the difficulty of transportation.

7. Five miles.

JACKSON.—No recent experiments have been made. A good feeling exists which in time will culminate in consolidation. The advantages are economy higher average attendance and the rescue of several groups of children who seldom attend school. The only experiment was some years ago and was very successful. In some sections of rough country objections cannot be removed. Here transportation should not be more than three or four miles.

JASPER.—The sentiment is growing in favor of the plan. The question will come up in some townships next spring. So far transportation has been furnished only in a very few isolated cases where a pupil was too far from his own school. The advantages are graded work, larger classes and fewer of them in each school, better teachers, better wages, probably less expense, probably more regular attendance. The main objection urged is the bad condition of the roads at some seasons.

7. Three or four miles.

JEFFERSON.—So far as I can learn the majority of the people in this county look upon consolidation of schools and transportation of children as something impractical and a condition that exists only in theory. However, a few persons in several townships are warm advocates of consolidation and are agitating the subject with results that may tell in the future.

Advantages of consolidation: A larger school brings the teachers under the direct supervision of a superior teacher; the teachers come in contact with each other and discuss plans, methods, etc., arouse enthusiasm and each stimulates the efforts of the others. The school can be better classified with fewer classes in each room. The classes being fewer and classification better, enables the teacher to care for more pupils, to concentrate her forces and make better preparation for her work. More individual work can be done. After the first expense better returns may be had for the amount of money expended, better education secured to the country children without sending them away from home.

The principal objections are: Extra expense in building a new schoolhouse; increase in the value of land near the schoolhouse—land will decrease in value as the distance from the school increases; the school being larger, better clothes will be required for the children; distance; bad roads; children being away from home so long. Many claim that the expense of running the school and transportation will be greater than the expense under the present conditions. These objections may be met by showing the conditions where an actual test has been made; by an extensive distribution of literature on the subject; by private and public talks, showing the advantages of the system; by agitating the subject whenever an opportunity affords itself. Some legislation is needed on this subject.

7. With fair roads, about six miles.

JOHNSON.—Johnson county seems to favor the township high school as preferable to consolidated schools. Township high schools are located in Jefferson, Sharon, and Penn townships. This spring Hardin, East Lucas, West Lucas, Lincoln, and Scott townships voted on the question of consolidation. In each township consolidation was beaten three to one.

JONES.—In several townships there is no little agitation, bringing forth a

great diversity of opinion. The sentiment in favor of a change is gaining ground. Township centralization is thought to be impractical, but almost all are in favor of some form of consolidation. Personally I am in favor of just as much consolidation as expedient, and if present plans prevail, expect to urge some changes during the next year.

KROOK.—Sentiment is growing in favor of consolidation. In this county, situated as the schools are, the advantages would be numerous. Better schools, longer terms, and more effective work would be secured. The question of distance, the cost and the effect on values of real estate are some of the objections heard.

7. Not to exceed three or four miles.

KOSUTH.—I know of but one district where any pupils have been transported to school and these were not taken outside the district. The almost impassable roads of last spring have materially decreased the number favoring consolidation.

Teachers are becoming more difficult to obtain and some schools had to be closed last spring, since no teachers could be secured. School boards made no effort to carry these children to other districts. People are very jealous regarding their schoolhouses, although they apparently have little interest in the school. Several new schoolhouses have been built this year and we are apparently farther from rural consolidation than ever.

The advantages to be secured are larger schools, better teachers, and more interest. Where the system has been tried people are satisfied. The objections are bad roads and distance required to travel. Better roads would remove some of these objections.

7. Five miles.

LEE.—In Denmark school township pupils have been transported with great success. Charles W. Flint, secretary of the Denmark school board, reports as follows:

"The patrons whose children have been carried are enthusiastic, the majority of them saying they would bring the scholars themselves rather than have them go back to the old schoolhouse.

"No objections in our territory except the cold weather and bad roads in winter. No remedy except better roads and better service for transportation.

"Pupils in ordinary townships could be carried to a common center from all over the township with absolute safety and a profit to the district. I should favor, however, a plan of the scholars walking part way, say as far as they would ordinarily walk in going to school in their own district, thus not making it necessary for the driver to go to each house."

Many directors favor the closing of small schools and transporting the pupils to a central school. The greatest opposition comes from certain taxpayers who fear that such a change will cause unnecessary expense in the erection of new and proper school buildings; that pupils may not be properly cared for by those transporting them; that consolidation is only an experiment, and that the old buildings would be almost a total loss, and that the condition of the roads will frequently prevent transportation of pupils.

In my opinion the advantages to be gained by consolidation of school districts are:

1. Better grading of pupils.
2. The adoption of a uniform set of text-books can be more easily secured in each county.

3. The state course of study would be general and more effective, consequently there would be better scholarship on the part of pupils throughout the county.

4. Pupils would be more regular in attendance and there would be fewer cases of tardiness.

5. Better roads.

6. Better teachers.

7. Better supervision on the part of the county superintendent.

There are no disadvantages in this plan, provided capable teachers are secured and careful drivers are hired.

LINN.—Sentiment in the county is growing in favor of closing small schools and conveying the pupils to better schools, but the system has not been tried here.

LOUISA.—No transportation in this county at the expense of the district. Some parts of the county are very much in favor of consolidation but a majority is probably against it. It seems to me that consolidation in certain localities would bring the pupils to school more regularly, put a premium on fitness for teaching, decrease the expense in many cases and give the pupils the advantage of graded work without the loss of the personality of the pupil.

7. From two and a half to three miles.

LUCAS.—The prevailing sentiment is against the system and is growing more favorable to it. The advantages are cheaper and better schools and the disadvantage is the difficulty of transportation. It is difficult to find any one to take the contract of conveying pupils to school. No one is prepared to do it and it does not pay any one to prepare for it. One board offered to transport some pupils to another district but could find no one to undertake the work as the amount voted by the board was \$20 a month. School officers are considering the question and a trial will be made in time.

7. Two and a half or three miles.

Lyon.—A few small schools have been closed for a part of the year, but the pupils have transported themselves. The sentiment is favorable to the plan. The advantages are:

a. An increase in numbers, causing greater interest and competition.

b. Saving in general expense.

c. It gives opportunity to remunerate the teachers above what they already have.

d. Schools will be better equipped and interest centralized.

e. Pupils will remain longer in school.

Disadvantages:

a. Transportation.

b. Bad roads.

c. Distance to travel in cold weather.

d. Drivers would be as expensive as teachers.

e. Affects the value of real estate.

7. Three or four miles.

MADISON.—The sentiment seems to be against transporting, although

some favor it. People do not consider number in each district. There seems to be a feeling that "the other school" is the one to close. The principal objection is transportation, not the expense of transportation, but the fact that some children would have too far to go and have to be too long on the road, being compelled to start from home early and arrive home late. Some people think it is taking the school, a public institution, too far from the people. The advantages are in some cases only. It would not be an advantage to consolidate two or three schools to make one over-crowded. It is a question whether a graded school is an advantage. If two or three schools could be united and form a school of about twenty-five to thirty-five it would be better than a school of six or ten.

MAHASKA.—The question is being discussed in some localities and in some places they are much interested and would like to try the plan, but are afraid to begin, fearing they might be dissatisfied and could not change back. The objections are:

1. Children too long away from home.
2. Obligated to start too early and stay too late.
3. In spring, roads too bad.
4. Drivers not trustworthy.

MARION.—Sentiment is growing in favor of consolidation in parts of this county. The problem of transportation must be satisfactorily solved by more direct and better roads before centralization of schools can be effected.

MARSHALL.—Pupils were transported two miles in one district in Taylor township with good effect and fair satisfaction. The plan was abandoned on account of the building of a new schoolhouse. People are generally favorable to the plan but want to see it tried by others. The objections made are the fatigue and exposure and personal inconvenience involved. Experience will solve these difficulties. In my opinion, consolidation offers the only solution of the rural school problem. It is the only way to secure efficient teachers and it awakens a school spirit in the larger school, better taught.

MILLS.—In four districts pupils have been transported with satisfactory results. No objections are heard except bad roads. We have this year transported thirty pupils in St. Mary township and about twenty in Platteville township, about twelve in Oak township, and eighteen in Center township. In the first two the patrons are not satisfied, as the gumbo roads in the spring are almost impassable and delays occur. While in both cases I have advised consolidation, a majority seem to want new school buildings. The bad roads seem the only objection, and I think it a real one in the springtime. In the other two districts the patrons are well satisfied. I believe that consolidation is being seriously thought of in a number of districts and I look for some decisive action next spring. The majority of people where small districts exist seem to be in favor of both transportation and consolidation. The old objection is advanced by a few that land will depreciate in value if the small schools are wiped out, but I am glad to say that these individuals are few. The only way to bring about consolidation

is through agitation in the small districts. This I have done and expect to continue. Not over four miles. In some parts of the county there is a growing sentiment in favor of closing the small schools and transporting the children. The advantages are: the grading helps; there is more life; better teachers; children can profitably be kept at home longer. On the contrary, a good district school near the home is of great value. The record of the past speaks strongly for the district school. The transportation problem is a vexing one. Bad roads, long drives, and severe weather are hard on small children. Farmers want the work of the boys and girls. Transportation has been furnished to some extent in Liberty township, where the people are much inclined to center three of the districts in one. Sixteen children were transported in that township the past spring. One school was closed. Where the older children drive to Little Cedar for the high school it seems desirable to send the small ones with them by the same conveyance. Burr Oak township is talking strongly for a high school. One school has been closed and transportation furnished in three districts. The plan was satisfactory to some of the patrons and not so to others. The objections have been mostly in regard to time going to and from school and that the driver has not performed his full duty. This can be partially removed by boards making careful contracts with drivers. The advantages are better attendance, more interest, and better teachers. The only disadvantages are in transportation where roads are poor and distance too great. Many are in favor of the plan and it is gaining in this county.

Three or four miles. The plan has not been tried, has been little discussed and the sentiment is divided.

MONTGOMERY.—One school was closed during the spring term and the pupils attended in an adjoining district. The effect was the saving of the teacher's salary and probably a little better work done by the pupils on account of larger classes. The majority of the people are opposed, but a large minority are in favor of the plan.

MUSCATINE.—People seem to be against the plan. The real objection is a sentimental love for "our little red schoolhouse," and the people are opposed to its removal from the neighborhood. I am heartily in favor of the system of consolidation and transportation.

Three and a half or four miles. Pupils have been transported from one of the rural schools in the independent district of Paullina to the high school building during the year 1900 and 1901. At Paullina it is very satisfactory. They are talking of closing the other rural school but no action has yet been taken. It is much cheaper and no pupil has to travel more than three miles. They have a covered hack and a driver. There was considerable opposition to the closing of this school but it is satisfactory now. The objection made here is principally that parents seem to be afraid to have their children go any distance from home. At our parents' meeting some claimed that it made their land more valuable to have schools near. The only disadvantage I can see is in the transportation. The larger schools can have more pupils in a class, which means more interesting recitations, more incentive for pupils to study and

the schools will be better graded. The sentiment in the county at large seems to be against closing small schools. Primghar independent district has decided to close the rural school and transport children to the high school during the school year of 1901 and 1902. The board of directors of Caledonia township voted last fall to close three schools where the attendance was small and allow parents 10 cents per pupil per day for transportation. This plan was not satisfactory.

7. For younger pupils, not over four miles.

OSCEOLA.—The general sentiment is divided. Where schools are very small and pupils can and will be accommodated in adjoining districts, the idea of consolidation of districts and transportation of pupils is commendable. The principal objection centers around the question of transportation. The closing of all schools in any township in this county and the establishment of one central school therein would not meet with general approval. When satisfactory to the people concerned and when children will not suffer thereby, the closing of very small schools is advisable. During the past year three schools were closed because of the small number of pupils to be accommodated. This was unusually satisfactory and no transportation fees were paid or asked. Were these children so situated that it would be necessary to drive to the adjoining school, convenient conveyances would no doubt have been provided at the expense of the district in which school was closed.

7. Three or four miles should be the limit and then only under favorable conditions.

PAGE—1. In six, for one year at a time. Other schools have transported for a shorter period.

2. It has not been tried in a single corporation as a whole.

3. As a rule the sentiment is pronounced against closing the small schools.

4. The consolidation of districts in my opinion would solve the country school problem in a great measure, if it were practical. That system would give the country schools all the advantages now held by the town schools and none of their disadvantages. But I fear that in thickly settled townships it will not be practical to consolidate and centralize on the township plan, especially as long as our roads are not in better condition. And I am not sure that it would prove to be practical even if the road question were solved. It would take too many conveyances to convey all the pupils to and from school and hence the cost of transporting pupils would more than consume the savings from the employment of a less number of teachers. The people would have to be taxed more in order to meet that extra expense and in order that teachers thus employed might be paid a better salary. Then again I do not believe the township plan would be practical for the reason that even better means of conveyance, would not be speedy enough to get the pupils to and from school without consuming too much time on the way in transporting those living in remote parts of the district. Hence mothers will object to their little children spending so much time on the road. Fathers too will not want the older boys to spend so much chore time on the road going to school and returning home. In theory the plan is all right, but I fear it will not be practical.

5. Some like it while a greater number condemn it.

6. Takes too long for the children to go and return. Others do not like the idea of having the old district schoolhouse removed.

7. I believe about three schoolhouses, to every township six miles square, properly located would be much better than the township plan; especially in thickly settled townships.

8. In the cases referred to in answering the first question pupils have been paid to convey themselves and others to the next nearest school at a great saving to their districts and at the same time have had better advantages than they could have had in their own districts where so few would have attended had schools been conducted therein.

PALO ALTO.—Pupils have been transported in two districts where the children were an unreasonable distance from school. In these cases it was satisfactory as it was a great saving of expense. The sentiment of our people is so strongly against the consolidation plan that it would be unwise to attempt it. I believe in at least a hope of success before trying any such change. I believe, however, that the sentiment is growing. The roads in our county is the chief objection. Under present conditions I could not recommend the plan in this county, though I am convinced that it will make far better schools.

PLYMOUTH.—1. I can report no case in which children have been transported to school regularly in this county. In several instances this has been done temporarily, but has not been adopted as a fixed policy in any case.

2. No consolidation thus far in this county.

3. There is a strong and growing sentiment favorable to consolidation and transportation in this county. I have good reasons to believe that the plan will be put into operation in some districts during the coming year. In one township in which the matter was submitted to the electors the proposition was defeated by a very small margin out of a large total vote. In other instances the matter was deferred until it could be more thoroughly agitated and studied.

4. It would be an advantage to the county superintendent in the matter of supervision. It would be an advantage to the teacher in having pupils to be punctual and regular in attendance. It would be an advantage to parents in relieving them of the care incident to taking children to and from school during stormy weather or in some cases taking small children to school at all times especially when they reside at a distance from school. It would be an advantage to the pupils by enabling the teacher to do regular grade work and thus giving to the child as much work in one school year as is usually given in a country school in two or three years. It would be an advantage to the school officers and taxpayers in that they would get so much better service, and eventually the cost of schools would be lessened.

6. The objections advanced are: *First*, the distance a team must travel in gathering the children would be so great that those children who live farthest from school must be on the road an unreasonable length of time; *second*, many teachers would be thrown out of employment.

7. Under ordinary conditions children might be transported six or eight miles and not suffer any inconvenience.

POCAHONTAS.—Although no trial of the system has been made in this county, the sentiment grows more favorable. Everything is in favor of

consolidation and transportation except the bad roads. Better roads would make the plan more feasible. The idea of having the old district schoolhouses razed and From two to four miles.

POLK.—Advantages of consolidation of districts and transportation are: pupils are better teachers, extension of class time and many other things. It has not been tried in this county.

POTAWATTAMIE.—Transportation has been furnished in eight different places in this county. The consolidation proposition carried in only one township. It was defeated in three townships. There is a growing sentiment in favor of it. The sentiment in general is favorable to the closing of weak schools and transporting children. Where the system has been tried the patrons are delighted with it because it is cheaper and more satisfactory. The most convincing illustration of the transportation system in this county is in the independent district of Council Bluffs. Woodbury school, in a suburb a little over two miles out, has been running for fifteen or twenty years. The board was compelled to provide a teacher and janitor and a school building. The special teachers and the superintendent were compelled to spend considerable time going to and from the school. Last year the board decided to close it. The teacher was given a place in the city where a new teacher was needed. The expense of the janitor and of heating the room were dispensed with, and the net saving above the cost of transportation was \$50 a month. The patrons can see and estimate the merits of the system here. The plan is working well and there is no thought of opening Woodbury school.

The advantages of consolidation include all the advantages of a graded school over an ungraded school. The greatest difficulty is in transportation, and this is more imaginary than real. There are no well founded objections. Some antediluvians have daughters who have prepared themselves to keep school, and their chances to get schools will be lessened by consolidation. They think the plan is visionary. They would be using tallow candles for illuminating purposes.

Five miles where the roads are good. In some places not more than two.

POWESHIEK.—Sentiment in the county is generally opposed to the plan. The disadvantages are bad roads and carrying of a number of children in one closed conveyance. The advantages are better teachers and better equipment; the companionship and stimulus due to numbers. One subdistrict joined an independent district. There has been a lack of sympathy because of financial interest, so there has not been a satisfactory trial of consolidation.

RINGGOLD.—Sentiment is adverse to the plan, and nothing has been done.

SAC.—Consolidation of schools has not been given a test in this county, although it is being agitated in several townships. During the past year several small schools were closed temporarily, and pupils sent to adjoining districts, but in only one case were the children transported. Last November the patrons in subdistrict No. 7, Richland township, made application to have the school in that district closed and children transported to Odebolt. The board granted the request, and allowed the district \$30 per month with which to transport and pay tuition for the nine pupils in that district. The distance traversed is less than three miles. The plan is very satisfactory, and is causing an

unrest in other districts, which will result in closing all schools adjunct to towns. Our people are divided upon the question of centralization of schools, many maintaining that centralization means higher taxes, too long hours for the children, and great exposure during the winter months; all agree that the township system will permit better grading of the schools and classification of pupils, and closer supervision of the work. The writer is familiar with, and favors the township system for many reasons which this brief report will not permit him to discuss; however he believes the transportation problem a difficult one to solve in this climate. The distance pupils may be transported in safety depends upon local conditions. Transportation that harmonizes with good roads, green fields laden with the choicest wild flowers of spring, must harmonize with mud, deep snow, blizzards, and a thermometer registering 20° below zero.

When the transportation problem is properly and economically solved, I believe there will be no obvious reason why the township system will not afford the children better classification, better instruction, better discipline and training, better attendance, better supervision, and greater enthusiasm—all this in a modern school building properly heated and ventilated, supplied with charts, maps, apparatus, and a good library.

SCOTT.—One school closed for two years in Allen's Grove township. The school was opened this spring and the average attendance was six. The school board is considering the question of closing it again and transporting the children this time. The sentiment seems to be against it, as the people regard transportation as impracticable. Blue Grass township has closed No. 6 school for next year, and has made arrangements to pay the parents for transporting children to another school.

Advantages: better teachers, more thorough work, more life, energy and enthusiasm on part of both teacher and pupils.

Disadvantages: bad roads and length of haul. People are divided in their opinions on closing small schools and transporting the pupils, and no experiment has been made.

SIOUX.—Pupils have been transported in two districts, and the parents like it. The plan furnishes better teachers, more regular school sessions, and allows pupils to be at home with their parents, brothers, and sisters longer than they otherwise could. People will be moved more and more in this county to try consolidation. Rich farm lands, prosperity, and a young, inexperienced teaching force will hasten the elimination of small, weak districts. Men of easy means are complaining of the meager school advantages, and since consolidation means a step toward graded schools, then these men who can and who are willing to pay for better school advantages will become real soldiers in the march of educational progress. Our people are conservative, very much so, not easily moved, but when once they do begin to move, no obstacle will hinder or retard the final consummation, so devoutly to be wished. I regard the teacher problem the greatest working factor towards the dawn of that new day. Young, inexperienced teachers are not satisfactory where the people are anxious for educational growth and much of it.

7. In most parts of Sioux county, five, six, or seven miles.

STORY.—Transportation has not been furnished in this county but consolidation is being agitated in Washington township. The sentiment in the county is good.

Advantages:

- a. Better grading.
- b. More time for classes.
- c. Better environment.
- d. Keep the boys on the farm but give them first-class schooling.
- e. Cuts down the demand for teachers and enables the authorities to offer a more efficient supply.
- f. More economical in many instances.

Disadvantages:

- a. Distance in transportation.
- b. Fear to trust the little ones in anybody's care so long.
- c. A prejudice among many parents to change of any kind.
- d. A failure to appreciate or comprehend the benefits of the system.

The principal objection is found in the problem of transportation. Information showing the practicability of the plan where tried should be furnished. Meetings addressed by those who know by experience that the plan can be well carried out would convert many to a belief in transportation. In fact, if we can convince the patrons that it is possible to transport children to advantage the rest is easy.

7. Six to seven miles.

TAMA.—The general sentiment is perhaps against closing smaller schools and transporting pupils to others, but there are a few who favor trying it, and it is no doubt growing in favor. The advantages are: Better grading, better teachers, more thorough work. The disadvantages in our county are bad roads, especially in spring. Part of the county is very hilly.

7. Pupils may be carried from three to six miles, owing to the lay of the country and general condition of the roads.

TAYLOR.—Sentiment is generally in favor of closing small schools and transporting pupils to others. It will make better schools and increase attendance. In many townships it will increase the expense. The additional cost is the only objection.

UNION.—Sentiment in the county is favorable to the plan. The advantages are that we would have better schools. The disadvantages are bad roads and the danger of contagion, should a contagious disease break out in a township. It would affect all the pupils. Parents say that they want their children's time both morning and evening. Mothers do not like to trust their small children to the care of the hack-man.

7. Two schools in a township, four and one-half miles.

VAN BUREN.—In one district where the school was closed parents provided their own transportation to another school with satisfactory results. The patrons like it. This year three schools will be closed and pupils sent to Keosauqua. The sentiment in the county is divided. The principal objection is the bad condition of the roads a part of the year.

7. Five miles.

WAPELLO.—The question has been pretty well discussed. It is looked upon with favor if the public highways will permit of such transportation.

People to some extent feel that the consolidation of schools removes the principle of democracy one step from them. People seem to think the cost would be more. But by some definite plan these objections would be decreased to a minimum if not entirely eliminated. I find people are willing to pay the maximum cost of education if they are sure they get results in proportion.

I regard the consolidation of schools and transportation as a step in the right direction. If the public roads were passable at all times, there would be little consistent opposition to change of system. I believe in a slow action in this direction—combine two districts where the cost is excessive—make contracts with parents or some one else to transport children. The consolidation system would result in better schools, more thorough work, better and more efficient teachers; would place teaching on the plane of a profession. It would, in my opinion, dispose of the present county office of county superintendent, as it exists. That officer could give more time to supervision and his work would result in much more good.

Dahlgren independent has abandoned its school, but maintains its organization. The children are sent to the schools of Eldon. The results are satisfactory, educationally, financially, and in every way.

7. The distance would depend upon the nature of the country. Any distance not to exceed four miles would be safe, as I look at the matter.

WARREN.—So far as I have been able to ascertain the general sentiment in Warren county has been, and is at present, opposed to the closing of small schools and the transportation of pupils.

Some of the advantages of the consolidation of districts and the transportation of pupils are:

1. A more systematic supervision and a better classification.
2. An opportunity for country pupils to do high school work and work in special lines which is not afforded in the rural school.
3. After the expense incident to the change from the rural to the consolidated district has been provided for, the system of consolidation will be more economical than our present system.
4. It would lead to the employment of better teachers at more remunerative wages.

Some of the objections to the consolidation of districts and the transportation of pupils which have been urged by persons living in rural districts are:

1. Small children cannot be safely transported.
2. It will strike a blow at our common school.
3. It will cause all property located farthest from the school to depreciate in value.
4. It will be demoralizing to the morals of our children to have so many congregate in one place. They cannot be properly disciplined.

Many other objections are offered, some of which are purely imaginary. I believe that these objections may be overcome by education. Intelligent agitation of the question will finally overcome the objections sufficiently until the people may be willing to give the system a fair trial. I have held several meetings in the interest of consolidation but find that in almost every district a large majority is opposed to consolidation and transportation. One school in Lincoln district, Otter township, has been closed for a part of the time

this year, arrangements having been made for the seven pupils who would have attended to attend in adjoining districts without transportation. The distance which pupils may be safely transported will depend entirely on local conditions. If the roads are reasonably level and well graded, pupils may be transferred four or five miles as easily as they could be taken three to three and one-half miles over roads which are extremely hilly.

WASHINGTON.—Sentiment in this county is rather favorable but not enough to warrant a trial unless circumstances would compel it. The system would result in better schools. The chief disadvantage is the distance to be traveled by the small children. An hour's ride, or five or six miles.

WAYNE.—The majority of the people are against it, but the question of consolidation is being discussed, and the sentiment is growing in favor of it. The main advantage will be better teachers. Other advantages will be larger classes, more enthusiasm, better equipment in the way of apparatus and libraries. The principal disadvantage will be bad roads at certain seasons of the year. The principal objection is the transportation of children from remote parts of the township. The pupils of one subdistrict were transported this spring to an adjoining subdistrict. The result is not known.

WEBSTER.—In several instances schools in subdistricts have been temporarily abandoned when attendance was light and pupils could reach another school without traveling much farther than to their own. These schools have been resumed when attendance seemed to justify it. There is a growing sentiment in favor of better schools, and many are beginning to see that consolidation affords the only way for greater improvement. I think the majority are adverse at present. It is easier to stay in a rut than to get out of it. It means better schools. This covers the whole of it. Fewer schools, better selection of teachers, better wages, larger schools, better classification, better interest.

Disadvantages seem mostly to be outgrowths of the transportation question—distance to be transported, poor roads, difficulty of securing suitable rigs.

Personally I am very much in favor of consolidation. I believe it will be of great benefit to our rural schools, which are not doing twentieth century work. I have done a great deal of talking on this subject, but without apparent success thus far. I think the scarcity of teachers with which we are now threatened will do more than argument to further the plan.

7. With such roads as we have here, I think four or five miles would be as far as pupils can be transported. I think that by retaining the schools at the four corners of the usual township and having a graded school at the center, the distance would not be too great to transport within the central district. As conditions improved, the outlying schools might be abandoned.

WINNEBAGO.—In the independent township of Buffalo, the schools in six rural districts have been closed and the pupils transported to Buffalo Center. In the Forest City independent district, one school has been closed and the pupils transported to Forest City.

Last year, Grant township closed one small school and transferred the pupils to adjoining districts. The reason given for so doing were that it

would be economy and that the work in a larger school is usually carried on with more energy and enthusiasm.

In the Forest City independent district, the plan of conveying pupils meets with unanimous approval, and in Buffalo township it is gradually becoming more popular. The sentiment in favor of consolidation and the central school plan is growing stronger, and the people in several other localities of the county are considering the establishment of graded schools. The patrons are realizing that the average rural school with a light or irregular attendance does not afford the skilled instruction nor the social culture that the pupils of the graded school enjoy. Even those opposed to the plan concede the superiority of the graded school. It is admitted that the teachers are as a rule more capable, the equipment better, the teaching more systematic, and the general environment more conducive to effective work and a healthy growth, mentally and socially.

It has been held forth that the classification of the average graded school is so close that pupils from the country who attend during the winter months only do not find classes suited to their needs; in other words, they are handicapped by the rigidity of the classification and soon become discouraged and leave school. This may be true where the large majority of the pupils enrolled come from a town in which the school may be located. In such cases, the proportion of country pupils that attend during part of the year only is small compared with the entire enrollment, and special classes for these cannot be furnished. A central school enrolling only pupils from rural districts and small villages will meet with more general approval. Some patrons are reluctant about sending their children to a school located in a town.

The objection is made that proper persons to drive and proper conveyances are not available. The distance traveled ought not exceed five and one half miles and in no instance, more than six miles. By this is not meant the distance from a child's home to the schoolhouse, but the actual distance traveled by the hack on its winding route to or from the school. To drive six miles or more every morning and evening, in all kinds of weather for nine consecutive months is more than most full grown people would undertake.

A district composed of about twenty sections of land is a district more desirable in size than one consisting of an entire township. It lessens the distance to be traveled, proportionately fewer pupils need conveyance, and in case of large increase in the school population, the cost of transportation can be kept within a reasonable sum. In sparsely populated communities, consolidation is economy; in districts having a large number of pupils to convey, it may mean increased taxation.

Five years ago, one rural school was closed in Buffalo township and the pupils conveyed to the Buffalo Center graded school. Soon other schools followed and to-day pupils are conveyed from six different districts. In the main, the plan gives satisfaction. The attendance from the rural districts has been more regular and more punctual than under the old system. Fewer coughs and colds occur among the pupils thus conveyed than among the pupils from the town or immediate neighborhood that are required to walk to school. The average cost of tuition per pupil has been lessened.

There are, in this country, vast numbers of young people of limited means who are hankering for an opportunity to attend higher schools. The hopes of the large majority of these will never be realized. A few will drive

long distances, or sojourn among strangers in a neighboring town, paying or working for their board, and expending considerable money for tuition in order to have the opportunity of attending a higher school for several terms. Many of these soon discourage, a few persevere and complete a high school course. Contrast this state of affairs with the conditions as found in Buffalo township. During the past three years, a number of young men and women, residing several miles from Buffalo Center have graduated from this school. These young people have been allowed to stay in the dear old home and at the same time have enjoyed the privilege of attending a high school. To-day, they are holding responsible positions. Regarding the success of the Central school system, its advantages over the old plan, the benefits that the farming communities may derive therefrom, and its real value to the American public, this band of young men and women will testify by *word* and *deed*.

WINNESHIEK.—School boards seem very much divided in opinion as to the ultimate benefits as compared with the present system, cost being used as a basis for determining ultimate benefits. People think the plan is good were it not for establishing a precedent which would encourage others who would not be so favorably situated or who may wish their children to enjoy the same privileges, to demand the same advantages. The question of providing a sufficient number of competent teachers is now becoming a paramount issue in this county; so consolidation—lessening the number of schools and working each teacher nearly to her maximum efficiency—might furnish an escape from the necessity of licensing poorly qualified teachers to run the numerous small schools.

The objection is made that proper persons to drive, and proper conveyances to carry pupils, would not be secured; that children would have to rise and start from home too early and be brought home too late in cold weather; and that the increased number of pupils would give individuals less opportunity to ask and receive attention and assistance from teachers. To meet these objections it is easily seen that the first is a fallacy—good men and good conveyances have been provided where this system is in use. The second cannot be refuted. The third objection is only a comparative one. The question arises, "Will the increased attendance lessen individual instruction to a greater extent than it increases the enthusiasm and interest, and evokes class discussion?" If its disadvantage be greater than these advantages, then the third objection has weight. If the advantages outweigh, then the plan is preferable. I think the advantages more than counterbalance the objections.

In Calmar township there were three or four families inconveniently located from the school in District No. 1. These parties, with others, had tried at the annual meetings for several years to have the board consent to create a new subdistrict or build a schoolhouse in the southeast corner of District No. 1. At my suggestion the board provided for paying the families \$1.25 a day for hauling the children from three or four families thus inconveniently situated. The proposition of the board was accepted and some member from each family was to haul the children week about. This plan was carried out last winter (1900-1901). Some of the parties to the agreement last year say they won't do the same way this coming year, so the question of what shall be done this coming year is pending.

7. About four or five miles at most.

WORTH.—The plan has never been tried in this county and sentiment is against closing small schools.

7. Four miles.

WRIGHT.—People are divided on the question. The schools in the corners of the townships seem to be the great drawback to our efforts. Township and county lines must be removed from the question before transportation and consolidation become a fact. We have been using the old system for a hundred years. It has served its purpose. Consolidation seems the only way. We are transporting pupils in one subdistrict in this county.

SUMMARY OF CONSOLIDATION AND TRANSPORTATION IN IOWA.

The following table gives the briefest possible summary of the situation in Iowa with respect to the consolidation of school districts, closing of small schools and the transportation of pupils to a central school. It shows a lively discussion of the subject all over the state, and that many experiments have been and are being made, with the prospect that in many other places the system will be put on trial:

Consolidation has been tried in twenty-eight counties, transportation in thirty five, and both in nineteen. Consolidation has been adopted by sixty-three districts, and eighty districts have transported pupils at the expense of the district. In nine counties districts have been consolidated without providing transportation at the expense of the districts. In sixteen counties pupils have been transported where there was no consolidation.

The replies to the question as to what the sentiment in the counties is toward consolidation and transportation may be classified as follows: Favorable twenty-five, opposed twenty-six, divided twelve, partly favorable four, unsettled five, growing in favor twenty-three. Where the system has been tried and the results reported, it produced good effects in twenty-seven counties, while in five it was doubtful. The patrons in twenty counties are reported to be well satisfied, while in eight counties there was some dissatisfaction, owing generally to bad roads.

These statistics do not include any estimates, or doubtful reports, such as "several" schools consolidated, or cases of transporting pupils; all reports not distinctly favorable to the system have been classified as doubtful, divided, or opposed to it.

SUMMARY OF CONSOLIDATION OF SCHOOL DISTRICTS.

COUNTIES.	How many districts have consolidated?		With what result?	Where tried what do patrons think of it?	What is the sentiment in the county on consolidation and transportation?	What are the chief objections?	What is the prospect of consolidation and transportation in the county?	How many miles may children be transported?
	None	In how many dist's have children been transported?						
Adair	None	None			Partly favorable	Bad roads; careless drivers; exposure	Not good.	5 to 7
Adams	None	None			Divided	Children too far from home		
Allamakee	None	None			Majority opposed	Expense; sacrificing buildings; difficult transportation	Poor	1 to 5
Appanoose	None	None			Some favor	Bad roads; children away too long		
Audubon	None	None			Partly favorable	Bad roads; time consumed	Poor	5 to 6
Benton	None	None			Not adverse	Bad roads; expense; evil influences		6
Black Hawk	13	4	Better schools	Universal satisfaction	Favorable	Long distance	Good	5 to 6
Boone	None	None			Favorable	Expense		
Bremer	None	None			Favorable	Largely imaginary		
Buchanan	5	2	Satisfactory	Generally satisfied	Favorable	Loss of schoolhouse; bad roads	Poor	3 to 5
Buena Vista	None	None			Majority against			3 to 4
Butler	2	2	Satisfactory; better schools	Great majority like it	Growing favorable	Too long on road	Good	6
Calhoun	4	None	Satisfactory	Approve	Increasing in favor	Bad roads; depreciate farm values	Fair	5 to 6
Carroll	None	None			Opposed to it			
Cass	None	None			Favorable			
Cedar	2	None	Satisfactory	Satisfied	Majority against	Difficulty of transportation		6
Cerro Gordo	None	3	Unsatisfactory	Dissatisfied with driver	Growing in favor	Bad roads; long distance	Good	5
Cherokee	1	1			Unsettled	Too far to go; bad roads; objectionable drivers		4 or 5
Chickasaw	None	None			Unfavorable	Expense		
Clarke	None	None			Favorable	Difficulty of transportation		6
Clay	None	None			Divided	Bad roads; drivers not trusted		3 to 4
Clayton	None	None			Strongly opposed	Bad roads; too rough		2 1/2
Clinton	None	None			Majority adverse	Bad roads; evil influences	Good	6
Crawford	None	None			Partly favorable	Rough roads; time consumed		2
Dallas	None	1	Successful	Approve	Favorable		Good	3 to 4
Davis	None	None			Growing in favor			
Decatur	None	None			Favorable			
Delaware	None	None			Weak	Expense		3 to 5
Des Moines	1	1	Doubtful	Not very enthusiastic	About evenly divided	Trouble about meeting wagon	Fair	5 to 6
Dickinson	2	1	Very favorable	Well satisfied	Favorable	Bad roads; pupils too long from home	Excellent	6 to 7
Dubuque	None	None			Undeveloped	Bad roads; too long from home		4
Emmet	**	**	Good	Do not seem satisfied	Rural opposition	Children too far from home; school removed from people		2
Fayette	None	None			Growing in favor	Too far to transport		
Floyd	4	4	Satisfactory	Think it better	Growing in favor	Bad roads; incompetent drivers	Good	5
Franklin	None	None			Favorable		Good	
Fremont	1	1	Satisfactory		Favorable			
Greene	1	None			Favorable	Bad roads; expense; too long absent		
Grundy	0	2	Doubtful	Divided	Favorable	Bad roads; removes school too far from home		8
Guthrie	None	None			Against	Expense; too far to travel		4
Hamilton	0	1			Against	Bad roads; want to keep schoolhouse		8
Hancock	2	2	Satisfactory		Favorable	Bad roads; drivers; children can't do chores		4
Hardin	0	6	Satisfactory	Unanimously favorable	Growing in favor	Expense	Good	6
Harrison	None	None			Wavering	Time on road; teachers unemployed		
Henry	None	None			Conservative	Children out too long; gone at chore time		5
Howard	1	1	Good	Mostly favorable		Conservatism; prejudice; bad roads		1
Humboldt	2	1			Favorable			
Ida	2	2	Good	In favor of it				
Iowa	None	None			Evenly divided	Difficulty of transportation		5
Jackson	None	None			Favorable	Rough country; bad roads		3 to 4
Jasper	None	None			Growing in favor	Bad roads	Good	3 to 4
Jefferson	None	None			Opposed	Expense; land values affected; bad roads; better clothes required	Not good	6
Johnson	None	None			Unfavorable		Poor	
Jones	None	None			Gaining		Fair	
Keokuk	None	None			Growing	Distance; cost; affect land values		3 to 4
Kossuth	None	1	Satisfactory	Think well of it	Not very favorable	Distance; bad roads	Not very good	5
Lee	0	1	Enthusiastically approved	Like system	Gaining	Expense; bad roads; land values affected		
Linn	None	None			Growing in favor	Too long on road		2 to 3
Louisia	None	None			Divided		Fair	2 to 3
Lucas	None	None			Growing	Difficulty of transportation		3 to 4
Lyon	None	None			Favorable	Bad roads; expense; land values		3 to 4
Madison	None	None			Majority against	Too far to go; too long on road		5
Mahaska	None	None			Growing	Bad roads; too long from home; drivers not trusty		4 to 5
Marion	None	None			Growing in favor	Bad roads; difficulty of transportation		3 to 4
Marshall	1	1	With good effect	Think well of it	Generally favorable	Fatigue; exposure; inconvenience		5
Mills	None	4	Satisfactory except bad roads	Complain of delays by bad roads	Majority favorable	Bad roads; land values affected	Good	4
Mitchell	None	1			Growing	Difficulty of transportation; farmers want children's work	Good	4
Monona	1	1	Mixed	Divided	Growing	Bad roads; distance too great		3 to 4
Monroe	None	None			Divided			
Montgomery	1	None	Better work done		Majority opposed			
Muscatine	None	None			Seems to be against	Sentiment for little red schoolhouse		3 to 4

SUMMARY—CONTINUED

COUNTIES.	How many districts have consolidated?	In how many districts have children been transported?	With what result?	Where tried what do patrons think of it?	What is the sentiment in the county on consolidation and transportation?	What are the chief objections?	What is the prospect and transportation in the county?	How many miles may children be transported?
O'Brien	2	3	Very satisfactory.	.....	Against.	Transportation—distance—land values	.....	4
Oscola	3	6*	Better schools at less expense.	Divided.	Majority against.	Transportation	.....	3 to 4
Page	0	2	Satisfactory.	.....	Strongly against.	Too long on road—lose schoolhouse.	.....	6 to 8
Palo Alto	None	None	.....	.....	Growing strongly favorable.	Bad roads.	.....	2 to 4
Plymouth	None	None	.....	.....	Growing favorable.	Distance to travel; teachers thrown out.	.....	2 to 5
Pocahontas	None	None	Satisfactory.	Delighted	Generally favorable.	Bad roads	.....	2 to 5
Polk	1	8	.....	.....	Opposed.	Difficulty of transportation.	.....	2 to 5
Pottawattamie	1	None	.....	.....	Adverse.	Bad roads; many children in closed conveyance	.....	2 to 5
Poweshiek	1	None	.....	.....	Divided.	Expense; exposure; long hours.	.....	2 to 5
Ringgold	*	None	Satisfactory.	Favorably	Against.	Bad roads; length of haul.	.....	2 to 5
Sac	1	None	.....	.....	Divided.	Expense; exposure; long hours.	.....	2 to 5
Shelby	None	None	.....	.....	Divided.	Bad roads; length of haul.	.....	2 to 5
Shoer	None	None	.....	.....	Divided.	Expense; exposure; long hours.	.....	2 to 5
Story	None	None	.....	.....	Divided.	Bad roads; length of haul.	.....	2 to 5
Stout	None	None	.....	.....	Divided.	Expense; exposure; long hours.	.....	2 to 5
Story	None	None	.....	.....	Divided.	Bad roads; length of haul.	.....	2 to 5
Story	None	None	.....	.....	Divided.	Expense; exposure; long hours.	.....	2 to 5
Tama	None	None	.....	.....	Divided.	Bad roads; length of haul.	.....	2 to 5
Taylor	None	None	.....	.....	Divided.	Expense; exposure; long hours.	.....	2 to 5
Union	None	None	.....	.....	Divided.	Bad roads; length of haul.	.....	2 to 5
Van Buren	None	None	Satisfactory.	Like it	Good.	Distance; too long from home; prejudice.	.....	2 to 5
Wapello	1	None	Satisfactory in every way.	Like it	Good.	Bad roads; danger of contagion.	.....	2 to 5
Warren	None	None	.....	Pleased	Divided.	Bad roads	.....	2 to 5
Washington	None	None	.....	.....	Generally favorable.	Bad roads; takes school away from people	.....	2 to 5
Wayne	None	None	.....	.....	Opposed.	Affect land values; injure morals; small children can't travel.	.....	2 to 5
Webster	None	None	.....	.....	Opposed.	Distance to be traveled.	.....	2 to 5
Winnebago	**	8	Highly satisfactory	Approve	Rather favorable	Bad roads; distance	.....	2 to 5
Winneshiek	8	8	Doubtful	Divided	Majority opposed.	Hesitate sending children to town.	.....	2 to 5
Woodbury	None	None	.....	.....	Growing stronger.	Improper drivers and vehicles; too long on road; attention less individual.	.....	2 to 5
Worth	None	None	.....	.....	Divided.	.....	.....	2 to 5
Wright	None	None	.....	.....	Against.	.....	.....	2 to 5

*Several. **Several closed temporarily.

BUFFALO CENTER SCHOOL PLAN.

EXPLANATORY CIRCULAR.

ISSUED BY THE DEPARTMENT OF PUBLIC INSTRUCTION, 1901.

The many inquiries from boards of directors and citizens for information concerning the consolidation of school districts and the transportation of children have led us to prepare this circular. It aims to give in a plain and concise way such data as the superintendent of public instruction has been able to gather from having visited personally Buffalo Center, in Winnebago county, where at the present time the centralized school plan is conducted on the largest scale in Iowa.

We have not set forth the arguments in favor of the consolidation of districts and the transportation of children. This has been done to some extent in other circulars, which can be had by writing to the superintendent of public instruction.

The Buffalo Center plan gives the child of the farmer the same opportunity to obtain an education as the child of the banker and the merchant. We consider this a sufficient reason to warrant us in urging a most careful study of it and its adoption wherever practicable.

By "consolidation" in a practicable sensible way, is meant fewer schools in a township, the closing of small schools, and the transportation of children to others.

Where it is impracticable to unite the township into a single district, we recommend:

First—That small, weak contiguous independent or rural independent districts be united, as provided in section 2799 of the Code.

Second—That boards in school townships convey those children to school who live at an unreasonable distance from an established school, instead of renting a room and employing a teacher, or building and maintaining a separate school. This may be done whenever there will be a saving of expense, and children will secure increased educational advantages. (See section 2774.)

E. C. LILLIE,
County Superintendent, Independence.
R. V. VENEMAN,
County Superintendent, Boone.
O. J. McMANUS,
County Superintendent, Council Bluffs.
RICHARD C. BARRETT,
Superintendent Public Instruction.

NOTE.—Superintendents Lillie, Veneman, and McManus were chosen by the county superintendents' section in 1900 to co-operate with the superintendent of public instruction in securing the consolidation of school districts.

STATEMENT OF FACT.

Prior to October 1, 1897, the laws of Iowa provided that whenever the board of directors of any existing district township should deem the same advisable, and also whenever requested to do so by a petition signed by one-third of the voters of the district township, it should submit to the voters of the township at a regular or special election the question of consolidation. If a majority of the votes cast were in favor of a consolidated organization, the district township, composed of subdistricts, became an independent district.

Acting under this statute the people of Buffalo Center township, in Winnebago county, in 1895 formed an independent district, embracing the entire civil township, six miles square, and voted bonds running for a period of ten years for the purpose of erecting an eight-room building.

The board, which consists of five members, is chosen on the second Monday in March by the qualified electors, and is governed by the same provisions of law which apply to independent districts.

At the time the township became independent it was not proposed to close the rural schools and transport the children. This was an after consideration, and arose from the demand upon the part of the people of the rural districts for better school facilities. On August 23, 1897, the residents of what was formerly known as Subdistrict No. 3, requested the board to furnish transportation for their children to a central school. The request was granted, and the outlying school closed. On August 30th, of the same year, the board arranged for the transportation of children in Districts No. 2 and No. 4. On August 17, 1898, the board, upon petition, arranged for the transportation of children from another ward. In April, 1899, the board, having noted the success with which their efforts had been attended, ordered all of the rural schools in the district closed, except those in the extreme northeastern and southeastern parts of the township.

By reference to the accompanying plat it will be observed that the central school is located only one mile from the western boundary line of the district, thus making it extremely difficult on account of the distance to transport the children from these two remote portions of the township. The two rural schools maintained by the board are considered superior in many ways to the ordinary school, since they are under the supervision of the principal of the central school, and are maintained for the same length of time each year as the central school.

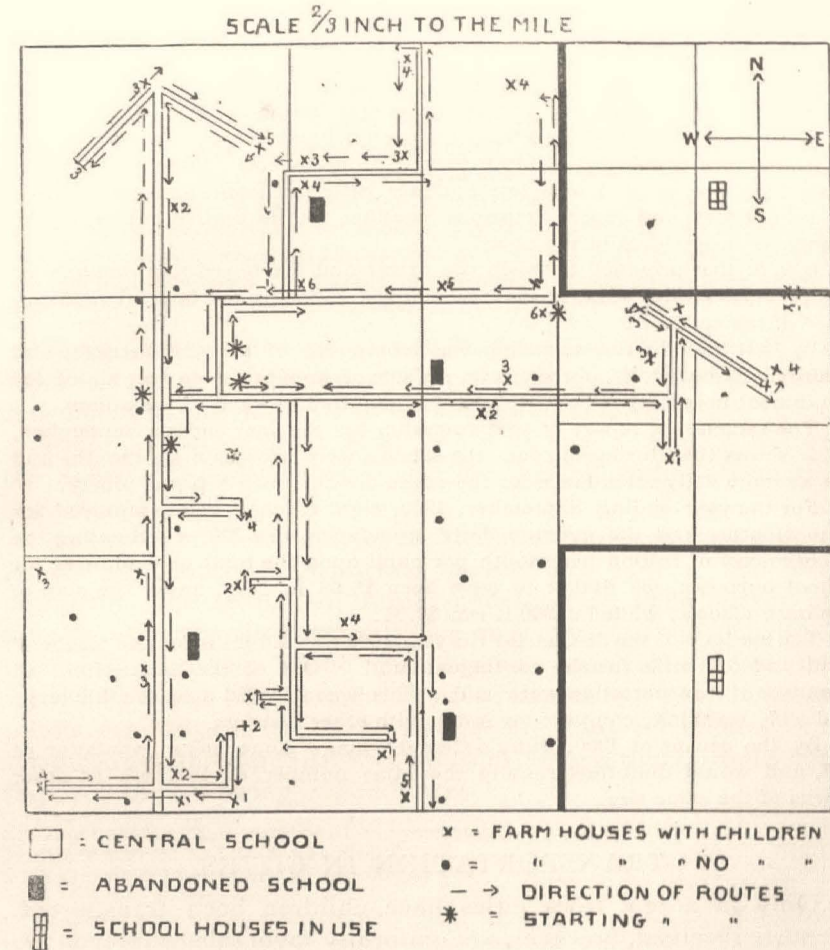
Contracts for the year 1900-1901 provide for the transportation of ninety-eight children. Six routes are laid out and one team is provided for each. For convenience the routes are numbered 1, 2, 3, 4, 5 and 6, beginning with the one running north from the central school. (See plat.)

The greatest distance the children most remote from the central school on the different routes are conveyed is as follows: Route 1, three and one-fourth miles; Route 2, four and one-half miles; Route 3, five and one-half miles; Route 4, five and three-fourths miles; Route 5, five and one-half miles; Route 6, six and one-fourth miles. The average distance the children are conveyed on the longest route is about four miles.

What can be said of the roads? Comparatively speaking, Winnebago is one of the newer counties, and roads have not been so thoroughly graded

and drained as in old-settled sections; consequently, the roads are not so good as in many parts of the state.

What length of time is required to convey children to and from the central school? The time required depends upon the condition of the roads. When very muddy, as was the case when the writer visited the district in 1900, the drivers began collecting the children from 7:15 A. M. to 8:15 A. M., according to the length of the route, and returned them to their homes from 4:45 P. M., to 5:45 P. M.



(By "starting of routes" is meant where teams start. The most remote children are as a rule gathered first.)

The compensation paid drivers is \$30 per month, except on Route 1, where only \$25 are paid. For this amount they are required to furnish their own properly covered, strong, safe, suitable vehicles, subject to the approval

of the board, with comfortable seats, and a safe, strong, quiet team, with proper harness, with which to convey and collect safely and comfortably all of the pupils of school age on the route, and to furnish warm, comfortable blankets or robes sufficient for the best protection and comfort for each and all of the pupils to and from the public school building and their respective homes. They agree to collect all of the pupils on the route by driving to each and all of the homes where pupils reside each morning that school is in session in time to convey the pupils to school, so as to arrive at the school building not earlier than 8:40 A. M. nor later than 8:45 A. M., and return the pupils to their homes, leaving the building at 4:00 P. M., or later, as the board may determine.

They are required to personally drive and manage the team, and to refrain from the use of any profane or vulgar language within the hearing or presence of the pupils; nor may they use tobacco in any form during the time they are conveying children to and from school. They are not permitted to drive faster than a trot nor race with any team, and are required to keep order and report improper conduct on the part of pupils, to the principal or president of the board.

It is further provided between the driver and the board that one-half of the previous month's wages shall be retained to insure the faithful performance of the contract.

In 1894 the district township was composed of six subdistricts, and required six buildings, six teachers, six sets of apparatus—in fact all of the equipment necessary for one district was required by each of the others.

The secretary's report of that township for the year ending September, 1894, shows that during the year the schools were in session six months and the average daily attendance for the entire district township was ninety.

For the year ending September, 1900, eight teachers were employed for nine months, and the average daily attendance was 290. Estimating the average cost of tuition per month per pupil upon the total expenditures for school purposes, we find it to have been \$5.03 in 1894, under the plan of separate schools, while in 1900 it was \$2.31.

The tax levy of the district for the year 1900 was 9.6 mills for the teachers' fund and 6.7 mills for the contingent fund. Out of the latter fund all expenses of transportation were paid. This is considered a reasonable levy, and will, we think, compare favorably with other districts.

By the census of 1900, Buffalo Center village alone has a population of 875, and would doubtless require the same number of teachers as other towns of the same size.

TRANSPORTATION IN CITIES.

Only in a few Iowa cities have children been transported. Reports received, however, are uniformly favorable wherever the system has been adopted. Below are brief statements from Council Bluffs, Sioux City, and Forest City. Superintendent W. N. Clifford, of Council Bluffs, writes:

"Lying at the outskirts of our school district, is what is known as the Woodbury school. There were about thirty pupils enrolled in this school of the different grades up through the fourth, making the teacher eight classes.

To each recitation she was able to give but a few minutes, and the pupils, when promoted to the next building, were always below grade. We paid the teacher of this school, at the time of closing, \$60 per month, her salary having been advanced from year to year until she received this amount. She was paid, in addition, seven dollars per month as janitress, and with this and the expense of fuel and other incidentals, it was counted that the school cost about \$80 per month. In addition to this, it cost the time of the city superintendent, supervisor of buildings, special teacher of music, special teacher of drawing, to visit the school. The matter was laid before the board, and it was decided to close the school and transport the children to the building which they would be obliged to enter when they reached the fifth grade. A patron of the school who knew all the children, fixed up a large spring wagon with canvas cover and seats, and collects the pupils from their own homes and leaves them at the school building in time for the opening session, calling for them at night and returning them to their own homes. This man is paid \$30 per school month. This means an actual saving to the district of \$50 per month, besides the time of the supervisors. The plan is giving excellent satisfaction to patrons, and the school officials are much pleased with the marked improvement of the children in scholarship."

Sioux City, because of its vast territory, was the first city in Iowa to take up the transportation of pupils, and found it a wise movement in the interests of economy and efficiency.

From Superintendent Kratz's report, made June 8, 1900, to the Board of Education of Sioux city the following information is gathered:

Three wagons were employed for the school year at a cost of \$20.00 per month, transporting about fifty pupils, and thus permitting the closing of three schoolhouses. The street car lines transported about seventy-five more pupils, thus making it unnecessary to open three more school rooms in the sparsely settled districts. The total cost of transporting these scattered pupils was \$863.84. To have provided school accommodations for these scattered pupils, without transporting them, would have required the following expenditures:

Six teachers for nine months at \$40 per month	\$ 2,160.00
Janitor's service at \$10.00 per month	540.00
Fuel for six schoolrooms, at \$50.00 per year	300.00
Total	\$ 3,000.00
Cost of transportation	863.84
Economized	\$ 2,136.16

And, best of all, this large saving was realized while giving the children better educational advantages.

Superintendent H. O. Bateman, Forest City, writes:

"Consolidation of school districts and the transportation of pupils has been in operation in a limited way in the Independent District of Forest City. We employ one hack, and the distance driven each way is five miles. The attendance is regular, and the plan seems to meet with favor. The advantages of this plan are less expense, more schooling for the pupils and better instruction. Our hack failed to run only two days out of the whole year. The expense for nine months is less than it would be for the seven or eight months which a country school is usually conducted. Our expense does not exceed one hundred and sixty-five dollars (\$165) a year for the transportation of the pupils from one school district.

"Our board had a proposition presented to it from two outside districts desiring to enter our school, furnishing their own transportation and equipment, the outlying districts to pay regular tuition of one dollar and fifty cents (\$1.50) per month. The motive prompting this plan was its cheapness and the superior advantages that the pupils would enjoy. With better roads the plan comes to be even more feasible than it now is. It is true that it has some disadvantages, but our experience is that the advantages far outweigh the disadvantages, and we would not go back to the plan of maintaining a school in our country district."

IN OTHER STATES.

Consolidation and transportation is a settled policy in some of the eastern states and is being adopted to a greater or less extent in many of the western states, where it is rapidly growing in favor.

KANSAS.

Frank Nelson, state superintendent of public instruction in Kansas, writes:

"The consolidation of schools and the transportation of pupils to and from school is one of the really important educational movements of the times. Here in Kansas we are working along this line with much success. The last legislature enacted a law providing for the consolidation of school districts and the transportation of pupils. It is the first law of its kind ever enacted in this state and is giving great satisfaction. The people are warm supporters of the consolidation of schools because they realize that it gives them better schools, better courses of study, better teachers, longer terms and a deeper interest in the work.

"Under this plan of school administration parents are able to give their children a good education right at home at a very moderate expense. It is the duty of the state to bring the best and largest educational advantages within easy reach of the people. This is done by building up strong graded schools in the community.

"I am a firm believer in the consolidation of schools and the transportation of pupils. This movement is destined to revolutionize our entire school system and to bring greater blessings to all the people.

WISCONSIN.

L. D. Harvey, state superintendent of public instruction of Wisconsin, says:

"I believe this is one of the most important movements in recent years for the betterment of school conditions in certain communities. The small country school with the almost invariable accompaniment of poorly prepared teachers has little or no value. It is expensive, when the number of persons in attendance is taken into consideration. The consolidation of districts results in better organization of the school, in stronger teaching force, and in taking pupils out of the isolation which necessarily accompanies the small school.

"One of the most important things in the education of the child is that he shall come in contact with a goodly number of children of his own age. Without this contact he is missing one of the most important elements of an education. Experience has shown that consolidation may be effected and pupils transported without an increase in the expenses for school purposes in the district covered.

"The people in our state are very much interested in this matter and in many localities are taking steps to effect consolidation and provide for transportation of pupils."

MASSACHUSETTS.

In Massachusetts the system was adopted many years ago and has been growing in popularity. In ten years the state's expenditures for conveyance of pupils increased from \$30,000 to nearly \$142,000. The report of the state superintendent of public instruction in Massachusetts in 1901 gives the following account of the working of the consolidation system in the town of Warwick:

"Six years ago Warwick maintained nine schools twenty four weeks per year. The average attendance of pupils in the town was eighty-seven. Teachers' wages in the eight outside schools were five dollars per week, in the centre school six dollars per week. With few exceptions, the teachers were young and without experience, educated in the district schools. Some were under sixteen years of age,—one term a pupil in a school, the next term a teacher. Occasionally, in recent years, a teacher of marked ability and successful experience has been employed, but the number of schools made it impossible to pay wages that would retain the services of well-qualified teachers many terms. The schools were poorly supplied with books and materials.

"Now all of the pupils in town are in three rooms of one modern, well-lighted, heated, ventilated building, pleasantly situated in the centre of the town. The rooms are supplied with good blackboards, and with books and appliances for the use of pupils. The school has three teachers,—normal school graduates of exceptional ability. The average wage paid is nine dollars a week; the school year is thirty-six weeks. Special teachers of music and drawing visit the school each week. Pupils are conveyed to the centre union school from distant parts of the town. The average attendance

in the fall term was ninety-six,—a gain over the attendance in all of the nine schools six years ago. The schools are well graded from lowest primary to highest grammar grade, three classes in a room. Teachers are selected whose qualifications are especially adapted to the ability and needs of the pupils under their charge. The number of recitations being less than in ungraded schools, the teachers and pupils do much more effective work. The relation of the teachers to one another is one of mutual helpfulness, and the association of so many pupils in the schoolrooms and on the grounds under the supervision of the teachers is pleasant and beneficial.

“As a result of the consolidation of its schools and a wise administration of school affairs, the town has, in six years, lengthened the school year fifty per cent., increased the teachers’ wages seventy-five per cent., and employed special teachers of music and drawing, without materially increasing the school tax of the town. Because of the reduction of the number of schools through consolidation, the cost of instruction by the regular teachers has been lessened. A large increase in the amount of money received from the income of the state school fund has been of great benefit to the schools.

“Much time that would be needed for travel by the superintendent and special teachers in reaching many small scattered schools is saved for profitable use in the one building of the union school.”

One of the most valuable contributions on this subject is that prepared by G. T. Fletcher, agent of the Massachusetts board of education. Some extracts are given herewith from this pamphlet:

“People are now coming to see that educational advantages are not represented by the number of near-by schoolhouses. From one of the annual reports of Dr. Harris, United States commissioner of education, we quote as follows:

“It has been frequently demonstrated and is generally conceded that it would be better both on economical and pedagogical grounds to unite the many small and weak schools of a township, dispersed over a large extent of territory, into a few strong, well equipped and well conducted graded schools, located at convenient points.”

Hon. Joseph White, secretary of the state board of education, said:

“This act was introduced into the legislature through the efforts of a practical man from one of our rural towns of large territory and sparse population, where the constant problem is how to bring equal school privileges to all without undue taxation. In too many cases the town seems to have forgotten that *the character of the school is of more importance than its accessibility*. This has led to the maintenance of such a number of small schools as to shorten their length of continuance, diminish their efficiency, and largely enhance the expense.

“It may be questioned whether the objection regarding injury to the property valuation of the district is a serious one. People having children to educate are not slow to see that educational advantages are not represented in their fullness and completeness by near schoolhouses. This property

objection is well met in the replies to questions submitted to the towns, to which later reference will be made.

“The objections to the risks of conveyance and of the noon intermission are of serious import, and can be met only by making transportation safe to health, manners, and morals, as well as comfortable, and requiring the presence of the teacher at the noon intermission.”

“From the report of the minister of public instruction for Victoria, in Australia, the following extract is taken: ‘Under the system of conveyance 241 schools have been closed. The saving in closed schools amounts to about £14,170 per annum. The attendance is so regular and the system so popular that applications are constantly made for its extension.’

“Distances.—In Victoria the law provides that the following shall be deemed a reasonable excuse for non-attendance upon the public schools:

“That there is no state school which the child can attend within a distance of two miles, measured according to the nearest road from the residence of such child; excepting when the child is more than nine years of age, then the distance shall be within two miles and a half from the residence of such child measured as aforesaid; and when the child is more than twelve years of age, then the distance shall be within three miles from the residence of such child, measured as aforesaid.”

“Victoria has eight times the area of Massachusetts, but only half the population. Nearly half of this population is rural.”

Mr. Fletcher sent out inquiries to school committees and superintendents of the state, asking for information about their experience with consolidation and conveyance. Some of the replies received were very significant. It was said that the per capita cost of education has been greatly reduced.

“In the year 1893 Seymour Rockwell, the veteran school committee man of Montague, said:

“For eighteen years we have had the best attendance from the transported children; no more sickness among them, and no accidents. The children like the plan exceedingly. We have saved the town at least \$600 a year. All these children now attend a well-equipped schoolhouse at the center. The schools are graded; everybody is converted to the plan. We encountered all the opposition found anywhere, but we asserted our sensible and legal rights, and accomplished the work. I see no way of bringing the country schools up but to consolidate them, making them worth seeing; then the people will be more likely to do their duty by visiting them.”

“From another town came this suggestive statement:

“Once when a man wished to sell his farm he advertised, ‘A school near.’ Now he advertises, ‘Children conveyed to good schools.’ Farms sell more readily now.”

Among the comments made in these reports are the following:

“Better ventilated rooms; hence more healthful.

“Costs less for repairs; better janitor service.

“Houses closed were in poor repair; good teachers would not remain in them.

"Pupils better classified; three teachers do the work of five in ungraded schools.

"Too strict grading not beneficial.

"Petty local jealousies lost in the larger school.

"Pupils are more studious in the graded schools with only their classmates with whom they must compete.

"Greater incentive and enthusiasm.

"In the graded schools pupils lose the personal oversight of the teacher which in small schools is of so great advantage.

"Pupils become better acquainted with people; hence less bashful and awkward.

"The time lost by the superintendent on the road is saved by consolidation of schools.

"It becomes possible to give to all the pupils of the town the advantages of special teachers in drawing, music, etc.

"Our people would as soon think of having district churches as district schools.

"Association with others whose lives are less restricted than their own is a gain in social graces.

"Much is to be expected in moral influences, as conditions are better in the graded than in the ungraded schools. This is especially true as regards outbuildings or basements in their sanitary arrangements, and the oversight had in and about them.

"Economy and efficiency.

"I do not favor too great efforts to consolidate. Drivers are not and cannot be expected to be men who can control children and hold their respect.

"A compact neighborhood with a good school should be let alone."

PENNSYLVANIA.

The state department of agriculture of Pennsylvania caused an extensive investigation of the subject of consolidation of country schools and the transportation of pupils by the use of vans to be made by Dr. H. H. Longsdorf, and the result of his investigation, published in Bulletin No. 71 of the department of agriculture of Pennsylvania, is a very important contribution to the literature of the subject. The following extracts from this report will throw light upon the solution of the problem in this state:

"The Small School.—A practical educator—and as wise as practical—has said: 'The first thing a good school wants is children.' A very small school is almost always a poor school. There is absent in it the incitement of rivalry and friendly emulation as well as the encouragement found in companionship. If each child pursues a different study, as sometimes happens, there is still less of that reflex action which lightens the task and opens the mind. The difficulty of organization in a small school is so great as to be practically impossible. In the country, bad roads, distance, stress of weather and, in frequent cases, disinclination, serve to keep the school

even smaller than the number of children of school age would warrant. In a school of this kind there is frequently great irregularity of attendance and unpunctuality in lessons, failures which may be forgiven under the circumstances. There is no spring of enthusiasm to inspire the teacher or of sympathy or interest on the part of the patrons. Nothing can be done in a school of small size in the way of special studies, unless the teacher is phenomenally conscientious and possesses strong personal qualities.

"Individual teaching often brings good results. It was the method most in vogue in the southern states in the ante-slavery period and many accomplished scholars came from the training of the governess or private tutor who was brought there from the best northern schools. But this was a wholly different system. As the ordinary common school of low grade is found in the sparsely settled districts, it possesses little educative value, and might with advantage be closed and its feeble force united with a larger one.

"Selected Courses in Education for Country Students.—If the children of a district were brought together and placed under a competent head, and the school in good working order, it would then be possible to give some order to the division of studies for those in the higher grades. For such as intend going into the mechanical arts, a saving of time could be thus effected. For those looking forward toward a classical or literary course leading to the professions and for those who expect to remain in the country and become identified with its local interests, either in farming, mining, fruit culture, or any of the industries established in different parts of the state, congenial and profitable instruction could be provided, such as would at once strengthen the intellect and enable them to take advanced ground in their further progress.

"Social Influence of a Central Consolidated School.—Country life in the remoter districts tends to repression. One of the strongest attractions of the town for the country child, is in the greater opportunities for companionship found there. Not only the child but the elder feels the drawing of that instinct which leads mankind to rejoice in association with each other. The dozen or more schools of various sizes scattered over the country district, some difficult of access from rough and unsafe roads, often situated in a neglected and out-of-the-way spot, have little incentive to join forces in the school exercises or to impress their work on the homes and social interests of the neighborhood. Singly and detached, they cannot generate the power to penetrate the lives of the several groups that compose the pupils or to serve as object lessons of the value of the true and the beautiful in human helpfulness. Isolation for the young is irksome, and they early form the resolve to forsake the dull routine of oft-covered lessons which seem to hold no promise of personal benefit. The city with its cultured society, its atmosphere of refinement, its multitude of objects and outlets for every shade of taste and interest, appeals to the youthful nature. Here are possibilities—openings for enterprise and pleasure; here, too, are sympathetic hearts to understand their hopes.

"To another class, the succession of 'events' in the city gives a holiday aspect to life all too prosaic in their experience, and a comparison is to the disadvantage of the country. With a common meeting point, with the mutual interests of school work, and the interchange of thoughts and feeling, and the frequent presence of parents and friends on the special occasions

sure to be inaugurated in such a school, the whole community would be uplifted and cheered.

"The oft-mooted question as to how far the state should extend its jurisdiction into the home and family circle, presents itself here. This question comes into every educational advance proposed. The American people are jealous of their 'rights,' and so sometimes lose sight of the more weighty interests involved. 'Paternalism' is an ugly word to American ears; still, under the modifications and restrictions of an enlightened public opinion, it would assume a different meaning, and work for good, if its beneficiaries could be induced to look at it from all sides. This is one of the principal objections urged against consolidation in the rural districts, that it savors of 'paternalism' and 'favoritism.' Nothing could be farther from the truth. It tends, in fact, to just the opposite. If, under the improved social conditions suggested, where all the people of a district—not necessarily a school district, but one from convenience included in the central school, could frequently meet and witness the operation of new measures and receive themselves new ideas and new information along the line of their daily work and outlook, they would soon see what the best educators have long seen, that the best policy of the state government is to lift the people out of the rut into which they may have fallen, and the best policy of the people is to allow themselves to be so lifted.

No Bad Results.—"The apprehensions of the owners of real estate that a depreciation of values would result if the local schools were closed, have proven to be groundless. The natural reluctance of parents to send their young children so far from home, and for all day, to attend the central school, has vanished. The children are conveyed in comfortable vehicles, fitted up for their accommodation. They are in charge of trusty drivers en route, and at noon they are under the especial care of one of the teachers, who has an extra compensation for the service. When it is practicable, a farmer living near the extreme end of the district is employed to convey the children. Often the farmer's wife drives the conveyance. Three two-horse barges and two one-horse wagons are in use at present. All these vehicles are fitted with seats running lengthwise, and are closed or open at sides and ends, as the weather requires. The driver starts from or near the remote end of his district and drives down the principal thoroughfare, taking up the children at their own doors or at cross-street corners.

"The attendance of the children conveyed is several per cent better than that of the village children, and it is far higher than it was in the old district schools. This is not strange when one reflects that the children are taken at or near their own doors and conveyed to school without exposure in stormy weather. Discipline is maintained in the carriages, as the driver has ample authority for this purpose. The children are conveyed from one to three and one-half miles. The cost of transportation is about fifty dollars per week. It is estimated that it would cost seventy dollars a week to maintain schools in all the districts."

INDIANA.

The state of Indiana has also gone into the subject extensively, and in July, 1900, an inquiry showed that forty counties had already begun the work of collecting pupils into larger groups

by transporting them. Detailed reports from the county superintendents of Indiana show conditions in many respects similar to those prevailing in Iowa. The results of the plan where tried have been highly satisfactory. The objections are mainly similar to those heard in Iowa, and that of bad roads is frequently urged. The savings are reported in many cases to be considerable, sometimes as much as \$200 per year in a district. It is there generally recognized as an economical system. In many places, however, as in Iowa, and indeed this is the general rule, the conservatism of the people and the lack of information of the working of the new system retards its adoption. An instance is given in Washington township, Rush county, where the plan originated, as follows:

"In Washington township the pupils transport themselves. Some twenty years ago the trustee, W. S. Hall (he is the original promoter of concentration of schools in Indiana), rearranged the schoolhouses, making the number five instead of eight, and started a graded school. The township is six miles square, so that some pupils must drive four miles to reach the graded school. He was bitterly opposed by a majority of his people, but, by his tireless energy and determination, arranged the township so that money has been saved to the people and they can maintain seven months of school with a low levy. The truant officer has little to do in this township, as there is a splendid school sentiment. Some patrons are now sending their children past other schools to get them into the graded school of three rooms and two years of high school. All eighth-year pupils, except two in the township, have attended the graded school during the past year, thus relieving the country teacher of some work."

NOTE.—The schools in this township are ideally located. One central school, exactly in the middle of the township, has four teachers, three years of high school work and 111 pupils, as follows: Grades 1 and 2, twenty-eight pupils; grades 3, 4 and 5, thirty pupils; grades 6 and 7, twenty-five pupils; grades 8, 9 and 10, twenty-eight pupils. Sixty-eight pupils transport themselves without expense to the county. A barn was built on the school grounds, and pupils who drive, stall and feed their horses without expense. The four country schools in the township are located in the corners of the township, a mile each way from the township line. They have an enrollment of 102 pupils. It is said of this system: "The system adopted in the township is a good one. It is economical; it makes possible a better supervision; it provides a high school and organizes the educational forces."

Numerous instances are given where considerable savings have resulted

from the adoption of the transportation plan. In Knight township, Vanderburgh county, there was a saving of \$27 a month; in Jefferson township, Tipton county, \$172 a year; in Steuben county, about the same; in Ohio county, about \$150 a year in one case; in La Porte county, from \$220 to \$305 per district per year; in Walker, Jasper county, \$210 the first year; in Wayne county, a total of about \$3,000 a year. Of this county it is said: "At least 95 per cent of patrons would not go back to the old plan." In Whitley county there was a saving of \$152 in a district the first year. In White county the savings per school are \$150, \$180, \$165 and \$220.

In the state of Indiana the small schools are as follows:

Attendance of five or less, 108 schools; between five and ten, 487; between ten and fifteen, 1,253; between fifteen and twenty, 2,332.

State Superintendent Frank L. Jones, of Indiana, in his report for 1900, says:

"The great evil of the small rural school lies in its non-social character. It is wholly unable to furnish each of its pupils that educative influence that comes from association with many of the same age and same degree of advancement; it can not have, in many classes, enough of honest and helpful competition to establish a standard to which many a bright pupil would raise himself, and fails therefore to bring from him that supreme effort which develops and ennobles, and which comes only from a vigorous contest with his fellows. The humdrum and monotony of a recitation in a one-pupil class is discouraging to both pupil and teacher. Not only is the mental work of the school thus impaired, but the lack of enough pupils to organize a game on the schoolhouse yard prevents adequate exercise and tends to make morbid, selfish and pessimistic all who live in its atmosphere—the deadly quiet and inactivity of the small school kills the spirit. Professor Hinsdale makes a clear statement in the following words:

"The importance of this element in the rural school problem becomes obvious at a glance. In populous districts fewer schools and districts relatively are called for, while, at the same time, owing to the larger numbers and the more varied attainments of the pupils, the system can be more fully developed. The school and the home, under the present system, can not be far apart; otherwise children will attend the school with difficulty, or not at all. Once more, the interest and enthusiasm of pupils and teachers depend directly upon the number and the ability of the pupils present. For the majority of children individual instruction, or anything closely approaching it, is not to be commended. Aristotle condemned such instruction on political grounds. It may also be condemned on pedagogical grounds. Children need the inspiration of numbers. Besides, numbers contain ethical value. As a rule, you can no more make a good school out of a half dozen pupils than you can make a powerful galvanic battery with one or two pairs of plates."

"The per capita cost in these small schools is not only much too large, but is continually increasing. In 1879 the cost of education per capita was as follows:

In townships	\$6.21
In towns	5.21
In cities	7.48

"In 1899, twenty years later, the cost was:

In townships (per capita)	\$10.50
In towns (per capita)	11.10
In cities (per capita)	7.07

"These tables are of more than usual interest on this point, and present to the taxpayer a strong argument for a solution of the problem of the small school. It will be observed at once that the per capita cost of education is constantly increasing in the country and towns, and decreasing in the cities. This condition in the rural school arises wholly from the prevalence of small schools. There were as many rural schools in 1899 as in 1879, the salaries in the former are not substantially different from those in the latter, the investments in schoolhouses and appliances would about equal, but the attendance in them has constantly decreased. This condition makes necessary an expenditure for teachers, fuel, apparatus and repairs for the small school of to-day equal to that of the large one of two decades ago. In the towns the increase is due quite largely to the establishment and equipment of high schools of small enrollment. Nearly all cities show congested schools, making necessary many pupils under the direction of each teacher, thus reducing the per capita cost. Add to this a saving in fuel, repairs, buildings and appliances, and the reduced cost of education in cities is explained."

Reports gathered by Prof. N. A. Upham and published in a bulletin by State Superintendent L. D. Harvey of Wisconsin show that the following eighteen states have laws allowing the transportation of pupils at the public expense, although at that time only thirteen were availing themselves of the privilege. These eighteen states are:

Connecticut,	Massachusetts,	Ohio,
Florida,	Nebraska,	Pennsylvania,
Indiana,	New Hampshire,	Rhode Island,
Iowa,	New Jersey,	South Dakota,
Kansas,	New York,	Vermont,
Maine,	North Dakota,	Wisconsin.

Among the reports summarized by Professor Upham are the following:

FLORIDA.

"Florida reports two counties instituting the plan of transporting children. From one of these, Citrus, I learn that they are transporting three small schools four to six miles, twenty pupils at \$1.50 per pupil per month. The plan is growing in popular favor and they expect to do more next year. A copy of the notice to bidders specifies a vehicle of sufficient capacity, necessary umbrellas, wraps, etc., to keep the children comfortable, a good and reliable horse, and driver who is trustworthy and who shall have control of all the children—said driver to the B. of P. I., to deliver pupils between 8 and 8:40 and return them, leaving at 4:05, and to give a \$100 bond for the faithful performance of his work. The teacher of the central school is required to make out a monthly report registering the arrival and departure for each

day, dates and causes of failure, and if there is any complaint, report it promptly by letter.

"Duval county, Florida, is transporting 176 pupils at \$303 per month, having closed fourteen schools. They began with two schools two years ago and the plan has been very popular. Extra teachers hired cost \$145, making a total cost of \$448, for what had before cost \$490 per month, thus saving \$42 per month. Schools of three teachers and eight-year grades were formed. They are planning now to reduce forty-five schools to fifteen. The superintendent says: 'We furnish wagonettes carrying eight, twelve and sixteen passengers, so there is no difficulty in getting farmers to furnish teams and harness. This is an improvement over other ways.'

KANSAS.

"The last legislature of Kansas passed a law providing that where pupils reside three or more miles from the schoolhouse district boards shall pay to the parent or guardian of such children a sum not to exceed 15 cents per day, for a period of not more than 100 days, for conveying such pupils to and from school. A fresh inquiry within two weeks failed to elicit information that advantage is being taken of this law.

"State Superintendent J. V. Calhoun, of Louisiana, says: 'We are advanced only so far as talking about consolidation of rural schools and transportation of pupils. We are doing something but we need to convince and then find funds.'

MAINE.

"In Maine the committee may transport or pay the board of pupils at a suitable place near any established school. Maine has 1,000 schools averaging less than thirteen pupils each. 'The fact that school districts have been abolished or that the school committee has suspended schools does not necessarily entitle public school children to conveyance.'

NEBRASKA.

"Nebraska has a law and is working under it in several places, notably, Fremont and Lincoln. One district reports a saving of \$70 a month.

"In addition to the law providing for transportation, Nebraska provides that a district may contract with a neighboring district for instruction of pupils and may transport its pupils to such district without forfeiting its right to share in the state apportionment of school fund. The state superintendent says: 'Best of all is, the pupils are better taught.'

NORTH DAKOTA.

"North Dakota has a law, first in operation last July, that pupils two and one-half miles away may be transported.

RHODE ISLAND.

"Rhode Island has a law, and is transporting. Emphasis is here laid upon the increased attendance; two schools having graduated ten pupils together in two years, and after consolidation sixteen pupils in one year, an increase of over 300 per cent. in the number of those who remained through the upper grades.

SOUTH DAKOTA.

"South Dakota has a law, and many are about convinced that where pupils live three or four miles they could have better schools at less cost. I was informed that transportation has been begun but have been unable to learn particulars or localities.

VERMONT.

"In Vermont, on a written application from ten resident taxpayers of the town, a portion of the school money not exceeding 25 per cent. may be used to transport scholars, where residence is one and one-half miles or more from the schoolhouse. The popularity of the movement may be judged from the state superintendent's report that 'within the past ten years the amount expended for transportation has increased 400 per cent.'

WISCONSIN.

"Wisconsin has a law that permits the use of school money to transport pupils living more than a mile and a half from school, by the nearest traveled road. But so far as I can learn there is no organized transportation of pupils, though I understand three counties are contemplating it, viz., Kewaunee, Dane and Rock."

NEW YORK.

In New York the report of the state superintendent for 1900 showed that there were 3,552 school districts, nearly one-third of the whole number, in which the average attendance the previous year was ten or less. State Superintendent Charles R. Skinner urges that the only remedy is annulment or consolidation. The following extracts are made from this report:

"The most available relief afforded by existing statutes is the provision permitting a school district to contract with an adjoining district for the tuition of the children residing therein. The number of districts making such contracts for the year 1898-9 was 150, and it is needless to say that in every instance the arrangement was for the best interests of both districts. The most complete and satisfactory evidence as to the desirability of such contracts by weak districts is furnished by Commissioner Carlos J. Coleman, of Madison county, who requested opinions from trustees of districts which had contracted with other districts for the education of their children. The following are among the replies received:

"The children have much better advantages than they could have had in the home district. The patrons are well satisfied with the system.'

"The children claim that they learned twice as much as when at school in the home district. Those of the district who were against the system last year are in favor of it now. It takes time to educate the people to it.'

"All are well pleased with contracting and the attendance has been good, all children going during the school year.'

"The attendance has been much better than when the school was held at home, and we notice great advancement in the pupils. The patrons are all well satisfied.'

"The patrons of the district are pleased with the system, and it is financially a success."

"There is a great advantage in contracting with larger schools, and the

attendance has been much better than when school was held in the home district.'

"We notice marked advantages in the system, and the patrons are well satisfied with it."

In his report for 1901 Superintendent Skinner presents the following:

"In 1897 a law was enacted permitting a district to contract with an adjoining district for the education therein of its pupils, and also providing that any district so contracting shall continue to draw the teacher's quota to which it would be entitled had it maintained a school within its own borders. This law has been steadily growing in favor. The first year after its enactment but twenty-seven districts in the state availed themselves of its provisions. The next year 106 did so; the next, 158; the next, 234; and the present year there will probably be more than 300 districts in the state thus contracting. This provision of law is wise, and has succeeded even under the present imperfect condition of the statute in practically closing about 300 weak schools and enabling the pupils residing in these districts to enjoy better educational facilities in a larger school where there is the enthusiasm of large numbers and the opportunity for proper grading.

"I am convinced that the powers of commissioners to consolidate school districts should be enlarged. The consent of the trustees should not be required in any case where a district is to be dissolved and its territory added to an existing adjoining district, or where a new district is created from the territory comprising two or more districts thus dissolved. In addition to this increase in the powers of commissioners, there should be an enlargement of the powers of district authorities, enabling them to provide transportation for those pupils who live too far from the school building to enable them to safely attend school, especially in the inclement weather of winter. With this power given to school authorities, the boundaries of the rural districts could safely be enlarged and vastly better school facilities be given the inhabitants of these communities."

ILLINOIS.

The subject of consolidation and transportation has been discussed in Illinois during the past year and a law was passed permitting people to vote on the question. The provision was as follows:

"It shall be the duty of school directors under this act, to provide schools for the different parts of the district, and they shall have all the power given to school directors by the law of this state. They shall also, in rural territory outside of organized cities and villages, provide for the free conveyance of pupils, residing more than one mile from the school they attend, to and from that school. Provided, however, that the proposition to convey pupils to and from school shall, under a petition of not less than fifty voters, filed with the school directors, be submitted to a vote of the township at a regular annual election and approved by a majority of the votes cast thereon."

This bill was, however, vetoed by the governor, Richard Yates.

CONNECTICUT.

The legislature in 1893 authorized the transportation of children to and from school at the expense of the town (meaning township,) whenever a school shall be discontinued upon the approval of the school visitors. Within seven years about sixty towns took advantage of this, uniting schools and transporting the children to the nearest schoolhouse. The system has been generally satisfactory and has reduced the cost. In 1897-8, eighty-four schools were closed and the following year, eighty-five. The report of the state superintendent says that "expense is less than the cost of maintaining schools. The result has been:

"1. To make larger schools and provide desirable classification.

"2. To make better schools. In some cases the change has been very marked, the consolidated school at once taking high rank because a good teacher was secured.

"3. With one exception, the cost has been diminished.

"4. In every case the attendance has improved.

"5. Unpunctuality is entirely avoided, for the children must reach school on time.

"The policy of closing schools and transporting children is not popular at first. When it has been tried and properly managed it has always been approved.

"There is substantial agreement that the result, financially and educationally, has been satisfactory. The most emphatic expressions of approval come from those who were influenced mainly by the educational motives.

"Children are less exposed to storms and to bad weather and are healthier. Attendance is increased 10 to 20 per cent."

Detailed reports from the districts where the system has been tried show uniformly good results and satisfaction to patrons.

OHIO.

Alfred Bayliss, state superintendent of public instruction in Illinois, has made a personal investigation of the operation of the Ohio plan and his account of it is worth careful consideration. Mr. Bayliss says:

"I have lately seen some excellent examples of the practical working out of this plan in the state of Ohio. What has become widely known as the 'Kingsville experiment' was made possible in that state by an act which applied to 'any township which by the census of 1890 had a population of not less than 1,710 nor more than 1,715.' In other words, the legislature of Ohio was willing to let the people of Kingsville and vicinity furnish an object lesson for their more conservative neighbors, if they were willing to take the chances and foot the bill. That village and township, however, proved to be like the man who insisted 'that he was not such a fool as he looked.' The daily attendance increased. The cost per capita diminished. There was a balance on the right side of the account of over \$1,000 in the first three years. As a result the enabling act was made general and the plan is spreading. Two very notable examples came under my observation. The first was in Gustavus township, Trumbull county. There were formerly nine districts in that township, and as many small schools. Four years

ago the nine districts were consolidated. A frame building, with four rooms, was erected at a cost of \$3,000. A principal, three assistants and a janitor were employed. Nine comfortable, covered spring wagons, with drivers under \$200 bonds, were engaged to convey the children to and from the central school. Before the consolidation the average school attendance in that township was 125. Last year it was 144. The school population remains about the same. The year preceding the consolidation the schools of the township cost \$2,900. The union school cost, including the wagons, \$3,156, an increase of \$256 for the township, but a decrease of \$1.29 per pupil on the average attendance.

"The other case is in the adjoining township of Green. The people of this township were divided in opinion three years ago. They, therefore, wisely waited for the result of the experiment in Gustavus. After observing it two years, they were satisfied. Public opinion crystalized in favor of the plan. Last September the people of this township opened a new, steam-heated, well-lighted and ventilated, brick building, having six large school rooms, and two smaller rooms, one of which is set apart for the library. Eight wagons convey the children. The principal of the school told me, with pardonable pride, that there was a piano coming. Both of these schools do about three years of high school work. Public sentiment is no longer divided.

"The last statement should, perhaps, be qualified. In May, 1900, a committee of two citizens, one for and one against "consolidation," was sent from a township in Warren county, Ohio, to investigate and report upon the facts as they found them in Gustavus township. The report, signed by both members of the committee, stated that persons known to favor the plan were purposely passed by; that fifty-four persons were questioned, and their answers were as stated in the report. Of that number, forty-three were for, seven against, and four indifferent to the plan. Of the seven who declared against it, six were without children of school age, and of the four who were indifferent, none had children of school age.

"Of all the fifty-four, we find, said the committee, but one person with children who was opposed to centralization. I talked with the citizens in six or seven country towns in which the plan is in operation, in three different counties, and failed to find a single individual who did not approve it.

"Such illustrations could be multiplied. The plan works out. The health of children is improved, because of the diminished exposure to stormy weather. School attendance is increased, both in regularity and in the number of pupils. Tardiness and truancy disappear. The school year is lengthened. Better teachers are employed. Teachers can be better paid. I asked one little fellow of ten or twelve years how he liked the union school. Oh, it's great, he said, to be where something is going on. And, perhaps, it is from this widened circle of acquaintance, extending beyond the children to the whole community, that one of the great benefits is to be derived. The isolation of small schools—ten pupils or fewer—is not favorable to intellectual, moral or social growth. The young mind grows by contact with other minds, and quite as much by contact with those of near its own strength as by the influence of stronger ones."

Lewis D. Bonebrake, state commissioner of the common schools of the state of Ohio, in his last annual report says the

system has grown in Ohio since it was first suggested by H. U. Johnson, of Ashtabula county, in 1872, until the last legislature definitely defined centralization, permitting boards of education to submit the question of township centralization of schools to the vote of the people upon petition of one-fourth the voters. The law provides for the organization of a township board of education, consisting of five members elected at large in the district for three-year terms, doing away with the sub-district organization. It provides for transportation and definitely indicates which pupils shall be conveyed at public expense. It requires a graded course of instruction and authorizes a high school, setting the minimum limit of the course at two years.

CHAPTER III.

RECENT SCHOOL LEGISLATION IN OTHER STATES.

CALIFORNIA.
COLORADO.
ILLINOIS.
INDIANA.
KANSAS.
MINNESOTA.
MISSOURI.

NEBRASKA.
NEW YORK.
NORTH DAKOTA.
OHIO.
PENNSYLVANIA.
SOUTH DAKOTA.
WISCONSIN.

RECENT SCHOOL LEGISLATION IN OTHER STATES.

CALIFORNIA.

Chapter 229, laws of 1901, makes a number of amendments to the school laws, among which the following are of the most importance:

1. Authorizing board of trustees of the State Normal School to issue diplomas, and providing that such diplomas shall entitle the holders to certificates in any county or city in the state.

2. Providing in a general way for the duties and powers of the State Board of Education: (a) to adopt rules and regulations for its own government; (b) to prescribe rules for granting certificates and diplomas; (c) to grant four kinds of diplomas, namely, high school, grammar school, kindergarten, and special certificates; (d) to revoke or suspend diplomas and certificates; (e) to designate some educational journal as the official organ of the department of public instruction.

3. Classifies the public schools of California into three classes, namely: high schools, technical schools, and grammar and primary schools.

4. Provides for the meeting of the county board of education. These boards have power to, (a) adopt and enforce rules of examination; (b) grant four kinds of certificates—high school, grammar school, kindergarten and special. They may also grant permanent certificates under certain restrictions. Certificates that are not permanent shall be valid for six years.

This board has also power to adopt a list of books and apparatus for school libraries, except in cities.

5. City boards of education are provided for in cities of the first, second and third classes.

ANNUITIES.

Chapter 230, provides for the payment of annuities to teachers who have been contributors to the annuity fund and who have taught in the schools of California for thirty years.

The annuitants are divided into six (6) classes—the annuities of each depending upon the length of time and the amount he has contributed to the fund.

HIGH SCHOOLS.

Chapter 146, provides for the establishment of high schools in cities, incorporated towns or districts, upon petition by a majority vote of the qualified electors.

RESTRICTIONS UPON RECITATIONS AND HOME STUDY.

Chapter 238, provides in what branches instruction must be given. In addition to those provided for in the Iowa law, the following are mentioned: "Nature Study," and "Humane Education."

This chapter provides further, that no more than twenty recitations per week shall be required of pupils in the secondary schools, and no pupil under the age of fifteen years in any grammar or primary school shall be required to do any home study.

COLORADO—PARENTAL OR TRUANT SCHOOLS.

Chapter 98, laws of 1901, provides for the establishment and maintenance of parental or truant schools in cities having a population of 100,000 or more.

Children found guilty of habitual truancy, or a persistent violation of the rules of the public schools by the judge of the county court, shall be sent to such schools—the cost of board and clothing to be paid by the parent or guardian of such child.

Boards of education in cities of 25,000 people or over, and less than 100,000, may upon a vote of a majority of the legal voters of such city also establish such schools.

ILLINOIS—HIGH SCHOOL DISTRICTS.

Act of May 11, 1901, provides for the creation and maintenance of a "High School District" out of two or more adjoining townships or school districts.

TEACHERS' AND EMPLOYEES' PENSION FUND.

The act of May 31, 1895 is amended to read as follows: The board of education in cities having a population exceeding 100,000 inhabitants, shall have power, and it shall be the duty of said board, to create a public school teachers', and public school employes' pension and retirement fund, and for that purpose shall set apart the following money, to-wit:

1. An amount not exceeding one per cent per annum of the respective salaries paid to teachers, which amount shall be deducted in equal installments from said salaries at the regular time for the payment of such salaries.

2. All moneys received from donations, legacies, gifts, bequests, or otherwise, on account of said fund.

3. All moneys which may be derived from all other sources, but no tax shall ever be levied for said fund.

INDIANA—ESTABLISHING JOINT DISTRICTS.

Chapter 42, laws of 1901, provides for the consolidation of two or more adjacent school corporations; said consolidation to be made by the school trustees of the respective districts, upon proper petition to them.

MINIMUM WAGES.

Chapter 245, 1901, provides that the daily wages of teachers for teaching in the public schools and attending county and township institutes shall not be less than an amount determined by multiplying two and one-half cents by the general average of scholarship and success given the teacher on his highest grade of license at time of contracting.

SCHOOL CORPORATIONS MAY ACQUIRE PROPERTY BY GIFT, BEQUEST, ETC.

See chapter 241, laws of 1901: The interests, rents, or other proceeds of such gifts or bequests shall not be devoted to the payment of any debts of the corporation, nor to the payment of salaries, or wages of teachers, nor

for the purchase of ordinary school libraries or supplies; but the same may be devoted to any "public educational or *public library* or kindred purpose" — it being the main purpose of this act that income shall be used in giving "to school children the public educational and library advantages that could not be enjoyed if only the school and library revenue and income provided by law were available."

KINDERGARTEN SCHOOLS.

Chapter 84, laws of 1901, provides for the levy of a special tax of one cent on each \$100 on the property in cities of more than 6,000, for the support of free kindergarten schools.

KANSAS.

Chapter 245, laws of 1899, provides that a person to be eligible to the office of county superintendent must hold a first or second grade certificate or state certificate, or be a graduate of an accredited college or normal school, and must have taught at least eighteen months.

Chapter 191, laws of 1901, provides that the county superintendents shall receive \$1 per school for each school actually visited as traveling expenses.

Chapter 307, laws of 1901, authorizes the county superintendent in any county, upon proper petition, to disorganize partially depopulated school districts in his county, and also provides for the consolidation of such districts.

CONVEYANCE OF PUPILS.

The same chapter also contains this provision: That in any school districts where there are pupils residing three or more miles from the school house, the school board of such districts shall allow to the parent or guardian of such pupils a sum not to exceed 15 cents a day for not to exceed 100 days in each year as compensation for conveying such pupils to and from school."

TRANSPORTING SCHOLARS.

Chapter 305, section 1, laws of 1901, provides for the uniting of two or more adjacent school districts.

Section 2 of said chapter provides: "The board of directors herein before mentioned are hereby authorized to provide for the transportation of the children living two or more miles from the school to and from the schoolhouse in the district, under such rules and regulations as said board of directors may prescribe.

DISCONTINUANCE OF SCHOOLS.

Chapter 306, laws of 1901, authorizes the school board of any district, with the concurrence of the county superintendent, to discontinue the school in such district and provide for the sending of the children of such district to another school.

Chapter 304, laws of 1901: "Any person being related to a school district officer as husband or wife, son or daughter, shall not be eligible to the position of teacher in such school district, unless employed by an unanimous vote of all the members of such board.

COUNTY BOARD OF EXAMINERS.

Chapter 303, laws of 1901, provides for a board of county examiners, consisting of the county superintendent, who shall be *ex-officio* chairman, and two competent persons, holders of first grade certificates or state certificates.

Said examiners to be appointed by the county commissioners on the nomination of the county superintendent, and to serve one year and to receive three dollars per day for not to exceed four days in any one quarter of the year.

SCHOOL APPARATUS.

Chapter 176, laws of 1899, makes it unlawful for school boards to buy, and chapter 308, laws of 1901 makes unlawful for any person to sell school apparatus unless such apparatus shall have been submitted to the school text book commission of the state and approved by them.

MINNESOTA.—ORGANIZATION OF INDEPENDENT DISTRICTS BY THE CONSOLIDATION OF TWO OR MORE ADJOINING SCHOOL DISTRICTS, AND THE TRANSPORTATION OF CHILDREN TO AND FROM SCHOOL AT PUBLIC EXPENSE.

Chapter 262, laws of 1901, provides for the organization of independent school districts by the consolidation of two or more adjoining school districts.

The board of education of any district, organized under the provisions of this chapter, shall have power to provide for the transportation of children to and from school at public expense, subject to such rules and regulations as they may adopt; *provided, however*, that every person employed for this purpose shall be required to give a reasonable bond for the faithful discharge of his duties as prescribed by said board of education.

COUNTY SUPERINTENDENTS' TRAVELING EXPENSES.

Chapter 341, laws of 1901, authorizes the county commissioners to allow to the superintendent of schools a sum not exceeding \$250 in any one year as traveling expenses, provided the salary of such superintendent does not exceed \$1,200 per annum.

CERTIFICATES.

Chapter 160, laws of 1901, provides that the certificate of a state normal school in Minnesota to the effect that the holder has completed the three years' certificate course in that school, shall, when approved by the superintendent of public instruction, entitle the holder to a certificate of the first grade.

TRUANT OFFICERS.

Chapter 156, 1901, amends chapter 226, laws of 1899, and prescribes more definitely the duties of truant officers in relation to the enforcement of the compulsory attendance law.

MISSOURI.—STATE LIBRARY BOARD.

The act of March 20, 1901, creates a State Library Board to consist of five members. The state superintendent shall be a member and *ex-officio* chairman.

Said board shall select, classify and recommend a list of suitable books for school libraries, supplementary reading and school reference books.

For the purpose of purchasing school libraries, supplementary and reference books, district boards of directors shall set aside out of the levy made for incidental purposes, not less than five nor more than twenty cents per pupil enumerated in the district each year, which shall be spent under the direction of the board in purchasing books from the list selected.

FIRE ESCAPES.

Act of March 27, 1901, requires that school buildings of three or more stories be equipped with fire escapes.

COUNTY BOARD OF EDUCATION.

Act of March 9, 1901, provides for a county board of education consisting of three members as follows: 1. The county commissioner of schools; 2. One member appointed by the county court; 3. One member to be appointed by the state board of education, for two years.

This board has power to adopt a course of study for use in all the public schools in the county, except in cities having more than 1,000 children of school age.

They have authority to examine teachers and grant certificates.

They shall arrange for a teachers' institute for a term of not less than ten days.

Attendance upon institutes is made obligatory unless the person is absent attending school at the time the institute is held.

The state board of education shall prepare, for use in the county institutes, outlines of work in school management (including use of course of study and record keeping) methods of teaching the common school branches and general pedagogy.

CONSOLIDATION.

Act of March 22, 1901, provides that three or more common school districts, or village district having less than 200 children of school age, together with two or more adjoining districts, may be consolidated into a new district for the purpose of maintaining both primary schools and a high school.

NEBRASKA—OUT BUILDINGS.

Chapter 61, laws of 1899, requires boards of directors to erect and keep in good repair and in clean and healthful condition at least two separate water closets on each school house site.

FREE ATTENDANCE AT PUBLIC HIGH SCHOOLS.

Chapter 62, laws of 1899, provides for the free attendance at public high schools of such persons as shall have completed the common school course and whose education cannot profitably be carried further in the public school of the district of the pupils residence. The expenses of tuition shall be paid from the general fund in each county.

COMPULSORY ATTENDANCE.

Chapter 67, laws of 1899, makes it unlawful for any parent or guardian to neglect or refuse to cause or compel any person or persons who are or

may be under their control as children or wards to attend some public, private or parochial school for a term of twelve weeks or more during each successive year from the time said children are eight until they are fourteen years of age, unless they are prevented by illness, poverty, inability, or by reason of already being proficient from attending such school. The directors and secretary are charged with the enforcement. The penalty is a fine of not less than \$10 nor more than \$50.

NEW YORK.

Chapter 418, laws of 1900, appropriates \$18,000 for the purpose of carrying out the provisions of law relating to COMPULSORY EDUCATION.

UNIFORM SALARIES.

Chapter 751, 1900, provides for a scale of uniform salaries of teachers in New York City.

Salaries shall be fixed by the board of education, and shall be regulated by merit, grade of class taught, length of service, experience in teaching, etc.

Such by-laws shall establish a uniform schedule of salaries for the supervising and the teaching staff throughout all burroughs, which schedule shall provide for an equal annual increase of salary of such an amount, that no kindergartner, or female teacher of a girl's class other than those teaching grades of the last two years in the elementary schools shall, *after sixteen years of service* in said schools, receive less than \$1,240 per annum, etc., etc.

TEACHERS INSTITUTES AND TRAINING SCHOOLS.

Chapter 418, laws of 1900, appropriates \$50,000 for the maintenance of teachers' institutes (presumably for two years).

The same chapter also appropriates \$80,000 for the training of common school teachers in the academies and union schools designated by the superintendent of public instruction, and for the professional training of teachers in the cities and villages of the state employing a local superintendent of schools.

NORTH DAKOTA—SCHOOL OFFICERS' MEETING.

Chapter 84, laws of 1901, makes it incumbent upon the county superintendent to arrange for and hold meetings with the school officers of his county.

The same chapter provides that each member of the school board shall be paid the sum of \$8 per annum, less \$2 for each regular meeting which he fails to attend.

EXAMINATION OF TEACHERS.

Chapter 85, laws of 1901, makes it the duty of the superintendent of public instruction to prepare or cause to be prepared all questions for the examination of applicants for teachers certificates, both county and state, and to prescribe rules for the conduct of all examinations.

It is also made the duty of the superintendent of public instruction to examine, mark and file all answer papers submitted by candidates for certificates, which answer papers shall be forwarded to him by the county superintendent immediately after the close of each examination.

Superintendent of public instruction may appoint clerical assistants to do such work.

AGE OF APPLICANTS

No certificate shall be issued to any person under eighteen years of age.

No first grade certificate shall be issued to any person who is under twenty years of age, and who has not taught successfully twelve school months.

OHIO.

ACT OF APRIL 16, 1900.

To provide for the centralization of township schools and provide a high school for the same.

SECTION 1. "Centralization" is defined as a system of schools in a township providing for the abolishment of all sub-districts and the conveyance of pupils to one or more central schools.

SEC. 2. Provides for the submission of the question of centralization to the electors of the township district, upon petition of one-fourth of the electors. If more votes are cast in favor of centralization than against it, it becomes the duty of the board to at once carry out said vote by purchasing a site or sites, if necessary, and erect a suitable building.

SEC. 8. Boards of education in township districts organized as provided for by this act are required to maintain and support a graded course of instruction and may include a high school course of not less than two years; they are also required to furnish transportation to and from school, to all pupils living more than three-fourths of a mile from the central building.

TEACHERS' PENSIONS.

Section 3897 of the revised statutes, as amended by act of April 16, 1900, provides for the pensioning of city teachers who shall have taught for a period of thirty years; *provided*, that three-fifths of said time or service shall have been rendered in the public schools of the city where the teacher is engaged at the time of retirement.

The rate of pension to be \$10 for each and every year of service such teacher has rendered—to be paid annually. The teacher is required to contribute to a pension fund not to exceed \$600—or a sum equal to \$20 for each year taught. Two dollars a month shall be deducted from the salaries paid to teachers in cities.

PENNSYLVANIA,

Chapter 37, laws of 1899, empowers school directors of the several townships to exercise the powers of a board of health in each township, and to make rules and regulations to prevent the spread of contagious or infectious diseases.

MINIMUM SCHOOL TERM.

Chapter 26, laws of 1899, extends the minimum school time in any one year to seven months.

SOUTH DAKOTA—STATE SUPERVISION.

Chapter 113, Laws of 1901, provides among other things:

(a) The Superintendent of Public Instruction shall prepare all questions for the examination of teachers by the County Superintendents.

(b) Shall prepare a list of the names of institute conductors, from which list County Superintendents shall select.

(c) Call a meeting of institute conductors once a year.

(d) Shall have power to grant state certificates and state diplomas.

(e) State certificates are valid for five years. Candidates must present satisfactory evidence of three years successful teaching experience and pass a satisfactory examination in the following branches: Algebra, geometry, natural philosophy, physiology and hygiene, drawing, civil government, didactics, general history and American literature. State diplomas may be granted to persons who have had ten years successful experience as a teacher and who are graduates of a reputable college or normal school, and passes an examination in such branches as may be selected by the Superintendent.

(f) The fee for state certificates is \$5 and for state diplomas \$10—one-half to be returned in case of failure.

COUNTY SUPERVISION.

(a) No first or second grade certificate shall be issued to any person under eighteen years of age; no third grade to any person under seventeen.

(b) County Superintendent shall require the district school officers of his county to assemble at one or more convenient locations, between the first days of December and April, for the purpose of discussing questions relative to their official powers and duties.

(c) May close any school on account of contagious disease.

(d) Shall examine the accounts of district officers and advise them as to the proper form of keeping such accounts.

(e) The County Superintendent shall receive five cents per mile each way for every mile necessarily traveled in attending County Superintendent's meetings.

COMPULSORY ATTENDANCE.

Parents and guardians are required to send children between the ages of eight and fourteen years to some public day school at least twelve weeks each year.

The penalty is a fine of not less than \$10 nor more than \$20 for each offense. Like attendance and pursuit of same studies at a private day school is a compliance. Attendance is excused when the child's physical or mental condition is such that in the opinion of a competent physician such attendance is inexpedient.

EMPLOYMENT OF CHILDREN.

The employment of any child between the ages of eight and fourteen years, in any mine, workshop or mercantile establishment is prohibited.

WISCONSIN.

Chapter 357, laws of 1901, authorizes boards of directors in cities to elect a superintendent for three years.

The superintendent shall be an advisory member of every committee.

TRANSPORTATION.

Chapter 351, laws of 1901, amends section 430, laws of 1898, by giving the annual meeting power to vote a tax for the purpose of providing for the

free transportation of any or all children residing in the district, by most direct route, to and from the school house in the district.

EXAMINATION OF TEACHERS.

Chapter 439, laws of 1901; (a) makes it unlawful for any county superintendent to endorse a certificate issued by another superintendent, nor to extend the life of any certificate beyond the limits fixed by law; (b) provides for the preservation of examination papers by the county superintendent.

INSPECTION OF HIGH SCHOOLS.

This chapter also provides for the appointment, by the state superintendent, of two persons to assist him in inspecting and supervising the state graded and free high schools.

COURSE OF STUDY.

The same chapter also requires the state superintendent to prepare a course of study suitable to be pursued by all state graded schools. This course of study shall be followed by all state graded schools, as one condition of receiving special state aid.

First class graded schools receive \$300 annually from the general fund of the state. Second class graded schools receive \$100 annually.

HEALTH INSPECTION.

Chapter 225, 1901, makes it the duty of local boards of health to inspect the school houses and public buildings within the district over which they have jurisdiction. Chapter 349 requires that school houses more than two stories high be provided with fire escapes.

CHAPTER IV.

IOWA STATE TEACHERS' ASSOCIATION.

MINUTES OF FORTY-SIXTH ANNUAL SESSION
DECEMBER 26-28, 1900.

REPORT OF COMMITTEE OF TWELVE.
REPORT OF COMMITTEE ON RESOLUTIONS.
REPORT FROM EDUCATIONAL COUNCIL.
OTHER TEACHERS' ASSOCIATIONS.

IOWA STATE TEACHERS' ASSOCIATION.

FORTY-SIXTH ANNUAL SESSION—DECEMBER 26, 27, 28, 1900.

WEDNESDAY EVENING, DECEMBER 26.

W. F. Chevalier of Red Oak, chairman of the executive committee, called the association to order. The invocation was given by the Rev. J. E. Cathell, which was followed by music by the boys of the East Des Moines schools. Principal W. O. Riddell, of the West Des Moines High School, was introduced and gave the president's annual address. Mrs. Margaret Weber then sang "The Flowers Are All Aglow, My Love." On account of sickness, President W. R. Harper, of Chicago University, was unable to be present, but Dr. Small, of the same institution, gave an address upon "Sociological Elements in Education." President Riddell appointed the following committees:

RESOLUTIONS.

Dr. Thos. Nicholson, Mt. Vernon.	Supt. F. H. Bloodgood, Waterloo.
Pres. W. M. Beardshaer, Ames.	Prof. D. S. Wright, Cedar Falls.
County Supt. Agnes J. Robertson, Cherokee.	Supt. C. C. MaGee, Carroll.
Supt. H. E. Kratz, Sioux City.	Prof. Amos, N. Carrier, Iowa City.
Prin. W. C. Van Ness, Denison.	County Supt. J. B. Shorett, Harlan.

PRESIDENT'S ADDRESS.

Prin. Abbie S. Abbott, Cedar Rapids.	Pres. H. H. Seerley, Cedar Falls.
Prin. M. A. Reed, Woodbine.	Miss Cordelia Kyle, Des Moines.
Prin. Eugene Pierce, Ottumwa.	Mrs. E. B. Wilson, Jefferson.
Prin. J. F. McCowan, Marshalltown.	Supt. W. I. Simpson, Sheldon.
Miss Evelyn Miller.	

LEGISLATION.

To serve one year on account of the resignation of A. A. Taylor, County Supt., G. U. Gordon, Clinton.	To serve three years, Supt. W. N. Clifford, Council Bluffs.
	Supt. A. W. Stuart, Ottumwa.

TEACHERS' POSITIONS.

Prof. Hill M. Bell, Des Moines.

FINANCE.

Supt. H. C. Hollingsworth, Albia.

THURSDAY MORNING, DECEMBER 27.

Meeting was called to order by President Riddell. Prayer was offered by Rev. H. O. Breeden, of Des Moines, after which "Coronation" was sung, led by Miss Harriet Garton, of East Des Moines, who had charge of the music for the Association.

The report of the Legislative Committee was called for, but they had no report to make.

Supt. D. M. Kelley, of Cedar Falls, read a paper on the subject "Some Moral Questions for the Schools." The discussion was led by Supt. J. E. Williamson, of Fairfield.

A paper on "The School of the Twentieth Century" was read by Supt. S. H. Sheakley, of Des Moines. The discussion of the first paper was continued by Mr. Coleman, at the request of Mr. Tolle, after which a "Motion Song" was given by the primary pupils of East Des Moines.

An address upon "Arithmetic, and How to Teach It," was given by Supt. W. W. Speer, of Chicago, the discussion of which was led by A. W. Rich, of Cedar Falls.

On motion of Mr. Simpson, the time which Mr. Rich had for the discussion of this paper was extended ten minutes.

Prof. Nicholson gave a report of the Committee of Twelve, on "High School Course of Study and High School Manual."

On motion of Supt. J. J. Doffmeyer, of Marion, all the committee asked for was granted.

Supt. Sheakley gave a twenty-four-hour notice of a proposed amendment to the Constitution of the Iowa State Teachers' Association, as follows:

Resolved, That Article 7 of the By-Laws of the Iowa State Teachers' Association be stricken out and the Article now numbered 8 be numbered 7.

The following by Supt. F. T. Oldt, of Dubuque, was read and adopted:

Resolved, That whenever the Committee of Twelve, which is charged with the preparation of a high school manual, shall have so matured the work as to convince the Executive Committee of the General Association that it is worthy of publication, said Executive Committee is hereby instructed to allow a sum not exceeding \$250.00 for its publication and distribution.

THURSDAY EVENING, DECEMBER 27.

Meeting was called to order by President Riddell, after which prayer was offered by Rev. J. A. Wirt. The following musical program was then rendered: "A Voice of Western Winds," and a "Boat Song," by the Girls' Glee Club of East Des Moines. Miss Grace Lavinia Clark sang "When Celia Sings" and "The Maids of Cadiz." Simpson College Glee Club sang "The Red and Gold," "Annie Laurie" and were enthusiastically encored.

The address of the evening was given by Dr. Newell Dwight Hillis, of New York, on the "Quest of Happiness and Influence."

FRIDAY MORNING, DECEMBER 28.

The meeting was called to order by President W. O. Riddell, of Des Moines. "The Battle Hymn of the Republic" was sung, led by Miss Garton, of East Des Moines. Dr. Beardshear, of Ames, then made an announcement in regard to the National Educational Association of 1901, to be held in Detroit.

On motion of Supt. Kratz, of Sioux City, Dr. Beardshear was appointed N. E. A. Director for Iowa.

A motion made by Supt. H. E. Kratz that not to exceed \$100.00 should be allowed by the State Association, for the maintenance of the Iowa headquarters of the N. E. A., was lost.

The report of the Committee on President's Address was given by Prin, Abbie S. Abbott, of Cedar Rapids, and adopted on motion of Supt. A. B. Warner.

The report of the Secretary from the Educational Council was given by Prof. M. F. Arey, and adopted on motion of Supt. A. V. Storm.

The Committee on Resolutions made its report, which was adopted on motion of Supt. H. C. Hollingsworth, of Albia.

A paper on "Iowa High Schools," was given by President R. C. Hughes, of Tabor College. This paper was discussed by Principal W. D. Wells, of Davenport, and Principal G. A. Axline, of Humeston. President H. H. Seerley, of Cedar Falls, gave an address upon "Etiquette of the Profession," discussed by Supt. A. W. Merrill, of Waverly. The seventh grade pupils of the East Des Moines schools then gave two fine selections of music, which were highly appreciated by all. Miss Mary A. Blood, Principal of the Columbia School of Oratory, was then introduced and gave a paper on "Reading."

The State Superintendent's annual address was then given by the Hon. Richard C. Barrett.

FRIDAY AFTERNOON, DECEMBER 28,

Song, "Iowa, Beautiful Land," (words by Tacitus Hussey, of Des Moines, music by Judge Towner, of Corning), was sung, led by Miss Garton and the Ladies Club of East Des Moines.

Short talks on "Kindergarten," were given by H. H. Seerley, "The Next Step Forward," Supt. F. T. Oldt, "Kindergarten," and Mrs. A. L. Frisbie, on "The Kindergarten From a Mother's Standpoint." The discussion was continued by Miss Phillips, of Des Moines, and Supt. A. V. Storm, of Cherokee.

The following telegrams were received:

YANKTON, S. D., December 27, 1900.

State Teachers' Association, Des Moines, Iowa:

The State Teachers' Association, of South Dakota send greetings and best wishes.
(Signed) S. C. HARTRANFT, *President*.

MILWAUKEE, WIS., December 28, 1900.

Iowa State Teachers' Association, Des Moines, Iowa:

The Wisconsin Teachers' Association (1,200 strong), sends greetings.
(Signed) W. M. PARKER, *President*.

LINCOLN, NEB., December 27, 1900.

Iowa State Teachers' Association, Des Moines, Iowa:

The Nebraska State Teachers' Association with its record-breaking enrollment, sends greeting to its sister state on the east.
(Signed)

PRESIDENT OF THE ASSOCIATION.
ST. PAUL, MINN., December 27, 1900.

Iowa State Teachers' Association, Des Moines, Iowa:

The Minnesota State Teachers' Association (1,800 strong), sends greeting to the teachers of Iowa.
(Signed)

BY THE PRESIDENT.

An address by President Geo. E. MacLean of the State University, "The Iowa Educational Creed and Deed," was then given; this was followed by music from the Ladies' Club of East Des Moines. W. H. Council, Presi-

dent of the Agricultural and Mechanical College of Normal, Alabama, addressed the Association upon "The Negro As He Is."

The report of the Committee on Finance was then given by Professor M. F. Arey, and adopted on motion of County Superintendent Morrissey of Marshall county.

The Treasurer, Professor G. W. Sampson of Cedar Falls, gave his report which was accepted on motion of Professor A. W. Rich of Cedar Falls

President H. H. Seerley of Cedar Falls made a motion that the Executive Committee make arrangements hereafter that the committee on "Teachers Positions" have a place of meeting where teachers wanting positions might meet them.

The following report was given by the Committee on Nominations, and adopted on motion of Superintendent Amos Hiatt of East Des Moines.

The Nominating Committee beg leave to submit the following nominations; President, A. W. Stuart, Ottumwa; First Vice-President, Professor J. P. Huggett, Coe College; Second Vice-President, Principal E. U. Graff, Red Oak; Third Vice-President, County Superintendent E. C. Lillie, Buchanan county. Member Executive Committee, Superintendent H. E. Kratz, Sioux City. Secretary, Professor W. F. Barr, Des Moines; Treasurer, Professor G. W. Samson, Cedar Falls. Members Educational Council, Superintendent A. T. Hukill, Waterloo, and Superintendent G. E. Finch, West Union.

GEORGE CHANDLER, *Chairman*.

S. L. THOMAS, *Secretary*.

The chair then appointed Professor G. W. Samson and Superintendent W. F. Chevalier, to escort the new President, Superintendent A. W. Stuart of Ottumwa, to the platform, who most cordially thanked the Association for the honor. Principal W. D. Wells made a motion that a committee of three, on Necrology, be appointed for the past years report. The chair appointed Principal W. D. Wells of Davenport, President H. H. Seerley of Cedar Falls, and Superintendent E. N. Coleman of Ft. Dodge. On motion of Professor M. F. Arey the incoming President is to choose a committee of three on Necrology to report at next years meeting.

Superintendent Coleman of Ft. Dodge moved to reconsider the motion of the morning session, "that a sum, not to exceed \$100.00 be allowed the director to maintain an Iowa Headquarters, at the N. E. A. at Detroit," and the motion for a reconsideration was carried.

On motion of Principal W. D. Wells of Davenport, the original motion was amended by adding the following: "and a detailed report of the expenditures of this fund be made by the Executive Committee to the General Association."

On motion of County Superintendent Morrissey of Marshall county, the Association adjourned, *sine die*.

W. O. RIDDELL, *President*.

CARRIE M. GOODELL, *Secretary*.

REPORT OF THE COMMITTEE OF TWELVE ON HIGH SCHOOL COURSES OF STUDY AND HIGH SCHOOL MANUAL.

To the Members of the General Association Iowa State Teachers' Association:
Your committee according to instructions had 600 copies of the Final Report, containing

the course of study adopted last year, printed in the month of January. These have been exhausted for some time. The demand was unexpectedly large and the interest in the report has been lively.

We have been working on the Manual during the year. A sub-committee consisting of Professor J. H. T. Main, Professor J. J. McConnell and Miss Lydia Hinman began the work of securing the proper discussion of the various subjects early in the year. About twenty-five of the leading educators and specialists of the State were enlisted and much valuable matter has been furnished. At a meeting in November the committee thought it wise to secure the largest possible range of view on the various matters and subjects, and accordingly concluded to make a list of about one hundred of the best known superintendents, principals, and teachers in the State, and send out to them sections of the Manual containing the "write up" on subjects in which they were most interested and upon which they might be supposed most competent to pass judgment. The replies to these requests have been prompt, the criticisms have been valuable and the suggestions often of much weight. It is gratifying to the committee that the main tenor of the replies indicate satisfaction with the material as a whole. It is the purpose of the committee to give careful attention to these and other like suggestions, to have the reports revised in the light thereof and to spare no pains to make the Manual as practical and as helpful as possible.

The course of study adopted by this body last year was the result of much deliberation. It was not claimed as an absolutely ideal course, but it was considered a practical one, and possibly the best that could meet the diversity of interests and pass in our present educational conditions. Some misapprehension seems to prevail in certain quarters about the relations of this course to college entrance requirements. The committee said last year that the spirit of the colleges was to require subjects which they can get rather than those which they desire, provided the work is shown to have sound educational value and is sufficient in kind and quality. There was no promise that any possible election of High School Course from the subjects named would admit to all college courses without respect to the requirements for admission in the particular course, but there are some things which may in truth be said—Let us note:

1. Should a student take the course as outlined including four years of Latin and electing two years of Greek, German or French, and the solid Geometry, he could be admitted without conditions to any course in any one of the sixteen colleges of the College Department of the Association.

2. Should he take the four years of Latin and the full electives, inclusive of a second language, he could be admitted Freshman, credited ahead for his Solid Geometry, Trigonometry or Science, taken instead of the Greek, German or French, but conditioned on the required second language, so that his credits against college electives would fully offset his language deficiencies, and the student only have four years of college work. All the colleges have not yet adjusted themselves to this new condition, but the committee has assurances that all or at least all but one or two of them will do so in the very near future, if the High Schools continue to accept and work to the course. A little time must be allowed to colleges for readjustment as well as to the High Schools.

3. Realizing that the aim of the High School cannot wholly or chiefly be to fit for college and that, as a rule, the student will not remain more than four years in High School and four years in college, the course is so arranged that any student who completes and thoroughly prepares upon any course that can be framed out of the course and options outlined in the report of this committee last year, can enter the Freshman Class of any College of the College Department in some one or more of its courses, and that his work can be so adjusted that a student of ordinary ability can complete his college courses and any temporary conditions that may be imposed in four years of college work. We feel that this is all that can reasonably be asked at this time. The colleges propose to accept the High School course as a substantial *quid pro quo* for some one course, but do not contract to accept from high schools any possible combination of subjects for entrance to any possible course, any more than they accept from their own preparatory schools the subjects set down for the Scientific Course as full entrance requirements for their Classical Course. Their own academy students would be required to bring up the Greek, after entrance to the Freshman Class, if they insisted on having the A. B. degree. Should any college make a higher requirement than here stated, or a different one, it is pledged to expressly state such fact in its annual catalogue, and we are assured that not more than one or at most two colleges will have any disposition so to do. This will be a great step toward complete unification.

It is not to be expected that everybody will agree with every paper in the Manual or entirely with the course of study as laid down. We should never do anything if we waited for absolute agreement; but we are confident that it is the judgment of the great majority of those who have had opportunity to judge, and that it will be the judgment of the majority of teachers

interested, that this Manual will be a valuable contribution to High School progress in Iowa and that it will be a real aid to scores of High School teachers and to School Boards. In addition to the outline of subjects there will be chapters on important subjects relating to the general work by President Seerley, Professor McConnell, Mr. Dorcas, of the S. U. I., and an introduction by State Superintendent Barrett.

We ask that the committee be continued, that it be authorized to complete its work, and to fully prepare the Manual for publication.

Respectfully submitted in behalf of Committee.

THOMAS NICHOLSON, *Chairman.*

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS.

It is the opinion of your committee that the address of President Riddell is a clear and able review of the educational achievements of the century, now closing, and a timely expression of what we may hope for the future. We briefly emphasize the following points:

First: It pays fitting tribute to the pioneers of education, those who worked to secure "an absolutely free school for every child in the nation and a competent teacher in every school."

Second: It recognizes the influence of Kindergarten work in modern education.

Third: We commend the suggestion that "the high school that is doing the most for the community, that supports it, is the best high school," also the thought that the work of the high school should be so arranged as to inspire its students to prepare themselves for the best mission they can fulfill in life.

Fourth: We indorse the idea "that making things too easy for boys and girls at school and at home will result in taking the fiber out of the nation."

Fifth: The address shows clearly the evils of the sub-district system and suggests as one remedy "free transportation to pupils to central schools."

Sixth: We indorse the following fundamental truths: "The teacher is of more consequence than the system." "A clean and beautiful school room is a refining influence, hardly less potent than the presence of a cultivated and high souled teacher." "It is of less consequence, what a boy knows, than what he is." "The school cannot take the place of the home." Finally we commend the earnestness, sincerity and liberal spirit of the address.

ABBIE S. ABBOTT,
H. H. SEERLEY,
CORDELIA KYLE,
M. A. REED,
W. I. SIMPSON,
EUGENE C. PIERCE,

Committee.

REPORT OF COMMITTEE ON RESOLUTIONS.

Your Committee on Resolutions beg leave to report, First: That we hereby extend our thanks to the citizens of Des Moines for the work of the Association without expense to this body and for their manifold courtesies. Second, that we thank Miss Harriet Garton, the Simpson Glee Club, and other persons for the excellent music furnished, thereby adding to the pleasure of the Association. Third, that we extend our thanks to the press of Des Moines for their untiring efforts to give a complete and accurate report of all the proceedings of this body. Fourth, that we extend our thanks to the executive committee, the officers and the standing committees for their faithful work, caring for the interests of the Association in all its various departments. Fifth, that hereafter the Chairman of the Executive Committee shall be allowed a sum, not exceeding \$50.00, with which to employ a stenographer or clerk who will assist him in the arduous details of his office. Sixth, Whereas the Association is any year liable to meet conditions, arising from such unforeseen circumstances as an unprecedented storm, a railroad strike, or other such things as would make it impossible for the given year, therefore resolved, that we instruct the Executive Committee to place the sum of \$100.00 annually in a reserve fund, which may be used, ONLY, in such an emergency and which may be paid out, ONLY, by the vote of the General Association, as it is unwise to create a large fund which might become injurious to us in various ways. We further instruct the Executive Committee to report the principal and interest in this reserve fund, at each annual meeting, and to invite our special action upon the matter, whenever it shall amount to \$1,000.00. Seventh, we note with

pleasure the ever widening influence of the public and traveling library, and also of the efforts now being made in our state in the direction of centralization, and the transportation of pupils in rural districts, and we most cordially invite the careful painstaking and sympathetic investigations of these movements by all teachers and school boards, but especially of those who are charged with the care of districts which would be affected by it.

THOMAS NICHOLSON,
W. C. VAN NESS,
F. H. BLOODGOOD,
W. M. BEARDSHEAR.

REPORT OF FINANCE COMMITTEE TO THE IOWA STATE TEACHERS' ASSOCIATION.

Your committee beg leave to report that the books and vouchers of the treasurer have been carefully examined and found to be correct, and the balance on hand in the treasury corresponds to the balance found in his books, namely, three hundred fifty-two dollars and twenty-two cents (\$352.22).

The following bills have been presented:

1. Thos. Nicholson, printing.....	\$ 3.00
2. Lura Phillips, Rd. and Phys. Tr. R. T.....	2.75
3. C. P. Colgrove, postage.....	1.62
4. Snyder & Hurd, printing.....	4.50
5. Carrie M. Goodell, salary, postage and envelopes.....	28.39
6. S. H. Sheakley, carriage.....	.75
7. M. F. Arrey, postage secretary, Ed. C.....	1.00
8. J. L. Z. (Pen and Dr. Section) postage.....	1.10
9. Prof. Freser, report of Ed. council committee for 1899 and 1900.....	26.48
10. W. F. Chevalier, executive committee.....	534.25

All of the above bills have been investigated and approved, and their payment is recommended. Respectfully submitted,

M. F. ARREY,
W. D. WELLS,
Finance Committee.

TREASURER'S REPORT, DECEMBER 21, 1900.

Receipts.	
Balance last report.....	\$ 250.27
Enrollment fees.....	1,355.00
Savery Hotel Co.....	25.00
Des Moines citizens.....	90.00
Total.....	\$1,720.27
Paid.	
For lectures.....	\$ 299.95
For printing.....	481.40
For secretary's salary and expense.....	55.05
For hall rent.....	90.00
For monograms and electros.....	4.39
For expenses Thos. Nicholson.....	22.45
For West Supply Co., buttons.....	21.39
For R. R. secretary.....	10.30
For enrolling committee.....	31.75
For prizes.....	35.00
For W. M. Beardshear, N. E. A.....	100.00
For W. O. Riddell, expense local committee.....	8.75
For executive committee expenses.....	182.47

For legislative committee, per Henry Sabin.....	19.89
For postage to date.....	.66
Total.....	\$1,368.05
Balance on hand.....	352.22
Total.....	\$1,720.27

Respectfully submitted,
G. W. SAMSON, Treasurer.

REPORT OF THE SECRETARY OF THE EDUCATIONAL COUNCIL.

DES MOINES, IOWA, December 27, 1900.

Final action was taken upon the following portions of the report of the Committee on Examinations—School, College Entrance and Teachers. That part pertaining to Teachers was reported back to the committee for another year's consideration.

FINAL REPORT OF THE SECOND YEAR COMMITTEE OF THE EDUCATIONAL COUNCIL OF THE IOWA STATE TEACHERS' ASSOCIATION.

TOPIC: EXAMINATIONS—SCHOOL, COLLEGE ENTRANCE AND TEACHERS.

I. Introductory.

1. Definitions.

- Examinations are written or oral exercises employed to assist in ascertaining the scholarship, the general ability, and the reserve power of those examined, or to determine their fitness to enter upon new courses of study or to perform particular duties.
- Examinations may be described as systematic and logically pursued tests of the knowledge and capacity of the persons examined, made by one who has an intelligent understanding of the subject.
- An examination is simply a focusing and a systematizing of that process which has been going on more diffusely every day of the school term.

2. The legitimate objects of examinations are:

- As a test
 - Of the knowledge and power of the one examined.
 - Of the value and thoroughness of the instruction imparted.
 - Of the ability of the pupil to use what he has learned.
- As a means of information
 - Of the fitness of candidates to take up certain studies or to enter upon a special work.
 - To obtain desirable data for reports and records.
 - To aid in grading and classification.
- As an educational process
 - To cultivate the ability to think clearly.
 - To train in the art of correct and elegant expression.
 - To develop the power of concentration and of working under pressure.

3. Limitations and observations.
- 1) It is conceded
 - (1) That the examinations are not the only test of proficiency.
 - (2) That the advantages of examinations are not always realized and that satisfactory results have been obtained in some schools where formal examinations have been discontinued.
 - (3) That examinations are valuable or harmful according to the spirit and intelligence and skill which direct them.
 - 2) It is recommended
 - (1) That examinations should not be frequent, nor unreasonable in character.
 - (2) That examinations should be so conducted as to relieve pupils in a large measure of physical discomfort and mental disquietude.
 - (3) That the examination should not be so over-valued as to create the impression that it is more important than regular school work.
 - (4) That the moral sentiment of the school should be good and that pupils should not be tempted to cheat, either by a careless manner in conducting the examination, or by assigning an artificial value to its result.
 - 3) Furthermore
 - (1) Wisdom and good judgment must be exercised in the preparation of questions and discrimination and a kindly spirit are necessary in the grading of answers.
 - (2) Examinations should seek for general principles rather than for specific facts, for comprehensive statements rather than isolated details.
 - (3) A combination of the daily work and the examination will best determine pupils' competency and their fitness for promotion.
4. Benefits of examination to those examined under limitations and conditions as above will
- 1) Increase power
 - (1) In applying principles to new phenomena and facts.
 - (2) In discriminating between the essential and non-essential; the important and unimportant; the general and particular.
 - (3) In combining the disconnected and fragmentary into a vital, organic unity.
 - (4) In commanding knowledge and utilizing reserve force.
 - 2) Augment knowledge
 - (1) By furnishing opportunity of impressing it more deeply through repetition.
 - (2) By inculcating in pupils a habit of testing their own work, thereby;
 - (a) Either confirming a high standard of scholarship and thus inviting to further acquisition, or,
 - (b) Stifling conceit and thus causing more strenuous exertion.

II. School Examinations.

1. When the examination is made to form the chief basis for promotion, it is harmful and pernicious.
2. Written work is to be commended as a helpful adjunct in school work, and is essential to best results.
3. The complex question of promotion of pupils belongs with the teacher, for no one else has the intimate knowledge essential to a correct judgment. If he lack in ability or integrity, the only real remedy lies in a change of teacher.
4. The examination as a school exercise used to arouse the interest of the pupils offers very little that is good, frequently sets up false standards of success, and perverts the work of the school.
5. While the results of examinations may disclose in some measure the efficiency of the teacher's instructions, his real worth is shown by the growth in character, knowledge, skill and power of the pupil while under his care.

Submitted by members of sub-committee.

W. F. BARR,	GEORGE S. DICK,
CORDELIA KYLE,	W. A. DORON,
S. H. SHEAKLEY,	A. V. STORM,
	E. N. COLEMAN,
	<i>Chairman.</i>

III. College Entrance Examinations.

1. All persons applying for admission to college may be classified as follows:
 - (1) Students from secondary schools not giving full or thorough preparation, from private tuition, or self instruction.
 - (2) Students from standard or accredited secondary schools.
2. Students of the first class mentioned above should be examined as provided for by the college to which they desire admission. Uniformity of entrance requirements is highly desirable, but the discussion of this point is not included in the subject of examinations. Attention is called to the work of the Committee of the National Education Association on College Entrance Requirements, of the Iowa Committee on Unification of College Entrance Requirements, and the Iowa Committee of twelve on High School Course and Manual. The time, place and manner of holding examinations is a matter for the individual college.
3. (1) By a standard or accredited school, is meant a High School, Academy, or Preparatory School, in which the course of study and character of instruction is known to be such as to reasonably prepare its graduates to enter the freshman class of a standard college.
 - (2) The plan of an accredited secondary school list is approved, and the following suggestions made:
 - (1) Such a list should be, so far as possible, the result of personal visitation and inspection.
 - (2) There should be no permanent list. The list should be subject to yearly revision.

- (3) The grade of work actually done by graduates of accredited schools in college should effect the standing of such accredited schools.
- (4) Colleges should reserve the right to examine students from accredited schools in one or more branches, not as a condition of admission, but as a test of power and general scholarship, and as a basis for advice to such students in the selection of studies and the arrangement of courses. The studies of first importance for such examinations are English and mathematics.
- (5) Colleges should reserve the right to examine and re-classify any student admitted from an accredited school whose work, at the end of a reasonable time, is found unsatisfactory.
- (6) Some definite plan for the permanent maintenance and annual revision of the accredited list should be formulated by the General Association or by the College Section and Secondary Department in co-operation.
- (7) The fullest recognition should be given to the work already done by the committee upon Unification and by the State University, and the results of their work fully adopted for the present, and made the basis for further work, either by the same agencies or such other as may be instituted hereafter.

Respectfully submitted,

M. F. AREY,
Secretary.

The association of 1900 was one of the most successful in its history. Large and appreciative audiences were present at all of the sessions. About twelve hundred enrolled.

OTHER TEACHERS' ASSOCIATIONS.

Since the publication of the last biennial report, associations have been held at Ottumwa, Sioux City, Clinton and Council Bluffs in 1900; and at Grinnell and Sheldon in 1901. These have been largely attended, inspirational in character, and productive of great good. Other similar associations will be held at Cedar Rapids and Council Bluffs in October of this year.

The addresses, papers, and discussions at these meetings were of a high order, and we think some greater effort should be put forth to preserve them. Properly, the proceedings of all of the state's great educational meetings, including the state association should be printed at the expense of the state, bound in a single volume, in sufficient numbers to supply those desiring copies. In no better way can we hope to preserve the educational history of the present day.

The State of Iowa was honored in 1901 by the election of President Wm. M. Beardshear of Ames to the presidency of the National Educational Association. The annual meeting for the year was held at Detroit, Michigan, in July and was attended by several hundred teachers and friends.

The following resolutions adopted by the association are given to show the trend of education in the United States.

DECLARATION OF PRINCIPLES.

The National Educational Association, now holding its fortieth meeting in the city of Detroit, and representing the teachers and friends of education throughout the country, makes the following statement of principles:

1. The problem of elementary education is the most important problem with which the state must deal. The progress and happiness of a people are in direct ratio to the universality of education. A free people must be developed by free schools. History records that the stability of a nation depends upon the virtue and intelligence of the individuals composing the nation. To provide for the universal education of youth is the duty of every state in the union.

All the residents of the territory under the direct control of the general government, including the Indian territory, Alaska, and our new possessions, must receive the benefits of free education at the hands of the government. We note with satisfaction the steps that have been taken by the present administration to place the blessings of American free schools within the reach of all the children of all the peoples under our flag.

2. The Bureau of Education, under the direction of William T. Harris, commissioner of education, has rendered invaluable service to the cause of education throughout the United States. It is the judgment of this association that the powers of this bureau should be greatly enlarged, and that the general direction of public education in all the territory of the United States not under state control, including our new possessions, should be part of the duties of the bureau. In no other way can the general government so quickly, economically, intelligently, and safely carry the benefits of popular education to the peoples *for* whose education it is immediately responsible.

3. We reiterate the statement that the public school should be the center of the educational life of the community in which it is located. Especially should this be true in rural districts. Here should be found the public library for the use of all; here the educational extension courses should draw the old and the young; here may literary and social meetings be held which will tend to uplift the mental, social and spiritual life of the people. Freed from the ravenous influence of partisan politics, untouched by the narrowness of rigid sectarianism, the public school should become the real center of the broader intellectual life, the educator of men and women beyond the school age, as well as the guide of childhood and youth.

4. The subjects that may properly be taught in the elementary schools include those that bear upon the ethical, physical, and aesthetic nature of the child, as well as his purely intellectual nature. Sober, industrious,

intelligent, honest, cultured citizenship should be the result of public school training in the United States.

5. Our system of education will not be wholly free until every grade of school, from the kindergarten to and including the university, shall be open to every boy and girl of our country.

6. The liberality of men of wealth in making large donations to institutions of learning is to be strongly commended and encouraged. At the same time it should be borne in mind that popular education rests upon the people and should look to them for its chief support and control. The relation between state and local support should be so adjusted that communities will maintain a deep and abiding interest in their schools.

7. The public school system of a state should be a unit from the kindergarten to and including the university, and all private institutions should endeavor to work in harmony with the ideals of public education so far as their special purpose will permit them. In order that public and private institutions of learning may more fully co-operate in the general work of education, the relation between these institutions should be more clearly defined than it is at the present time.

8. Legislation with respect to public education must not wait for public sentiment. It should lead public sentiment when necessary. Experience teaches that what people are compelled by law to do with respect to schools they readily learn to do without compulsion, but that they are usually slow to demand reforms which involve increased taxation. School legislation should, therefore, be under the general direction of educational experts.

9. The National Educational Association recognizes the principle that the child has the same right to be protected by law from ignorance as from abuse, neglect, and hunger, and it therefore records with approval that many of the leading states of the union have compulsory-education laws upon their statute books.

10. While many cities have at least partly solved the problem of school supervision, in most rural communities the problem is almost wholly unsolved. Close, constant, expert supervision of schools in both city and country is imperatively demanded, not only on account of the large financial interests involved, but also on account of the supreme importance of the teacher's work and the lack of a well-rounded preparation on the part of many teachers.

11. The National Educational Association watches with deep interest the solution of the problem of consolidating rural schools and transporting pupils at public expense, now attempted in many of our states. We believe that this movement will lead to the establishment of township and county high schools, and thus bring more advanced education to rural communities. We also believe that supplementary state support of rural high schools is in the highest interest of the entire state.

12. The state should support and control institutions whose object is the preparation of teachers for the public schools. Normal schools free to persons preparing to teach are an absolute necessity in a perfected system of education.

13. No one should be placed in charge of a school who has not been previously trained for the work of teaching. The plan of issuing teachers' certificates of low grade year after year is at best a makeshift and should be

discontinued whenever the state is sufficiently advanced in education to warrant its discontinuance. There should be a limit to the length of time a person can serve as an apprentice in the vocation of teaching.

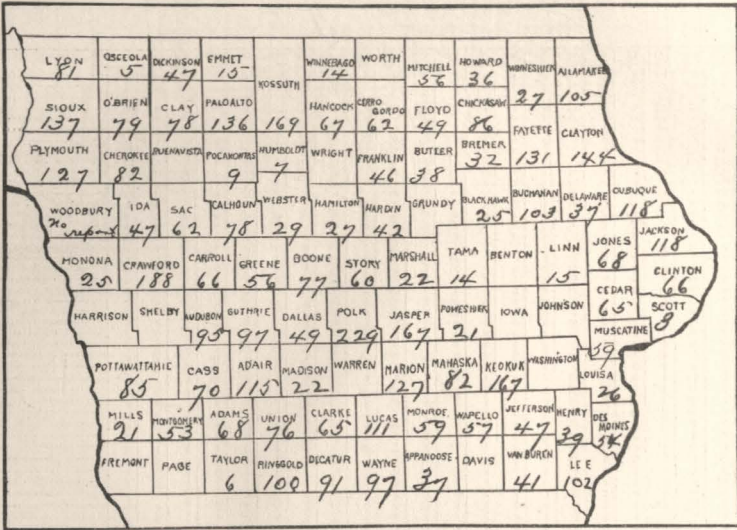
14. We believe that the standards for school architecture, including the proper seating, heating, lighting, ventilation, and ornamentation of school buildings, should be as definite as the standards for teaching. The law should fix the dimensions and all other requirements of school buildings, as well as the size and character of school grounds.

15. The National Educational Association declares in the preamble to its constitution that its objects are "to elevate the character and advance the interests of the profession of teaching, and to promote the cause of popular education in the United States," and we again promise that the best efforts of this association and its members shall be given to the furtherance of these objects, in the firm conviction that in no place can we serve our country better than in her schools.

CHAPTER V.

THE EDUCATION OF IOWA TEACHERS.

STATISTICS RELATING TO TEACHERS.
MAP GIVING DATA FURNISHED BY COUNTY SUPER-
INTENDENTS.
WHERE IOWA TEACHERS WERE EDUCATED.



DATA FURNISHED BY COUNTY SUPERINTENDENTS.

This map shows the number of licensed teachers in each county who have been in attendance only upon rural or other schools below the "accredited high schools."

SUMMARY

WHERE IOWA TEACHERS WERE EDUCATED

NUMBER OF LICENSED TEACHERS WHO ARE GRADUATES OF—

	Males.	Females.
The State University, Iowa City.....	63	75
The State Normal School, Cedar Falls.....	259	498
The State Normal School, Des Moines.....	427	3,284
Academies, seminaries or academies.....	45	76
Private normals, or denominational schools of Iowa.....	25	24
Any higher institutions outside of Iowa.....	1,397	4,970
Total.....	1,480	5,100

NUMBER OF LICENSED TEACHERS WHO HAVE ATTENDED WITHOUT GRADUATING.

The State University.....	50	109
The State Normal School.....	304	1,311
The State Agricultural College.....	202	1,172
Academies, seminaries or academies.....	510	1,850
Private normals, or denominational schools of Iowa.....	158	401
Any higher institutions outside of Iowa.....	1,480	5,100
Total.....	1,480	5,100

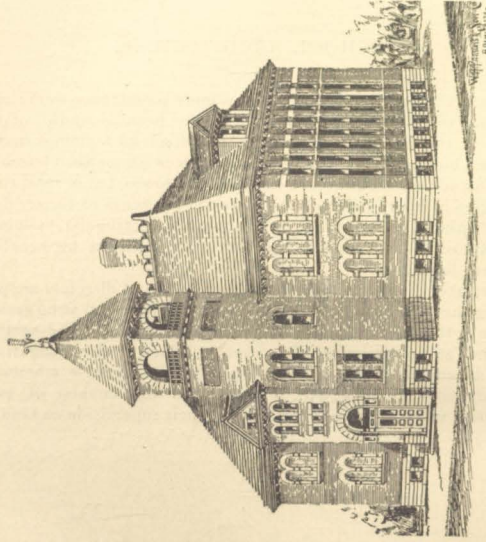
CHAPTER VI.

SCHOOL ARCHITECTURE.

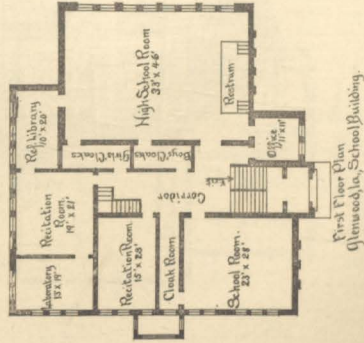
SCHOOL ARCHITECTURE.

Each year the beautiful is given more prominence in the educational world. School boards have not been unmindful of the value of the beautiful in the erection of school buildings during the last biennium. Not only has there been a continued improvement in school architecture in cities and towns, but in rural communities in many parts of the state the log house of former days was displaced years ago by the square or rectangular buildings, and these in turn are today are being replaced by beautiful modern buildings.

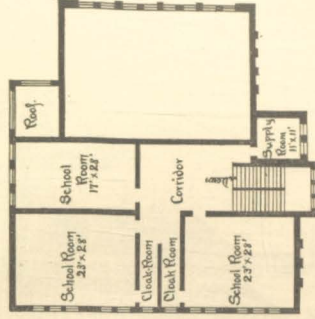
The accompanying cuts show that boards of directors are providing the most artistic edifices for the children, and at no greater expense than was formerly paid for the inartistic. The heating lighting and ventilating of school buildings is now thoughtfully considered in planning the construction of new structures. Boards of directors will, I trust, find this chapter of most practical value, as the schools under their supervision expand.



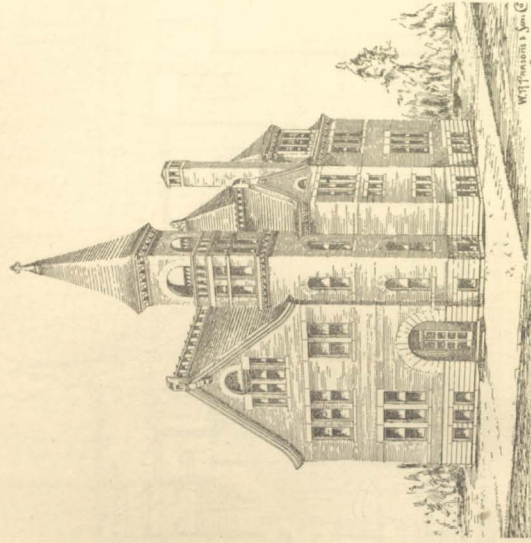
Glenwood, Mills County, east in Brick, \$53,000.



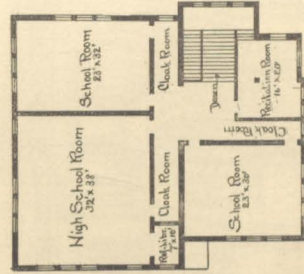
First Floor Plan
Glenwood, in, School Building



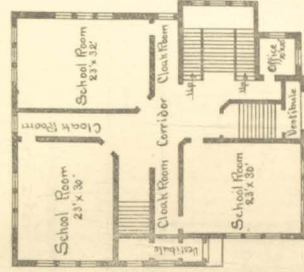
Second Floor Plan
Glenwood, in, School Building



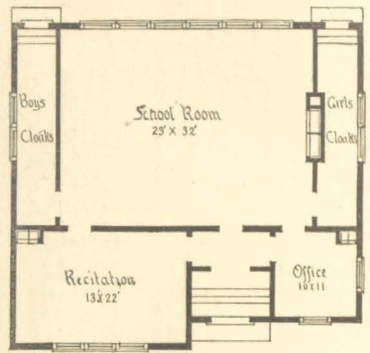
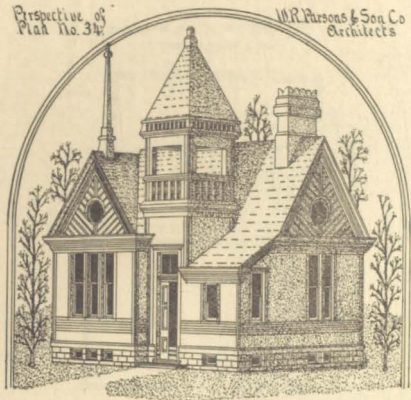
Parkersburg, Butler County, cost in brick, \$8,500.



Second Floor Plan
Parkersburg, Ia., School Building

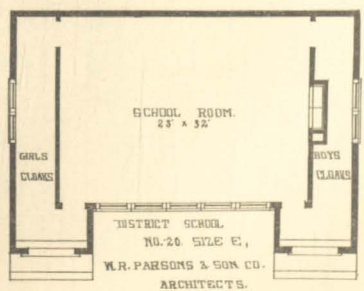
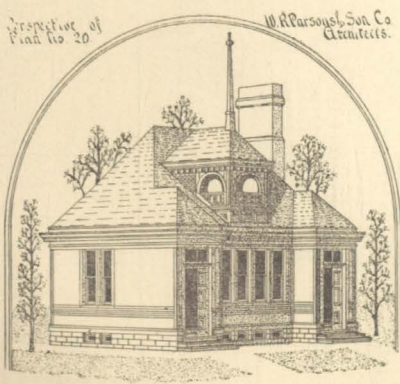


First Floor Plan
Parkersburg, Ia., School Building

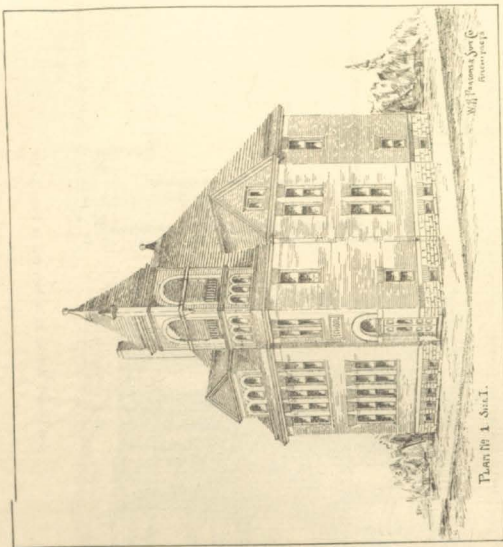


District School No. 52. Size E.
W. R. Parsons & Son Co.
Architects.

Polk County, Des Moines Township, Oak Grove District, cost in brick, \$2,600.

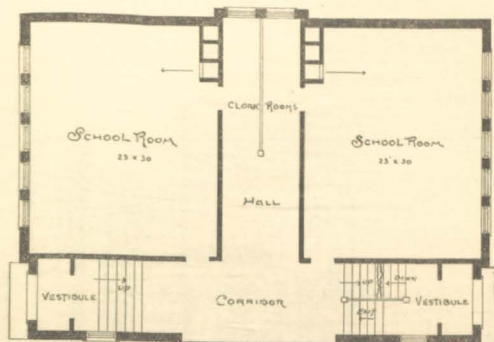


Sac County Eureka Township, cost in frame \$1,500.



PLAN No 1. S.W.T.

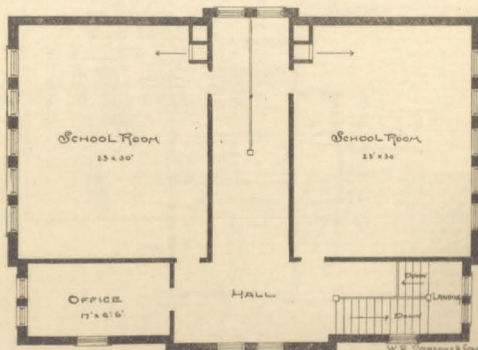
Seymour, Wayne County, cast in brick, \$5,500.



PUBLIC SCHOOL
GRADE SECTION
4 ROOMS

FIRST FLOOR PLAN
No 1. Size I

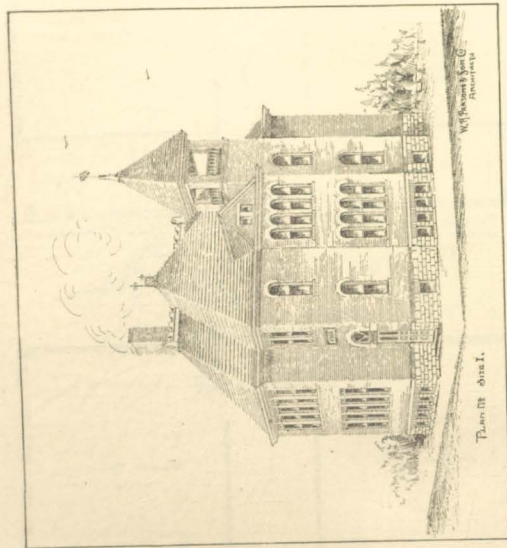
W. H. PARSONS & SON, C.
ARCHITECTS
DES. HOMER LANE



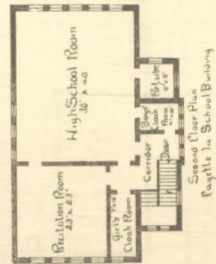
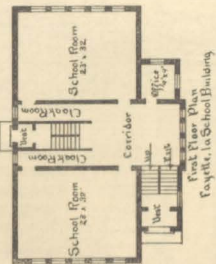
PUBLIC SCHOOL
GRADE SECTION
4 ROOMS

SECOND FLOOR PLAN
No 1. Size I

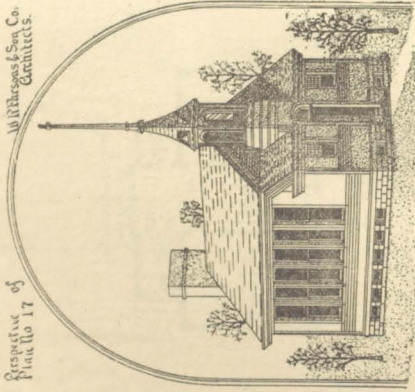
W. H. PARSONS & SON, C.
ARCHITECTS
DES. HOMER LANE



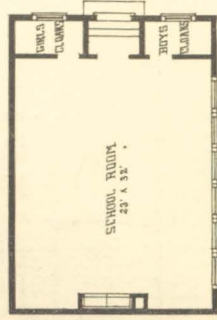
Fayette, Fayette County, cost in brick, \$7,000.



Prospect of
Plan No 17



W. R. Parsons & Son Co.
Architects.



SCHOOL ROOM
23' x 32'

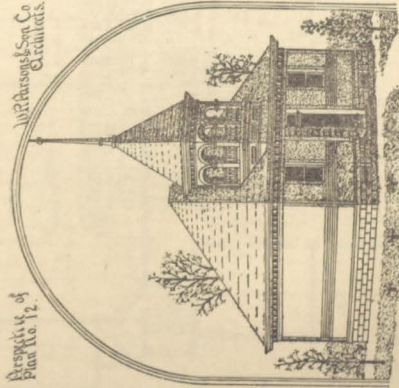
GIRLS

BOYS

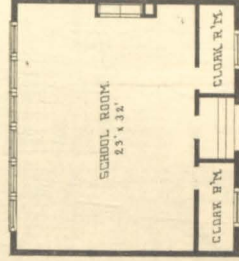
DISTRICT SCHOOL NO. 11, 8 1/2 x E.
W. R. PARSONS & SON, CO.
ARCHITECTS.

Osceola County, Wilson Township, No. 1, cost in frame, \$ ———.

Prospect of
Plan No 12



W. R. Parsons & Son Co.
Architects.



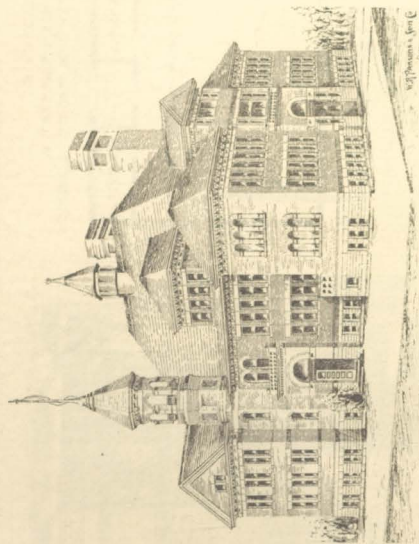
SCHOOL ROOM
23' x 32'

CLERK R.

CLERK R.

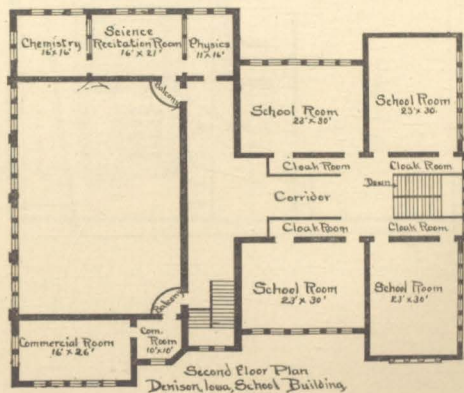
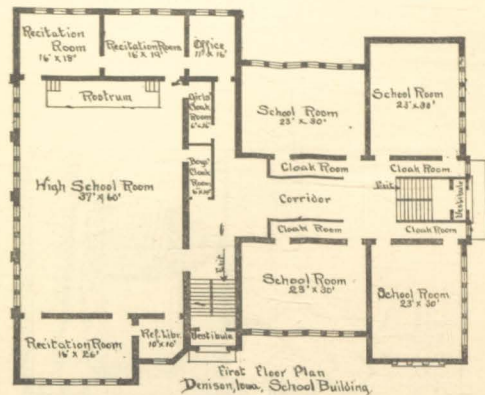
DISTRICT SCHOOL, NO. 12, 5 1/2 x E.
W. R. PARSONS & SON, CO.
ARCHITECTS.

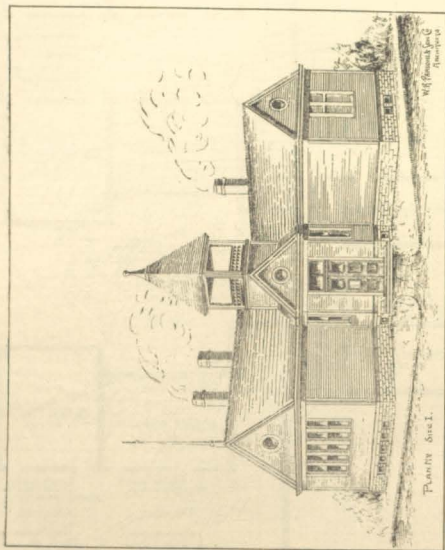
Mahaska County, Harrison Township, Roundtop District, cost in frame, \$1,200.



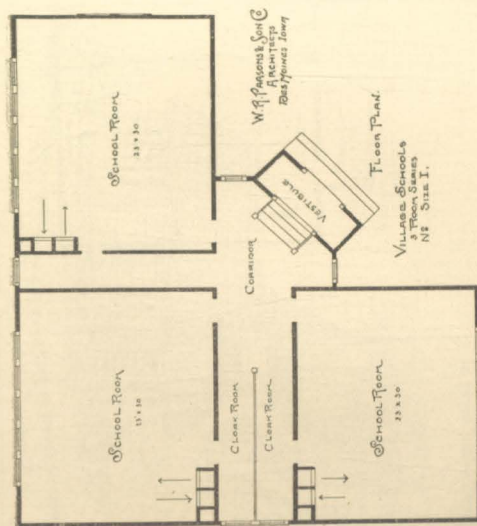
W. J. Peterson, Gen. C.
Denison, Ia.

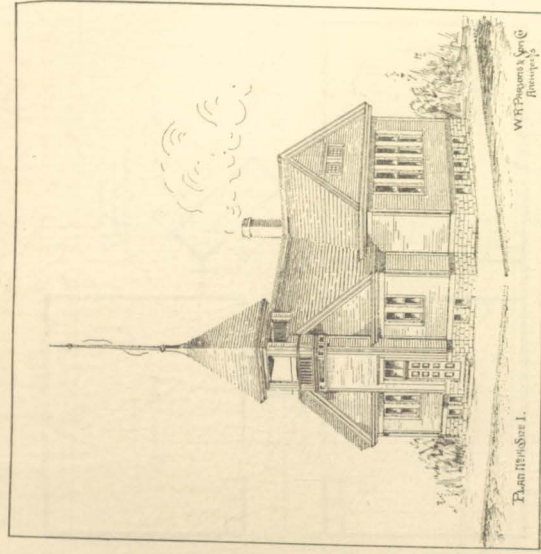
Denison, Crawford County, cost in brick, \$46,500.



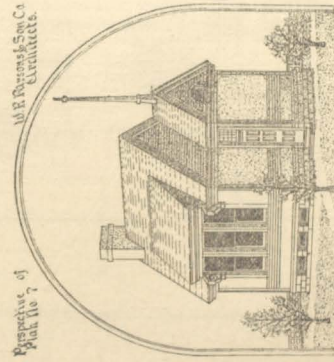


New Providence, Hardin County, cost in frame, \$3,000.

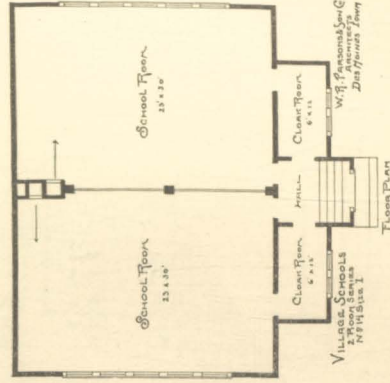




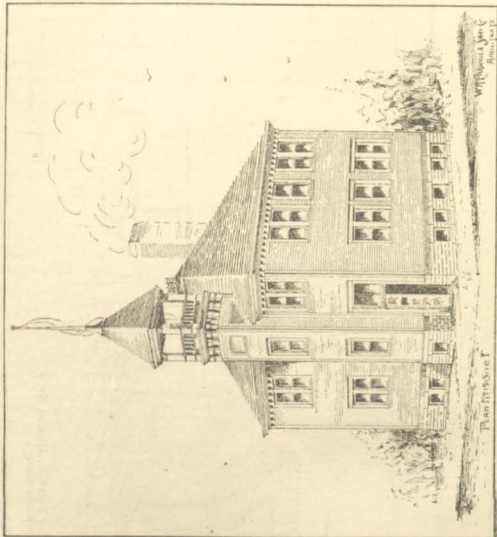
North Liberty, Johnson County, cost in frame, \$4,000.



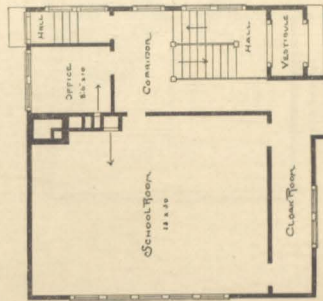
Johnson County, Union Township, District No. 8,
cost in frame, \$300.



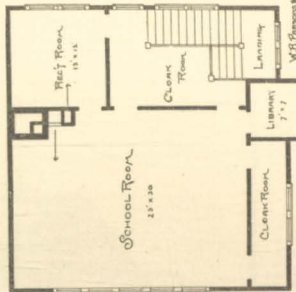
Floor Plan North Liberty,
Johnson County.



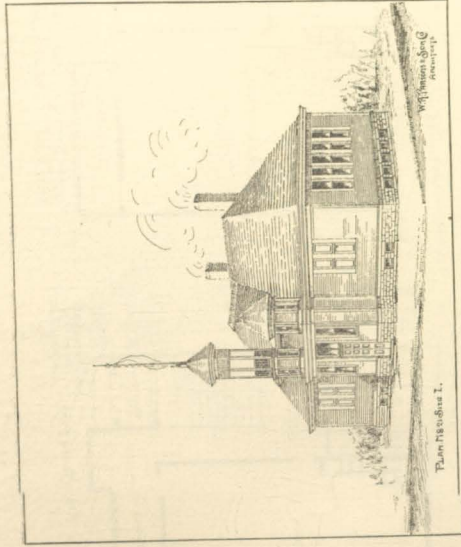
Harris, Osceola County, cost in frame \$4,500. □



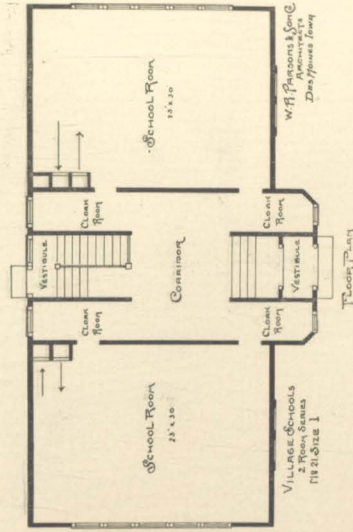
Village Schools
2 Room Schools
17 1/2 Site I
W. H. Parsons & Son
Des Moines, Iowa
FIRST FLOOR PLAN

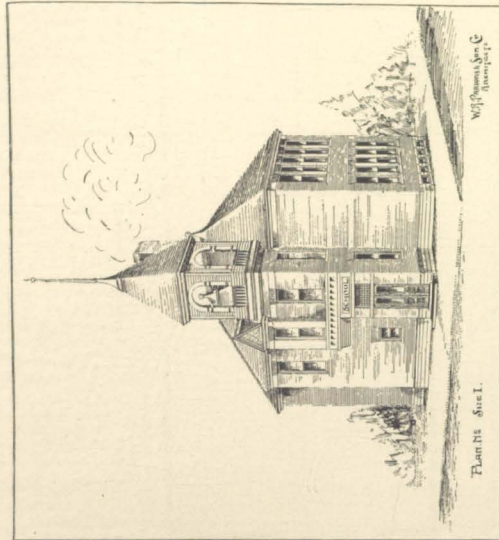


Village Schools
2 Room Schools
17 1/2 Site I
W. H. Parsons & Son
Des Moines, Iowa
SECOND FLOOR PLAN



Libertyville, Jefferson County, cost in frame, \$2,000.





McFarhead, Monona County, cost in brick, \$5,400.

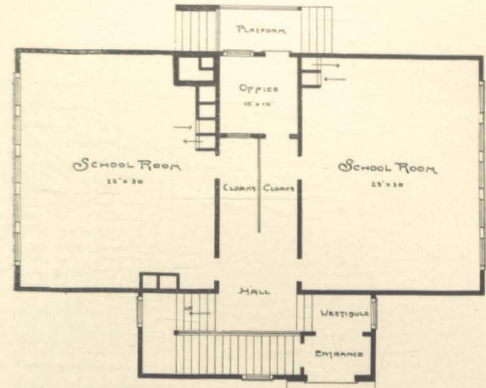


FIG 512 I.

FIRST FLOOR PLAN
VILLAGE SCHOOLS
4 ROOM SERIES

W. H. PARSONS & SON C.
ARCHITECTS
DES MOINES IOWA

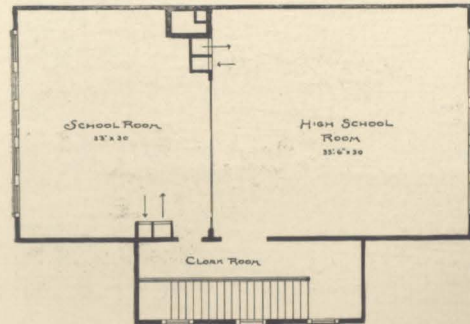
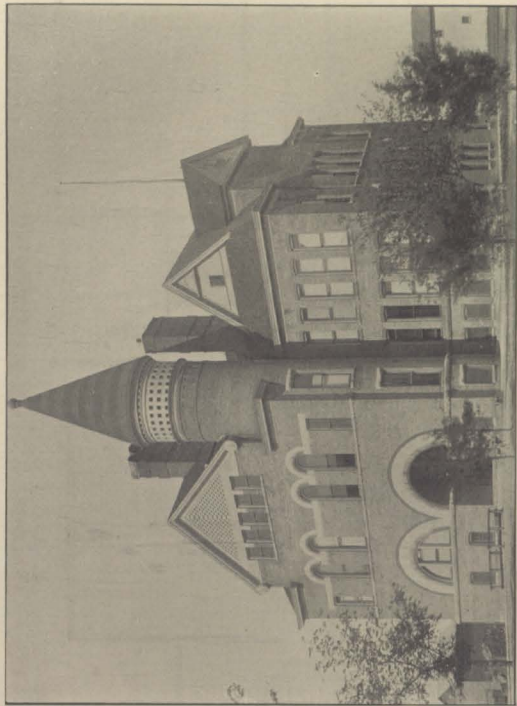


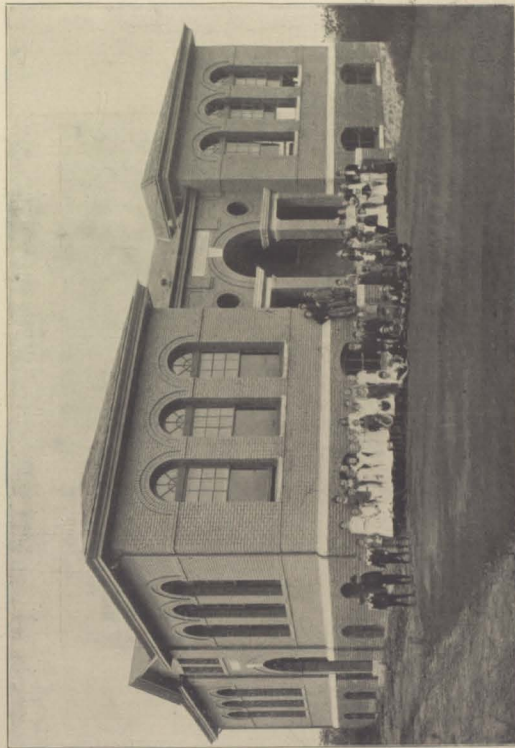
FIG 512 I.

SECOND FLOOR PLAN
VILLAGE SCHOOLS
4 ROOM SERIES

W. H. PARSONS & SON C.
ARCHITECTS
DES MOINES IOWA



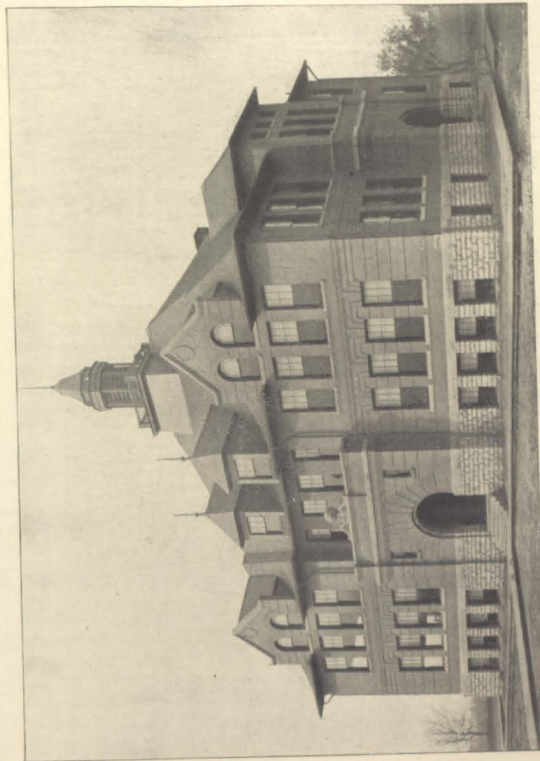
Cherokee County, Cherokee, cost in brick, \$ _____.



Hamilton County, Webster City, 5th Ward, cost in brick, \$8,000.



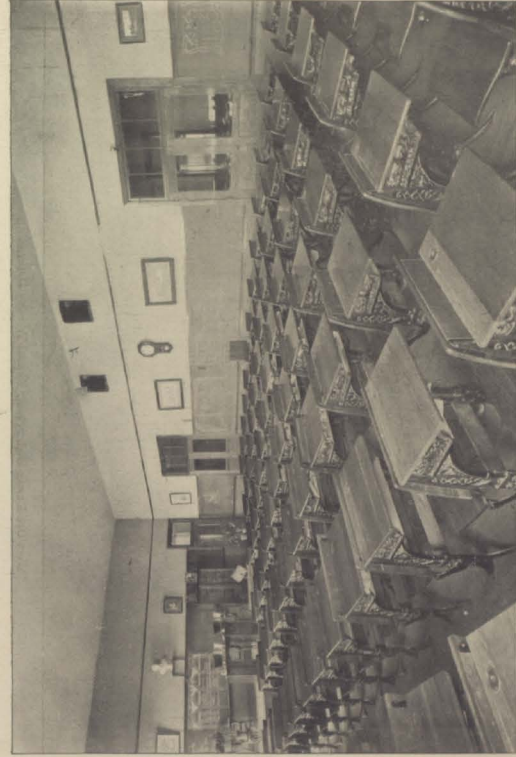
Beimond, Wright County, cost in brick about \$16,000.



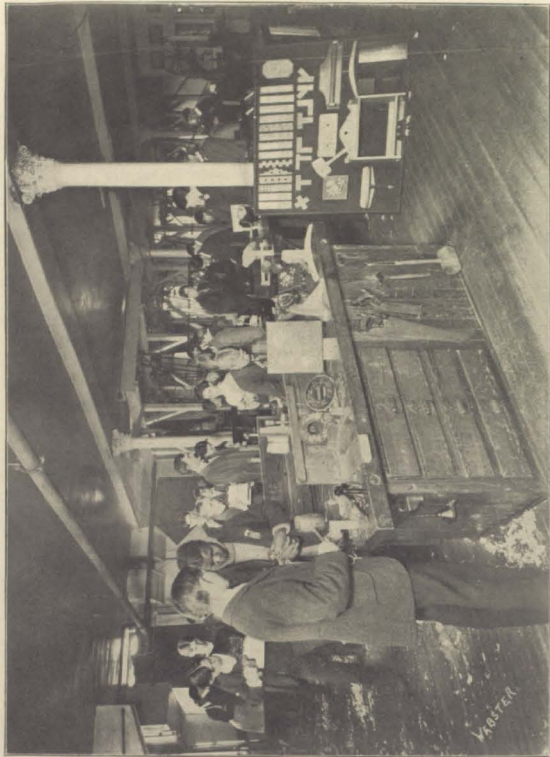
Sas County, Odesholt, cost in brick, \$32,000.



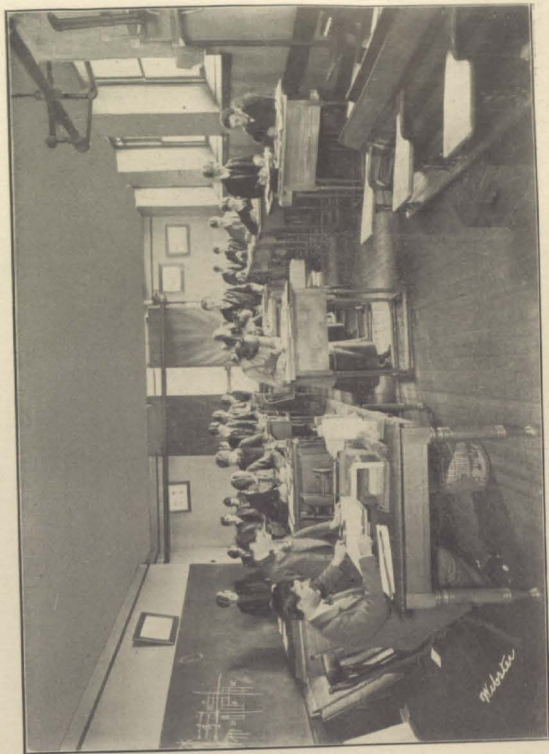
Sac County, Odebolt, Superintendent's Office.



Sac County, Odebolt, Assembly Room.



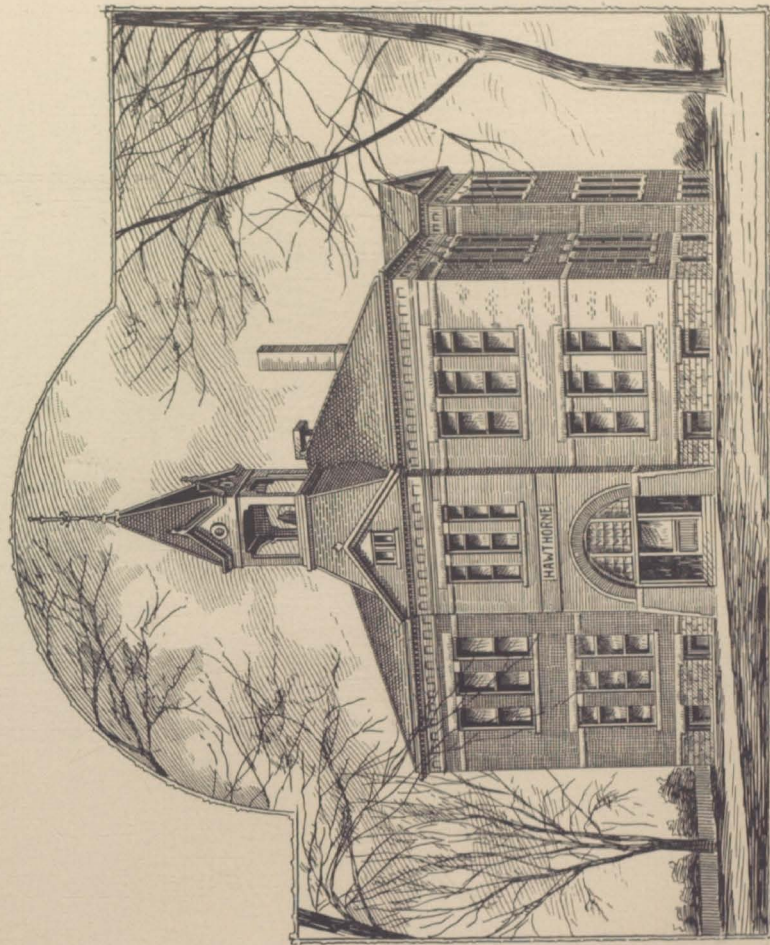
West Des Moines High School, Manual Training Department.



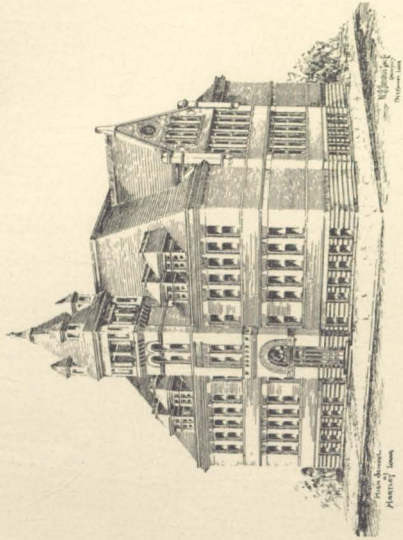
West Des Moines High School, Mechanical Drawing Room.



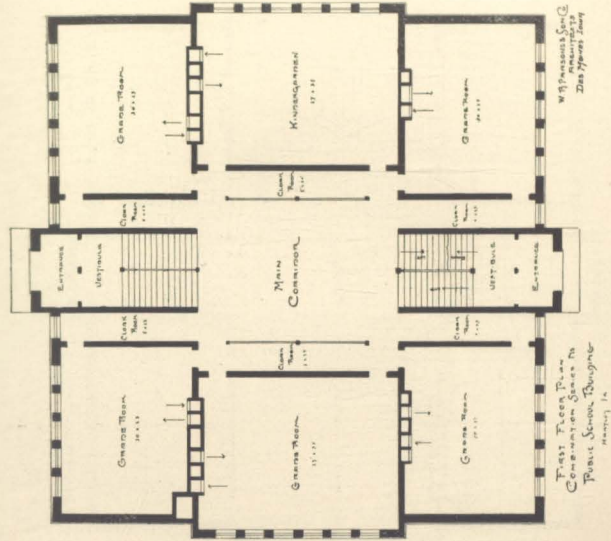
Elmwood School, West Des Moines, Manual Training Department.

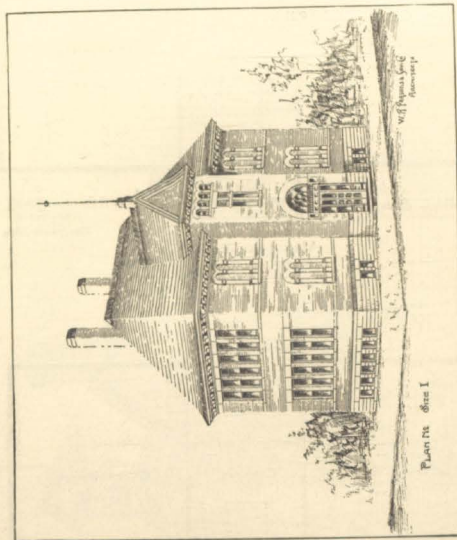
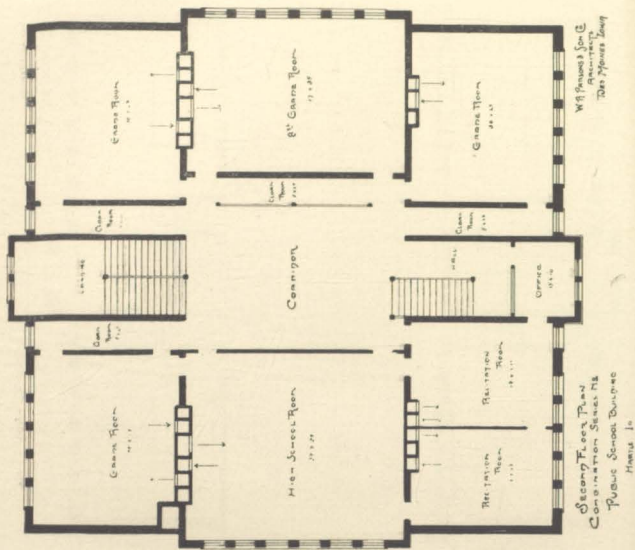


Warren County, Indiana. Hawthorne School, cost in brick, \$

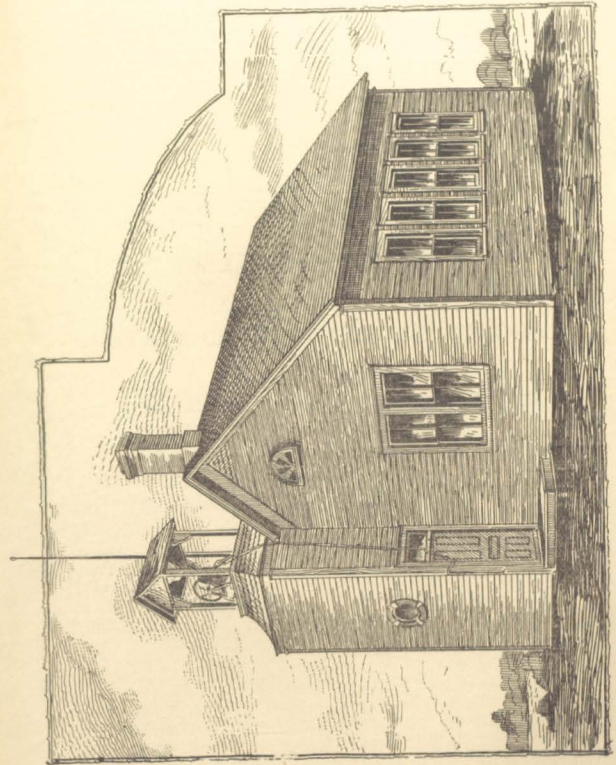
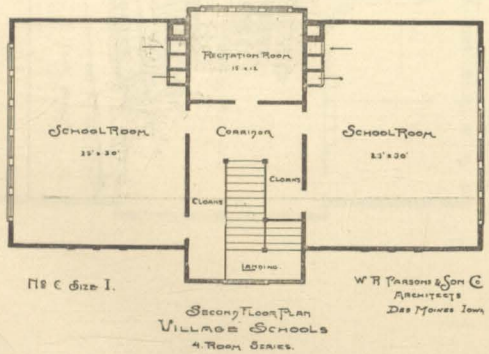
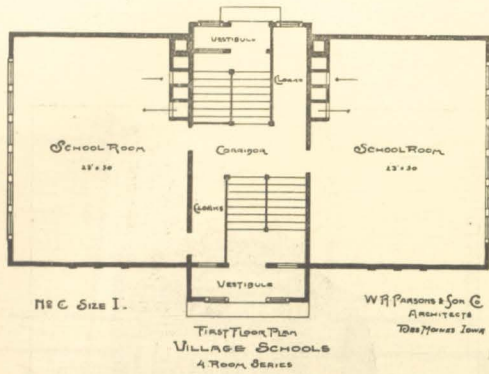


Hartley, O'Brien County, cost in brick, \$22,000.





Village School, cost in brick, \$5,500.



Powhatan County, Rural School, cost in frame, \$590.00.

CHAPTER VII.

STATE CERTIFICATES AND DIPLOMAS.

BOARD OF EDUCATIONAL EXAMINERS.
STATE CERTIFICATES.
SPECIAL STATE CERTIFICATES.
STATE DIPLOMAS.
PRIMARY CERTIFICATES.

senior year of their course a year of pedagogical study consisting of history of education, science of education, and school supervision, will be admitted to the examination on satisfactory proofs covering thirty-six weeks of successful experience.

2. To be assured that the candidate is successful in instruction and government, the board reserves the right to investigate farther, until all doubt is removed. It is necessary that the applicant be a resident or teacher in Iowa, at the time of registration, and part of the work certified to must have been done in Iowa.

II. Plan of the examination.

1. *Preliminary.*—The application blank properly filled out, the fee of \$3, and the credentials mentioned in I and II, must all be filed with the president of the board thirty days before the dates of the examination to receive consideration at that meeting, and approved by the board, before the written examination is given.

2. *Didactics.*—School management, elementary psychology, and methods of instruction constitute the examination in this subject. The topics and questions selected will be such as to permit a well informed teacher to complete the same in one and one-half hours.

3. *U. S. History and English.*—An essay prepared in one and one-half hours on some topic in United States history, which must be written without delay, and not copied, will constitute the examination in United States history, orthography, penmanship, and use of English language, if the other papers written do not discredit the English.

4. Grouping of subjects with options commonly provided:

	Questions asked.	To be answered.
a. Group 1. First paper.		
English grammar.	5	4
Reading.	4	3
Geography.	4	3
b. Group 2. Second paper.		
Civil government of U. S.	4	3
Civil government of Iowa.	4	3
School law.	3	2
Economics.	3	2
c. Group 3. Third paper.		
Arithmetic.	5	4
Algebra.	5	4
Bookkeeping.	3	2
d. Group 4. Fourth paper.		
Physiology.	5	4
Botany.	4	3
Physics.	4	3

Sketching and illustrating the answers in group four will constitute the examination in drawing.

STATE CERTIFICATES AND DIPLOMAS.

1900-1901.

BOARD OF EDUCATIONAL EXAMINERS.

- RICHARD C. BARRETT, ex officio, president.....Des Moines
- GEORGE E. MACLEAN, ex-officio.....Iowa City
- HOMER H. SEERLEY, ex-officio.....Cedar Falls
- HAMLIN H. FREER*,.....Mount Vernon
- MARY ALICE BRADRICK†.....Chariton

STATE CERTIFICATES.

1. Documentory evidence.

1. Each candidate must file the following credentials as the official proofs of being qualified to hold a state certificate:

a. Official letters ADDRESSED TO THE BOARD by one or more county or city superintendents, or other professional educators, certifying to the success of the applicant in government and instruction. The work thus commended must have been done under the person's supervision who certifies to its excellence, even if he is not now in office.

b. Statements from the school boards for whom the candidate has taught, certifying to teaching covering at least three years, of thirty-six weeks each, in which good and successful service was rendered. Credentials should be original, explicit in character, of recent date, and addressed "to the state board of educational examiners."

c. Candidates who are graduates of good schools, whose courses of study are approved by the board, and who have pursued a two years' course in didactic subjects, consisting of school management, elementary psychology, principles of education, and methods of instruction, will be admitted to the examination on making proofs of two years of thirty-six weeks each of successful experience. When, in addition to the above didactic course, such candidates have also had a year of special training in a well organized training school, one year of thirty-six weeks of successful experience, satisfactorily proved, will admit to the examination. Candidates who are graduates of higher institutions of learning, whose courses of study are approved by the board, and who have pursued during the junior or

*Term expires 1902.
†Term expires 1905.

III. Schedule of time granted.

FIRST DAY.

- A. M., 8 to 9:30, Essay on U. S. History.
9:30 to 12, Group 1.
P. M., 1:30 to 3, Didactics.
3 to 5, Group 2.

SECOND DAY.

- A. M., 8 to 12, Group 3.
P. M., 1:30 to 4:30, Group 4.

IV. Renewal of state certificates.

1. *Proofs required.*—a. The candidate must file letters from superintendents or other prominent educators that certify to the present success in instruction and in government, and to the fact that his present physical condition and mental and moral character are still such as to justify the board in granting him this renewal.

b. He must also show, by official letters from school boards for whom he has worked, the fact of his being successful as an instructor, and as a disciplinarian, under the expiring certificate.

2. *Examination required.*—Unless otherwise decided, the candidate must appear at the time assigned and take such examination as the board may think necessary, but, where personal knowledge or acquaintance of the board with the applicant may permit, and where the first examination was good, an original essay on an educational topic, assigned by the board, may be substituted for personal presence at the examination. This paper must be in the handwriting of the applicant, and must show professional study and investigation.

V. General suggestions to all candidates.

1. An examination for state certificate must be had before there can be an application for a state diploma. A teacher must do work under the supervision of this board, before an application for a diploma can be considered.

2. Applicants will bear in mind that the possession of a state certificate, a primary or special teacher's certificate, or a state diploma, will not in any sense lessen their duty to comply with all the rules and requirements of the county superintendent of the county in which they are teaching.

3. Candidates are advised to arrive the day before at the place of examination, as no allowance can be made for delayed trains or for poor physical and mental condition, caused by illness or loss of sleep.

4. The examination at the times announced, will be restricted to the published program given in this circular.

5. All necessary paper, pens and pencils will be furnished each candidate at the time of the examination.

6. Lists of old questions are not sent out to applicants, as such questions are no guide to the next examination.

7. The law governing this board can be found in sections 2628-2634 of the code, and amendments enacted by the Twenty-seventh and Twenty-eighth General Assemblies.

SPECIAL STATE CERTIFICATES.

The law authorizing the Iowa state board of educational examiners to grant special certificates was enacted in 1900, and is as follows:

"Sec. 2. It may also issue a special certificate to any teacher of music, drawing, penmanship or other special branches, or to any primary teacher, of sufficient experience, who shall pass such examination as the board may require in the branches and methods pertaining thereto, for which the certificate is sought. Such certificates shall be designated by the name of the branch, and shall not be valid for any other department or branch. The board shall keep a complete register of all persons to whom certificates or diplomas are issued."

The special state certificate is intended for teachers of special branches, as a recognition of professional skill and successful experience in teaching a particular subject.

While the candidate must possess complete and technical knowledge of the special branch for the teaching of which a certificate is desired, some general education and culture will be required, as a certificate cannot be granted on account of proficiency in one subject only.

The holder of a special certificate will be authorized to teach the branch specified, in any public school in the state for a period of five years. The fee, as fixed by law, is \$3, one-half of which is returned in case of failure. Certificates will be issued to the same person in more than one branch, but the fee of \$3 must be paid for each, as no special certificate will authorize the holder to teach more than one subject.

In addition to music, drawing and penmanship, special certificates will be granted in English (involving English grammar, composition, rhetoric, and literature), Latin, German, mathematics (involving arithmetic, algebra, geometry, trigonometry), and individual sciences.

1. *Documentary examination.*—The following testimonials and credentials are required as evidence of success as a teacher of a particular subject, and of good moral character as a person:

1. Official statements from school boards, certifying to the service of the applicant as a teacher of the subject in which certificate is asked, for a period of three years, of thirty-six weeks each, two of which years must have been under one school board.

2. Candidates who are graduates of good secondary or normal schools, and graduates of higher institutions of learning, may have such reduction in time of successful experience required as the board of examiners may decide after consideration of each individual case. It is to be understood, however, in all cases of reduction of time, that candidates have pursued scholastic and pedagogical courses, approved by the board.

3. Professional statements from city or county superintendents or village principals, under whose supervision the applicant has worked, certifying to the particular and professional success of the applicant as a teacher of the specified branch.

II. *Scholastic examination.*—To insure that the applicant has sufficient scholarship to be granted a special teacher's certificate, the following things are required:

1. Such an examination in the branches, orthography, reading, writing, arithmetic, geography, grammar, history of U. S., and physiology and hygiene, as in each individual case may be necessary to insure good scholarship in the applicant. In cases where the applicant is the holder of an excellent county certificate, in force, in regard to these branches, this scholastic examination may not be necessary.

2. The examination in grammar and composition will be determined by a thesis of at least one thousand words, subject to be selected by the board, in harmony with the kind of certificate sought by the applicant.

III. *Professional examination.*—Syllabi will be prepared in music, drawing, and penmanship, and these can be had on application. It does not seem necessary to give a syllabi, outlining points to be emphasized in other subjects, but on each subject a rigid examination will be required, both upon knowledge of the branch itself and upon the methods of teaching it.

In science, laboratory work will be required, and candidates for special science certificates will be examined at such places as the board of examiners may direct.

IV. *Plan of examination.*—As preliminary, the application blank properly filled out, the fee of \$3, and the credentials mentioned in I and II, must all be filed with the president of the board before May 1st, and November 1st, of each year to receive consideration at the semi-annual meeting of the board in order to be admitted to the written examination.

NOTE: All correspondence for special certificates should be addressed to the president of the board.

STATE DIPLOMAS.

1. *General requirements.*

1. In every case the applicant must have held a state certificate, and have taught under the supervision of this board at least three years before applying for the state diploma, a life certificate.

2. Every candidate will be required to file the following credentials:

a. Documentary evidence from standard reputable educational institutions, certifying to the special scholarship and training of the applicant.

b. Documentary evidence showing the standing and ability of the applicant as an educator. This evidence should cover recent work.

c. He should also refer to at least three persons of good scholarship and professional success, who are engaged in educational work, and who can vouch for his success and character.

d. Credentials should be original, of recent date, of specific character, and addressed "to the state board of educational examiners."

II. *Specific requirements.*

1. In his registration blank, the candidate must certify that he has taught or studied all the branches that are required by law for the state diploma.

2. He must give, in detail, the places where he has done educational work, and must produce evidence that he has taught at least eight years, three of which having been in Iowa within recent years.

3. He must be a resident of Iowa at the time of his application.

4. He must file, in his own handwriting, an original thesis of from 3,000 to 4,000 words on a professional subject, assigned by the board. In every case this thesis must be fully outlined, and be accompanied by a bibliography of the subject considered.

5. The thesis will be marked by such persons as the board may designate on the following points:

- a. Correct use of the English language.
- b. Choice and arrangement of subject matter.
- c. Thought and expression.
- d. Originality and research.
- e. General appearance of the manuscript.

III. *Educational requirements.*

In accordance with the statute, candidates for state diplomas are required to be examined in orthography, reading, writing, arithmetic, geography, English grammar, bookkeeping, physiology, history of the United States, algebra, botany, natural philosophy, drawing, civil government, constitution and laws of the state, diadactics, geometry, trigonometry, chemistry, zoology, geology, astronomy, political economy, rhetoric, English literature, general history, and such other studies as the board may require. Those who hold a state certificate will be excused from examination on all branches in above enumeration preceding geometry, as those are required for a state certificate. Under the law the board is responsible for examining all candidates in all subjects required by statute, but in order to be fair and reasonable, some of these examinations may be oral and individual, and some may be written and general.

NOTE: It is important for all applicants for state diplomas to remember that great value will be attached to the use of the English language in all the papers filed as part of the scholastic examination.

PRIMARY TEACHER'S CERTIFICATE.

THE PRIMARY TEACHER'S CERTIFICATE is intended for primary teachers as a recognition of professional skill and successful experience. The holder of such a certificate will be authorized to teach in first, second, and third grades in any public school in the state for a period of five years. The fee, as fixed by law, is \$3, one-half of which is returned in case of failure.

I. *DOCUMENTARY EXAMINATION.* The following testimonials and credentials are required as evidence of success in primary teaching and of good character as a person:

1. Official statements addressed to the Board of Examiners from the present school board and from other boards certifying

to the service of the applicant as teacher in first, second, or third grade work for a period of three years of thirty-six weeks each, two of which years must have been under one school board.

2. Professional statements from county superintendent, city superintendent or village principal under whose supervision the applicant has worked, certifying to the particular and professional success of the applicant as a teacher of first, second, and third grade work.

3. Candidates who are graduates of good schools, whose courses of study are approved by the board, and who have pursued a two years' course in didactic subjects, consisting of school management, elementary psychology, principles of education, and primary methods of instruction, will be admitted to the examination on making proofs of two years of thirty-six weeks each of successful experience in primary teaching. When, in addition to the above didactic course, such candidates have also had a year of special training in a well organized primary training school, one year of thirty-six weeks of successful experience in primary school work, satisfactorily proved, will admit to the examination. Candidates who are graduates of higher institutions of learning, whose courses of study are approved by the board, and who have pursued during the junior or senior year of their course a year of pedagogical study consisting of history of education, science of education, and primary methods, will be admitted to the examination on satisfactory proofs covering thirty-six weeks of successful experience as primary teachers.

II. SCHOLASTIC EXAMINATION. To insure that the applicant has sufficient scholarship to be granted a primary teacher's certificate, the following things are required:

1. Such an examination in the branches, orthography, reading, writing, arithmetic, geography, grammar, history of the United States, and physiology and hygiene, as in each individual case may be necessary to insure good scholarship in the applicant. In cases where the applicant is the holder of an excellent county certificate in force in regard to these branches, this scholastic examination may not be necessary. By sending to the president of the board the certificate and any other documentary evidence that may assist in making the necessary proofs, this part of the examination can be determined before the date of appearance before the board.

2. The examination in English will be determined by a thesis of at least one thousand words.

III. PROFESSIONAL EXAMINATION. The following subjects constitute the professional examination: Psychology of the child, school management, history of education, school laws of Iowa, primary methods, vocal music, physical culture, drawing, and plant study.

IV. PLAN OF EXAMINATION. As preliminary, the application blank properly filled out, the fee of \$3, and the credentials mentioned in I and II, must all be filed with the president of the board *thirty* days before the dates of the examination, to receive consideration at that meeting, and be approved by the board before the written examination is given.

V. SCHEDULE OF TIME GRANTED.

First Day.

A. M.—8:00 to 9:30—Psychology of the child. School management.

9:30 to 12:00—History of education. School Laws of Iowa.

P. M.—1:30 to 4:00—Primary methods. Drawing. Plant Study.
4:00 to 5:00—Vocal Music. Physical Culture.

Second Day.

A. M.—8:00 to 12:00.—P. M.—1:30 to 5:00—Scholastic examination in case board requires same. See section II, note 1, in this circular.

VI. GENERAL SUGGESTIONS TO CANDIDATES.

1. Candidates are advised to arrive the day before at the place of examination, as no allowance can be made for delayed trains or for poor physical and mental condition caused by illness or loss of sleep.

2. The examination at the time announced will be restricted to the published program given in this circular.

3. All necessary paper, pens and pencils will be furnished each candidate at the time of the examination.

4. Lists of old questions are not sent to applicants, as they are no guide for the next examination.

5. The law governing this board can be found in sections 2628 to 2634, code 1897, and pages 7 and 8, school laws 1897.

Note as to correspondence—In order to facilitate office work, graduates of the state normal school, and the state university, conduct their business correspondence regarding diplomas, and

state certificates, with the presidents of their respective institutions.

All other official correspondence for the board must be with the president.

RICHARD C. BARRETT,
President Board of Educational Examiners.

STATEMENT.

Showing Record of Examinations Held by the State Board of Examiners Together with Fees Received.

STATE CERTIFICATES.

DATE OF CERTIFICATE.	NO. OF APPLICANTS.		NO. OF CERTIFICATES GRANTED.		No. failed.	Fees received.
	Males.	Females.	Males.	Females.		
September 1, 1899.....	1		1			\$ 3.00
October 1, 1899.....	1		1			3.00
December 1, 1899.....	1	0	1	0		30.50
January 1, 1900.....	17	5	12	1	9	52.50
January 1, 1900.....	5	2	3	2		18.00
January 1, 1900.....	1		1			3.00
Renewal January 1, 1900.....	4	14	4	14		54.00
Renewal January 8, 1900.....	4	11	4	11		45.00
Renewal January 14, 1900.....	4	1	1			6.00
February 14, 1900.....	3	1	2	0		21.00
Renewal May 1, 1900.....	5	9	5	9		42.00
June 1, 1900.....	1	7	1	7		30.00
Renewal June 8, 1900.....	3	2	3	2		6.00
June 25, 1900.....	9	15	9	15		72.00
June 28, 1900.....	6	15	6	15		67.00
Renewal July 2, 1900.....	8	18	8	18		78.00
Renewal July 2, 1900.....	1	4	1	4		15.00
July 2, 1900.....	4	17	4	17		65.00
July 2, 1900.....	9	17	9	17		78.00
July 2, 1900.....	7	19	7	19		78.00
July 2, 1900.....	7	19	7	19		78.00
July 2, 1900.....	5	21	5	21		78.00
July 2, 1900.....	9	17	9	17		78.00
July 2, 1900.....	1	3	1	3		15.00
July 2, 1900.....	3	4	3	4		21.00
July 5, 1900.....	10	9	10	9		31.00
Renewal August 1, 1900.....	10	9	10	9		57.00
August 1, 1900.....	7	12	7	12		57.00
August 1, 1900.....	6	15	2	18		36.00
August 1, 1900.....	1	14	8	14		66.00
August 1, 1900.....	1	1	1			3.00
August 1, 1900.....	6	17	5	15		46.50
Renewal September 1, 1900.....	1	1	1	1		21.00
December 1, 1900.....	1	3	1	3		12.00
December 1, 1900.....	1	2	1	2		6.00
Renewal December 1, 1900.....	2	1	1			6.00
Renewal December 1, 1900.....	7	13	7	13		60.00
December 1, 1900.....	11	7	11	7		54.00
January 1, 1901.....	15	11	7	16		54.00
January 1, 1901.....	1	1	1			6.00
January 1, 1901.....	9	7	9	7		48.00
Renewal January 1, 1901.....	1	5	1	5		18.00

STATE CERTIFICATES—CONTINUED.

DATE OF CERTIFICATE.	NO. OF APPLICANTS.		NO. OF CERTIFICATES GRANTED.		No. failed.	Fees received.
	Male.	Female.	Male.	Female.		
Renewal, July 1, 1901.....	8	19	8	19		\$ 81.00
July 1, 1901.....	14	4	14	4		60.00
July 1, 1901.....	3	4	3	4		18.00
July 1, 1901.....	7	5	7	5	3	45.00
Renewal, July 1, 1901.....	4	12	4	12	11	45.00
July 1, 1901.....	3	3	3	3	23	78.00
Renewal, July 1, 1901.....	2	2	2	2	1	78.00
July 1, 1901.....	3	21	3	21	9	78.50
July 1, 1901.....	6	6	6	6	4	87.00
July 1, 1901.....	7	10	7	10	10	78.00
August 1, 1901.....	7	10	7	10	4	87.00
Renewal, August 1, 1901.....	4	28	4	28	10	78.50
August 1, 1901.....	18	11	18	11	86	66.00
August 1, 1901.....	11	15	11	15	12	73.50
August 1, 1901.....	10	12	9	9	4	90.00
August 1, 1901.....	10	12	9	9	4	90.00
Total.....	202	574	261	513	92	\$ 2,460.00

PRIMARY CERTIFICATES.

DATE OF CERTIFICATE.	NO. OF APPLICANTS.		NO. OF CERTIFICATES GRANTED.		No. failed.	Fees received.
	Males.	Females.	Males.	Females.		
July 23, 1899.....	1		1			\$ 3.00
December 1, 1899.....	10		10		1	3.00
January 1, 1900.....	1		1		1	28.50
June 1, 1900.....	68		68		1	30.00
July 2, 1900.....	15		15		2	42.00
July 5, 1900.....	15		15		13	39.00
August 1, 1900.....	15		15		4	12.00
August 1, 1900.....	13		13		4	39.00
August 1, 1900.....	3		3		3	13.50
August 1, 1900.....	6		6		4	15.00
September 1, 1900.....	7		7		1	15.00
September 1, 1900.....	7		7		1	15.00
December 1, 1900.....	5		5		1	23.50
December 1, 1900.....	5		5		8	15.00
January 1, 1901.....	9		9		1	13.00
July 1, 1901.....	11		11		1	3.00
July 1, 1901.....	10		10		6	24.00
August 1, 1901.....	10		10		2	42.00
August 1, 1901.....	15		15		13	42.00
August 1, 1901.....	19		19		18	\$ 546.00
Total.....	191		173		18	

STATE DIPLOMAS.

DATE OF DIPLOMA.	NUMBER OF APPLICANTS.		DIPLOMAS GRANTED.		Failed.	Fees received.
	Males.	Females.	Males.	Females.		
September 1, 1899.....	1		1			\$ 5.00
December 1, 1899.....	4		4			20.00
January 1, 1900.....	2		2			5.00
August 1, 1900.....	2		2		4	37.50
December 1, 1900.....	4		4		1	15.00
January 1, 1901.....	1		1		4	5.00
July 1, 1901.....	15		15		7	116.20
July 1, 1901.....	1		1			5.00
Total.....	20	11	28	11	1	\$ 197.50

SPECIAL CERTIFICATES.

DATE OF CERTIFICATE.	NUMBER OF APPLICANTS.		CERTIFICATES GRANTED.			Fees received.	Kind.
	Males.	Females.	Males.	Females.	Failed.		
January 1, 1901.....	...	2	...	2	...	\$6.00	German. Vocal.
September 2, 1901.....	...	1	...	1	...	3.00	
Total.....	...	3	...	3	...	\$9.00	

SUMMARY.

KIND OF TESTIMONIAL.	NUMBER OF APPLICANTS.			CERTIFICATES AND DIPLOMAS ISSUED.			No. failed.	Fees received.
	Males.	Females.	Total.	Males.	Females.	Total.		
State certificates.....	292	574	866	261	513	774	92	\$2,460.00
Primary certificates.....	...	191	191	...	173	173	18	546.00
State diplomas.....	29	11	40	28	11	39	1	197.50
Special certificates.....	...	3	3	...	3	3	...	9.00
Total.....	321	779	1,100	289	700	989	111	\$3,212.50

CERTIFICATES AND DIPLOMAS ISSUED UNDER THE PRESENT LAW BY BIENNIAL PERIODS.

	1882-83.	1884-85.	1886-87.	1888-89.	1890-91.	1892-93.	1894-95.	1896-97.	1898-99.	1900-01.	Total.
State certificates.....	7	9	53	141	238	252	440	509	680	774	3,103
State diplomas.....	...	...	38	44	52	38	54	41	42	39	348
Primary certificates.....	...	...	...	...	...	...	...	...	114	173	287
Special certificates.....	...	...	...	...	...	...	...	...	...	3	3
Total.....	7	9	91	185	290	290	494	550	836	989	3,741

RECEIVED IN EXAMINATION FEES.

1884-85.....	\$ 42.00
1886-87.....	33.00
1888-89.....	766.00
1890-91.....	856.50
1892-93.....	1,140.00
1894-95.....	1,282.00
1896-97.....	1,800.50
1898-99.....	2,456.50
1900-01.....	3,268.00
1901*.....	834.50
Total.....	\$12,479.00

*From July 1st to September 30th.

PAID FOR EXPENSES.

1882-83.....	\$ 237.05
1884-85.....	72.55
1886-87.....	318.12
1888-89.....	539.50
1890-91.....	786.92
1892-93.....	549.81
1894-95.....	964.95
1896-97.....	1,052.28
1898-99.....	1,660.57
1900-01†.....	2,377.60
1901*.....	369.08
Total.....	\$ 8,928.43

SUMMARY.

Number of certificates issued to September 30, 1899.....	2,329
Number of certificates issued during period ending September 30, 1901.....	774
Total number issued.....	3,103
Expired by limitation.....	1,373
Number in force September 30, 1901.....	1,730
Number of primary certificates in force September 30, 1899.....	114
Number of primary certificates issued during period ending September 30, 1901.....	173
Number primary certificates in force September 30, 1901....	287
Number special certificates in force September 30, 1899, none.	
Number special certificates issued during period ending September 30, 1901.....	3
Number of diplomas in force September 30, 1899.....	309
Number diplomas issued during period ending September 30, 1901.....	39
Number in force September 30, 1901.....	348

STATEMENT

Of the expenses of the state board of examiners from October 1, 1899, to October 1, 1901.

WARRANTS ISSUED—TO WHOM.

From October 1 to December 31, 1899.

1899.		
October	9. Amos N. Currier.....	\$.35
October	25. Richard C. Barrett.....	32.82

*From July 1st to September 30, 1901.

†From July 1, 1899, to June 30, 1901.

October	25.	Clara M. Travis.....	6.00
November	6.	O. E. Klingoman.....	4.50
November	27.	Helen Elliott.....	3.00
November	29.	H. H. Freer.....	12.00
November	29.	H. H. Seerley.....	11.70
December	15.	Ole O. Roe.....	9.00
December	30.	Lucy Curtis.....	46.00
Total.....			\$ 125.37

From January 1 to December 31, 1900.

1900.			
January	4.	W. F. Giesseman.....	4.30
January	5.	Elizabeth Hughes.....	31.42
January	31.	Lucy Curtis.....	70.00
February	15.	H. H. Seerley.....	9.50
February	15.	H. H. Freer.....	11.10
February	15.	Elizabeth Hughes.....	11.40
February	20.	Richard C. Barrett.....	10.58
February	28.	Lucy Curtis.....	83.30
March	31.	Lucy Curtis.....	65.00
April	20.	W. F. Giesseman.....	8.90
April	30.	Lucy Curtis.....	75.00
May	22.	H. H. Seerley.....	22.90
May	29.	Elizabeth Hughes.....	14.00
May	31.	Lucy Curtis.....	75.00
June	16.	Nellie McAlvin.....	6.00
June	30.	George E. Mac Lean.....	7.50
June	30.	H. H. Freer.....	46.35
June	30.	Lucy Curtis.....	75.00
July	2.	F. M. Allen.....	3.00
July	3.	Richard C. Barrett.....	11.08
July	7.	W. F. Giesseman.....	4.50
July	26.	Helen Elliott.....	90.16
July	30.	H. C. Dorcas.....	6.00
July	31.	Lucy Curtis.....	75.00
August	14.	Helen Elliott.....	12.00
August	14.	H. H. Seerley.....	3.50
August	14.	G. W. Walters.....	3.00
August	14.	R. M. Arey.....	7.50
August	14.	John J. Lambert.....	6.00
August	14.	Nellie McAlvin.....	6.00
August	14.	Maude Humphrey.....	6.00
August	14.	S. F. Hersey.....	4.50
August	21.	C. L. Dahlberg.....	7.84
August	27.	H. H. Freer.....	6.30
August	27.	George H. Betts.....	27.00
August	31.	Lucy Curtis.....	75.00
September	15.	W. F. Giesseman.....	24.10
September	29.	Lucy Curtis.....	75.00
October	18.	Lucy Curtis.....	31.92

October	27.	W. F. Giesseman.....	25.20
October	31.	Lucy Curtis.....	75.00
November	30.	Elizabeth Hughes.....	10.30
November	30.	H. H. Freer.....	26.70
November	30.	H. H. Seerley.....	9.10
November	30.	Nellie McAlvin.....	6.00
November	30.	A. W. Rich.....	3.00
November	30.	Ira S. Condit.....	3.00
November	30.	Lucy Curtis.....	75.00
December	12.	W. F. Giesseman.....	3.20
December	31.	Elizabeth Hughes.....	19.00
December	31.	Lucy Curtis.....	75.00
December	31.	Geo. E. MacLean.....	3.50
Total.....			\$ 1,446.65

From January 1 to September 30, 1901.

1901.			
January	23.	A. W. Rich.....	\$ 3.00
January	23.	Eva L. Gregg.....	3.00
January	23.	Harry C. Cummins.....	1.50
January	23.	Jeanette Carpenter.....	1.50
January	31.	Lucy Curtis.....	75.00
February	1.	H. H. Seerley.....	9.35
February	1.	H. H. Freer.....	16.90
February	28.	Lucy Curtis.....	75.00
February	28.	W. F. Giesseman.....	6.30
June	5.	H. H. Seerley.....	9.40
June	5.	Louis Begeman.....	3.00
June	5.	Ira S. Condit.....	3.00
June	5.	L. W. Parish.....	6.00
June	5.	A. W. Rich.....	3.00
June	21.	W. F. Giesseman.....	7.60
June	21.	H. H. Freer.....	19.12
June	21.	A. W. Rich.....	9.00
June	21.	L. W. Parish.....	7.50
June	21.	Ira S. Condit.....	7.50
June	21.	G. W. Samson.....	6.00
June	21.	M. F. Arey.....	4.50
June	21.	Louis Begeman.....	3.00
June	21.	Mamie F. Hearst.....	3.00
June	21.	Maude Humphrey.....	3.00
June	21.	Stella Satterthwaite.....	3.00
June	21.	Harry C. Cummins.....	3.00
June	21.	H. H. Seerley.....	1.70
June	29.	Alice Bradrick.....	54.30
July	10.	A. C. Dean.....	3.50
July	10.	Geo. E. MacLean.....	2.35
July	15.	A. C. Dean.....	5.00
July	25.	A. C. Dean.....	5.00
July	31.	Alice Bradrick.....	112.62

August	1.	A. C. Dean	5.00
August	3.	W. F. Giesseman	10.50
August	5.	H. H. Seerley	2.00
August	5.	H. C. Dorcas	6.00
August	5.	Paul F. Voelker	6.00
August	5.	John McCulloch	7.50
August	5.	Ira S. Condit	3.00
August	5.	Harry C. Cummins	3.00
August	5.	Stella Satterthwaite	3.00
August	5.	A. W. Rich	3.00
August	5.	Bertha L. Patt	3.00
August	5.	L. W. Parrish	6.00
August	5.	Mamie F. Hearst	3.00
August	5.	R. M. Arey	18.00
August	5.	Louis Begeman	3.00
August	9.	A. C. Dean	5.00
August	17.	A. C. Dean	5.00
August	22.	George H. Betts	10.50
August	31.	Alice Bradrick	120.46
September	4.	A. C. Dean	3.00
September	4.	Alice Bradrick	14.65
Total			\$ 717.25

CERTIFICATES AND DIPLOMAS.

STATE CERTIFICATES.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
1899.			
Aug. 1	Frances L. Rogers	Jan. 1	J. M. Sylvester
Sept. 1	H. O. Bateman	Jan. 1	G. M. Triplett
Oct. 1	Emma C. Moulton	Jan. 1	L. H. Maus
Dec. 1	May Williams	Jan. 1	F. A. Welch
Dec. 1	Catherine Schmidt	Jan. 1	R. T. Scott
Dec. 1	Mame R. Prosser	Jan. 1	H. A. Dwelle
Dec. 1	Bertha Blum	Jan. 1	Minnie A. Carothers
Dec. 1	Mamie Burgess	Jan. 1	Mrs. J. L. Buechele
Dec. 1	Emilie Seltzer	Jan. 1	S. A. Darland
Dec. 1	Margaret B. Thomas	Jan. 1	Life Harrison
Dec. 1	Laura B. Swan	Jan. 1	Lizzie A. Rhodes
Dec. 1	Thersa Horswell	Jan. 1	H. H. Davidson
1900.		Jan. 1	Wm. E. Kline
Jan. 1	C. J. Boyington	Jan. 1	Myra B. Dungan
Jan. 1	E. C. Lynn	Jan. 1	Agnes E. Otto
Jan. 1	J. W. Elwood	Jan. 1	Katharine Paine
Jan. 1	C. W. Thompson	Jan. 8	Jessie L. Bradshaw
Jan. 1	M. P. Weston	Jan. 8	Mary Brannan
Jan. 1	Clarence Durn	Jan. 8	John E. Cameron
Jan. 1	F. O. Smith	Jan. 8	Celia Duff
Jan. 1	Emma A. Dilley	Jan. 8	John H. Ellison
Jan. 1	C. F. Goltry	Jan. 8	Kittie M. Howard
Jan. 1	J. L. Gillies	Jan. 8	Manning Jaynes
		Jan. 8	Olive Orr

STATE CERTIFICATES—CONTINUED.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
Jan. 8	Esie A. Orcutt	June 28	Margaret Van Metre
Jan. 8	Nellie M. Starks.	June 28	Winston C. Osborn
Jan. 8	Mary S. Arnold	June 28	John F. Ogden
Jan. 8	Mary E. Davis	June 28	Grace Whitacre
Jan. 8	Ada Eighmy	June 28	Lillian E. Waite
Jan. 8	Gertrude Jakelin	June 28	Charles A. Webber
Jan. 8	Anna R. Kuebler	June 28	Abbie M. Safford
Jan. 8	Manton J. Lamb	June 28	Libbie Seymour
Jan. 8	Lucy J. Mowrer	June 28	Edith M. Seymour
Jan. 8	E. D. Sylvester	June 28	Tillman Smith
Jan. 8	Elsie M. Steinman	June 28	Lillian Jones
Jan. 8	Nellie L. Smith	June 28	Helen M. Eddy
Jan. 8	Josephine Smith	June 28	Clara L. Groendyke
Jan. 8	Mary L. Townsend	June 28	Lucy Cavenaugh
Jan. 8	Ella M. Thompson	June 28	Selma Daum
Jan. 8	Alice E. Taylor	June 28	Herbert C. Dorcas
Jan. 8	Lydia Tostlebe	June 28	Alica R. Brockway
Jan. 8	Mary E. Waller	June 28	Ruby Baughman
Jan. 8	F. A. Wentland	June 28	John J. Louis
Jan. 8	Geo. H. Ballard	June 28	Edmund J. Louis
Feb. 14	M. E. Lumbar	June 28	Mary McGuire
Feb. 14	Etta Mendenhall	June 30	W. W. Cook
Feb. 14	Anna Bell Foss	July 2	Charles E. Buckley
Feb. 14	Lois Miller	July 2	May A. Brown
Feb. 14	Wm. C. Moyer	July 2	Vlasta S. Brehl
Feb. 14	Florence Ockerson	July 2	Geo. N. Briggs
Feb. 14	Alf. O. Bakken	July 2	Edith H. Curtis
Feb. 14	Joseph E. Allen	July 2	Ella M. Clark
Feb. 14	Delia R. Reilley	July 2	Wm. T. Davidson
Feb. 14	Mary T. Schoener	July 2	Lillian Dale
Feb. 14	Celesta F. Schoener	July 2	Emma C. DeGroff
Feb. 14	Willa Scott	July 2	Cora L. Ebersole
Feb. 14	Fannie R. Wilson	July 2	Clarissa A. Ensign
Feb. 14	Emma M. Wright	July 2	James E. Fitzgerald
Feb. 14	Nellie E. Young	July 2	Adella J. Gibson
Feb. 14	Gertrude E. Preston	July 2	Arthur M. Gray
May 1	Julia Gordon	July 2	Esma Galt
June 1	Ellen J. Wing	July 2	Mina Hughes
June 1	Crystal Stair	July 2	Hettie W. Hibben
June 1	Ida M. Huffaker	July 2	Emma Mantz
June 1	Jennie A. Stiles	July 2	Libbie E. Hieber
June 1	Nellie Maynard	July 2	Orrin E. Hibbs
June 1	John W. Marker	July 2	Bessie Hall
June 1	Lucie E. Lukens	July 2	Carrie B. Hickman
June 1	Emma C. Larkin	July 2	J. Herbert Kelley
June 1	Zulema Kostomlatsky	July 2	Mollie Kelly
June 1	William C. Hicks	July 2	Edw. J. Leonard
June 1	Lawrence C. Focht	July 2	Margaret R. Muhs
June 1	Ethel M. Estabrook	July 2	N. Lavina Mowry
June 1	H. T. Curtis	July 2	Cora E. Munro
June 1	Anna Cunningham	July 2	Geo. McCammond
June 1	Laura R. Graham	July 2	Alice J. Mason
June 1	P. L. Larson	July 2	Blanche F. McGrath
June 1	Charles W. Lyon	July 2	Cora Dell Patterson
June 26	Lucy J. Feitz	July 2	Roxy M. Peterson
June 26	Ethel F. Carpenter	July 2	Mary B. Richardson
June 28	Katherine Mauthe	July 2	Mary A. Roberts
June 28	George Howard Fletcher	July 2	Ida M. Robison

STATE CERTIFICATES—CONTINUED.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
July 2	Mary Rourke	July 2	Geo. A. Gletty
July 2	Erdena Rose	July 2	Vinnie Garrett
July 2	Guy H. Scobey	July 2	Theo. A. Gerard
July 2	Alice L. St. John	July 2	Florence E. Graham
July 2	Wm. R. Sandy	July 2	Ralph C. Hardie
July 2	Lucy J. Sweetzer	July 2	Albert L. Halstead
July 2	Alois L. Steidl	July 2	Martha Hutchinson
July 2	Steven S. Stockwell	July 2	Daisy Howe
July 2	Cassius E. Tool	July 2	Eva C. Hubbard
July 2	M. Adelaide Twinn	July 2	Mattie Hageman
July 2	Myrtle B. Tool	July 2	Lettie D. Horner
July 2	J. E. Vance	July 2	Johanna Hansen
July 2	Janet Wilson	July 2	Lucy E. Hobbs
July 2	Alice E. Wright	July 2	Jennie A. Hie
July 2	Bertha V. Wyant	July 2	Anna Johnson
July 2	Carl C. Magee	July 2	T. Arthur Johnston
July 2	Margaret C. Gilchrist	July 2	Emma A. Jackson
July 2	Myrtle E. Anders	July 2	Hallie Jennings
July 2	Rodney M. Arey	July 2	Florence E. Kimball
July 2	Naomi Achenbach	July 2	C. H. Kamphoefner
July 2	Amy Arey	July 2	James Kendrick
July 2	Bessie Buchanan	July 2	Jennie M. Lindsey
July 2	Eva M. Baker	July 2	Lucy G. Lewis
July 2	Ellen S. Brummond	July 2	Chalmer Le Roy Love
July 2	Luralie Bidlack	July 2	Lillian E. Long
July 2	Willis J. Bell	July 2	Laura E. Martin
July 2	Grace E. Brainard	July 2	Alice Q. Mallory
July 2	Wm. B. Bell	July 2	E. W. B. Mark
July 2	Laura Bowman	July 2	Wm. G. Magee
July 2	Bessie C. Bardsley	July 2	Philomena M. Meyer
July 2	Margaret J. Craven	July 2	Neil I. Minor
July 2	Nellie Canfield	July 2	John McPherson
July 2	Agnes J. Carrey	July 2	Mary L. McClung
July 2	Corinne Cochran	July 2	Ida I. Morris
July 2	Mary G. Canfield	July 2	Julia F. Miller
July 2	Mrs. C. S. Cory	July 2	Mae B. Mercer
July 2	Charles S. Cory	July 2	Harriet A. Mallon
July 2	Frie Dell Collins	July 2	Ella E. Moore
July 2	L. Mabel Dimmitt	July 2	Mina B. Ogden
July 2	Clara M. Daley	July 2	Kate Jane Putnam
July 2	Linnie A. Downs	July 2	Alda L. Potter
July 2	Lesta David	July 2	Olive Pond
July 2	Mary B. Donnan	July 2	Jas. M. Pierce
July 2	Harry W. Dana	July 2	Mary E. Patterson
July 2	Geo. D. Eaton	July 2	Benj. Quigley
July 2	Lena H. Englehart	July 2	Wm. H. Ray
July 2	Thos. L. Eland	July 2	Eliz Ritzgers
July 2	Alice J. Edgerly	July 2	Maude B. Ransom
July 2	Irene V. Epley	July 2	Cora A. Reed
July 2	Sedonia L. Pesenbeck	July 2	Kmma J. Ridgley
July 2	A. C. Fuller, Jr.	July 2	Mayme Randall
July 2	Florence A. Fleming	July 2	I. Leslie Reed
July 2	Elsie Fabrick	July 2	Lou B. Rollins
July 2	Maude L. Foote	July 2	Cornelia E. Rhynsberger
July 2	De Etta A. Fisher	July 2	Bessie E. Rathbun
July 2	Edna Gamble	July 2	Mabel Shaw
July 2	Margaret A. Gorman	July 2	Belle Supplies
July 2	Ellis T. Gilbert	July 2	Alice M. Simpson

STATE CERTIFICATES—CONTINUED.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
July 2	Emma Shoudy	July 2	Ethel M. Burt
July 2	Susan E. Smith	July 2	Lulu Marsh
July 2	Casper Schenk	July 5	David Williams
July 2	Lucy E. Spicer	July 5	Lulu Washburn
July 2	Ina D. Shuttleworth	July 5	Grace I. Norton
July 2	Leonard D. Salsbury	July 5	Harriet G. Pierce
July 2	Edna Stone	July 5	Edward H. Crane
July 2	Sarah P. Sherman	July 5	Harriet M. Rankins
July 2	Paul B. Samson	July 5	John H. Rosema
July 2	Ida Nell Tupper	July 5	Paul F. Voelker
July 2	Margaret Thompson	July 24	Lenna M. Huffman
July 2	Belle Teller	Aug. 1	J. A. Eckenrod
July 2	Mary H. Thompson	Aug. 1	Nellie May Emmons
July 2	Ethel M. Van Winkle	Aug. 1	Harry Hass
July 2	Olive Whitmore	Aug. 1	Frank S. Hill
July 2	Mabel Wise	Aug. 1	Edna A. Kepler
July 2	Jennie H. Wheeler	Aug. 1	Edith L. Phillips
July 2	Myra Woodford	Aug. 1	Louise Pashby
July 2	John P. Woodruff	Aug. 1	C. W. Ramseyer
July 2	Wesley Wlier	Aug. 1	Eva M. Saucer.
July 2	Mabel Whitney	Aug. 1	Mary Stewart
July 2	Belle Woodford	Aug. 1	Nettie Marie Siders
July 2	Ida M. Wilson	Aug. 1	S. R. Pitt
July 2	Flora A. Walker	Aug. 1	Anna L. Horton
July 2	Ida May West	Aug. 1	Nellie R. Schroeter
July 2	Clara Wakefield	Aug. 1	Wilbur J. Fleming
July 2	E. J. Warren	Aug. 1	E. G. Bailey
July 2	Beatrice S. Weller	Aug. 1	Matie Alexander
July 2	Wm. Q. Yost	Aug. 1	Berton L. Bankert
July 2	Harry C. Cummings	Aug. 1	Maude Bryte
July 2	W. H. Wadleigh	Aug. 1	Haanna E. Clendenon
July 2	Lincoln Antrim	Aug. 1	Albert S. Murray
July 2	Jos. W. Eaton	Aug. 1	Irwin S. Pepper
July 2	Grace E. Kincaid	Aug. 1	Belle Newell
July 2	Bianche Hinkley	Aug. 1	Anna E. Hindman
July 2	Ruth B. Elliott	Aug. 1	Rose A. Crow
July 2	Minnie L. Wilson	Aug. 1	Grace Griffiths
July 2	Margaret A. Tobin	Aug. 1	Hilmes M. Taylor
July 2	Katherine Sheehan	Aug. 1	Bessie Burnett
July 2	Alma Marie Savage	Aug. 1	James Bever
July 2	Mary T. Sayre	Aug. 1	A. Theo. Whiting
July 2	Arthur T. S. Owen	Aug. 1	Daisy E. Wood
July 2	Leverett T. Newton	Aug. 1	Mary D. Hall
July 2	Josephine Bly	Aug. 1	David C. Neifert
July 2	Carrie L. Neidy	Aug. 1	Charles R. Lowe
July 2	Armanella Myers	Aug. 1	Nettie C. West
July 2	Jennie B. Maynard	Aug. 1	Lillian Rogers
July 2	Leila A. Mitchell	Aug. 1	Ruth Penrose
July 2	Ralph R. Lewis	Aug. 1	Frank R. Schafer
July 2	Mary E. Keel	Aug. 1	Chancellor J. Brower
July 2	Anna E. Heller	Aug. 1	Nannie D. Gillies
July 2	Benjamin G. Hess	Aug. 1	Lida Hodge
July 2	Nellie M. Hoxie	Aug. 1	J. Edward Holmes
July 2	Hanora L. Huddy	Aug. 1	Delora Sims
July 2	Robert D. Daugherty	Aug. 1	John J. Rae
July 2	Lewis D. Curtis, Jr	Aug. 1	Charles Murray
July 2	Amy Laura Clark	Aug. 1	George F. Ogden
July 2	Ada L. Blaska	Aug. 1	Guy Hughes

STATE CERTIFICATES—CONTINUED.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
Aug. 1	Katherine A. Cocke	Dec. 1	Bridget V. Walsh
Aug. 1	Clyde E. Akers	1901	
Aug. 1	Myra M. Jones	Jan. 1	Joseph R. Allen
Aug. 1	Elizabeth G. Macy	Jan. 1	Chas. E. Arnold
Aug. 1	John F. Overmeyer	Jan. 1	Chas. A. De Long
Aug. 1	Olive Taylor	Jan. 1	Benj. E. Finley
Aug. 1	Elizabeth M. Gill	Jan. 1	Phoebe Gregg
Aug. 1	William F. Persons	Jan. 1	John Hayes
Aug. 1	Herman H. Schroeder	Jan. 1	Frank M. Holmes
Aug. 1	Charles C. Gray	Jan. 1	Renwick J. Hartung
Aug. 1	Albert N. Orcutt	Jan. 1	Winifred Hunter
Aug. 1	Sarah M. Nauman	Jan. 1	James R. Howard
Aug. 1	Martha M. Moler	Jan. 1	Nellie D. Howard
Aug. 1	Luella M. Albrook	Jan. 1	Minnie Klass
Aug. 1	Joseph M. Sniffen	Jan. 1	Jessie E. Loar
Aug. 1	Emmett J. Cable	Jan. 1	Kelsey G. Lancelot
Aug. 1	Wm. H. Kent	Jan. 1	John L. Latta
Aug. 1	Carrie S. Moffitt	Jan. 1	Mary H. Lewis
Sept. 1	Orra M. Bordner	Jan. 1	Jessie E. Marker
Sept. 1	J. C. Kellow	Jan. 1	James E. Moore
Sept. 1	Isabelle Cowan	Jan. 1	Oscar W. Maxwell
Sept. 1	Lee A. Glassburn	Jan. 1	Joseph S. McCowan
Sept. 1	Nettie A. Fibbs	Jan. 1	Mary L. Phelps
Sept. 1	Florence M. Enderlee	Jan. 1	Aaron Palmer
Sept. 1	William M. Moore	Jan. 1	Effie Pugh
Sept. 1	Eula Van Vranken	Jan. 1	Margaret A. M. Rice
Sept. 1	Bessie L. George	Jan. 1	John M. Stoke
Sept. 1	Mittie M. Pile.	Jan. 1	Chas. F. Schell
Sept. 1	William Bell	Jan. 1	Garrett O. Van Meter
Sept. 1	Edward E. Blythe	Jan. 1	Edw. A. Woodrow
Dec. 1	Anna L. Ehret Sharpe	Jan. 1	Anna Chamberlin
Dec. 1	Hattie M. Clearman	Jan. 1	Fred C. Clark
Dec. 1	Belle E. Newbold	Jan. 1	Wm. L. Barrett
Dec. 1	John F. Reed	Jan. 1	Curtis P. Beale
Dec. 1	W. Lee Jordan	Jan. 1	Harlan H. Hickman
Dec. 1	Edwin Dukes	Jan. 1	Chas. E. Hanchett
Dec. 1	Mary A. Anderson	Jan. 1	Mary A. Girton
Dec. 1	Sarah A. MacDonald	Jan. 1	Wm. W. Jeffers
Dec. 1	Della F. Northy	Jan. 1	Wm. J. Jerome
Dec. 1	John W. Atchley	Jan. 1	Emelie Kreig
Dec. 1	Inez Sue Bevans	Jan. 1	Clarence Messer
Dec. 1	Geo. J. Balzer	Jan. 1	Herbert Mitchell
Dec. 1	Jessie A. Butterfield	Jan. 1	Clara Pugh
Dec. 1	Maud L. Cramer	Jan. 1	J. M. Rapp
Dec. 1	Elmer E. Franklin	Jan. 1	Luella V. Simmons
Dec. 1	Mattie A. Freeburg	Jan. 1	Anna J. Zieck
Dec. 1	E. W. Gregson	Jan. 1	Harriet P. West
Dec. 1	W. J. Hunt	Jan. 1	Anna Batman
Dec. 1	Jedie E. Jones	July 1	Walter E. Atkinson
Dec. 1	Ella Lund	July 1	Nellie Anderson
Dec. 1	Thos. L. Long	July 1	Sarah E. Bershee
Dec. 1	Maud Lane	July 1	Edith S. Bailou
Dec. 1	Lucinda Minnick	July 1	Florence M. Butler
Dec. 1	Florence E. Miller	July 1	C. Bulah Burris
Dec. 1	E. Josephine Miller	July 1	Chas. W. Cruikshank
Dec. 1	Chas. U. Moore	July 1	Wm. E. Collins
Dec. 1	Ida Peterson	July 1	Grace E. Childs
Dec. 1	Ida A. Reimer	July 1	Alice R. Donahue

STATE CERTIFICATES—CONTINUED.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
July 1	Mary A. England	July 1	G. Lester Martin
July 1	Arlene L. Fellingham	July 1	Estella D. Marshall
July 1	Harry A. Frise	July 1	Mary Patton
July 1	Cathryn R. Goble	July 1	John R. Slacks
July 1	R. A. Griffin	July 1	Chester E. Wright
July 1	Louise Gutenkunst	July 1	Callie Arnold
July 1	Marie Golden	July 1	Bertha L. Fehleisen
July 1	S. Stena Hansen	July 1	W. H. Whitford
July 1	Ida M. Hoeberg	July 1	Margaret Alston
July 1	Amy Hahn	July 1	Stella M. Speke
July 1	Esther Jacobs	July 1	Fannie Suplee
July 1	Chas. O. Jameyson	July 1	Thos. J. Fitzpatrick
July 1	Nellie G. Kaut	July 1	Mattie M. Bach
July 1	Knute N. Knudson	July 1	Annie D. Dickey
July 1	Mollie G. Leebriek	July 1	Jos. M. Holaday
July 1	Harriet Lane	July 1	Mary E. Hostetler
July 1	Chas. L. Lewis	July 1	Gertrude McClure
July 1	Laura McLane	July 1	Sara M. Nollen
July 1	Emma J. Mitchell	July 1	Frank L. Renshaw
July 1	J. I. Martin	July 1	Katherine Renshaw
July 1	Minta R. Moore	July 1	Ina B. Robinson
July 1	Evelyn Miller	July 1	Elizabeth Tweedy
July 1	Eva B. Moore	July 1	Florian Von Eschen
July 1	Lizzie R. Marshall	July 1	Harriet J. Wall
July 1	Agnes L. Nairn	July 1	Hattie L. Sawyer
July 1	A. J. Obinger	July 1	William S. Still
July 1	Caroline Otis	July 1	Minnie D. Ashbrook
July 1	Cora E. Poor	July 1	Austin A. Baker
July 1	Daniel R. Perkins	July 1	Josephine L. Bunce
July 1	Maud Pinkerton	July 1	Katherine Schwertley
July 1	Elizabeth Perkins	July 1	Samuel Quigley
July 1	Mary E. Schroeder	July 1	Eliz. A. Arnett
July 1	James C. Sanders	July 1	Bessie B. Arnold
July 1	Thomas H. Stone	July 1	Bruce Alderman
July 1	Theresa Tiedman	July 1	Edna F. Alexander
July 1	S. O. Thomas	July 1	Amelia Bauman
July 1	Melvin R. Timmerman	July 1	Jessie Blougett
July 1	Helen A. Tyler	July 1	Emma Blezek
July 1	Frances M. Wallace	July 1	Lydia J. Blanch
July 1	Lillian Winzer	July 1	Belle Burkholder
July 1	Paula B. Winzer.	July 1	Fannie Butts
July 1	Alice J. White	July 1	William J. Bartoon
July 1	Emma Youngquist	July 1	Lena M. Bedenbender
July 1	William A. Burton	July 1	Lizzie B. Beal
July 1	Frank A. Barber	July 1	Maas Cresswell
July 1	Annette Barnum	July 1	Lucy E. Calonkey
July 1	Sidna Dowell	July 1	Catherine Crawford
July 1	F. Sue Ford	July 1	Elizabeth M. Clifford
July 1	Fannie Flickinger	July 1	Lenora Collins
July 1	Fred H. Figert	July 1	Mabel M. Christie
July 1	Chas. H. Gilbert	July 1	Alice M. Cow
July 1	Anna Graham.	July 1	Anna B. Dryden
July 1	Amy J. Gardner	July 1	Clara B. Denniston
July 1	Elmer E. Kuhn	July 1	Cliff S. Dunham
July 1	Sara Lowe	July 1	Ida Ericsson
July 1	Sadie McClain	July 1	Nellie M. Fields
July 1	Cap E. McFar	July 1	Addy Fiskin
July 1	Ethel Meacham	July 1	Edith M. Fischer

STATE CERTIFICATES—CONTINUED.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
July 1	Agnes Gilbride	Aug. 1	Agnes M. Cowan
July 1	Mabel A. Gilmore	Aug. 1	Ernest D. Ede
July 1	Emma A. Grau	Aug. 1	Margaret E. Galvin
July 1	Edward Gepson	Aug. 1	Mandelia Harsin
July 1	Jessie L. Harrit	Aug. 1	Margaret King
July 1	Venia Hawley	Aug. 1	S. T. May
July 1	Mary D. Hampton	Aug. 1	Geo. B. Rigg
July 1	Margaret Hawk	Aug. 1	Maggie M. Rogers
July 1	Louise Jones	Aug. 1	Elizabeth Wilcox
July 1	Ellen C. Jackson	Aug. 1	Lydia Whited
July 1	Eva M. Luse	Aug. 1	Florence Johnson
July 1	Margaret McLaughlin	Aug. 1	Dea Lodwick
July 1	Elsie Mendenhall	Aug. 1	Daisy M. Morris
July 1	Adena B. Olmstead	Aug. 1	Frank E. Teller
July 1	Geneva H. Pike	Aug. 1	John L. Conger
July 1	Emily M. Porter	Aug. 1	Kate E. Hansen
July 1	David Patten	Aug. 1	Mary E. Lee
July 1	Hilma Peterson	Aug. 1	Anna M. Meier
July 1	Louis Pelzer	Aug. 1	Celia Peterson
July 1	Nellie L. Pemberton	Aug. 1	Ira G. Wilson
July 1	Roxy Parker	Aug. 1	Mildred Anderson
July 1	Ralph Rigby	Aug. 1	Leota Blackman
July 1	Anna Riggs	Aug. 1	Alice E. Blake
July 1	Laura K. Keynolds	Aug. 1	Jessie F. Brinkman
July 1	Olive Reed	Aug. 1	James A. Boyle
July 1	Lillian E. Rickert	Aug. 1	Lucretia Buckner
July 1	Izola Sweeney	Aug. 1	Elizabeth Burton
July 1	Rosa M. Schoelerman	Aug. 1	Alice L. Clark
July 1	Bessie Swan	Aug. 1	Jessie Craig
July 1	Effie A. Templeton	Aug. 1	Jessie E. Cundy
July 1	E. M. Wilcox	Aug. 1	Jessie L. Cunning
July 1	Lois S. Willson	Aug. 1	Minnie M. Egy
July 1	Edna M. Windolf	Aug. 1	Jennie B. French
July 1	Fred J. Walker	Aug. 1	Nora E. Hauger
July 1	Clarence Wassam	Aug. 1	Laura B. Hutchinson
July 1	Geo. A. Chaney	Aug. 1	Mary S. Indra
July 1	Rosa M. Harrison	Aug. 1	Katie M. Ives
Aug. 1	Florence B. Bryce	Aug. 1	Grace S. Kane
Aug. 1	Geo. H. Colbert	Aug. 1	Geo. H. Kellogg
Aug. 1	John M. Hussey	Aug. 1	Gratia C. Kinney
Aug. 1	Thos. W. Keenan	Aug. 1	T. Blanche Le Valley
Aug. 1	Grace A. Nelson	Aug. 1	J. I. Lynch
Aug. 1	Amenda C. Nelson	Aug. 1	Geo. E. Misseldine
Aug. 1	Jennie Taylor	Aug. 1	Thos. E. McCarty
Aug. 1	Louise Westphal	Aug. 1	M. L. McQuilkin
Aug. 1	Belle Boyd	Aug. 1	Miller S. Nelson
Aug. 1	John W. Boyle	Aug. 1	John H. Phelps
Aug. 1	Edith Brooke	Aug. 1	Gertrude M. Powell
Aug. 1	Charlotte M. Davis	Aug. 1	Effie B. Roller
Aug. 1	Nellie F. Hudson	Aug. 1	Lillie A. Rollins
Aug. 1	Susie A. Hemenway	Aug. 1	Margaret M. Scallou
Aug. 1	Grace A. McNeil	Aug. 1	Frank R. Sebolt
Aug. 1	Amelia W. Parker	Aug. 1	Emma Secor
Aug. 1	Harry H. Savage	Aug. 1	Luella Sherer
Aug. 1	Harry S. Stein	Aug. 1	Violet Starr
Aug. 1	A. L. Brown	Aug. 1	Faith I. Stuntz
Aug. 1	Bertha E. Bush	Aug. 1	Ervin E. Strawn
Aug. 1	Alice Clark	Aug. 1	Margaret M. St. Clair

STATE CERTIFICATES—CONTINUED.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
Aug. 1	Edgar R. Stoddard	Aug. 1	Mary E. Hardy
Aug. 1	Denison A. Tisdale	Aug. 1	Loretta E. Harrison
Aug. 1	J. E. Troth	Aug. 1	A. G. Hoel
Aug. 1	John T. Velin	Aug. 1	Jos S. Hofer
Aug. 1	H. F. Volkmann	Aug. 1	Ida Jacobs
Aug. 1	Geo. H. Washburn	Aug. 1	Mary G. McCullough
Aug. 1	J. R. Wilson	Aug. 1	J. Earl McLean
Aug. 1	Mamie L. Patty Winter	Aug. 1	Lottie M. Northey
Aug. 1	Amy I. Bascom	Aug. 1	John C. Phares
Aug. 1	Nellie Brant	Aug. 1	Etta J. Whipple
Aug. 1	L. W. Butler	Aug. 1	T. Vincent Bird
Aug. 1	Margaret Burr	Aug. 1	Blanche Riggs
Aug. 1	A. L. Burgoon	Aug. 1	Alzada B. Mowry
Aug. 1	Henry W. Chehock	Aug. 1	T. M. Prall
Aug. 1	Glen Daugherty	Aug. 1	James B. Green
Aug. 1	Phoebe Dixon	Aug. 7	Gertrude Barnard

PRIMARY STATE CERTIFICATES.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
1899.		July 2	Anna M. Lundien
July 23	Elizabeth Brashear	July 2	Mary L. Loveland
Dec. 1	Minnie Markham	July 2	Margaret E. Luther
1900.		July 2	Lillian McCulloch
Jan. 1	Mary A. Wilson	July 2	Mary F. Millett
Jan. 1	Harriet Stephens	July 2	Edyth A. McAlpine
Jan. 1	Clarice J. Baird	July 2	Lucy H. Meacham
Jan. 1	Amy A. White	July 2	Lucy Otis
Jan. 1	Mrs. J. J. Carr	July 2	Louise S. Peet
Jan. 1	Celia Potts	July 2	Eva L. Macy
Jan. 1	Nina A. Wilson	July 2	Lela Phelps
Jan. 1	Nellie C. Thompson	July 2	Stella Peterson
Jan. 1	Amine Quackenbush	July 2	Ora M. Quint
Jan. 1	Alice Kinsley	July 2	Susie M. Riley
Jan. 1	Maud L. Barger	July 2	Olive G. Reeve
July 2	Gertrude Coffman	July 2	Gladys Love Sigworth
July 2	Amy E. Ellenwood	July 2	Weltha Speake
July 2	Kate A. Davis	July 2	Pauline J. Schuff
July 2	R. Ellen Gilmore	July 2	Corra D. Sawyer
July 2	Etta Shellbarger	July 2	Corra M. W. Steing
July 2	Stella S. Savage	July 2	Blanch L. Vance
July 2	Bessie A. Stickney	July 2	Clara C. Wallford
July 2	Anna B. Schneider	July 2	Avis Williams
July 2	Kittie I. Townsend	July 2	Marena F. Winter
July 2	Mae Williams	July 2	Marie H. Ash
July 2	Sara M. Wilson	July 2	Flora M. Hohagen
July 2	Lillian L. Barber	July 2	May Greendale
July 2	Edna E. Canfield	July 2	Florence Knox
July 2	Katherine P. Castle	July 2	Lella Louder
July 2	Margaret M. Campbell	July 2	Gertrude E. Marshall
July 2	Clara A. Dahlin	July 2	Josie L. Knox
July 2	Corra L. Dill	July 2	Lydia A. Schultz
July 2	Florence H. Gregg	July 2	Minnetta Smith
July 2	Adam M. Hayes	July 2	Bertha E. Bennett
July 2	Grace L. Hoyt	July 2	Martha Fothergill
July 2	Mabel L. Hatch	July 2	Kittie A. Lockwood
July 2	Eva Jane Kephart	July 2	Florence Anderson
		July 2	Nerva Bateman

PRIMARY STATE CERTIFICATES—CONTINUED.

Date of Cert.	TO WHOM ISSUED.	Date of Cert.	TO WHOM ISSUED.
July 2	Grace Corbin	Dec. 1	Adelene Both
July 2	Clara C. Ingalls	Dec. 1	Mary H. Coughtry
July 2	Jennie E. Joyce	Dec. 1	Katherine G. Coughtry
July 2	Margaret C. King	Dec. 1	Zaidee L. King
July 2	Irmagard Hemingway	Dec. 1	Ella Nichols
July 2	Helena Peeny	Dec. 1	Bridget Mary Nelson
July 5	Adeline Currier	1901.	
July 5	Nora Kelly	Jan. 1	Eva M. Whitney
July 5	Harriet Carpenter	Jan. 1	Bertha E. Ohler
July 5	Ella Z. Huffman	Jan. 1	Ella Hart
July 5	Helen Johnston	Jan. 1	Myrtle Guthrie
Aug. 1	Emma Kalb	Jan. 1	Helen E. Fenner
Aug. 1	Lucy R. Neill	Jan. 1	Jessie Frazier
Aug. 1	Ethel Estella Smith	Jan. 1	Laura E. Colburn
Aug. 1	Cora A. Chamberlin	Jan. 1	Harriet E. Brand
Aug. 1	Nannie E. Crawford	July 1	Jennie Gilchrist
Aug. 1	Olpha E. Crook	July 1	Caroline A. Newcomb
Aug. 1	Clara A. Bowers	July 1	Mabel Bigelow
Aug. 1	Mary Ella Edelen	July 1	Flora Belle Groat
Aug. 1	Grace E. Evans	July 1	Fannie E. Leighton
Aug. 1	Mary J. Hart	July 1	Daisy Pickard
Aug. 1	Carrie M. Hawver	July 1	Gertrude Apple
Aug. 1	Harriet N. Ingman	July 1	Elizabeth Barr
Aug. 1	Madge M. Noble	July 1	Vae Barr
Aug. 1	Ella May Payton	July 1	Edith Childs
Aug. 1	Effie Stevens	July 1	Ida M. Gower
Aug. 1	Elizabeth Jones	July 1	Alice C. Joy
Aug. 1	Alice R. Davies	July 1	Deliah Putnam
Aug. 1	Sara L. Hart	July 1	Rebecca Rollinson
Aug. 1	Minnie H. Hindman	July 1	Bessie Sebolt
Aug. 1	Minnie Hanson	Aug. 1	Fannie S. Orth
Aug. 1	Mary A. Scott	Aug. 1	Helen S. Algyer
Aug. 1	Jane Howe	Aug. 1	Cora M. Belcher
Aug. 1	Mamie S. George	Aug. 1	Lillian E. Bowers
Aug. 1	Fannie A. Palmer	Aug. 1	Mattie L. Larkin
Aug. 1	Minnie Mae Myers	Aug. 1	Delphine Lutes
Aug. 1	Sadie Batten	Aug. 1	May L. Maynard
Aug. 1	Eleanor A. Canty	Aug. 1	Katherine Mann
Aug. 1	Martha E. Herrick	Aug. 1	Margaret McGovern
Aug. 1	Maude M. McFarland	Aug. 1	Myrtle G. Rose
Aug. 1	Ella Zuver	Aug. 1	Einora E. Shilling
Aug. 1	Harriet W. Raw	Aug. 1	Clara V. Sine
Aug. 1	Mary J. Stotts	Aug. 1	Jessie L. Stanley
Aug. 1	Anna Hall Grace	Aug. 1	Ema C. Vandevort
Sept. 1	Margaret Ryan	Aug. 1	Augusta Anderson
Sept. 1	Stella G. Marsh	Aug. 1	M. Amelia Bates
Sept. 1	Martha Garrison	Aug. 1	Lou M. Graves
Sept. 1	Maude Utecht	Aug. 1	Anna B. Mikesell
Sept. 1	Lillian L. Kitterman	Aug. 1	Lou Watson
Sept. 1	Josephine Perrine	Aug. 1	Edith G. Whiting

SPECIAL CERTIFICATES.

January 1, 1901, Carry von Bergen, (German).
 January 1, 1901, Mary Ryan, (German).
 September 2, 1901, Mrs. H. R. Reynolds, (Vocal.)

STATE DIPLOMAS.

Date of Dip'l'ma	TO WHOM ISSUED.	Date of Dip'l'ma	TO WHOM ISSUED.
1899.		July 2	Frank C. Woods
Oct. 2	Geo. H. Betts	July 2	Stella Tuttle
Dec. 1	J. H. Schroeder	July 2	Jos. E. Clayton
1900.		July 2	James P. Dodds
Jan. 1	A. V. Storm	July 2	John H. Ellyson
Jan. 1	F. A. Lacey	July 2	Ralph A. Elwood
Jan. 1	A. F. Styles	July 2	Ida Fesenbeck
Jan. 1	S. A. Power	July 2	Elizabeth Maclean
July 2	F. E. Lenocker	July 2	Samuel A. Potts
July 2	Henrietta Brayton	Aug. 1	George Galloway
July 2	Margaret L. Cunningham	Aug. 1	Chas. F. Garrett
July 2	Eugene G. Clark	Dec. 1	F. J. Sessions
July 2	Bridget E. Cunningham	1901.	
July 2	Deborah Davis	Jan. 1	J. Harrie Beveridge
July 2	Maude Humphrey	Jan. 2	Mary E. Chandler
July 2	Oliver M. Harvey	Jan. 2	Wm. F. Chevalier
July 2	Manning Jaynes	Jan. 2	Millicent M. Cuplin
July 2	Chas. W. Lyon	Jan. 2	Lydia Hinman
July 2	Margaret Mackin	Jan. 2	Elizabeth F. Wright
July 2	Gordon W. Randlett	Jan. 2	John F. Smith
July 2	Chas. Severance	July 1	Barclay C. Winslow

CHAPTER VIII.

FREE TEXT-BOOKS FOR PUBLIC SCHOOLS.

ADOPTION AND PURCHASE.
HOW TO SECURE ADOPTION.
DISTRICTS USING FREE BOOKS.
REPORTS FROM IOWA DISTRICTS.
EXPENSE OF FREE BOOKS.
LAWS IN DIFFERENT STATES.
ARGUMENTS IN FAVOR OF FREE BOOKS.

FREE TEXT-BOOKS FOR PUBLIC SCHOOLS.

Section 2836 provides that "whenever a petition signed by one-third or more of the legal voters, to be determined by the school board of any school corporation, shall be filed with the secretary thirty days or more before the annual meeting of the electors, asking that the question of providing free text-books for the use of pupils in the public schools thereof be submitted to the voters at the next annual meeting, he shall cause notice of such proposition to be given in the call for such meeting."

ADOPTION AND PURCHASE.

Section 2837 provides that "if, at such meeting, a majority of the legal voters present and voting by ballot thereon shall authorize the board of directors of said school corporation to loan text-books to the pupils free of charge, then the board shall procure such books as shall be needed, in the manner provided by law for the purchase of text-books and loan them to the pupils. The board shall hold pupils responsible for any damage to, loss of, or failure to return any such books, and shall adopt such rules and regulations as may be reasonable and necessary for the keeping and preservation thereof. Any pupil shall be allowed to purchase any text-book used in the school at cost. No pupil already supplied with text-books shall be supplied with others without charge until needed. The electors may, at any election called as provided in the last section, direct the board to discontinue the loaning of text-books to pupils."

HOW TO SECURE ADOPTION.

By reference to the law as found in the sections quoted above, it will be seen that the steps necessary to secure the adoption of free text-books are as follows:

1. To file a petition signed by one-third or more of the legal voters, with the secretary of the school township or independent district not less than thirty days before the annual meeting of the electors.

2. The petition must contain a request to the board to submit to the electors the question of providing free text-books for all the pupils in the public schools of the corporation.

3. If the board is satisfied that the petition contains the names of one-third of the legal voters residing in the corporation, the submission of the question in the manner provided is mandatory, and the secretary shall give notice of such proposition in his call for the annual meeting.

4. The voting must be done by ballot, and if a majority of the ballots cast is in favor of the proposition, then the board must procure the books and loan them to the pupils under regulations in harmony with the law.

DISTRICTS USING FREE BOOKS.

Under the above provisions free text-books are now supplied to pupils in the following districts:

Allamakee county: Capoli, Fairview.
 Audubon: Audubon, Exira.
 Butler: German.
 Calhoun: Manson, Rockwell City.
 Cedar: Centerdale, Highland.
 Cerro Gordo: Campbell.
 Clay: Spencer.
 Clinton: Orange, Clinton, Delmar, Excelsior.
 Dallas: Dexter.
 Fremont: Highland.
 Guthrie: Pioneer.
 Hancock: Amsterdam, Orethell.
 Hardin: Union township, No. 8.
 Harrison: Dunlap, Missouri Valley.
 Jackson: Preston.
 Linn: Kenwood Park.
 Marshall: Marshalltown.
 Mills: Glenwood, Preston, Gowen.
 Page: Clarinda.
 Pocahontas: Pocahontas.
 Polk: Capital Park, East Des Moines, West Des Moines.
 Pottawattamie: Neola, Council Bluffs.
 Poweshiek: Grinnell.
 Ringgold: Poe Nos. 1 and 2, Mt. Ayr.
 Sioux: Sioux Center.
 Story: Nevada, Slater, Bloomfield.
 Tama: Toledo.
 Warren: Oak Grove.
 Webster: Westlund.
 Winnebago: Norway, Logan, Mt. Valley.
 Woodbury: Grant, Oto, Woodbury, Liberty, Pierson, No. 4.

REPORTS FROM SOME DISTRICTS.

WEST DES MOINES.—Speaking of the plan, Mr. Louis C. Kurtz, of the independent district of West Des Moines, in his report as president of the board in March, 1901, said:

"In accordance with the vote of the electors of this school district, free text-books were purchased and placed in the hands of pupils in the old West Des Moines District in September, 1899, and in all schools of the consolidated district September, 1900. The expense has been \$15,621.67, and the results so far have been highly satisfactory. In addition to furnishing text-books free, the board has construed the law in a liberal spirit and furnishes also all pens, pencils, paper and other material needed by the pupils. Our school is in effect a free school in every particular and no pupil or parent can urge as an excuse for non-attendance the inability to purchase text-books or supplies. I believe that this has materially increased the attendance and improved the quality of the work done."

Mr. S. H. Sheakley, city superintendent of the same district in his annual report for the year said that "the furnishing of text-books and supplies by the board has consequently been a great saving to the people, besides increasing the attendance and enabling better work to be done."

CLINTON.—Clinton adopted the free text-book plan some years ago and in writing of its workings City Superintendent O. P. Bostwick says:

"In regard to care of books I would say that it is necessary for the teaching force to be vigilant and that a system of fines be adopted and enforced, otherwise many pupils will abuse the books. We have been very rigid in the enforcement of the fine system and have succeeded in keeping our books in good condition. I enclose blank form which is pasted in each book. Each teacher keeps in a loan record a duplicate of the entry made on this label.

We allow pupils to take their books home to study. I do not believe any diseases are contracted from use of free-text books. We have our books covered with patent book covers. When a book changes hands the old cover is taken off and a new one put on.

Free text-books are a great advantage because the schools are equipped at much less expense to the district. The books when not satisfactory can be exchanged for modern and better texts without hardship to any family. Besides, we always have at hand a supply of books for every pupil who moves into our city and any one moving out of our city has no supply of books to dispose of at a loss or to keep as dead property on their hands. It will be a great advantage, in my judgment, if every district in the state would adopt the free text-book system."

MARSHALLTOWN.—Mr. F. E. Willard, City Superintendent, Marshalltown, where free books have been in use for more than a year, writes as follows:

"The plan has worked very satisfactorily so far. It required considerable extra work on the part of the teachers at first, for the pupils had to be taught to take care of their books properly, but since the pupils have become accustomed to the requirements in this respect, there has been comparatively little extra work. The children certainly take much better care of their books than they did when they owned them. The covers, too, help to preserve the books.

"We have had no trouble from disease in this connection. If a pupil is taken sick with some contagious disease and there is a possibility that the books are infected, the books are burned. I should think that the loss through this cause has been between five and ten dollars. But all schools use supplementary readers which are passed from hand to hand, and in every school many second-hand school books are in use. There is no more danger from free text-books than from these. I do not think that the question of disease will ever be found a serious objection to the system where it has been tried. While it is some extra work to hold pupils responsible for the care of the books, I believe their training in this respect is worth something as an element of their education."

MISSOURI VALLEY.—At Missouri Valley the system was adopted in 1897. Writing of its working in 1900, Supt. A. B. Warner said:

"Introduction was gradual so that all books were not owned by the district for somewhat more than a year. Ten per cent of our pupils are in high school where books cost most and must be liberally supplied. We have an excellent supply of modern books in all grades and many reference and supplementary texts. The expenditure has averaged 77 cents per year for each pupil, including the high school, for the three years—\$1.04 for the first year, 86 cents for the second year, and 41 cents for the third year. But this does not represent the average cost since we now have on hands more than 6,000 volumes, most of which are in good condition. The above figures represent the average cost if we were to burn all books on hand at the close of this third year.

"The work of our schools has been greatly aided in many ways by free text-books and I have not heard a complaint from any patron. If there are any objections, I have not yet discovered them.

"Perhaps I should have stated that we do not attempt to furnish pupils' general supplies, save to a limited extent, and the above figures represent text-books only."

MT. AYR.—Supt. Adam Pickett of Mt. Ayr says:

"I am pleased to inform you that we have had free text-books in nearly all the departments of our schools during the past three years, and the results have been very satisfactory to our pupils, teachers, and patrons. We are able to get all the children to work in the very beginning of each term, and when new pupils enter or transfers are made at any time during the term, no time is wasted, and thus the efficiency of the school is very much increased.

"Before making the experiment I thought I could give many cogent reasons why free text-books should not be provided. Many of these reasons have already disappeared; and the advantages now seem to me to be so great

that I feel that the district cannot afford to be without them, even from an economic standpoint."

MANSON.—The secretary of the board at Manson, Mr. C. R. Nicholson, writes:

"We have had the free text book system in our schools of Manson, nearly two years. It has given the very best of satisfaction, as it gives the teacher absolute control of each pupil. If a pupil can make an extra grade the books are simply exchanged, and the pupil put ahead. If the child can not keep up with the grade he can be changed so that at all times, the pupil is in the grade where he belongs. We bought the first year about \$1,000 worth of books, pupils 415. This, the second year, we have purchased about \$200 worth of books. We find that the cost of books to the pupils, used under this system, is just about one-sixth as much as when the books are bought by the parents, as the books can be kept good for several years. When a book is given out it is charged to the parent, and when returned it is credited, and if the books are damaged more than the ordinary wear, the parent must pay the damage. We think the system of free text-books a grand success, and only wish we might have a compulsory educational law."

EXPENSE OF FREE TEXT-BOOKS.

That the expense of free text-books is much less than that of individual ownership has been proven by experience. As a general statement it may be said that there is a gain of 25 per cent to 40 per cent in the cost, and 30 per cent to 40 per cent in the length of time the books can be used, which, together makes a saving of not less than 50 per cent per pupil.

Nebraska has reduced the cost per pupil to 45 cents, which includes all expenditures for books, pencils, paper, ink and slates.

The average annual cost in all the public schools of Maine has been as follows since 1891: \$1.16; \$.54; \$.34; \$.40; \$.46; \$ 57; \$.67.

In New Jersey the annual report shows the cost to have been \$.90 in 1895, \$1 in 1896, and \$.86 in 1897.

In Pennsylvania the cost was \$.56 in 1897 for free text-books and \$.98 for text-books and supplies, not including the city of Philadelphia.

In Minnesota, where the law was passed in 1893, Superintendent Pendergast reported in 1897 that 3,458 common districts had adopted free books at a cost of \$.42 per pupil; ninety-three independent and special districts at a cost of \$.55; and 153 graded schools at a cost of \$.75. This report shows that more than half of the districts were using free books and at cost decreasing from \$.54, \$.73 and \$.90 in 1885 to \$.42, \$.55 and \$.75 in 1897.

He further says that "notwithstanding the rapid increase in school population, the average annual cost per pupil has decreased beyond expectation."

STATES HAVING COMPULSORY LAW FOR FREE TEXT-BOOKS.

Massachusetts.....	1884	Rhode Island.....	1893
Maine.....	1889	Pennsylvania.....	1893
New Hampshire.....	1889	Idaho.....	1893
Nebraska.....	1891	Vermont.....	1894
Delaware.....	1891	New Jersey.....	1894

STATES HAVING OPTIONAL LAW FOR FREE TEXT-BOOKS.

Connecticut.....	1886	New York.....	1894
Wisconsin.....	1887	Ohio.....	1894
Colorado.....	1887	North Dakota.....	1895
Maryland.....	1888	Iowa.....	1896
Michigan.....	1889	Kansas.....	1897
South Dakota.....	1890	Montana.....	1897
Minnesota.....	1893	Washington.....	1897

IMPORTANT CITIES HAVING FREE TEXT-BOOKS.

New York.....	1885	St. Louis.....	1890
Brooklyn.....	1885	Baltimore.....	1884
Boston.....	1884	Pittsburg.....	1895
Buffalo.....	1893	Detroit.....	1891
Washington.....	1890	Minneapolis.....	1893
Providence.....	1892	Omaha.....	1876
Philadelphia.....	1818	Denver.....	1894
Syracuse.....	1894	Allegheny.....	1895
Toledo.....	1894	New Haven.....	1890
Scranton.....	1889	Lowell.....	1884
Worcester.....	1884	Fall River.....	1873
		Cambridge.....	1884

ARGUMENTS IN FAVOR OF FREE TEXT-BOOKS.

1. It is the duty of the government to educate its future citizens so that they may be intelligent defenders of its rights and liberties. The state should see that all its school children are properly equipped for the work.
2. It makes the public schools free in fact as well as in name and removes a barrier that now prevents many poor children from attendance.
3. It secures uniformity of books in the district, and is much cheaper for the community, because the books are bought at the lowest wholesale prices and are used by more than one pupil.
4. It saves time at the beginning of each term of school because the pupils are supplied with books immediately and can go to work without the usual and sometimes annoying delay.

5. It secures better classification especially in rural schools and in all districts where there is a large floating population.

6. It develops and cultivates a careful use of public property on the part of the pupils, because they are held responsible for any unnecessary wear or damage of the books in their possession.

7. It gives opportunity to secure fresh and modern books; and prolongs the school life of many pupils who could not afford the expense for books in the higher grades.

8. It banishes unpleasant distinctions between those who can and those who cannot afford to buy their own books, such as often arise under a law providing free text-books for indigent children alone.

CHAPTER IX.

MANUAL FOR HIGH SCHOOLS.

PLAN OF THE MANUAL.

INTRODUCTION TO MANUAL.

SECONDARY EDUCATION.

RULES GOVERNING ACCREDITED HIGH SCHOOLS.

HOW A HIGH SCHOOL MAY BECOME ACCREDITED

it was deemed wise for the department to co-operate. This has been done most cheerfully.

The committee first studied the high school and learned its real condition; second, it ascertained the requirements for such a course as suggested by the National Educational Association; third, it considered the entrance requirements of Iowa colleges; fourth, it considered the whole question with a view to producing a course that would prove of the greatest value to pupils in general in our own high schools. I believe that no course heretofore submitted has been so carefully prepared. That it will be most cordially received, I have no doubt. That it will prove of inestimable value is unquestioned, if rightly used.

While commending the manual to boards of directors we caution them against attempting to do more than can be well and thoroughly accomplished with the teaching force and equipment they have. The common school, of which the high school is a part, is for all the pupils, of all the people, and in it should be taught well the fundamentals of an English education. The manual will assist in determining the subjects to be taught, the order and best method of presenting the same, and the amount of work to be done in a given time. It is a valuable contribution to the educational literature of the state.

RICHARD C. BARRETT,
Superintendent Public Instruction.

October 26, 1901.

EXCERPTS FROM MANUAL.

SECONDARY EDUCATION.

America commonly classifies the schools of her several commonwealths as elementary, secondary and higher. The order of the historic development of the so-called American system was first the college, second the elementary schools and finally the secondary school, the last established as necessary connecting link between the elementary school and the college. The first secondary schools were not public but private and endowed fitting schools, having as their chief business the preparation of young men for higher education. The standard of the courses maintained was determined by the college entrance requirements and changes were readily and easily made to suit the new or additional demands of better preparation for college. With the growth and development of free public schools the people came to feel that it would be better to keep the boys at home during these years of attendance at the academy. The pride and ambition of communities also aided in expanding the courses of study of the elementary schools

MANUAL FOR HIGH SCHOOLS.

The State Teachers' Association, through one of its committees, presents this year a Manual for High Schools. The committee of which Prof. Thos. Nicholson is chairman, has had the same under most careful consideration for the past two years.

PLAN OF MANUAL.

1. Introduction by State Supt. Richard C. Barrett.
2. Introduction by committee, containing acknowledgment of names of those who have contributed to the work.
3. Practical Points on High School Work, J. J. McConnell, City Superintendent, Cedar Rapids.
4. Paper on Records and How to Keep Them, Prof. H. C. Dorcas, State University, Iowa City.
5. Secondary Education, Dr. Homer H. Seerley, President State Normal School, Cedar Falls.
6. Excerpts from the Report of the Committee of Ten of the National Educational Association; and the last report of the Committee of Twelve, adopted by the Iowa State Teachers' Association.
7. Discussion of the Best Method of Presenting High School Subjects, including chemistry, zoology, astronomy, economics, literature, German, French and Latin, besides other subjects.
8. Rules Governing the Accrediting of High Schools.

INTRODUCTION.

By law it is the duty of the board of directors to prescribe a course of study for the schools over which they have control. This unfortunately results in a great variety of courses even though conditions are the same. The Twenty-eighth General Assembly, recognizing the need and value of greater uniformity, authorized the superintendent of public instruction to prepare, publish and distribute a course of study for high schools. The state teachers' association, having for several years, through a committee of twelve, been at work on a manual for high schools,

by the introduction of academic studies until the modern public high school became a fact in every enterprising, progressive town and city. This high school being a new type of a secondary school; not subject to the dictation of the college as the academy had been, became an institution specially under the dominion of local public opinion, directed and developed by representatives of the people selected by a majority vote at the popular election. The high school, therefore, became a secondary school with a broader mission than its predecessor, the academy, and it was soon attended by a large number of pupils who sought the education there obtainable for its own sake or as a training for practical life, rather than as simply a preparation for higher study in the colleges and universities. The establishment of such secondary schools in every center where the people were willing to tax themselves for their support has opened up an educational field which for importance for public welfare and for ever expanding opportunities to those who exercise the teaching vocation has had no parallel in the educational history of the past century. The last decade has witnessed remarkable expansion in this direction. The most palatial structures have been created, the most expensive and complete laboratories have been provided, the most modern and decided equipments have been selected, the latest ideas in ventilation and heating have been adopted; in fact, nothing is too modern or too good for these most popular institutions, while the course of study in all its phases has been modified and enlarged until almost everything taught in any sort of school is today offered to the children and youth who enroll and accept the free instruction and training thus granted.

THE SCOPE OF SECONDARY EDUCATION.

What may properly be included in the work of a secondary school, organized, equipped, supported and patronized as the public high school today is, presents a difficult problem. The people evidently may extend the work to any grade as public educational limits depend entirely upon public opinion, decision and action, but it seems reasonable to assume that for general purposes the public high school finds its limits of service, for in fact, that it is a connecting link between the elementary schools and higher and professional education, as well as a school fitting its pupils for the practical and business occupations of human life. It must certainly be conceded that a high school which does not through its courses of study open up the opportunity for its graduates to go on into higher education, without loss of time or effort, fails to fulfill its entire function. If it provides more than the minimum requirements for entrance of present day colleges, it is not to be assumed that it exceeds its true function, but if through doing this its managers sacrifice thoroughness and completeness, substituting a smattering of many branches for a substantial knowledge of few essentials, such education does an irreparable injury. It will tend to disgust or to discourage the children who sooner or later become conscious of lack of power in the use of the knowledge supposed to be acquired and it will also deprive them of the development and training which all true education is assumed positively to give.

THE PURPOSE OF SECONDARY EDUCATION.

Education as an organized effort always has a definite purpose. The general motive in completing a course of study is not the attainment of rank

nor the honor of graduation. The sacrifices made by parents and children have a more substantial basis than the mere gaining of diplomas and compliments. It must have as its chief object the betterment of the individual in such lines of efficiency and usefulness as can never be satisfied by the factitious nor the fanciful. It is evident that schools are to be judged more by what they actually do for the generation under their instruction than by what they advertise to do or claim to do. Their inner life has more to do with the outcome of their pupils than their plans of organization or methods of instruction. The making of men and women in thought and action is the fundamental purpose rightly assumed as the foremost duty of a good high school, whether those under its influence go to college or go at once to activities of practical life.

THE IDEALS OF THE SECONDARY SCHOOL.

The reality that will be attained by any system of education is dependent to a large degree upon the ideals evolved and accepted. The over-expansion of a course of study; the attempt to maintain a high school without sufficient teaching force or without teachers of good extensive scholarship are results of false ideals. So with the placing of the factitious and pretentious foremost in educational work and the underestimate often put upon accuracy and thoroughness, all are the logical result of false ideals. High school education conducted by the unprepared, by the untrained, by the unskilled, or by the narrow-minded will always fail to produce efficiency in scholarship, largeness in skill, thoughtfulness in thinking or strength in constructive ability or executive power. The ideals of culture, of manly power, or readiness of action, of thoughtfulness, of investigation, are all essential in the kind of results that true education can and does supply. The secondary education of the present day undertakes too much with the little, hopes to accomplish too much in too short a time and believes too much in books and facilities as substitutes for personality, character and scholarship in the teachers.

FAULTS TO BE AVOIDED.

That there are faults in present-day secondary education which should be studied carefully, corrected judiciously, and assisted determinedly, is certain. They are the product of several agencies. We shall enumerate a few simply to call attention to them, hoping that the people, the school boards, and the teachers may jointly work out a better condition as the improvement of the schools depends upon the intelligence and interest of local authorities rather than upon law in itself.

1. Generally there are too many isolated branches or subjects in the course of study. The time given to a specific subject is too brief to really accomplish enough to profit the pupil. Yearly units of work are regarded by the best authorities today as the minimum time that should be accorded to any branch of study that is worth introducing into the program of instruction. The term-unit so frequently found is actually a waste of time, as such an arrangement gives no body of knowledge which contributes to educational progress in the pupils afterwards or which gives them capacity in practical affairs.

2. The study of sciences requires well equipped laboratories. Text-book study and recitations as frequently conducted may give some general

knowledge, but such methods fail to accomplish the real purpose of the study of these sciences. Properly taught these branches will leave pupils capable of investigation, of careful and independent observation, and will put them in possession of the principles upon which legitimate conclusions from observed facts are reached.

3. The teachers in secondary schools need a much more extended knowledge of the branches taught than is usual, while ability and skill in handling apparatus and in giving instruction that is of the highest order is vital to success. The modern text-book has so many excellencies and contains so much method and direction for teachers, that many incompetent teachers aspire to do high school work with only such pedagogical preparation as is thus gained. The authority which the modern text-book has attained in popular favor is of such a character that the patrons are satisfied, if their children seem to have a moderate knowledge of what the book contains. So far has this gone that many people accept the text-book as a fetich and believe that with its supremacy, even ignorant teachers can succeed in advancing the education of children by thus causing them to acquire knowledge. We need to learn the philosophy of the German maxim, "The teacher is the school."

4. The needs of language, history and allied studies, demand that a superior library of reference and general books, specially selected to make all such studies profitable and possible, be provided in every school. Under the present system of text-book study, these important branches are made so formal, as limited in information and so technical that the personal, individual work most essential is omitted. The public library of the city or community cannot be a substitute for such school library. With the common extensive selection of temporary and light fiction for public libraries, there is likely to be more detriment than benefit to those pupils in school who make a large use of the public library privileges. Since this cannot be controlled nor easily managed, the good of the pupils in a high school demands that the opportunity for wide study in a school library be provided so that the school and its library may be one in interest and object.

5. Economical methods may be so seriously and extensively applied by the authorities appointed by the people to manage the school system, (1) in the small salaries paid the teachers, (2) in the few appliances granted with which to do the work, (3) in the large number and variety of branches and classes expected to be taught by an extremely limited teaching force, that the pupils enrolled enjoy a high school in name and not in fact. There are limits below which a school board cannot go in salary and get a competent and satisfactory teacher. There are possibilities in instruction that cannot be reached unless the essential appliances are at hand. There is a common custom in too many schools to give a teacher so many classes, so many branches, or so many pupils, that his work is much depreciated in efficiency. There is a point where so-called economy becomes reckless waste and useless extravagance.

THE TEACHING OF CHEMISTRY.

Kinds of Courses Taught.—Perhaps in no other subject of the school curriculum is there such wide diversity in the nature of the elementary or introductory courses offered as in chemistry. The want of anything approaching uniformity in the subject-matter of the courses or in the

methods of teaching may be due to several causes among which are: (1) The comparative youth of the science and its rapid development, affording as yet some ground for a difference of opinion regarding the relative importance of its several branches. (2) The immensely important applications of its principles in the arts, tending to attract the attention of teachers and pupils away from the parent science itself, and (3), the want of laboratory facilities to carry out a good course in general experimental work, and the want of time for the teacher to make adequate preparation for such work.

The many varieties of courses may be classified roughly under four heads, as follows:

(1.) Recitations from a text-book, or lectures, the teacher performing the experiments before the class. As a rule principles are announced and then experiments are performed to illustrate them, or as frequently said, "to illustrate the text." The method marks the earliest science-teaching and was carried over from other subjects. It yet holds a place in many respectable schools by inertia and because it is easy, or because there are no laboratory facilities for large beginning classes. Strictly speaking it is not science teaching since it is contrary to the scientific method. It fails to secure to the pupil that intimate knowledge of experimental inquiry, and the appreciation of the fundamental importance of experimental facts that can come only from doing the work himself.

(2.) Recitations in general chemistry during ten or twelve weeks, after which the pupils do qualitative work. The existence of this course, and it is very common, is due in part to the above causes, but primarily, it would seem, to a fundamental misconception as to what constitutes chemistry. For the real science with its laws and philosophy, without which there can be no science, is substituted merely an aid to the study of chemistry, or a branch of technology. The laboratory work is done largely by following mechanically the directions laid down in a book, and it is difficult to see how the pupil is to derive much educational advantage from it beyond that of manual training. Analytical work is important in its place, but it should be taken up only after the pupil has had a thorough course in the principles of general chemistry. It is questionable whether it should be taken up at all in a high school, save perhaps incidentally in the study of general chemistry.

(3.) Qualitative analysis from the beginning with little or no introductory work in general chemistry. Such a course hardly deserves the name of chemistry, and it has aptly been called "test-tubing." It need not be farther considered.

(4.) Recitations or lectures on general chemistry with parallel and distinctly related laboratory work. There is no doubt that under this head would fall the courses taught by the great majority of able teachers and advocated by students of pedagogy. Such a course is difficult to teach but it is chemistry and is far more remunerative. The remainder of this paper relates primarily to such a course.

It may be remarked in this connection that it is very unfortunate for the study of chemistry in high schools that there is no commonly accepted ideal as to what constitutes a normal course in this science. Almost any school with continuity of ideal or policy could soon accumulate the requisite laboratory facilities for a good course, but this is hardly practicable if the nature

of the work and therefore the character of the apparatus demanded is to change with the in-coming of every new teacher.

Time Devoted to Chemistry.—To cover the ground of elementary chemistry as science, requires at least a three-hour course extending throughout the year. A five-hour course would be better. If so much time cannot be given to the subject, it would be better to confine the work mostly to the so-called non-metals, since this will suffice for the development of the elements of the theory, rather than to attempt to study all the common elements in detail.

Proportion of Laboratory Work.—With a good equipment nearly or quite one half of the time should be devoted to laboratory work. More time can be given to make clear the significance of the work by individual instruction at the pupil's desk. All laboratory work without a clear idea of its relation to chemical principles is just as bad as all text-book.

Character of Laboratory Work.—The chief value of laboratory work consists in manual training, in the exercise of judgment in applying means to ends and, most important of all, in its bearing upon scientific facts and principles. It is evident, therefore, that good experiments should not be too simple nor yet beyond the powers of the pupil, and they should bring out facts and suggest principles. An experiment which brings to light several facts and has a direct bearing upon a principle is to be preferred to one that brings out only an isolated fact. A few experiments of the first importance, done with thoroughness and care are of more value than many experiments of minor importance, done with haste and carelessness.

In general the standard experiments relating to the preparation and properties of the non-metallic elements and their compounds are of more importance to the beginner than precipitating compounds of the metals, blowing-pip or testing in other ways. A few simple quantitative experiments should be included in every course, but if too many or too difficult they are likely to produce failure and discouragement.

Length of Laboratory Periods.—The laboratory period should be at least twice the length of a recitation period. It is surprising to find that in some of the best high schools the laboratory period is only forty minutes in length. In many cases it is almost absolutely necessary that the pupil should perform without interruption a group of closely related experiments such as in the preparation and study of the properties of oxygen, chlorino ammonia, and this cannot be done in forty minutes. Again, many of the most valuable experiments in both chemistry and physics demand more than that amount of time. In a large high school the author recently asked the instructor how he managed to have his pupils do certain experiments within the prescribed period, and the answer was, "We have the apparatus already set up for them at the beginning of the period." In other words the pupil merely pressed the button. Is that teaching science?

The Inductive Method.—It is probably neither practicable nor desirable to carry out in the strictest sense the inductive method in teaching chemistry. Most pupils have neither the ability nor the time to rediscover the science of chemistry. The presence of the descriptive text-book makes it impracticable to pursue a strictly inductive plan. Nevertheless, the spirit of the course should be inductive. By this is meant facts first and then principles and theories as the logical inferences from facts.

The laboratory work upon any topic should precede the recitation or lecture upon the same topic. The experiments should be discussed in the recitation-room after the laboratory work has been done, and the facts they teach should be made clear. Other experiments should be performed by the teacher and their significance made plain. Around the facts brought out by the experiments should be grouped other related facts, and then principles and theories may in the true inductive spirit be discussed in the light of these facts.

The Order of Study.—Unfortunately that part of general chemistry offering most difficulty both in the laboratory and in the recitation-room must come near the beginning of the course; that is non-metallic elements where are met most of the gaseous elements and compounds. It is very desirable that the elements of theory be introduced near the beginning of the course, and for the consideration of theory a knowledge of the compositions and reactions of gases by volume is essential. For this reason a good order of study is, oxygen, hydrogen, chlorine, bromine, iodine, nitrogen and their compounds, and air. A little theory may then be introduced, after which the non-metallic elements may be taken up so far as practicable in groups, as they occur in the periodic arrangement. This arrangement is probably not final but it is practically of great advantage to study nearly related elements together instead of in the purely artificial order as they occur in the analytic groups. Leaving out the above elements as already studied, perhaps the groups whose elements are most important in the study of chemical theory are in order, VI, V, IV, III, I, II, VIII, VII.

Chemical Theory.—Chemical theory is difficult, but it may be made far easier for the pupil if introduced as he is prepared for it and it is skillfully presented. Only a knowledge of chemical facts can prepare the pupil for the comprehension of the theory. The common practice of the text-books in presenting a mass of theory at the very beginning, including atomic and molecular weights, formulae, valence, cannot be too strongly condemned. This is seemingly done in order that reactions may be represented by equations of formulae, which seems to be the end and goal of chemical study in the minds of some text-book writers and teachers.

The foundation of chemical theory as regards atoms, molecules and reactions is proportion by weight and by volume. The logical procedure in the earlier part of the course is, therefore, to represent reactions by weight, and by volume if gases are concerned. The laws of definite and multiple proportions naturally and even inevitably come to the fore, and these lead naturally to the ideas of atom and molecule. The ideas of atoms and molecules may be presented as soon as oxygen and hydrogen and their compounds have been studied. After the study of chlorine, bromine, nitrogen and their compounds, these ideas may be brought up again and enlarged upon. At this point proportions by weight and by volume may be translated into formulae and these may be used in a tentative way. About the middle of the course may be introduced in an elementary way the determination of atomic and molecular weights, and the calculation of formulae. In short the theory should be presented in small amounts as the pupils are ready for it, and each time that which has been previously presented should be reviewed.

One of the greatest evils in the teaching of elementary chemistry is the misuse of formulae and equations. They are merely the receptacles of truth,

or forms of expressing truth inferred from experiments and not means of discovering truth. The teacher is often asked to give rules for writing equations. Manifestly in the very nature of the case there can be no such rules, since equations merely represent reactions that take place. With a knowledge of a part of a reaction, related reactions and valence, the remainder of the reaction may with much probability be inferred, but the result of such inference is never certain until proved by experiment.

Laboratory Management.—It is not advisable to undertake the study of chemistry in a high school without some facilities for laboratory work by students. A beginning may be made with a few essentials and a prospect of increasing the equipment. With a consistent purpose, care of apparatus and judicious small expenditures each year a good working equipment is soon accumulated.

The first requisites for good laboratory work are sufficient space and desk room for individual students. The apparatus should be sufficient in quality and quantity, every student should have his own and should be held responsible for it. There should be no such thing as two students working together upon the same experiment at the same time.

The chemicals and apparatus absolutely necessary to good laboratory work are not expensive. Fortunately schools may import, through American dealers, chemicals and apparatus duty free or at prices only a little more than half those paid at home. Importers are willing to handle orders of \$100 or even less.

In purchasing supplies two mistakes are very commonly made. The first is the purchase of a few expensive pieces for the teacher to use before the class instead of getting a large number of simpler things for the same amount of money, suitable for the use of students. It is not at all uncommon to find in a high school laboratory half a dozen show pieces of physical apparatus which cost enough money, had it been judiciously expended, to fit up very fairly a physical laboratory for a dozen pupils doing elementary work. The second mistake applies chiefly to chemistry, and is that of buying chemically pure chemicals for almost everything. Such chemicals cost as a rule three to four times as much as the ordinary commercial chemicals, which in nine cases in ten are just as good as the chemically pure. Another extravagance is the purchase of Bohemian glassware which costs twice as much as the modern German ware that for most purposes is just as good.

Everything connected with the laboratory should be reduced to system. All chemicals and apparatus needed in any laboratory period should be provided beforehand. Failure at one or two points may throw a whole class into confusion. Work of the initiated should not be committed to wholly inexperienced hands. For example, hard glass tubing should be worked into the necessary forms beforehand by the teacher. Only the experienced can quickly and surely bore cork stoppers and set up gas-tight apparatus with them. Endless annoyance and failure are spared by using rubber stoppers and counting waste by corks; rubber stoppers are cheap.

Shelf reagents and other solutions for students' use should never be made up by guess, but by following a definite system of concentrations that experience has proven good.

Laboratory Teaching.—The printed or written directions for the experimental work should be clean and explicit, and even then it is best to supple-

ment the directions and illustrate difficult points in the work before the pupils enter the laboratory. The efficient teacher will take such occasions to make necessary changes in the directions, if they are not his own to suit his own environment. On such occasions apparatus at all complicated should be set up before the class, and it is well to place it in the laboratory as a model.

While good laboratory work is indispensable in the proper study of chemistry, it cannot be too strongly urged that even a well selected course of experiments may be so done as to result in little more than inferior manual training. The teacher must ever be on the alert to prevent pupils from falling into mechanical and slovenly habits of work. Nothing but persistent questioning and suggestions will prevent the former, and nothing but unsparing criticism with suggestions, having the force of commands will prevent the latter. The common idea that any apparatus that "will work" is good enough should not be tolerated. The teacher should unhesitatingly require the pupil to reconstruct any piece of apparatus not properly set up and to readjust it until it is right. An experiment performed with only partial success should be repeated until proper results are obtained. It should not be expected that all experiments will be successful the first time they are tried by inexperienced hands. With rare exceptions the teacher should resist the temptation to help the pupil out of a difficulty with his own hands, and should confine his aid to suggestions.

Note Taking.—The laboratory note book should contain a faithful record of the student's work, including a description of the apparatus, a statement of the chemicals used, conditions, results and any inferences that may legitimately be drawn. The notes should be written as the experiments are performed and never copied. Only those notes that are original records are of value. Such note books with their poor penmanship and stains made by chemicals do not look so well as the elaborated faultless copies made at home, but that fact is not to be considered when we remember that such copied notes lose their value as records.

The teacher should beware of the note-books sold by publishers and having such headings as "Requirements", "Conditions", "Observations", "Conclusions", followed by blanks for the student to fill in. Do not quench any spark of originality the pupil may have by any such stereotyped artifices. The notes should read as records of work done, and should be in the most accurate and concise language. They should be self-explanatory and not require the laboratory hand-book for their interpretation. Beyond requiring proper arrangement, title of the experiment, paragraphing and placing numbers to be compared in the same vertical column, the individuality of the pupil may be allowed to assert itself. Outline drawings of apparatus should be specially encouraged.

The teachers.—A man of first rate ability, bright, energetic and resourceful, may teach chemistry well in a high school though he has taken only one full year course in the science in a college or university, but two or three years of preparation are very much better. It is only the exceptional man who can do good work with one year's preparation, and one who has had good training in related sciences, such as physics.

The author wishes to make a plea against the over-burdening of the science teacher. To conduct the recitations in chemistry or physics, manage the laboratory, prepare apparatus and chemicals, and do the laboratory

teaching demands an amount of time and energy equivalent to that required by two or three classes in other subjects. Until this fact is recognized, work of the same degree of excellence as that done in the languages and mathematics need not be expected in chemistry and physics. The conscientious teacher who is over-burdened by classes in other subjects may do his science work well for a time by overwork, but in the majority of cases he will leave the profession for some other occupation or per force fall into easier and inferior methods of conducting his science teaching.

To build up a good science laboratory it is necessary to have continuity of plan and purpose, and it is hardly necessary to say that it is, therefore, very important that a good science teacher once secured should be retained if possible through a series of years.

Text and reference books.—Most teachers prefer to use a text-book and in general this may be advisable, though there are those who believe that the very well prepared teacher who is something of an artist in his work may do better if free from the restrictions inseparable from the use of a text-book.

Anyone selecting a text-book for the class-room should choose that one having in the greatest degree these characters.

(1) The book should cover the ground of the common elements and chemical theory in an elementary way.

(2) It should have the true inductive spirit. By this is meant not only that the pupil should be led to draw correct inferences from his laboratory work, but also, that the grounds for all fundamental conceptions in chemical theory should be made clear.

(3) The laboratory work should be practicable and well chosen, and the cuts to illustrate it should represent present day forms of apparatus instead of forms long since relegated to the scrap-pile or to the museum of antiquities.

(4) It should discuss general chemistry as a pure science and for its own sake and not as a preparation for analysis.

(5) Formulae should have their proper place as a means of expressing ascertained proof, and not as an end of study, or worse yet, as means of ascertaining truth.

Whether a text-book is used or not, the laboratory should contain a number of text and reference books for the use of teacher and pupils. Omitting many text-books and laboratory manuals which may be had for the asking, the books in the following list will be found useful: Remsen, Inorganic Chemistry, Theoretical Chemistry; Roscoe and Schorlemmer, Treaties on Chemistry, Vols. I and II; Newth, Text-book on Chemistry, Chemical Lecture Experiments; Thorpe, Essays on Historical Chemistry; Ostwald, Grundlinien der Anorganischen Chemis, (when translated) General Chemistry Solutions; E. von Meyer, History of Chemistry; Mendelejeff, Principles of Chemistry; Richter, Organic Chemistry; Ramsay, Gases of the Atmosphere; Walker-Dobbin, Chemical Theory for Beginners; Eresenius, Qualitative Analysis; Lassar-Cohn, Chemistry of Everyday Life; Borchers, Electro-Smelting and Refining.

PHYSIOGRAPHY.

Educational Value of Physiography.—Your committee begs leave to present the following report, embracing suggestions respecting matter and method, relative to the teaching of] Physiography in the high schools of

Iowa. We commend the well-nigh universal study of this subject in the schools of the state; and we trust that as science is given a larger place in high school courses, the room allotted to the group of earth sciences may be increased rather than diminished. These sciences, we believe, are surpassed by none in educational value to the student preparing for college or for life. They require close observation of common things; they bring to touch with nature in her least recondite phases; they demand clear seeing and straight thinking; and the constant exercise they give in comparison and induction trains the reasoning faculties to deal with the facts of daily life. The imagination is tasked to conceive the processes of nature and the place of our planet in time and space, and ennobled to a degree impossible with fanciful, romantic, and merely literary material. The study of nature is also of the highest ethical value. Daily contact with solid, unalterable facts and laws makes for sane thinking and right living, and gives an abiding confidence in the veracity of the world, which seems to be the speediest cure for popular delusions which an education exclusively literary would be unable to prevent.

Definition and Scope of the Term.—Physiography is a term coming into more or less general use as a substitute for the older and more familiar term physical geography. The physical geography, or phsiography, of today is in fact, however, a very different science from that which was presented under the name of physical geography a quarter of a century ago, and there is therefore some propriety in distinguishing it by a different name. The science of physiography, in its widest sense, may include in its scope the whole material universe; but in a restricted sense, it deals with the universe in its relations to man. Man is the central figure, and the relative importance of the various topics into which physiography may be divided is to be measured by the extent to which the facts and phenomena under consideration exercise a determining influence on human activities and human progress. From this point of view *physiography is the science which treats of man's physical environment*. Compared with the older physical geography, it has less to do with ethnology—with the characteristics which distinguished the races of men, one from another, and more with what men of any race do and become under varying conditions of soil, climate, and other surrounding circumstances. It deals less with astronomy, and more with the earth itself; less with the taxonomic phases of zoology and botany, and more with the physical aspects of the globe; less with air and sea, and more with land. This modern physiography considers also the causes and consequences of the physical environment, and does it in a manner which would have been impossible ten years ago. Environment reacts on the human being in many notable ways, in some places presenting every stimulus to his highest development, and in others hedging him round with insurmountable limitations. Physiography treats, with a high degree of assurance, of the genesis of continents, mountains, interior plateaus, coastal plains, and river valleys. It writes the history and development of the minor forms of surface relief. It tells of the origin of rocks and soils. In a word it investigates, as to character, cause and consequence, all the phenomena that affect man's relation to the globe on which he lives.

The Subject Matter of Physiography.—It will be possible to develop, in one or two lessons, the idea of the earth as a planet. Its size and shape,

together with its relation to the solar system and to the universe, may briefly be considered. The facts which prove its rotation on its axis and its annual revolution around the sun may be discussed, and the consequence of these movements, so far as they affect human activities, will afford a profitable theme. Turning to the earth itself, and considering it apart from anything else, note (1) the solid portion, the *lithosphere*; (2) the incomplete aqueous envelope, the *hydrosphere*; and (3) the complete gaseous envelope, the *atmosphere*. Since the hydrosphere is incomplete, it follows that portions of the surface of the lithosphere lie directly beneath the air—are *sub-aerial*, while other portions lie beneath bodies of water of greater or less depth—are *sub-aqueous*. The surface is thus divided into land and sea. The water-covered area of the earth is greater than the land, but since man does not make his abode beneath the waters or find in such situations, to any noteworthy extent, a theater for his activities, the relatively small areas of land are of much greater importance, and should receive vastly more attention, than the broader spaces occupied by the oceans.

While it is true that man's relations are chiefly with the lithosphere, with the outer portions of the lithosphere technically known as the *crust*, and with the parts of the crust which are sub-aerial and not sub-aqueous, the characteristics and movements of the air, as well as the tides and currents of the oceans, can not be neglected in any comprehensive study of physiography. On the movements of air and sea often depends the habitability of large areas of land; over many portions of the earth's surface they control and determine the occupations of large numbers of its inhabitants. Intimately connected, in some of its phases, with oceanic and aerial currents is the subject of *climate*. This whole topic may now be considered as fully as time will allow, and any good text will afford the necessary information.

The subject of soils deserves special treatment. The sea yields its peculiar harvests, but most of the food supplies come directly or indirectly from the soil; and so the soils constitute one of the most important factors in man's physical environment. The term soil, used in its large sense, denotes the loose superficial materials through which the farmer drives his plough, materials which may be excavated with pick and spade. Soils are made up largely of such earthly substances as clay, sand, and gravel, with occasional larger blocks of rock; but in general, near the surface, they contain more or less of organic matter in the form of partially decayed vegetation. The loose unconsolidated soils rest everywhere upon rocks of some kind. In New England these underlying beds are mostly granites. Elsewhere soils may rest on foundation stones of other types. In Iowa the foundation embraces limestones, shales and sandstones. Foundation stones beneath the unconsolidated soils are collectively known as *indurated rocks*.

The indurated rocks of Iowa have an interesting history which the teacher may present in his own way. When they were forming, the soils, as we now know them, did not exist. The soils are of later age than the rocks on which they rest. It may be stated, indeed, as a general fact that, leaving out of account the organic matter which they contain, all soils have resulted from the disintegration of indurated rocks. Rocks decay, they crumble into dust through the silent chemical action of air and water or they are broken and reduced to powder by mechanical agents. Whatever the process of disintegration, the product is soil of some kind. Soils vary greatly

in characteristics and genesis; but the soils of Iowa, to which attention should be especially directed, may be classified under a few heads. Like all other soils, ours have a history, and that history is all included in the interval which has elapsed since the indurated rocks on which they rest were formed. Soils have either been produced in the places where we now find them, or the materials composing them have been brought from somewhere else. As to the place, therefore, where they have had their origin, soils are either I. *Local*, or II. *Transported*.

I. *Local Soils*. Two kinds of local soils are recognized. There are earthly soils resulting from the fact that the products of rock disintegration remain where they are produced. In this case we have (1) *Residual Soils*. In a few limited areas there are soils which contain but little earthy matter. They are made up wholly, or practically so, of the products of vegetable decay which takes place annually and locally where the plants grow and die. Typical examples of this type are found in peat bogs and give us (2) *Peat* or *Humus Soils*.

II. *Transported Soils*. The transported soils of Iowa embrace clays or fine sands carried by streams and deposited on flood plains, (1) *Alluvial Soils*. Materials similar to those deposited on alluvial plains, but more regularly and evenly stratified, were deposited in the quiet waters of lakes. The lakes have been drained, and the sediments, now brought under the plough, afford examples of (2) *Lacustral Soils*. Over most of Iowa there is a heavy mantle of materials, products of rock disintegration, which were carried and spread out by glaciers. They constitute a heterogenous assemblage of fine clays, sands, pebbles, cobbles and boulders, all thrown down promiscuously, without stratification or orderly arrangement, and are known as *Drift Soils* or *Glacial Soils*. Among the soils manifestly made up of transported materials, there is one type concerning the genesis of which little is positively known at present. The material is in general a fine, homogenous, pebbleless clay, but it sometimes contains more or less of sand. It is obscurely, or not at all stratified. In some places it rests on residual clays, in some places on drift. There is very clear evidence that it is of comparatively recent origin. This material is the loess of the geologists, and the soils to which it gives rise are (4) *Loess Soils*.

(Consult the topic, *Soils*, in the several county reports, Geological Survey of Iowa; *The Loess Soils of Iowa* in report of Iowa State Horticultural Society, for the year 1893; and *Prehistoric Iowa*, report of same society for 1897.)

Land Forms: The subject of topographic forms will properly demand a large share of attention. The text recommended in another part of this report describes fully the forms of surface relief, and the successive steps in land sculpturing from topographic youth to topographic age; and the teacher can scarcely do better than thoroughly to master the significance of the facts and carefully to follow the order and method of presentation he finds in these publications. Concrete examples of land sculpturing on a small scale may be found after heavy rains, in fields or along roadsides; and pupils should be constantly referred to the facts which they may observe for themselves. The land forms of Iowa are not described specifically in any texts, but some information on this topic will be found in the reports of the national and State Geological Surveys. The subject, so far as it relates to Iowa, falls into two divisions:

- I. The topography of the Driftless Area;
- II. The topography of the Drift-covered Area.

The driftless area lies mostly in Wisconsin, but it embraces a small portion of northeastern Iowa. The topography is mature, it has been developed by erosion of indurated rocks, and the varying hardness of these rocks has given rise to many interesting modifications of detail. The relief is much greater than in other parts of the state. A difference in altitude of six or seven hundred feet may be experienced in a distance of a few miles, and some of the river bluffs descend at a high angle, almost sheer, for three or four hundred feet. This whole topography has been developed by erosion of an uplifted peneplain. Incised meanders are a common feature of the river valleys.

(On this whole subject, see article on *The Driftless Area*, sixth annual report United States Geological Survey; *Pleistocene History of Northeastern Iowa*, eleventh annual report United States Geological Survey; Reports on Allamakee and Dubuque counties, Iowa Geological Survey; and *The Switzland of Iowa* in the Midland Monthly for May, 189..)

The drift-covered area presents a variety of land forms. In some instances the present surface features are dependent on the original construction or subsequent erosion of the drift. There are great differences in age between the sheets of drift occupying the surface in different parts of Iowa. Certain regions covered by later drift present a surface that is to-day in practically the condition in which the glaciers left it. The topography is young, wholly undeveloped; and its extreme youth is expressed in uneroded plains, an absence of stream channels, an absence of river valleys. Young drift plains are seen in the Illinoian area around Mediapolis and Morning Sun; in the Iowan area they are well displayed in Buchanan, Bremer, Floyd, eastern Cerro Gordo, and generally throughout the counties of northeastern Iowa; and they are found best of all in the Wisconsin area, as, for example, in the counties of Hancock, Wright, Humboldt, and all the others in the north-central part of the state. Youthful topography is also expressed in the anomalous topographic forms so well illustrated in the moraines of the Wisconsin drift. In morainic areas the surface is rough and hilly, but the inequalities are due to construction and not to erosion. Around the ice margin the drift was lawlessly heaped into irregular hills, with shapeless, ill drained interspaces bearing no resemblance to dichotomously branched valleys of erosion. Morainic topography is seen in a belt, six or eight miles wide, north and south of Clear Lake. A number of pronounced morainic belts are found in Dickinson county, and here, as elsewhere, the lake basins of Iowa are features of the morainic topography.

The southern half of Iowa, west of the Illinoian margin, is occupied superficially by very old drift; the drift of the Kansas stage being the most conspicuous. In general, throughout this whole area, the surface is characterized by mature erosional topography cut in the drift. The relief is not very great, and yet there are valleys of erosion 150 to 200 feet in depth. The valleys are usually wide, and the slopes, back to the watersheds between the larger streams, are all carved into a series of rounded ridges separated by a complex system of branching ravines. It is in southwestern Iowa that the effects of drift erosion are most pronounced. These effects are typically illustrated in the heavy drift of Ringgold, Taylor and Page counties.

The southern and western parts of Iowa, the parts lying outside the areas which were covered by the Iowan and Wisconsin ice sheets, have the older

drift overlain by loess. The loess usually forms a thin veneer conforming to the inequalities produced by erosion before the process of loess deposition began; but in some places it attains a considerable thickness. The loess is soft; it cuts readily; and where thickest it develops a topography of its own of an exaggerated erosional type. Steep-sided gullies and irregular hills are among its prominent characteristics. Bordering the flood plain of the Missouri river, from Sioux City to the southwest corner of the state, there are sharp, pointed, irregular hills and sharp crests of loess mingled with eminences having more rounded flowing outlines. It is probable that some of the peculiarities of the region may be due to the fact that the hills and ridges, in whole or in part, were, like snow drifts, heaped up by the wind. The loess here attains its maximum thickness, and erosion produces many fantastic effects.

Other land forms found within the glaciated area are known as Drumlins, Paha, Kames and Eskers. Drumlins are elongated hills of unsorted, unstratified drift, definitely outlined, rising above the level of the surrounding surface, and having a trend parallel to the flow of the ice by which they were constructed. In Iowa they were developed in a small way near the margin of the Kansas glaciers and are typical marginal characteristics of the Kansas area. A portion of the region occupied by Kansan drumlins was later invaded by Iowan ice. Iowan drift was deposited around the base of the hills, but not over their summits; and now, capped with loess, they rise abruptly out of the Iowan plain. Land forms having the structure and the relations described are called paha. Hills having cores of rock in place of Kansas drift were encountered by the Iowan ice near its margin, and these were treated in the same way as the Kansan drumlins. Iowan drift was deposited around their bases, and they were capped with loess. They, too, are now paha. Any loess covered prominence having the form of an inverted boat, a northwest-southeast trend, and rising above the Iowan plain, is a paha. Delaware, Jones and Linn counties are pre-eminently "The Land of the Paha." Kames and eskers are elongated hills or ridges built upon the surface of the drift, and differ from drumlins in being constructed of stratified sands and gravels in place of unsorted drift. They are not due to ice moulding; they represent constructive work of streams of water. Kames have a general trend parallel to the ice margin, while eskers have their long axes parallel to the ice flow. The streams producing kames flowed in channels between the ice margin and the heaps of detritus which constituted the terminal moraine; those forming eskers probably flowed in tunnels excavated in the lower surface of the ice near its free edge. Kames and eskers are best seen in Iowa in the area of the Wisconsin drift. The great Ocheyedun mound in Osceola county is an unusually fine example of a kame.

(On the subject of Paha, see *The Pleistocene History of Northeastern Iowa*, by W. J. McGee, Eleventh Annual Report, United States Geological Survey; on the subject of Kames and Eskers, consult *The Great Ice Age*, by James Geikie.)

A study of the river valleys of Iowa reveals the interesting fact that streams differ very greatly as to age. In the areas covered with Wisconsin and Iowan drift the streams are young. They flow in shallow channels, and their banks are on a level with the great drift plains which

checkered with fields and dotted with farm houses, stretch away on either hand to the horizon. There are no valleys, no flood plains. Such a stream is shown in Figure 12, page 128, Iowa Geological Survey, Volume VII and is described in the accompanying text. Compare this with the stream shown in Figure 10, page 104, Volume IV of the same series of reports. In the latter case the view is taken at the mouth of a valley which is practically cut to grade, but the fact that the stream runs in a deep gorge is shown in the distance. This gorge is cut in indurated rocks to a depth of more than 300 feet; its width is, in places, more than two miles; and yet from the summit of the cliffs seen in the view, the surface rises in gradual slopes 300 feet more, up to the level of the divides which may be eight or ten miles back from the stream. Here is a valley of erosion on a gigantic scale; compared with it the work accomplished by the stream referred to in Volume VII is as zero. Between these two streams there is an immense difference in age. The extensive areas of flat bottom lands along the Sioux and the Missouri rivers, sometimes twelve or fifteen or even twenty miles in width, are important and significant topographic features which tell in plainest terms of a very long period since the streams cut their channels to grade or base level. The width of stream valleys, other conditions being equal, varies with the age. A glimpse of the wide, flat Sioux bottoms is given in the left portion of Plate XXVII, opposite page 381, Volume VIII, Iowa Geological Survey. The great age of the Kansan drift, in southern and southwestern Iowa, as compared with the Iowan and Wisconsin, is indicated as clearly by the width and depth of the river valleys as by any other of the criteria which have been looked upon as convincing evidence of its antiquity. The channel of the Mississippi river seems to be made up of old and new fragments pieced together. The valley is narrow at Dubuque, narrower still at LeClaire, and it expands to a width of eight miles at Burlington. During the Glacial Epoch the valley was the common meeting ground of glaciers coming from the northwest and from the northeast. Sometimes one set prevailed, sometimes the other; and the stream was shifted back and forth a number of times. In places the channel was choked with glacial detritus and was not recovered after the ice melted and disappeared. At two points along the eastern border of Iowa, the Mississippi is working at a comparatively new channel and doing its best to cut it down to grade. These points are the LeClaire and Keokuk rapids.

Texts.—We have noticed with pleasure the advance of the last decade in the teaching of geography, as evidenced by the texts now in use in the grammar grades. No better preparation can anywhere be obtained for the study of Physiography than that furnished by an intelligent use of Fry's or Redway and Hinman's geographies, to mention these admirable books in the order of their issue. Until recently the text-books in Physical Geography have been wholly inadequate and have required revision by the teacher both by addition and by subtraction. Consisting of loose congeries of compends of all sciences, they have brought vexation to the teacher and tribulation to the pupil, and to their defects are due the objections made to the place of the study in the high school.

To your committee three recent manuals seem worthy of special mention, those respectively by William Morris Davis, Ralph S. Tarr, and Hugh Robert Mill. Professor Davis's text omits all irrelevant matter and gains space for

the clearest and completest description of land forms in the English language. Professor Tarr's is thoroughly modern in treatment, and is perhaps better suited to American schools than Dr. Mill's luminous and reliable treatise. We commend no text as best. The best is the most available and this depends upon the preparation of the pupil, and still more upon the training and resources of the teacher.

Methods.—Taking for granted that the recitation tests thoroughly the acquisition of the text, it remains for the teacher to clarify and crystalize the pupil's impressions, to illustrate, to awaken thought, to kindle interest, and to suggest pertinent problems for solution. A special advantage held by the earth sciences is that the laboratory of the fields and the open air is placed at the free disposal of all students. The example of the German schoolmaster, who makes the excursion an important part of his geographic instruction, is worthy of the closest following. The work of running water, the processes of rock decay and the formation of soils, the relations of plants and animals to station, the forms of clouds and all the phenomena of the weather are a few examples of topics best studied in the field. All accessible outcrops of rocks and exposures of glacial drift will be examined, and a topographic map may be prepared showing the relief of the vicinity. On such excursions the passion of the collector need not be repressed, but the aim must be distinctly other than picking up specimens. Where Astronomy is taught, many observations may most profitably be made of the place and movements of the members of the solar system, and in all concerning the planet or the life of man upon it, these can hardly be too thorough.

We recommend that laboratory work in the school room be given the largest possible place. Recent manuals suggest many details of such work, and no directions will here be needful. As an example of the helpfulness of the method, we may mention that pupils will most readily understand the effects of the inclination of the earth's axis, if they prepare drawings showing the place of the zonal circles on imaginary planets with axes of various inclinations.

Apparatus.—We emphasize the fact that physiography, as well as chemistry and physics, requires a material equipment in order to be taught with the highest degree of success. New high school buildings, at least in our larger towns, should make provision for a physiographic laboratory. No approach to the study of land forms is so direct as that by way of the relief map or model. Of extant models we place first the Harvard Geographical series of three, issued by Ginn & Co., Boston, at \$12 for the set. The forms of mountain and plain, of valley and shore, which they illustrate, are too numerous to be mentioned here. Many of their lessons are so obvious that they may be used in the grammar grades, and some of the problems they present will test the ability of the most advanced pupils. They should be in every high school in Iowa where physiography is scientifically taught.

We commend also the relief maps published under the direction of the United States Geological Survey by E. E. Howell of Washington. While the cost of these magnificent models may place them beyond the reach of most of our high schools, their value in instruction each year will be found far in excess of the annual interest which might be reckoned on the investment. Of these we mention the relief maps of the United States, of different sizes, and ranging in price from \$25 to \$125; the Grand Canyon of the

Colorado, with part of the high plateaus of Utah, and by way of comparison the Yosemite canyon and the Niagara gorge on the same scale, \$125; Mount Shasta, a typical volcanic cone, \$40; and Chattanooga District, illustrating peneplanation and the adjustment of rivers, \$65.

Cheap relief maps of the continents and of the United States, in which the vertical scale is grossly exaggerated, are caricatures which teach at least much of error as of truth. In general, the educational value of a model, so far as the specific value of land forms is concerned, is in inverse ratio to the size of the area represented. It will sometimes be possible to enlist the help of students of special aptitudes in this direction. We have seen models in putty made by Iowa students, equal in technique to those of professional designers. Such work is so expensive in time that we cannot recommend it as a general exercise. This objection, however, does not apply to models made of dry sand, manipulated chiefly with funnels, since a delicate and complicated relief can be rendered with the minimum of time and trouble and with a fair degree of accuracy.

Topographic maps are so useful and so cheap that their absence in the high school may be taken to indicate something else than lack of funds. Those of our own country may be obtained from the Director of the United States Geological Survey, Washington, at five cents each, or \$2.00 per hundred, remittances being made by money order. Of these we commend as of special use the Iowa sheets, and the atlas of ten sheets with descriptive text, by Gannett, termed Folio 1, Physiographic Types, and costing twenty-five cents. Land forms not included in the atlas will be found in the Harrisburg and Lykens sheets, Pennsylvania; Crater Lake, Oregon; Tooele Valley, Utah; Marysville, California; Kaibab and Fort Defiance, Arizona; Corazon, New Mexico; and Kinsley, Kansas. An excellent list of selected maps is given in "Government Maps for Use in Schools," by Davis, King & Collie, Henry Holt & Co., New York, price thirty cents.

From the Mississippi River Commission, St. Louis, may be purchased at nominal rates several series of maps of that river, of which the most useful will perhaps be found the eight-sheet set showing the flood plain and the areas of overflow from Cairo to the Gulf. Daily weather maps will be obtained from the nearest publishing station of the United States Weather Bureau.

Many of the phenomena of physiography can be realized in the school room only by aid of the photograph or drawing. A collection of typical views is as necessary to the effective teaching of land forms as is a collection of fossils in historic geology. To present such views impressively to the entire class at once, so that each student may clearly see the smallest detail, requires apparatus for projection. A good lantern and a collection of slides may therefore be added to the list of the necessary equipment of a good physiographic laboratory. The screen may be either a white wall of smooth surface, or a white curtain mounted upon a spring roller. The room may best be darkened by curtains of stiff, heavy and opaque material, running in slots made by screwing strips of wood to the window casings.

Lantern slides cost about fifty cents each; so that a collection of say 500 views represents a considerable outlay of money. None but typical and well executed slides should be purchased. An excellent set of about 100, selected for the Cambridge, Massachusetts, schools by Prof. Wm. M. Davis,

is issued by E. E. Howell, Washington. Slides in many subjects can be rented at five cents each from the houses in our cities which deal in projection apparatus; but in this group of sciences their sets are meagre, ancient and useless. It is greatly to be desired that some of the better equipped schools in the West should follow the example of the American Museum of Natural History, which rents slides to high schools of New York; and we are pleased to notice that one of our higher institutions, Cornell college, has permitted high schools to avail themselves of its collection of more than 1,000 slides in this department, on terms more liberal than is customary.

A word will perhaps suffice as to the necessary meteorological equipment. This should include a barometer, thermometer, psychrometer, and rain gauge, at the least. Reliable instruments of the United States Weather Service patterns can be obtained from H. J. Green, 1191 Bedford avenue, Brooklyn, New York. Many suggestions of value as to their use will be found in *Ward's Practical Exercises in Elementary Meteorology*, just published by Ginn & Co., Boston.

Books of Reference.—Books and magazines for collateral reading form a necessary part of the equipment, and full lists will be found in recent books. High school libraries in the state can obtain the publications of the Iowa Geological Survey, by application to the Director, Des Moines, and in these will be found the fullest description of the physiographic phenomena of our own state. Duplicate copies of county reports may sometimes be obtained through members of the state legislature. Of magazines the *Journal of School Geography*, Lancaster, Pennsylvania, \$1.00, and the *National Geographic Magazine*, Washington, \$2.00, will be found particularly useful.

PHYSIOLOGY IN THE HIGH SCHOOL.

I. Things to be accomplished.

1. The pupil should acquire a knowledge of the general structure of the human body and of the functions of its various parts.
2. He should have sensible ideas regarding hygiene, both personal and public.
3. He should learn something of scientific method and acquire some degree of dexterity in experimentation.
4. He should be taught in the practical illustrative exercises to view nature at first hand, using microscope and other apparatus only when necessary.
5. He should learn that the living body is a part of nature, and as such never transcends the operations of law; that law for the human mechanism is inexorable as for the lowliest worm that crawls.
6. He should see that the human body is holy, to be revered; that a long life and a healthy body depend upon individual conduct and not upon physicians' prescriptions.

II. Order of treatment.

1. So many excellent text-books are now available that it is hardly necessary to suggest more than the use of a text-book of recent date.
2. But any student in physiology should begin not too far afield from that which is commonly known.

III. Methods of study.

1. The method of presentation should combine certain work of a practical character with text-book study. This practical work should embrace the observation of physiological phenomena, experiments so simple that the pupil can readily make them, and dissections and demonstrations in anatomy.

The amount of dissection that may be performed in class illustrative of the text will depend somewhat upon public opinion and the tact of the teacher. Very profitable comparisons can be made between the anatomy of a rabbit or cat and that of the human body. It will be found profitable in many instances to have the illustrative work in a topic precede the recitations. The teacher in some cases can prepare dissections and demonstrations of functions, when it would not be feasible for the entire class to perform the particular dissections. But as far as possible, the pupil should be responsible for each detail. The teacher should not allow the practical work to become an insignificant part of the study. Expensive apparatus is not only unnecessary but is really out of place. Even the microscope should occupy but a minor sphere. The unaided eyes of the pupil will elicit nearly all of the information which can be assimilated at this period.

2. Each pupil should be required to make careful drawings of the dissections and accurate records of the experiments. The intimate relationships between the recitations and the illustrative work should never be lost sight of.

IV. Text and reference books.

The following texts are adapted to high school classes: Blaisdell's Practical Physiology; Colton's Physiology, Experimental and Descriptive; Foster & Shore's Physiology for Beginners; Macy & Norris' Physiology for High Schools; Martin's Human Body; Briefer Course, revised by Fritz; Walker's Anatomy, Physiology and Hygiene.

In addition to the directions given in any of these text-books the teacher will be assisted in his practical exercises by the following:

Foster and Langley's Practical Physiology; Gorham & Tower's Dissection of the Cat; Howell's Dissection of the Dog; Peabody's Laboratory Exercises in Anatomy and Physiology; Sanford's Experimental Psychology; Stirling's Practical Physiology.

ZOOLOGY.

I. *The Teacher.*—The best way to deal with animal study when the teacher to whom the work is intrusted is inadequately trained, or not by nature endowed with a genuine interest in animal life, is not to teach it at all. Special training is just as necessary in the case of a teacher of zoology as in that of a teacher of Latin, and it is far better to drop the matter entirely from the course, than to have the child's conception of nature as manifested in living forms ruined by a faulty introduction at the outset. We assume then that the teacher has had a thorough course in zoology or biology in university, college or properly conducted normal school, and that he or she does not teach the subject under protest, but because a real love for the study of animals renders such teaching a pleasure.

II. *The Objects to be Attained Should be well Defined.*—There should be a clear conception in the mind of the teacher of what he is trying to do, and

toward this end all the work should be intelligently centered. These objects are numerous, but there are three which in our opinion, are of paramount importance. These are:

1. *The Cultivation of the Power of Observation.*—The ability to see things and to see them correctly, is not a natural, but an acquired faculty. It is quite exceptional to find either a child or an adult who has good observational ability unless that ability has been brought out by careful training. No study surpasses that of zoology in its value in this direction when rightly used.

2. *The Cultivation of the Power of Description.*—This is still more rare, in children at least, than the preceding. Indeed, the deficiency is by no means confined to children. Not one in twenty university students is able to describe an ordinary object with any facility until he has been carefully trained. The power of good description is psychologically a very high one, acquired late by the race, and usually by the individual. For this reason the science of zoology requires considerable maturity of mind, if the best educational results are to be obtained, and should come as late as possible in the high school course. The power of description should be very carefully trained by the teacher who, if faithful, can thus secure psychological improvement of the utmost practical importance.

Animals usually have definite forms and colors and parts that lend themselves readily to concise description. But to secure this from the pupil requires all the firmness, patience and tact that the teacher can command.

3. *The Cultivation of the Power of Reasoning.*—The student, having learned to see and to describe, should be led to think, to compare, to judge and to infer. This is the crowning glory of the teacher's service—to stimulate thought, to induce in the pupil the habit not only of asking, but of answering questions. Such questions as, Why is this so? How did it become so? Are these two organs really alike, or only seemingly so? Why are these two butterflies so alike in form and color while so different in anatomical details? How is it that the bones in my hands are so like those in the flipper seal? It is this part of the work that can be made the most fascinating to both teacher and taught. But it should be continually borne in mind that the pupil should be encouraged to answer his own questions, the teacher seeing to it that the proper facts be placed before him in the form of specimens if possible and of books of lectures if necessary.

Hasty conclusions and generalizations should not be encouraged. An honest conclusion, although incorrect, may be of more educational benefit than a correct conclusion that is simply "jumped at."

III. *Method of Teaching Zoology.*—While almost any method (except the text-book method) can be made to do good service in animal study, there are certain ways of teaching that experience has proved to be of superior merit. Perhaps these may best be embodied in the following suggestions:

1. Study those forms of animal life that are most abundant in your vicinity, and that can easily be secured and often brought alive into your class room. The hydra, the clam, the earth-worm, the crayfish, the grasshopper, the perch, the frog, the garter snake and the rabbit are almost everywhere available and form laboratory standbys that can hardly be dispensed with.

2. Study the external anatomy, the gross internal structure and the life history as far as possible. Most of the more important anatomical points can be made out with the unaided eye or dissecting lens. These points are in general more available than the minute structure for attaining the educational advantages mentioned above. Moreover, they can be ascertained without expensive equipment, and therefore be at the service of all high school teachers.

3. We would recommend that most of the time devoted to the course be put in the study of invertebrate animals, because they are in general more conveniently secured and handled than vertebrates; they can be more easily dissected, and their study involves less pain to the animals themselves. A few typical vertebrates should also be studied, not because they furnish better educational drill, but because they afford a necessary introduction to human anatomy and physiology.

4. Some sort of guide or manual being usually necessary, we recommend as of special merit a little work called "Practical Zoology" by Colton (Heath & Co., Boston) as embodying our ideas as to the general method to be followed.

5. As may be inferred from suggestion 4, we do not recommend the use of the compound microscope in high school work, except as an occasional aid in special cases. We admit the fascination of the microscope and its indispensable aid in more advanced investigation, but regard it as most important that the pupil learn to use his eyes first, and to study the entire animal as a unit and its parts as organs, before being introduced to the histological structure which logically comes last.

IV. Equipment.—This will of course vary greatly according to the available funds and the ideas of the school board. Among the practically indispensable requisites, the following may be mentioned:

1. Laboratory tables, plainly and solidly constructed, the main requirements being a top that will not be injured by water, a good sized drawer for each pupil, and a good light. The size and arrangement of tables must be adapted to the shape of the room and position of the windows.

2. *Dissecting Microscopes.*—These should be as good as the state of the treasury will permit. This is the worst part of the equipment upon which to practice economy. But if economy must be used, it should be borne in mind that a good dissecting lens is, in our opinion, better than an inferior dissecting microscope.

3. Dissecting tools such as forceps, scissors, scalpels, needles, etc. should be furnished to each student; also at least one dissecting pan with a wax or cork bottom. Conveniences for washing and wiping the hands should not be neglected.

4. Specimens for study can in most cases be secured without expense if the teacher is energetic and the class genuinely interested. Living specimens can usually be secured by the students, except in the winter, if they are wisely directed. A large supply of reserve material in alcohol or formalin can be kept in store, the material being collected in spring, summer and autumn. Every opportunity to get students into the field should be utilized.

5. A collection of local animals can be made by the teacher and pupils and increased year by year. This is one of the very best methods of stimu-

lating and sustaining interest and utilizing the out-door activity of the pupils. It involves, however, a good deal of work such as only the truly devoted teacher will carry to a successful conclusion.

Finally. The most should be made of every specimen, as an unnecessary destruction of animal life should never be permitted, much less encouraged, by the teacher.

(Where further details are desired, information should be secured from some one who has had considerable practical experience in conducting such work. In no case should an inexperienced teacher be allowed to order or select equipment without such aid.)

ASTRONOMY IN THE HIGH SCHOOL.

In the consideration of suitable scientific branches for high school courses it is necessary to bear in mind the limited equipment of the schools, and the mental capacity of the students. The study of astronomy is eminently adapted to the requirements of the small high school, as it may be pursued to advantage with almost no outlay for apparatus, and a very good elementary knowledge of the subject may be acquired by the student of average ability at quite an early age. Astronomy is a subject that appeals to the mind of the young for the reason that its phenomena are of daily occurrence, and force themselves upon the attention of even the most casual observer. That astronomy is essentially a natural science study is shown by its being the oldest of our sciences, its profoundly mathematical aspect being of comparatively modern development.

The professional value of a study is not the only point to be considered in determining its fitness for the high school curriculum. On the other hand we have passed beyond the time when even the laboring man should limit his knowledge of the "Three R's," and the high school fails in its most important duty when it fails to train its students to observe the world about them.

It is not usually necessary for the teacher to awaken keen enthusiasm in the study of astronomy, as it often is in the case of chemistry, or of Physics, for the average student has from childhood felt an almost reverential interest in "those shining orbs that bespangle the dark robe of night." Consequently, astronomical facts fall upon eagerly receptive minds, and the student's powers of observation are trained almost without his realizing that he is applying himself to a serious study.

In the teaching of this, or of any other science, the true teacher will seize upon the opportunities offered to stimulate the inventive genius of his students, by requiring them, with but little assistance, to make simple apparatus by which they may determine roughly many fundamental facts,—in this case those that are connected with the local latitude and longitude of the student's home. The student may, in effect be asked this question: What facts regarding your position upon the earth's surface can you determine by the use of apparatus made by yourself? Let him make the apparatus, and demonstrate these facts. By such methods he may be trained not only in the invention of his own ways and means of research, but also in the use of simple tools and appliances. His interest will be stimulated by a brief historical study of the subject, in which special attention is called to the development of simple astronomical apparatus by early workers in this line. Some

very practical suggestions for the student's help in the arrangement and use of simple devices, and also in locating important lines, circles, and directions, may be found in David P. Todd's "A New Astronomy", published by the American Book Co.

The interest of the average high school student in astronomy may be greatly increased by the devotion of a number of evenings to the identification of some of the prominent constellations. For this purpose he should have access to a small star atlas, such as R. A. Proctor's "Half Hours with the Stars," published by W. H. Allen & Co., 13 Waterloo Place, London. We would recommend that not only evenings when there is no moon, but also evenings of considerable moonlight be chosen for this work, as the starry heavens are radically different in appearance at such times. It is not necessary that the student identify more than a few of the very prominent constellations.

The method of obtaining exact time, and the relations between the various kinds of time should be carefully considered. Attention should be called to the importance of uniform standards of time and to the necessities which have led to the division of the country into a few time belts. In the study of the planets the student should be asked to locate by his own observation all those that are visible during the time that he is engaged in astronomical study, it having been explained to him that the planets show a steady and not scintillating light, that they are close to the plane of the ecliptic, and that by careful observation their movement may be noted in the course of a few days. Attention should be called particularly to astronomical units, stress being laid upon the necessity of using units in terms of which all magnitudes may be expressed by rather small numbers, large numbers being in general quite meaningless to the student. Thus terrestrial dimensions may be given in miles; while the moon's distance is preferably expressed in terms of the earth's radius. The mean distance of the sun is a convenient unit with which to measure all planetary distances, while "light years" are needed to reduce the incomprehensible stellar distances to our ordinary numerical conception.

For help in identifying constellations, and also for use in the class room, the diameter of the moon's disc should be kept in mind as about one-half of a degree, while the distance between the "pointers" of the "dipper" is about five degrees, and one side of the great "Square of Pegasus" about eleven degrees. In connection with the latter constellation it may be noted that the east side of this "square" lies in the equinoctial colure, thus enabling the student to form some definite conception of the position of the vernal equinox. By means of such facts as the above, the student will acquire concrete ideas of the angular distance, separating stellar bodies, and of the dimensions of figures upon the celestial sphere. Without these ideas, many of the fundamental notions of the science must be vague and unintelligible to the student, and their statement a mere memory exercise.

ON THE TEACHING OF ECONOMICS IN THE HIGH SCHOOL.

The place in the course of the high school which economics has so far made for itself in Iowa high schools is that of a single term-study of from twelve to eighteen weeks, in the last year, or in the year preceding the last year, of the prescribed course of study. If the writer is not mistaken with regard to what he considers the present place of economics in the usual high school

course, he will venture to express the opinion that economics has now about the place and nearly all the time which can be accorded it by the side of the other subjects. It may be urged, however, that in all cases where the study of economics is formally undertaken, it should have fully one-half of the school year, to be followed or preceded by a good high school course in the elements of civil government or United States history.

Something may be said with regard to the preparation that is made for the study of economics in and throughout the work of the lower grades and during the first year or two of the high school. Teachers, do perhaps, not see with sufficient clearness the amount of preparation for the study of economics that may be made through the curriculum of the grades and the first two years of the high school.

Four studies expressly, and incidentally a fifth, prepare the way for the teaching of economics. These are: Arithmetic, geography, history and civil government. The fifth is reading, if it may be treated separately. All of these bear upon the study of economics and with the improved methods of teaching these subjects as actual branches of knowledge concerning the world in which we live, methods which have been making their way into our schools, the high school pupil in his third or fourth year should be prepared to take up economics as it is presented in such a text as that of Prof. Laughlin or that of the late President Walker.

To point the relation of the preliminary studies more clearly, and in one of the most neglected fields, attention is called to the opportunities which the teacher of arithmetic has and the teacher of bookkeeping, to give his pupils information of detail regarding the course of commerce and the usages of business in modern countries. Such a text in higher arithmetic as that of Beeman and Smith, for example, would furnish an admirable opportunity for excellent collateral work by a high school class that is pursuing or about to pursue a course of study in theoretical economics as expounded in our standard text-books. Physical geography and political geography may each in their own way contribute their portion of object matter toward furnishing a concrete basis for the discussion of domestic as well as international trade.

In the history class long before you come to the formal study of economics there are many opportunities of enforcing the teachings of economic science by evils which follow from a neglect of those teachings, the evils of discredited currency, as experienced in the revolutionary war, or the dangers of irresponsible banking as illustrated by disorders in the currency connected with our wild-cat banking in the southwest and west during the thirties and forties of the present century.

In the class in civil government the occasion for having government at all may be studied and the advantages of law and order in their reaction upon the economic welfare of the people may be pointed out at length.

One chief obstacle to the successful teaching of economics in the high school lies in the fact that the boys and girls in our high schools have hardly a sufficient data of experience to enable them to comprehend or appreciate the broad generalizations which are customarily made in economic science. Therefore the more active and intelligent the efforts of teachers in the grades and in the co-ordinate studies in the high school itself are, to furnish the mind with objective content, real knowledge of the actual world in its business life and laws, in so far as knowledge of these can be communicated to

the youth in the school room from day to day, the more probably will a high school class profit by a course in economics.

The importance, or perhaps rather the possibilities, of such subjects as commercial arithmetic and bookkeeping can only be appreciated by the teacher who is himself a wide-awake citizen, thoroughly informed and appreciative of these subjects as they reach into the very life of our busy everyday world. Good teaching along these lines, supported by a correct ethical purpose, is of great importance toward preventing poor teaching and yet poorer learning when the pupils come to the abstractions of economic science.

One word now on the teaching of economics itself. The writer has no hesitation in saying that if the supplementary and preparatory work which he has sketched could be well done, he would prefer to see economics as such moved into the college and university curriculum, because the dangers of a superficial study of a difficult subject are always considerable.

It is perhaps not necessary to go further from the shore than wading depth, and the precaution to keep on bottom that can be fathomed may be wisely urged. To this end the text-book should always be well selected. In economics the text-book should be strong, clear, and classical. The two texts above referred to are good examples of their kind; and there are a few other good texts for high school classes. That of Bullock may be named.

We shall by and by have books which deal with economic science in a more descriptive manner, though equally scientific. Henry W. Thurston's *Economics and Industrial History* (Chicago, 1899) is a good example of this new type of text-book, but it requires a well prepared teacher to use it. A good text-book should be calculated to furnish knowledge and develop lines of reasoning suitable to the age of the pupils. Where descriptive work can be supplied by the teacher, who is, however, seldom prepared to furnish it, the high school class has a great advantage.

THE TEACHING OF CIVICS OR CIVIL GOVERNMENT IN THE SECONDARY SCHOOLS.

The importance of civics or civil government in the schools depends upon our view of the purposes of education in general and of political education in particular. If the chief purpose of public education is to elevate the public standards of citizenship and right living, and if the purpose of political education is to familiarize the people with the forms and processes through which they may participate in public affairs, then there can no longer be any doubt of the place of civics in our schools.

For should this subject be left for the college and university curriculum, it should be taught in all high schools; and in connection with history, geography and literature it may be presented in grades below the high school. In the broadest sense of exalting citizenship, suggesting ideals of conduct, and inspiring a love for public service, civil government has a place in every school, college, and university in the land. But it is the inspiration of high standards of citizenship and right living rather than the acquisition of knowledge concerning the forms and powers of government that makes the study of civics and politics worth the while. The success with which it is taught will depend largely upon the purpose and character of the teacher.

There is no one right way of teaching a subject like civics. Each teacher must to a very considerable extent be his own guide and follow his own methods. To follow the program of another and rely wholly upon text-books is to assume the roll of task master. Nevertheless, texts will assist and suggestions may inspire. Herein a few suggestions are ventured.

In the first place an attempt should be made to bring the pupils to a realization of their citizenship. They should be filled with the idea that they are not independent, isolated individuals, but members of a larger whole—the family, the community, the city, the county, the state, and nation. Then they should be made to see that the government—local, state, and national—under which they live is simply the organization of the people; that the form and administration of this government is determined by the people acting as citizens; that the character of the people will be the measure of the standards of the government, and that it is the duty of all to participate in the administration of government, to the extent, at least, of helping to create a sound public opinion. In short the facts relating to the form and organization of government gathered from code, statutes, constitutions, and text-books should be spiritualized by such ideas as these.

And the teacher himself must realize that he is assisting in the preparation of boys and girls, young men and young women for intelligent, useful and active citizenship. He must teach civics, ever conscious of the fact that the highest aims of political education is to prepare the youth for citizenship by putting the emphasis on character, and by inspiring ideals of courage, progress, loftiness of purpose, sympathy, unselfishness and public generosity.

As intimated above it would perhaps be unwise to attempt a systematic course in civics in any of the grades below the high school. And yet, pupils in the grammar grades may be somewhat informed concerning the government under which they live through the courses in geography and history. They may also be led to seize upon many ideals of public service and patriotic conduct through the study of the lives of great citizens and statesmen. Of course it cannot be expected that pupils in these grades will read widely in the literature of American statesmanship; but the nobler traits and aspirations of great citizens like Washington, Jefferson, Madison, Lincoln, Greeley, and Kirkwood, can easily be set forth by the teacher in language easily comprehended by a child of eight or ten years. To get children to reverence and cherish the ideals in the lives of these great men will be far more value than to force them to commit to memory lists of township, county and state officers. For after all the aim of political education, whether in the college, university or secondary schools, is the formation of character through the adoption of ideals.

In the eleventh or twelfth grades of the high school a systematic course in civics may be prescribed. Here a text may be used. The pupils should in a very general way be familiarized with the form, organization, and workings of the local, state, and national government under which they live.

The facts relative to the form and organization of the government may be gathered from text-books, the constitution and the code. But such facts should be supplemented by talks of the rights, duties, privileges, and obligations of citizenship. Comparisons with foreign governments may be introduced with good results.

It is of course more difficult to make clear the workings of government. However, something in this direction may be gained through mock-conventions, mock-elections, mock-assemblies, mock-caucuses, mock-congresses, and the like. Where practicable the pupils should be encouraged to visit the courts, the city or village council, and the state legislature.

The first work in civics in the high school will very naturally be given in connection with and as a part of history and geography. The history taught should be local history and state history. The geography taught should be the geography of the township, county, city, and state. Thus, local politics may be studied in connection with local geography and local history.

THE ELEMENTARY COURSE IN GERMAN.

1. *The Aim of the Instruction.*

At the end of the elementary course the pupil should be able to read at sight, and to translate, if called upon, a passage of every easy dialogue, or narrative prose, help being given upon unusual words and constructions; to put into German short English sentences taken from the language of everyday life or based upon the text given for translation, and to answer questions upon the rudiments of the grammar as defined below.

2. *The Work to be Done.*

During the first year the work should comprise: (a) Careful drill upon pronunciation; (b) the memorizing and frequent repetition of easy colloquial sentences; (c) drill upon the rudiments of grammar, that is, upon the inflection of the articles, of such nouns as belong to the language of everyday life, of adjectives, pronouns, weak verbs, and the more usual strong verbs, also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word order; (d) abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (e) the reading of from seventy-five to one hundred pages of graduated texts from a reader, or in the form of simple stories, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise: (a) The reading of from 150 to 200 pages of literature in the form of easy stories and plays; (b) accompanying practice, as before, in the translation into German of easy variations upon the matter read, and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages; (c) continued drill upon the rudiments of the grammar, directed to the ends of enabling the pupil, first, to use his knowledge with facility in the formation of sentences, and, secondly, to state his knowledge correctly in the technical language of the grammar.

3. *Suggestions to the Teacher.*

Stories suitable for the elementary course can be selected from the following list (arranged alphabetically): Anderson's *Märchen und Bilderbuch ohne Bilder*; Arnold's *Fritz auf Fereen*; Baumbach's *Märchen, Die Nonna,*

and *Der Schwiegersohn*; Gerstacker's *Germelshäusen*; Heyse's *L'Arrabiata*, *Das Mädchen von Treppi*, and *Anfang und Ende*; Hillern's *Honer als die Kirche*; Jensen's *Die braune Erica*; Leander's *Traumereien*, and *Kleine Gerschichten*; Seidel's *Märchen*; Stokl's *Unter dem Christbaum*; Storm's *Immensee* and *Geschichten aus der Tonne*; Zschokke's *Der zerbrochene Krug*.

Good plays adapted to the elementary course are much harder to find than good stories. Five act plays are too long. Among shorter plays the best available are perhaps: Benedix's *Der Prozess*, *Der Weiberfeind*, and *Gunstige Vorzeichen*; Elz's *Erist* night eifersüchtig; Wichert's *An Der Majorzecke*; Wilhelmi's *Einer muss heiraten*. It is recommended, however, that not more than one of these plays be read. The narrative style should predominate.

Translation from German into English should be idiomatic not literal. The pupil should be constantly reminded that he is transferring, from one language to another, ideas not words. But from the outset, it should not be forgotten that the principal object of study is not to learn to translate, but to learn to read understandingly without translating. This end can best be accomplished by beginning with some very easy text in connection with the grammar. And, as a rule, a class should never be put into a text the substance of which it can not understand at sight.

Reproductive translation into German. The program of work provides for practice "in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages." This is what the Germans call "freie Reproduktion," and is one of the most profitable exercises possible. It teaches the pupil to give heed not only to the meaning but to the form in which it is expressed, to put thoughts in German with German as a starting point. The language of the original should, of course, not be memorized verbatim; what is wanted is not an effort of the memory, but an attempt to express thought in German forms that are remembered only in a general way. The objection to independent translation from English into German is that for a long time it is necessarily mechanical. The translator has no help except his grammar and dictionary and his translation is mere upsetting. In free reproduction, on the contrary he instinctively starts from his memory of the original. His thoughts tend to shape themselves in German form. In short, he learns to think in German.

II. *The Intermediate Course in German.*

1. *The Aim of the Instruction.*—At the end of the intermediate course the pupil should be able to read at sight German prose of ordinary difficulty, whether recent or classical; to put into German a connected passage of simple English, paraphrased from a given text in German; to answer any grammatical questions relating to usual forms and essential principles of the language; including syntax and word formation, and to translate and explain (so far as explanation may be necessary) a passage of classical literature taken from some text previously studied.

2. *The Work to be Done.*—The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally

and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive,) and likewise upon word order and word formation.

This represents the work of the second year in the two years' course adopted by the college department of the Iowa State Teachers' Association.

3. *Suggestions to the Teacher.*—Suitable reading matter can be selected from such works as the following: Ebner-Eschenbach's *Die Freiherren von Gemperlein*; Freytag's *Die Journalisten und Bilder aus der deutschen Vergangenheit* (e. g. Karl der Grosse, Aus den Kreuzzügen, Doktor Luther, Aus dem Staat Friedrichs des Grossen;) Fouque's *Undine*; Gerstacker's *Irrfahrten*; Goethe's *Hermann und Dorothea* and *Iphigenie*, Heine's poems and *Reisebilder*; Hoffman's *Historische Erzählungen*; Lessing's *Minna von Barnhelm*; Meyer's *Gustav Adolfs Page*; Moser's *Der Bibliotheker*; Riehl's *Novellen* (e. g. Burg Neideck, Der Fluch der Schönheit, Der stumme Ratsherr, Das Spielmannskind;) Rosegger's *Waldheimat*; Schiller's *Der Neffe als Onkel*, *Der Geisterseher*, *Wilhelm Tell*, *Die Jungfrau von Orleans*; *Das Lied von der Glocke*, *Balladen*; Scheffel's *Der Trompeter von Sakkingen*; Unland's poems; Wildenbruch's *Das edle Blut*.

The general principles of teaching set forth in the preceding section apply also to the work of the intermediate course. Translation should be insisted upon so far as necessary, but the aim should be to dispense with it more and more. Every expedient should be employed which will teach the scholar to comprehend and feel the original directly, without the intervention of English. Occasional exercises in preparing very careful written translations should be continued. Practice should be given in reading at sight from authors of moderate difficulty, such as Rieh or Freytag. The "free reproduction" should by all means be kept up. It will be found much more valuable at this stage than independent translation from English into German. In dealing with classical literature thorough literary studies are, of course, not to be expected, but an effort should be made to bring home to the learner the characteristic literary qualities of the text studied, and to give him a correct general idea of the author. In the case of the drama, at least, some study of structural technique will often add interest to the work. The teacher will find Freytag, *Technik des Dramas*, of Franz, *Aufbau der Handlung in den klassischen Dramen* (velhagen und Klasing, 1892) good guides in this study.

III. *The Advanced Course in German.*

1. *The Aim of the Instruction.*—At the end of the advanced course the student should be able to read, after brief inspection, any German literature of the last one hundred and fifty years that is free from unusual textual difficulties, to answer in German questions on the lives and works of the great writers studied, and to write in German a short, independent theme upon some assigned topic.

2. *The Work to be Done.*—The work of the advanced course (last year) should comprise the reading of about 500 pages of good literature in prose and verse, reference reading upon the lives and works of the great writers studied, the writing in German of numerous short themes upon assigned subjects, independent translation of English into German.

3. *Suggestions to the Teachers.*—Suitable reading matter for the last year will be: Freytag's *Soll und Haben*; Fulda's *Der Talisman*; Goethe's dramas (except *Faust*); Goethe's prose writings (say extracts from *Werther* and *Dichtung und Wahrheit*); Grillparzer's *Ahnfrau*, *Sappho*, or *Der Traumein Leben*; Hauff's *Lichtenstein*; Heine's more difficult prose (e. g. *Über Deutschland*); Kleist's *Prinz von Homburg*; Korner's *Zriny*; Lessing's *Emilia Galotti* and prose writings (say extracts from the *Hamburgische Dramaturgie* or *Laokoon*); Scheffel's *Ekkehard*; Schiller's *Wallenstein*, *Maria Stuart*; *Braut von Messina*, and historical prose (say the third book of the *Geschichte des dreissigjährigen Keieges*); Suderman's *Johannes*; Tieck's *Genoveva*; Wildenbruch's *Heinrich*.

A good selection from this list would be: (1) A recent novel, such as *Ekkehard* or *Soll und Haben*, read in extracts sufficient to give a good idea of the plot, the style, and the characters; (2) *Egmont* or *Gotz von Berlichingen*; (3) some of Goethe's prose, say the *sesenheim* episode from *Dichtung und Wahrheit*; (4) *Wallenstein's Lager* and *Wallenstein's Tod*, with the third book of the *Thirty Years' War*; (5) *Emilia Galotti*; (6) a romantic drama, such as *Genoveva* or *Der Prinz von Homburg*. It is assumed that by the time the fourth year is reached, translation in class can be largely dispensed with and the works read somewhat rapidly. Of course they cannot be thoroughly studied, but thorough literary study belongs to the college or the university. It is not sound doctrine for the secondary school that one work studied with the painstaking thoroughness of the professional scholar is worth half a dozen read rapidly. In the secondary school the aim should be to learn to read easily, rapidly, and yet with intelligent general appreciation, somewhat as an ordinary educated American reads Shakespeare.

THE ELEMENTARY COURSE IN FRENCH.

1. *The Aim of the Instruction.*—At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life, or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

2. *The Work to be Done.*—During the first year the work should comprise (a) careful drill in pronunciation; (b) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (c) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (d) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read, the teacher giving the English, and in reproducing from memory sentences previously read; (e) writing French from dictation.

During the second year the work should comprise: (a) The reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (b) continued practice in translating into

French easy variations upon the texts read; (c) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (d) writing French from dictation; (e) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (f) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

When only one year's work in French is attempted, at the close of the secondary course, the total amount of reading indicated above must be reduced by about one-fourth.

Suitable texts for elementary reading are About's *Le Roi des montagnes*; Brunot's *Le tour de la France*; Daudet's easier short tales; De la Bedolliere's *La Mere Michel at son chat*; Ereckman-Chatrian's stories; Froa's *Contes biographiques* and *Le petit Robinson de Paris*; Foncin's *Le pays de France*; Labiche and Martin's *La poudre aux yeux* and *Le voyage de M. Perrichon*; Legouve and Labiche's *La cigale chez les fourmis*; Malots *Sansfamille*; Mairret's *la tache du petit Pierre*; Merimee's *Colomba*; extracts from Michelet; Sarcey's *Le siege de Paris*; Verne's stories.

3. *Suggestions to the Teacher.* The suggestions already offered upon the teaching of elementary German are, in the main, equally applicable to the teaching of elementary French. While each language has its own peculiarity difficulties that require special attention from the teacher, the general principles that should regulate the work are the same for both. Only a few supplementary observations need be added here.

The educational value of the study of French in cultivating habits of careful discrimination, of mental alertness, of clear statement, must never be lost from view, and the expediency of an exercise must often be determined by its utility in attaining these ends. With regard to drill in grammar, it is not for the secondary school to spend time over the many pages of exceptions, peculiarities in gender and number, idioms that one rarely sees and never thinks of using, and grammatical puzzles for which each learned grammarian has a different solution, that form so large a part of some grammars. The great universals, however, (the regular and the common irregular verbs; negative and interrogative variations; the common guise and meaning of moods and tenses; the personal pronouns and their position; the general principles governing the agreement of adjectives, pronouns and participles; the partitive constructions; the possessives, demonstratives, interrogatives, and relatives; the most common adverbs, conjunctions, and prepositions), should all be thoroughly understood by the end of the elementary course, and subsequent study should give considerable facility in using them.

The verb seems most formidable; but when it is perceived that most forms of all verbs may be treated as identically derived from the "primitive tenses," the difficulties appear less numerous, and when the principle of stem differentiation under the influence of tonic accent, persisting in the older and more common verbs, is a little understood, the number of really unique forms is inconsiderable.

No attempt should be made to teach literature until the pupil is quite familiar with ordinary prose and can read page after page of the text assigned with no great need of grammar and dictionary. The classics of

dramatic literature may very properly be postponed until the fourth year, and are not always desirable even then; but a few are given below among texts suitable for the intermediate course in the hope that these rather than others will be selected by teachers who, for reasons of their own, choose to read something of the kind at this stage of the course.

II. *The Intermediate Course in French.*

1. *The Aim of the Instruction.*—At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

2. *The Work to be Done.*—This should comprise the additional reading of from 400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic form; constant practice in giving French paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation.

This represents the amount of work contemplated in the two years' preparatory course adopted by the College Department of the Iowa State Teachers' Association.

Suitable texts are: About's stories; Augier and Sandeau's *Le Gendre de M. Poirier*; Beranger's poems; Corneille's *Le Cid* and Horace; Coppee's poems; Daudet's *La Belle Nivernaise*; La Brete's *Mon oncle et mon cure*; Mme. de Sevigne's letters; Hugo's *Hernani* and *La Chute*; Labiche's plays; Loti's *Pecheur d'Islande*; Mignet's historical writings; Moliere's *L'Avaro* and *Le Bourgeois Gentil'homme*; Racine's *Athalie*, *Andromaque*, and *Esther*; George Sand's plays and stories; Sandeau's *Mlle. de la Seigliere*; Scribe's plays; Thierry's *Recits des temps merovingiens*; Thier's *L'Expedition de Bonaparte en Egypte*; Vigny's *La canne de jonc*; Voltaire's historical writings.

III. *The Advanced Course in French.*

1. *The Aim of the Instruction.*—At the end of the advanced course the pupil should be able to read at sight, with the help of a vocabulary of special or technical expressions, difficult French not earlier than that of the seventeenth century; to write in French a short essay on some simple subject connected with the works read; to put into French a passage of easy English prose, and to carry on a simple conversation in French.

2. *The Work to be Done.*—This should comprise the additional reading of from 600 to 1,000 pages of standard French, classical and modern, only difficult passages being explained in the class; the writing of numerous short themes in French; the study of syntax.

Suitable reading matter will be: Beaumarchais's *Barbier de Seville*; Corneille's dramas; the elder Dumas's prose writings; the younger Dumas's *La question d'argent*; Hugo's *Ruy Blas*, lyrics, and prose writings; La Fontaine's fables; Lamartine's *Graziella*; Marivaux's plays; Moliere's plays; Musset's plays and poems; Pellissier's *Le Mouvement litteraire au Xix siecle*; Renan's *Souvenirs d'enfance et de jeunesse*; Rousseau's writings; Sainte-Beuve's essays; Taine's *Origines de la France contemporaine*; Voltaire's writings; selections from Zola, Maupassant, and Blazac.

LATIN.

The aims of a secondary school course in Latin extending over four years are quite generally understood and pursued. Supposing, as this report does, that five recitation periods a week are to be devoted to the study during at least three of the four years, there should be no insuperable difficulties in the way of completing the minimum amount recommended in the report of the committee on college entrance requirements presented to the National Educational association at its meeting in July, 1899.

Since this report must inevitably set the standard of the four-year Latin course for years to come, it seems desirable to reproduce it here for the benefit of teachers and school authorities generally.

First Year.—Latin lessons, accompanied from an early stage by the reading of very simple selections. Easy reading; twenty to thirty pages of consecutive text. In all written exercises the long vowels should be marked, and in all oral exercises pains should be taken to make the pronunciation conform to the quantities.

The student should be trained from the beginning to grasp the meaning of the Latin before translating, and then to render into idiomatic English and should be taught to read the Latin aloud with intelligent expression.

Second Year.—Selections from Caesar's Gallic War equivalent in amount to four or five books; selections from other prose writers, such as Nepos, may be taken as a substitute for an amount up to, but not exceeding, two books.

The equivalent of at least one period a week in prose composition based on Caesar.

Reading aloud and translating, together with training in correct methods of apprehending the author's meaning, both prepared and unprepared passages being used as material. The memorizing of selected passages.

Third and Fourth Years.—Sallust's Cataline. Cicero: six to nine orations (including the Manilian Law). Ovid: 500 to 1,500 verses. Virgil's Aeneid: six to nine books. The equivalent of at least one period a week in prose composition based on Cicero. The reading of Latin aloud. The memorizing of selected passages.

The adoption of this course is not only demanded by considerations of self-respect, but it is also far from being impracticable. Preparatory to drafting the statement concerning Latin in this publication, letters of inquiry were sent to twelve of the principal high schools of Iowa and from eight, reports were received in reply. Although the information obtained in this manner was not in all cases as detailed as was desired, it appears that the above mentioned requirements for the first and second years are substantially met in all of the schools. In the third and fourth years some deficiencies occur, due chiefly to the circumstance that four instead of five periods a week are devoted to the study. Six orations of Cicero and nine books of Virgil's Aeneid are almost universally read. Here and there a sufficient amount of Ovid is taught. In view of the fact that the metamorphoses presents so much less difficulty to the beginner in reading hexameter verse than the Aeneid, it would seem advisable, even from considerations of time economy, to give a few weeks to this author. Add to this that the enhancement of interest accruing from the reading of a new author amply compensates for a certain loss of time, and we have said sufficient to recommend the introduction of a modicum of Ovid. Quite frequently an additional oration of some letters of

Cicero are read in lieu of Sallust's Cataline. Some of the considerations favorable to Ovid apply with equal force to Sallust, and in addition this historical monograph possesses to an unusual degree intrinsic interest for the scholar, especially when read preparatory to, or in conjunction with, the Catilinarian orations of Cicero. A few high schools have successfully employed selections from it as material for sight reading.

There is one matter deserving of more than passing mention. It is the subject of Latin prose writing, almost universally neglected in Iowa. Easy exercises in the writing of Latin should accompany the other phases of instruction from the first, because they give an intimate knowledge of the essential forms and a readiness in the use hardly to be attained in any other way. In many high schools the insufficient number of recitation periods has led to the omission of such exercises very much to the detriment of the instruction in all its aspects. It is to be hoped that, when five periods a week are granted, teachers may not yield to the temptation to spend the added hours entirely in increasing the amount of Latin to be read, but may avail themselves of the better opportunities for reinforcing the fundamentals by devoting much of the gain to this important work. Prose composition, based on Cicero, is quite too generally omitted while the class is busied with the reading of Virgil. In many schools, however, an ample equivalent, though hardly of a kind with it, is provided in the weekly period devoted to the study of classical mythology.

Owing to its fundamental character, the first year Latin deserves especial mention. In pursuing the lessons, accuracy in the recognition of inflectional forms is hardly more important than correct pronunciation in conformity with the quantities, which can be attained only by constant practice in reading aloud under the punctilious instruction of the teacher. It is the experience of schoolmen generally, that the slightest neglect of this exercise even for a short time, at this early stage, works irreparable harm. Reading aloud should not, however, be discontinued at the end of the first year, but should be made auxiliary, from the first and always, to another phase of Latin instruction, which is also of great importance, grasping the meaning of the text before translation, itself indispensable if the student is to render it into idiomatic English. If reading aloud be continually practiced in the manner described, 'the intelligent expression,' which every teacher desires above all to catch, may not be the unattainable ideal it is sometimes thought to be.

Quite as indispensable as the oral practice is the marking of all long vowels in the written exercises. In fact the two necessarily run parallel, and unless the latter is practiced consistently the pronunciation will deteriorate. It will be found helpful in this respect if the teacher will occasionally read aloud some simple connected passage and have the scholar translate from hearing. But perhaps there is no exercise that promises better results in all directions than the memorizing of selected sentences and, in due course, of connected passages. Poetical quotations are especially adapted for this purpose and facilitates fixing in memory the quantities. A live teacher by such devices can combine the learning of paradigms with a concrete mastery of the language, and such is of course the ideal we set ourselves in the beginnings of Latin.

If, as is here assumed, five periods a week throughout three years and four periods in the fourth year are given to Latin in the high school, most of

the deficiencies here touched upon may be readily supplied. In view of the rapid progress in the co-ordination of courses of study the country over, there ought to be no doubt or hesitation about the standard. The four-year course recommended by the National Educational Association should be adopted by our high schools at once, where it is not already in operation. Yet there should be nothing farther from our thoughts than the reduction of the entire Latin curriculum to a system of hard and fast requirements. To insure the maintenance of the teacher's interest in his work, upon which, in the last resort, all his success depends, some considerable scope must be reserved to his initiative, and due allowance must always be made for special endowments and individual methods.

Good courses, however, do not guarantee good teaching. At this point all prescriptions fail. Unless teachers of Latin in the secondary schools are filled with a lofty ambition constantly to improve their methods of presentation and the vital sympathy they possess for the subject-matter of their instructions, Latin will be in fact, as it is in name, a dead language. The increased interest in the study, evinced in the growing numbers of those who take it in our schools, indicates that the teacher is growing with his opportunity. May this prove to be the fact.

COMPOSITION AND RHETORIC IN THE HIGH SCHOOL.

I. Things to be accomplished.

1. The pupil should be made to acquire the ability to write English that shall not bear the mark of illiteracy.
2. He must be given enough sense of style to enable him to vary his own writing to make it conform in some measure to the subject he has in mind.
3. He must be taught rhetorical doctrine, but only in connection with his own exemplification of it in his own writing; he must be trained in literary judgment, rather than informed in regard to literary laws.
4. To accomplish this he must be kept busy writing until by the criticism of his own errors he has learned to avoid them.
5. After he has come to a knowledge of what constitutes correctness in English he should be given training in the qualities that distinguish literature from other writing.

II. Order of treatment.

1. The initial difficulty is that of getting pupils to write.
2. That this difficulty may be lessened the work should first take up the whole theme and the paragraph. The pupil should be directed in securing material from experience, from observation, and from books; and in this fashion his interest in the problem of having something to say should be quickened.
3. At first, criticism of what he writes should not go beyond the question of choice and arrangement of material, except in the case of elementary grammatical errors.
4. From the paragraph work should proceed to consideration of the sentence words and questions of style.

III. Method of teaching.

1. In the teaching of English in the high school a suitable text is very necessary. Principles of literary composition are too vague for the pupil to

be able to hold them in mind without having opportunity to think them over from the printed page.

2. The study of the text, however, should be made subordinate to the writing of themes, and in this the student should be given some range of choice in the matter of subjects.

3. Occasionally all members of the class should be compelled to write on the same subject and comparison between the different compositions made.

4. All criticisms of themes should be made as definite as possible and should give reasons which the pupil will accept without the assurance of some rhetorical authority.

5. These corrections should often be read to the class as a subject for class discussion, and as often as possible the teacher should find time to go over the themes with the pupils alone taking pains to reach the pupil's characteristic faults.

6. It will be found helpful to ask for written outlines of subjects often and these should be criticised for coherence, arrangement and proportion.

7. The class should be given some drill in criticising compositions themselves.

IV. Rhetoric and Literature.

1. The study of literature may profitably be taken up in connection with the work in composition, the classes reciting on alternate days. Themes may then be assigned from the work in the literature class, but these themes should not demand of the pupil any critical thinking beyond what has been done in the class. In the work in composition the pupil must devote himself largely to expressing what he already has in mind.

2. Care must be taken not to repress the individuality of the pupil by making him feel that he must follow some author whom he is studying as a model.

3. While facility in expression is the end of the work, the pupil's inventive faculties must be stimulated or he will not care to write or have occasion for writing. For this work subjects drawn from the work in literature are not advisable. In that the student is merely to put in shape things that he has learned. For more original work other subjects should be assigned.

ENGLISH LITERATURE IN THE HIGH SCHOOL.

I. Objects in teaching English Literature.

1. That the student may not be ignorant of the important names and important achievements in English letters.
2. That he may come to a liking for good books.
3. That he may develop so critically discerning a taste as will give him a positive dislike for the crude and the vulgar.
4. That through literature he may come to a larger understanding of life.

The first of these is a matter of practical business importance, having to do with the student's ability to meet his fellows in the world of affairs on a footing of intellectual equality; the others are matters of culture and scholarship.

II. Amount and character of Literature to be studied.

1. The number of authors and works read should be enough to give the

student a wide range. Too exhaustive study of a few works will deaden the interest of students of high school age. Moreover the study of literature is in part for the purpose of broadening the pupil's knowledge of life, and enough should be read to accomplish this.

2. A few authors should be studied critically for the purpose of securing object three above.

3. Nothing should be read so superficially that the student will not enter measurably into the spirit of the writing.

4. Literature of the narrative sort, whether prose or verse, serves best to stimulate interest in the subject when it is first taken up.

5. In the study of Shakespeare dramas should be selected in which the pure story interest is strong, and in which the characters are distinctly individual and easily read. "The Merchant of Venice" and "Macbeth" are especially to be recommended, and the reading of them in the high school will presumably leave enough to be done with them in the later study in the college. It must be borne in mind that high school students are not prepared either by their experience of life or by their knowledge of literary art for any thoroughly appreciative study of Shakespeare, and there can be no question but that serious study of Shakespeare by students not mature enough to get his deeper meanings will merely result in dislike for him.

6. The teacher should make careful study of the class and choose productions which will stimulate the interest of that particular class and which will in her judgment enlarge the sympathies of the individual members of the class.

7. The teacher should as far as possible direct the reading done by pupils in their homes.

III. *The Study of Literary History.*

1. Real knowledge of the historical development of English literature can come only through direct study of the literature itself, but this is a very much larger thing than can be accomplished in the high school.

2. It need hardly be said that Chaucer is not an author to be studied below junior or senior classes in college, but the high school student who will not go to college, as most high school students do not, should know something about Chaucer. Obviously in this case as in the case of Spencer and a host of others whom the high school student cannot read, he must get information "second hand" from some such history of literature as Stopford Brook's "Primer of English Literature" or better still from Johnson's "History of English and American Literature."

3. In the teaching of literature as in the teaching of other subjects, it must not be forgotten that the high school has a double mission. It must put one student in the way of the scholarly training which is to carry him further in college, and it must give another student the information as information which will enable him to make a good showing in the world of affairs without a college training.

Pedagogically, the thought most important is that the student should know how to study the work in hand.

1. To make this sure the teacher should prepare definite questions suited to the age of the pupils and leading them to find, out for themselves the artistic and other qualities of the story or essay or poem.

2. In the story there should cover matters of meaning, phrasing, mood suggestions, character portrayal, description and management of plot to affect the reader's sympathies.

3. In the poem they should deal also with poetic forms, meter, figures, alliteration, rhyme, and positive crudities as well as striking felicities of phrasing.

4. Among other things these questions should lead the student to the right placing of his sympathies, and to an understanding of the author's management of them.

5. Without didacticism, they should lead the pupil to an appreciation of the fundamental beauty or truth which gives the work in hand significance.

NOTE.—A few questions are here given as illustrations.

Questions on "A Highland Mystic" in the "Bonnie Brier Bush."

a. What do you understand by "the transformation of Donald Menzies?"

b. And what by the "open vision?"

c. Would you call the description of Donald in the third paragraph good or not? and why?

d. What changes in his mood in this paragraph? And how are they indicated?

e. In the next paragraph what do you learn about Burnbrae from the fact that he always opens the conversation?

f. What distinction in character do you note between Burnbrae and Donald as you read through the chapter?

g. Indicate in the third paragraph any passages that seem to you especially well phased and say why.

h. For what purpose do you fancy this chapter was written?

Questions on Lancelot and Elaine:

a. What is the meter in which the poem is written?

b. In the first line what syllable that has a secondary accent should have a primary accent? And why?

c. What character in Elaine does the poet imply by "lily-maid."

d. What feeling makes her wish to be awakened by the gleam of morning's earliest ray?

e. Why does she bar her door?

f. What change of accent in line twenty four to give added emphasis?

g. Is the figure of line fifty-eight effective or not? And why.

h. Is the rhythmic movement of 1134-55 more or less rapid than 1-27?

And should it be so or not?

i. Is this story, 34-55, told to make the diamonds fair or evil fated? And what does the fact that there were two brothers have to do with this?

j. What characteristic of the rivulet applies to the diamonds? 152.

k. And do you think the figure good or not? Why?

l. What alliteration do you detect in 1.89?

m. Do you understand that Guinevere is petulant in 1197-101 because she is displeased with Lancelot or because she is troubled in her own heart?

n. What may you know about Guinevere from the "little scornful laugh"?

o. Why does she say "he cares not for me"? And how has that affected her attitude towards him?

p. To what, by implication, does she liken Arthur in line 134? And is the implied figure good, direct and vivid, or not?

q. In this talk does Guinevere or Lancelot seem the nobler?

General questions on the complete Idyll:

a. How does the simplicity of Elaine's life affect our feelings for her in her declaration of love for Lancelot?

b. Does Tennyson in this, make choice of simply words or not?

c. What do you conceive is the effect of Elaine's death upon Lancelot?

d. Do you find that there are many or few pictures brought up in the mind in the course of the story?

e. Are they vivid or vague?

f. Are they produced with few or many words?

g. Where do you find one that seems especially effective?

h. Would you say that the diction is such as to suggest much or little to the imagination?

i. Does the verse seem to have color and feeling or is it cold? Etc.

Here follows a list of about sixty books.

BOTANY.

To lay out a course of study in any science, as botany, is a problem surrounded with difficulties by no means small. The subject is so large, so many sided, that the methods of approach are of necessity diverse. Professors of the science are in this particular by no means agreed and almost every prominent teacher of the subject has a method of his own. Text-books in elementary botany are many and varied—nearly all good, each in its way, and in its own field; so that it is hardly to be hoped, much less expected, that what may be said here will meet with such general approval as might be accorded for instance, to a similar outline in arithmetic or German. Furthermore the method of presenting the subject must be determined very largely by local conditions, not only of the teaching force, but of the natural surroundings. Botany by the Mississippi river, for example, might be one thing; in a prairie village quite another. Again, we must always have regard to the end in view. This is primarily the advantage of the pupil, his information as a possible citizen, and the botany we give him should have respect to this particular thing. This being admitted, it seems plain that any presentation of the science which leaves the pupil ignorant of his own environment and of his relations to the common plants about him, fails in just so far of the purpose for which botanic studies are offered in the common schools.

Once more, the character of work attempted must in some measure depend upon the time which may be devoted to the subject. The committee, however, has not had in mind in any case a course of more than one year.

Your committee is agreed that elementary botany should be largely that which is called structural. I should deal at first chiefly with the gross anatomy and make-up of our familiar plants, especially the common plants of the particular locality in question. The pupil should be taught to observe; his lessons to the very largest extent possible should be out of doors. He should learn the characteristics of various sorts of plants, their habits, their habitates, and the conditions under which they flourish. In doing this he should be taught to observe plants at all seasons and in all phases. The

second half of the school year, as now commonly divided, affords opportunity for doing this, as we have winter, spring and summer conditions within the interval named. The pupil must never be taught words and their definitions; this one fault of some otherwise excellent text-books. On the other hand the pupil must acquire his vocabulary naturally, that is as he needs it. By taking up the study of plants where they are and as they are, by cultivating plants in sand, by all inexpensive ways, the pupil will gradually come into possession not only of the leading facts as to the structure, or make-up, of the ordinary flowering plant, but will learn its principal activities as well. Some of our trees, fortunately some of the most common, afford excellent subjects for elementary botany study; they stand leafless with the sleep of winter, they break into bloom, they put forth their leaves, they grow in height, in thickness, they form their fruit, the fruit germinates and forms a new plant, all within the time limit we have supposed.

In addition to such work as this, some simple flowering plant may be studied when the time of flowering comes,— a Trillium, a Ranunculus; this to show to better advantage the perfection flowers attain in matter of color, size, odor and their relations to insects. In any event, whatever plants are studied, others of the same natural order should be presented at the same time or as soon thereafter as possible, in order that the pupil obtain some conception of the relationships of plants, their natural kinship and the signs by which such kinship is discovered or confirmed. Not only may plants be thus studied in groups as related to each other, but they should, where opportunity offers be studied as grouped in the field. Find out every plant growing spontaneously in some natural grove or thicket. It will be necessary now to name the plants. Either of the text-books named at the end of this report will suffice to make the first effort, which, in some cases, as of cryptogamous plants, will not descend to species at all but will simply specify groups. In this way it will appear that members of various natural orders are often more closely associated in the field than are the most closely related members of any one order, etc.

The utility of plants should be made a matter of investigation. Those that furnish food should be recognized and listed; those that furnish fuel, lumber, shelter; food for domestic animals; protection for the soil against water or wind; protection of water supply, as the rivulet or spring, the lake-shore; those that are useful for ornament to adorn our homes and farms. Such in general is the ground which, in the judgment of your committee, should be covered by one who essays to teach the science of botany in our public schools. We believe the work practicable, and we mean it to be practical. The course can be indefinitely extended. In schools fitted up with laboratories, microscopes, etc., the more minute anatomy of plants may be presented; plant-diseases may become a matter of investigation, but even such work must not be allowed to supersede that already outlined. If an entire year be given to the subject, it is better to begin the simpler structural work with the beginning of the school-year; depending on the use of dry or alcoholic material, or the investigation of the winter condition of buds and stems, or such work as the germination of seeds affords, to meet the demands of the non-growing season. The spring and early summer may then be given to acquiring a more perfect acquaintance with the flora of the

locality, and to the investigation of such problems in distribution and habit, in ecology, as the immediate region may suggest.

As elementary text-books your committee recommend Gray's School and Field-book, or Macbride's Elementary Lessons with Key. The latter book, especially, contains outlines for abundant work in harmony with the suggestions here made.

PHYSICAL TRAINING.

I. Things to be accomplished.

1. *Recreation.*—The actively working brain needs frequent resting so that worn-out tissue may be rebuilt. This re-creation can often be most effectively accomplished by a change to physical work rather than by enforced inactivity.

2. *Bodily Development.*—By systematic physical exercise the weak body can be made active and muscular. Suitable "body work" increases the functional activity of internal muscles and glands.

3. *Mental Development.*—By the use of moderately complex movements the pupil should be taught to use mind and body together. The will, too, is strengthened by suitable gymnastic drill. Care must be taken not to add such work to already over-burdened pupils. Complex or fatiguing work should be used only with the greatest caution.

4. *In General.*—Seek to promote the growth of physically perfect men and women.

II. Appliances.

1. *Apparatus.*—Good results may be obtained without the use of apparatus. It is possible to give a lesson in "free hand," one that brings into play all of the muscles of the body with no apparatus whatever. Many exceedingly beneficial exercises may be taken while seated. If the means are at hand to procure apparatus, dumb bells, wands, and Indian clubs, in the order named, are the most profitable.

2. *Space.*—The lesson outlined below may be given with only the space afforded by the aisles between the desks. It is of the greatest importance to have the room well ventilated and free from dust.

3. *Music.*—Good music as an occasional accompaniment to exercise is a valuable addition. It is not necessary, however. When movements are executed rhythmically the teacher may count.

III. Qualifications necessary for good teaching.

1. An intimate personal knowledge of the pupil is necessary—his ability to resist fatigue, his mental temperament and his bodily defects. This knowledge is possible only for the grade teacher herself,—considering now large town and city schools. The history of gymnastics in the schools seems to indicate that it is unwise to hire a special teacher of physical training who shall give lessons in each room. In the high school it is well to depute some teacher, who seems the best fitted by nature, to undertake the direction of physical exercise. Her own ingenuity and such special training as she can secure will enable her to devise work that will be of great value to the pupils.

2. The teacher should be acquainted with the fundamental principles of physiology and hygiene, and especially with the physiological effects of

exercise. Short talks on matters of personal hygiene will interest the pupil in the case of his own body.

IV. A Typical Lesson in Freehand for Beginners.

Lesson One.

1. Order exercises; attention, arms out, front, up.
2. Leg: Rising on tiptoe. 16.
3. Neck: Clasp hands back of head and bend head backward against resistance. 8.
4. Arm: With arms out, clinch fist, then flex arms at the elbow. 16.
5. Balancing: Toe stand.
6. Shoulders: Arms front, to out. 16.
7. Waist: Hands on hips, bend body to right and left. 12.
8. Back: Bend body to front. 16.
9. Heart and Lungs: Hopping on right foot, 24; left, 24.
10. Breathing: Arms up as lungs are inflated, down as they are deflated. 8.

V. Methods of Teaching.

(a) Indoor exercise.

1. *Explanatory of above Lesson.*—The order of arrangement of these exercises is based on physiological principles. This order should be maintained in all lessons. A great variety of lessons is still possible, all following this general arrangement. The figures following each exercise are the counts given to each. The number of counts may be varied to suit circumstances. Commands should be imperative. Accent the last word of command, as: Arms up, or Raise the arms on counts, *Begin*.

2. *Position.* The teacher should insist on a good position, chest raised, hips well back, weight on the balls of the feet. These are the important points in standing. Care should be taken to seat the pupils properly. A few minutes daily work in calisthenics can not be expected to overcome the bad effects of a faulty position during the rest of the day.

3. *Dress.* The dress must be loose fitting to give opportunity for growth and movement.

4. *Manuals.* These are abundant. Care should be taken to procure something simple and logical. Proceed slowly to movements a little more complex as your pupils and yourself become better prepared for them. Jessie E. Bancroft's "Freehand Gymnastics" and "Sight apparatus Gymnastics" are excellent for grade teachers. From the simple movements described and illustrated in W. G. Anderson's "Gymnastic Nomenclature" combinations of any desired complexity can be built.

5. *Calisthenics* may become dry and uninteresting. Rely on them only as an alternative with out of door exercises frequently. Become interested yourself and your interest will be communicated to your pupils.

(b) Out door exercise.

1. It is a mistake to think that gymnastics can ever take the place of outdoor exercise. Play is all important for the young child. He is only happy when active, and his activity is most beneficial when it is of the spontaneous, involuntary sort, and when taken out of doors.

The teacher should share in recreation. She may supervise and even join in the play without endangering her dignity.

Finally, we do not contend that a teacher can become an expert instructor of gymnastics in a few months. But she can do something at once; something that will be valuable for her pupils and that will aid her in her work as well. Many difficulties will be encountered but these are in the main more formidable in appearance than in reality. The end is worthy of the most painstaking effort.

GREEK IN THE HIGH SCHOOL.

I. Preliminary Statement.

The common arrangement of high school courses under present day conditions, proposes, as most conducive to the attainment of all the various ends in view, Latin as a central language study, to be continued throughout the four years. As contributory to the aims of high school training, it is also proposed to offer for the last two years of the course as an optional study a second foreign language. This language may be Greek, German or French. The natural tendency will be to select a modern language from this optional group of studies, on the ground that as one ancient language, Latin, has already been taken, no adequate reason can be assigned for introducing a second one into the high school course. The decision of this matter affirmatively or negatively will depend upon the circumstances bearing upon the individual cases. It is never wise to assert dogmatically that Greek *should* or *should not* be taught in the high school. If taught properly it has great and distinct educational value, and no pains should be spared in defining this value in those schools where an option is offered in its favor.

II. The Justification of Greek.

Greek is peculiarly an original language in the sense that it stands chronologically at the head of the literary languages of the world, and contains in itself the first types of the most distinctive and fundamental forms, particularly epic and lyric poetry, tragedy, comedy, and artistic prose in history, oratory and philosophy.

These are not imperfect types but, compared with those produced in subsequent times in the most cultivated languages, are found to stand as models of perfection and to furnish inspiration for much of the great literature of the world.

The history of what is distinctively our world begins with the people who used the Greek language. The New Testament is written in Greek.

The spirit of democracy and of intellectual freedom is in the Greek language, and in these respects it is much nearer to the spiritual life of the American people than Latin. In these respects it will also bear scrutiny in comparison with modern languages.

It is the language that was spoken by one of the most original and creative people that ever lived and through it has come contributions of inestimable value to the life and thought of the modern world.

The study of a language having so many claims to pre-eminence, and having in it so much that is fundamental, has a distinct value from a pedagogical point of view which ought not to escape the notice of those who insist on the modern or scientific spirit in education.

It may be well in leaving this branch of the subject to call attention to the fact that there is a well marked tendency in the secondary schools to

study one ancient and one modern language if two languages are offered. In such cases Latin is almost universally chosen. If this tendency develops into distinct educational policy, then it may well be questioned whether the one ancient language should be Latin rather than Greek, and whether the philological eminence of Latin should have such undue weight in settling a question so important for the intellectual life of coming generations.

III. The first Requisite.

The first requisite for successful work in Greek is adequate understanding of the subject on the part of the teacher. It may be said that this is true of every subject; it is pre-eminently true of this. Greek must secure recognition if at all, by its own intrinsic merits. The indirect and incidental support that Latin, or mathematics, or modern languages, or science has, it does not have. To receive attention it must be presented by some one who knows something of its real value and vital significance. The weary road through the Greek declension and conjugation must be relieved by the systematic and appreciative understanding of the teacher, if the pupil is to persevere with a proper degree of enthusiasm. Immature work in the Greek class room will destroy interest at the most important time. The teacher who takes a class through one year of Greek study without giving him more glimpses of the more pleasing prospects beyond, is a failure as a teacher of Greek.

IV. Time to be Devoted to Greek.

Given a competent teacher the consideration of second importance is the time to be devoted to the study. The course of study proposed in connection with this Manual assigns the second language to the third and fourth years. If any satisfactory results are to be secured in this length of time, there should be five recitation periods a week of not less than forty-five minutes each. Better results would be secured in a one hour period. In two years under such circumstances a properly qualified teacher can prepare a pupil for admission to the majority of our colleges and to all of them with entrance conditions of no great difficulty. There should be no attempt to "cram" or "force," but rather there should be a normal advance according to the average ability of the class. Any college would prefer a pupil "under conditions," because less than the full requirement had been completed, but with intelligent understanding of the work already done, to one hastily and superficially forced over a larger amount. For example, it is more desirable that a pupil be able to read easy Greek readily than that he be able to "pass" on the speeches of Xenophon, as a result of special cramming. The only criterion of successful work is the actual understanding of the pupil.

V. Essentials for Ability to Read Greek.

In an elementary Greek course one fundamental object should be constantly before the mind of the teacher, namely, to teach his pupils to read. Contributory to this are three essentials: 1. A knowledge of inflectional forms; 2. A knowledge of words (vocabulary); 3. A knowledge of the grammatical structure of the average Greek sentence (syntax). These three things are "essentials" only as far as they contribute to reading ability. Too often they receive the predominant share of the attention, while the one fundamental aim is almost lost to view.