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HIGH SCHOOL EXTENSION COURSES

Supplement to
HAND BOOK
OF THE
EXTENSION DEPARTMENT



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AN OPEN DOOR.

BROKEN educational careers can be mended. The pathway of progress is never blocked. The "New Education" is for all who aspire and are willing to work.

Teachers College of Colorado provides a way in its High School Extension Courses and its Ungraded School for Adults whereby each teacher who is not a high school graduate can complete her high school course, receive a diploma, meet the constantly advancing standards in the teaching profession, know the joy of unrestricted growth and prepare for a larger service.

If you have made mistakes in the past, if economic pressure has compelled you to leave school, do not give up the fight to obtain a higher education, but instead, read this bulletin, think, act, and become efficient.

If you are troubled by the fact that your high school education is not complete, if you are ambitious and want to increase your earning power, if you are moved by a deep, fine spirit of service, you ought to read every word of this bulletin.

Opportunity is its theme.

HIGH SCHOOL EXTENSION COURSES

SUPPLEMENT TO HANDBOOK

OF

EXTENSION DEPARTMENT

THE SIGNIFICANCE OF

THE NEW EDUCATIONAL STANDARDS

The new educational program as vouchsafed by recent legislative enactment provides better compensation for trained teachers. It is in accord with the best educational thought of the country, and is supported by the great body of educators in Colorado. It will bring happiness, power and increasing usefulness to those individuals who have conscientiously devoted years of precious time to prepare themselves for the tremendously important responsibility of teaching.

It will vastly increase the dignity of the teaching profession, and will cause to grow up in the minds of the general public an altogether new appreciation of teachers and teaching. But in placing very definite and marked rewards upon professional training it places a stigma upon those who lack it. Their task will be more difficult and their position almost untenable.

It is not wise to oppose educational progress merely because we ourselves have been denied the privilege of the better preparation which is becoming essential. A better plan is to rise to the emergency and by earnest and consecrated effort to remove the troublesome disability. If you have not had four years of professional training and as a result can not claim the highest type of position, remember that Teachers College is ready to help you get that valuable A. B. degree. If you have not had any professional training at all, do not despair but simply call to mind that in Greeley each summer a group of the most efficient men in America are gathered and that they are ready to serve you. If you have taught two or five or ten years without completing your high school course and feel discouraged because of this grim spectre which continually rises before you do not be a "quitter" but "get into the game" and take advantage of the unparalleled opportunities which State Teachers College of Colorado presents to you.

These words "unparalleled opportunities" are not used without careful thought; let us weigh them. These opportunities may be enumerated as follows:

1. High School Extension courses. These are offered through the State High School of Industrial Arts, the high school department of the College, and are described in detail in the latter part of this bulletin.
2. A School of Reviews, held each summer in Greeley as a part of the Summer Quarter of State Teachers College. The word reviews is not used in a narrow or restricted sense. It does not mean that the teachers who take this work are to recall merely such elementary information as they once possessed while in the seventh or eighth grade, but that a most thorough and up to date course in each of the common school branches is to be pursued under the guidance of an expert. While the courses are rich in content they bring to the teachers those deeper and more significant truths of both psychology and pedagogy without which no subject can be presented in the spirit of mastery. All the work done counts for high school credit.
3. A School of Opportunity, called the Ungraded School for Adults, which functions all the year round and is open to all teachers with broken educational careers. The ungraded School for Adults does three things for teachers:
 - (1) Defers classification, and so removes any cause for embarrassment.
 - (2) Gives credit, under proper safeguards, for teaching experience and other forms of helpful community service (see table of equivalents, page 6).
 - (3) Substitutes, within reasonable limits, the power-unit for the time-unit, i. e., the faculty, after the intellectual power of the student has been demonstrated in resident class room work, and verified, when a doubt exists, by standard intelligence tests, reserves to itself the right to make special promotions just as a teacher in the elementary school might promote a child from the fourth to the fifth or sixth grade because of the clear and accurate demonstration of ability to do the work of the more advanced grade. When the promotion involves a transfer from high school to college a special diploma is granted which states that the individual has entered the Ungraded School for Adults and demonstrated to the satisfaction of the faculty that he possesses the intellectual power equivalent to that obtained by the completion of fifteen standard high school units. This diploma is accepted by Teachers College.

Returning now to our words "unparalleled opportunity," do you not agree that no other educational institution has made such careful sympathetic provision to meet the needs of those persons who in accordance with the school law of the state have proved their right to teach in Colorado before they completed a high school course?

BROKEN EDUCATIONAL CAREERS

Only twenty-five per cent. of the pupils who complete the eighth grade ever enter high school, and many of those who enter fail to finish their high school course. The reasons for this exodus are manifold. Prominent among them are ill-health, the necessity of helping the home, and failure to appreciate the value of an education.

If by the use of the magic wand of some good fairy, the boys and girls in the "teen age" could be transformed into the full stature of men and women in middle life, so that these "boy-men" could see as men see and understand as men understand, and then, after a season, the "boy-men" were changed back into boys with men's vision, they would realize how tremendous is the need of an education.

The five or ten dollars a week, which seems so attractive to the boy, would lose its charm, for he would see clearly that by accepting this he was permitting the golden years of youth to slip away—the years given us to prepare for life. Yes, these boys with men's vision would understand that accepting the employment possible to boys deprives them of the preparation essential to the largest success in life.

Mr. W. J. Bryan has said that it is better to go thru life without an arm than to leave the brain undeveloped. He says that men need their brains more than they need their arms, and yet in almost every village and every rural district there are young men and women who have left school because they did not think that they needed an education. By the time these young people are fifty, experience, which effectively effaces from the minds of men the notion that an education is superfluous, teaches them their folly; but then they realize that it is too late to attain the highest development.

AN UNGRADED SCHOOL FOR ADULTS

It is never well to point out the mistakes of young people without making clear the way in which their errors may be corrected. The all important question, with reference to wasted educational opportunities, is, therefore, "How can the individual who has reached maturity without completing a high school course and who has come to know the value of a high school education, best attain the desired goal?"

The Ungraded School for Adults is the answer that Teachers College of Colorado makes to this question. Adults feel humiliated upon entering classes with children, and they cannot afford to spend the time in school necessary to take the work which has been omitted, step by step. There is yet another and still more important reason why special provision should be made for the educational needs of adults. It is that adults nearly always excel young people in their intellectual grasp.

The experiences of life have a very high educational value. The various types of schools of America have been slow to recognize the real significance of the fact that life is itself a school in which character can be developed and mental growth attained. By doing any kind of work and doing it well, the mind is made stronger and the character more dependable. The individual of twenty years or more who has taught, worked on a farm, or in a factory, during the years that other boys and girls are going to school, usually manifests upon returning to school far more mental power than the pupils, fourteen or fifteen years of age, with whom he has been compelled to associate in the work of the classroom.

The Ungraded School for Adults provides a special school for adult students. It appreciates the value, in terms of character and intelligence, of the services rendered by the individual to the community and gives a reasonable amount of credit for the same. And, most significant of all, it substitutes the power-unit for the time-unit; that is, when a pupil enters this school he is not classified at once, but is given the opportunity of proving his ability, and the time necessary to complete the high school course is made to depend upon the excellence of the work done. The adult student is entitled to a special promotion as soon as his ability to do college work has been clearly demonstrated. No one can enter the Ungraded School for Adults who has not reached the age of eighteen years.

After the establishment of the Ungraded School for Adults, in the spring of 1914, many mature students took advantage of the opportunity which it afforded. Teachers who had been compelled for economic reasons to teach before completing their high school course found in this school the chance to show the strength which they had attained in many years of struggle and sacrifice, and, because the power which they had gained in life's hard school was taken into account, they were able to continue their education, and so vastly to increase their influence and helpfulness.

The experiment was a success from the first. The students in this group have shown remarkable strength. Their grades have been excellent, their attitude one of intense aspiration, and their conduct has been ideal. They have been enthusiastic, energetic, and untiring in their efforts at self-improvement, and they have rejoiced greatly in the opportunity to realize their hopes.

RECOGNITION OF POWER GAINED THRU TEACHING EXPERIENCE

He who does any piece of work and does it well is thereby better prepared to take up the duties which lie just beyond. If this be true, it must follow that the teacher who devotes the best powers of her life to so organize truth, beauty and righteousness that the child, which follows the same laws of growth as the plant, may appropriate to itself these elements, out of which both mentality and character are developed, will, by the very nature of the process, increase her own mental and moral force, and that this increment of strength will assert itself when the teacher again becomes a student.

The Ungraded School for Adults was founded upon the hypothesis that teaching, together with other forms of life experience, develops both mind and personality. The superiority of the unclassified group as tested by work accomplished is so marked as to leave no doubt as to the truth of this hypothesis. Certain experiments and comparisons now being made are proving conclusively that the maturity and judgment of the experienced teacher do produce mental superiority, and seem to justify recognition in terms of credit of this increment of power which teaching has developed.

The determinations must of necessity be individual. Much depends upon the native ability, aspirations, energy and sense of honor of the individual, and much, also, upon the attitude of the teacher toward her work during the years that she was getting her teaching experience. Only earnest, conscientious effort brings appreciable strength to the life of the teacher.

EQUIVALENTS

The following scale of credits granted for teaching experience is not a promise of what will be given in the future, but a statement of the average credit allowed for teaching experience in the past.

Where the mental power of the individual is to be the basis of determining the amount of credit that can be granted for teaching experience, it is evident that the number of hours of credit can not be determined in advance—else it would be a gift. The individual entering the Ungraded School for Adults must prove his mental qualities before the number of hours that he is to receive for teaching experience can be ascertained.

The table below may, however, be regarded as the average measure of the superiority of the experienced teacher over the regular students (as nearly as this could be determined by the Principal of the High School Department) as demonstrated in class room work, and, therefore, the amount of credit granted, on the average, to various types of teachers.

TABLE OF EQUIVALENTS

The teacher with rare gifts may receive slightly more than the amount of credit set down in the table of equivalents, while some whose mental superiority does not become apparent may receive much less.

1. Five years or more of teaching experience with first grade certificate=one year of high school credit.....60 hours
2. Three years of teaching experience with first grade certificate=three-fourths of a year of high school credit.....45 hours
3. Two years of teaching experience with a first grade certificate=one-half of a year of high school credit.....30 hours
4. Three years or more of teaching experience with a second grade certificate=one-half of a year of high school credit.....30 hours
5. One year of teaching experience with a first grade certificate, or two years with a second grade certificate=one-fourth of a year of high school credit.....15 hours
6. No recognition is given to third-grade certificates except in those cases where the individual shows marked ability in certain lines and failure in other lines is clearly due to the fact that the individual did not have the opportunity of attending good schools.

REFERENCES

It is advisable for all teachers who expect credit for teaching experience to forward with their application for advanced standing (see definite instructions on page 10) a list of references. This list should include.

- a. Superintendents.
- b. Principals.
- c. Boards of Education.
- d. Business Men.

PREPAREDNESS

Are your hopes for the future limited by a lack of educational preparation? Is your horizon contracted by the necessity of going to work before completing your high school course?

Are you getting the most out of life for yourself—the greatest possible enjoyment, the highest possible salary?

Do you want to share in the joy of service to your state, to your community, to your friends? in the joy of work well done? If so, better training points the way to service, and service, whether in the home or out of it, is the highest possible privilege you can claim.

There is a mental and moral preparedness, without which opportunities avail nothing. There are ready places for ready men and ready women. The learned attorney is never without clients. The skilled physician always has patients. Likewise the trained teacher, who understands, in a measure, the content of the child's mind and the laws that determine the child's development, is sought after to the ends of the earth.

The responsibility of preparation rests with each individual. Those who have determination and spirit will find a way, while the inefficient will ever make excuses as in the past. Yet, in very truth, the higher institutions of learning have made it possible for everyone, who will, to receive a liberal education. To those who would prepare for larger service the way is plain, and the reward in terms of happiness and growth inevitable.

THE COLUMBIA OF THE WEST

No institution is rendering or can render as valuable service to the teachers of Colorado as Teachers College. Its plans are ever unfolding. No single group is to be neglected. The highly organized Extension Department brings the means of a higher education to the homes of the teachers. The High School Extension Courses meet the needs of those who have been compelled by economic pressure to leave school, and the Ungraded School for Adults recognizes the mental power which teaching experience has developed and so shortens the time necessary to complete the high school course, and in the college itself innumerable plans are being developed for the happiness, growth and inspiration of all teachers who are directly or indirectly connected with the great "Columbia of the West."

PREVIOUS TRAINING IS RECOGNIZED

Since the taxes of all the people go to support the educational institutions of the state, State Teachers College feels under obligation to supply to the fullest extent of its ability the educational needs of the people of the entire state.

The College stands upon the broad democratic principle that each community should introduce into its local high school those subjects which, in the judgment of the people, will best prepare its graduates for the social and economic environment in which they must live.

For this reason the work done in the smaller high schools is accepted where teaching force and equipment are at all adequate to the needs of the schools in question, as the equivalent of the work done in its own High School Department.

When in doubt as to the value of courses previously taken, the individual is given a trial and the ultimate decision as to the amount of credit to be given for said courses depends upon the quality of the work done after the pupil has enrolled in the High School Department.

A CONNECTING LINK

The "High School Extension" Courses, which are described in detail in the pages which follow, enable the capable and aspiring teacher to increase the amount of school work which she can accomplish each year and thus to shorten the time necessary to complete a high school course.

They constitute, in fact, a connecting link between the needs of the rural teacher, who must of necessity teach during the winter months, and the summer season of the Ungraded School for Adults, in which her previous training and her experience find full recognition.

THE SUMMER SESSION

The Summer School is held at a time when teachers are free from the responsibilities of the school room and can therefore devote their whole energy to self-improvement.

Greeley is a delightful place to study. Separate classes, each taught by an expert, are organized for adult students and the courses are planned so that teachers can make the maximum progress under conditions that are the most congenial.

FEES

The Extension Service of the Colorado State Teachers College, aspiring to make its courses in every way equivalent to residence work, and realizing the necessity of thorough standardization, has been compelled to increase its rates. The compensation to Faculty members for the preparation of study units and the careful grading of same was so meager that it did not adequately remunerate them for high class work and painstaking effort. The department could not under these circumstances justly insist upon a number of highly desirable reforms in the service.

In order therefore that progress may not be impeded and that compensation may be just, the old rates were changed September 1st, 1920, and the price now charged for extension courses is \$24 per unit of forty-five study lessons.

A standard unit consists of fifteen quarter hours. This means that a standard unit costs \$24. Fifteen standard units are required for graduation. The resident student spends four years, in many cases away from home, at high rate of expense to secure a high school education.

A quarter hour is divided into three study lessons. When the twenty-five per cent which goes to the College is subtracted from this amount it means that the instructor receives less than fifty cents for both the preparation and grading of any particular study lesson.

Students may forward one-third of the \$24 at the time of beginning each group of 15 study lessons.

HOW TO ENROLL

First, fill out the combined enrollment and advanced standing blank found on page 10) then detach the same, and mail together with check for desired course. (Remember that no enrollment will be made without payment of fees.)

Before sending in any study lessons read carefully the section on fees—also the limitations on correspondence work, page 11, and the special instructions in connection with extension courses, page 12, and get a conception of the importance of good form by studying the "sample page of manuscript," page 11.

No student will receive an excellent grade who does not get her work in in good form. In all cases the form of the manuscript will be a factor in determining the grade.

APPLICATION FOR CORRESPONDENCE STUDY
(High School Credit)
To Director of Extension Service
Greeley, Colorado

Date.....

Name.....

Age..... (Not open to persons under 18 years of age.)

Post Office Address.....

Present Occupation.....

High School Attendance:

I attended high school in the city of.....

State of.....for a period of.....years and
.....months. List any additional high school attendance on the
following two lines, being careful to specify names of cities and state,
.....
.....

I have made.....standard units. (A unit is a subject taken five times
a week, each recitation being forty-five minutes long, for a period of 9
months.) If your units vary from the standard units, tell in what par-
ticular and to what extent.....
.....
.....

I have taught.....years (8 or 9 months being counted to the
year) and.....months.

I have held or now hold a.....grade certificate, which expires
in the month of....., 192.....

I can furnish certified credentials of all work of high school grade done
in the past (credentials are signed statements, naming the subjects
studied, the grades received, and signed by the Secretary or Principal
of the school where the work was done.) It should be definite, accu-
rate, and carefully made out. It is wise also to forward credentials
together with the recommendations called for on page 7 to the Extension
Department of the State Teachers College at the same time that
the application for enrollment is mailed.

Remember that no enrollment can be made without the payment of
fees (see page 9.)

I desire to enroll for course numbered..... (Give Roman
numbers) and entitled.....
Be definite and clear in naming courses.

Signed.....

**Note. Be sure to note carefully the limitations on high school ex-
tension set forth below. All persons enrolling are held responsible for
the facts therein stated.**

LIMITATIONS ON HIGH SCHOOL EXTENSION COURSES

1. No diploma can be secured wholly by extension work. Not more than six units can be earned by extension study. No student is permitted to take more than two units in any given year or to study more than two subjects at any given time. The best way to make rapid progress toward graduation is to use the extension courses in the winter while employed a part of the time at other things and then to take advantage of the summer school organized each year at Greeley by the State High School of Industrial Arts. This makes it possible for a student to make three and a third units each year and to graduate in five years.
2. The extension courses are not intended for people under eighteen years of age. It is more difficult to do excellent school work by extension than in residence. It takes strength of purpose, determined and persistent effort, and marked self-control, to succeed when no teacher is present to see that the task is finished on time. It is not reasonable to expect boys and girls of fourteen or sixteen years of age to possess these qualities. It has been said and truly said that many of the strongest men and women in our country obtained their education through the aid of correspondence courses. This is, however, only another way of saying that the weak and inefficient never finish a course by correspondence. They let a thousand things in their environment interfere. They can not help but neglect their studies when all power of control comes from within, but when a man or woman is found who can do this, he certainly possesses the essential elements of greatness. A careful self examination ought to precede the actual step of enrolling for extension study. If you have not the force of character to stick it is a waste of time to begin.
3. Students must complete a course within nine months of the time of enrollment. Failure to do so means that the money paid in for enrollment will be distributed between the college and the instructor and the account closed.
4. In all cases the detailed instructions relative to method of study and preparation of manuscript must be strictly adhered to.
5. Money will not be refunded for courses after the first three recitation papers have been read and graded by the instructor; or in any event after the expiration of nine months from the date of enrollment.
6. Students who have completed a large part of their work in some other high school of acceptable grade can not finish in State High School of Industrial Arts entirely by correspondence work. **At least one quarter of residence work is required.**

SAMPLE PAGE OF MANUSCRIPT

Albert Thompson,
Silverton, Colo.

1

PHYSICAL GEOGRAPHY.

I

A political division of the earth is one in which government and laws are uniform. It is the product of human society.

A natural division of the earth is one in which the non-human conditions, such as vegetation, structure, relief, climate and animal life are uniform.

II

The boundaries of political divisions are definite and well known. They are recorded in treaties and laws made by the various governments concerned.

The boundaries of natural divisions are often vague and uncertain, depending upon varying natural conditions.

III

Natural divisions derive their greatest importance in geography from their relations to human affairs. And since people can get off the earth as easily as they can escape from the influence of natural environment, the main problem of geography is to discover how and to what extent human life is related to natural environment.

IV

- I. Natural provinces.
 1. Intertropical.
 - a. General characteristics.
 - b. Types.

HOW CORRESPONDENCE COURSES ARE CONDUCTED

The Extension Department sends the student the first four study units of the course he has chosen and the book needed with them. He studies the book as directed and works out his first **recitation paper**—covering the work outlined in the first study unit. He mails this to the Extension Department as soon as it is finished—and waits for its return before sending in his second recitation paper, so that he may have the advantage of the teacher's suggestions. The date on which the paper is received in the Extension Department is recorded on the student's enrollment card and the paper is passed to the instructor in charge at once. When the instructor has read, commented on, and graded the paper he returns it to the Extension Department, where the date of its return and the grade given it are recorded on the enrollment card. The first recitation paper is then returned to the student with the **fourth study unit**, after which the student may mail to the Extension Department his second recitation paper together with **any additions required by the instructor** to his first recitation paper. The second paper passes through the same process and is mailed back to the student with the fifth study unit, and so on till the course is completed.

SPECIAL INSTRUCTIONS FOR THE PREPARATION OF MANUSCRIPTS

If possible to obtain it, use clean white paper that is eight and a half inches wide by eleven inches long.

Write with pen and ink.

Write plainly and use one side of paper only.

Leave a somewhat wider margin at the left side of the paper than at the right.

Number each page at the top near the right margin.

Designate problems and answers to questions by Roman numerals placed in the middle of the page.

When outlines are called for, use care in numbering and indenting sub-headings.

Do not roll your manuscripts. Send them flat or folded.

COURSES AND TEXT BOOKS

I. First Year Algebra—

Text-book—Elementary Algebra.
Author—Slaught and Lennes.
Publisher—Allyn and Bacon, Chicago.
Price—\$1.00.
Credit—One unit, or fifteen hours.

II. Second Year Algebra—

Text-book—Intermediate Algebra.
Author—Slaught and Lennes.
Publisher—Allyn and Bacon, Chicago.
Price—75 cents.
Credit—One unit, or fifteen hours.

III. English History—

Text-book—A Short History of England.
Author—Edward P. Cheyney.
Publisher—Ginn and Co.
Price—\$1.96.
Credit—One unit, or fifteen hours.

IV. High School Geography—

Text-book—High School Geography.
Author—Charles R. Dryer.
Publisher—American Book Co.
Price—\$1.64.
Credit—One unit, or fifteen hours.

V. General Science—

Text-book—General Science.
Author—Caldwell and Eikenberry.
Publisher—Ginn and Co., Chicago.
Price—\$1.48.
Credit—One unit, or fifteen hours.

VI. Textbooks—

a. The Short Story—

Text-book—The Short Story.
Author—E. A. Cross.
Publisher—A. C. McClurg, Chicago.
Price—\$2.00.

b. The Novel—

Text-book—Silas Marner.
Author—George Eliot.
Publisher—Houghton Mifflin, Chicago.
Price—30 cents.

Text-book—The Marble Faun.
Author—Hawthorne.
Publisher—Houghton Mifflin, Chicago.
Price—60 cents.

Text-book—Quentin Durward.
Author—Scott.
Publisher—Houghton Mifflin, Chicago.
Price—50 cents.

Text-book—The Tale of Two Cities.
Author—Dickens.
Publisher—Houghton Mifflin, Chicago.
Price—50 cents.

Text-book—The Spy.
Author—Cooper.
Publisher—Houghton Mifflin, Chicago.
Price—50 cents.
Text-book—The Light That Failed.
Author—Kipling.
Publisher—Doubleday, Page & Co., New York.
Price—\$2.00.
Text-book—Ramona.
Author—H. H. Jackson.
Publisher—Little, Brown & Co., Boston.
Price—\$2.00.
Credit—One unit, or fifteen hours.
Text-book—Cranford.
Author—Mrs. Gaskell.
Publisher—Houghton Mifflin, Chicago.
Price—40 cents.
Credit—One unit, or fifteen hours.

VII. Applied Botany—

Text-book—Botany for High Schools.
Author—G. F. Atkinson.
Publisher—Henry Holt & Co., New York.
Price—\$1.45.
Credit—One unit, or fifteen hours.

VIII. Civics and Citizenship—

- a. Text-book—Government and Politics in the United States.
Author—Wm. B. Guitteau.
Publisher—Houghton Mifflin Company.
Price—\$1.68.
- b. Text-book—Colorado Civil Government and History.
Author—Hatch and Parsons.
Publisher—Herrick Book & Stationery Company, Denver.
Price—\$1.25.
Credit—One unit, or fifteen hours.

IX. Inductive Arithmetic—

Select one.
Text-book—Practical Arithmetic.
Author—L. D. Harvey.
Publisher—American Book Company.
Price—76 cents.

Text-book—Standard Arithmetic, Book III.
Author—Hamilton.
Publisher—American Book Company.
Price—72 cents.

Text-book—Standard Arithmetic.
Author—Wm. J. Milne.
Publisher—American Book Company.
Price—84 cents.

Text-book—Progressive Arithmetic, Book III.
Author—Wm. J. Milne,
Publisher—American Book Company.
Price—68 cents.
Credit—Ten hours, or two-thirds of a unit.

X. American Literature—

Text-book—Three Centuries of American Literature.
Author—Newcomer, Andrews, Hall.
Publisher—Scott, Foresman & Company, Chicago.
Price—\$2.40.

Text-book—American Literature.
Author—W. J. Long.
Publisher—Ginn & Company.
Price—\$1.28.

or
Text-book—American Literature.
Author—R. P. Halleck.
Publisher—American Book Company.
Price—\$1.40.
Credit—One unit, or fifteen hours.

- XI. **America's Relation to World Problems—**
Text-books—World War, Side Lights on World War, The League of Nations and the Peace Treaties.
Author—William L. Nida.
Publisher—Hale Book Company, Oak Park, Illinois.
Price—36c each, with paper cover; 60c with cloth cover.
Credit—One unit, or fifteen hours.

- XII. **Home Economics.**
Text-books—Foods and Household Management, Shelter and Clothing.
Author—Kinne and Cooley (author of both).
Publisher—MacMillan & Company, Chicago.
Price—\$1.40 each.
Credit—One unit, or fifteen hours.

- XIII. **Plane Geometry.**
Text-book—Plane Geometry.
Author—Wentworth-Smith.
Publisher—Ginn & Company.
Price—\$1.24.
Credit—One unit, or fifteen hours.

- XIV. **Typewriting—**
Text-book—Fritz-Eldridge Expert Typewriting.
Authors—Rose L. Fritz, Edward H. Eldridge.
Publisher—American Book Company.
Price—\$1.20.
Credit—One unit, or fifteen hours.

- XV. **Bookkeeping—**
Text-book—Bookkeeping and Accountancy.
Author—H. M. Rowe.
Publisher—H. M. Rowe Publishing Company.
Price—\$1.65.
Credit—One unit, or fifteen hours.

- XVI. **Survey of English Literature**.....To be ready Jan. 1, 1922.
XVII. **Elements of Sociology**.....To be ready Jan. 1, 1922.
XVIII. **Applied Mathematics**To be ready Jan. 1, 1922.
XIX. **Advanced English Composition**.....To be ready Jan. 1, 1922.

Information relative to text-books, authors, publishers, etc., will be furnished the student, relative to Courses XVI, XVII, XVIII, and XIX, at the time the study units are forwarded to him. The time that these will be ready is indicated above.

ALGEBRA—COURSES I AND II

General Instructions—

The work of this course is divided into two years of three quarters each. Five hours credit is given for each quarter or two units for the two years.

The student should read the author's explanations very carefully and study the illustrative problems thoroly before attempting to solve any of the exercises. **Learn** each of the principles printed in bold face and numbered from I to XVIII as soon as it is reached in the work. Apply these principles to all the exercises following.

Work out in neat form and send in each lesson as outlined. If there are problems you cannot solve, either write for special help stating exactly your difficulty or work them out as far as possible in their proper place on the lesson sheet and make a note there concerning your difficulty.

A written test will be required at the end of each term, questions for which will be sent by the Extension Department.

Three-fourths of the problems in each lesson must be correct or the entire lesson must be done over. If several problems only are incorrect these must be corrected and sent in with the next lesson unless otherwise specified.

General Divisions—

- Algebra (1) Exercises from page 1 to page 107, 5 hrs. credit.
- Algebra (2) Exercises from page 108 to page 206, 5 hrs. credit.
- Algebra (3) Exercises from page 207 to page 296, 5 hrs. credit.
- Algebra (4) Exercises from page 1 to page 93, 5 hrs. credit.
- Algebra (5) Exercises from page 94 to page 179, 5 hrs. credit.
- Algebra (6) Exercises. Important subjects following page 179 and general review.

(Model Lesson)—

FIRST TERM ALGEBRA—LESSON I

Name _____

Date _____

Introduction to Arithmetic Pages 2 and 3

- I. Volume=L. W. H.
 " " $6 \times 4 \times 3$.
 " " 72 cu. in. Ans.
- II. Volume=L. W. H.
 " " $35 \times 25 \times 15$.
 " " 13,125 cu. ft. Ans.
- III. And so on for the whole set.

Algebraic Operations Page 4

- I. $a+b$. Ans.
 ab . Ans.
- II. m
 —
 $m-n$. Ans.

(Double columns may be used where the work is short).

ENGLISH HISTORY—COURSE III

In planning this extension course in English History we have attempted to direct the attention of the student along lines which indicate the greatest development of these people. To this end we have chosen eight major influences in their history, subdividing these headings into forty-five study units, each study unit having in turn its sub-headings as a guide for the student. In working out this course the student will be following the struggle for such basic principles as tolerance, democracy, industrial liberty, freedom of speech, or of the one great principle of liberty in a variety of applications.

(Model Lesson)—

Below is worked out a possible paper submitted on Study Unit III under the major topic of Religious Development, and a lesson heading of Catholic Church Organization.

ORGANIZATION OF CHURCH

Time—

670-690.

Organizer—

Theodore of Tarsus.

Plan—

Head of Church—

Pope.

Districts—

1. England divided into the two archbishoprics of York and Canterbury.
2. Archbishoprics divided into fifteen dioceses or bishops' sees.
3. Bishops' sees divided into many parishes.

Officers of Church—

1. Pope.
2. Archbishops.
3. Bishops.
4. Archdeacons.
5. Canons.
6. Priests.
7. Stewards.
8. Teachers.
9. Clerks.

Executive Authority—

1. Pope and Higher Church Officials.
2. Church Courts.

Legislative Authority—

1. Church Officers.
2. Decisions of Courts.
3. Canons.

Judicial Authority—

1. Church Courts—
 1. Time—
Started 1066.
 2. Charges—
Heavy to help support church.
 3. Jurisdiction—
 1. Wills.
 2. Inheritance.
 3. Widows and orphans.
 4. Questions of morality.

OTHER ORGANIZATIONS

Monasteries—

1. Purpose—
 1. Oath, Chastity, Poverty, Obedience.
 2. Teaching.
2. Supported—
 1. Work of members at first.
 2. Later gifts of property made them very wealthy.
3. Numbered—
 1. Many hundred.
4. Influence—
 1. For all that was good and fine until wealth brought corruption.
 2. Corruption brought disaster.

HIGH SCHOOL GEOGRAPHY—COURSE IV

The aim of modern Geography is to get a view of the earth primarily as the home of man. The earth is not only the present home of man but it is the garden in which he has grown, and also the environment in which still higher standards of attainment are possible. This course attempts to preserve this human point of view in the study of geography and so concerns itself with the leading facts and principles of geography which are factors in the human struggle for better living. The first part is devoted to Physical geography, which studies the earth as it would be if man had never lived upon it. The second part deals with Economic Geography. In this man's use of the materials of his environment is the basis for study. In the third part, dealing with Regional Geography, the earth is considered as consisting of a number of kinds of natural provinces, the environment affecting the economic adaptations being broadly similar in all the provinces of a given kind. (Modern Lesson)—

HIGH SCHOOL GEOGRAPHY, UNIT I

In Chapter I there is given a general discussion of the Physical Geography of the earth, sun, and moon, together with brief explanations of latitude and longitude, the distinction between solar and civil days, standard time and the calendar, and some very interesting and helpful discussions of maps and map projections.

Recitation Paper—

1. Name and discuss fully the various spheres which make up the earth.
2. Describe the sun.
3. Using a diagram, illustrate fully parallels and meridians and explain the causes of seasons.
4. What is the source of the energy which keeps things alive and moving on the earth?
5. Explain standard time, the calendar, solstice, equinoxes.
6. Name, describe, and illustrate two forms of map projection.
7. Project a map of some section of your immediate neighborhood.

GENERAL SCIENCE—COURSE V.

There are certain fundamental principles of science which cannot be stated too emphatically or too often. A real public service has been rendered by the introduction into the public schools of the subject of general science.

The aim of this course is to make a selection of topics that will stimulate an interest in common things. Topics of real scientific interest and importance may be given less attention in order that practical topics may be accorded a fitting precedence.

To further the aim simple demonstrations and observations are made the strong points of the course. In view of this fact an attempt has been made to make each lesson unit equally interesting, without sacrificing scientific accuracy.

GENERAL SCIENCE, UNIT I

Text, Caldwell and Eikenberry's General Science, Chapter 1.

Some characteristics about air—

Air as material—

Its composition, weight and general characteristics.

Working under water—

The laying of foundations, caisson and shaft work.

Diagram illustrating methods of working under water.

Weight of air—

Methods of determining weight of air.

The use of the barometer.

General characteristics of the aneroid barometer.

Air pressure—

Measurements of air pressure.

Altitude and air pressure.

Effects of temperature—

Use and description of the thermometer.

Fahrenheit and centigrade thermometers.

General effects of expansion.

Convection currents.

Hot air furnaces.

Chimneys.

Importance of air temperature.

ENGLISH LITERATURE—COURSE VI a, THE SHORT STORY

Description of Course

The extension work offered in English Literature is a reading course in which fifteen short stories and six novels are to be read. A written report of each is required. One unit or fifteen hours credit is given for the satisfactory completion of the work. The study of the short stories, which constitutes one-third of the course, should be done first. (Study unit syllabi will not be furnished for this course. The instructions which follow are to take the place of the syllabi.)

1. Preliminary Study—

Read carefully Chapters 1-8, inclusive. This is necessary in order to know how to study the short story. No written report of the reading is required. The written reports of the stories will show whether or not the preliminary reading has been done thoroly.

2. Plan for study of the short story—

Use these questions as suggestions pointing the way to your study of each short story. Combine the answers, making a unified essay of from three to four pages.

1. Write a brief synopsis of the story in not more than three paragraphs.
2. State the theme. Is it true?
3. What is the tone of the story; tragic, serious, humorous, farcical, poetic, dreamy?
4. Is this a story of character, incident, or setting?
5. Make a list of the characters: a. The principal characters; b. Those of secondary importance; c. Those used merely as background.
6. Which of the characters have distinct individuality? Are the characters true to life? Which is your favorite? Why?
7. Is the setting interesting for its own sake, or is it used merely as a background for the characters and incidents?
8. What seems to have suggested the title?
9. What is the author's point of view?

10. The most effective short story is one that employs **characters** highly worth knowing and thru these works out a **great theme** upon a **stage** (background or setting) suited to the **action** and the people of the story. Does the story you are studying fall short in any of these four specifications? Comment **at length** upon this question.

3. Directions—

Write on one side of theme paper, using pen and ink. Submit one report at a time.

4. Following is the list of short stories to be studied. The report of each story constitutes one study unit.

First Study Unit—The Necklace.

Second Study Unit—The Prodigal Son.

Third Study Unit—The Princess and the Vagabond.

Fourth Study Unit—On the Stairs.

Fifth Study Unit—The House Opposite.

Sixth Study Unit—The Adventure of the Speckled Band.

Seventh Study Unit—Will o' the Mill.

Eighth Study Unit—Martha's Fire Place.

Ninth Study Unit—Dr. Heidegger's Experiment.

Tenth Study Unit—Three Arshins of Land.

Eleventh Study Unit—The Father.

Twelfth Study Unit—Where Love Is, There God Is Also.

Thirteenth Study Unit—The Mysterious Bride.

Fourteenth Study Unit—The Taking of the Redoubt.

Fifteenth Study Unit—The Truth of the Oliver Cromwell.

Course VI b—The Novel

1. Directions—

This is a reading course in which six novels are to be read. A written report of each is to be made according to the study plan given below. Write on one side of theme paper, using pen and ink. Submit one report at a time.

2. Plan for study of novel—

Use these questions as suggestions pointing the way to your study of the novel. Combine the answers, making a unified essay of from five to six pages.

1. Write a two or three-page synopsis of the story.
 2. What is the theme or purpose?
 3. What is the setting of the story;
 - a. Time? b. Place? c. Background?
 4. Study of characters—
 - a. Are they true to life?
 - b. Are they worth knowing?
 - c. Which is your favorite? Why?
 5. Write a brief sketch of the author—
 - a. When and where was he born?
 - b. When did he write this novel?
 - c. Does this story throw any light on his life or personality?
3. Following is the list of novels to be read in the order indicated.

Each report constitutes **five** study units.

Study Units One to Five—Silas Marner.

Study Units Six to Ten—The Marble Faun.

Study Units Eleven to Fifteen—The Tale of Two Cities.

Study Units Sixteen to Twenty—Quentin Durward.

Study Units Twenty-one to Twenty-five—The Spy.

Study Units Twenty-six to Thirty—Select one—

The Little Minister.

The Light That Failed.

Cranford.

Ramona.

APPLIED BOTANY—COURSE VII

The aim of the extension course is to bring the essential facts of botany to the student who, for some reason, is not attending high school. These lessons aim to be a guide to a practicable course in facts and principles of the subject and to bring the study of botany into closer touch with the business of life by stressing its relations with agriculture and economics. An attempt is made, as far as possible, to have botany closely correlated with the home activities.

The course presupposes no previous study of the subject in any formal organized classroom work. In working out experiments and in giving questions an endeavor has been made to select materials from the environment of the student.

In order, as near as possible to secure exactness, completeness, and permanency in the student's work, he is required to make full records of his answers before the results are submitted to the teacher.

(Model Lesson)—

Applied Botany, Unit No. I

Assignment—Chapters I and II.

1. Define organism, cell, tissue, protoplasm.
2. Contrast and compare plant and animal organisms.
3. In division of labor of the plant, point out the work done by each tissue. Why is this an economic process?
4. Draw a diagram showing the structure of the cell. Label each part.
5. Place some seeds (beans, squash, pumpkin, or peanut) in water and examine them hours later. Describe each organ mentioned in chapter two.
6. Point out the same parts in a grain of corn. How does corn differ from the seeds used in 5?
7. What three conditions are necessary for the germination of seeds?
8. In the light of Lesson I, answer this question: Why does the farmer plow his field?

CIVICS AND CITIZENSHIP

This course deals with government and politics in the state and nation with considerable emphasis upon the implications of citizenship. It is divided into two parts: A, dealing with Federal Government and politics, and B, dealing with state government. Besides the texts for the course, it will be helpful to the student to have supplementary material with which to work. We suggest one of the following books as supplementary:

Government in the United States, by Garner—American Book Company.

American Government, by Magruder—Allyn & Bacon.

Advanced Civics, by Forman—The Century Company.

The use of current event magazines such as the Independent, Literary Digest, The Outlook, World's Work, Review of Reviews, is also advised. In addition, the keeping of a scrap book in which clippings concerning events which are closely related to the operation of the government and the duties of citizenship should be kept is advised.

Course VIII a—National Aspects

(10 hours credit)

The text is Guitteau's Government and Politics in the United States. This course will study quite intensively the origin and functions of local government and the origin and operation of the Federal Government. This course is more than a study of the outline of the Constitution and endeavors to show how the government operates in the actual everyday life of the citizen. The citizen's duty to society and to the state are emphasized. The completion of this course allows a credit of ten hours.

(5 hours credit)

The second part of the course deals with the government of the state of Colorado. The text of this course is Colorado Civil Government and History by Hatch & Parsons, published by Herrick Book and Stationery Company of Denver. The three departments of the state government, the Legislative, Executive, and Judicial, are carefully studied. Then the local government units, the county, the towns and cities, and the school districts are considered. Following this state institutions, elections, revenues, and public indebtedness are taken up for discussion. The completion of this course allows a credit of five hours.

Inductive Arithmetic—Course IX

Arithmetic is the science of the relation of numbers. It is not the art of juggling figures. Many teachers make it little more than an endless description of process, which the child is to memorize. The child's reasoning faculty is not appealed to with the inevitable result that at last these manifold descriptions grow dim, become confused, and the pupil knows nothing of the real science of arithmetic and is hopelessly inefficient in the ability to use the little knowledge he may possess.

This course makes reason the corner stone upon which the science of arithmetic is erected. The student is taught to think arithmetic with the earnest hope that this method will be pursued in the class room. No rules are taught, but each situation involved in a particular type of problem is analyzed with the purpose of getting the pupil to see the reason for the operation performed. This method gives independence of thought, a deep insight into arithmetical relations, and in a comparatively short time a thorough mastery of the science of arithmetic.
(Model Lesson)—

Arithmetic—High School

Study Unit No. XII. Relation of Decimals to Common Fractions.

Instructions—The most important thing in the study of decimals is to get a clear conception of their relation to common fractions. When the student has mastered this relationship, he should have little trouble with decimals.

- a. Make yourself familiar with the names of the decimal columns up to the trillionth's place.
- b. What is the difference between 7 tens and 7 tenths?
- c. Add four hundreds and four hundredths.
- d. Multiply 9 thousands by 25 hundredths.
- e. Divide 775 tens by 75 thousandths.
- f. Express as decimals the following common fractions:
 $\frac{3}{10}$, $\frac{3}{1000}$, $\frac{23}{100000}$, $\frac{768}{100,000,000}$.
- g. What is the difference between $\frac{54}{10}$ and 5.4?
- h. What is the difference between $5\frac{4}{10}$ and $\frac{54}{10}$?
- i. In what two ways can you read 5.4?

Note 29.

The word difference can be used in a double sense. The restricted use of the word as in "b" implies a quantitative difference or remainder. The more comprehensive meaning of the word denotes merely a descriptive comparison. In its more general sense the word points out similarities and dissimilarities. The attitude of mind, suggested by this more general usage of the word, which weighs, compares, and infers, is very valuable to the student of arithmetic.

Note 30.

There is no quantitative difference between $5 \frac{4}{10}$, $54/10$, 5.4. The formal difference often becomes so fixed in the minds of teachers and pupils as to interfere with freedom and flexibility of thought and expression. In the historical development of decimals, it is probably true that the expression 5.4 was always read as a mixed number; in this fashion, "five and four tenths", but there seems no good reason why we should not read 5.4 as an improper fraction; thus, "fifty-four tenths."

There are three excellent reasons for the proposed extension of the old mathematical tradition. Reading and writing decimals as improper fractions, (1) saves time, (2) increases flexibility and freedom of thought, (3) correlates in a more direct and helpful way with both whole units and fractional units.

Note 31.

The whole science of decimal fractions rests upon the simple device of **making a point indicate the column in which the right hand figure of the numerator is to stand.** Remember that the decimal point has no other function, but think of this function long enough and patiently enough to get its real significance.

Note 32.

The method of reading decimals as improper fractions, though not so common as the method of reading them as mixed numbers, enables us to **read every decimal just as if it were a whole number, and then to pronounce the denominator indicated by the decimal point.**

Note 33.

You can write any decimal just as if it were a whole number, provided, you make the decimal point express the denominator correctly. With this method pupils learn to read and write decimals with great rapidity, and are conscious all the time of the significant unity between decimals and improper fractions. Instead of whole numbers and decimals being two distinct things on either side of a stone wall, they become one thing—a thing the child has known from the very beginning of his experience with fractions.

AMERICAN LITERATURE—COURSE X

The course in American Literature which is offered by extension is a study of literature through history, biography, and reading of literary selections by characteristic writers. It aims to show the trend of American thought and the changing ideals through the three centuries.

The course is divided into three parts of fifteen units each, each part carrying five credit hours. The third part is given up to later nineteenth and to twentieth century literature for the benefit of those more interested in a study of recent and current writing. No single text book is available for this study.

(Model Lesson)—

American Literature, Unit I William Cullen Bryant

"American literature of the nineteenth century was fortunate in the fact that it had at the outset of its approach to maturity, in the work of Bryant and Irving, standards of form in poetry and prose."

Bryant may lack passion, but there is dignity and correctness and high spiritual value in his writing.

Nature and Life.

Read **Thanatopsis**. This serious poem was practically completed before Bryant was eighteen years old. What in the life and training accounts for the religious and seriously grave tone of the poem? What lines do you keep in your memory that are worth quoting often?

What was the occasion for writing **To a Waterfowl**? Picture the scene for yourself. What is the stanza that shows how he drew comfort for himself from this solitary picture?

Read **A Forest Hymn, Green River, To a Fringed Gentian, The Death of the Flowers** for the grave but beautiful view of nature and the application which the poet makes to life. State the best thought in each. Read each of these poems aloud to get the rhythm in which each is written. How do they compare in rhythm with **Robert of Lincoln**? **Patriotic.**

What had caused the change in Bryant's attitude toward life as it is reflected in his patriotic poems? State, if you can, what his attitude now became?

The Song of Marion's Men.

What was the circumstance that Bryant is commemorating? How does he commend the men?

The Battle Field.

Read it all and learn the oft quoted stanza on Truth. Write it from memory.

Death.

Waiting by the Gate. Show whether this reflects the real feeling of Bryant. At what time of his life? What others of his poems speak of death? How does this one differ in content and feeling? Was Bryant during his long life a dreamer or a man of action?

AMERICA'S RELATION TO WORLD PROBLEMS—COURSE XI

This course is intended to give students an idea of causes of the World War and reasons for entrance of each country. The industrial and commercial relations between England, Germany, and France will be especially emphasized; also the close connection between all nations under our present means of communication. Special attention will be placed upon the reasons for the attitude of the United States concerning all important questions. New methods of warfare, countries originating them, and advantages and disadvantages will be considered.

The first fifteen lessons will cover the work from the outbreak of the war until United States enters; the second fifteen months from the entrance of the United States until the signing of the armistice and a brief survey of the work of the Peace Conference. These lessons are now ready. The third fifteen lessons will cover the Treaty, League of Nations and work of the League. This will not be prepared until after the United States decides upon her policy in connection with international relations. It probably will not be ready before fall of 1921. The course will carry ten hours credit at present. After September 1, 1921, at which time the last fifteen study lessons are to be complete, it will then be a 15 hour course.

(Model Lesson)—

America's Relation to World Problems, Unit II
The Kaiser's Dream of World Empire

- I. Kaiser Supreme.
 - A. Power of appointment.
 - B. Power over army and navy.
- II. German Colonies.
 - A. Location.
 - B. Contrast with English Colonies.
 - C. Effect of lack of ports.
- III. Great waterways of world.
 - A. Ownership.
 1. Significance.
- IV. Naval stations of world.
 - A. Ownership.
 1. How used?
 - B. Contrast English and German naval strength.
- V. Resources coveted by Germany.
 - A. Territory.
 - B. Harbors and waterways.
 - C. Minerals fields.
 - D. Railroads.
 1. Berlin to Bagdad.
 - a. Mittel-Europa plan.
 - (1) Aim (Side Lights page 83).
 - E. Shipping power.
 1. Methods used (Side Lights page 86).
 2. Degree of success.
 - F. Industrial prosperity.
 1. Preparation.
 2. Success.
- VI. Countries injured by Mittel-Europa plan.
 - A. Degree.
 - B. Manner.
- VII. Pan German plan.
 - A. Effect upon German people.
 - B. Methods of execution.
 - C. Ultimate result.

HOME ECONOMICS—COURSE XII

Both in theory and in practice, this course will differ materially from the domestic science course ordinarily found in high school curricula.

Students taking this course will delight in seeking the active co-operation of the home and of certain social and economic forces within the environment of the home.

In addition to cooking and sewing, practical lessons will be given in bookkeeping, marketing, landscape gardening, and art as pertaining to interior decoration.

(Model Lesson)—

Home Economics, Unit I

Read the lesson assignment in full before attempting to answer questions or make outlines.

Do not confine your answers to the text books. Make use of knowledge gained from all available sources, not forgetting experiences. The more of your own personality you can put into your manuscript, the better.

Always designate the numbers of the study units. This will help the Extension Department in keeping your records.

TEXT—Foods and Household Management—

ASSIGNMENT—Chapter XX and the Preface (as the successful housekeeper must be a business woman, one of her first duties is to learn to keep accounts. Hence it is thought best to take up Chapter XX before Chapter I).

Labor-saving devices for records.

Desks

Files

 Card

 Letter

Loose-leaf books

Keeping of accounts

 Aim

 Methods

 Envelope system

 Ruled blank book

Methods of payment

Bank account and check book.

After you have discussed the above topics, answer the following questions:

1. Suppose a housewife or a teacher cannot afford a desk such as described, can you suggest a home-made substitute? If so, describe it.
2. Rule a specimen page and designate column headings suitable for keeping the "Home Economics" accounts of your school or your home.
3. When you want to draw money from the bank, is there a safer way to write the check than to make it out to "Cash?"

Preface—What is the aim of the authors as set forth in the Preface? Do you agree with the authors?

PLANE GEOMETRY—COURSE XIII

Geometry is a difficult subject to take by extension. The reason for this fact is that the individual is apt to think that he understands a proposition thoroughly when he has not in reality a complete mastery of it. Any vagueness and indefiniteness which attaches to the first half dozen theorems will constitute an almost insurmountable barrier later on in the course.

This course is therefore open only to mature students who have had at least two years of high school work or who have previously been enrolled in a class in geometry which for some reason was not completed.

Beginning students and those with less than two full years of high school credit must take the first five theorems as residence work and then continue the course by correspondence. This plan of giving the student a good start by making the first few lessons residence work can be arranged very nicely during the summer quarter.

The course as outlined will consist of two parts. First, a thorough mastery of the definitions, axioms, postulates, propositions and corollaries as given by some standard author, and second, the application of these to original exercises, with emphasis placed upon one's ability to solve these exercises.

(Model Lesson)—

Geometry, Unit II

- I. Study carefully Propositions I, II, III.
- II. Notice the different parts to each Proposition.
 - a. Given—Facts to work with taken from the proposition.
 - b. To prove—Which is always the conclusion of the proposition.
 - c. Proof—This part always consists of a series of statements, each supported by the authority of a definition, an axiom, a postulate, or some proposition or corollary previously proved.
- III. Do not fail to understand thoroughly paragraphs 62-67 inclusive.
- IV. After a careful study of the propositions named above turn to page 28, Exercise 5 and work all the problems. These problems are worked by applying Propositions I and II.
- V. Work all the problems on page 31.

(Model Solution of Problem 3, Page 28)

3.

In the square ABCD

Prove that $AC=BD$

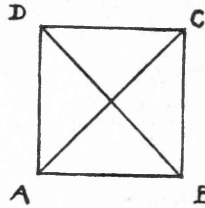
Given square ABCD

To prove $AC=BD$

Proof

(a). Statements

- I. In Triangle ABC and BAD
- II. $AB=AB$
- III. $AD=BC$
- IV. $CBA=BAD$
- V. ABC is congruent to BAD
- VI. $AC=BD$



(b). Authority.

- II. Identical.
- III. Paragraph 65—A square is a figure having four equal sides and four right angles.
- IV. Paragraph 56. All right angles are equal.
- V. Paragraph 68, Two Triangles congruent if two sides and included angle or one are equal respectively to two sides and included angle of the other.
- VI. Paragraph 67. Corresponding parts of congruent figures are equal.

(Notice the last statement is the same as the part of problem "To prove").

TYPEWRITING—COURSE XIV

Beginning work in touch typewriting covering position at machine, memorizing of keyboard, proper touch and correct fingering, the construction and care of machine, study of approved forms and circular letters, addressing envelopes, tabulating, centering, and arrangement.

BOOKKEEPING—COURSE XV

This course is intended to familiarize the student with the fundamental principles of good accounting. The theory is approached by the balance sheet method and there is considerable written work from the beginning. The first part of the course is devoted to the study of theory and application of this theory by written solutions to problems given in the text. Beginning with the second quarter's work or the sixteenth study lesson a complete set of books illustrating the uses of the cash book, purchases book, sales book, journal and ledger, will be written up.

