Appointments to any of the College courses are to be made between June 1 and August 1.

Appointments to the shorter Normal Courses are to be made between July 1 and December 31.

Superintendents are requested to make the time and place of holding these examinations as widely known as possible.

Sections 14 and 15 of College Charter will be found on pages 129 and 130 of the Common School laws, edition of 1900. To this your attention is most earnestly requested.

QUESTIONS FOR EXAMINATION

OF

APPLICANTS FOR APPOINTMENTS

TO

The State College of Kentucky

SESSION OF 1901-1902.

Prepared and sent out by the College under authority of Law.

ARITHMETIC.

(1) Find the greatest common divisor of 1649 and 5423, and the least common multiple of 1, 2, 3, 4, 5, 6, 7, 8, 9.

(2) A father left $\frac{3}{7}$ of his estate to his elder son, $\frac{4}{7}$ of the remainder to his younger son, and what then remained to his daughter, who received $1723\frac{5}{8}$ less than the younger son. What was the value of the estate?

(3) Reduce $\frac{3}{32}$, .62½, .37$\frac{1}{16}$, and ⅜ to decimals and find their sum.

(4) How many days of ten hours each will it require to make a million marks if I make 2 per second.

(5) A having a farm of 109 acres, which rents for $681.25, sells the same for $125 per acre, and invests the proceeds in Pacific R. R. 6's at 108¾ per cent., brokerage ¼ per cent. for purchasing. Will his yearly income be increased or diminished, and how much?

(6) C's money is to D's as 2 to 3; if ½ of C's money is at interest for 3 years 9 months at 10 per cent., it will amount to $1933.25. How much money has each?

(7) I wish to borrow $400 at a bank. For what sum must I draw my note, payable in 60 days, so that when discounted at 6 per cent. I shall receive the desired amount?

(8) If 54 men can build a fort in 24½ days, working 12½ hours each day, in how many days will 75 men do the same when they work but 10½ hours each day? (Solve by proportion).

(9) Find the dimensions of a cubical cistern that will hold 5000 gallons of water.

(10) Define notation, numeration, an abstract number, a concrete number, a prime number, a composite number, an even number, a common divisor, a common multiple, specific duty, *ad valorem* duty, and exchange.

ENGLISH GRAMMAR.

(1) In what three ways is gender in English indicated? Give the feminine form of the following nouns: man-servant, executor, duke, actor, benefactor, baron, songster.

(2) Give plural of the following nouns: cargo, glory, money, formula, axis, radius, potato, brother-in-law, spoonful, genius.

(3) State the different uses of the noun.

(4) Name the simple relative pronouns and tell how each is used.

(5) When is the comparative degree used? When the superlative? Compare the adjectives old, many, far, new, cruel, beautiful, little.

(6) Define the different kinds of verbs. Distinguish between transitive and intransitive verbs, and state why an intransitive verb cannot be used in the passive voice.

(7) Give the principal parts of the following verbs: arise, bid, lay, lie, sit, swim, weave, eat, set.

(8) As what parts of speech can infinitives and participles be used?

(9) Write a complex sentence containing a noun clause; one, an adjective clause; and one, an adverbial clause.

(10) Analyze the following sentence and parse each word: "Trust men and they will be true to you; treat them greatly and they will show themselves great."

UNITED STATES HISTORY.

(1) Give an account of the settlement of the colonies of New York, Virginia and Massachusetts.

(2) Describe the character, modes of life, education, and amusements of the Colonists at the time of the Revolutionary War.

(3) What were the principal wars in which the Colonies were engaged before the Revolution? Give an account of one of these wars.

(4) State fully the causes of the War of the Revolution.

(5) Give an account of the questions which agitated this country just prior to the War of 1812.

(6) What was the Missouri compromise? The Compromise of 1850? The Monroe Doctrine?

(7) Explain the political differences of the Federalists and the Anti-Federalists, of the Whigs and the Democrats.

(8) By what means did the United States acquire the territory west of the Mississippi?

(9) What are the three departments of government in the United States, and what, in general, are the duties of each?

(10) State fully the causes of the Civil War. Mention one important battle and the leaders therein engaged.

GEOGRAPHY.

(1) Name the zones of the earth and give the width of each in degrees.

(2) Name the causes of the changes of the seasons.

(3) How long are the days and nights in Kentucky when the sun is over the equator.

(4) Name in order from west to east the states that border Canada, and give the capital of each.

(5) Bound New York, Tennessee, Texas, California, and Wyoming, naming the capital and chief town of each.

(6) Name and locate six widely separated towns in Kentucky, and name six rivers of Kentucky flowing into the Ohio.

(7) Name the chief mineral, agricultural, and manufactured products of Kentucky, and tell in what part of the state each is produced

(8) Name five great powers of Europe, and give the capital and form of government of each.

(9) Name the political divisions of Asia, and state which of these are governed by European nations.

(10) Locate the Phillipines, the Transvaal, Nicaragua, Galveston.

SPELLING.

On the *occasion* of the *annual manoeuvres* of the *battalion*, not a single *corps* had the *privilege* of uttering a *syllable until* the *physicians* had examined each *soldier* with his *stethoscope*. It was deemed *right* to *bury* with *funeral rites* the major-general who had *valiantly* fought in many a *combat*. *Truly*, if we *believe* the *chronicles* of that period, it was the final engagement of that *campaign* which had first sapped his *vitality*.

FOUNDED 1850

KENTUCKY SCHOOL OF MEDICINE

LOUISVILLE, KY.

Wm H. WATHEN, A.M., M.D., LL.D., DEAN
THE GAULBERT
628½ FOURTH AVENUE

Dec. 5, 1907.

James K. Patterson, President,
State College,
Lexington, Ky.

My dear Professor Patterson:

When at the Galt House, I told you I would write again before the meeting of your Board. I still fee sure that both State College and the Kentucky School of Medicine would be greatly benefited by affiliating the school with the college. Of Course the Ky. School of Medicine could for many years get but few students from State College, but the fact of the school being connected with the college would be of decided advantage. The college assumes no repsonsibility in this affiliated relation, financially or otherwise. Since four of our schools have combined into two, one an integral department of the University of Louisville, the other, an integral department of Central College, the Kentucky School of Medicine is the only one in the state that can become affiliated in any sense with State College. The American Medical Association and State Boards are encouraging the affiliation of medical schools with State Universities. The Kentucky School of Medicine would advertise the State College in thirty-five to forty-thousand catalogues annually, and if necessary, send an advertisement in every letter written. The medical profession of the state, and the two other medical schools in Louisville could in no way object to this affiliation, but should encourage it. No one would dare on this account to interfere with your efforts to get an appropriation from the state.

The tendency with nearly all State Universities is to have a medical department, organic or affiliated, many of them, however, being able to teach but the two first years of the medical work, this work being elective, so as to be equivalent to the work required in medicine by the State Boards, and at the same time accepted by the University as the

Junior and Senior years of the academic work. This seems to be the trend in educational matters at the present time with many of our best universities.

There is no reason why State College could not with but few changes, do the work of the first year, and in a little while do the work of the two first years of the medical course. It would be impossible for State College to ever have a successful medical department in Lexington, for the city is too small, and the State Boards of the country would not recognize a graduating department there. Again, the state would not support an integral department in Lexington, and were Lexington to vote money to build medical school buildings, I assume that any citizen could enjoin the city and prevent the use of the money for such purpose. While the profession and the schools would not object to two years at Lexington, both the profession and the schools would seriously object to four years there.

The American Medical Association, through its Council on Education, is investigating medical school work throughout the world, and it has been shown that there are more medical schools in the United States than in the entire world; hence the determination to discourage the establishment of any new medical schools, and the elimination of as many old ones as possible.

The affiliation of the Ky. School of Medicine with State College would not add to the number of schools in Kentucky, but would add to the dignity, and give an old established medical department.

Our school was organized in 1850, the first faculty being mainly composed of the Medical Faculty of Transylvania, and our school is considered the lineal descendant of that school. We have probably about two-thousand living alumni, and fortunately over eight-hundred are in Kentucky, Indiana and West Virginia, though we have them in every state in the Union. The school has graduated approximately five-thousand doctors.

Our school and hospital could not be built for less than one-hundred-thousand dollars, and we have about an acre of ground in the central part of the city. The following are a few of the State Universities that are giving the first two years of the medical work:

namely, Cornell, University of Chicago, University of Nebraska, University of Indiana, University of West Virginia and the University of North Carolina. The work of the two first years at Cornell can be taken at Ithica or in New York City, but the last two years must be taken in New York City. The two first years at the University of Chicago are taken in the University; the last two years at Rush Medical College. The two first years in the University of Nebraska are taken at Lincoln; the last two in Omaha. The two first years at the University of Indiana are taken at Bloomington; the last two years at Indianapolis. In West Virginia and North Carolina there is no medical department that teaches the third and fourth years in the university or otherwise, if I am correctly informed.

If you and your Honorable Board feel it in the interest of the University to enter into this affiliation, then it would be well to have one or two of the State College representatives on our Board of Regents. We have two vacancies. Our Board is composed of men who will do anything in the interest of the school.

Since seeing you, I have discussed this question of affiliation with Judge Barker and Senator Carpenter, and have taken the privilege of mailing a copy of this letter to each of these gentlemen, so that they may study the matter before they reach Lexington. If the affiliation is not consummated, then I hope there will be no publicity given to the matter.

With much respect,

Sincerely yours,

W. H. Vaught

Base Ball Report 1907.

1907			RECEIPTS.	EXPENSES.
			$	$
Feb	6	Requisition		10 25
"	8	Cadet Dances	60 00	
"	14	Goldnamer-Requi. (balls)		1 50
"	22	Requi.		20 00
March	9	Dewhurst (suits)		120 00
"	18	Requi.		6 00
"	20	"		4 60
"	23	Lex. Ath. Club. game	21 75	
"	25	Requi.		20 00
" 29-	30	Univ. of Cin. games		4 00
April	13	Herald game	6 10	
"	16	McFarland (coach)		11 50
"	17	K.U. game	6 75	
"	20	C.U. game	11 75	
"	22	Geotown game	19 40	
"	26	Herald "	8 55	
May	3	Requi.		10 00
"	4	"		20 00
"	7	M.M.I. game.	22 70	
"	11	Geotown "	25 00	
"	13	Requi.		20 00
"	14	Herald game	3 75	
"	16	K.U. "	11 00	
"	18	Geotown "	25 00	
"	22	K.U. "	4 35	
"	25	C.U. "	19 70	
"	27	M.M.I. "		2 00
"	28	Miami "		19 75
June	1	C.U "	27 50	
"	3	All-College "	5 90	
"	3	Requi.		4 90
			$ 279 20	$ 274 50
			Balance $ 4.70	

The Season tickets plus $4.15 is the profit for the base ball season of 1907. Season tickets valued at $200.00

F.C. Paullin
Student Manager.

The Academy of the A. and M. College.
Lexington, Kentucky, May 9th, 1907.

President James K. Patterson.

Dear Sir:-

I have the honor to submit to you and through you to the Board of Trustees the following report of the Academy for the current year 1906-1907:

Enrollment.

Total enrollment		115
Number of males	96	
Number of females	19	115
Number of new students	67	
Number of former students	48	115
Number of counties in the State represented	45	
Number of other states represented	4	
Number of students from Lexington	28	
Number of students from Fayette County	18	
Number of students from other counties	65	
Number of students from other states	4	115
Number of students now in attendance	87	
Number of students who have left	28	115

Classification.

Number of first-year students	49	
Number of second year students	66	115
Number of Classical students	30	
Number of Scientific students	85	115

Instruction

Number of academic students instructed	115
Number of college students instructed in the Academy	45
Total number of students instructed	160

The following tabular statement shows the subjects taught, the number of students instructed in each, the average daily attendance and the results obtained in each subject completed during the first term:

	Total Enrollment	Ave. Daily Attend.	No. Examined	No. Passed
FIRST YEAR STUDIES				
English Grammar	48	34		
Latin Grammar	28	21		
Greek Grammar	5	5		
Political and Descriptive Geography	27	20	18	15
American History	19	17		
Arithmetic	50	40		
Algebra	56	42		
SECOND YEAR STUDIES				
Rhetoric and Synonyms, Sec. 1.	24	23	19	11
Rhetoric and Synonyms, Sec. 2.	39	33		
Nepos	9	8	8	4
Caesar and Latin Composition	13	9		
Greek Reader	5	4		
Anabasis	5	4		
Physical Geography	28	23		
General History	44	40	41	30
Algebra	75	63		
Plane Geometry	77	61		
German	81	67		
Physics, Sec. 1.	29	28	27	9
Physics, Sec. 2.	32	23		

In this Department twenty-one classes were organized at the beginning of the year and one was formed about the first of January. They have recited daily and will continue to recite daily until they have been examined and discharged at the end of the year.

The regulation for the admission of students has been fully complied with. Every new applicant for admission was carefully examined and, if found prepared to enter, was assigned to not less than four regular classes.

Monthly meetings of the Faculty of the Academy have been held regularly during the year. At these meetings, in addition to other business transacted, the report of each pupil for the preceding month was entered upon the records of the Department and a copy of the same was prepared for mailing to the parent or guardian. These

reports, accompanied by appropriate remarks, gave the class standing in each study for the month, the merits or the demerits for same, and the number of times absent from each class.

I began the year with three assistants, Messrs. Richard E. Warren, Albert N. Whitlock, and Knox Jamison, and soon had the work of the Department fully organized and the classes well under way.

On the 8th day of October, by the untimely death of my first assistant, Professor Richard E. Warren, and by the sudden and unexpected failure of my own health a week later, our work was temporarily somewhat disorganized, to the detriment of the classes immediately effected. Richard Evans Warren was an excellent scholar, a splendid teacher, a good disciplinarian, and loyal to this College and to its management. To fill the place of Mr. Warren, the College was fortunate in being able to procure the services of Mr. J. L. Purdom, the honor graduate of Central University in 1906. He is a good man, a good scholar, and has in him the making of a good teacher. Through the good offices of Professor White of the Normal Department, I procured, about the first of November, at my own expense, and with the approval of the President, the services of Professor Alfred G. McGregor to take charge of the classes that had been taught by me up to that time. He is a teacher by profession, is well educated, and has had a number of years of successful experience. In the instruction and management of my classes he has given entire satisfaction.

With scarcely a day's absence from the College, I have given all the care, supervision and direction to the best inter-

ests of the Department, that my health would permit. I took supervision of all the classes, controlled the discipline of the students, and supervised the preparation and transmission of the reports. I hope that by the beginning of the next collegiate year my health may be fully restored and that I may be able actively to resume my duties in the class room.

The following recommendations are respectfully submitted:

1. That no student of this College shall hereafter be admitted to any of its authorized Fraternities until he has completed without conditions the Freshman class.

2. That the use of cigarettes be absolutely prohibited in the Buildings and on the Campus of the College.

3. That an appropriation of One Hundred Dollars, ($100.) be made to meet the necessary current expenses of this Department.

Respectfully,

(signed) Walter K. Patterson,

Principal of the Academy.

Appendix 1.

Apparatus, etc., Purchased 1906-'07.

Out of the appropriation made in June 1906, the following apparatus, etc., were purchased:

Laboratory Slime Table,		$100.00
Vezin Jig,		90.00
Classifier and Support (Laboratory),		22.60
Hoskins Furnace and Burner,		46.00
Desk,		35.00
9 Lecture-room Chairs,		40.50
Scale Case for Assay Laboratory,		19.50
Electric Desk Lamp, Drop Lights for Lecture room, and installation,		11.43
Stationery,		8.00
Tools,		1.50
Abbe Laboratory Ball Mill,		45.00
Dings Electro-Magnetic Separator,		148.00
Rotating Machine, (not yet paid for).		
Assay Supplies (not yet paid for).		
Installing Assay furnaces,		10.18
Gasoline, for assay furnaces,	($14.00)	14.00
Gasoline Can (5-gallon),		.60
Charcoal,		.25
Freights and Express,		18.24
Ice for 1906 and 1907,		5.95

Various sundries yet to be obtained, and freight bills not yet rendered.

Appendix 2.

Apparatus, Etc., on Hand.

Hanging Compass, with cord and reel. (Mine survey.)

Station Bucks for Hanging Compass.

Plummet Lamps (2), for Mine Survey.

Working Model of Mine Hoist.

Stereopticon.

Reflectoscope.

Lantern Frame for Reflectoscope.

Lantern Slides, about 400.

Photographs, about 50.

Diagrams, about 25 to 30.

Blue Prints, about 50 or 60.

Lamp (candle) for lecturing with Lantern.

3 h.p Electric Motor, for Concentrating Table.

1/2 h. p. Gasoline Engine.

1 Monkey Wrench.

1 Handsaw.

1 Keyhole Saw.

1 Brace and 2 bits.

1 Chisel.

1 "Jack-of-all-trades."

2 Hammers.

1 Hatchet.

2 Small Planes.

1 Oil Can.

2 Hoskins Furnaces and Burners, for assaying.

1 Pulp Balance--assaying.

1 Iron Mortar--assaying.

1 Set of gramme weights--assaying.

1 set Assay Ton Weights.

1 Tin Sampler--assaying.

1 Pr. Crucible Tongs,--assaying.

1 Pr. Scorifying Gongs--assaying.

I Pr. Cupel Tongs--assaying.

1 Pouring Plate,--assaying.

6 Roasting Dishes--assaying.

1 Bucking Plate and Rubber--assaying.

3 Spatulas--assaying.

1 Set Small Sieves--assaying.

1 Alcohol Lamp--assaying.

1 Ring Stand--assaying.

1 Pr. 3-inch Watch Glasses--assaying.

1 Magnet--assaying.

1 Button Brush--assaying.

6 Parting Flasks--assaying.

6 Annealing Cups--assaying.

12 Test Tubes--assaying.

(For work in assaying have also had use of a furnace and accessories belonging to State Geological Survey.)

Wilfley Concentrating Table.

Hallett Jig.

3-Stamp Mill.

Dings Electro-Magnetic Separator (shipped but not yet received.)

Campbell Caol Washer (presented.)

Model of Coal Washery (presented).

Abbe Double Trojan Ball Mill.

Vezin Jig.

Munroe Laboratory Slime Tqble.

Munroe Laboratory Classifier, Support and Accessories.

Laboratory Rotating Machine.

Mine Fan (presented).

Electric Desk Fan.

Electric Desk Lamp.

Camera, Tripod, Plate Holders, and Cloth.

Coarse Ordinary Sieve.

Appendix 3.

Apparatus Required.

3 Additional Hoskins Furnaces and Burners.
2 Coke Furnaces.
1 Gas Furnace.
1 Assay (Button) Balance, and weights.
6 Tongs for Crucibles, etc.
12 Spatulas.
12 Bunsen Burners, or equivalents.
12 Roasting Dishes.
1 Pouring Plate.
1 Grinder.
1 set of small sieves.
6 Ring Stands.
2 Button Brushes.
12 Parting Flasks.
12 Annelaing Cups.
Assortment of Test Tubes.
Clarkson's Sample Divider.
Scales for Fluxes.
1 Mortar.
Supplies of Crucilbes, Scorifiers, Fluxes, etc.
Glass Tubing.
Rubber Tubing.
Sundry smaller apparatus.
Foregoing for Assaying.

Sturtevant Crsuher.
Wetherill Magnetic Separator.
Blake-Morscher Electrical Separator.
3 h.p electric motor.
1/4 h. p Electric Motor.
Glass Jig--lectuee demonstrations.
Hartz or similar Jig.
Glass Model of Mine.
Wolf or other gas testing lamps.
Apparatus for illustrating explosives.
Lead smelting furnace.
Sturtevant Rolls.
Frue Vanner.
Hydraulic Separators.
Models of furnaces used in Metallurgy.
Water Gauge.
Mining Transit and Level.
Chemicals and Apparatus for Metallurgy.

Dept of Geology.

1037 Books & Pamplets (catalogued)
30 Crosby's Tables for Determination of Minerals.
23 Tables completely filled up for Blow-pipe Analysis.
8 Magnets (extra)
8 Blow-pipes "
8 Streak Plates "
4 Agate Mortars "
5 Blue Glasses "
1 Platinum Tip Forceps (extra)
1 Specific Gravity Balance.
1 Hydrostatic Balance
600 Demonstration Specimens of Rocks & Minerals
54 Structure Series.
10 Scale of Hardness.
45 Crystallographic Demonstration Blocks.
48 Drawers of Minerals & Rocks (Duplicates principally)
4 Palaeontological Exhibition Cases (with drawers beneath)
4 Geological " " " " "
1553 Fossils (catalogued)
1 Case of 62 Rock Samples Illustrating Ky. Stratigraphic Series in order of age, with 6 drawers of duplicates beneath)
1 Rock Slicer.
7 Map cases
1 Macy Cabinet.
1 Globe.
1 Blackboard.
1 Demonstration Lecture Table.
11 Tables
1 Step Ladder
1 Duplicator.
1 Planograph.

Dept. of Geology

1 Jewell Still
1 " "
1 Stereopticon
3 doz Tenable Burners
60 Cases of Cardboard Trays.
1 Dynamo
1 Strata Map of Ky.
1 Geological " " " .
1 " " of Madison Co., Ky.
1 " " " Fayette Co., Ky.
1 " " " Jessamine " "
1 " " " Montgomery & Clark Cos., Ky.
1 " " " New York
1 " " " Alabama.
1 " " " Indiana
1 " " " Lower Peninsula
Map of Kentucky
" Showing Bituminous Sandstone of W. Ky.
Richmond Quadrangle (framed)
Fellows of Geological Society of America (framed)
Plaque — Ichthyosaurus sp.
" Etna.

Oct. 10, 1907.

Inventory of the
Department of Geology and
Zoology for year 1907-8.

SCHOOL OF CIVIL ENGINEERING,
OF
STATE COLLEGE OF KENTUCKY.
JAS. K. PATTERSON, PH. D., PRESIDENT.

WALTER E. ROWE,
PROFESSOR OF CIVIL ENGINEERING.

LEXINGTON, KY.,

INVENTORY OF CIVIL ENGINEERING DEPARTMENT *****1907.

Junior Drawing Room.
9 Drawing Tables with Lockers, One Locker Missing.
3 Large Drawing Tables.
1 Case of 40 Lockers.
18 Drawing Boards.
2 Large Drawing Boards.
1 Gurley Level Box.
1 Drawing Cabinet.
1 Book Case.
1 Cabinet.
1 Stadia Rod.
1 Cross Section Rod.
1 Boston Level Rod.

Freshmen Room.
1 Case of 52 Drawing Boards.

Office.
1 Desk.
1 Table.
1 Webster's Dictionary.
1 Elementary Mechanics.
2 Screw Drivers.
1 Key to Ele. Mechanics.
2 Letter Files.
1 Purdue Course in Mech. Drawing.
1 Thatcher Calculator.
1 Case of Splines. with Weights.
1 Pantograph.
1 100' Tape.
8 Penholders.
Plumb Bob Cord.
2 Hand Levels.
5 Bottles of Ink.
10 Carbon Sheets.
2 Rules.
2 Steel Triangles.
1 Railroad Pen.
1 Beam Compass.
2 Paper Protractors.
2 Celluloid Triangles, 8'' & 10".
1 Hatchet.
1 Wilsons Topographic Surveying.
1 8" German Silver Protractor.
1 Square with 3 Arms.
1 Slide Rule.
1 Aneroid Barometer.

SCHOOL OF CIVIL ENGINEERING,
OF
STATE COLLEGE OF KENTUCKY.
JAS. K. PATTERSON, PH. D., PRESIDENT.

WALTER E. ROWE,
PROFESSOR OF CIVIL ENGINEERING.

LEXINGTON, KY.,

INVENTORY CONTINUED.
1 Handbook for Surveyors.
1 Method of Least Squares.
1 Notes on Track- Camp.
1 Olneyvs Complete Algebra.
1 Practical Arithmetic.
1 Dwight's Mythology.
1 Water Supply Engineering- Gould.
1 New Hydraulics-Sullivan.
1 Warren's Stone Cutting.
1 Pumps and Pumping-Ball.
1 Railway Track and Track Work.
1 Road Construction-Gillette.
1 Steam Shovels and Steam Shovel Work.
1 Experiments by Herschel.
1 Mill Building Construction-Tyrrel,
1 City Roads And Pavements,-Judson.
1 Land Surveying and Leveling- Whittaker.
1 Plane Surveying- Raymond.
1 Hydraulic Power Engineering-Marks.
1 Manual of Weights and Measures- Oldber.
1 Ancient and Modern Engineering - Burr.
1 Engineering For Land Drainage- Elliott.
1 FieldWork and Instruments.
1 Roads- Cost and Maintenance,
1 Water Waste Prevention,
1 Manual American Water Works- Baker.
1 Water Supply Engineering-Folwell.
1 Flow of Water in Channels.
1 Weston's Friction of Water in Pipes.
1 Sextant- Brainard.
1 Plate Girder Construction.
1Stadia Surveying.
1 Turbine Wheels.
1 Geographical Surveying.
1 Lateral Pressure of Earthwork.
1 Sewage and Sewage Purification- Baker.
1 Mechanics of Ventilation.& Rafter.
1 Water Power Pump and Power House Designs.
1 Science Simplified.
1 Towers and Tanks for Water works.
1 Vega's Log. Tables.
1 Sewer Design- Ogden.
1 Sewerage- Folwell.
1 Stone Cutting- Siebertand Biegan.
1 Integral Calculus- Byerly.
1 Roofs and Bridges, PartII,
1 Sewers, Drains for Populous Districts.
1 Carnegie's Handbook.
11 Note Books.
4 Railroad Note Books,

SCHOOL OF CIVIL ENGINEERING,
OF
STATE COLLEGE OF KENTUCKY.
JAS. K. PATTERSON, PH. D., PRESIDENT.

WALTER E. ROWE,
PROFESSOR OF CIVIL ENGINEERING.

LEXINGTON, KY.,

INVENTORY CONTINUED.

1 Design and Construction Of Dams.
1 Crandall's Earthwork Tables.
1 Small Arc Bow Pen.
1 Thermometer for Use on Tape.
1 Rubber Stamp And Pad.

Senior Drawing Room.
4 Drawing Tables.
2 Light Drawing Table.
1 Case of 40 Lockers.
23 Large Drawing Boards.
3 42"" T Squares.
1 60" Steel Rules.
1 Book Case.
1 Parallel Rule.
2 Small Drawing Boards.
1 Roofs and Bridges, Part I.
1 Drawing Board Rack.

RecitationsRooms.
1 Desk.
30 Chairs.
1 Desk Chair.
1 Table Desk.
36 Chairs.
1 Desk Chair.

Instrument Room.
1 Buff And Berger Transit with Box.
2 Flags.
2 Tripods.
2 Steel Plumb Bobs.
1 Adjustable Bob.
1 Heller and Brightley Transit with Box.
1 Gurley Level With Box.
1 Mahn Transit with Box.
1 Gurley Transit with Box.
1 Keuffel and Esser Transit with Box.
1 Brandis Level with Box
1 Seelig and Kandler Level with Box.
1 Plane Table Complete with Box,
4 Stadia Rods.
3 Level Rods.
3 Flags.
1 Ax.
2 Hatchets.
1 500' Tape.
1 YY66' Tape.cChain.
1 100' Chain.

SCHOOL OF CIVIL ENGINEERING,
OF
STATE COLLEGE OF KENTUCKY.
JAS. K. PATTERSON, PH. D., PRESIDENT.

WALTER E. ROWE,
PROFESSOR OF CIVIL ENGINEERING.

LEXINGTON, KY.,

INVENTORY CONTINUED.

1 100' Tape.
1 100' Box Steel Tape.
1 Saegmuller Solar Attachments
3 Belts.
4Sets of Pins.
5 Steel Plumb Bobs,
1 Theory and Practice of Surveying.
1 Sextant- Johnson.
2 Steel 100' Tapes.
2 Lanterns.
1 Planimeter.
1 Steel Tape (broken).
1 Needle Compass.
1 Chamois.

1- Gurley Transit, Tripod and box, also Solar Attachment.
1- Lantern & Reflectoscope.
2- Instrument cases.
4- 100' Chicago Steel Tapes.
1- Opaque Curtain for Reflectoscope.
1- Fanning's Hydraulics.
1- Pence and Ketchum's Surveying book.
1- Pair Scales with weights.
2- Nests Cement testing sieves.
1- 4 hole Gang mould.
9- Single Briquette moulds.
2- Oil Cans.
3- Small Trowells.
1- Large Trowell.

Very Truly Yours

Walter E. Rowe

518 Rose St.
Lexington, Ky
May 14th, 1907.

Fayette National Bank
LEXINGTON, KY.

SQUIRE BASSETT, *President* — R. S. BULLOCK, *Cashier*
J. W. APPLETON, *Vice President* — W. F. WARREN, *Ass't. Cashier*

Still due the College on account of taxes collected
for 1906.----------$5.000.00
Balance due on amount appropriation
for 1906.----------$7.500.00
Amount appropriated for Girls Dormitory
for 1906.----------$.2.000.00
Have urged the Auditor and Treasurer to pay the money. They claim , not to have the money at present.

Respectfully.

R S Bullock
Treasurer.

CHEMISTRY.

To the President:

Sir:-

At the close of one year's service, it becomes my duty to report on the condition of the Department of Chemistry and the work accomplished.

I can assure you, Sir, that the whole time and energy of the instruction force has been devoted to the work under its charge, and I hope something of good has been accomplished.

The following tabulation will indicate the number of subjects taught and the number of students who have received instruction, during the year, in chemistry.

	Subject.	Number of students.
First Term.	General chemistry.	61
	Theoretical chemistry.	6
	Organic Chemistry.	6
	Qualitative analysis. (Laboratory)	29
	Quantitative analysis. "	7
Second Term.	General Chemistry.	44
	Theoretical chemistry.	4
	Organic chemistry.	4
	Qualitative analysis, (Laboratory)	36
	Quantitative analysis. "	34
	Organic Chemistry. "	6
Third Term.	General Chemistry.	38
	Theoretical chemistry.	4
	Organic chemistry.	4
	Chemistry of the Metals. (Laboratory)	18
	Quantitative analysis	10
	Organic and analytical chemistry. (Lab.)	6

Among the large number of students taking the work there have been some failures, but in the main a great deal of good work has been performed. In connection with our teaching, we have been obliged to devote a large amount of time to the laying out of laboratory work, the actual preparation of apparatus and chemicals, and necessary correspondence and book-keeping.

Owing to the fact that our laboratory is comparatively old, and as a whole was never intended to be used as a college laboratory for instruction purposes, we have accomplished our work with a great deal of difficulty, and, in the rooms devoted to quantitative analysis and organic chemistry, in such a state of confusion as students should never be allowed to become familiar with. It was for this reason that in my communication to the Board of Trustees last Winter I asked that steps be taken toward putting the building into such condition as would facilitate the work of teaching as well as provide for more students.

Since that time I have given the subject as much time and thought as was possible, and finally have come to the conclusion

Academy

<u>Prohibit</u> – cigarettes

No societies until

freshman course completed

ask $100 for deposit

that such changes as I suggested at that time would afford only partial and temporary relief, and if put into effect, would have to give way in a comparatively short time to more extensive changes. For instance, such changes would not provide a balance room, supply room, combustion room, private research laboratory, or make an appreciable difference in the size of the lecture room. Therefore I would like to call your attention to some pressing needs of the Department, and, I regret to say they are many.

1. Lecture Rooms. The large lecture room as now arranged has a seating capacity of about one hundred. Our sophomore classes at present number more than one hundred. In any class room where experimentation is carried on, the seats should be raised so as to enable those in the rear of the room to get the full benefit of the demonstrations. A room large enough to accomodate at least one hundred and fifty students, with raised seats, blackboards, hoods, etc. should be provided, and a smaller lecture room similarly arranged, with a seating capacity of about thirty five students.

2. Laboratory for General Chemistry. It is generally acknowledged that chemistry is not readily acquired by the student unless he has the opportunity to do with his own hands the things about which he has been studying. In order to make this possible we should have a laboratory for general chemistry with accomodations for seventy-five students at one time. By proper adjustment of the schedule such a laboratory could accomodate two hundred and twenty-five students.

3. Quantitative Laboratory. Quantitative analysis is work requiring rather commodious, quiet quarters, so that a student shall learn to appreciate the proper conditions under which such work should be carried on. There should always be another room adjoining, to be used by the instructor in the preparation of apparatus, for the testing of analytical processes, etc. I can see no way of making a satisfactory arrangement in the building as it now stands.

4. Balance Room. At present we are uding for a balance and supply room combined, a small narrow room which is unfit for either purpose alone. I have secured by importation three fine balances to replace the poor ones now in use, and a suitable room should be provided for their installation.

5. Gas Analysis Laboratory. The analysis of flue gases, as a means of controlling the consumption of fuel, has taken such a prominent position in the industrial world that a course in gas analysis should be offered regularly to those students, in all courses, who have had sufficient chemistry to profit by it. Training in this important branch of analytical chemistry is as important for the engineer as for the chemist. A suitable laboratory should be equipped and set aside in which to teach this subject.

6. Water Analysis Laboratory. The analysis of water is a matter of such delicacy that it cannot be performed in a room where other work is in progress. The room formerly used for photographic purposes, on the second floor of the building, could be fitted for a water analysis laboratory at no great expense and would be very satisfactory for the purpose. I would recommend that such a disposition be made of this room.

7. Laboratory for Organic Chemistry. The subject of organic chemistry is so totally different from other branches of our science that a special equipment throughout has to be employed. The work cannot conveniently be done except in a room fitted up for the purpose with an abundance of water and steam. This year I have used the room on the North side of the building for this purpose, although by so doing I put into use the only room in the building in which I could carry on independent research work. There was also no stock room in which apparatus and chemicals could be satisfactorily stored when not in actual use. A room the size of this one, adjacent to a smaller one which could be used as a stock room, would be entirely satisfactory, probably for some years.

8. Laboratory of Industrial Chemistry. There is an ever increasing demand for men whose training has been such as to enable them to take positions as superintendents, etc. of our large manufacturing establishments. The more progressive of our state institutions are now offering a course in industrial chemistry having for its object the training of men for such positions. We ought to make a beginning along this line at once, in equipping a laboratory where industrial processes can be carried out.

To accomodate the Department and to enable it to furnish instruction in the most important subject of chemistry in a rational manner to the whole body of students, I would recommend that the present building be enlarged by extending it farther South. There are in course of preparation plans for such an extension, and I would like the opportunity to present these to you and the Board of Trustees and to explain further the necessity which exists for their adoption.

With the money appropriated by the Board of Trustees at the Winter meeting, I have been able to make some very satisfactory purchases of books for the Department Library and with moderate annual appropriations for the purpose the library can be increased until it shall have become a most efficient adjunct to our equipment.

The appropriation, set aside by the Board of Trustees at the Winter meeting for the use of the Department, has enabled us to make a moderate preparation for the work this year, and to some extent for next year. But the senior class of next year will be nearly a year in advance of the senior class of this year in chemical training and experience, and the present sophomore class will be even further advanced when they become seniors.

To keep pace with this improvement in the condition of our students, our equipment and teaching force must be increased proportionately, and in order to meet the demands which will be made on us next year, I have prepared a list of chemicals and apparatus needed and have secured bids from different dealers for their duty free importation. I find that $1500.00 will be required for the immediate purchase of such material as we shall need to secure by importation from Germany.

In this connection I wish to call your attention to the saving to the college in buying our supplies from abroad. In many instances

the purchasing power of our money is doubled and a higher grade of material is secured. To illustrate:- the three balances which I have ordered from Holland, (duty free), would have cost the College $173.50 more if purchased in this country. We ought, therefore, when possible to anticipate our wants so that we can secure the full value of our money.

The appropriation made for the use of the Department during the year was most necessary and opportune, and I wish to express my deep sense of gratitude to you, Sis, and to the Board of Trustees, for your appreciation of our needs and the cordial manner in which you have come to our aid.

Whatever of success has been achieved in the Department during the year has been due in large measure to the untiring efforts of my colleague, Dr. R. N. Maxson, who in every instance has been ready and willing to render assistance whenever and wherever required.

At the Winter meeting of the Board of Trustees, I was authorized to secure an additional instructor in chemistry. My efforts to find a suitable man for the amount of money at my disposal were without success, and the extra work has been carried by Dr. Maxson and myself. To enable us to carry on the work of the Department in a manner which shall reflect credit on the State College of Kentucky, I recommend the appointment of one instructor at a salary of $1000.00 per year, and one at a salary of $600 or $800 per year.

In all the requests I have made for the amelioration of the condition of the Department of Chemistry, allow me to remind you that the Department is not conducted in the interests, solely, of the few students who graduate from the Department yearly, but that every student who graduates from the State College of Kentucky receives instruction in Chemistry, the science that has done so [illegible] for the advancement of mankind.

[illegible]usion, allow me to express my personal gratitude to [illegible] helpfulness and advice.

Respe[illegible] submitted,

Chemistry

Recommendations —
Acts to be heard by
the Board

Appropriation $1500 made

2 Instructors one 1000
& one 600 or 800 —

Lexington, Ky., May 13, 1907.

To Pres. Jas. K. Patterson,

Dear Sir:-

I herewith transmit my Report for the Departments of Geology, Zoology and Entomology for the Collegiate year 1906-7:-

Instruction has been given to students as follows:-

Zoology, First Term	22
Entomology, First Term	6
Zoology, Second Term	24
Entomology, Second Term	1
Entomology, Second Term (short course)	6
Zoology (Vertebrate) 2nd Term	13
Embryology, Third Term	11
Osteology, First Term	2
Geology, First Term, A.B. Course	23
Geology, 1st Term, B.S. students	5
Economic Geology, 2nd Term	33
Palaeontology, 2nd Term	3
Mineralogy, 3rd Term	21
Geology, Thesis,	1
Total	170

The above enrollment is 49 in excess of last year and is by far the largest ever enrolled in the Department.

I respectfully ask that the Department be accorded the same appropriation (~~$~~500.) as last year and that an increase be made in the salary of my Assistant.

No assistant instructor in the college devotes more time to their work than does the Assistant in this combined Department. Besides teaching all the Entomology (assigned to a separate Chair in most Land Grant Institutions), Miss McCann has done all the laboratory assistant work in the Geology and Zoology. The whole school day, mornings and afternoons, is required of her and also Saturday mornings. For this her compensation is less than other Assistants of the same rank, most of whom are occupied only mornings.

I respectfully recommend and urge that her salary be raised

from $600 to $800 per annum.

I hereby put in a formal application for the return of the room now occupied as a lecture room by the Department of Mining Engineering, understanding that this Department can now be shifted over into the rooms now occupied by the Department of Agriculture.

Respectfully,

(signed) Arthur M. Miller.

Geology Zoology & Entomology

Same appropriation as last year $500 —

Assistants salary increased from $600 to $900

Asks for his old room

Report of the Department of Physical Training
State College of Kentucky
1906-7.

President James K. Patterson,
State College of Kentucky,
Lexington, Ky.

Dear Sir:-

I have the honor to submit the following report of the Department of Physical Training for Men of this institution for the collegiate year ending June 1907. As I stated in my last year's report, I shall make this very brief.

In general, the work has been organized and conducted along the same lines as last year. Fourteen classes per week comprising nearly five hundred students of the Academy, Freshman, Sophomore, and Junior classes, have been instructed. Progress and interest have been more marked than during preceding years. Attendance has been better, especially during the third term, and I have found it necessary to make fewer reports of absentees. A greater percentage of the students have qualified upon the first examination and with better average grades. The work of my student assistants has been all that I could ask. They have received nothing for their services. Again I ask and urge that at least two scholarships, or their equivalent, be allowed to these student assistants.

I have conducted a private class at night, twice per week, for five months, and have purchased additional apparatus, made repairs and met other incidental expenses of the department with the College's portion of the fees. A detailed report of this class has been deposited with the Business Agent of the College.

There are some very urgent needs at the gymnasium. A few of them are, viz.:

(1) Good walks leading to the building. As it is, in the winter, the building is only approachable through mud, thus making it very difficult to keep clean. From the nature of the work that is conducted in the gymnasium, it should be the most scrupulously clean of any building on the grounds.

(2) Better bathing facilities. We need more shower baths and a better arrangement of those we have.

(3) Two janitors instead of one. All are agreed that during the cold weather, there is too much work at the gymnasium for one janitor to take care of.

(4) More time for physical training. It is my ambition to make the courses in Physical Training at this institution do for our students what the courses at West Point do for the cadets. It is impossible to do this with only two lessons per week. Four should be the minimum.

I respectfully request the Board of Trustees to allow me a leave of absence for two weeks during the second term of the next collegiate year in order to inspect the Departments of Physical Training of some of the colleges of the East and North while they are in practical operation. In case they may see fit to do this, I will have the work so arranged that it may be successfully conducted by some of my students assistants during my absence.

Assuring you of my continued best efforts for the success of this work, which I see to be more and more needful every year and which should have the most hearty support, both moral and financial, of the Board of Trustees and the sincere co-operation of the Faculty, I remain

Yours very truly,
(signed) W. W. H. Mustaine,
Director of Physical Training
for Men.

Lexington, Kentucky.
May 18th, 1907.

EXPENDITURES.

President and Professors.

J. K. Patterson	$4400.00	
J. G. White	2000.00	
J. H. Neville	2000.00	
J. W. Pryor	2000.00	
F. P. Anderson	3000.00	
C. W. Mathews	2000.00	
A. M. Miller	2000.00	
A. S. Mackenzie	2000.00	
M. L. Pence	2000.00	
F. E. Tuttle	1900.00	
L. K. Frankel,	1800.00	
A. M. Wilson	1600.00	
W. E. Rowe	1600.00	
A. C. Zembrod	1600.00	
Milford White	1700.00	
W. K. Patterson	1500.00	$33,100.00

Assistant Professors and Instructors.

J. M. Davis	1200.00	
T. T. Jones	1100.00	
Ralph Maxson	1100.00	
W. J. Carrel	1300.00	
J. J. Hooper	1400.00	
J. T. C. Noe	1100.00	
M. R. White	900.00	
L. E. Nollau	900.00	
Mrs. Stout	1000.00	
Mr. Mustaine	1200.00	
W. S. Webb	900.00	
Sue D. McCann	700.00	
A. C. Fleshman	1000.00	
A. H. Gilbert	1000.00	
J. L. Purdom	900.00	
A. N. Whitlock	900.00	
A. G. McGregor	1000.00	
Knox Jamison	800.00	
1st Asst. German	1000.00	
" " English	1000.00	
" Normal Dept.	1000.00	
" Chemistry	900.00	
" "	900.00	
" Mining Eng.	750.00	
A. G. Spillman	300.00	
Isabella Marshall	750.00	
Murray Raney	500.00	
H. C. Roth	500.00	
Asst. Civil Eng.	1000.00	
" Mech. Eng.	600.00	
12 Fellowships	1800.00	
Milligan	800.00	
Joe Dicker	800.00	
Thos. Aubrey	500.00	
Janitors	1800.00	
Miss King	600.00	
Mrs. Blackburn	800.00	
Mrs. Jones	600.00	
John Ginochio	480.00	
D. C. Frazee	1200.00	
Asst. Mathematics	600.00	
Miss E. S. Kinkead	900.00	
Lon Moore	600.00	
		$39,080.00

EXPENDITURES, (cont.)

Fuel and lights	$7000.	
Repairs and improvements	2000.	
Water	1000.	
Postage	300.	
Advertising	1000.	
Printing Bulletins	500.	
Insurance	500.	
Stationery	200.	
Students Travelling	2000.	
General Travelling	600.	
Trustees Travelling	400.	
Contingent	2000.	
Miscellaneous	2000.	
Officers	500.	
Mining Eng.	700.	
Mech. "	3500.	
Civil "	1000.	
Chemistry	1500.	
Geol. & Biology	500.	
Military	700.	
Normal	200.	
Classical	200.	
Student Labor	500.	
Academy	200.	
Modern Lan.	200.	
English	200.	
Physics	400.	
Physiology	300.	
Pol. Econ. & History	200.	
Mathematics	200.	
Athletics	300.	
Class Day	50.	
Entomology	200.	
Agriculture	500.	
Teachers Summer School	150.	
Domestic Science	300.	
Interest	3000.	
Summer Mech. Eng.	200.	
Botany	300.	$35,500.00

INCOME FOR 1907-8.

Interest on Bond	$8644.50	
85 1/2% of Morrill fund	21375.00	
State Taxes	40000.00	
85 1/2% of Nelson appropriation	4275.00	
Annualappropriation by Legislature	15000.00	
Tuition and other fees	8700.00	
	$97994.50	

Expenditures	$107680.00
Deduct Income	97994.50
Deficit	$9685.50

State College of Kentucky,

Jas. K. Patterson, LL.D., President

Department of Agriculture, Horticulture and Botany.

CLARENCE W. MATHEWS,
Professor; Dean of Agricultural Course.

J. J. HOOPER,
Ass't Professor of Agriculture and Animal Husbandry.

ALFRED H. GILBERT,
Instructor in Horticulture and Botany.

Address Mail for Department to 660 South Limestone Street.

Lexington, Ky.,

[1907]

DEPT.AGR.HORT.& BOTANY. (4)

Furnishings.

One case for chemicals.
Three Book Cases.
Seven Sections in Herbarium Cases.
One Periodical Stand.
One Set Open Book Shelves.
One Seed Case,with drawers.
One Set Negative Drawers.
Six Lecture and General Laboratory Benches. 24 Opera chairs
Thirty-two Tables,General laboratory.
Nine Tables,Advanced Laboratory.
Thirty-two Revolving Stools.
Six Chairs Advanced Laboratory.
Two Teachers Desks.
One Zinc-lined Plant Case.
Two Office Chairs.
One Tall Stool.
Three Cane bottom Chairs.
Seven Common Wood Chairs.
One Typewriter Table.
One Stereopticon Stand.

Microscopes and Accessories.

28 Compound Microscopes (several of these are worn out)
34 Cheap Dissecting Microscopes.
7 Superior Dissecting Microscopes.
1 Demonstration Microscope.
1 Large Microtome.
2 Small Microtomes.
3 Microtome Knives.
8 Section Razors.
2 Turn Tables.
1 Cover Glass Guage.
1 Mechanical Stage.
1 Large Paraffine Bath. 1 Small Paraffine Bath.
40 Sets Dissecting Instruments.(many of these much worn)
1 Balance.
1 Spring Scale.
400 Mounted Slides.

State College of Kentucky,

Jas. K. Patterson, LL.D., President

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ALFRED H. GILBERT,
Instructor in Horticulture and Botany.

Lexington, Ky.,

Address Mail for Department to 660 South Limestone Street.

DEPT.AGR.HORT.& BOT. (5)

Glass Ware.

16 Large Bell Jars and Plates for same.
35 Small Bell Jars.
90 Preparation Jars.
200 Watch Glasses.
30 Glass Benches.
70 Coplin Jars.
96 Stender Dishes.
36 Petri Dishes.
12 Alcohol Lamps.
7 Graduates.

Pictures,Charts,etc.

1 Set Charts,"Botanical Aid "
1 Set Henslow's Botanical Charts.
9 Framed Pictures and maps.

Photographic Appliances

1 Stand for Vertical Photography.
4 Porcelain Trays.
1/2 interest (with Dept.of Zoology)in Copying Camera.

Agricultural and Horticultural Tools and Implements.

1 Torpedo Sulky Plow.
1 Disk Plow
1"Lucky Jim" Cultivator.
1 Potato Digger.
1 Subsoiler.
1 Orchard Harrow
1 Milk Tester.
7 Pairs Pruning Shears.
2 Grafting Chisels.
1 Pruning Saw.

Miscellaneous Appliances.

Department Herbarium,containing many hundreds of specimens.
1 Sterilizing Oven.
1 Arnold Steam Sterilizer.
1 Tissue Washing Apparatus (Histology)
2 Large Wood working Benches,with 5 Wood Vises.
5 Sets Wood-working Tools. 1 Grindstone. 1 Scalpel Sharpener.
1 Letter Press. 1 Small Laboratory Anvil and Vise.
20 Cast Iron Pressing Weights. 55 Lantern Slides.
1 Blickensderfer Type-writer.
1 Stove in Basement.

State College of Kentucky,

Jas. K. Patterson, LL.D., President

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Address Mail for Department to 660 South Limestone Street.

Lexington, Ky.,

DEPT.AGR.HORT.& BOT. (6)

Books.

730 Bound Volumes.

The following articles have been added to the equipment of the department during the collegiate year to date.

1 Veterinary Implement Case
Set of Veterinary Implements,transferred by Dr. Pryor from the department of Anatomy and Physiology.
1 Seed Case for Farm Seeds.
1 Large Vise for Farm Machinery Room.
1 Set Y. & E. Filing Cases,(4 sections,with Top and Base)
1 Y. & E. Letter File.
1 Roll top Desk.
1 Stove and Fittings for Farm Machinery Room.
1 Compound Microscope.
1 Large Dissecting Microscope.
1 Harvard Trip Scale.
26 Special Mounted Microscope Slides.
1 Seed Corn Tester.
400 lbs. Horse Shoes,donated by Phoenix Horse Shoe Co. Chicago.
1 Cream Testing Outfit.

Books.

22 Volumes added by purchase.
26 Volumes added by binding periodicals.
97 Volumes added by donation (mainly Herd and Stud Books from the various Stock Breeding Associations)
Total Volumes now on hand 875.

Respectfully submitted,

Clarence W. Mathews

STATE COLLEGE OF KENTUCKY.
JAS. K. PATTERSON, PH. D., PRESIDENT
SCHOOL OF MECHANICAL AND ELECTRICAL ENGINEERING.

F. PAUL ANDERSON, M. E., DIRECTOR, PROFESSOR OF MECHANICAL ENGINEERING.
A. M. WILSON, M. E., PROFESSOR OF ELECTRICAL ENGINEERING.
L. K. FRANKEL, M. E., PROFESSOR OF MACHINE DESIGN.
L. E. NOLLAU, B. M. E., INSTRUCTOR OF MECHANICAL ENGINEERING.

LABORATORY ASSISTANTS:
JOSEPH DICKER, FOUNDRY AND FORGE SHOP.
G. W. HAM, B. M. E., ASSISTANT IN DRAWING
M. RANEY, EXPERIMENTAL LABORATORY.

[1907]
?

LEXINGTON, KY.,

The Board of Trustees,
State College of Kentucky,
Lexington, Ky.

Gentlemen:-

I desire to present for your consideration the matter of developing a central heating, lighting and power plant for the State College of Kentucky.

In 1901 the department of mechanical and electrical engineering developed, through one of its graduates, Mr.Perry West, as a thesis problem, a central heating and power plant for the State College of Kentucky. In 1906, the problem was again taken up and developed from another stand-point, by one of our graduates, Mr.L.C.Brown.

All the preliminary work on this power plant has been carefully done, and we have advocated for some time the advisability of putting in a central plant to effect certain economy.

At the present time all of the buildings are practically heated and lighted independently. A central plant would enable the college to use the exhaust steam from the lighting engines for heating and during those periods when the heating system was not being used, the light could be furnished by generators driven by gas engines, using nat-

ural gas as fuel. This ~~standard~~ central plant should include also pumping machinery to take care of all of the water supply on the grounds, except that used for drinking purposes. It would be well to leave the present water mains on the grounds for fire protection, and for drinking purposes; but provision should be made in the plant to take care of all of the water used in boilers, bath rooms, toilets and laboratories. I estimate that such a plant to supply light, heat and water to the State College grounds, could be erected for sixty-five thouand dollars, and we submit herewith the layouts for the plant designed in I90I and I906 as previously mentioned.

There can be no question about the ecomony of a central heating and lighting plant for the State College. No private corporation would consider, for a moment, the doing of this work in the way that it is at present done at the State College. The elements are divided up in such a way as to require more labor and the units are small, so that insufficiency results.

The amount expended for fuel, light and water during the years from I904 to I907 is as follows:

Amount expended for I904-05 ,$6052.37

Amount expended for I905-06 ,$6049.62

Amount expended for I906-07 ,$7702.I3

These figures do not include lights supplied to Patterson Hall or to the Experiment Station, which could be furnished light from a central plant.

Taking into consideration the normal building, the agricultural building and the library, in process of

erection, the cost of fuel, light and water for the next year will be not less than ten thousand dollars, for the buildings on the grounds proper.

The interest on sixty-five thousand dollars at 5% is $3250.00. I estimate that the cost to furnish the light at present used, and light in the additional buildings and the heating of the same by an efficient plant, and the water used for the purpose indicated above, will cost not to exceed five thousand dollars a year. A central plant, then, figured on a most liberal basis, will give far more efficient results than we have at present by having the energy distributed from a central point, would pay the interest on sixty-five thousand dollars and produce a saving of $1750.00. The cost of labor in handling the plant would be much less than the cost of the various fireman distributed at various points throughout the grounds.

The development of a central heating and lighting plant, is important from other reasons than the mere standpoint of economy. The general appearance of the campus can be improved by getting rid of the unsightly boiler houses and stacks sending out large volumes of black smoke. The plant could be so designed as to produce practically smokeless firing.

Another important consideration is the fact that this power plant could be used for experimental purposes by the department of mechanical and electrical engineering and extensive experiments could be carried on pertaining to the proper use of fuel of all kinds.

I present this matter to you of a central plant for the third time, and if the Board of Trustees decides to develop this project, we trust that you will put this matter into the hands of your mechanical engineers, for we feel that we cam give you better results than any outside engineering firm, whose only interest would be a financial one, in developing a central heating and power plant, for this institution.

We have given a great deal of consideration to this problem for several years, and with the data that we have collected, we would be able to put the plans in definite shape in a few weeks, so that bids could be obtained for the construction and equipment of same.

Yours truly,

T. Paul Anderson

After ten days return to
H. L. ROWE, and Co
ARCHITECT,
Southern Mutual Investment Co's Block,
~~P. O. Box 385~~, LEXINGTON, KY.

Bids for Heating
Mining Laboratory
Kentucky State College
Lexington Ky.

AFTER TEN DAYS, RETURN TO

TANDY & BYRD,

CONTRACTORS FOR ALL KINDS OF BRICK WORK,

642 W. MAIN,

LEXINGTON, KY.

Mr H. L. Rowe & Co

Architects City

bid on cutting
flue in
Mining Bldg
State College

H. A. TANDY. ALBERT BYRD.

TANDY & BYRD,

CONTRACTORS AND BUILDERS,

FOR ALL KINDS OF BRICK WORK.

642 WEST MAIN ST.

LEXINGTON, KY., Dec 5 1907

Mr H. L. Rowe Architect

I hereby agree to furnish Material And Labor and Cut Out flue in Mining Building State College As Directed by Jan for the Sum of #65.00 dollars

Respectfully Tandy

J. J. FITZGERALD.
PLUMBING.
STEAM AND HOT WATER HEATING.
Natural Gas Stoves and Ranges.
269 West Short Street,
LEXINGTON, KENTUCKY.

Mr. H. L. Rowe, Architect,

City,

ESTIMATES FURNSHED.

PHONES 500

OFFICE OF

J. J. FITZGERALD,

PRACTICAL PLUMBING,

GAS FITTING, STEAM AND HOT WATER HEATING,

NATURAL GAS STOVES AND RANGES,

No. 269 WEST SHORT STREET.

JOB WORK A SPECIALTY
WIND MILLS
PUMPS
TANKS, ETC.

ALL CONTRACTS
SUBJECT TO STRIKES, ACCIDENTS, OR
CAUSES BEYOND OUR CONTROL.

LEXINGTON, KY. Dec. 5. 1907

Mr. D. C. Frazee, Agent,

Lexington, Ky.,

Dear Sir:-

I agree to furnish and put in the job of Steam Heating in the Mining Labratory Building at the A. & M. College, using 800 feet of direct radiation either in radiators or coils, as the committee selects, placed on the two fllors. Use one #99 Sunray Steam Boiler as manufactured by the J. L. Mott Iron Works Co., and by them guaranteed to supply steam to 1425 aquare feet of direct radiation, together with the necessary boiler tools and trimmings and complete the aame for the net sum of Eight Hundred and Eleven ($811.00) Dollars,

I agree to complete the above job, if awarded the contract at once, by the first of Januray 1908.

Reppectfully submitted.

J. J. FITGERALD

Lexington Plumbing Company

INCORPORATED

HEATING AND PLUMBING CONTRACTORS

GAS, ELECTRIC AND COMBINATION CHANDELIERS

227 WEST SHORT STREET (19 E.)

ALL AGREEMENTS AND CONTRACTS, CONTINGENT UPON STRIKES, ACCIDENTS, DELAYS IN TRANSPORTATION, OR UNAVOIDABLE DELAYS BEYOND OUR CONTROL.

Lexington, Ky.,

Dec- 9th- 07-

H. L Rowe & Co.,

City,

Gentlemen:-

We propose to install a system of Steam Heating in the Mining Laboratory at the Ky.A.& M. College, using wall coils made of 1" pipe placed between the windows above the cement wainscotting. Ten coils to be placed on the first floor, three coils in the front room, and two coils in the rear room, second floor. The coils in front rooms on second floor to be run under the Laboratory working tables on the south and west side. All coils to be well supported, and anchored to the walls, and the coils and all pipes to be painted with Maroon Japan or any color desired by the Architect or Committee.

The building to bbe heated to a temperature of 65 degrees or over, with not over 5# of steam on the boiler, and the work guaranteed for a period of twelve months from completion,

We will install the work as herein specified, for the net sum of One-thousand and twenty ($1,020.00) dollars,

Respectfully submitted,

LEXINGTON PLUMBING COMPANY.

per D. A Reynolds

AFTER 5 DAYS RETURN
LEXINGTON PLUMBING CO.
INCORPORATED.
LEXINGTON, KY.

H. L. Rowe & Co.,

City,

KENTUCKY WATER
Heating & Illuminating Co.
INCORPORATED.

HARRODSBURG WATER CO.
SOMERSET WATER CO
NICHOLASVILLE WATER CO.

STEAM & WATER HEATING
A SPECIALTY
J. M. ROCHE, MGR.

Lexington, Ky. Dec. 6th. 07

H. L. Rowe & Company,

Lexington, Ky.

Gentlemen:-

I have carefully examined and figured your plans for the Mining Labratory at State College and personally inspected same with the view of putting in a low pressure Steam Heating Plant, for the one-pipe system, and I find that it would take approximately 1200 feet of radiation for the building, with a boiler of a rating of 1500 square feet of radiation. This allows a proper excess on the above work.

Owing to the girders on the first floor and the short distance between windows and ceiling it would be necessary to use ceiling coils on the first floor and wall coils or radiators on the second floor.

We will install this work complete in a neat and workmanlike manner satisfactory to your company. Do all the bronzing, furnish all the fittings and other incidentals necessary to complete same for the sum of $1063.50 If awarded this contract we can complete same for the first day of January.

Respectfully submitted,

Ky. Water Heating and Illuminating Co.
By J. M. Roche Sec'y

AFTER FIVE DAYS RETURN TO

Kentucky Water Heating and Illuminating Co.

LEXINGTON, KY.

J. M. ROCHE, Sec'y.

W. H. L. Rowe

Architect

STATE COLLEGE OF KENTUCKY.
JAMES K. PATTERSON, PH. D., PRESIDENT.

WALTER E. ROWE, B. S., C. E. Dean, Professor Civil Engineering.
W. C. CARREL, B. S., Assistant Professor.
ROBERT C. TERRELL, B. C. E., Fellow Assistant.
SAM B. COLEMAN, Field Assistant.
L. S. BOGGESS, Field Assistant.

Lexington, Ky. _____ 190__

INVENTORY OF CIVIL ENGINEERING DEPARTMENT********1907.

Drawing Rooms Mechanical Hall.
9 Drawing Tables with Lockers.
3 Large Drawing Tables.
1 Case of 40 Lockers.
18 Drawing Boards.
1 Drawi ng Cabinet.
1 Book Case.
1 Cabinet,
1 Stadia Rod.
1 Cross Section Rod.
1 Boston Level Rod.
1 Drawing board Case For Small Boards.

Office.
1 Desk.
1 Table.
1 Webster's Dictionary.
1 Elementary Mechanics.
2 Screw Drivers.
1 Key to Elementary Mechanics.
2 Letter Files.
1 Purdue Course In Mechanical Drawing.
1 Thatcher Calculator.
1 Case of Splines with weights.
1 Pantograph.
1 100' Tape.
8 Penholders.
2 Hand Levels.
4 Bottles of Ink.
2 Steel Triangles.
1 Railroad Pen.
1 Beam Compass.
2 Paper Protractors.
2 Celluloid Triangles.
1 Hatchet.
1 Wilson's Topographic Surveying.
1 8" Metal Protractor.
1 Square with Three Arms.
1 Slide Rule.
1 Aneroird Barometer.
1 Handbook for Surveyors.
1 Method of Least Squares.
1 Notes on Track- Camp.
1 Olneyvs Complete Algebra.

STATE COLLEGE OF KENTUCKY.

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Lexington, Ky. _____ 190__

INVENTORY CONTINUED.
1 Practical Arithmetic.
1 Dwight's Mythology.
1 Water Supply Engineering- Gould.
1 New Hydraulics-Sullivan.
1 Warren's Stone Cutting.
1 Pumps and Pumping- Ball.
1 Railway Track and Track work.
1 Road Construction-Gillette.
1 Steam Shovels and Steam Shovel Work.
1 Experimentsby Herschal.
1 Mill Building Constructiom.
1 City Roads And Pavements.
1 Land Surveying and Leveling.-Whittaker.
1 Plane Surveying - Raymond.
1 Hydraulic Power Engineering. Marks.
1 Manual of Weights and Measures , Oldber.
1 Ancient and Modern Engineering , Burr.
1 Engineering for land drainage, Elliot.
1 Field Work and Field Instruments,
1 Roads Cost and Maintenance,
1 Water Waste Prevention.
1 Manual of American Water Works, Baker
1 Water Supply Engineering, Folwell.
1 Flow of water in Channels,
1 Weston's Friction of water in pipes.
1- Sextant, Brainard.
1 Plate Girder Construction.
1 Stadia Surveying.
1 Turbine Wheels.
1 Geographical Surveying.
1 Lateral Pressure of Earth Work.
1 Sewage and Sewage Purification.
1 Mechanics of Ventilation, Rafter.
1 Water power, Pump and Power Design.
1 Science Simplified.
1 Towers and tanks.
1 Bagas Logarithm Tables.
1 Sewer Design by Ogden.
1 Sewerage by Folwell.
1 Stone Cutting by Siebert and Biggen.
1 Integral Calculus, Byrley.
1 Roofs and Bridges Part II.
1 Sewers and Drains for populous districts.
1 Carnagies Hand Book.
1 Design and Construction of Dams.
1 CrandallsEarthwork Tables.
1 Small Arc Bow Pen.
1 Thermometer for use on tape.
1 Rubber Stamp and Pad.

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SAM B. COLEMAN, Field Assistant.
L. S. BOGGESS, Field Assistant.

Lexington, Ky. _____ 190__

4 Drawing Tables.

2 Light Drawing Tables.

1 Case of 40 Lockers.
23 Large Drawing Boards.
3 42" T Squares.
1 60" Steel Rule.
1 Book Case.
1 Parallel Rule.
2 Small Drawing Boards.
1 Roof and Bridges Part I.
1 Drawing Board Rack.
1 Desk .
30 Chairs.
1 Desk Chair.
1 Table Desk.
36 Chairs.
1 Desk Chair.
1 Buff and Berger Transit with Box.
2 Flags.
2 Tripods.
2 Steel Plumb bobs.
1 Adjustable bob.
1 Heller and Brightly transit with box.
1 Gurley Level with Box.
1 Mahn Transit with box.
1 Gurley Transit with Box.
1 Keuffel and Esser Transit with box.
1 Brandis level with box.
1 Selig and kandler Level with box.
1 Plane table complete with box.
4 Stadia rods.
3 Level Rods.
3 Flags.
1 Ax.
2 Hatchets.
1 100' Tape Chain.
1 66' Chain.
1 100' Chain.
1 100' Tape.
1 100' Box Steel Tape.
1 Saegmuller Attachment
3 Belts.
4 Sets of Pins.
5 Steel Plumb bobs.
1 Theory and Practice of Surveying.
1 Sextant.

STATE COLLEGE OF KENTUCKY.

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SAM B. COLEMAN, Field Assistant.
L. S. BOGGESS, Field Assistant.

Lexington, Ky. _____ 190__

2 100' Steel Tapes.
2 Lanterns.
1 Planimeter.
1 Steel Tape.
1 Needle Compass.
1 Chamois Skin.
1 Gurley Transit Tripod and Box, with Solar Attachment.
1 Lantern and Reflectoscope.
2 Instrument Cases.
4 100' Chicago Steel Tapes.
1 Opaque Curtain for reflectoscope.
1 Fannings Hydraulics.
1 Pence and Ketchums Surveying Books.
1 Pair of Scales with Weights.
2 Nests Cement Testing Sieves.
1 4 Hole Gang Mould.
9 Single Briquette Moulds.
2 Oil Cans.
3 Small Trowels.
1 Large Trowell.
Additional since last Spring.
1 Buff and Buff Y Level, Tripod and Box.
10- 6' Octagonal Flags.
2_ 12' Philadelphia Level Rods.
2- 50' Metallic Tapes.
30- Drawing Desks with Lockers.
1- Hammer.
1- Saw.
1- Steel Square.

1-Pence and Ketchum Surveying.
1- Merrimans Precise Surveying.
1- Searles Spiral.
1- Searles Field Engineering.
1-Blueprint Frame (large).
1- Blueprint Frame (small).
1-Blueprint Tray (washing blueprints).
1-Buff and Buff Transit, tripod and Box.
1- Double File Card Catalogue.
1- Slide Rule.

P. K. Rowe
Civil Eng

1- Slide Rule.
1- Double File Card Cataloque.
1- Buff and Buff Transit, tripod and Box.
1- Blueprint Tray (washing blueprints).
1- Blueprint Frame (small).
1- Blueprint Frame (large).
1- Searles Field Engineering.
1- Searles Spiral.
1- Merriman's Precise Surveying.
1- Fence and Ketchum Surveying.

STATE COLLEGE OF KENTUCKY.
JAS. K. PATTERSON, PRESIDENT

DEPARTMENT OF PHYSICAL TRAINING
W. W. H. MUSTAINE, DIRECTOR
LEXINGTON, KY.

Report of W.W.H.Mustaine's private night class in Physical Training.
(Five months - Oct. 18th to Apr.18th, 1906-7.)

Total amount received as tuition October 18th to Dec.18th,1906-$124.50

Paid Miss Julia Hogarty for services as pianist - $10.00
Paid John Gibbs for Janitor's services - 2 mos. 3.60
Amount cleared by college - 55.45
Amount cleared by W.W.H.Mustaine - 55.45
$124.50 $124.50

Total amount received as tuition Jan.18th to Apr.18th,1907- $127.50

Paid Miss Julia Hogarty for services as pianist - $10.00
Paid John Gibbs for Janitor's services - 3 mos. 5.85
Returned fees to one pupil who could not attend - 5.90
Amount cleared by college - 53.32
Amount cleared by W.W.H.Mustaine - 53.32
$127.50 $127.50

Total amount cleared by the college (five months) - $108.77.

In accordance with a verbal agreement made with President Patterson before class was organized, the above $108.77 was spent for gymnastic apparatus and incidentals as per itemized statement on next page.

STATE COLLEGE OF KENTUCKY.
JAS. K. PATTERSON, PRESIDENT

DEPARTMENT OF PHYSICAL TRAINING
W. W. H. MUSTAINE, DIRECTOR
LEXINGTON, KY.

Itemized statement of expenditures.

Horizontal Bar, Parallel Bars, Spring Board, five mats,	$70.00
Paid for printing announcements (Richardson)	1.25
Postage, sending 100 announcements	1.00
Postage to members of class	.50
Telephone to Georgetown changing date of Basket ball game on account of class,	.15
Envelopes for announcements,	.30
Paid upholsterer Gray for requilting gymnasium mats,	15.00
Twenty bean bags for games,	2.06
Repairing material for basket ball, Dewhurst's,	.15
Floor plate for Horizontal Bar, (Spalding & Co),	.78
32 knee irons to fasten down benches in dressing room, (Lex. Wagon Works)	4.80
Screws and stove bolts for benches and floor plate, Van Deren,	.80
Lumber for benches and spring board, (Williamson)	6.90
Six blank books for qualification tests, (Byrnes)	.75
Paid W.W.Prewitt, student, for making benches,	.65
Part for Horizontal Bar, Spalding & Co.,	.83
Five pounds Blue Stone to sterilize swimming pool, Lex.DrugCo.	.75
Additional screws for benches , Van Deren,	.15
Twenty Standard Time Locks and express for lockers,	12.85
One quart liniment ,First Aid Supplies,Lex Drug Co.,	1.25
25 Postal Crads, announcements to class by mail,	.25
Five Swimming Belts, Thompson, Main St.,	2.25
Zinc Ointment,.25 Germicidal Soap,.25 for First Aid, LDCo.	.50
One Roll adhesive tape (First Aid) McAdams & Mafort -	.75
Total Expenditures - - - - - - - - - - - -	$124.47
College receipts, - - - - - - - - - - - -	108.77
Balance carried over to account of 1907-8 private class, but already paid by W.W.H.Mustaine, -	$ 15.70

The above financial report of my private night class is respectfully submitted.

Yours very truly,

W. W. H. Mustaine

Director Physical Training.

Lexington, Kentucky.
June 1907.

JNO. W. HENDRICKS.
FAYETTE PHONE 923.

PERCY H. HENDRICKS.
FAYETTE PHONE 837.

L. M. MOORE.
FAYETTE PHONE 1759.

Hendricks Bros. & Co.

ARCHITECTS AND BUILDERS

ROOMS 28 & 29 HERNANDO BLDG. 3rd FLOOR.

OFFICE PHONE NUMBER
FAYETTE 1027.

Lexington, Ky., 3- 20 - 1907 190

M State A, &, M, College,

FOLIO itemized estimate for repairs on cottage,

taking down old room
stud partition & building new room, IIxI6
new weatherboarding on bottom of house,
6 pr new outside blinds,
new base on cottage
one room I0 x I2 - I2 ft high to weatherboard
~~one bottom sash I0 x I6 - 6 lights,~~
I sett new stairs
4 new sub sills & sills,
2 pair new outside porch steps,
70 ft 1 lattice work I2" high under cottage porch
new tin roof I7'x I7'
4 gable ornaments
splicing one old column,
50 ft 1, 7/8 x 8 facia for porch
repairing tin work,
carpenters work & all labor,
all the above for the net sum of

515 60

Hendricks Bros. & Co.
Per J W Hendricks

The above bid will be reduced by $50.00 if no changes are to be made in stairway - as per Verbal bid over telephone.

W. E. Trager

JNO. W. HENDRICKS.
FAYETTE PHONE 923

PERCY H. HENDRICKS.
FAYETTE PHONE 837.

L. M. MOORE.
FAYETTE PHONE 1759.

Hendricks Bros. & Co.

ARCHITECTS AND BUILDERS

Wholesale and Retail Lumber Dealers.

OFFICE ROOM NO-29 HERNANDO BLDG.
PHONE FAYETTE Nº 1027.
EAST TENNESSEE Nº 622

MILLS AND YARDS
INTERSECTION GEORGETOWN & NEWTOWN PIKE
NEW PHONE Nº 209

Lexington, Ky. 3 - 20 - 1907

D, F, Frazee,

City,

Sir, we here by enclose our itemized list of work to be done on cottage at state A & M college, all to be done in a first class & workman like manner, using first class material throughout, all complete for the net sum $515,60, five hundred & fifteen dollars & 60/100,

Respectfully submitted,

Hendricks Bros. & Co.

Per J. W. Hendricks

J. WILL Mc CORMICK, PRESIDENT & TREAS. JOE. M Mc CORMICK VICE PRES. V. K. DODGE, SECY. O. E. LYONS.

Lexington Lumber & Manufacturing Co. INCORPORATED

CONTRACTORS AND BUILDERS
WHOLESALE & RETAIL
DEALERS IN ALL KINDS OF
Rough & Dressed Lumber.
INTERIOR FINISH SASH DOORS & BLINDS

LOCAL AND LONG DISTANCE TELEPHONE. 156

OFFICE YARDS & FACTORY
E. MAIN ST. & C. & O. RY. CROSSING.

Lexington, Ky. 3/22/1907

Mr. D. C. Frazee, Agent,
State A. & M. College,
Lexington, Ky.
Dear Sir:-

We propose to furnish all material and make the following repairs on the cottage in the rear of the Science Building:

Repair all sash where broken and leave windows in good working condition. Put in new floor and joists in room once used as back porch. Put in new ceiling joists, tear off old weatherboarding and put in one new wall on outside of 2 X 4 studs and weatherboarded. Put in new door 3 X 7 and window 14 X 36 - 4 L. Plaster the entire room. Put down new 8" base and case all openings, leaving room finished and complete.

Tear down old building which now covers the cistern.

Put on corner boards and weatherboard room to be used as a pantry. Repair the flashing on roof and repair all weatherboarding on cottage where needed.

Remove the old tin and recover with good grade of new tin, on the one-story part. Put back gutters and down spouts and "eave same complete. Patch with weatherboarding the hole in East gable.

Put up two sets of new steps to veranda in place of old ones. Patch sheathing, flooring, columns and lattice work where needed.

Put in new sash in kitchen window 10 X 16 - 12 Lt. Put in new window sills where necessary and leave all sills sound.

Tear out old hall stairway and put in new open-string stairs with hand rail, newells and ballusters. All of the steps and risers and all finish to be of bright yellow pine. Do all patching of plaster and do all cutting and leave job complete and finished.

All of the above we propose to do with care and despatch and leave same complete for the sum of $396.30

We have not figured any painting on any of the above mentioned work.

Hoping to have your order, we remain,

Yours very respectfully,

Lexington Lumber & Mfg. Co.

By P. M. D.

The above bid will be reduced $20.00 by omitting the staircase - as per verbal bid placed.
D. C. Frazee

DIRECTORS
P. W. GRINSTEAD, President
F. A. BULLOCK, Vice-President
GEO. B. OTT, Secretary
GEO. S. SHANKLIN
JOHN SKAIN
A. D. MARTIN
M. J. TONER
PHOENIX NATIONAL BANK,
Treasurer

Skyo
MANUFACTURING CO.
INCORPORATED

SKYO PAINTS
For Barns, Roofs, Bridges, Brick Walls, Fences.
Post Preservative, Thinning Oils, Floor Oil, Shingle Stains, Harness Oil and Disinfectant for Stock and Poultry.

Lexington, Ky., March 29, 1907.

D. C. Frazee, Business Manager,
Kentucky State College,
Lexington, Ky.

Dear Sir:-

Pursuant to request, we herewith submit you the following proposition to paint the cottage at State College, as follows:

Outside and gables to have three coats; front floor and ceiling, two coats; front veranda, two coats; cornice, three coats; the front windows and doors to be burned off where necessary, and every outside opening to have three coats; three chimneys to have two coats--all of which is to be the best lead and linseed oil paints and applied in a first-class and satisfactory manner--colors to be selected by you--for the sum of $99.60.

Yours respectfully,
SKYO MANUFACTURING COMPANY.
Geo B Ott Secty

DIRECTORS
P. W. GRINSTEAD, President
F. A. BULLOCK, Vice-President
GEO. B. OTT, Secretary
GEO. S. SHANKLIN
JOHN SKAIN
A. D. MARTIN
M. J. TONER
PHOENIX NATIONAL BANK.
Treasurer

Skyo
MANUFACTURING CO.
INCORPORATED

SKYO PAINTS
For Barns, Roofs, Bridges, Brick Walls, Fences.
Post Preservative, Thinning Oils, Floor Oil, Shingle Stains, Harness Oil and Disinfectant for Stock and Poultry.

Lexington, Ky., April 25, 1907.

Mr. D. C. Frazee,
Business Manager of State College,
City.

Dear Sir:-

We will paint all woodwork according to the following specifications, to-wit:

Bath room to have two coats of paint; bed room to have two coats; stairway to have two coats; reception hall to have two coats of paint and all burning that is necessary; back bed room down stairs one coat; back room down stairs, new, to have three coats; old work to have two coats and new work to have three coats; kitchen wood and pastering to have two coats-- for the sum of fifty-one dollars ($51.00).

Soliciting your patronage, we beg to remain,

Yours respectfully,

SKYO MANUFACTURING COMPANY.
Geo. B. Ott. Sec

Lexington, Ky., May 1st, 1907.

President James K. Patterson,

Dear Sir:-

I herewith submit the annual report of the Department of Anatomy and Physiology for the year of 1906-7.

ENROLLMENT.

Freshman	17
Sophomore	41
Junior	4
Senior	6
Normal	29
Total	97

EQUIPMENT AND FACILITIES.

Additions to the equipment which have been set forth in the catalogue, with which you are no doubt familiar, have been made from the appropriation set aside for this department each year. Care has been taken that the apparatus purchased is the best that can be obtained. At the present time we are fully equipped and prepared to give instruction in Anatomy and Physiology equal to other institutions in the South or West.

RESEARCH.

In November 1906 I published an article entitled "The X-ray in the Study of Congenital Malformations" and in October 1906 a bulletin was issued from this department on the "Ossification of the Epiphysis of the Hand." These have attracted the attention of anatomists and I have received letters from a great many scientific men in regard to the research made.

In March 1907 I read a paper at the meeting of the Association of American Anatomists at Madison, Wis., on "The Hereditary Nature

of Variations in the Ossification of the Bones." All of the above subjects mentioned have been the result of the research I am conducting in the Laboratory of Anatomy and Physiology. I expect to continue this work and anticipate still better results.

RECOMMENDATIONS.

I request that an appropriation for this department of five hundred dollars, ($500.) be made. This amount will enable me to meet the usual demands and also to continue the research.

The health of the students has been remarkably good. With the exception of a number of cases of mumps, there has been very little sickness in the dormitories.

In a number of my reports in past years I have made recommendations in regard to the dormitories, but for lack of funds these have not been adopted. In the present condition of the dormitories it is impossible for the boys to keep them clean.

If we are to continue the dormitory system, I would recommend that the smaller dormitory be abandoned and only the larger be put in as good condition as possible for use during the coming year.

Respectfully submitted,

(signed) J. W. Pryor, M.D.,

Prof. Anatomy and Physiology.

REPORT OF M. A. SCOVELL, DIRECTOR OF THE EXPERIMENT STATION TO J. K. PATTERSON, PH. D., PRESIDENT OF THE COLLEGE, MAY 1, 1907.

President J. K. Patterson, Ph. D.,

Kentucky State College.

Dear Sir:

I have the honor to submit herewith the Annual Report of the Experiment Station for the year ending May 1, 1907.

I am pleased to report that the work of the Station has broadened and that it is in a prosperous condition.

The Adams Act has become effective since my last report, and this, together with the bill passed by the last legislature, putting the inspection of feed stuffs sold in this State in charge of the Station, has added largely to our work.

The Adams Act provides an additional appropriation, ultimately, $15,000.00 per year. We received $5,000.00 last year; will receive $7,000.00 this year, or so much thereof as actually expended; and an increase of $2,000.00 each year until the $15,000.00 is reached. By provisions of the Act, the funds are for original research and experiments only, and the expenditures under this Act must be approved by the Secretary of Agriculture. Although the appropriation of $5,000.00 made last year was not voted until the thirtieth of June, we were able to spend the entire amount for apparatus, having received bids prior to the passage of the bill, anticipating that it might pass before July first; and upon the passage of the bill by Congress, we wired our acceptance of these bids. The apparatus, etc., purchased

well equip our laboratories for carrying on work under this Act.

The Department of Agriculture is very strict as to the expenditure of the Adams fund. No part of the fund can be used for administrative work, clerk hire, apparatus, or for salaries, for those not engaged strictly in research work, or for buildings, furniture or purchase of land. The Department has defined research work, limiting the field of investigation considerably. It says:

"Obviously only a few projects can be planned for at present, as they will usually be rather large, important undertakings, involving considerable expense, and it is essential that sufficient funds be allotted to each, so that the investigations may be carried out in a thorough and effective manner. Our investigational work in the past has frequently suffered from the lack of sufficient definiteness of plan, and from the shortage of funds at critical junctures. Under the new fund, interference from the latter cause should be guarded against; and the mapping out of plans for work under each project in considerable detail will be a material aid to the investigators themselves and to the administrative officers of the stations as well. Such plans should have a definite object, should not be too broad in their scope, and should contain a statement of the probable expense, including salaries from the Adams fund. The latter should be based on the proportion of time of the several workers which the project will call for. While no expenses for general administration can be allowed from this fund, administrative officers who are conducting investigations under it may receive a part of their salaries from that source, the same as any other station worker."

[illegible] with the Secretary's ruling, I presented the following plans for work under the Adams Act and they have been approved by the Department:

1. Soil Investigations - Suggested Lines of Investigation.

A. The maximum amounts of potassium, phosphorus and calcium in soluble and different re-agents and taken up by the different crops.

B. What is the true significance of the solubility of phosphoric compounds?

C. How fast do the inactive compounds in our soils become inactive and what conditions or treatment will hasten the process?

D. A similar inquiry in regard to the inactive phosphorus compounds.

E. Can chemical methods proposed for measuring the "availability" of organic nitrogen be applied to soils so as to yield results of practical value in judging the amount of active nitrogen present in the organic matter of the soil?

F. Has the presence of toxic substances, such as have been demonstrated by the Bureau of Soils, anything to do with the so-called "Clover Sickness now prevalent on all types of soil in our State?

G. A study of the soil elements and toxic substances at different depths in the soil.

The investigation includes experiments in the Chemical Laboratory, pot experiments in hothouses and field experiments.

2. Entomological Investigation.

The life-history and injuries of the corn ear worm.

3. Botanical Investigation.

A. The nodule organisms of alfalfa and their relation to those of clovers.

B. Bacterial disease of tobacco. The object of this study is for the purpose of finding out, if possible, the causes of "house-burning" of tobacco and the remedies to prevent it. We find that "house-burning," to some extent at least, is a bacterial disease and we have undertaken to study this in a thorough manner.

4. The Study of Contagious Abortion in Cows and Mares.

In all probability we could not select a subject for thorough investigation of more importance to agriculture of this State than contagious abortion. As yet, no definite cure has been discovered. It has been established, however, that the disease is caused by a germ and this germ has been isolated.

Mr. Good, our Animal Husbandman, will undertake this work and his plan is to study this germ from a bacteriological point, and after isolating it, to see if immunization will not play an important part in preventing abortion.

Mr. W. R. Goodwin, editor of the "Breeders' Gazette," learning that this Station has undertaken this work, wrote me as follows under date of April twenty-third:

"In my judgment, this is the most important work now engag-in the attention of any experiment station. I have some idea of the terrible ravages of abortion in the studs and herds of this

to stock improvement. In cattle, I esteem it a far greater foe to the breeder than tuberculosis.

We would very much like to help you in this work all we can, and I want the world to know that you have undertaken this important work."

Professor Garman will undertake the entomological and botanical work; Dr. Peter the chemical work, and Mr. Good the bacteriological work.

I was authorized by the Board of Control to employ two chemical assistants skilled in soil analysis to help Dr. Peter, these chemists to be paid out of the Adams fund, but I have been unable to secure competent men for the places. Scientific investigators of high order are in great demand and we find it very difficult to secure men at the salaries offered, in fact, we have been unable to do so. It is probable, therefore, that we may not be able to use the entire Adams fund this year.

As stated before, the Feed Stuffs Law has added materially to our work. The trade in Kentucky of concentrated feeding stuffs, such as bran, shorts, shipstuff, inferior grades of flour, corn meal, cotton seed meal, gluten feed, dried distillery slops and various mixtures of ground grains, involves and enormous sum of money each year - estimated at two million dollars.

An examination of the feeding stuffs sold in Kentucky shows many of these feeds to be adulterated, - bran, shipstuff and mill products, generally, being adulterated with corn-cob meal, rice hulls, corn bran, peanut hulls, and even mahogany saw dust; cotton seed meal being adulterated fully 50 % with ground cotton seed hulls, and many mixed feeds being almost entirely composed of oat hulls and the by-

When the law went into effect, we found that rice hulls, corn-cob meal, and even peanut hull meal, were made in, or shipped into, Kentucky for mixing purposes. For example; The Phoenix Mills of Petersburg, Virginia, were shipping into the State sometimes as many as three carloads of ground peanut hulls a day for mixing purposes. These adulterants were sold to mixers at $7.00 to $10.00 per ton, with the claim that they could be mixed to fully 20 % without detection.

We issue three kinds of tags to be placed on each package of feed stuff: First, a Manila tag printed in black ink for all feeds stuffs made from a single grain, as wheat or corn. Second, a Manila tag printed in red ink for pure mixed feeds. Third, a yellow tag printed in black ink for all adulterated feeds. This enablesthe purchaser to tell at a glance the character of the feed.

We have registered during the year 525 brands of feed stuffs, representing 330 different firms; have analyzed 798 samples of feed; have issued 1,286,813 tags; and have received for tags from July first, $10,768.35.

A thorough enforcement of this law is going to be of much benefit to the farmers and consumers of feeds in Kentucky. We have experienced much difficulty in enforcing the law, especially in Newport and Covington, and for a time in Louisville. We have the work well in hand, but it will require time to get it "running smoothly," and in order to do this, we will have to materially increase our working force, and organize the work into a division of the Station.

The work of the several divisions during the year may be summarized as follows:

Chemical Division. Outside of the Adams work, the chemical division has made 526 complete analyses, including soils, forage plants, wheat, corn, minerals, coals, coke, ores and rocks.

Fertilizer Division. During the year, 651 samples of fertilizers have been analyzed in this Division. The number of brands registered, 389, representing forty-four firms. There have been printed during the year, 906,753 tags which were sent to the various firms doing business in the State.

Division of Entomology and Botany. The testing and improving of forage plants have been continued in the plots, of which there are now 147. There are few forage plants calculated to be of value in Kentucky that have not, at one time or another, been tested here, and the information obtained from these experiments has been in constant demand in correspondence with farmers.

The rotation of plots arranged some years ago with the United States Department of Agriculture is still continued, and begins to show results. A second series started in the spring of 1906 on a somewhat different basis are also promising interesting results.

Seed inspection under the law passed by the last legislature has occupied a good deal of time in this Division during the year. 400 samples of seeds have been examined under the law, and thirty found adulterated - some of them badly adulterated, bluegrass seed being adulterated with Canada bluegrass seed, and orchard grass seed with rye grass seed. That the inspection work being done is having a good effect is shown by the small number of adulterated samples secured by our collectors in territories visited a second time. Dur-

ing the past year, nearly all the adulterated samples were secured in places that had not previously been visited. This law makes no provisions for payment of inspection, but the Station has undertaken to carry out its provisions, and the expenses incurred have been paid out of the fertilizer and feed funds.

As State Entomologist, Professor Garman has inspected during the year, every nursery in Kentucky. He states that some were found to be in an unsatisfactory condition and a second inspection was required. In one case a nursery was found infested with San Jose scale. The trees were at once saturated with coal oil and burned, and no other evidences of the presence of the pest in nurseries have been observed.

The nursery inspection law is not satisfactory. The law should be amended so that any trees in the State, whether in nurseries or elsewhere, showing the presence of San Jose scale, could be destroyed. Otherwise, this dreaded disease will be apt to spread in the State. Provisions should also be made to allow Professor Garman a salary for an assistant in the inspection work, as the Federal authorities do not approve of his spending much time in inspection work and draw his salary from Federal funds.

Some experiments, promising interesting results to fruit growers, have recently been undertaken by this Division in Hardin County on a commercial orchard. Twenty-four trees, consisting of two varieties of twelve each, have been set aside for some careful spraying tests to show the benefit of different treatments. The trees have already been sprayed once, and will be followed throughout the season and results will be carefully noted.

Food Division. Important in pure food work during the past year has been the passage of the National Pure Food Law and the Meat Inspection Law. A system of co-operation between the Federal and State Departments is being arranged both for the purpose of strengthening each other's work and for the purpose of bringing about uniformity. Since the last report, 669 food samples have been taken from the markets and analysed. Of this number, 120 were found adulterated. 252 violations have been reported to the State's attorneys, including 190 cases of negligent contamination and filth in places where food was being produced or sold. The analyses cover a wide range of products. Out of the prosecutions resulting from the report of adulterated and misbranded food, several especially important verdicts have resulted. One, a fine of sixty dollars and cost at Paintsville, Kentucky, for selling adulterated vinegar; one at Williamstown, Kentucky, of sixty dollars for selling adulterated canned corn; one at Henderson, Kentucky, of twenty-five dollars for selling New Orleans molasses adulterated with glucose and not so labeled; one of ninety dollars at Hodgenville, Kentucky, for selling a mixture made artificially from colors and flavoring ethers, as "Cherry Juice."

In Louisville 130 verdicts were obtained against dairymen, either for having filthy places, feeding swill or having contaminated milk. Each was fined $100.00 and fifty days in jail, the order of committal being suspended if by April first the conditions were removed. In each and every case this has been done. In addition to this, fifty fines for selling watered milk were secured in Louisville, and sixty fines for keeping milk in unclean refrigerators and

Dairy inspection work in Covington and Newport will soon be taken up in the same manner as it has been in Louisville.

The general results since the law went into effect in 1898 have been most gratifying. During the first period of investigation, 61 % of foods were found adulterated. During the last two years, this has been reduced to 20 %.

Agricultural Division. During the year experiments in the breeding of tobacco and corn have been continued. Variety tests of wheat have also been continued, and also experiments in the dairy line.

The work of tobacco breeding has been conducted by the United States Department of Agriculture in co-operation with this Station. Mr. W. N. Scherffius, our Agriculturist, was appointed Tobacco Expert by the United States Department of Agriculture, the Department paying his salary for the year. During last summer, tobacco fields were visited in both the Burley and Dark Tobacco Districts. Seed plants were selected, representing the best types of each variety found. Seeds were matured under bag to prevent their being crossed. These seeds are being used this year in our breeding work. Six experiments are installed at six different places in the State - three in the White Burley District and three in the Dark Tobacco District. The line of work is:

The test of varieties,
Introduction of foreign varieties,
Improvement of native varieties,
Obtaining of new varieties by hybridization.

The establishment of the tobacco breeding work has created an interest among the farmers throughout the State.

Division of Animal Husbandry. As authorized by a meeting of the Board of Trustees in June, Professor E. S. Good was elected Animal Husbandman of the Station. He began his work with us September first. The greater part of his time for two or three years will be occupied in work under the Adams Act, studying contagious abortion among cattle and horses. He will need an assistant in this work, to be paid out of the Adams fund, and also an assistant to carry on the other work pertaining to this department, to be paid out of other funds. I have asked him to find and recommend competent men for these places. His Division will have direct charge of the dairy; breeding of cattle, hogs and other live stock; experiments as to feeding of same and improvement of breeds. This is an important work, especially for this State, and it is my desire to make it one of the greatest divisions of Animal Husbandry in this country. Professor Good proves to be a very capable man for the position and he has a thorough scientific foundation for the work.

Station Staff. On July first, Mr. W. H. Scherffius resigned his position as Agriculturist of the Experiment Station to accept the position of Tobacco Expert under the United States Department of Agriculture, such work to be in co-operation with this Station, it being understood that he was to carry out work suggested by the Director of the Experiment Station in most part. Under such an arrangement, we felt that we could spare Mr. Scherffius. It was not his desire to sever fully his connection with the Experiment Station, and for that reason his place has not been filled. He now informs me that he would prefer to be back in the Station, and I shall be more than

pleased to have him back as Agriculturist of the Station. I believe I can make some arrangement with the Department at Washington to have them furnish an assistant under Mr. Scherffius, said assistant to be paid by the Department of Agriculture, to carry on the tobacco work which Mr. Scherffius has planned and carried out so effectively.

As said before, Professor E. S. Good came to us as Animal Husbandman, September first.

During the year, Mr. H. E. Stevens and Mr. H. W. Taylor resigned as assistants in the Division of Entomology and Botany to accept positions under the United States Government.

Our Farm Superintendent is now offered a position in Porto Rico at a salary of $1200.00.

We find it difficult to keep our assistants on account of the competition of other Stations and the United States Department of Agriculture, they paying higher salaries. As soon as a young man becomes trained in effective work, he seems to be called elsewhere. This is very detrimental to our work. I see no way to prevent this except by giving higher salaries. Young graduates from colleges are not qualified for investigational work, and it takes some two or three years to fit them. As soon as they become fitted, they are in great demand on account of the tremendous amount of work being done by the experiment stations in this country and elsewhere. As said before, I have not been able to find competent men, at the salaries offered, to assist us in the Adams work, and it will be necessary, in order to carry out this work, to pay the salaries other Stations are offering.

Improvements. During the year, we have constructed a building for the purpose of studying the "house-burn" of tobacco, at a cost, including all apparatus, of about $1200.00. It is so constructed that it has eight compartments, and we can study the effect of curing tobacco with or without moisture, with or without a current of air, and with or without heat. We hope to get some valuable results from these experiments.

The Board of Control has authorized the construction of hothouses for the purpose of work under the Adams Act and also for work under Professor Garman's Division, the building to cost $3000.00.

The Board of Control has also authorized the construction of a piggery, for the purpose of making various experiments with pigs, to cost $1000.00.

Our new building proves very satisfactory, but with the continued growth of the Station, we shall soon have to add a wing to it. This can easily be done, as the plans contemplated such a wing at some future date.

The Board of Control and Executive Committee have purchased for the Experiment Station, the Shelby Kinkead farm of forty acres for $27,000.00. This farm separated almost entirely the Station farms, and it became a necessity to purchase it, as Mr. Kinkead determined to sell, and parties were offering to buy, in order to make a sub division and divide it up into city lots. This would have made our Experiment Station farm almost worthless. Under the circumstances, I think the Station is fortunate in getting the place. We have now a compact tract of land of over two hundred and forty acres bordering the city limits on two sides. It is becoming more valuable every year, and it is one of the finest experiment station farms in this

country. It will undoubtedly increase in value, so that as an investment alone, it should become very valuable.

Farmers' Institutes. The Station Staff has assisted in farmers' institutes very generally. This is an important work of the Station and brings the College and Station directly in contact with the farmers of the State. Professor Newman's bill creating the State Board of Agriculture and authorizing an institute in each county each year, and appropriating $20,000.00 for the purpose, will be a means of organizing the farmers of this State, and the College and Station by co-operating with the Board of Agriculture in these institutes will be brought in direct contact with the farmers. By such a method, I believe the College will receive the hearty support of farmers throughout the State.

Bulletins. We have published during the year the following bulletins:

Bulletin No. 127.

The Inspection of Seeds under the Kentucky Pure Seed Law.

Bulletin No. 128.

Commercial Fertilizers.

Bulletin No. 129.

Tobacco.

1. Selection of Seed Plants and Care of Seed.
2. Improved Methods of Handling the Crop.
3. Elimination of Undesirable Varieties.

Finances. From July 1, 1906 to May 1, 1907 we have received

from the Federal Fund	$15000.00
" " Adams "	12000.00
" " Fertilizer Fund	23437.03
" Farm Products	5774.99
" State Food Inspection	7119.20
" Interest	143.38
" Feed Inspection Fund	10768.35
A Total or	$74242.95

Our expenditures for the same time have been $53098.29

The total amounts from the Hatch and Adams funds for 1907 have been received and credited. Receipts from the Fertilizer fund are very small during the months of May and June, and it is likely, therefore, that our expenses will exceed our income during May and June, so that the balance on hand now will be less on July first.

Between now and the first of October, $12,000.00 must be paid on the Kinkead place; $6,000.00 for greenhouses; and at least $1,000.00 for a piggery.

Respectfully submitted.

M. A. Scovell.

Experimental Station

Annual Report

of

W. A. Scovell, Dir.

to

President J. K. Patterson

May 1907

Lexington, Kentucky, May 15th, 1907.

President James K. Patterson,
State College,
Lexington, Kentucky.

Dear Sir:-

I have the honor to submit to you the following report of the Normal Department of the State College of Kentucky for the year 1906-1907.

STATISTICS.

Number of Students in Summer School of 1906, Males	30	
Number of Students in Summer School of 1906, Females	47	
Total		77
Number of Students in regular term, Males	82	
Number of Students in regular term, Females	55	
Total		137
Grand total		214

Total number of Counties represented 66

Those who attended the Summer School were distributed among the various courses of study as follows:-

County Certificate Course	19	
State Certificate Course	32	
State Diploma Course	26	
Total		77

Those who attended the regular session were distributed among the courses as follows:-

County Certificate Course	35	
State Certificate Course	53	
State Diploma Course	39	
Full College	10	
Total		137
Grand Total		214

The above statistics, when compared with those of other years, are very encouraging. The total number enrolled this year far exceeds that of any previous year. The average scholarship of the students is much above that of former years. It will be noticed that comparatively few are in the County Certificate Course. Another very important and encouraging indication is manifested in the tendency of the students of this Department to remain till the close of the year. There are fully three times as many students in daily attendance as have usually been here on May 15th of former years.

NEW BUILDING.

Early in the Autumn of 1906 the Executive Committee of the Board of Trustees took steps looking toward the erection of a new building for the use of this Department. A Building Committee was appointed and directed to take charge of the work. The result of the activities of this Committee is to be seen in material form on the Campus. The building which is now approaching completion speaks for itself in highest commendation of the Committee under whose supervision it is being erected. The building is designed to meet every need of the Department and will, when completed and properly equipped, place this Institution in the front rank of Southern Schools for the training of teachers.

Acting upon a suggestion from you I asked Supt. M. A. Cassidy to furnish us suitable grades of children from the public schools of Lexington to constitute a Model School for the observation of modern methods of instruction of children. He very kindly consented to do so, and expressed his willingness to co-operate with us in the organization here of one of the best systems of model schools in the country. But few cities in the whole country have better organized system of public schools than has Lexington and this Department is fortunate in having the hearty co-operation of such a system of schools in building up a model training school here. Plans are now being made for the opening of the Model School at the beginning of the next session in September.

SUMMER SCHOOL.

The Summer School of 1906 was by far the most successful summer term ever conducted here. The number of students in attendance was more than double the number of the preceding year, and the work done was of very high order. Many of those who attended are now teaching in high schools which are on our accredited list of college preparatory schools.

The outlook for the Summer term of 1907 is very encouraging, notwithstanding the fact that the newly established State Normal Schools at Richmond and Bowling Green are offering free tuition to ten students from each county while we are forced to charge a tuition fee of six dollars each.

It seems to me that the next General Assembly might be willing to remedy this handicap by enacting a law recognizing our summer term as one of the regular terms of the Department and by making a small annual appropriation for its maintenance. In my judgment such a bill should not be connected with any other bill but should be introduced separately and managed quietly in such a way as not to impede the progress of more important measures in which the College may be interested. In my judgment such a bill would meet with very little opposition, and would when enacted into a law, prove to be of very great importance to this Department.

COURSE OF STUDY AND FACULTY OF INSTRUCTION.

Three courses of study are prescribed by law for the Normal Department. The first is designed to prepare students for examination for County Certificates and includes the common school branches. The second adds to the first Higher Arithmetic, Algebra, English and American Literature and Psychology and when completed carries with it a State Certificate. The third adds to the second Geometry, Elementary Physics, and two years in Latin, and leads to a State Diploma and Life Certificate.

The instruction of 214 students in these branches requires a good deal of work. During the present year it is being done by the Dean of the Department and two full assistants with some aid from two other departments and from two student assistants. During the first term I instructed five classes regularly. During the second and third terms I have instructed six classes five hours each per week. In addition to my teaching I have conducted the correspondence and other business of the Department including the classification of students and publication and mailing of two bulletins of 10,000 copies each. In addition to the above I have given personal attention to the construction of the new building.

Prof. Noe taight five classes during the first term and six during the second and third terms, being paid extra for one class during the second and third terms.

Prof. Fleshman has taught five regular classes during the time he has been here - since January 1st, 1907.

The Department of Physiology gives instruction to the Normal students in Physiology and Hygiene and the Department of Physics has so far provided instruction for them in Physics. This year, however, the Department of Physics was so crowded with College students and Academy students that it was difficult to find room for Normal students. The latter had to be divided up and assigned to classes at three different hours.

The work of both of the regular assistants in this Department is eminently satisfactory to me.

I hope that a more definite provision can be made for instruction in Physics required in this Department and that some additional relief may be provided in the way of general assistance in the Department, especially during the second and third terms.

Very respectfully,
(signed) Milford White,
Dean of Normal Department.

Lexington, Ky., May 14th, 1907.

Pres. James K. Patterson, LL.D., Ph.D.,

Lexington, Ky.

Dear Sir:-

In reply to your recent request, I have the honor to submit to you the report of the Department of Modern Languages of the State College of Kentucky for the scholastic year of 1906/07.

The number of hours taught per week throughout the year was twenty. The number of classes taught each for five days each week was four. Two of which were the Freshmen and Sophomore German, two, the Junior and Senior French classes. A section of the Freshmen German was regularly taught by Prof. Jones.

The attendance as per accompanying statistics was upon enrollment in the fall-term as follows:

Freshmen German	Men	18	Women	14
Sophomore German	"	36	"	15
Junior French	"	18	"	15
Senior French	"	4	"	4
	"	66	"	48

A total of 114 men and women, not numbering in this table the section reciting to Prof. Jones.

During the spring-term the attendance was follows:

Freshmen German	Men	13	Women	11
Sophomore German	"	21	"	13
Junior French	"	15	"	16
Senior French	"	4	"	4
	"	53	"	44

A total of 96, not including the section of the Freshmen German class reciting to Prof. Jones.

This shows a falling off of 18 students, which is accounted in the following way, five students of the Freshmen class were transferred to the class of Prof. Jones, (four during the winter-term, one during the Spring-term). Three students were given permission by their Deans to discontinue their work in the Department

of Modern Languages. One student entered the Normal Department in January 1907. One left on account of conflict with classes in the Spring-term, but will make up the discrepancy in the Summer School, so that only eight are to be accounted for, two of these were compelled by sickness to abandon their college work indefinitely. The other six have left college for various reasons.

The progress made in the main by the students has been satisfactory, especially the work done by the young women has been on the whole more accurate, concise and painstaking than that done by the young men. The young men showed a decided aversion to do written work and do it well, and firm and drastic measures only resulted in a gradual improvement in this respect.

Upon submitting this report to you, Mr. President, I may frankly state that I have endeavored to the best of my ability to do a full year's work in all my classes and to have them also do one in return. I have attempted nothing beyond the scope and capacity of my students and whether or not I have succeeded in maintaining the high standard heretofore adhered to remains not for me to say, nor would I care to state that my classes have done more than previous classes have, though I am willing to let my work speak for itself.

The year passed without the least disturbance or friction in my department and I am happy to report that the discipline and deportment of the students was most exemplary. I have enjoyed my work in the department with my students and I feel a friendly and keen interest in them as my students in particular and State College students in general.

While not in direct line with my work, yet I did my best to do my share in character building, whenever a favorable occasion presented itself.

Respectfully submitted,
(signed) A. C. Zembrod

REPORT OF SCHOOL OF CIVIL ENGINEERING.

Lexington, Ky., May 14, 1907.

Pres. James K. Patterson,
State College of Kentucky,
Lexington, Ky.

Dear Sir:-

As Dean of the School of Civil Engineering of the State College of Kentucky, I have the honor to present to you my annual report relative to the general affairs of the department.

In accordance with your request I came to Lexington early (Aug. 20, 06), and immediately began looking into matters pertaining to the School of Civil Engineering. I found that for a number of years the department had been growing rapidly and that neither the space nor equipment allotted to the department had in any way kept pace with the increased number of students taking the Civil Engineering Course of Study. The space allotted to the department consisted of one office and one small class room. The class room was supplied with twenty-six chairs and ten drawing tables. This was the home of the Civil Engineers and last year there were 88 students taking the civil engineering course.

When college opened last September (1906), the registration in the department early ran up to nearly 100 students and finally reached 102 for the year and it was absolutely necessary to have more room in order to take care of the work in a proper manner. The equipment belonging to the department was not to be found when I arrived but later I learned that the same had been loaned to the students and was scattered over the state. Through your kindness and concern for the department the need for more room was met by giving to the department part of the old mess hall for a drawing room and two rooms directly over the mess hall for recitation rooms, all of this space being in the boys' old dormitory. It is in these rooms that we are now conducting most of our work. Later as the students came back to college the transits and levels belonging to the department were returned, but the small equipment, such as tapes, flags, rods, pins, hatchets, etc., were entirely missing. This caused a considerable inconvenience and expense in the department as it was necessary to purchase all of these small articles before field parties could operate.

INSTRUCTORS.

At the beginning of the year Prof. W. B. Burtt was assigned to the department as assistant professor, but after college had been in session for about one and one-half months Prof. Burtt was ordered to join his regiment at once. This left the department very short of instructors, as it was necessary for me to do double duty until another instructor could be secured. In about two weeks after Prof. Burtt left, Prof. W. J. Carrel was selected to take his place as assistant Prof. of Civil Engineering. Prof. Carrel is a good man and has proven himself to be all that he was recommended to be and I hope he will be retained for the coming year with a good increase in salary. I believe it is better to give a man a little better salary and retain him when he has been efficient than

to be obliged to take a new man unknown to the management or to the college.

The present force of instructors have been all that is needed to carry on the work of the year and unless there is a considerable increase in registration will be ample for the coming year.

FELLOWSHIPS.

Mr. E. E. Reese of the 1907 class has made application for a fellowship in this department for the 1907 and 1908. Mr. Reese is an honor graduate and received the highest grade of any of the civil engineering students graduating this year. I hope you can grant the above request for a fellowship and that we will have Mr. Reese with us again next year.

POSITIONS FOR SENIORS.

All of the seniors anxious to secure employment have been located and are either already at work or have been ordered to report for duty directly after commencement. Several of the men are to take up work with the American Bridge Company, others with the Chicago Bridge and Iron Works, still others have gone into municipal engineering of different kinds and quite a number have taken up railroad engineering. I am very well pleased with the results of my first year's efforts along this line, when I consider that the class numbered 22, which is just twice as large as any other class in the history of the institution, graduating from the School of Civil Engineering, and larger than any other department's graduating class for the year 1907.

CIVIL ENGINEERING IN OTHER SCHOOLS OF THE STATE.

There is some tendency on the part of other colleges of the state to do a considerable work along the line of Civil Engineering, and some of them have already opened courses in Surveying and Drafting. I know these facts from inquiries that have come to me from time to time as to what work they can most easily undertake and what texts should be used. The State College of Kentucky is far in advance of any other colleges of the state and especially so in engineering and it ought to be one of our duties to keep in the lead in every branch of engineering.

In this connection I wish to say that the idea seems prevalent that a few field instruments are all that is needed to equip a civil engineering department. If we allow outselves to look at the matter from this standpoint and build our School of Civil Engineering only along this lime, there is no reason why the other colleges of the state cannot soon overtake us, as a few hundred dollars will furnish field equipment for any of them. What we need to do is to build up a laboratory where steel, iron, wood, cement, reinforced concrete and material of all kinds can be tested. We need ultimately to build a hydraulic and also a sanitary laboratory, as these problems are yearly becoming of more conse-

quence to the people of the state and other colleges have already gone into these fields. We cannot do these things all at once but we must work consistently and ceaselessly toward these ends and keep abreast of the best engineering practices of all kinds, and let the people of the state know by every means at our command that the State College of Kentucky is the center of engineering thought in the state and that it is always going to deserve and maintain the reputation.

A number of companies offered to furnish all material and defray all expenses in connection with thesis work but I was compelled to refuse these offers because of the lack of a testing laboratory in which to do the work.

In my request for equipment for the coming year I have included one 300000 pound testing machine, as I believe that the testing laboratory is the laboratory that should receive our first attention, as we need this work in our course just as badly as the Mechanical and Electrical students need steam and electrical testing. The civil engineer deals extensively with all classes of material and it is absolutely necessary that he should know from his own experience something of the material he must use in the various structures he is called upon to make.

ADDITIONAL EQUIPMENT NEEDED FOR THE COMING YEAR.

1- Transit	$225.00
4- Engineers Level	100.00
1- Repeating Theodolite for Geodesy	700.00
1- Current Meter	100.00
1- Field Glass	50.00
1- Level Rods	28.00
8- Range Poles	24.00
1- Dozen Plumb Bobs	10.00
1- Protractor	30.00
1- 200000 pound Riehle Testing Machine	2000.00
Freight and Installation of above	500.00
Additional Books	50.00
Drawing Desks	200.00
Drawing Boards	80.00
Stationery, Drawing and tracing paper	50.00
1- Typewriting machine	60.00
Repairs	50.00
Total	$4307.00

EXTRA SPACE NEEDED NEXT YEAR.

There is urgent need for more space for the coming year. I would like, if possible, to have all of the space for a drawing room in the old mess room, as this would enable us to put two classes in the one drawing room and lessen the number of instructors necessary to take care of the drawing classes.

We should also have one more class room at our disposal, as we often have more than two classes at the same period and it is necessary for us to get from some other department a class room of this kind.

NEW BUILDING.

The great need of this department is a new building, so that our work may be systematized and brought together instead of being scattered around in several buildings, as it is at the present time.

SALARY.

I earnestly request that you urge the Board of Trustees to increase my salary and make the salary commensurate with the duties now involving upon me. My salary this year, $1500., has simply sufficed to keep me through the year and now that vacation has come, it is absolutely necessary for me to seek employment for the summer in order to keep out of debt.

I feel that my time during the summer should be largely spent in visiting Bridge companies, reinforced concrete companies, large municipalities, older developed engineering colleges and in fact as many places as possible where I can gather plans, specifications and methods used in all classes of up to date work and also the requirements and methods of instruction in our best technical institutions.

The School of Civil Engineering needs all of the live, up to date inspiration that we can bring to it from the outside engineering field. We cannot take our work into a shop, it is of too large a scope; consequently we must collect the best we can from the field just as the geologist collects his specimens.

You can readily understand that with my present salary, it is absolutely impossible for me to get out and do this work, as the expense would be greater than I can afford.

Very truly yours,

(signed) Walter E. Rowe

518 Rose St.
Lexington, Ky. May 14th, 1907.

Lexington, Ky., May 15, 1907.

President James K. Patterson, LL.D.,
Kentucky State College.

Dear Sir:-

In accordance with your request, I submit the following annual report of the Agricultural Course for the collegiate year 1906-07.

The enrollment for the year has been as follows:-

Post-graduates	1
Senior Class	4
Junior Class	3
Sophomore Class	8
Freshman Class	6
Special and Short Course students	10
Total	32

The enrollment two years ago was nineteen, that of one year ago twenty-seven. While the enrollment shows a steady increase, it is yet very far from what we shall strive for and hope to secure in the very near future. Never before the present year has the outlook for the agricultural side of the institution seemed so bright. The most signal advance is the provision made by the Board of Trustees at its December meeting for the erection of the wing of an agricultural building.

The plans for this building have been given most careful thought, and it is believed that they embody a large number of useful features. The building, now in process of erection, will, it is expected, be ready for occupancy early in the fall term, and it is hoped, at its very beginning.

The work of instruction has been materially strengthened during the year by the employment in January of a regular instructor, Mr. A. H. Gilbert, who is giving most of his time to botanical work, thus permitting me to devote more time to the various lines of horticulture and other agricultural interests of the department.

It is a matter of significance to us that the farmers of the State are taking a more direct and active interest in agricultural education than formerly. This is shown by the frequent discussions of college work in the agricultural press, and in farmers' institutes. At the large general institute held at Shelbyville in February, resolutions were adopted calling for a further enlargement of the agricultural instruction in the college, and urging the appointment of a professor of Agronomy, to deal with agriculture proper, in distinction from the work of Animal Husbandry. I believe that such an appointment should be made in the near future. In many of our sister institutions, the lines of work now conducted by Professor Hooper are distributed into a half dozen or more distinct professorships, and while he has admirably covered the large and many sided lines of instruction included in his professorship,

it is manifest that with an opportunity for greater specialization, he could give more extensive treatment of his favorite subject, Animal Husbandry.

In this connection it is pertinent to suggest whether an equitable and economical arrangement might not be made whereby the college and Experiment Station could jointly secure the services of such a Professor of Agronomy, rather than, as is now the case in Animal Husbandry, to employ two men to cover the one field of work, thus permitting an increased degree of specialization, without a corresponding increase of expense.

While the Director and other members of the Experiment Station staff have generously responded to every request for co-operation in giving our students the benefit of their illustrative material and experiments, I believe that it is essential for the most satisfactory results, that every professor in an agricultural college, who deals with the applied sciences of agriculture, should himself be in a position of frequent contact with the practical operations of his special field. He needs also the stimulus and information coming from a wide range of correspondence with the practical farmers of his state.

Under the present separate organization of college and station work, those who teach these subjects are almost wholly lacking in opportunity for any direct practical handling of the problems of agriculture, and the correspondence upon these subjects, expressing the condition and needs of the farmers, comes quite naturally and properly to the Experiment Station, almost exclusively.

I recall that five years ago, I urged that my own duties in college and station be subdivided under different heads, and such a division was made, not perhaps the best possible adjustment of the situation, but what seemed at that time the most feasible. This change was a most gratifying one, and I would be unwilling to go back, if it were possible, to the arrangement existing previous to that time, but at the same time I must frankly admit that the almost complete separation from any practical horticultural work, and the suspension in large part of such work on the station grounds, is felt as a serious loss in my horticultural teaching.

Prof. Hooper feels in some degree this lack in his work also.

Just as every professor of engineering, of law, or of medicine finds it necessary, in order to maintain the freshness and effectiveness of his teaching, to be frequently brought into vitalizing contact with the practical application of his profession, so I believe it is pre-eminently true of the professor in an agricultural college.

The closer we keep in touch with the practical men and the practical problems of agriculture, the better can we make the college yield effective service for agriculture, and the more largely can we draw students in numbers to our agricultural courses. It seems to me that in the further development of these courses, the question of closer relations between the college and station should if practicable, be secured; I am sure such relations could be made of great benefit to the work of instruction, and I believe they would not be without corresponding advantages to the station, in x some departments, at least.

The demand for graduates of the agricultural course still continues far in excess of the supply. The men going out from the college this Spring are, for the most part, already provided with excellent positions, and scarcely a week passes in which some inquiry is not made for a capable graduate to fill some responsible position in agricultural teaching or practice.

Several lines of agricultural instruction seem at this time to be calling for enlargement in our developing department.

The dairy interests of the state are receiving a fresh impetus, growing out of good prices and an increasing appreciation of the splendid opportunities afforded by our Kentucky soil and climate for a large development of this industry. Public creameries and improved farm dairies are springing up all over the state. They are calling for men skilled in dairying to run them, and at present they have to go to the dairy states of the north-west to secure them. We must at once take steps to provide young men with such training; as a beginning we propose to utilize next year the small frame building heretofore used for farm machinery for this purpose. Professor Hooper estimates that it will require about $125. to $150. to equip this building as a farm dairy, and during certain months it will involve some expense in the purchase of a milk supply for its operation.

The subject of forestry is receiving increasing attention in our states, as it should. A small appropriation was, as you know, made by the last General Assembly, in the interest of this subject, to be expended by the state department of agriculture. Doubtless larger appropriations will be called for and received at the next session. I would earnestly suggest, that if possible, some portion of such an appropriation be secured to provide instruction in farm forestry at the State College, looking to the development ultimately of a strong special course for the training of professional foresters.

In no state, I think, east of the Rocky mountains, is there more real need of an intelligent application of the principles of scientific forestry than in Kentucky. Large areas of our surface are suited to the production of the most valuable timbers, and are suited to little else; we are near good markets for lumber; our mines for generations to come will consume large quantities of it; and lastly the danger of the most serious results of denudation, resulting from unintelligent and irresponsible methods of lumbering, is very great. These facts, it seems to me, make it the logical duty of this institution to take a leading part in promoting education in this subject.

Several lines of college extension work offer promising fields of development in our state; in some directions this work is being carried forward by the State department of agriculture, and this department has heartily co-operated with the state officers in this work, whenever possible, especially in the case of farmers' institutes, many of which have been addressed by Prof. Hooper. Within reasonable limits, this is beneficial to us, as it is no doubt helpful to them, but any considerable increase in the requests for such aid could scarcely be met, with our present organization, without seriously encroaching upon our college work.

We shall find it advisable, I think, to provide more fully, in our plans for agricultural instruction, for the short courses of one or two years, intermediate in character between the full college course, and the short business course of ten weeks in the winter. That such a course may be valuable and popular with farmers' sons seems to be indicated by the experience of a considerable number of land grant colleges that have found such an intermediate course capable of drawing out hundreds of farmers' sons, where the full courses would only attract them by dozens.

We have heretofore offered such a course, as you know, but it has been largely subordinated to the regular courses and entrance to it has been made, I think, a little too difficult for the average farmers' son who has not had the benefit of a good high school training. I would not propose any lessening of the standard of admission to our regular courses leading to a degree, but I think we may safely lessen the restrictions for entering a course of this sort which does not lead to a degree, but is designed to give the largest practical benefits to the farmer's boy.

A new schedule of instruction for the four years course, conforming in a general way to the partially elective system adopted for the scientific course, has been planned for the coming year and will be published in the forthcoming catalogue. The schedule, as outlined, provides, to a limited extent, for a choice of subjects in the last two years of a student's course, and has made it possible also to offer several courses not heretofore given to our agricultural students.

With the increasing development of our work in the new building, there will be the same or an increasing need for a student assistant in the department and I would respectfully nominate Mr. T. R. Bryant for the position.

With grateful appreciation for your own helpful attitude toward this department and the hearty co-operation of the Board of Trustees during the past year, especially in the matter of providing the long-nddded Agricultural Building, I remain

Very respectfully yours,

(signed) Clarence W. Mathews
Dean, Agricultural Course.

State College of Kentucky.

ARTHUR M. MILLER,
PROF. OF GEOLOGY AND ZOOLOGY,
RES. 609 S. LIMESTONE ST.

Lexington, Ky., May 16, 1907.

Department of Zoology and Entomology.

Books and Pamphlets (catalogued)	307
Manuals of Vertebrates	25
Laboratory Manuals	25
Embryologies	13
Osteologies	8
Holmes' Biology of Frog	12
Elements of Insect Anatomy (Comstock & Kellogg)	6
Comstock's Manuals for Study of Insects	4
Standard Dictionary of English Language	1
Total	401
Zoological Charts	88
Compound Microscopes	25
Dissecting "	6
Tripod Lenses	25
Microscope Blocks	24
Camera Lucidas	20
Complete Sets of Dissecting Instruments	36
Scissors (extra)	10
Section Lifters	24
Pipettes	3 doz.
Turn Stile	4
Slides	32 doz.
Tripods	6
Stage Micrometers	3
Microtome (Schanze)	1
" (Jung)	1
" (B. & L.)	1
" Minot	1

State College of Kentucky.
ARTHUR M. MILLER,
PROF. OF GEOLOGY AND ZOOLOGY,
RES. 609 S. LIMESTONE ST.

Lexington, Ky., ... 190.....

Zool. & Entomology (cont.)

Aquaria	2
Paraffin Bath	1
Incubators	2
Collecting Nets	12
Setting Boards	28
Insect Cabinets (small of pasteboard & wood)	30
" " with glass top & bottom	5.
Dissecting Corks	30
Dishes	4 doz.
Watch Crystals	5 "
Boules & Jars	1384 (115 1/3 doz.)
Slide Boxes	28
Tables	36
Stools	23
Chairs	18
Lecture Table (demonstration)	1
Exhibition Cases	6
Water cooler	1
Camera (5×7)	1

One half share in 8×10 Enlarging camera

Demonstration Specimens:

Spongia (Euplectella, Hyalonema, etc)	20
Coelenterata (Tubipora, Fungia, Porites, ")	50
Echinodermata (Astrophytons, Metalia, ")	35
Molluscoidea (Lingula ")	10
Vermes (Arenicola, Amphitrite ")	20
Mollusca (Nautilus, Octopus, Argonauta, Pinna, Tridacna, etc)	70

State College of Kentucky.
ARTHUR M. MILLER,
PROF. OF GEOLOGY AND ZOOLOGY,
RES. 609 S. LIMESTONE ST.

Lexington, Ky., ... 190.....

Zool. & Entomology (cont.)

Arthropoda (exclusive of Insecta) 62
Cabinet containing 2½ Interesting
Butterflies from various parts of world.
Cabinet of noxious Insects-
" " Beneficial "
" Illustrating Mimicry & Protective Coloration.

Vertebrata 50
Mammalian Skeletons mounted 15
" " unmounted 3
Elephant Skull 1
Tunicata (Salpa, etc.) 3.

State College of Kentucky.
ARTHUR M. MILLER,
PROF. OF GEOLOGY AND ZOOLOGY,
RES. 609 S. LIMESTONE ST.

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Lexington, Ky., May 16, 1907

Department of Geology, Mineralogy & Palaeontology.

Books & Pamplets (catalogued)	1037
Crosby's Tables for Determination of Minerals	30
Tables completely filled up for Blow-pipe Analysis	23
Magnets (extra)	8
Blow-pipes "	8
Streak Plates "	8
Agate Mortars "	4
Blue Glasses "	5
Platinum Tip Forceps (extra)	1
Specific Gravity Balance	1
Hydrostatic "	1
Demonstration specimens of Minerals & Rocks	600
Structure Series "	54
Scale of Hardness	10
Crystallographic Demonstration Blocks	45
Drawers of Minerals & Rocks (Duplicates principally)	48
Palaeontological Exhibition Cases (with drawers beneath)	4
Geological " " " " "	4
Fossils (catalogued)	1553
Case of 62 Rock Samples Illustrating Ky. Stratigraphic Series in order of Age, with 6 Drawers of Duplicates.	
Rock Slicer	1
Map Cases	7
Macey Cabinet	1
Globe	1

State College of Kentucky.

ARTHUR M. MILLER,
PROF. OF GEOLOGY AND ZOOLOGY,
RES. 609 S. LIMESTONE ST.

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Lexington, Ky., ... 190 .....

Black Board	1
Demonstration Lecture Table	1
Tables	10
Step-ladder	1
Duplicator	1
Oldnograph	1
Jewell Still	1
"	1
Stereopticon	1
Venable Burners	3 doz.
Cases of Paste-board Trays	60
Dynamo	1
Strata Map of Kentucky	
Geological Map of Kentucky.	
" " " Madison Co., Ky.	
" " " Fayette " "	
" " " Jessamine " "	
" " " Montgomery & Clark Cos., Ky.	
" " " New York.	
" " " Alabama.	
" " " Indiana.	
" " " Lower Peninsula.	
Map of Fayette Co., Ky.	
" Showing Bituminous Sandstone of Western, Ky.	
Richmond Quadrangle (framed).	
Fellows of Geological Society of America (framed)	
Plaque Ichthyosaurus sp.	
" Etna.	
Geological Posters	8.

Lexington, Ky., May 16th, 1907.

Pres. Jas. K. Patterson,

Dear Sir:-

I desire to submit to you and through you to the Trustees of this college the following as my report for the session 1906-7.

The enrollment of students in Mathematics and Astronomy is the largest we have ever had and is as follows:

Freshman		Sophomore	
Algebra	146 (Six sections)	Analyt. Geom.	105 (Three sections)
Solid Geom.	151 " "	Calculus	62 " "
Trigonometry	164 " "		
Junior		**Senior**	
Calculus	72 (Three sections)	Spher. Trig and Astronomy	36 (One section)

Of the thirteen sections reciting daily, I had four, Prof. J. M. Davis five and Miss Martha White four.

The material composing the Freshman class was somewhat inferior to that of former years. Some correspondence with the heads of our accredited schools will, I hope, bring us better prepared students in future.

The rapidly increasing attendance in our engineering departments is adding greatly to my work in Mathematics. The care of so many students (about 367 this year), looking after their classification, seeing that they attend regularly and study properly is becoming a very heavy task. In fact I cannot do this work properly and teach all the morning. I called your attention to this matter early in the present session. It seemed impossible then to finr suitable assistance, but I trust that I may be authorized to find competent help for next session. I could use with great advantage the full time of another earnest faithful assistant. The equipment in my department consists of our 8" telescope, some furniture for the observatory, four reference books, a celestial globe and a lunar map, worth altogether about $1100.00. I will need about $150. for next year's expenses.

Respectfully,
(signed) Jas. G. White,
Prof. Math. & Ast.

Lexington, Ky., May 15th, 1907.

Pres. Jas. K. Patterson.

Dear Sir:-

I respectfully submit to you and through you to the Board of Trustees of this College my report for session 1906-7.

For the last two sessions the enrollment of students in courses of study leading to the degree of Bachelor of Science was as follows:

	1905-6.	1906-7
Freshmen	15	18
Sophomore	15	13
Junion	8	6
Senior	9	8
Post-grad.	2	3
Special		1
Total	49	49

The number of students in these courses has not increased as it has in our Engineering courses, but the excellent character of the work done by our students is shown by the high rank which our graduates have taken in their chosen professions after they leave College.

An increasing number of Scientific students desire to study Latin and I find that many classical students during their Junior and Senior years show marked ability in Scientific studies. In view of these facts, I believe that it is desirable to unite the Scientific and Classical courses into one, thus providing for a more liberal line of work for students who do not pursue a professional course. For details in the various lines of Scientific work, I respectfully refer you to the reports of Profs. Mathews, Miller, Pence, Pryor and Tuttle.

In closing this brief report, it affords me pleasure to say that quite radical and beneficial changes have taken place during the past year in our department of Chemistry. With Dr. Tuttle at the head of this department and very ably assisted by Dr. Maxson, I believe the outlook for thorough, scientific work in Chemistry was never better in this College than it is today.

Respectfully,
(signed) Jas. G. White,
Dean.

Lexington, Kentucky, May 17, 1907.

Dr. James K. Patterson,
President, State College of Kentucky.

Dear Sir:-

I have the honor to submit the following report concerning the work and needs of the Department of Mining Engineering.

Matriculates.

Since the work of the Department is carried on under a heavy handicap, conditions have not justified any special advertising. This being considered, it may be said that the number of matriculates since the school was opened in 1902 shows a reasonably good increase. The school opened with 4 students; the number was increased to 10 (including one who entered the Academy) in 1905-06; and in 1906-07, the present session, it was increased to 15 (including one in the Academy). Moreover, not only is the number of students greater, but the average quality of the matriculates is better than hitherto. Though comparatively few in number, the mining students of the present session are a recognized force in the College.

One of the most satisfactory features of the matriculation for the present session is the number of young men who entered the Freshman class. Hitherto there have been only two or three in that class and no intelligent forecast could be made as to the number that might be expected to enter the Junior class, at the entrance to which real differentiation occurs in the engineering courses. The matriculates for 1906-07 were distributed as follows:

Seniors	0
Juniors	6
Sophomores	2
Freshmen	6
	14
In Academy, preparing for Mining	1
Total	15

It is believed that the rate of increase in number of students compares favorably with that of the earlier years of some of the older Departments, and I feel confident that as soon as the school is placed on a better footing and strengthened in the matter of teaching force, the attendance will grow rapidly. Were there an additional instructor - to which reference is made on a succeeding page - it would be possible now to establish the short course in mining which is so much desired by the mining interests of the State, and the total paid matriculation would, I believe, compare favorably with that of the other engineering courses.

Improvement of Schedule.

With the co-operation of the Professors of Chemistry and Physics, a marked improvement has been made in the schedule of studies, to take effect next session. Hitherto, instruction in Chemistry has not been continuous up to the completion of the subject, and Assaying, which should follow quantitative analysis, had to be given in the term preceding it. Beginning in the first term

of the Sophomore year, Chemistry was not resumed until the first term of the Junior year and, skipping the second term of that year, was completed in the third term. Now the instruction is more nearly continuous, more laboratory work is provided for, and Assaying and laboratory work in special Metallurgical processes follow in regular order preparatory for first term work in the Senior year. General Metalluggy, taught by the Professor of Chemistry, which hitherto has been given in the second term of the Sophomore year - a year too soon, since students did not have sufficient chemistry - is now given in the second term of the Junior year, to be followed in the third term with the special laboratory work, conducted (for the present) by the writer. Work in the Physical Laboratory now begins in the Freshman year (alternating with Drawing), and is completed in the first term of the Sophomore year(alternating with Chemical Laboratory). Instruction in Electrical Appliances has also been improved, from the mining point of view, certain subjects being handled now with especial reference to the needs of students in mining engineering. It is hoped that in time it will be possible to include a modern language in the course, in which event preparatory knowledge of such language would be a necessary requirement for entrance to the Freshman year, but under present conditions it cannot be done now.

Personal Instruction Given.

My personal work is with Juniors and Seniors. As already indicated, there were no Seniors in Mining during the present session. I gave the usual number of lectures (or text-book instruction) in mining to the Junior class, that is to say, five hours a week in the mornings throughout the year; also instruction in Assaying, four afternoons and half of Saturday each week during the second term, and half of each Saturday in the third term. In addition, at my request Mr. F. J. Fohs, of the State Geological Survey, delivered six lectures on methods of mining in the Western Kentucky lead, zinc, and spar district.

Instruction in Assaying.

A more satisfactory course in Assaying was given during the present session than ever before. This was due to the fact that for the first time a special room was available for the purpose - hitherto we had to use part of a cellar room, with dirt floor, already crowded with miscellaneous stores, with goods-boxes serving for tables, etc., - that an additional furnace had been procured, and that we had the use of the furnace and accessories belonging to the Geological Survey.

It is necessary, however, to materially increase the assay outfit, and to have a larger room, properly fitted up, for laboratory. With only three furnaces, of the sort we have, no more than six persons can carry on work at the same time, and they cannot do so in the best way. Moreover, the Dean of Civil Engineering and the Professor of Chemistry have advised me that they desire their Seniors to receive instruction in assaying. Students taking chemistry as their major study certainly should understand assaying. It will not be possible to comply with the wishes of the professors named, however, unless the equipment be increased and a large enough room be provided.

Instruction in Metallurgy.

As yet, practically very little instruction in Applied Metallurgy has been given to our students - due not only to lack of apparatus but to lack of a proper laboratory room. This should no longer be the case. Indeed, it is imperative for us to afford such instruction, else we will fall so low in the scale among mining schools that we cannot hope to retain students who can afford to go elsewhere, while those who can do no better than remain will go forth with a handicap that will prove a hardship and mortification to them and a discredit to the College. Already, as I have hitherto reported, young men who intended to enter here have gone elsewhere because of our weakness in Metalluggy. Aside from general considerations, the fact that lead and zinc mining has become an important industry in Kentucky and is growing; that iron, copper and gold mining is carried on in adjoining or nearby states, it is necessary on "local grounds" along that a reasonably good course in metallurgy be given here. It will be possible to do this at comparatively small additional cost in the way of equipment if the necessary laboratory room and an assistant instructor are provided. Unless an additional room can be procured in time, the basement room in the Chemical Building now used for assaying will have to be used also for such limited metallurgical work as can be carried on in it, by the Seniors of next session. If, however, rooms in the Science Building become available in time, one of them can be used very well.

Assistant Instructor Urgently Needed.

I very earnestly request that an assistant instructor be provided for this Department -- one who can give his entire time to teaching. Mr. A. G. Spillman, Assistant Inspector of Mines, renders service in quizzing classes in text-book work from time to time, and will continue to do so; but the work of the office of Inspector of Mines has grown to such proportions that now even the three Assistants are not sufficient to perform all the field work required, hence Mr. Spillman can give only a part of his time, at irregular intervals, to the school. What is urgently needed is a regular assistant instructor, trained in the various phases of mining engineering, who will not only assist in laboratory instruction in assaying, metalluggy and ore dressing and coal washing but also take charge of the special line of drawing (design) which mining students should have, give instruction in construction, etc., and aid in conducting a short course in mining for the benefit of the miners of the State. The addition of a regular assistant instructor would be but a small increase in the cost of teaching in this Department, since my own salary does not come out of College funds. Moreover, the National Association of Mining Schools is still working and hoping for an appropriation by Congress to increase the facilities for instruction in mining and metallurgy at the A. & M. Colleges, and should the Association succeed, the tax on the present income of the College for such assistant instructor would not continue long. On the other hand, should the Association not succeed, the fact that the number of paying matriculates would most certainly be largely increased in consequence of the broadening of the course that might be made is to be borne in mind.

I trust that it will be understood that I am not asking for an assistant instructor in order to escape any personal work that

should properly fall upon me; I ask it only in order that I may be in position to perform all the duties that belong to the position I hold. My whole time is given to the duties that come to me as teacher and Chief Inspector of Mines; there simply are not enough hours in the day for me to perform them all in a satisfactory way. The office work of the office of Inspector of Mines alone has grownnto such proportions that were it not for the fact that the clerk of the State Geological Survey also serves as clerk for the Inspectors' office, I would be utterly unable to attend to College classes and keep up the work of the Inspector's office as nearly as I do. During the present session I have had only Juniors to look after. During the second term, I had to give not only the lecture hour in the morning (which of course means more than an hour to College work), but also the entire afternoon to them. Next session (and whenever there are Seniors), unless I have assistance, I will have to give two hours in the morning, all of the afternoon, and part of each Saturday to class work throughout the school year. It is manifest that if I do my full duty to College classes, I can have but little time in the day for my duties as a public official; and vice versa.

I have called attention to the necessity for a regular assistant instructor in preceding reports, citing the fact that as Chief Inspector of Mines I should have greater opportunity to visit the mines throughout the year. The necessity has grown more acute on that ground alone. Expressions of dissatisfaction with present conditions are now coming from the miners. I earnestly beg, therefore, that you and the Board give the matter full consideration and grant the request for an assistant.

Short Course in Mining Desirable.

The school of mining engineering can be made a potent element of strength to the College as a whole by the institution of a Short Course in Mining for the benefit of the miners in the State. The importance of the mining interests of the State, already great, will grow each year, the prospect now being that at no very distant day Kentucky will be at least fourth, probably third, in the list of coal mining States of the Union, and that great progress will be made in metal mining and the production of spars. Indeed, the agricultural progress of a considerable proportion of the State is largely dependent upon the development of mining. In the eastern part, for example, there are over 12,000 square miles of ground that will never prove of importance in an agricultural way until mining shall have made local markets for farm products; and there are still counties in the western and south-central parts the growth of which depends upon mining rather than upon agriculture. As you are aware, some of the wealthiest counties in the western part, made so by mining, were pauper counties so long as dependence was solely on agricultural products raised for the general markets. As I have stated elsewhere, there is a close tie between agricultural development and the development of mines, hence the development of a strong mining course in an "Agricultural & Mechanical College" is entirely logical. There are now over 16,000 persons employed in the coal mines and at least 1,000 employed in metal, spar and clay mines in the State. A strong desire for the establishment of a short course in mining here has been expressed by

many of their representative men. I believe it would certainly be wise to place this Department in position to comply with the wishes of such potent forces.

Appropriation Asked for Apparatus and Supplies.

When I made report for 1905-06, I expressed the belief that were an appropriation of $700 or $800 made then (a sum of $750 was grantedY, one of $600 for 1907-08 would be sufficient to place the Department in good position, as regards apparatus, to take care of the Seniors of next session. I find, however, as the result of unexpected costs, that I was in error. I estimate that at least $700 is needed for the coming session and I respectfully ask that such sum be granted. Additional apparatus and supplies for assaying and chemicals and apparatus for applied metallurgy are absolutely necessary to meet the demands of instruction during the coming year, to the cost of which are to be added expenses for installation, freights, and the usual current sundry expenditures.

Attached to this report is a statement of expenditures out of the appropriation made last June. Also a statement of some of the apparatus required.

Apparatus, etc., on Hand.

Attached to this report is a statement of the apparatus, machinery, etc. now on hand. A considerable part of each annual appropriation hitherto made has necessarily been used in paying freights, meeting costs of installation, fitting up lecture room (counter, chairs, desk, etc.), paying for supplies consumed (such as fluxes and other chemicals, crucibles, cupels, etc., in assay laboratory), and for such sundry necessary expenditures as occur during the College year.

Buildings Needed.

As you are aware, this Department has no quarters of its own, except the small frame building in the rear of Science Hall, which was erected for temporary use as an ore dressing laboratory at a time when it was believed that suitable housing for the Department would soon be provided. As a matter of fact, when the course was opened in 1903, the outlook for even a class-room was not inviting. The room now used for lectures and recitations is borrowed from the Professor of Geology and Zoology, who has informed me that he now needs it and desires to have it. The assay laboratory is in a basement room in the Chemical Building; not only is the room ill suited for the purpose and too small, but the Professor of Chemistry has indicated his desire to have it for his own purposes as soon as other provision can be made. The Senior students in mining have no drawing room in which they can do thesis work - the drawing rooms in Mechanical Hall being crowded with other students - and they have no special reading room, in which to do necessary reading under the supervision of the Dean. The frame building already referred to is too small to serve for a permanent ore dressing laboratory, and it is, moreover, liable to catch fire, thus endangering other buildings. The present room occupied by the State Museum, on the third floor of Science Hall, is not at all suited for such purpose. Not the least objection to it is that it is dangerous to have such a loan on the third floor of the building when the construction of the latter was not

especially designed to sustain it. In fact, the need of a building in which the Department of Mining Engineering may be properly housed, with adequate laboratories for ore dressing, assaying and metallurgical work, is an urgent necessity. Such a building could be erected to provide for the Departments of Mining Engineering and of Civil Engineering, to take care of Physics until a special building for that Department may be obtained, and to house the State Museum and office of the State Inspector of Mines, etc.

I have a tentative sketch made by Mr. H. L. Rowe, architect, calling for a two-story main building about 114 by 188 feet, with which is connected a two-story laboratory building 40 by 80 feet, which will give ample provision for Mining Engineering, Civil Engineering, Physics, the State Museum and State offices. The approximate estimate for cost of the main building, two stories high, is $60,000.; if made three stories, with the third floor unfinished as a provision for future needs, the estimate is $70,000.

(These estimates are of course only approximate, since they are necessarily based on unknown quantities.) The laboratory building, which in no event should be more than two stories high, - in which provision is made for ore dressing, assaying, applied metallurgy, and testing of materials, - should be erected first, since it is the one most urgently needed. It can be put up for $7,000. or $8,000., since the interior finishing would be quite plain and simple - no ceilings and no plastering, either being really objectionable in such a building.

If the Board will authorize the construction of the laboratory building, and the rooms now occupied by the Agricultural Department in Science Hall be assigned to this Department when the Agricultural Department moves into its own building in the Fall, the arrangement will prove very satisfactory for the work of this Department until funds can be obtained from the Legislature for the construction of the main building.

If such arrangement be made, and an assistant instructor be provided, the School of Mining Engineering, I feel confident, will quickly make such progress as will gratify both yourself and the Board, and fully justify all that is done towards its development.

For years before the passage of the Act authorizing its establishment, I advocated the founding of a Department of Mines as one of the schools of this College. I am keenly interested in the upbuilding of the school. It is needed, and I believe there is promising future for such a school in this State. But I also feel that just now is a critical period for the Department, and I hope the Board will treat it with the utmost liberality possible.

Very respectfully
(signed) C. J. Norwood
Dean. Department of Mining Engineering.

Mining Eng

Room

Instructor needed

Short course

Appropriation Page 5

Bldg. Page 6

Lexington, Ky., May 17, 1907.

President James K. Patterson and
the Board of Trustees,
State College of Kentucky.

Gentlemen:-

I hereby submit my report concerning the Department of Physics for the scholastic year ending June, 1907.

The total number of students enrolled in Physics this year is 274. In addition to this, instruction was also given to 53 Academy students.

The following classes have been taught this year:

First Term.- A Sophomore class of 26 in elementary text-book Physics, and a Sophomore class of 56 (three sections) in the laboratory.

Second Term.- A Sophomore class of 54 (two sections) in Electricity, a Freshman class of 151 (four sections) in elementary text-book Physics, and a Sophomore class of 16 in the laboratory.

Third Term.- Same classes that recited during the second term, somewhat reduced in number, and an additional class of 35 in elementary text-book Physics.

The instruction in Electricity during the second and third terms is an expansion of my work. There will be a further expansion next year when instruction will be given throughout the first term to a class in Mechanics.

When I was elected Professor of Physics thirteen years ago, this department had no quarters in which to work. The only rooms available were two in the basement of the main college building. These were fitted up as well as their shape and situation would allow, with a view to their use for a few years, when, it was thought, better quarters would be provided. With an adjacent room they are still used for my work, but are utterly inadequate for present requirements. In the first place, they fall far short of furnishing as much working space as is needed. Secondly, they are partly underground and are very poorly lighted and ventilated. Dampness and mould attack and injure instruments and apparatus. They are crowded much beyond their capacity, with no regard to health or to good work.

In such quarters 327 students were enrolled for work this year. About 250 students recited daily during the second term and nearly as many the third term. Many of the students had more than one class in Physics. Such are my quarters for work, and such is the enrollment of students.

I sometimes think, President Patterson, perhaps you and the Board of Trustees do not realize the gravity of the situation

in regard to Physics. I venture to say that more students were enrolled in Physics this year, not counting Academy students, than were enrolled in the other scientific departments of Botany, Physiology, Geology, Zoology and Entomology all put together. Each of these other departments has good quarters for its work, though none of the work is required of all graduating students as is Physics. And more students, probably, were enrolled in Physics than were matriculated in the departments of Civil, Mechanical and Mining Engineering all together. I appeal to you, gentlemen, that you provide better quarters for Physics. If it is well to provide for departments whose work is required of relatively few students, is it not wise and essential that you make at least equal provision for a department whose work is so important as to be required in all the graduate courses and whose enrollment of students is already very large and will certainly greatly increase? You have provided with great liberality and luxury for the department of Mechanical engineering. Be it so. But at the same time it is true that the students in Mechanical engineering have more instructors outside of that department than they have within it. These students must get their instruction in Mathematics, Physics, Chemistry and other branches, so essential in their training, in other departments. This instruction is in no manner inferior in character or in importance to their shopwork and drawing and other engineering work, and these other departments should have credit accordingly and should be so equipped that they can do their work well.

The enrollment of college students in Physics this year is 44 per cent greater than it was last year. The enrollment will soon reach 500 or 600 or more. For this reason and to allow for necessary expansion of work, it seems best that a separate building be given Physics as is done for Chemistry.

Purdue University has a new building and equipment for Physics alone at a cost of $60,000. Dartmouth College has a magnificent building for Physics. So has the University of Virginia. Many other schools have splendid buildings and equipments for Physics. Why not State College, since such building is so much needed?

I recommend to the Board of Trustees, and most earnestly urge, that they provide a new building for Physics. Such action for the relief of Physics should be taken at once.

Mr. W. S. Webb's work as assistant in Physics is satisfactory. He is a good instructor. I shall probably need all of his time next year, and the assistance of a fellow besides.

About $600. should be appropriated for Physics next year.

I append a statement of the approximate value of the equipment in this department, dated October 1, 1906, and of the expenditures since then.

Respectfully submitted,
(signed) M. L. Pence,
Professor of Physics.

Agric. & Mech. College,
Lexington, Ky., May 17, 1907.

To
The President,
A. & M. College -
Present.

Sir:

I have the honor to render the following report of the Military Department of this College for the session 1906-7.

The College opened as usual and the Battalion of Cadets was organized into four Infantry companies and a detachment of Artillery. Later a Band was organized, but it did little and finally in April was broken up.

On oct. 1st, 1906, I was relieved from duty at the College and ordered to duty with my regiment in Cuba. I was returned to duty at the College on Nov. 16th, 1906. The holidays intervening then made my absence cover almost the whole first term. Mr. W. S. Webb, an Instructor in the College, was in charge of the Military Department during my absence. His work was apparently very satisfactory.

The discipline of the Battalion has been excellent, as has also that in the College, except for an outbreak during my absence in the fall. There have been no other disorders and no insubordination.

New United States Magazine Rifles, Calibre .30 with cartridge belts and knife bayonets have been received. Khaki uniforms are worn by the cadets under instruction and have materially increased their comfort and appearance. They should be worn in the fall and spring.

The cadets were inspected by Capt. J. A. Penn, General Staff of the Army on April 29, and made the best appearance they have yet made under my supervision. Student labor for clerical work is most unsatisfactory and uncertain. A regular clerk should be hired for the Department that a rigid and careful set of books

should be kept. This is certainly necessary considering the large number of students receiving instruction in the Department.

The Inspector noted the absence of the Band and spoke strongly of its force and character in the Institution as a whole, as well as its necessity from the military point of view. Several hundred dollars should be appropriated annually for its support.

The dormitories are no worse and no better than they have been. They should be abolished and the disturbing influence of over two hundred boys on the grounds abated. Young boys should be cared for in the homes of reputable citizens of the place and not be congregated in one place, where a few bad or vicious characters can contaminate them.

If retained, at least three Inspectors for the College should be hired who should be required to live in the dormitories, be furnished rooms there and make daily inspections of the rooms. The attitude of the students is such that they utterly fail and neglect to make reports of any delinquencies that may occur in and about the dormitories.

I have visited the dormitories more than four times per week at irregular times of the day and evening. When I am there, the conduct of the students living therein is always good, but it is not and cannot be the same as though an Inspector lived and moved among them daily and nightly.

With reference to the amount of money necessary to carry out these recommendations, it is believed twelve or thirteen hundred dollars ($1300.) should be appropriated for the Military Department and eight hundred dollars ($800) for the dormitories.

It is further most earnestly recommended that any restrictions heretofore made on the students exempting them from military duty be removed, and that all male students be required to be enrolled in, and to wear a uniform, under such restrictions and for such periods in the Military Department as the Commandant may prescribe.

Wilson B. Burtt,
Captain 18th U.S. Infantry,
Prof. of Mil. Science & Tactics, Commandant.

Military Dept

Appropriation for Band

Dormitories attendance or inspectors board in them

Appropriations $2100

No exemptions from drill

Lexington, Ky., May 18th, 1907.

President Jas. K. Patterson,

Dear Sir:

In submitting the annual report of the English Department it is gratifying to note that the session 1906-7 has been marked by unusual earnestness on the part of almost every student. Like the other colleges of Kentucky we are still handicapped to some extent by the fact that some of the county and city schools do not begin early enough to give daily lessons in English composition. Pupils ought to be able to write a business letter by the time they are ten or twelve years old, and this end will be attained as soon as all our elementary school teachers realize that mastery of the mother tongue is the beginning of culture. Far-reaching results may be the outcome of a recent conference of the college instructors of English.

The English entrance requirements are now as rigid as they are in the older institutions of learning. Without the cordial co-operation of our College Academy and other first-class preparatory schools, the college work could not be effective. More and more attention is being paid to the practical side of discipline in English. Our Freshmen are trained to see the value of technical accuracy without which the best efforts of the human imagination are marred perhaps hopelessly. To that end weekly exercises are written in the form of essays or letters upon topics of current interest. Lectures upon literary types and movements help to quicken the insight and broaden the outlook of the Freshman student. The Sophomores are supposed to be beyond purely technical difficulties, and the purpose of their work is to develop literary taste and a love of fine art. The Juniors are encouraged to engage in research work in order to cultivate the enterprise and thorough-

ness that lead to success in the great world of which the college forms a part. The Seniors study Logic so as to strengthen their reasoning powers and enable them to guard against the sophistries with which they may in later years be confronted. In each class the students are made to feel that the ultimate aim of all education is nobility of character or spiritual freedom.

The following table shows the number of classes and students:

Class	Hour	No. of Students.
Freshman English - Section A	8 a.m.	)
" " " B	8 a.m.	)
" " " C	10.30 a.m.	) 163
" " " D	2.30 p.m.	)
" " " E	3.30 p.m.	)
Sophomore "	11.30 a.m.	22
Junior "	9 a.m.	34
" Anglo-Saxon	7 a.m.	17
Senior " "	7 a.m.	6
" Comparative Philology	11.30 a.m.	10
" Logic	10.30 a.m.	31
	Total	283 for 1906-7.

In conclusion, I deem it a privilege to bear witness that Messrs. A. G. Macgregor, James T. C. Noe, and A. N. Whitlock have given most valuable assistance in the English Department. They have been energetic, tactful and faithful in the performance of all their duties.

Respectfully submitted,

(signed) A. S. Mackenzie

Explicit

STATE COLLEGE OF KENTUCKY.
JAS. K. PATTERSON, PH. D., PRESIDENT.
SCHOOL OF MECHANICAL AND ELECTRICAL ENGINEERING.

F. PAUL ANDERSON, M. E., DIRECTOR, PROFESSOR OF MECHANICAL ENGINEERING.
A. M. WILSON, M. E., PROFESSOR OF ELECTRICAL ENGINEERING.
L. K. FRANKEL, M. E., PROFESSOR OF MACHINE DESIGN.
L, E. NOLLAU, B. M. E., INSTRUCTOR OF MECHANICAL ENGINEERING.

LABORATORY ASSISTANTS:
JOSEPH DICKER, FOUNDRY AND FORGE SHOP.
G. W. HAM, B. M. E., ASSISTANT IN DRAWING.
M. RANEY, EXPERIMENTAL LABORATORY.

LEXINGTON, KY May, 18, 07.

President James K. Patterson,
State College of Kentucky,
Lexington, Ky.

Dear sir:-

As Director of the School of Mechanical and Electrical Engineering of the State College of Kentucky, I have the honor to herewith submit to you and the Board of Trustees of the State College of Kentucky, my sixteenth annual report, which is for the year 1906-07.

MATRICULATES:

One hundred and eighty-four men have been matriculated in the department of mechanical and electrical engineering during the year, distributed as follows:

Seniors seventeen; Juniors forty-three; Sophomores forty-six; Freshmen seventy-eight; making an increase of twenty-nine in this department as compared with the attendance last year. The above number of students represents the actual number who have been doing work in the department. About twenty-other men matriculated at the beginning of the year, but they were not prepared to carry on the work, and did not take up active duties.

It is an interesting fact to note the distribution of students in the various classes, gradually increasing from senior to the freshman class. Each class comprises more students than the one above it, This arrangement of the number of students indicates the substantial growth of the department, and the large freshman class is very encouraging.

We have been very strict relative to students carrying on work who do not maintain a high standard. An attempt has been made each year to raise the standard of excellence in the department, and there is no question about the State College of Kentucky sending, each year, first-class men into the field of mechanical and electrical engineering.

SCHEDULE OF STUDIES:

The schedule of studies as presented in the catalogue for I906-07 has been adhered to. The faculty rule excluding students who are absent more than three days without an excuse, and the fact that all time lost in laboratories is required to be made up before a student can receive a passing grade in that subject, have made it possible to keep the standard of work up to a high grade.

CLASSES TAUGHT BY INSTRUCTORS:

The following is a statement of the classes that have been taught during the year by various instructors in the department, and there is included in this list only those subjects pertaining to engineering proper:

CLASSES TAUGHT BY F.PAUL ANDERSON ARE AS FOLLOWS:

(I). Steam Engineering. (5). Valve Gear Design.
(2). Valve Gears. (6). Steam Boilers (Theory).
(3). Steam Engine Design. (7). Steam Boiler Design.
(4). Steam Laboratory Work. (8). Gas and Oil Engines.
(9). Dynamometers and Measurement of Power.
(IO). Thesis Supervision.

CLASSES TAUGHT BY A.M.WILSON ARE AS FOLLOWS:

(I). Elementary Electrical Engineering.
(2). Electro-Dynamic Machinery.
(3). Alternating Currents.
(4). Dynamo and Motor Testing.
(5). Junior Electrical Design.
(6). Electrical Laboratory.
(7). Senior Electrical Design.
(8). Supervision of Electrical Theses.

CLASSES TAUGHT BY L.K.FRANKEL ARE AS FOLLOWS:

(I). Strength of Materials(4). Analytical Mechanics.

(2). Theory of Machine Design (5). Kinematics.

(3).Machine Design (Drawing Room).

(6). Testing of Materials of Construction.

CLASSES TAUGHT BY L.E.NOLLAU ARE AS FOLLOWS:

(I). Four hours each day in the Wood Shop in charge of Wood Work and Pattern Making.

(2). Bench Work in Wood (Theory).

(3). Theory of Pattern Making and Foundry Practice.

(4). Descriptive Geometry.

(5). Descriptive Geometry Drawing.

(6). Theory and Practice of Photography.

CLASSES TAUGHT BY JOSEPH DICKER ARE AS FOLLOWS:

(I). All classes in Foundry Practice.

(2). All classes in Iron and Steel Forging.

(3). Supervision of Machine Shop.

CLASSES TAUGHT BY C.W.HAM ARE AS FOLLOWS:

(I). Four hours a day teaching Freshman Mechanical Drawing.

(2). Instructor in Machine Shop Classes.

Mr.Murray Raney has had charge of the apparatus in the experimental electrical and steam laboratories.

THESES FOR THE DEGREE OF MECHANICAL ENGINEER:

At the time of writing this report the following post-graduate theses for which the Mechanical Engineer degree will be recommended have been received and passed upon as follows:

Recent Tests of Passenger Train Movement. Discussion of Method of Testing and Apparatus Used, with Design of Recording Machine and Discussion of a Representative Record from this Machine.

Emerson Everett Ramey, Chicago, Illinois,

B.M.E. Class of 1904.

Some of the Common Commercial Applications of Fan Blower and Exhauster.

John Eve Matthews, Philadelphia, Pennsylvania.

B.M.E. Class of 1904.

A number of our other graduates are working for the advanced degree, but at this time their theses have not been submitted.

THESES FOR THE DEGREE OF BACHELOR OF MECHANICAL ENGINEERING

The following theses are in preparation by members of the class of 1907 for the degree of Bachelor of Mechanical Engineering:

A Photographic Description and Record of Railway Signals on the Queen & Crescent System, between Cincinnati, Ohio and Somerset, Kentucky.

John Roger Ammerman and Perrin Rule.

A Series of Passenger Locomotive Tests on the Cincinnati Southern to Determine the Relative Efficiency of Various Kinds of Coals.

Robert Allen Carse and Walter Augustus Farrell.

Complete Design and Construction of Five Horse Power Direct Current Shunt Motor.

Berrywick Staley Craig and Fred Jones Rankin.

A Discussion of Various Methods of Firing Steam Boilers together with an Investigation of Methods of Preventing Smoke.

David Chenault Estill and Guyley Benton Howard.

Discussion and Description of Certain Phases in the Refining of Oil.

Paul Clifton Grunwell.

Experimental Study of the Calorific Properties of Natural Gas Supplied to the City of Lexington.

Leo Logan Lewis.

Experimental Study of Automatic Railway Signals,

Fayette Hewitt Lawson and John William Thomas.

A Study of Rotary Magnetic Fields,

Charles Edgar Schoene.

A Description of the Commercial Application of the Hot Blast System of Heating and Ventilation,

Joseph Miles Sprague and John Joel Yager.

A Calorimetric Study of Southern Coals.

James Webstein Thorne.

THE OPPORTUNITY IN COMMERCIAL WORK FOR GRADUATE MECHANICAL AND ELECTRICAL ENGINEERS.

During the last few weeks fully fifty opportunities have presented themselves for graduates of the class of 1907 from the department of mechanical and electrical engineering of the State College. Firms like the General Electric Company, Western Electric Company, Westinghouse Electric and Manufacturing Company, Atlas Engine Works, Baldwin Locomotive Works, American Car and Foundry Company, Allis-Chalmers Company, Continental Signal Company, B.F.Sturtevant Company and Buffalo Forge Company and various colleges have made application for our men, and every graduate of this year's class has been located with a firm where he will have opportunities for doing useful work, and each man has been able to select the sort of employment that is most in harmony with his tastes and talents.

It is a most gratifying fact to us that the mechanical and electrical engineers of this institution take an equal rank with the graduates from any technical school in America. Many of these colleges were well, known on account of their engineering work before the department of mechanical engineering of this institution was established, and as you know, nearly all of the technical schools of the north and east have far greater equipment than is possessed by the State College of Kentucky.

We have enough first-class mechanical engineers who have graduated from this institution, to take care of our graduates for many years; and we find that our alumni in responsible positions invariably seek graduates of their won institution when additional engineering help is needed by them.

The field of mechanical and electrical engineering is unlimited; and never in the history of this nation, were the prospects so bright, for young men trained in the science of dynamic engineering.

EFFICIENCY OF INSTRUCTORS:

It is with great pleasure that I call your attention to the splendid work that has been done by every instructor in the department during the year.

Professor L.K.Frankel's work has been of an exceptionally high grade character. He took up the duties of the place held by Professor John T.Faig for a number of years, and he has demonstrated his ability to handle this work in the most efficient manner, and the enthusiasm and spirit that has surrounded his class room, drawing room and laboratory work, has been most gratifying.

Professor A.M.Wilson,is giving our men a training in electrical engineering science that any institution should be proud of. He has great power for work, and succeeds in training every man to a high state of excellence before passing through his department.

Mr.L.E.Nollau, in addition to his previous work in charge of the wood shop, has handled in a most satisfactory manner, descriptive geometry. Mr.Nollau has succeeded in developing a most excellent course of training for the freshman class in wood shop work, and he has demonstrated his real ability to us as a teacher this year in taking care of descriptive geometry work in such a forceful manner.

Mr.Joseph Dicker, is, to my mind, one of the most valuable men in the department's staff of instructors. He develops a spirit of manliness and love of work in all the young men with whom he comes in contact, that has great influence in the formation of character.

His courses of instruction in the foundry, the blacksmith shop and machine shop, are modern and effective from every stand-point.

Mr.C.W.Ham has given instruction in our freshman and sophomore drawing classes that is very satisfactory, and I believe that the progress made in mechanical drawing work during the year has never been excelled in a previous class.

RECOMMENDATIONS:

FIRST:

That four thousand ($4000.00) dollars be appropriated to meet the running expenses of the department for the year 1907-08. For several years the appropriation has been thirty-five hundred dollars, and I respectfully request that you increase this appropriation for next year to four thousand dollars.

SECOND:

That provision be made for the employment of an instructor in electrical engineering, at a salary of for the first year eight hundred ($800.00) dollars. The whole work of the electrical engineering phase of the department has been thrown heretofore on the Professor of Electrical Engineering. In order to handle the work efficiently, it is necessary to have a laboratory assistant,

and this instructor that I recommend, is to act as laboratory assistant in addition to assistant to the Professor of Electrical Engineering in electrical design and certain elementary phases of class instruction. On account of the de and for first-class men in the fields of engineering, it is impossible to secure the sort of a man we want for this instructorship for less than eight hundred dollars. I respectfully request that an instructor be authorized at this salary.

THIRD:

That an additional instructor in mechanical engineering be employed at a salary of eight hundred ($800.00) dollars. This man is to report directly to the Professor of Mechanical Engineering, and assist him in drawing room and laboratory work.

The large amount of time necessary to give to the laboratory end of steam engineering makes it desirable to have an efficient instructor in the steam engineering laboratory. It is intended that this instructor will devote part of his time in the laboratory and part of his time in the senior designing room. The senior class of next year will number forty or more, and it becomes very necessary that the Professor of Mechanical Engineering have some personal help to assist in the handling of laboratory and drawing room phases of the work.

There is a demand for our graduates that gives them a certain market value that makes it necessary that we pay at least eight hundred dollars for a first-class man for the position of instructor in mechanical engineering.

FOURTH:

That six thousand ($6000.00) dollars be appropriated for building an addition to Mechanical Hall. The Board of Trustees built an addition on the south end of the main part of Mechanical Hall during the last year; and the addition proposed now is to extend the main part of Mechanical Hall as far north as the addition extends to the south.

Attached to this report you will find photograph showing front view of Mechanical Hall. The new addition will shape up the symmetry of this building.

The addition proposed is to give on the first floor an extension of the senior drawing room and on the second floor an enlargement of the freshman drawing room. This proposed addition is imperative; the present senior drawing room has a capacity for twenty men; we worked with great disadvantage with the class of 1905, which contained thirty men.

It will be impossible to take care of forty men in our senior class next year in the present quarters, and we feel certain that you are not willing to handicap the character of work on account of insufficient quarters.

For several years we have been compelled to have part of the freshman drawing work done in the wood shop; a place wholly unfit for this kind of work. The addition asked for will provide not only for the seniors, but will give us an equal enlargement of the freshman drawing room on the floor above. We believe that the necessity for this enlargement of Mechanical Hall in the direction indicated, will appeal to you.

FIFTH:

That steps be taken to interest the Board of Trustees in the introduction of a bill before the next state legislature appropriating two hundred thousand dollars for the department of mechanical and electrical engineering for new buildings and equipment.

We recommend that the Board of Trustees appoint a committee to look after the introduction of this bill and its progress through the legislative session. We further recommend that this bill be introduced as an independent measure. We believe that a committee appointed at the June meeting of the Board would be able to interest

in a definite way the members of the legislature in the upbuilding of the mechanical engineering department before the session begins, in such a way as to practically insure the passage of the bill suggested.

It seems to me that the one thing needed to secure a substantial appropriation from our state legislature, for mechanical and electrical engineering work, is the proper education of our state legislators to see what the State College of Kentucky has done in technical lines, and what benefit this institution can be in the development of the resources of the state, if we had departments as well equipped as those departments in the technical institutions of other states adjacent to us.

Much has been done in recent years in the development of great technical schools in various states throughout the union.

The rapid evolution of engineering science during the last decade has compelled many states to expend vast sums of money fro the proper upbuilding of engineering schools.

Mechanical and electrical engineering schools that hope to do well the work of the times must have adequate laboratories.

Kentucky would soon see the wisdom of her support of the mechanical and electrical work of her own State College and it is my earnest request that the Board of Trustees take the initial step to secure a large appropriation for mechanical engineering by appointing this special committee to formulate the bill and interest the members of the legislature in the same.

I have always felt that Kentucky would support a great technical school, whenever she saw that such an institution would be the all important factor in the advancement of the material welfare of the state.

I believe that the time has come for making a vigorous appeal to the legislature for the means to build a great mechanical and electrical engineering department in Kentucky.

Other states have found such a course of action profitable and we are ambitious to do as great things for Kentucky in engineering as have been done in other states.

J. Paul Anderson

Director, School of Mechanical and Electrical Engineering.

Mech Eng

Annual appropriation for expenses increase from ~~4000~~ — $3000 to 4000

Instruction in Electrical Eng at $500 —

Instructor in mechanical Eng. at $800 —

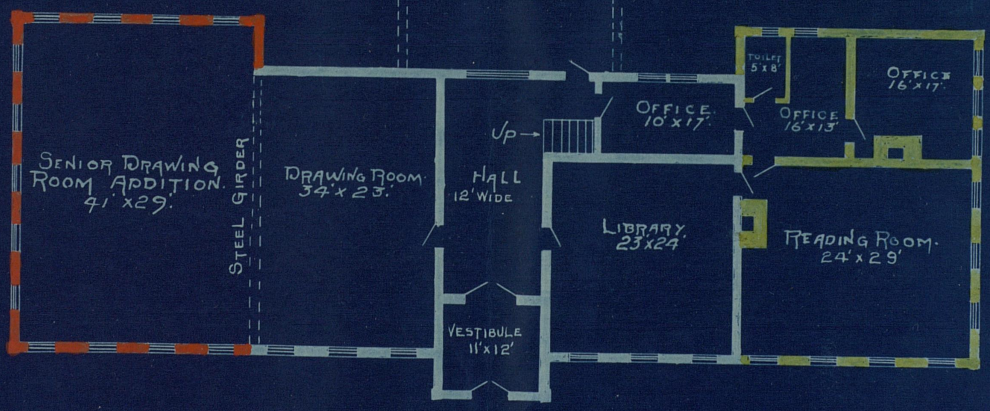
Appropriation of [illegible] for additional [illegible]

Legislative com. to [illegible] — $200,000 appropriation

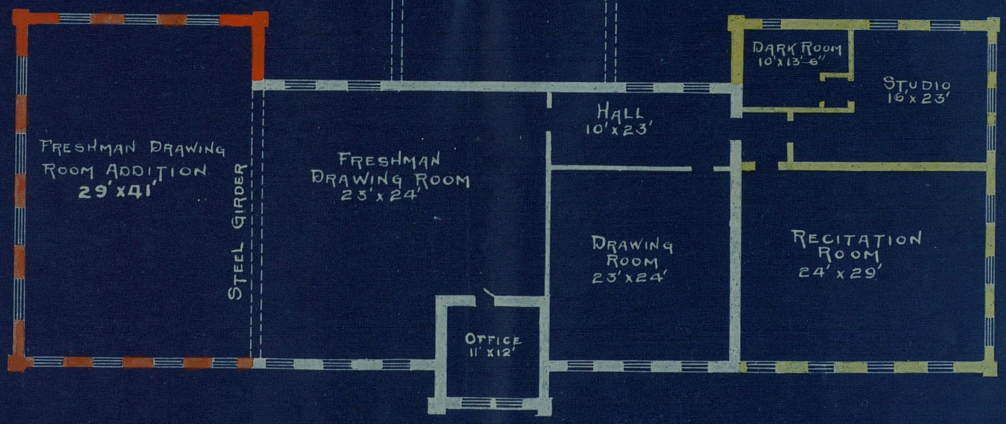
W. T. Lafferty

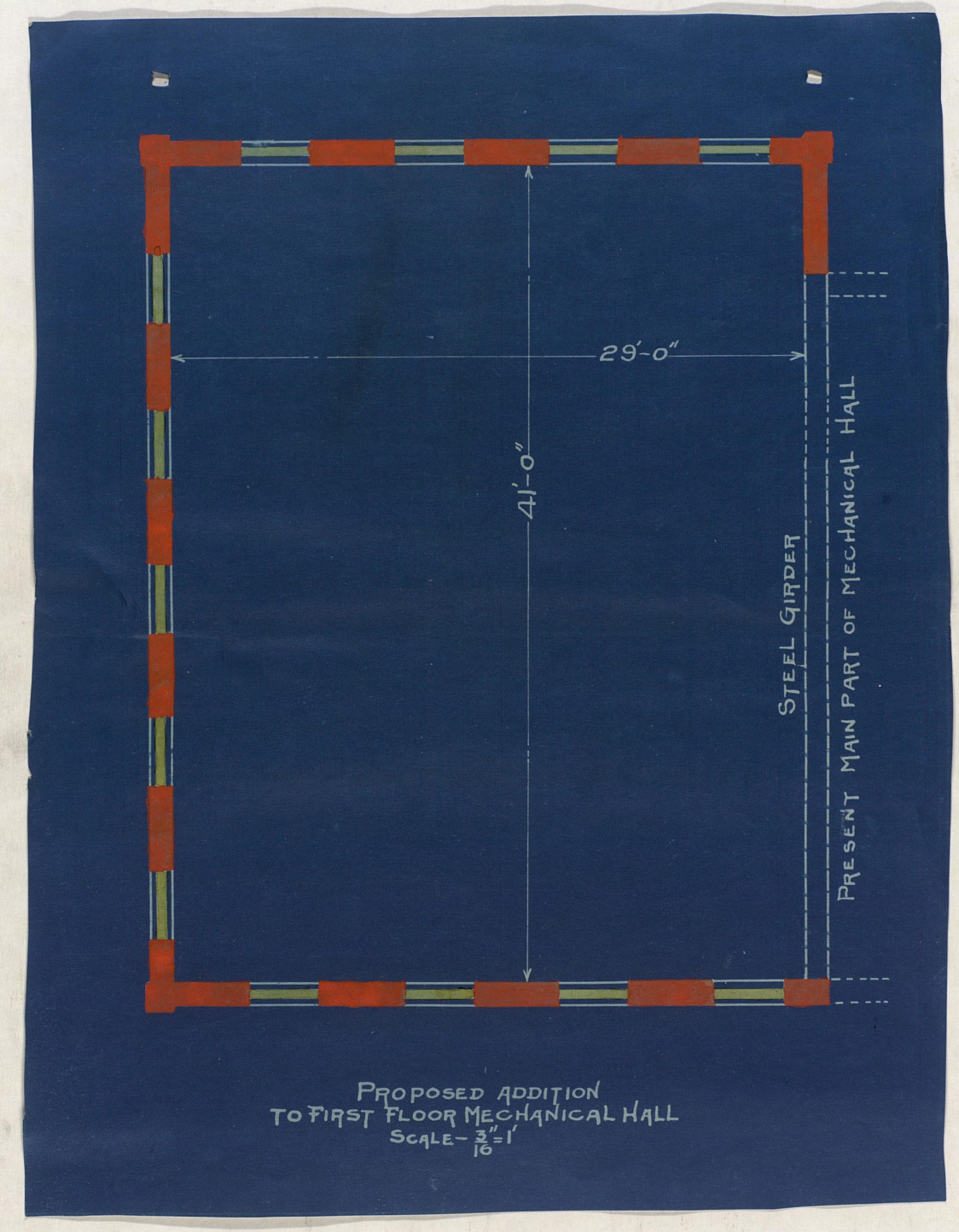

PROPOSED
ADDITION

FIRST FLOOR PLAN OF MAIN PART OF
MECHANICAL HALL
SHOWING
PROPOSED ADDITION IN RED
ADDITION PUT UP THIS YEAR SHOWN IN YELLOW



SECOND FLOOR PLAN OF MAIN PART OF
MECHANICAL HALL
SHOWING
PROPOSED ADDITION IN RED
ADDITION PUT UP THIS YEAR SHOWN IN YELLOW





PROPOSED ADDITION
TO FIRST FLOOR MECHANICAL HALL
SCALE- $\frac{3}{16}$" = 1'

Lexington, Kentucky, May 15, 1907.

President James K. Patterson, LL.D.,

Kentucky State College.

Dear Sir:-

I submit the following as my report of the department of Agriculture, Horticulture and Botany for the collegiate year 1906-07. The enrollment of students in the various branches of instruction has been as follows:-

SUBJECT	Number of Terms.	Number of Students
Elementary Botany	1	15
Gen. Botany, Soph.	2	22
SystematicBot. Soph.	1	9
Histology and Economic Botany, Junior	2	4
Soils and Crops, Junior	1	1
Veterinary Science, Sen.	1	4
Agricultural Reading, Sen. and Special	1	6
Animal Husbandry, Sen.	1	2
Horticulture, Winter Term	1	8
Horticulture, Spring Term	1	2
Plant Life, Short Course	1	6
Animal Feeding, Sen.	1	5
Forage Crops, Hun.	1	3
Cereals, Jun.	1	2
Soils and Crops, Short Course	1	6
Animal Husbandry, Short Course	1	6
Animal Management, Sen.	1	4
Rural Architecture, Sen.	1	5
Total Enrollment		110

Number of individuals given instruction in various classes 53

Few changes have occurred during the past year in the conduct of classes in the department, but on account of the addition of a regular assistant in these subjects, an enlarged scheme of instruction has been mapped out for next year, an enlargement which has heretofore been impracticable.

Certain of the needs of the department mentioned a year ago as most urgent have been or are being met. An instructor, Mr. A.H. Gilbert, was secured in January, and is aiding mainly in the classes in Botany.

Mr. Gilbert comes to us with the highest endorsements, having taken a classical high school course in Chicago, graduated from the agricultural course of the University of Vermont, specializing in Economic Botany, and later was engaged in the Seed Division of the U. S. Dept. of Agriculture at Washington, and afterwards as Supt. of a farm school for boys in the East. He has entered upon his work here with a vigor and earnestness that gives assurance of future success.

A temporary farm building, as asked for a year ago, has also been provided for housing our increasing stock of farm machinery. As this machinery will be abundantly provided for in the new agricultural building, it is proposed to utilize this small building for purposes of dairy instruction during the coming year.

As a somewhat special equipment, we shall greatly need at least a small greenhouse annex in the rear of our new agricultural building as a laboratory for growing plants in which theses and other experimental work can be carried on throughout the college year.

The agricultural building itself, now in process of erection, is the last and greatest addition ever provided for the work of this department. It will afford, when completed, a splendid opportunity for expansion of the work of the department, as more particularly set forth in my report as Dean.

I would respectfully urge that a somewhat enlarged scale of appropriations be granted for the current expenses of the coming year. With the advantages of a new building, we desire to make every possible effort to enlarge the work of the department and to secure a rapid increase in the enrollment in the Agricultural course. I would therefore earnestly recommend as

Annual appropriation for Botany	$400.00
" " Agriculture and Horticulture	800.00
	$1200.00

As special furnishings and equipment consequent upon entering our new building, we shall need an appropriation of at least $1200.00 and I hope that the very important equipment of a small greenhouse laboratory may be provided for by a supplementary appropriation of at least $300.

In accordance with instructions received from the Board of Trustees since my last report, I submit the following list of equipment on hand in my department at the beginning of this collegiate year. In this list I am including all the articles of any considerable value. There is also a large number of petty articles of trifling value which it would only cumber the report to enumerate in detail and which I assume are not called for by this order of the Board.

Respectfully, submitted,

(signed) Clarence W. Mathews.

Agriculture, Horticulture & Botany

Appropriation for Botany	$400
" Agriculture & Horticulture	800
Green House	300

Loxington, Ky., May 18th, 1907.

President James K. Patterson.

Dear Sir:-

I have the honor to submit to you and through you to the Board of Trustees, the following report of the Department of Domestic Science for the current academic year 1906-1907.

Classes in this Department have been conducted in the large room on the ground floor of Patterson Hall.

It has not been found necessary to put any improvements upon this room during the past school year. The equipment remains the same as formerly, save the addition of a gas stove, purchased in January 1907.

The classes have recited on Monday, Wednesday and Thursday afternoons of each week. The hours of recitation on each of these days have been from 2.30 to 4.30 and 4.30 to 6.00 P.M. respectively.

Pupils enrolled in this department consist of 26 students of the College and two from the City. Every department of the College has been represented, including the Academy. Instruction has been given according to the following plan:

1st and 2nd Terms.

Course in Practical Cookery, including:

1st. The nature, nutritive constituents and relative value of foods.

2nd. Amount of food required in health, and influence of various conditions upon amount of food required.

3rd. Consideration of different kinds of foods in order:

a. Animal foods including meat, fish, extracts, jellies, milk, cheese, eggs and cooking of these.

b. Vegetable foods including cereals, and bread.

c. Leavening agents, including baking powder, yeast, etc.

d. Seasoning, including flavoring extracts and spices.

e. Mineral constituents in foods.

f. Beverages, including tea, coffee, cocoa and alcoholic stimulants.

Third Term.

Course consists of lectures in food production and manufacture, the making of dietaries and actual preparation by the students of meals and calculations as to dietetic value of foods used in such meals.

Special class in fancy cookery, including preparation of soups, entrees, salads, desserts, etc.

At present the department has a number of pressing needs.

Since the class room is to be moved from Patterson Hall to the new building known as the Department of Instruction, it is deemed best that the practical cookery room should be equipped according to the most modern plan. In order to intelligently do

this the Instructor has visited the departments of Domestic Science in Louisville, Cincinnati, and New York, and she finds in those cities rooms equipped in the following way:

A laboratory table sufficient for 24 pupils is furnished with individual gas burners. This table has in it a drawer and cabinet for each pupil, furnished with simple cooking utensils. Each student does her own work and in this way she is kept employed during the entire class period.

Such an equipment always has in addition the general utensils such as are found in any well ordered kitchen. The department has a generous supply of general cooking utensils in perfect condition.

Attached to this report I beg to submit a detailed account of the list of articles together with estimates as to their cost, which are needed in the new class room. These things consist mainly of the table, individual burners, individual cooking utensils.

The Instructor earnestly requests the Board to consider making the Department a part of the regular College course. No class can permanently succeed in any school until it becomes a part of the curriculum. The fact that a teaching knowledge of Domestic Science is being required of teachers by Boards of Education makes it imperative that young women have training in this department as in the others of the College. It is impossible for the Department to have the dignity which belongs to it as long as no student is required to attend its classes. The number of voluntary students has dropped off from last year and will continue to decrease as the years go by, unless there is some systematic arrangement made.

No student is seeking additional work, and she will not be necessarily more attracted to classes in Domestic Science than in any other department in which no classes are required of her. Neither the personality of the Instructor, nor the attractiveness and real worth of the Department are sufficient to overcome this serious difficulty.

The Instructor suggests that preparatory and advanced classes be carried on in the department. Up to this time she has been compelled to have in one class students of all degrees of preparation, and the work under these conditions cannot be satisfactory as it should be.

Respectfully submitted,
(signed) Isabella W. Marshall.

Domestic science

This department to be moved to the department of Instruction

Recommendations Page 2

Lexington, Ky., May 30, 1907.

Pres. James K. Patterson,

A. & M. College, Lexington.

Dear Sir:-

As Physical Director of Women at State College, I have the honor to submit the report of my department for the collegiate year of 1906-07.

The month of September was devoted to the physical examination of 32 new pupils who were entering a gymnasium for the first time. Each of the 32 young women had my individual attention for 20 minutes in the examination room. Out of the entire number examined by me a large majority possessed spinal curvatures which in some instances were so exaggerated as to distort the body and carriage of the person in a distressing manner. In some cases the shoulders and hips were not on a level by two or three inches. These patients, for without knowing it they are patients, of a serious kind, combined with the disfiguring curvature the beginning of functional disorders which are characteristic of this condition. With the exception of 8 girls out of the 32, all had a lung capacity which fell below normal at the test machine. The physical defects common to young people, spinal curvature, flat foot, weak ankles, round shoulders, contracted chest, bottle neck, undeveloped muscles and bad carriage were present in abundance.

On October 1st, 69 young women began their corrective work in gymnastics. Seven months of hanging on rings and ladders, swinging on poles and ropes, vaulting on heavy apparatus; slow running on the running track, tactic work; wand, Indian-club and dumb-bell drills; pulley machine exercises and classic dancing of all kinds have helped to realize the aims of physical education.

I regret that your honorable Board could not have been present at our first lesson in October, to see the number of hollow-chested, disfigured, unhealthy looking persons, and then again been our visitors for the Gymnastic Tournament May 4th and seen the splendid military bearing, stronger health and greater beauty of our young women at State College.

The basket-ball teams of the past winter were of so good a kind that it was difficult to schedule games. Basket-ball, or organized play, has a distinct educational value, it developes all the mental faculties mentioned, and especially teaches the player self-control under circumstances the most exciting, and cultivates unselfishness of character. As an exercise it is most vigorous, therefore must be very carefully supervised.

The swimming department for young women at State College is my especial pride, being organized three years ago as an experiment and succeeding far beyond my expectations. It fills in the gap between May 1st and June, when regular practice in German and Swedish gymnastics loses value by reason of the warm weather. This is, so far as I know, the only swimming department in the

state, where women are taught the art of swimming scientifically. To easily maintain the body in any safe position in water is a personal accomplishment that should be possessed by every healthy person - man or woman. As an exercise in general and a lung and chest developer in particular, swimming has no equal. It is the one exercise that is beneficial, delightful and exhilirating in the summer time.

In three years we have found only two or three girls at State College who could swim before entering for instruction; many declared they had floundered hopelessly in water for years. The system of teaching, both elementary and advanced, is the same as that used by the celebrated swimming coach of Yale, Max Schwartz, and resolves itself into a rythmic, dee-breathing exercise. Pupils in this work are made to understand thoroughly the means of resuscitating drowning persons, the latest bulletin of first-aid to the drowning used by the United States Life Saving crews being used as the method. The pupils are required to give practical demonstration of this reviving method, using one of their own number as a dummy.

At the present time swimming lessons, (which in the East cost $1. each), are given as a reward to girls who make a high average in Physical Education. I am compelled to limit the number of pupils because the pool is very small, accomodating comfortably not more than five persons at a time. At the informal swimming exhibition, which followed the formal Gymnastic Tournament in 1906, the ejaculations of disappointment from visitoss who saw the limitations of the pool for the first time were embarrassing. It is my opinion that a real swimming pool would be as great a benefit to the boys at State College as to the girls. It is especially a delight to those boys who spend the hot, sultry summer at the College studying.

I therefore again request your honorable body to appropriate $500. for the benefit of the gymnasium. $235. is the estimated cost of making the pool fifteen feet longer. I desire also to have long benches made for the gallery of the gymnasium as a seating provision for any audience which assembles to witness basket-ball games, tournaments, etc. It has been impossible up to the present time to make people who do us the courtesy to attend these events comfortable. It is impossible to secure more than fifty chairs from the College and they cost $3. per hundred when rented for an afternoon. Failure to provide these civilities causes the management of a gymnasium to be criticised.

I desire also to make the dressing room for women more comfortable by placing benches in same. It has been said to me that more private pupils from the city would patronize the gymnasium if the dressing room were less disagreable. Notwithstanding, there have been 15 private pupils [illegible] - a gain over last year of 10.

I petition urgently for the appropriation of $500. with which to relieve an embarrassing situation.

Very respectfully,
(signed) Florence Offutt Stout.

Physician ~~Surgeon~~ Surgeon
for Women

Office hours 2
to 5 P.M.

To The Executive Committee:

The following resolution was passed by the Board of Trustees at their meeting in June, 1907.

"Upon motion, duly seconded and carried, the following report was adopted.

The undersigned Committee on readjustment of salaries reports and recommends that the President be paid $5,000.00 per year, and that Professor Scovell, Director of the Experiment Station, be paid $4200.00 per year, and that each be charged, and that each pay, for all perquisites received by them from the College, including house rent; and that the Chairman of the Executive Committee be appointed in consultation with President Patterson and Professor Scovell to fix the value of said perquisites."

As instructed in the resolution, I called in President Patterson and Professor Scovell to consult with them as to the value of their perquisites. At the first meeting, no definite conclusions were reached, but subsequently, at the request of Professor Scovell, I fixed the value of his perquisites as follows:

He is to pay for house rent $300.00. Also, he is to pay for the butter, milk and cream which he receives from the dairy, for gas and electricity for his residence, and $15.00 per month of the wages of a man who is being used jointly by him and the Station for taking care of horses, driving for visitors, work on the farm and for Professor Scovell's own use. I requested him, however, not to make a payment for this until I had come to an agreement with President Patterson also. Subsequently, Professor Scovell asked me to release him and requested me to allow him to pay for same, and he has paid, so he informs me, for his perquisites for the year July 1, 1907 to July 1, 1908, as follows:

For house rent	$300.00
" butter, milk and cream	106.52
" gas and electricity	105.11
" Murphy Davis' wages	159.37
	$671.00

As it was the evident intention of the Board, by increasing Professor Scovell's salary $600.00, to have the perquisites covered by that amount, I endeavored to fix their value as nearly that sum as possible.

Respectfully submitted.

D. F. Fraser

Motion ~~to placed~~ received and approved and that same spread at large on the minutes.

PLEASE EXAMINE AND REPORT ON THIS ACCOUNT AS SOON AS CONVENIENT.

Lexington, Ky., June 1st. 1907 190

A. &. M. College. " Gen'l Acc't "

IN ACCOUNT CURRENT WITH ~~THE~~ Fayette National Bank,

LEXINGTON, KY.

R. S. Bullock. Treasurer.

Dr.			Cr.			
1906			1906			
Dec 31.	Disbmts.	9.976.94	Dec	1.	Balance.	23.748.61
	Balance.	13.934.47		31	Int on acc't	162.80
		23.911.41				23.911.41
1907			1907			
Jan. 30.	Disbmts.	4.032.29	Jan.	2.	Balance.	13.934.47
	Balance.	15.724.43		24.	Int on Bonds.	4.322.25
				30.	Frazee.	1.500.
		19.756.72				19.756.72
Feb. 26.	Disbmts.	9.740.88	Feb	1.	Balance.	15.724.43
	Balance.	5.983.55				
		15.724.43				15.724.43
Mar 31.	Disbmts.	9.125.71	Feb	26.	Balance.	5.983.55
	Balance.	5.650.32	Mar	28.	Auditor.	8.792.48
		14.776.03				14.776.03
Apl. 30.	Disbmts.	7.183.79	Apl.	2.	Balance.	5.650.32
	Balance.	7.259.01		3.	Auditor.	4.000.
				26.	" "	4.792.48
		14.442.80				14.442.80
May 31.	Disbmts.	6.580.02	May	1	Balance.	7.259.01
	Balance.	5.256.84		2.	Frazee.	785.37
				23.	Auditor.	3.792.48
		11.836.86				11.836.86
			June.	1.	Balamce.	$5.256.84

Respectfully submitted.

R V Bullock

Treasurer.

PLEASE EXAMINE AND REPORT ON THIS ACCOUNT AS SOON AS CONVENIENT.

Lexington, Ky., June. 1st. 1907. 190

Experiment Station. A&M College.

IN ACCOUNT CURRENT WITH ~~THE~~ ~~Fayette National Bank~~,

LEXINGTON, KY.

Dr. R. S. Bullock. Treasurer. Cr.

1906				1906			
Dec 31.	Disbmts.	5.419.53		Dec	1	Balance.	10.307.69
	Balance.	10.743.24			8.	Scovell.	4.557.66
					31.	Int on ###### Ac't	96.40
						Scovell.	1.201.02
		16.162.77					16.162.77
1907				1907			
Jan. 30.	Disbmts.	3.414.70		Jan.	2.	Balance.	10.743.24
	Balance.	18.078.54			10.	U.S.Gov'mt.	3.750.
					18.	U.S.Gov'mt.	3.500.
					19.	Scovell.	2.500.
					31.	Scovell.	1.000.
		21.493.24					21.493.24
Feb. 28.	Disbmts.	9.416.35		Feb.	1	Balance.	18.078.54
	Balance.	14.649.81			5	Scovell.	1.487.62
					20	Scovell.	3.000.
					28	Scovell.	1.500.
		24.066.16					24.066.16
Mar. 30.	Disbmts.	4.551.02		Mar	1	Balance.	14.649.81
	Balance.	16.416.57			9	Scovell.	317.78
					16	Scovell.	4.000.
					30	Scovell.	2.000.
		20.967.59					20.967.59
Apl. 30.	Disbmts.	5.401.27		Apl.	1	Balance.	16.416.57
	Balance.	24.713.95			6	Scovell.	215.48
					8	U.S.Treas. Cin. O.	3.750.
						" " " "	1.750.
					10	Scovell.	4.000.
					19	Scovell.	2.500.
					30	Scovell.	1.483.17
		30.115.22					30.115.22
May 31.	Disbmts.	11.590.43		May	1	Balance.	24.713.95
	Balance.	17.123.52			31.	Scovell.	4.000.00
		28.713.95					28.713.95

June. 1. Balance. $17.123.52

Respectfully submitted.

R V Bullock

Treasurer.

PLEASE EXAMINE AND REPORT ON THIS ACCOUNT AS SOON AS CONVENIENT.

Lexington, Ky., June. 1st. 1907 190

A. & M. College. " Miscellaneous Accounts."

IN ACCOUNT CURRENT WITH THE ~~Fayette National Bank,~~

LEXINGTON, KY.

R. S. Bullock. Treasurer.

Dr. *Cr.*

Girls Dormitory.

		1907	
		June. 1. Balance.	23.84

Girls Dormitory.

Disbmts.			
Dec 1. 1906		1906	
to		Dec 1. Balance.	1.285.37
May 30.1907	867.11		
Balance.	418.26		
	1.285.37		1.285.37
		1907	
		June. 1.Balance.	418.26

Annual Appropriation.

Building Fund.

Disbmts.		1906	
Dec.1.1906		Dec 1. Balance.	1.917.00
to		20. Dis'ct.	3.741.19
May 30. 1907.		1907	
	18.475.94	Jan.10. "	3.000.00
Balance.	307.25	Mar.27. "	5.000.00
		May.22. "	5.125.00
	18.783.19		18.783.19
		1907	
		June. 1. Balance.	307.25

Mechanical Hall.

Building Fund.

Disbmts.		1906	
Dec. 1.1906		Dec. 1. Balance.	1.900.00
to		1907	
May.30.1907	6.933.04	Feb. 9. Dis'ct.	2.500.00
Balance.	29.46	May. 22. "	2.562.50
	6.962.50		6.962.50
		1907	
		June. 1. Balance.	29.46

Normal School.

Agricultural Building.

1907		1907	
May. 30. Disbmts.	1.233.50	May 11. Dis'ct.	1.500.00
Balance.	266.50		
	1.500.00		1.500.00
		June. 1. Balance.	266.50

Respectfully submitted. R. S. Bullock Treasurer.