

ANNUAL REPORT

OF THE

COMMANDANT

U. S. INFANTRY AND CAVALRY
SCHOOL, U. S. SIGNAL SCHOOL,
AND ARMY STAFF COLLEGE.

FOR THE

SCHOOL YEAR ENDING AUG. 31, 1907.

STAFF COLLEGE PRESS
FORT LEAVENWORTH, KANSAS
1907

TABLE OF CONTENTS

U. S. INFANTRY AND CAVALRY SCHOOL, SIGNAL SCHOOL AND STAFF COLLEGE

Report of the Commandant,	5
Report of the Secretary,	18
Report of the Librarian,	19

U. S. INFANTRY AND CAVALRY SCHOOL

Report of the Commandant,	23
---------------------------------	----

APPENDICES:

A--Department of Military Art,	35
B-Department of Engineering,	53
C-Department of Law,	58
D-Department of Care of Troops,	90
E-Department of Languages,	73
%-Table showing Details of Officers from Regi- ments since 1902	83

STAFF COLLEGE

Report of the Commandant,	85
---------------------------------	----

APPENDICES:

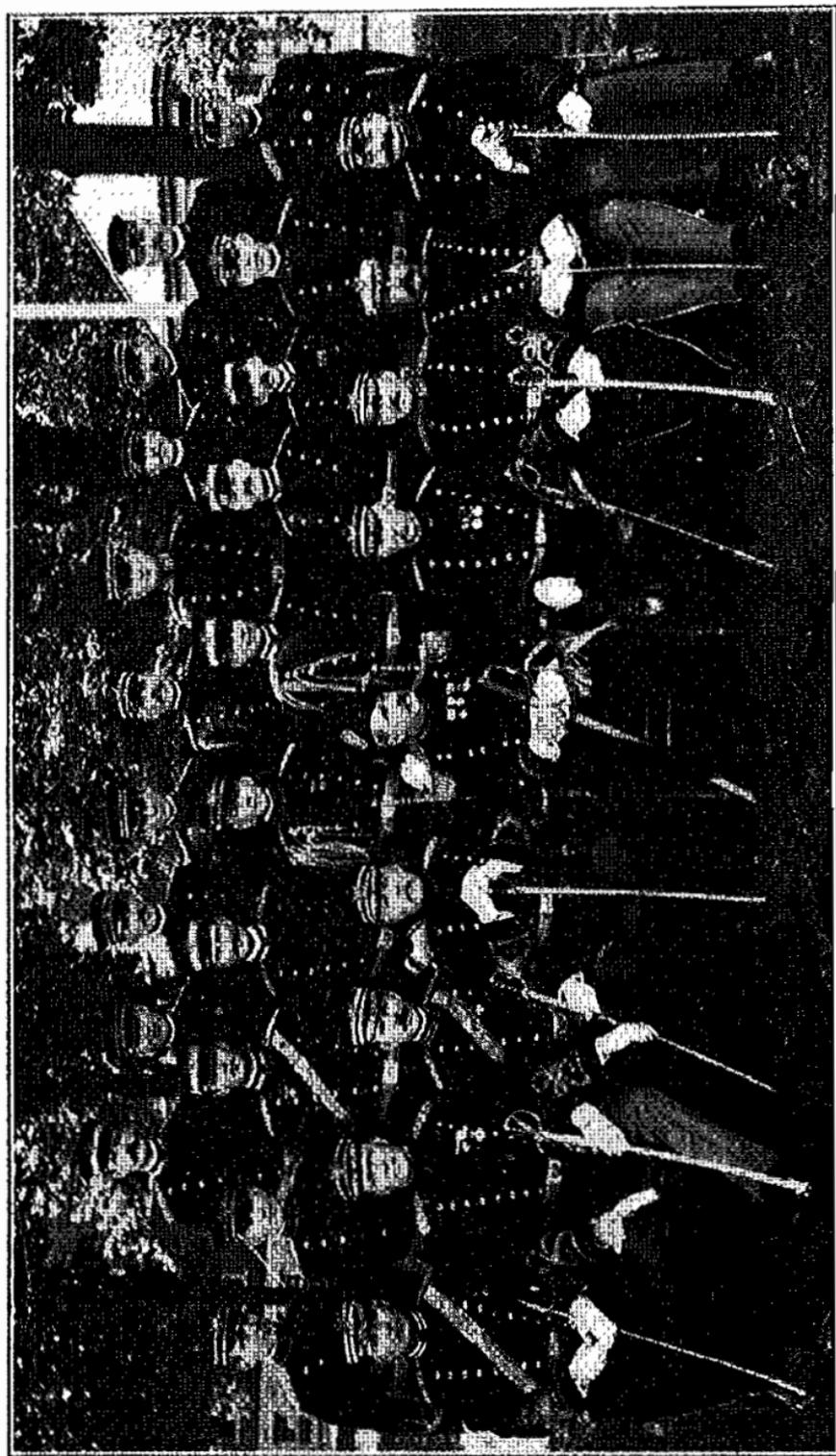
A-Department of Military Art,	94
B-Department of Engineering,	111
C-Department of Law,	115
D-Department, of Languages,	124

SIGNAL SCHOOL

Report of the Commandant,	127
---------------------------------	-----

APPENDICES:

A-Report of the Assistant Commandant,	136
B-Department of Signaling & Signal En'g,	146
C-Department of Languages,	151



General C. B. Hall, Commandant, Aides and Staff.

U. S. Infantry & Cavalry School, Signal
School, and Staff College

REPORT OF COMMANDANT

INFANTRY & CAVALRY SCHOOL, SIGNAL SCHOOL,
AND STAFF COLLEGE

Fort Leavenworth, Kansas, 31st of August, 1907.

*The Chief of Staff,
United States Army,
Washington, D. C.*

SW-:

I have the honor to submit the following general report as Commandant of the Infantry and Cavalry School, Signal School, and United States Army Staff College, for the year beginning 1st of September, 1906, and ending 31st of August, 1907:

Commandant

Brigadier General Charles B. Hall, United States Army.

I assumed command of the Service Schools 20th of August, 1906, as Colonel, 18th Infantry, relieving Major General J. Franklin Bell (then Brigadier General, United States Army), having been assigned to duty as Commandant per paragraph 2, Special Orders No. 196, War Department, series of 1906, and was appointed Brigadier General, United States Army, 11th of April, 1907.

Personal Staff

1st Lieutenant Roger S. Fitch, 1st Cavalry.

2d Lieutenant William Lay Patterson, 18th Infantry.

Anl Rpt 2

Lieutenant Fitch was directed to report to me for duty as Aide-de-Camp per paragraph 16, Special Orders No. 106, War Department, 6th of May, 1907, and was announced as such per Infantry and Cavalry School Orders No. 14, 21st of May, 1907.

Lieutenant Patterson was directed to report to me for duty as Aide-de-Camp per paragraph 8, Special Orders No. 93, War Department, current series, and was announced as such per Infantry and Cavalry School Orders No. 10, 24th of April, 1907.

Assistant Commandants

Major Lansing H. Beach, Corps of Engineers.

Major D. H. Boughton, 11th Cavalry.

Major George O. Squier, Signal Corps.

Major Charles McK. Saltzman, Signal Corps.

Major Beach, Instructor, Department of Engineering, being the senior instructor at the Service Schools, was announced as Assistant Commandant per Infantry and Cavalry School Orders No. 50, 12th of November, 1906. On 13th of August, 1907, Major Beach was relieved from duty at schools and college by the War Department.

Major Boughton, Assistant Commandant from 15th of August, 1907.

Major Squier, Assistant Commandant, Signal School, from 15th of August, 1905, to 28th of June, 1907, when he was relieved by order of the War Department and assigned to duty in office of the Chief Signal Officer of the Army.

Major Saltzman, Assistant Commandant, Signal School, from 15th of August, 1907.

Secretary and Disbursing Officer

Captain Milton F. Davis, 10th Cavalry.

Captain E. E. Booth, 7th Cavalry.

Captain Davis, from 1st of September, 1906, to 15th of August, 1907, when he was relieved by Captain Booth, appointed Secretary and Disbursing Officer.

Captain Davis was absent in Washington on duty in the office of the Chief of Staff from 6th of April 1907, to 2d of May, 1907, and with the Chief of Staff on an inspection trip from 8th of July, 1907, to 14th of August, 1907.

Captain Booth performed the duty of Secretary, etc., during the absence of Captain Davis. (No orders, issued).

Captain Booth, from 15th of August, 1907.

Librarian

Lieutenant-Colonel Ezra B. Fuller, U. S. Army, retired.

Lieutenant-Colonel Fuller, detailed per paragraph, 23, Special Orders No. 168, War Department, 18th of July, 1906, and reported 15th of August, 1906.

In submitting this report as Commandant, I desire to express my appreciation of the untiring interest shown, the hard and ceaseless work performed, the good feeling and commendable conduct developed, and the flattering results obtained by the faculty and student officers during the past year.

The term just closed has not been without its dark days, its set-backs, and its uncertainties. At the very beginning we were overshadowed by a war cloud so great as to threaten the very existence of the schools for the time being. This cloud fortunately passed over, but not until it had robbed us of nineteen of our members, namely:

Captain C. E. Dentler, 11th Infantry;
Captain James A. Ryan, 15th Cavalry;
Captain James Ronayne, 28th Infantry;
Captain Frank L. Wells, 11th Infantry;
Captain Jens Bugge, 28th Infantry;
Captain Howard R. Hickok, 15th Cavalry;
Captain Charles F. Crain, 27th Infantry;
Captain C. F. Baltzell, 6th Infantry;
Captain Seaborn G. Chiles, 11th Infantry;
Captain Le R. Eltinge, 15th Cavalry;
Captain William Mitchell, Signal Corps;
Captain Irving J. Carr, 28th Infantry;
Lieutenant Theodore B. Taylor 11th Cavalry;

Lieutenant J. A. Brockman, 17th Infantry;
Lieutenant Creed F. Cox, 11th Cavalry;
Lieutenant A. L. Singleton, 5th Infantry;
Lieutenant B. D. Foulois, 24th Infantry.
Lieutenant Robert P. Updyke, 17th Infantry;
Lieutenant Noble J. Wiley, 5th Infantry;

who were ordered away 30th of September, 1906, per orders War Department, to participate in the active service required of them in Cuba.

This was disheartening to all of us, but was especially a disappointment to those who came here enthusiastic to take the course of study, congratulating themselves upon their good fortune, and filled with the hope of seeing their names announced in orders as graduates of this, one of the greatest, and now recognized as the most desirable and most finished institution for military education in this or any other country; an institution which has been brought to its present high standard of excellence, of honorable and world-wide reputation, by the untiring interest and efforts of its former commandant, Major General J. Franklin Bell, Chief of Staff; an institution which confers upon its graduates honor and preferment among military men.

I do not need to defend this last statement for I point with pride, which I feel is pardonable, to the work that has been done by its graduates on every field, and in every land where our army has seen service; and to the complimentary reports of their work, made by the commanding generals of the maneuver camps at Fort Riley, Mt. Gretna, and at other places during the summer of 1906.

As umpires, observers and instructors they have attracted attention by the excellence of their work and by their knowledge of the modern requirements of our profession.

Since the graduation exercises 29th June, last, many of our graduates of this year were detailed by

the War Department to attend the maneuvers connected with the joint army and militia coast defense exercises, and the national guard encampments of different states, during the months of July and August.

Although many of the officers so detailed had reason to expect they would be granted leaves of absence for this period instead of being ordered to summer camps, they very enthusiastically entered upon the discharge of their duties and the flattering letters received from commanding officers of troops Governors of States, and other state officials commenting upon their work, have been particularly gratifying to me and to all of us, because these letters go to show the dawn of a new era in public opinion among the prominent men of the country and the national guard as to the ability of the army for all the duties it may be called upon to perform, and to the usefulness and willingness of our graduates to impart instruction to state troops.

I am able to state from personal knowledge that the entire army, the national guards of all the states, and many prominent men of educational institutions are becoming more and more interested in these schools, and taking a just pride in the success attending us; and all, who under the law can do so, are seeking to enter our classes and participate in our great military advantages. This was not so a few years ago when in the beginning of this institution a detail here was not sought after, was considered not necessary and something to be avoided. As the years have passed improvements in the methods pursued and the curriculum adopted here have steadily improved, until today we feel we are standing almost on the pinnacle of success in imparting military education in all its branches.

A most gratifying success has attended the work in each of the departments, namely:

Department of Military Art;
Department of Engineering;
Department of Languages;
Department of Law;
Department of Care of Troops;
The Army Signal School;
The Army Staff College;

and this satisfactory condition is due to the unceasing labor and attention of all the instructors and assistant instructors, as well as the interest shown by student officers.

The reputation of any institution of learning is very largely made by its students, and no matter how carefully its curriculum may be prepared or how perfect in theory may be its system of imparting instruction, if it does not meet with the approval of the student body it is doomed to failure. Every student must feel that he has *personally* received valuable and lasting instruction and that his college is capable of imparting it. In this respect this institution has been signally successful and every student officer knows he has received here invaluable instruction and he is both willing and anxious to so testify to his brother officers. This goes to show that in the future, as in the past, the greatest care and consideration must be given the proper selection of instructors and assistant instructors and that none but competent, careful, moral and tactful officers be detailed for the positions; and the same holds good in the selection of student officers.

After repeated experiments in the manner of conducting recitations, arranging the members of the Infantry and Cavalry School for class standing, etc., I believe that we have now arrived at a system of instruction and marking as nearly perfect and satisfac-

tory as it can be made. The only question upon which we of the faculty and student body are not united in opinion, is that of the marking system. But the great majority favor the system of marking as now adopted; that is, no marking on daily recitations, but marking on examinations which are held frequently. This system seems to give satisfaction even to those who are not fully in favor of it but who are not able to suggest a better plan.

The former commandant, General Bell, has devoted much time to the study of this subject, as will be seen by examining his report for 1906-07; he has, since he became Chief of Staff, called for an expression of opinion in this matter from members of this year's Staff Class and also from former graduates of these schools and has issued an appendix to his report in which he has quoted and comments fully upon the letters he has received.

I have watched this year with the most intense interest the result of our marking system and have endeavored to obtain the views on this subject of different student officers, and the conclusion is that I am satisfied with it and I would not willingly have any change made. The posting of marks as soon as announced, for the information of students, has had a very quieting and satisfactory influence. It is proper, in my opinion, that students *should* know promptly just how they stand. They are able then to correct errors, should any be found, and also to govern their future studies accordingly. If posting marks is delayed or not announced but once or twice a year, you will never be able to satisfy the student who unexpectedly finds himself low in standing, that gross injustice has not been done him and he will never recover from the shock.

Class standing is necessary, and without it this institution would deteriorate until before many years

it would die a natural death. Years ago, before I came to Fort Leavenworth and consequently before I knew much about this school, I had, in common with many who then knew as little as I did of the matter, the idea that it was a great mistake to mark students. Without class marking every officer who was not taken from the Infantry and Cavalry class for the Staff class would have grounds to feel, and probably would always feel that he was a victim of great favoritism. For the reason that "to err is human" can we blame him? I am proud to state that I have never known of a case, -so strong is the belief by students in the fairness and justness of instructors, — where an officer has felt he did not receive as high a mark as he was entitled to. Class marking causes "boning for tenths" and active competition it is true, facts which have been adversely commented upon by some outside of the school, but this is a healthy form of rivalry and this competition for first honors is not injurious to discipline and that good feeling which should always exist to obtain the best results. Its cause is *ambition*, that has developed among students in every school, and in every College, and in every institution of learning since the beginning of history.. Its result here has been to develop the very best that is honorable in the heart of man, and he who is one, or five or ten, in class standing receives the sincere and hearty congratulations of his comrades who are spurred to greater efforts and who realize that victory to the deserving reflects credit on all.

In this connection I desire to submit the following extract from a report of Colonel F. K. Ward, 7th Cavalry, Special Inspector, who, under orders from the War Department, made a critical inspection of the Schools and College on June 21-24, last:

"The spirit of competition among the student officers runs high, perhaps in some cases too high. The system of

marking is principally effective in developing this struggle for class standing. Much has been said on this subject. The matter is one difficult to handle and may best be left for development or improvement to those most experienced in dealing with it. There must be marking of some kind or the work done will become perfunctory, spiritless and eventually valueless. ”

Now that the separation of the light (or field) artillery from the coast artillery has been effected, it is hoped that a proper proportion of officers of the field artillery will be annually detailed for the Infantry and Cavalry School, as it is now called, and instruction in field artillery will form a part of our curriculum.

It is doubted if it is advisable, or necessary, to detail officers of the coast artillery to attend the Service Schools here, but there can be no objection to the detail in proper numbers of those who make application for same.

The policy that has been announced and which goes into effect with the incoming class, of detailing young ranking majors and old ranking captains as student officers here, is one that is bound to give general satisfaction, and will result in immense benefit not only to the officer detailed but to the army at large. The good effect of this new system will be apparent just as soon as the next class is graduated, if the moral influence is not sooner realized. The detailing of lieutenants for instruction here has been, in my opinion, a mistake, not for the reason that the officers detailed did not receive immense personal benefit and professional knowledge, but because after graduation they were never, or very rarely, able to put this newly acquired information into practice either in their companies or regiments. Too often a young lieutenant, returning to his regiment from this institution after graduation and wishing to do things as he had been taught, has been suppressed and discouraged by his superior officers who had little know-

ledge of, or sympathy with, these schools. A lieutenant, unless allowed, can have no influence in teaching new drills, new practices, or new maneuvers to his company or troop, and certainly none to higher units, while captains and majors can, and will, and even take pride in so teaching.

In the new War Department order which, I understand, is about to be issued for the regulation and government of the Schools and College here, the name "Infantry and Cavalry School" will be changed to "The School of the Line", a much more descriptive, elastic, and fitting designation in my opinion, for it will then admit, as it should, of instructing a proper proportion of Engineer, Signal Corps, Infantry,, Field Artillery, and Cavalry officers. The Signal Corps, although now a branch of the staff, is so closely connected with the line for tactical purposes and duties, it can properly be considered in this connection as belonging to it.

The work on the subject of Minor Tactics, including Security and Information,, which has been in the course of preparation by the Department of Military Art during the past year, and to which reference was made in the last annual report by the former Commandant, has progressed most satisfactorily. The map to be used with this book has been completed and several studies have been prepared and used in the Department , It is proposed the work shall contain some eighteen or twenty studies on Minor Tactics in addition to problems for solution. The work is after the style of Griepenkerl and adapted to American units.

The Army Signal **School**

The subject of military signaling in all its branches has been brought to such great prominence during the past few years that it has occupied the

minds of all thinking military men and stimulated the inventive genius of our experts along these lines.

The vast possibilities opened by a well equipped and competent signal corps, the satisfactory results already obtained, the celerity of transmitting orders on the battle field, and the immense number of miles of wire required for this purpose even in a great battle,* makes this branch of our service of the utmost importance, calls for the careful consideration of those in authority as to its requirements and favorable action by Congress in furnishing men and money to carry out its work.

It is believed that great advance has been made in the application of military lines of information to the Art of War by the faculty and student officers of the United States Signal School during the past school year.

The facilities of this school have been extensively used to cooperate with the Department of Military Art of the Infantry and Cavalry School and Army Staff College in the execution of practical terrain exercises and maneuvers of the combined schools.

This constructive work, it is believed, will prove of the greatest benefit to the military service and has already resulted in radical improvements in the methods of instruction in the field exercises carried out by the service schools. There has been available but one small company of signal troops for these exercises, and experience has shown that two companies of approximately 100 men each are absolutely required for the purposes of the schools at the earliest moment. These troops should form part of the personnel of the schools, and the transfer of one company

* Colonel Kaldane in his report on the Japanese army states: "At the battle of Moukden the Third army on the left was linked with headquarters and with the army next to it by telephone, and the quantity of wire laid *during that battle* amounted to *no less than 155* miles. This will give some idea of the trouble taken to maintain lines of information between headquarters and the units engaged, and between these units themselves."

(A) from the post of Fort Leavenworth to the schools has just been ordered by the War Department.

Detailed plans and specifications for a suitable double barracks for two companies, with a storehouse, balloon loft, stable and vehicle shed, have already been submitted to the War Department, these buildings to be located in the college section of the post, and there is good reason for believing that some of these buildings will be erected at once.

Very careful calculations have been made during the past year looking to a conservative estimate of the proper proportion of signal troops to efficiently serve the line of the army in the field. Opinions from all branches of the service here have been sought and considered, and actual field tests made in the field exercises to determine as far as possible the minimum number of men and officers required for this indispensable service.

The concensus of opinion at present is that a minimum of two and one-half per cent of the strength of the command is absolutely necessary in order to attempt this service. This percentage shows that for each division of an army there should be provided a battalion of three companies of signal troops of approximately 100 men each. Any less number than this means a serious curtailing of this service,

Since these highly trained troops for tactical lines of information in war cannot be obtained after the declaration of war, it is necessary that the full complement of these troops for our authorized army of 100,000 men be provided and instructed in time of peace. These troops should be organized into 24 companies of 100 men each, and these companies into battalions of 3 companies each—the battalion being the division unit. It will be noted that this would provide only 2 4-10 per cent of the authorized strength of the army.

Under letter-order from the Secretary of War dated Adjutant General's office, May 13, 1907, Colonel F. K. Ward, 7th Cavalry, Special Inspector, made, an inspection of the Infantry and Cavalry School, Signal School and Army Staff College and extracts from his report are embodied in my reports on the different schools.

On the schools in general he reports as follows:

“Inquiries regarding the various departments of the school disclosed nothing for adverse criticism. The departments are well managed, and instructors competent and efficient, and the work is well done by the student officers as well as by the instructors?”

It is necessary that a rigid and careful physical examination be made of all officers being sent here as students and that none be detailed unless physically sound. Six officers of the class 1906-07 were physically disqualified from taking the full course of instruction, four by reason of being unable to ride, one on account of bad eyes, and one for deafness; ‘and one officer who reported this month with the class of 1907-08 has already been pronounced physically unable to take the course on account of his eyes. This officer states he was examined at his post under the requirements of circular letter 23 of January, 1907, from Military Secretary's office to commanding officers of regiments.

The recommendations for improvements made by the former commandant in his last annual report, and also those made by the instructors, have been carefully considered by me and carried out as fully as possible.

Very respectfully,
CHARLES B. HALL,
Brigadier General, U. S. Army,
Commandant.

U. S. INFANTRY AND CAVALRY SCHOOL, SIGNAL
SCHOOL, AND ARMY STAFF COLLEGE

Fort Leavenworth, Kansas, July 5, 1907.

*The Commandant,
Service Schools and Staff College.*

Sir:

I have the honor to submit the following report pertaining to my office and duties as secretary of the Fort Leavenworth Service Schools for the fiscal year ending June 30, 1907:

Disbursements

Pay enlisted men, extra duty.	\$3310.70
Department of Engineering	616.66
Library (books and periodicals).	742.65
Furniture (office and library).	812.38
Stationery.	316.24
Department of Languages (phonographs, etc.).	387.92
Bookbinding.	268.25
The Signal School.	257.30
Rent of telephones	55.80
Express, freight and telephone charges, etc.	112.45
Printing office.	2119.65
	\$9000.00

Employees

The service of the secretary's office and its appendages has been as follows:

- Three civilian clerks.
- One sergeant of engineers, in charge of instruments.
- Two sergeants of engineers, draftsmen.
- One sergeant of engineers, bookbinder.
- Two enlisted men, assistant bookbinders.
- Four sergeants of engineers, printers.
- Five enlisted men, printers.
- One enlisted man, repairer of instruments.
- Two enlisted men, janitors.

M. F. DAVIS,
Captain, 10th Cavalry,
Secretary.

U. S. INFANTRY AND CAVALRY SCHOOL, SIGNAL
SCHOOL, AND ARMY STAFF COLLEGE

Fort Leavenworth, Kansas, August, 1 1907.

To the Secretary,

Service Schools and Staff College.

Sir:

I have the honor to respectfully submit the following regarding the library of the Service Schools and Staff College for the fiscal year 1907:

I reported for duty as librarian on August 15, 1906 under the provisions of Special Orders No. 168, War Department, July 18, 1906.

Prior to my assuming this duty, the library had been in charge of the secretary of the Schools who, notwithstanding his many other duties, had directed the two library assistants in their work arranging, caring for, cataloging and issuing the books.

A card catalog, using the decimal system, and following the "Plan for the Classification of Military+ Books" by Dr. E. S. Holden, Librarian of the U. S. Military Academy, had been commenced and, considering that neither of the assistants had received any previous instruction in library duties, their work had been remarkably well done.

These assistants have been handicapped in their work by the fact that the two previous civilian librarians had done their work in a careless or indifferent manner and their mistakes of omission have been continually coming to the surface and interfering with the routine work of the library. Many books had never been accessioned, others wrongly classified and shelved and still others found without a mark or stamp to indicate their ownership.

A classified catalog, and an author and a subject catalog had been started and has been continued throughout the year, as time permitted, one of the assistants having been on other duty frequently.

These catalogs, except for public documents, are practically up to date, although in some instances more complete cross references should be made in the subject catalog.

Owing to the lack of room it has been found necessary to crowd the shelves, putting books behind others and also to pile them on the floor, while there are a great many public documents stacked in the basement that have never been accessioned.

On account of the contemplated changes in the Signal School laboratory in the basement under the library, it was necessary to move the books temporarily to other rooms and as this necessity required that the wooden shelving, built in place, be torn out and more or less cut up, authority was obtained to purchase modern steel book-stacks for use when the library should be moved back.

While under this authority sufficient shelving will be purchased for our present needs, there is not sufficient room to set them all up in the old room to accommodate all the books now on hand.

It will be necessary to assign other rooms for library use when the remodeling of Sherman Hall is completed in order to provide the additional space required to properly care for the books now on hand and to furnish sufficient room for the desks, reading tables, magazine and periodical racks, and work tables for the student officers.

It is almost impossible for the student officers to pursue research work in the main library reading room and a separate room is needed for that purpose.

To afford this much needed additional space, it is suggested that the two rooms adjoining the library,

previously used as recitation rooms, be assigned for the use of the library.

List of Accessions for Year Ending June 30, 1907

Government Documents, School and Department Publications	447
Translations from Military Information Division	445
By Purchase	320
By Presentation	95
Total	<hr/> 1307

List of Donors

Beach, Major Lansing H., Corps of Engineers	2 vols.
Boughtoh, Major Daniel H., 11th Cavalry	3 pam.
Carter, Major and Surgeon E. C. U. 'S. A.	1 "
Corliss, Brigadier-General A. W., U. S. A., retired ..	14 vols.
Fuller, Lieut.-Colonel Ezra B., U. S. A., retired	2 "
Hall, Brigadier-General Charles B., U. S. A.	8 "
Hawkins, General J. P., U. S. A., retired	3 "
Heintzelman, Captain Stuart, 6th Cavalry	4 "
Jarvis, Lieut.-Col. N. S., N. G., N. Y.	1 pam.
Kansas State Historical Society	1 "
League of Municipalities of Chicago .	2 "
Palmer, Mrs. Bruce	2 vols.
Shindler, Henry	26 "
Superintendent of Immigration, Canada	1 pam.
Swift, Major Eben, 12th Cavalry	2 "
U. S. Cavalry Journal	3 "
U. S. Cavalry Journal	2 vole.
Wilson, General James Harrison	1 "
Wisconsin Library Commission	3 "

M. O. Loyal Legion Donations

Iowa Commandery of the Loyal Legion, U. S.	1 vols.
Kansas Commandery of the Loyal Legion, U. S.	2 "
Massachusetts Commandery of the Loyal Legion U. S.	2 "
Michigan Commandery of the Loyal Legion ..	2 "
u. s.	2 "
Minnesota Commandery of the Loyal Legion	6 "
u. s.	1 "
Missouri Commandery of the Loyal Legion U. S. ...	1 "
Total	<hr/> 95

In addition to the above donations to the library, a large collection of several hundred books has been received from Mrs. W. R. King and her daughter, Mrs. Robert McGregor, but too late to be accessioned and included in the report of this year.

These books were the private libraries of the late General W. R. King, Corps of Engineers, and the late Captain 'Robert McGregor, Corps of Engineers, and have been donated to the library by their widows.

In conclusion, I invite attention to the fact there is no more important and urgent need at this institution than that of a new library building.

This is required, not only to afford the proper room for housing and caring for the books, maps, etc., to furnish ample office and study rooms, but more particularly to get this valuable collection of books, etc., the indispensable working tools of the schools, into a fire proof structure.

Very respectfully,

EZRA B. FULLER,

Lieut.-Col., U. S. Army, retired,

Librarian.

U. S. Infantry & Cavalry School

REPORT OF COMMANDANT

U. S. INFANTRY AND CAVALRY SCHOOL

Fort Leavenworth, Kansas, 31st of August, 1907.

The Chief of Staff,

United States Army,

Washington, D. C.

Sir:

I have the honor to submit the following report on the Infantry and Cavalry School for the year commencing 1st of September, 1906, and ending 31st of August, 1907:

Commandant

Brigadier General Charles B. Hall, United States Army.

I assumed command of the Service Schools 20th of August, 1906, as Colonel, 18th Infantry, relieving Major General J. Franklin Bell (then Brigadier General, United States Army), having been assigned to duty as Commandant per paragraph 2, Special Orders No. 196, War Department, series of 1906, and was appointed Brigadier General, United States Army, 11th of April, 1907.

Personal Staff

1st Lieutenant Roger S. Fitch, 1st Cavalry.

2d Lieutenant William Lay Patterson, 18th Infantry.

Lieutenant Fitch was directed to report to me for duty as Aide-de-Camp per paragraph 16, Special Orders No. 106, War Department, 6th of May, 1907,

and was announced as such per Infantry and Cavalry School Orders No. 14, 21st of May, 1907.

Lieutenant Patterson, was directed to report to me for duty as Aide-de-Camp per paragraph 8, Special Orders No. 93, War Department, current series, and was announced as such per Infantry and Cavalry School Orders No. 10, 24th of April, 1907.

Assistant Commandants

Major Lansing H. Beach, Corps of Engineers.

Major D. H. Boughton, 11th Cavalry.

Major Beach, Instructor, Department of Engineering, being the senior instructor at the Service Schools, was announced as assistant commandant per Infantry and Cavalry School Orders No. 50, 12th of November, 1906. On 13th of August, 1907, Major Beach was relieved from duty at the Schools and College by the War Department.

Major Boughton, Assistant Commandant from 15th of August, 1907.

Secretary and Disbursing Officers

Captain Milton F. Davis, 10th Cavalry.

Captain E. E. Booth, 7th Cavalry.

Captain Davis, from 1st of September, 1906, to 15th of August, 1907, when he was relieved by Captain Booth, appointed Secretary and Disbursing Officer.

Captain Davis was absent in Washington on duty in the office of the Chief of Staff from 6th of April, 1907, to 2d of May, 1907, and with the Chief of Staff on an inspection trip from 8th of July, 1907, to 14th of August, 1907.

Captain Booth performed the duty of Secretary, etc., during the absence of Captain Davis. (No orders, issued).

Captain Booth, from 15th of August, 1907.

Librarian

Lieutenant-Colonel Ezra B. Fuller, U. S. Army, retired.

Lieutenant-Colonel Fuller was detailed per paragraph 23, Special Orders No. 168, War Department, 18th of July, 1906, and reported 15th of August, 1906.

Department of Military Art

Major Daniel H. Boughton, 11th Cavalry, Instructor from 3d of January, 1906, to 15th of August, 1907, when appointed Assistant Commandant.

Major John F. Morrison, General Staff, Instructor from 15th of August, 1907.

Captain Matthew F. Steele, 6th Cavalry, Assistant Instructor.

Captain Farrand Sayre, 8th Cavalry, Assistant Instructor.

Captain Charles Crawford, 20th Infantry, Assistant Instructor.

Captain John P. Ryan, 6th Cavalry, Assistant Instructor.

Captain H. A. White, 11th Cavalry, assistant instructor in Equitation, in addition to his duties as assistant instructor Department of Law.

Captain Oliver L. Spaulding, jr., 5th Field Artillery, Assistant Instructor.

Captain Campbell King, 1st Infantry, Assistant Instructor.

Captain Ewing E. Booth, 7th Cavalry, Assistant Instructor from 1st of September, 1906, to 15th of August, 1907, when appointed Secretary of the School.

Lieutenant Roger S. Fitch, 1st Cavalry, A. D. C., Assistant Instructor, from 21st of August, 1907.

Veterinarian Sydney L. Hunter, 2d Field Artillery, Assistant Instructor.

Major Morrison was detailed for duty at this school and reported 6th of September, 1906, immediately after his return from service as military attache with the Japanese army during the Russo-Japanese War, and his observations and deductions there have been of great help to him as an instructor in military art and also of much value and interest to the students.

Captains Sayre and King, graduates of the Staff College, Class 1905-06, were retained as assistant instructors under provisions of paragraph 84, General Orders No. 145, War Department, series 1906.

Lieutenant Fitch was, in addition to his other duties as Aide to the Commandant, detailed as assistant instructor in this department August 21, 1907.

Under the provisions of paragraph 84, General

Orders No. 145, War Department, series 1906, Captains Matthew E. Hanna, 3d Cavalry, Arthur L. Conger, 29th Infantry, and Duncan K. Major, jr., 27th Infantry, graduates of the Staff College, Class 1906-07, have been retained as assistant instructors in this department to replace Captains Crawford and Ryan (J. P.), who have been relieved August 31, 1907, upon expiration of detail, and ordered to their regiments.

Major Charles H. Barth, 12th Infantry, was on duty in this department from May 8, 1907, to July 1, 1907, engaged in completing his work on Applied Tactics.

Department of Engineering

Major Lansing H. Beach, Corps of Engineers, Instructor, from August 19, 1905, to August 15, 1907, when relieved per orders War Department.

Captain E. T. Cole, 6th Infantry, Assistant Instructor to August 15, 1907, when appointed Instructor.

Captain E. R. Stuart, Corps of Engineers, Assistant Instructor.

Captain H. B. Ferguson, Corps of Engineers, Assistant Instructor.

Captain Stuart was relieved from duty at this School 16th of July, 1907, by expiration of detail and ordered to proceed to station designated by War Department.

Captain Ferguson was relieved from duty at this School 15th of August, 1907, by expiration of detail and ordered to proceed to station designated by War Department.

Captain H. E. Eames, 10th Infantry, and 1st Lieutenant Clarence O. Sherrill, Corps of Engineers, graduates of the Staff Class 1906-07, have been retained as assistant instructors in this department under the provisions of paragraph 84, General Orders No. 145, War Department, series of 1906, to replace Captains Stuart and Ferguson, relieved.

Captain J. A. Woodruff, Corps of Engineers, de-

tailed to duty at this institution per paragraph 9, Special Orders 113, War Department, dated 14th of May, 1907, has been assigned to duty as assistant instructor in this department per. paragraph 2, Orders No. 35, 15th of August, 1907.

The work performed in this department has been most satisfactory. The art of rapid field sketching has been brought to a high state of perfection by Captains Cole and Stuart and its military value is fully recognized.

In this connection I desire to call attention to the following extract from the report of Colonel Ward, before referred to:

“An explanation the same evening and at the same meeting, by Captain E. R. Stuart, Corps of Engineers, of an improved method devised by him for rapidly surveying and mapping, for military purposes, a section of country.

“The explanation by Captain Stuart of the rapid mapping was especially interesting because the method was entirely new. The results accomplished are astonishing. A contour map on a scale suitable for battle purposes was shown, of a section including about thirty square miles. The party had started out in the morning, divided up the section to be covered, made the surveys, joined the sketches, and when they returned to camp before dark they had a blue print contour map of the whole section, made on the ground before starting to return. And it was surprising how well this map, so quickly made, joined with a map of the surrounding country made from regular surveys.”

Photographic reproduction of maps and lantern slides for use in lectures in the various departments has occupied much of the time of Captain Cole who has made some 1600 slides this year. He has also taught photography, to a necessary extent, in the Signal School.

Department of Languages

Captain Peter E. Traub, 13th Cavalary, Instructor from 12th of December, 1904, to 25th of July, 1907, when he was relieved, having been detailed by the War Department as associate professor of Modern Languages at West Point Military Academy.

Captain Arthur Thayer, 3d Cavalry, Instructor from 15th of August, 1907, detailed for duty per paragraph 1, Orders No. 35, 15th of August, 1907.

Captain J. A. Moss., 24th Infantry, Assistant Instructor, ordered to duty at Service Schools and College per paragraph 4, Special Orders No. 196, War Department, 20th of August, 1906.

Captain F. Le J. Parker, 15th Cavalry, Assistant Instructor.

Captain O. L. Spaulding, jr., 5th Field Artillery, Assistant Instructor.

Captain Parker has been relieved from duty as assistant instructor in this Department per Orders No. 48, Schools and College, 30th of August 1907, to enable him to attend the Infantry and Cavalry School as a student during the coming year.

Much excellent work has been done in this department, and great interest manifested by the students as shown by the wonderful progress made. The use of the phonograph as a means of education has been most successful. We have been able to furnish one phonograph to every two officers, and also all the cylinders necessary in Spanish, French and German.

I invite attention to the following quotation from the inspection report of Colonel Ward, Special Inspector, before referred to:

“I was especially impressed with the excellence of the method followed in the language department. Captain Traub, who is at the head of this department, deserves great credit for it. The phonograph is used as an auxiliary and, the system developed looks to the acquirement of the best speaking knowledge of the language possible in the time allotted to that study.

Department of Law

Captain H. O. Williams, 5th Infantry, Instructor, from 31st of August, 1903, to 31st of August, 1907.

Captain Herbert A. White, 11th Cavalry, Instructor, from 1st of September, 1907.

1st Lieutenant E. A. Xreger, 28th Infantry, Assistant Instructor.

Captain Tenney Ross, 7th Infantry, Instructor since 15th of August, 1907, detailed for duty at Schools and College per paragraph 21, Special Orders No. 156, War Department, 15th of July, 1907.

Captain C. F. Bates, 25th Infantry, relieved from duty at Schools and College at his own request, per paragraph 1, Special Orders No. 196, War Department, dated 20th of August, 1906.

Captain Williams has been relieved from duty

under provisions of paragraph 84, General Orders No. 145, War Department, 31st of August, 1906, on account 'of expiration of detail.

Lieutenant Kreger has been on duty in Cuba since 3d of March, 1907, as assistant to Colonel E. H. Crowder, General Staff, Department of State and Justice, per telegraphic orders dated 28th of February, 1907. He will return to duty here about the first of October next.

The course in this department has been most successful and instructive. New and interesting points of law as they have come up in the higher civil or military courts were taken up and carefully studied.

Department of **Care** of Troops

Major Edward C. Carter, Medical Department, Instructor.

Captain Jere B. Clayton, Medical Department, Assistant Instructor.

Captain Roderic P. O'Conner, Medical Department, Assistant Instructor.

Captain Horace D. Bloombergh, Medical Department, Assistant Instructor.

Upon the recommendation of the Academic Board, approved by the Commandant, this department was, on the 27th of February, 1907, transferred to the Staff College, where the course of instruction will hereafter be taught by lecturers and practical exercises.

The "Department Care of Troops" does not in this report appear under the head of "Staff College" for the reason that at the time of the transfer instruction in the department had been finished for this year's course.

Student **Officers**

Allison, James B., Captain, 7th Infantry.

Ball, Frank W., 1st Lieutenant, 25th Infantry.

Beebe, Royden E., 2d Lieutenant, 29th Infantry.

Birnie, Upton, jr., 1st Lieutenant, Artillery Corps.

Brabson, Fay W., 2d Lieutenant, 12th Infantry.

Bristol, Matt C., 2d Lieutenant, 13th Cavalry.
 *Brockman, John A., 1st Lieutenant, 17th Infantry.
 *Bugge, Jens, Captain, 28th Infantry.
 Büttgenbach, Walter J., 2d Lieutenant, 4th Infantry.
 Cass, Lewis W., 1st Lieutenant, 12th Cavalry.
 Collins, Robert L., 2d Lieutenant, 2d Cavalry.
 Cowan, Arthur S., 1st Lieutenant, 14th Infantry.
 *Crain, Charles F., Captain, 27th Infantry.
 Currie, Dennis H., 1st Lieutenant, Artillery Corps.
 Dawson, Frank W., 2d Lieutenant, 29th Infantry.
 *Dentler, Clarence E., Captain, 11th Infantry.
 Dewitt, John L., Captain, 9th Infantry.
 Dougherty, Clarence A., 2d Lieutenant, 13th Cavalry.
 *Eltinge, LeRoy, Captain, 15th Cavalry.
 Fisher, Ronald E., 2d Lieutenant, 14th Cavalry.
 Fuqua, Stephen O., 1st Lieutenant, 23d Infantry.
 Goodwin, Robert D., 2d Lieutenant, 4th Infantry.
 Henkes, David A., 1st Lieutenant, 22d Infantry.
 Hennessey, Peter J., 2d Lieutenant, 5th Cavalry.
 Herron, Charles D., 1st Lieutenant, 18th Infantry.
 Hodges, Harry L., 2d Lieutenant, 1st Cavalry.
 Hurst, Paul, 1st Lieutenant, 3d Infantry.
 Jackson, Rhees, 1st Lieutenant, 12th Infantry.
 Kerth, Monroe C?., Captain, 23d Infantry.
 Landa, Jorge, Lieutenant, Mexican Infantry.
 Locke, Morris E., 1st Lieutenant, Artillery Corps.
 Marshall, George C., jr., 2d Lieutenant, 30th Infantry.
 -Minus, Josiah C., 1st Lieutenant, 10th Infantry.
 Monter, Luis, Lieutenant, Mexican Infantry.
 Morey, Lewis, S., 1st Lieutenant, 12th Cavalry.
 Moss, J. Alfred, 1st Lieutenant, 22d Infantry.
 Nelly, Henry M., 2d Lieutenant, 20th Infantry.
 Olson, Hans O., 2d Lieutenant, 18th Infantry.
 Ovenshine, Alexander T., Captain, 7th Infantry.
 Palmer, Bruce, 1st Lieutenant, 10th Cavalry.
 Raymond, John C., Captain, 2d Cavalry.
 Rhodes, Charles D., Captain, 6th Cavalry.
 *Ronayne, James, Captain, 28th Infantry.
 Sharp, Bernard, 1st Lieutenant, 3d Infantry.
 *Singleton, Asa L., 1st Lieutenant, 5th Infantry.
 Stodter, Charles E., Captain, 9th Cavalry.
 *Taylor, Theodore B., 1st Lieutenant, 11th Cavalry.
 *Updyke, Robert P., 2d Lieutenant, 17th Infantry.
 Ware, James E., 2d Lieutenant, 14th Infantry.
 *Wells, Frank L., Captain, 11th Infantry.
 West, Robert J., 2d Lieutenant, 26th Infantry.
 Weyrauch, Paul H., 2d Lieutenant, 14th Cavalry.
 *Wiley, Noble J., 2d Lieutenant, 5th Infantry.
 Winter, John G., jr., 2d Lieutenant, 6th Cavalry.

An asterisk opposite the names of officers indicates those who were ordered to Cuba with their regiments 30th of September, 1906. These officers were not considered in class standing.

2d Lieutenant Walter J. Büttgenbach, 4th Infantry, of above list, was relieved from duty at School, per paragraph 19, Special Orders No. 293, War Department, dated 13th of December, 1906, and left College on sick leave, 19th of December, 1906.

1st Lieutenant Josiah C. Minus, 10th Infantry, of above list was constructively on sick 'report suffering from amoebic dysentery from date he reported for duty as student officer, Infantry and Cavalry School, until 1st of January, 1907, when he left en route to General Hospital, Washington Barracks, Washington D. C., for treatment, in obedience of paragraph 1, Special Orders No. 304, War Department, dated 27th of December, 1906.

2d Lieutenant Paul H. Weyrauch, 14th Cavalry, of above list, was relieved from duty at School per paragraph 2, Special Orders No. 272, War Department, dated 16th of November, 1906. Left School en route to join his station, 21st of November, 1906.

The following-named officers of the foregoing list having attained the highest standing and having been recommended by the Academic Board were announced as

Honor Graduates

Marshall, G. C., jr., 2d Lieutenant, 30th Infantry.
Kerth, M. C., Captain, 23d Infantry.
Rhodes, C. D., Captain, 6th Cavalry.
Beebe, R. E., 2d Lieutenant, 29th Infantry.
Hodges, H. L., 2d Lieutenant, 1st Cavalry.

The following-named having attained an average of not less then 95 per cent were announced as

Distinguished Graduates

Locke, M. E. 1st Lieutenant, 1st Field Artillery.
Currie, D. H., 1st Lieutenant, 3d Field Artillery.
Stodter, C. E., Captain, 9th Cavalry.
Morey, L. S., 1st Lieutenant, 12th Cavalry.
Birnie, U., jr., Captain, 6th Field Artillery.

The remaining members of the class present at

end of term having attained not less than 75 per cent in all the tests and examinations were graduated.

From 17th of June, 1887, to 21st of June, 1907, the members of this school were in camp near Beverly, Missouri, under command of Major Boughton, Instructor, engaged in practical field exercises. This encampment was somewhat of an innovation on old customs but the results were so satisfactory, not only from a physical standpoint as giving a much needed outing, to the students, but also in imparting military instruction, that I strongly recommend its adoption each year.

Attention is invited to the following extract from the inspection report of Colonel Ward, before referred to:

“The Infantry and Cavalry School and the Staff College are so closely connected in their work that a separate report upon each would involve much repetition and they are therefore included in one report.

“When I arrived at the post the school year was practically ended. The class-room work was over and the final examinations were in progress. The student officers were in camp on the reservation a few miles from the post, engaged in practical exercises. The camp was broken and they returned to the post on Friday, 21st instant.

“The following exercises were witnessed by me, though they were not held for me:

“A discussion in the evening in camp, the various solutions proposed, of a problem involving the contact of two opposing forces of which the locations were given while they were yet considerably separated and before either had definitely located the other.

“A field exercise, without troops, contact of two opposing brigades, the forces being represented by the officers only of the various subdivisions, all three arms being represented.

“An advance guard exercise of a command composed of the three arms, the troops supplied from the Fort Leavenworth garrison, all the fractions of the command under student officers assigned to them for the exercise, the opposing force being imaginary.

“A description in detail of these exercises would be out of place in this report. They were well conducted and creditable both to the instructors and the student officers who took part in them. It was evident that all were interested and working hard and harmoniously for the purpose for which the exercises were held and for which these schools are maintained.

“Inquiries regarding the various departments of the school disclosed nothing for adverse criticism. The departments are all well managed, the instructors competent and efficient, and the work is well done by the student officers as well as by the instructors.”

We have been particularly fortunate this year in securing as lecturers before the combined schools the services of Colonel M. M. Macomb, 6th Field Artillery, and Colonel G. J. Fiebeger, U. S. Army, Professor, Military Academy, who kindly consented to honor us in this way.

Colonel Macomb officially visited the Service Schools from 6th to 12th of June inclusive, and delivered a series of six lectures on the subject “Personal Observations and Experiences with the Russian Army in the Russo-Japanese War”. As Colonel Macomb was officially attached to the Russian Army as an observer, his lectures were of particular value on that account. They were illustrated by lantern slides from pictures taken on the field by the lecturer and were of absorbing interest.

Colonel Fiebeger was officially present at the schools on 14th and 15th of June and delivered a most interesting, scholarly and instructive lecture on the subject of “The Revolutionary Armies of France”.

All of these lectures were listened to not only by the faculty and student body, but also by many of the officers and ladies of the garrison.

Our thanks are due to Colonels Macomb and Fiebeger for their efforts.

During the year’s course it has been necessary to call upon the, commanding officer of Fort Leavenworth for troops to carry out our field maneuvers and for individual details for temporary duty of both officers and men. Many of these requests were necessarily made at a time when it was particularly inconvenient for the post commander to comply, but in

every case a prompt and full response was made, and both officers and men contributed very largely by the interest, willingness and intelligence displayed in making all of our maneuvers a great success. My thanks are due to all the troops.

Our field maneuvers are admittedly so instructive to the troops of the garrison taking part in them, that I am of the opinion it would be well for the post commander to co-operate with the commandant for the purpose of having as many troops as possible present and participating in all our outdoor work such as terrain exercises and staff rides in addition to field maneuvers. These exercises could form a part of the course of field training, and it is possible our maneuvers, etc., could be extended over a longer period.

The recommendation of the assistant commandant that the school year begin in January and end in November of each year possesses many points that are deserving of the attention of higher authority. The months of July and August are so intensely hot during the nights, as well as the days, that successful study then is out of the question, and I am of the opinion that a vacation during the hot period at the very middle of the course when work is the hardest and the interest the greatest, would be very prejudicial to proper instruction and class standing.

On June 4 Lieutenant-General Baron Kuroki of the Japanese army honored the service schools by his presence. He was accompanied by his suite and all expressed interest in our work.

Very respectfully,

CHAS. B. HALL,

*Brigadier General; U. S. Army,
Commandant,*

[APPENDIX A.]

U.S. INFANTRY AND CAVALRY SCHOOL
DEPARTMENT OF MILITARY ART

Fort Leavenworth, Kansas, August 31, 1907.

*The Secretary,
Infantry and Cavalry School.*

Sir:

I have the honor to submit the following report of the work of this department for the year ending August 31, 1907:

Allotment of Time

Of the 429 half-days comprising the school year this department was allotted 163, which were divided among the subjects comprising the course of instruction as follows.

	Half Days.	Lecture Hours.
Organization,	6	
Troops in Campaign,	5½	
Field Orders, etc.,	3½	
Weapons & Munitions of War, . . .	9	
Security and Information, . . .	18	
Minor Tactics,	19	
The Arms Combined,	76	
Strategy, etc.,	20	33
Map Maneuvers (War Game), 1. . .	6	
Hippology.		11
	163	44

The lecture hours were taken from half-days scheduled for recitations, the recitations being held generally from 9 to 10:30 A. M., and the lectures from 11 to 12.

Allotment of Assigned Weights

	Value
Organization { theoretical	10
{ problems (2)	8

1 Introduced into the Infantry and Cavalry School this year.

Troops in Campaign	{ theoretical	12
	{ problem	4
Orders, Messages, and Reports (theoretical)		9
Weapons and Munitions of War (theoretical)		24
Security and Information (small units)	{ map problems (3)	13
	{ terrain exercises (4)	15
	{ maneuvers (3)	12
Minor Tactics	{ map problems (3)	15
	{ terrain exercises (4)	20
	{ maneuvers (3)	12
Tactics of the Arms Combined (in- cluding Security and Information)	{ theoretical	30
	{ map problems (20)	100
	{ terrain exercises (5)	30
	{ maneuvers (2)	6
Strategy and Military Geography and History (theoretical)		60
Hippology,		0
TOTAL	{ Theoretical	145
	{ Practical	235
	{ YEAR'S WORK	380

Heretofore instruction in Hippology has been given without assigning any weight to that subject. The results, however, have not been satisfactory, student officers, as a rule, paying little attention to a subject not affecting their standing. To remedy this defect and secure a proper attention to the "care of the horse", it has been decided to give a weight to that subject. It will be marked accordingly during the coming school year.

Text=Books

- Field Service Regulations.
- Drill Regulations of the three arms.
- Swift's Pamphlet on Field Orders.
- Carter's Horses, Saddles and Bridles.
- Griepenkerl's Letters on Applied Tactics (Barth).
- Wagner's Organization and Tactics.
- Pamphlets on Weapons and Munitions of War (super-
seding Mayne's Infantry Weapon.

The pamphlets now prepared are the following:

- Infantry Weapons, Captain Crawford.
- Cavalry Weapons, Captain Ryan, J. P.
- Artillery Weapons, Captain Spaulding.
- Auxiliary Weapons, Captain King.
- Field Equipment of Signal Troops, Major Squier.

A further change will be made during the coming

year by the omission of Wagner's Organization and Tactics, its place being taken by practical problems and studies, à la Griepenkerl, *prepared by the instructors.

The theory of instruction in this department is that the Field Service and Drill Regulations form the basis of all instruction for troops in campaign, and that tactics should be taught after the applied method of Griepenkerl. A text book, therefore, not based on this idea is out of place and should be used only as a book of reference.

In the subject of Strategy and Military Geography and History, instruction is given by means of lectures illustrated with stereoptican views. These lectures have been prepared by Captain Steele and form the text or basis of instruction in that subject.

Scope and Method of Instruction

The scope and method of instruction have been changed but little since my report of last year, the main object being to secure a greater skill and proficiency in using the applicatory system, and at the same time keep the Infantry and Cavalry School, or School of the Line as it is to be called, in its proper place in the general scheme of education of army officers, beginning with the garrison school and ending with the War College.

It has been found that the division of the course of instruction into a number of subjects which of necessity overlap, coupled with the requirement that student officers must be marked on their work in each separate subject, has resulted in much unnecessary clerical labor and led to an unnatural separation of problems in field work. For instance, a problem beginning with an advance guard and terminating in an attack is really but one military problem, tho for the sake of marking, it has to be divided into two sep-

arate problems--one in security and information and the other in minor tactics.

To remove these objections it has been decided (with the consent of the Chief of Staff) to treat the subject of security and information as a part of the general subject of tactics, where, indeed it naturally belongs.

It has also been recommended by the Academic Board, approved by the Commandant, to combine the following subjects:

Organization,
Troops in Campaign, and
Field Orders

under the general heading "Troops in Campaign".

Another change in the course of instruction has occurred in the transfer of elementary instruction in the care of troops to this department, the department of Care of Troops having been transferred to the Staff College where a more advanced course will be taught.

With these changes the course of instruction for the year 1907-08 will be as follows:

1. *Troops in Campaign.*-Organization of troops and materiel, field orders, marches, camping, and the care of troops in the field.

Instruction by conferences, lectures, and practical problems.

2. *Tactics*-Of the single arm and of the arms combined, including the functions of the Signal Corps with an army in the field.

Instruction by conferences, lectures, demonstrations, and practical work in map problems, terrain exercises, and maneuvers on the map and in the field.

3. *Weapons and Munitions of War.*-Instruction by lectures, conferences, and practical demonstration relating to modern military weapons and munitions and their employment in war.

4. *Strategy and Military Geography and History.*—Instruction by lectures with conferences thereon, based on American history and foreign campaigns.

5. *Hippology and Equitation.*-Instruction by lectures, discussions? and practical demonstrations. Practical instruction in equitation (not considered in determining class standing).

6. Lectures and discussions on questions of current military interest (not considered in determining class standing).

The *method of instruction* is known as the applicatory or applicative system, and is the best yet devised for teaching the art of war in time of peace. It comes from the Germans who have evolved it from many years of experience and study. Its great value lies in the fact that it makes a man master of his own knowledge and skill. In other words it produces 'practical men-men who can do things, and any system of instruction that will accomplish this is based on sound principles.

Military art is an art of infinite detail, and detail demands system and precision coupled with good judgment. Each individual in the military machine must be able to accomplish his allotted task or the machine will be defective. Hence the necessity of instruction that makes men masters in their own line of work. This the applicative system does. The results speak for themselves.

In theory the system is quite simple and consists mainly in first assuming *situations* (the British call them *ideas*) and then studying the questions applicable thereto, the student officer being required to point out what course he would pursue under the circumstances, and to give his reasons therefor.

Much of the success of this system of instruction depends upon the ability and skill of the instructors, who should be not only masters in their particular lines, but familiar with the system of instruction itself. There must be no uncertainty or indecision, and the work must be thoro, progressive and practical.

This method in gradual process of development has been in use at this school for some years, Griegenkerl's Letters on Applied Tactics serving as a model or guide. It is particularly applicable to the domain of tactics whether of the single arm or of the

arms combined, and is now employed in the school and college as follows:

1. *Studies* or discussions of "Situations" after the manner of Griepenkerl's Letters on Applied Tactics, the principles of the subject being deduced or worked out by the student officer with the assistance of the instructors. This work is not graded.

2. *Map Problems* in each of which the student officer is given a certain situation on a map and required to give—

- a. His estimate of the situation, terminating with a statement of his decision or plan of action;
- b. The proper field order for carrying his plan of action into effect.

Other requirements are sometimes made.

3. *Terrain Exercises* in each of which the student officer is given a certain situation on the ground without troops and required to give—

- a. His estimate and plan of action.
- b. The proper field order.
- c. A sketch of the ground (about 6 inches to 1 mile) showing the troops in position at a certain time.

4. *Map Maneuvers* (War Game) wherein the student officer is given certain situations on a map with troops represented by blocks, colored pins, etc., and required to state what he would do under the circumstances and what orders he would issue. This work is not graded.

5. *Field Maneuvers* in each of which the student officer is given a certain situation on the ground involving the actual command of troops, and required to give, generally verbally, his estimate, decision, and orders, and to conduct the maneuver accordingly. Sometimes the orders are required in writing.

These maneuvers, on which the student officer is marked, are of necessity limited to small commands. Larger maneuvers (not marked) are also held in which student officers are assigned to commands on the opposite sides and the situation allowed to develop under their direction.

In brief the student is constantly confronted with military situations,

- 1st, in studies with the instructors;
- 2d, in solving problems on the map;
- 3d, in solving problems on the ground without troops;
- 4th, in solving problems on the ground with troops so far as the conditions will permit.

The solutions of map problems and terrain exercises are reviewed, errors pointed out, and then returned to the student officers for their information and instruction. These officers, if they so desire, are

then permitted to make replies to the criticisms with a view of explaining or elucidating doubtful points, or of defending 'their tactical dispositions.

Solutions of terrain exercises, after being reviewed, are discussed jointly by the student officers and instructors on the ground where the problems were solved.

In field maneuvers the errors of student officers are pointed out on the ground at the conclusion of each exercise.

Besides the practical work in security and information and minor tactics, the following problems in the arms combined were solved by the class, the staff class assisting in reviewing and criticising the work:

Map Problems*

1. A march to the front.
2. A flank march.
3. A change of direction of march.
4. An advance guard.
5. A retreat after a defeat.
6. A rear guard.
7. Attack of a defensive position.
8. Occupation of a defensive position.
9. A position in readiness.
10. An advance guard action.
11. To halt and encamp, relieving advance guard.
12. Outpost from advance guard.
13. Outpost, day and night.
14. Selection of a defensive position.
15. Attack of a river line.
16. Protection of a convoy.
17. Independent cavalry.
18. Flanking detachment.
19. March of concentration.
20. Collision of hostile forces on themarch.

Terrain Exercises

- I. An avancè guard.
2. Halt and selection of camp site.
3. Selection of outpost position (Order No. 1).
4. Outpost position in detail (Order No. 2).
5. Preliminaries to an attack.
6. The battle.

* All problems and exercises are prepared on the basis of allowing student officers one half-day (4 hours), for solution. Copies are kept on file in the "Portfolio of Problems".

Maneuvers

1. A march to the front.
2. Advance guard combat.
3. Collision of hostile forces.

It is admitted that this method of instruction involves much labor, not only on part of the student, but on that of the instructor as well, and herein is a danger which should be carefully guarded against by those who have the welfare of this institution at heart. Reviewing and marking map problems and outdoor exercises are exceedingly laborious and irksome, and call for such unremitting labor on the part of the instructors that there is constant danger, if the number be inadequate, of their work being hurriedly done, or of the method of instruction being changed to one less onerous in its nature. For instance, the course of this department for the coming year involves the criticising and marking of 2700 papers. It has been found that criticising and marking these papers requires an average of two hours of some instructor's time. This means 5400 hours, or 675 days of eight hours each, wherein the instructors are engaged in reviewing and marking the completed work of the student officers. It does not include the time spent in preparation, conducting recitations, or in supervising the practical work. As human energies are generally expended along the line of least resistance, it is not difficult to see why the applicative method is in constant danger of being changed to one less burdensome to instructors.

The Marking

To secure just and uniform consideration of student officers' work, great care is taken in reviewing and marking problems and exercises. That undue consideration may not be given any one feature, good or bad, of an officer's work, "marking slips" have

been prepared setting forth the different features to be considered, and to these, values are assigned by the department before the problem is marked.*

During the year the practice has been adopted of attaching to the student officer's solution when returned to him for reply, a marking slip showing the actual marks given by the instructor to the several features of the solution. In my opinion this has been productive of good results. In the first place it secures, for obvious reasons, the greatest care on the part of the instructor in criticising and marking. In the second it gives the student an opportunity to know in what particular part of his work he is doing well or poorly, some, for instance, having difficulty with the estimate of the situation, and others with other features. The marks thus returned to the student enables him to apply himself where application is most needed. Then, too, it not infrequently happens that the student in his reply presents facts in such a light that the instructor or head of the department deems the mark given too low and it is raised accordingly.

By *estimate of the situation* is meant that careful consideration given by the commander (in this case the student officer) to all circumstances affecting the military problem which he has to solve. In making this estimate he will generally consider (a) the orders or instructions under which he is acting, (b) all available information of the enemy's military situation (strength, position, probable intentions, etc. ,) and (c) conditions affecting his own command (strength, position, supporting troops, terrain, etc.).

At the conclusion of his estimate of the situation the student officer is required to make a brief state-

*For marking slips used in practical work see Forms Nos. 1, 2 and 3, *in fra.*

ment of his *plan of action*. The order, of course, gives this plan in detail.

It will be observed that on the maneuver marking slips two features, personal in their nature, viz., ‘ ‘military bearing’ ’ and “manner of exercising command,” enter into the student officer’s mark. These are what may be called the soldierly qualities, and as they appear in no other part of the course and are fully as important as a knowledge of books, they are given a relatively high value. The meaning of “military bearing” is well understood. Under the heading “manner of exercising command” the following features are considered:

1. Voice.
2. Brevity and clearness in giving instructions.
3. Does the student officer remain cool and collected under excitement or does he become “rattled” or forgetful?
4. In general does he inspire confidence in troops and is he a natural leader of men?

To carry out the above elaborate scheme of practical work the instructors in the department are assisted by students of the Staff College, the latter working singly or grouped into committees that work jointly with the instructors in preparing problems for students of the Infantry and Cavalry School, and in supervising their work. So valuable to both school and college has this feature of the instruction proved to be, that it will unquestionably remain an essential part of the applicative system now in use. Harmony in the arrangement and classification of details will come with time and experience, and will eventually make this institution one of the great military schools of the age, for in no other are the services of so many capable instructors (including the staff class) available.

For the year 1907-8 the course will be as follows :

Time-170 half days; weight 400.

TROOPS IN CAMPAIGN—

Recitations, etc., 13.....	Based on the Field Service
Problems-4	20 Regulations and pamphlet on
Examination-1.	IO Field Orders.
	30

(18 half days)

TACTICS—

Lectures-51	Based on "Studies" pre-
Recitations and discus-	pared by the department,
sions-37	Griepenkerl's Letters, and
Map problems-30	150 the Field Service Regula-
Terrain exercises-19	95 tions.
Field maneuvers-6.	30
	(II half days)
Map maneuvers-18	
(war game)	275

(1.15 half days | 5 lectures¹)

WEAPONS AND MUNITIONS OF WAR—

Recitations and demon-	Based on pamphlets pre-
strations--15	pared by the department.
Examinations-2	25

(17 half days)

STRATEGY AND MILITARY GEOGRAPHY AND HISTORY—

Lectures-341	Based on lectures of
Recitations-18	Captain Steele.
Examinations-1	60

Partial examinations will be held from time to time on days scheduled for recitations.

(19 half days+34 lectures)

HIPPOLOGY -

Lectures and quizzes-13. . .	Based on Carter's Horses,
Examinations-1	Saddles and Bridles, and
	lectures by Dr. Hunter.
	IO

(I half day + 13 lectures and quizzes)

400

The lectures comprising the course in strategy and Military Geography and History are as follows:

1. The Invasion of Canada.
2. Revolutionary War, Northern Campaign.
3. Revolutionary War, Southern Campaign.
4. War of 1812.

1 Lecture hours are taken from half days given to recitations.

5. The Mexican War, Taylor's Campaign.
6. The Mexican War, Scott's Campaign.
7. The Bull Run Campaign of 1861.
8. The Capture of Forts Henry and Don&on.
9. The Battle of Shiloh.
10. The Peninsular Campaign.
11. Jackson's Valley Campaign.
12. The Second Bull Run.
13. The Stone River Campaign.
14. The Antietam Campaign.
15. The Fredericksburg Campaign?
16. The Campaign of Chancellorsville.
17. The Gettysburg Campaign, 1st Lecture.
18. The Gettysburg Campaign, 2d Lecture.
19. The Vicksburg Campaign.
20. The Chickamauga Campaign,
21. The Battles around Chattanooga.
22. The Battle of the Wilderness.
23. The Battle of Spottsylvania Court House.
24. The Siege of Petersburg.
25. The Atlanta Campaign.
26. The Campaign of Franklin and Nashville.
27. The Campaign of Königgratz.
28. The Campaign of Metz.
29. The Campaign of Sedan.
30. The Siege of Plevna.
31. The Campaign of the Balkans.
32. The South African War.
33. The War between Russia and Japan: 1st Period.
34. The War between Russia and Japan, 2d Period.

The foregoing lectures, delivered by Captain Steele, are illustrated by means of stereoptican views prepared by Captain Cole of the department of engineering, and form an exceedingly valuable adjunct to the course of instruction.

The method of conducting examinations, however, is not satisfactory as it leads to an attempt to memorize the lectures as delivered. This year it was divided into two parts, the first consisting of a description of the Campaign of Vicksburg and the second a general examination on military history.

It was my intention to change the nature of the examination by substituting a series of tests consisting of map problems involving the strategical and tactical features illustrated in the lectures. This would make the work much more practical and in ac-

cord with the applicative system of instruction. For this, however, maps covering large areas are necessary and at present these the school does not possess in sufficient numbers.

The settled policy of the department is to reduce the number of theoretical examinations, substituting therefor tests in practical work. Indeed, this is but carrying the applicative system to its logical conclusion.

Recommendations

1. *An American Griepenkerl.* This project which was formulated in the department of military art nearly two years ago and approved by General J. Franklin Bell, then commandant, and since that time kept constantly in view, contemplates the preparation by this department of a work on tactics modeled upon the admirable work of General Griepenkerl, but "employing American maps, names, and army organization. The work is to consist of two parts, published separately, the first, on minor tactics, to consist of from 18 to 20 "Studies" illustrative of minor operations; the second, on the arms combined, to consist of about 25 "Studies" on the operations of forces of all arms less than a division. A map (colored map of Fort Leavenworth and vicinity) and a dozen studies have already been prepared for the first part and are now in use at the school. It is hoped that this part will be completed and printed in 1908. For the second part a suitable map must first be constructed. Such a map is now being prepared under the supervision of Mr. Glenn S. Smith of the Geological Survey and will be completed some time next year.

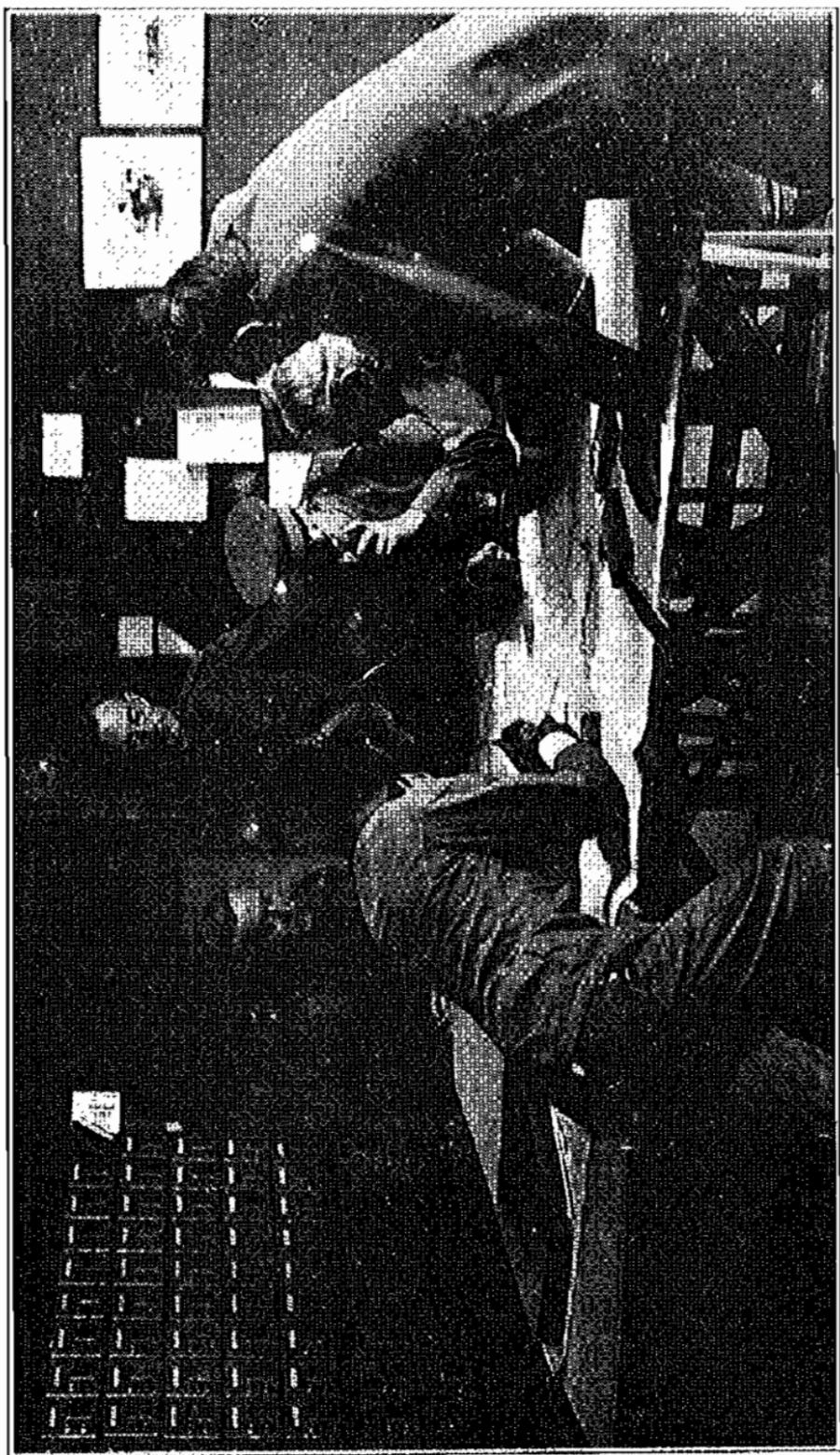
Notwithstanding the recognized value of the present translations of Griepenkerl's Letters, it is plain that if such a work were based upon American

maps, with American names and our army organization, its value to the regular army and national guard would be greatly enhanced. For this reason I strongly recommend that the present project be kept constantly in view as a part of the policy of the department, irrespective of the fact that the personnel is constantly changing.

2. During the past year several instances have occurred where student officers, from physical inability, have been unable to complete the course prescribed, and several have been excused from riding for reasons known to the surgeon. It requires no argument to show that the detail of officers who are physically unable to take or complete the course not only involves the Government in unnecessary expense, deprives other officers of the opportunity to attend the school, but is in a way humiliating to the disqualified officers themselves. It is therefore recommended that all officers seeking a detail to these schools be examined physically before such detail is made, and that no officer be sent here when there is a doubt of his physical ability to complete the course.

3. For the recommendation that the school year begin in January instead of September, see my report of this department for the Staff College, 1906-7.

4. *Map Maneuvers-War Game.* The undoubted advantage offered by the "War Game" in the study of tactics, and a desire to disseminate a knowledge of its methods thruout the army, have led to its adoption as a part of the course of instruction for the Infantry and Cavalry School as well as for the Staff College. It has been assigned to the general subject of "maneuvers", and while the number of exercises which can be devoted to it are few, it is hoped that they will be sufficient to arouse the interest of the student officers, and lead them to continue the "game" after the return to their regiments, tho



they may not have had the advantages of the more extended course offered by the Staff College.

This particular line of work was placed under the immediate supervision of Captain Sayre, whose skill and energy have done much to make map maneuvers one of the strong features of both school and college.

The course is admirably outlined in a pamphlet prepared by Captain Sayre, and it is strongly recommended that this feature of the course of instruction be elaborated and made more prominent as the facilities of the school increase. (See my report of the Staff College work on this subject).

5. Several times during the year student officers have been called upon to undergo examination for promotion, and have thereby been put to a great disadvantage and undoubtedly suffered loss in class standing.

It is therefore recommended that provision be made by the War Department to have such examinations held before the officers concerned report at the school, or that they be postponed until after the final school examinations,

6. *Terrain for Field Exercises.* I again call attention to the necessity of taking steps to 'secure adequate ground for maneuvers and field exercises in general. The amount of available ground is steadily decreasing. The U. S. Penitentiary grounds have been entirely enclosed with wire fences thus cutting off egress to the south and depriving the school of valuable maneuver ground. The post proper is being gradually enlarged and target ranges extended. This is of course unavoidable, but with the growth of the post certain localities never before used for that purpose have been taken for gardens which seriously interfere with the efficiency of terrain exercises and

maneuvers, now such important features in the course of instruction.

It is therefore recommended (1) that the gardens be restricted to definite localities; (2) that steps be taken to fill several of the smaller ravines now interfering with field work; (3) that the reservation northwest of the post proper be cleared of underbrush; (4) that streets be opened through the Civil Penitentiary grounds permitting the passage of troops. The law transferring this part of the reservation to the Department of Justice contains this provision: "*And provided further*, that this prison reservation shall be opened for military tactical purposes when such purpose does not interfere with the discipline of said prison."

Across the Missouri river and between that and the Platte is a section of country admirably adapted to maneuvers and field exercises of all kinds. To the institution it would be invaluable, as it would also be to the national guard of Missouri and Kansas. and the Regular Army for maneuvering ground and target practice.

These schools are educating officers for future high commands in the army, and should, therefore furnish every facility for making that education as complete as can be done in time of peace. At present, incongruous as it may appear, there is no place on this reservation for artillery target practice, or where the effects of artillery fire can be observed.

On the ground in question target practice of every description can be held. Moreover, the ground is suitable for maneuvers of commands any size from a small patrol to 10,000 or 12,000 men. It will furnish every variety of terrain, rough, broken and hilly country, level ground and wooded localities, a lake (obstacle) and rivers as may be desired. Railroad facilities are excellent. It is preferable to land

west of Fort Leavenworth, as it is more varied in its nature and, being bounded by rivers, the movements of troops could be definitely circumscribed.

To secure, therefore, adequate facilities for proper field exercises it is recommended that steps be taken to acquire the use for certain seasons of the year, damages to be paid, of all that tract of land lying between the Platte and Missouri rivers and extending from the Platte City-Beverly highway south to the vicinity of Farley. At the same time the bridge over the, Missouri at Fort Leavenworth should either be purchased, or the right of way over it secured, by the government. As it is now this bridge, crossing a public waterway, stands with both ends resting on the military reservation of Fort Leavenworth, and still cannot be used by troops without the payment of toll.

In this connection it is urged that at this post no ground be purchased in fee simple for field exercises, but only the use thereof be acquired for certain seasons of the year, the owners still continuing to use the land for farming purposes. In October and November but little injury would result from field maneuvers as the crops at that time have all been gathered.

The purchase of ground by the government would not only reduce the productive area, but would create a wilderness, which in a few years would be almost impassable for troops and of little use for field training. Our experience shows that it is almost impossible, even with a large number of prisoners, to keep even the present reservation free from underbrush and weeds and in condition for field work.

In closing this report I desire to express my thoro appreciation of the work of my assistants in this department, and personally to thank each one for the interest and loyalty he has shown.

Captains Charles Crawford, J. P. Ryan, H. A. White, and E. E. Booth, have been relieved, Captains Crawford and Ryan's tour of duty having expired, Captain White having been placed at the head of the law department, and Captain Booth made secretary of the schools and college.

It is unfortunate that so many skilled officers should be taken from the department at one time.

Very respectfully,

D. H. BOUGHTON,
Major, 11th Cavalry.

DEPARTMENT OF MILITARY ART

Practical course in.....

190 -0

Problem No.....

Student's No.....

REQUIREMENTS	*VALUE	MARK OF ASS'T INSTRUCTOR		MARK OF DEPARTMENT	
		ITEM	TOTAL	ITEM	TOTAL
1.					
2.					
3.					
4.					
5.					
6.					
7.					
PREPARATION OF PAPER					
COMPLIANCE WITH INSTRUCTIONS					
LEGIBILITY AND NEATNESS					
SPELLING AND DICTION					
TOTAL.....					

Initials of Instructor

Initials of Senior Instructor

*The different sub-head values will be entered by the instructor and approved by the senior instructor before the solution is marked.

[APPENDIX B.]

U. S. INFANTRY & CAVALRY SCHOOL
DEPARTMENT OF ENGINEERING

Fort Leavenworth, Kansas, August 1, 1907.

*To the Secretary,
Service Schools and Staff College.*

Sir:

I have the honor to submit the following report of the work done in this department during the school year ending this date:

The time allotted to the Department of Engineering was 129 half days distributed as follows: 22 in September; 27 in October; 6 in November; 12 in March; 23 in April; 26 in May; 13 in June.

This was utilized as follows: Surveying and map making, theoretical instruction 21, practical work 32, examination 2; topographical sketching, theoretical instruction 9, practical work 26; field fortification and field engineering, theoretical 16, practical 21, examinations 2.

The text books used were, in surveying, Root's Military Topography and Sketching and pamphlets written by Major Rees, formerly in charge of this department; in sketching, part of Root's book just mentioned and pamphlets prepared by Captains Cole and Stuart, assistant instructors in this department, and in field fortification pamphlets written by the undersigned. Owing to the pressure of work upon the college printing press, it was not always practicable to have pamphlets ready as far in advance of the date of recitation as could be desired, but only slight inconvenience resulted and no interruption of the course occurred. This task of changing the text

books of the department will probably not occur again to the same extent during a single year.

The instruction in surveying was similar to that of the past year. After the theoretical portion of the course had been mastered the students were placed in the field in parties of four and each required to perform the work necessary to run a traverse line and fill in with the transit, to run profile and cross-section lines with the level. to make a plane-table survey and to run out contour lines with the transit. The areas selected for each task were so located that the combined work formed one map, the total area having a perimeter of about two miles.

The time allotted to each task was seven half-days, and in addition four half-days were allotted for finishing the map.

The method of marking the field work which had been used in former years was found unsatisfactory, in that it did not allow sufficient distinction to be made between good and poor work, and in its place was used that which had been employed the year before for topographical sketching and is as follows:

Accuracy,	40 per cent.
Completeness,	30 per cent.
Application and steady work,	20 per cent.
Neatness and drafting,	10 per cent.
	<hr/>
	100 per cent.

This system gave much better results, but it is believed that better differentiation can still be secured, and a somewhat different method will be followed next year.

In topographical sketching the same general methods of instruction were followed which had proved so successful last year, but one change was made which resulted in much advantage. Formerly the preliminary sketch, upon which the student is not marked, would be followed immediately by the

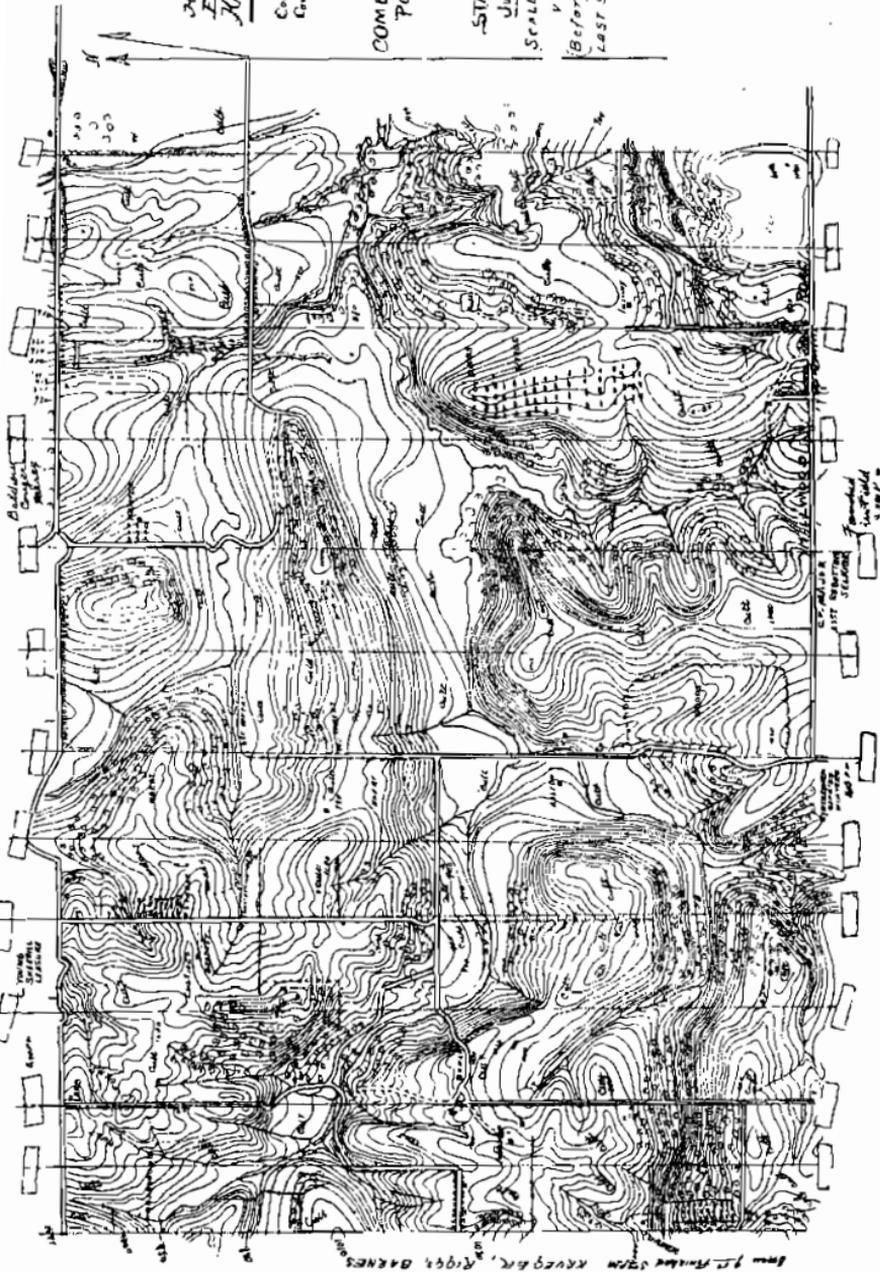
ALBERT
EAMES
MAY 1907

COMBINED MAP
ENTITLED RASPA
5 July, 07

COMBINED
POSITION
SKETCH

BY
STAFF CLASS
June 5, No. 1
SCALE: 6-1 MILE

1.1' OFF
(Before Reduction)
LAST SKETCH FINISHED
5 15 P.M.



From J. P. Minkler, 1898, RASPA, RIGHT BANK

Method of combined sketching used in the Department of Engineering. By this method 28 square miles of original map with 10 foot contours have been made by the two classes in a single day.

record sketch for that class of sketch. This year all the preliminary sketches, six in number, were made prior to the first record sketch, resulting in giving the student greater practice and familiarity with all the different kinds of sketches before the marking began. The course involved sketching on foot and mounted with the various kinds of instruments, ending with a combined position sketch of about twenty-two square miles, by both the infantry and cavalry class and staff class working together. For this sketch the classes started from the college building at 5 A. M., rode twelve and fourteen miles to the site to be sketched, and had the finished map blue-printed in the field shortly after 5 P. M. It is believed that an additional day of this method of making a combined sketch would be an advantage to the class, and efforts will be made to secure this next year.

In field fortification the usual instruction was given in the construction of trenches, reveting materials and obstacles. The officers were required to mark upon the ground the actual position and extent of trenches which they would use to defend a given position with an allotted number of troops. The various opinions did not vary as much as was anticipated and the resulting discussion practically obliterated the differences,

In field engineering the members of the class constructed cask and timber rafts, built bridges across the waterway with both canvas and wooden pontoons and one with pile supports; they learned the manipulation of ropes, and made an examination and report concerning the strength of the various bridges across Corral Creek. They also witnessed various demolitions by means of high explosives.

In the work of field engineering it is a difficult

question to decide just how much of the preliminary work to prepare beforehand, and how explicit and detailed to make the instructions. If things are fully prepared and full instructions given, the work becomes merely a drill, and the students do not appreciate the difficulties that have been avoided or the various mistakes which they have been steered past, and are apt to obtain a false impression as to the ease of the work. If on the other hand the students are left to their own methods under mere general instructions their inexperience often causes them to waste much time and produce delay to other parties, making the whole work drag to such an extent as to create a lack of interest in the construction. An effort was made to adopt a course midway between these two extremes by giving merely general instruction at first, adding detailed directions with explanations where necessary. This method possessed the further advantage of affording a ready means of ascertaining which were the resourceful and which were the dependent members of the class.

In demolition the only work done in advance was the excavation for the land mine. It was considered best to make all other preparations after the arrival of the class at the site, because parties who are inexperienced in the use of explosives are certain to obtain a very incorrect idea of the time necessary to effect a demolition if they see only the explosion and have not witnessed the time necessary to place the charge and lay the fuse or run the wires.

It is believed that the course has been in the past somewhat technical for the purposes of infantry and cavalry officers, and an effort will be made to adapt it more to the class of work which the officer will usually encounter and less to that which will fall to the engineers. Something was accomplished in this

direction last year, but further improvements can, it is hoped, be made during the coming terms.

I desire to commend Captain E. T. Cole, 6th Infantry, and Captain H. B. Ferguson, Corps of Engineers, for their work as assistant instructors. The former had much work for other departments, such as making all the lantern slides used in the thirty-three lectures on strategy in the department of military art, and which greatly assisted to make the lectures effective. He also acted as instructor of photography in the Signal School, and delivered lectures on map reproduction to the staff class.

Respectfully submitted,

LANSING H. BEACH,

Major, Corps of Engineers,

Instructor.

[APPENDIX C.]
 U. S. INFANTRY AND CAVALRY SCHOOL
 DEPARTMENT OF LAW

Fort Leavenworth, Kansas, August 31, 1907.

The Secretary,

U. S. Infantry and Cavalry School.

Sir:

I have the honor to submit the following report of the work of this department for the school year ending August 31, 1907:

Allotment of Time

During the school year the department was allotted fifty-five half days which were utilized as follows:

Elementary Law, _____	16	half days;
Criminal Law, _____	11	“ “
Law of Evidence, _____	23	“ “
Moot Court Exercises, _____	5	“ “
Total _____	55	“ “

A weight of 130 was assigned to this department and distributed as follows:

Elementary Law, _____	3	5
Criminal Law, _____	25	
Law of Evidence, _____	50	
Moot Court Exercises, _____	20	
Total _____	130	

Fifty-six half days and a weight of 150 having been assigned to this department for the next school year, the following distribution of time and weight is, subject to approval, adopted by the department:

Subject	Time	Weight.
Elementary Law, _____	16 half days	35
Criminal Law, _____	11 “ “	25
Law of Evidence, _____	23 “ “	60
Moot Court Exercises, _____	6 “ “	30
Total _____	56	

A list of lessons with the text books used follow:

List of Lessons

ELEMENTARY LAW (*Smith*)

- Lesson 1. To bottom of page 25—Omit foot note page 19,
read only interpolated sheet on martial law.
- “ 2. To bottom of page 55—Read only notes on pages
27, 28, 32, 40, 46, 53.
- “ 3. To bottom of page 81—Chapter 5, read only.
- “ 4. “ “ “ “ 109—Omit Sections 126, 127, 128.
- “ 5. “ “ “ “ 141—Omit chapter 12.
- “ 6. “ “ “ “ 169—Read only sections 231,
232, 235, 236, 238, 239.
- “ 7. To bottom of page 192—Read only sections 251, 252,
253, 254, 255, 256, 257, 258.
- “ 8. To bottom of page 216—Omit sections 331, 332, 333.
- “ 9. “ Section 407—page 243.
- “ IO. “ bottom of page 268.
- “ 11. “ “ “ “ 301.
- “ 12. “ “ “ “ 329—Omit section 522 523, 524,
525, 526, 527, 534, 541, 542, read only section 539.

Three review lessons of four advance lessons each.

CRIMINAL LAW (*Clark*)

- Lesson 1. To bottom of page 38.
- “ 2. “ “ “ “ 57.
- “ 3. “ section 33, page 80.
- “ 4. “ bottom of page 98.
- “ 5. “ “ “ “ 125—Read only sections 52 & 53.
- “ 6. “ “ “ “ 152.
- “ 7. “ “ “ “ 212.
- “ 8. From page 271 to bottom of page 313.

Two review lessons of four advance lessons each.

EVIDENCE (*McKelvey*)

- Lesson I. Page 1 to bottom page 17.
- “ 2. To bottom of page 37.
- “ 3. “ “ “ “ 59.
- “ 4. “ “ “ “ 89—Sections 38, 39, 40, 41, 42, 43,
46, 47, 48, black letter text to be learned, explan-
atory text read only.
- “ 5. To bottom page 110.
- “ 6. “ “ “ “ 125.
- “ 7. “ “ “ “ 148—Sections 96 to 104 inclusive,
black letter text to be learned, explanatory text
read only.
- “ 8. To bottom page 170.
- “ 9. “ “ “ “ 185.

- Lesson 10. To bottom page 201.
“ 11. “ section 158 page 225.
“ 12. “ “ 162, “ 239.
“ 13. “ “ 185, “ 260.
“ 14. “ bottom page 281.
“ 15. “ “ “ 302.
“ 16. “ section 235 page 324.
“ 17. “ bottom page 340.
“ 18. “ section 268 page 359.

1st review lesson, lessons 1, 2, 3, 4, of the advance.

2d “ “ “ 5, 6, 7, 8, 9, 10, of the advance.

3d “ “ “ 11, 12, 13, 14, of the advance.

4th “ “ “ 15, 16, 17, 18, of the advance.

Moot Court Exercises

An entirely new set of moot court exercises was given this year. The endeavor was made to make them as practical as possible and to eliminate the chance of one student adopting the work of another as his own, which was possible heretofore. The subject of each exercise was announced from two to three weeks before the exercise was to take place.

The exercises were usually part written and part oral. During the exercises the students were allowed to consult any books or papers which a judge-advocate or a member of a court-martial might have occasion to use. No effort of memory was required in these exercises, the student was simply expected to be able to take his reference books and find the law or regulation upon the point in question and apply it. These exercises being an application of legal principles rather than a statement of the principles, were much less bulky than those of previous years.

The subjects and the exercises are given below

MOOT COURT EXERCISE NO. 1.

Subject:-The writs which the judge-advocate of a general court-martial may be called upon to prepare.

Value of exercise, 4 units

Time, 2 7-2 hours.

Place your number in the lower left-hand corner of each

sheet, the number of the sheet in the lower right-hand corner. Indicate all of your answers, where possible, on blank forms. Assume names, where necessary, do not use your name. Prefix the exercise sheets to your answer sheets before turning them in.

Assume that you are judge-advocate of a general court-martial convened at this post by Special Orders No. 1, Headquarters Department of the Missouri, Omaha, Nebraska, dated January 2, 1907, for the trial of Sergeant Andrew Andrews, Company A, 18th Infantry, on charges laid under the 62d Article of War.

1. Make out the formal writs or requests for the appearance before the court-martial at 1 o'clock P.M., on January 20, 1907, of the witnesses and documents for the prosecution given below. Make only one copy of each writ but indicate the number required by regulations, the channels through which they should be served, and their final disposition.
 - (a) Private William Jones, Troop L, 11th Cavalry, Fort Riley, Kansas.
 - (b) Sick Report of Company -A, 18th Infantry, Fort Leavenworth, Kansas.
 - (c) Mark Brooks, Topeka, Kansas.
 - (d) Cash book of A. J. Dunn & Co., Merchants, Kansas City, Kansas.
2. Mark Brooks, Topeka, Kansas, having been duly subpoenaed (which subpoena was served by 2d Lieutenant Roy James, 18th Infantry), having had his fees and mileage tendered him, fails to appear before the court-martial and it becomes necessary to enforce his attendance. The department commander designates 1st Lieutenant C. G. Dayton, 18th Infantry to bring him before the court-martial.

Make out the papers you should deliver to Lieutenant Dayton when he goes after the witness.

3. Barney Brown, Lawrence, Kansas, a witness for the prosecution, was unable to appear before the court-martial. With the consent of the accused, his deposition, in which three questions were asked by you and none by the accused, was taken before the trial. 1st Lieutenant G. H. Harrow, 18th Infantry, Summary Court, Fort Leavenworth, Kansas, took the deposition.

Make out the deposition, stipulation, and subpoena, complete.

MOOT COURT EXERCISE NO. 2

Subject:-The vouchers which the judge-advocate of a general court-martial may be called upon to prepare.

Value of exercise, 4 unit.

Time, 2 1-2 hours.

Place your number in the lower left-hand corner of each sheet, the numbers of the sheet in the lower right-hand corner. Indicate all your answers, where possible, on the blank forms. Assume names, where necessary, do not use your name. Prefix the exercise sheets to your answer sheets before turning them in.

Assume that you are judge-advocate of a general court-martial which was convened at this post by Special Orders No. 140, Headquarters Department of the Missouri, Omaha, Nebraska, dated December 1, 1906.

The persons whose names are given below appeared before or served the court-martial in the capacity indicated.

Make out vouchers covering the indebtedness of the United States to each of these persons. Only one copy of each voucher is wanted. State on each voucher what other papers should accompany it.

1. Reporter for the court-martial, John Parker of Kansas City, Missouri, left home at 8 o'clock A. M., December 3, 1906, for Fort Leavenworth, and on being relieved from duty with the court-martial, returned home, arriving 8 o'clock A. M., December 6th.

2. Witness Watson Horton of Topeka, Kansas, left home at 10 o'clock A. M., December 2, 1906, and reported to you at 1 o'clock P. M., December 3d, in compliance with subpoena, and was excused from further attendance on the court martial at noon, December 5th, and returned home the following day.

3. Witness Henry Samson, teamster in the quartermaster's department, Fort Riley, Kansas, who was summoned to appear at 1 o'clock P. M., December 4, 1906, left Fort Riley, December 1st, and reported to you at 6 o'clock P. M., December 4th, showing evidence of having been drinking. He was excused from further attendance on the court-martial at noon December 5th, and returned to Fort Riley the following day. (In making this voucher, estimate the actual cost of travel).

4. Interpreter for the court-martial, Alan Brock, Leavenworth, Kansas, reported to you at 1 o'clock P. M., December 3, 1906, and was relieved at noon December 6th.

5. Witness Josiah Brown of Crossroads, Missouri, appeared at Weston, Missouri, (distance 10 miles) at 11 o'clock A. M., December 2, 1906, in compliance with subpoena and gave deposition to be used before the court-martial. He returned home same day.

6. Jerry Cempson, notary public, Weston, Missouri, administered the oath to deposition of witness Josiah Brown

7. Morton Baker, clerk of the circuit court, Platte County, Missouri, furnished you a certified copy of the record of that court in the case of the State of Missouri vs. Andrew Andrews for use as evidence before the general court-martial and charged \$5.00 for his services.

MOOT COURT EXERCISE NO. 3

Subject:-Inferior courts-martial,

Value of exercise, 4 units.

Time, 2 hours.

The exercise will be part oral and part written.

Place your number in the lower left-hand corner of each sheet. Prefix the question sheet to your papers.

WRITTEN EXERCISE

I. 1st Class Private John Doe, Company K, 3d Battalion Engineers, Fort Leavenworth, Kansas, though he declined to consent to trial by Summary Court, was tried by that court December 15, 1906, for being absent without leave from 8 A.M., December 12, 1906, to 5 P.M., December 14, 1906. He had had three previous convictions within one year and during current enlistment. He was found guilty and given the maximum punishment. His fine was collected on the November-December pay rolls. His pay was 17 dollars per month.

Make out the copy of the Summary Court record in the case received by Private Doe's company commander. Supply any necessary data not given.

2. At a post in the Philippine Island during the insurrection in 1900, a civilian teamster employed by the Quartermaster's department became drunk and disorderly. There was no provost court available. If you had been in command of the post, before what court would you have had him tried? Give reasons for your answer.

ORAL EXERCISE

1. As Summary Court you will be required:-

(a) To administer the oath to a person; making an affidavit.

(b) To take the deposition of a person for use before a general court-martial.

2. You will be required to try or to provide for the trial of Corporal John Smith, Company A, 18th Infantry, for being absent from reveille roll call January 28, 1907.

Moot Court Exercises Nos. 4 and 5

Subject:-The procedure of general courts-martial with special reference to challenges, pleas, contempts, punishments and revisions of records. ,

The class was divided into three sections and each section detailed as a moot general court-martial with an instructor as judge advocate.

The exercise was made to conform as nearly as possible to the actual trial of an accused by a general court-martial. All the steps in the trial of an accused were developed and in the sequence in which they would come in actual practice.

As it was necessary to grade the members of the class on these exercises, situations were developed at different stages of the trial requiring the action of the court, each member was then required to write the action he would take on the question before the court. By this means each member of the class was graded upon the same questions. For instance, to illustrate how these situations were developed, as the trial progressed the accused when arraigned made the following special plea:

GENERAL COURT-MARTIAL ROOMS,
FORT LEAVENWORTH, KANSAS,

March 12, 1907.

MAY IT PLEASE THE COURT:

The undersigned, Private John Davis, Troop L, 9th U. S. Cavalry, having heard the charge and specifications read, says that the United States ought not to further prosecute this charge and specification against him, because on January 20, 1907, he was brought before a general court-martial convened at Fort Leavenworth, Kansas, by virtue of Special Orders No. 6, Headquarters Department of the Missouri, dated January 15, 1907, and was then and there duly tried on the charge and specification aforesaid; and this the undersigned is ready to verify. Wherefore! he prays that he may be discharged from making further answer to this charge and specification.

JOHN DAVIS,
Private, Troop L, 9th U. S. Cavalry.

Here the instructor developed the following situation :

Evidence was introduced which showed that the accused was brought before a G. C. M. on this charge and that the court had come to a finding and that the proceedings were regular with the exception that the court and Judge-Advocate were not sworn in the case. The convening authority disapproved the proceedings and ordered the present court to try the case. Would you sustain the plea of the accused? Give reason for your answer.

The members were allowed thirty minutes in which to write their answers before the court proceeded to the next step.

The order for convening one of the moot courts, the charges and the questions upon which the situations were developed, follow;

HEADQUARTERS DEPARTMENT OF THE MISSOURI,

Omaha, Nebraska, March 4, 1907.

SPECIAL ORDERS }
No. 14. }

A moot general court-martial is appointed to meet at Fort Leavenworth, Kansas, at 2 o'clock P. M., March 12, 1907, or as soon thereafter as practicable, for the trial of such persons as may be properly brought before it.

DETAIL FOR THE COURT

1. Major James B. Allison, 37th Infantry.
 2. Major Frank W. Ball, U. S. A., retired.
 3. Captain Royden E. Beebe, 16th Cavalry.
 4. Captain Upton Birnie, jr., 20th Cavalry.
 5. Captain Fay W. Brabson, 31st Infantry.
 6. Captain Matt C. Bristol, 42d Infantry.
 7. Captain Lewis W. Cass, 17th Infantry.
 8. 1st Lieutenant Robert L. Collins, 28th Infantry.
 9. 1st Lieutenant Arthur S. Cowan, Artillery Corps.
 - IO. 1st Lieutenant Dennis H. Currie, Philippine Scouts.
 11. 1st Lieutenant Frank W. Dawson, 41st Infantry.
 12. 2d Lieutenant John DeWitt, Artillery Corps.
 13. Add'l 2d Lieutenant Clarence H. Dougherty, 26th Inf.
- 1st Lieutenant Richard Roe, 1st Infantry, Judge Advocate.

The journeys required in complying with this order are necessary for the public service.

Should any of the officers named in the detail be prevented from attending at the time and place specified, the court will nevertheless proceed to and continue the business before it provided the number present be not less than the minimum prescribed by law.

BY COMMAND OF BRIGADIER-GENERAL BROWN:

(Signed) A. B. Smith,
Military Secretary.

Charge and Specification preferred against-
Private John Davis, Troop L, 9th U. S. Cavalry

CHARGE: "*Desertion in violation of the 47th Article of War*".

Specification:—In that Private John Davis, Troop L, 9th U. S. Cavalry, a soldier in the service of the United States, did desert the same at Fort Robinson, Nebraska, on or about the 10th of March, 1904, and did remain absent in desertion until he was apprehended at Saint Joseph, Missouri, on or about the 10th of January, 1907.

GEORGE D. JONES,
Captain, 9th Cavalry,
Officer Preferring Charge.

WITNESSES:

1st Sergeant George Watson, Troop L, 9th Cavalry.
Sergeant William Higgins, Troop L, 9th Cavalry.
Mr. G. H. Haskell, Deputy U. S. Marshal, St. Joseph, Mo.
Mr. John W. Brown, Leavenworth, Kansas,

Question No. 1.

The accused challenges Major Frank W. Ball for the following cause: . That Major Ball is a retired officer and is not competent for that reason to sit on the general court-martial. Would you sustain the challenge?

Question No. 2

The accused challenges Captain Royden E. Beebe for the following cause: That Captain Beebe has formed an opinion on the case. Make a reply to this challenge for Captain Beebe.

Question No. 3

The judge-advocate challenges Lieutenant D. H. Currie for the following cause: That Lieuteuant Currie is an officer in the Philippine Scouts and is not competent to sit on a court to try a member of the regular army. Would you sustain the challenge?

Question No. 4

Captain Upton Birnie now rises and says that he has formed a fixed opinion on this case and asks to be excused. Would you vote to excuse him?

Question No. 5

GENERAL COURT-MARTIAL ROOMS.

FORT LEAVENWORTH, KANSAS,

March 12, 1907.

MAY IT PLEASE THE COURT:

The undersigned, Private John Davis, Troop L, 9th U. S. Cavalry, having heard the charge and specification read, says that he ought not to be compelled to answer to this specification and charge, because he says that the offense therein alleged was committed on the 10th day of March, 1904, more than two years previous to the date of the order convening the court for his trial, upon the charge and specification aforesaid; and this the defendant is ready to verify.

Wherefore, he prays judgment that the charge and specification be quashed.

JOHN DAVIS.

Pvt., Troop L, 9th U. S. Cavalry.

His statement of service shows March 9, 1905 as the date of expiration of his term of service. He has not been out of the United States since his desertion. Would you sustain his plea? Give reasons for your answer. Give the words in which the president of the court would put this plea to a vote. If the vote were a tie what would be the status of the plea?

Question No. 6

Sergeant William Higgins Troop L, 9th U. S. Cavalry hav-

ing qualified as a witness refuses to answer any questions put to him regarding the case. What action would the court take against him?

Question No. 7

A member of this court now takes offense at a remark made by another member and throws an inkstand at the latter's head. What action would the court take against the member who threw the inkstand?

Question No. 8

Mr. John W. Brown, Leavenworth, Kansas, having been duly subpoenaed to appear and having appeared before the court, refuses to qualify as a witness. What action would the court take against him?

Question No. 9

Major J. B. Allison received notice this date of his promotion to a Lieutenant-Colonelcy. Does this affect his competency to sit on this court? How would it affect the record?

Question No. 10

The court having found the accused guilty, evidence of two previous convictions are now introduced and read to the court. (One under the 47th A.W., the other under the 17th A. W.) What is the maximum sentence the court may impose on the accused?

Question No. 11

The court is now reconvened by the reviewing authority and the record of the case returned to the court and its attention called to the fact that the record fails to show that 1st Sergeant George Watson, Troop L, 9th U. S. Cavalry, a witness for the prosecution, was duly sworn before he gave his testimony. There are only six members of the court present on the reconvening. Can the court correct the record in the particular indicated? Give reasons for your answer.

It is to be regretted that more time cannot be devoted to these exercises. At least ten' half-days more could be most profitably employed on similar exercises. The theoretical course for the infantry and cavalry class is now curtailed and crowded into such a short period that any further cutting of the course or shortening of time of instruction would destroy the continuity of the whole and make the instruction very superficial.

The graduates from these schools have been able

to convince the army 'at large of the value of the instruction here in the department of military art by the excellence of their work at the camps of instruction. The reason is patent, they were required to do at encampments just what they had been doing here at these schools. If then the graduates are to create as good an impression in regard to their instruction in law, more time should be devoted to the moot courts.

By actually sitting on these mock courts and having every question which may possibly arise on a court-martial brought' to their attention and actually doing the work they would be called upon to do in connection with court-martial duty the students from this school will acquire that knowledge which will render the excellence and thoroughness of their instruction manifest to every one. I earnestly recommend that at least ten more half-days be allotted the department.

The scope and method of instruction in the theoretical course for the infantry and cavalry class were fully set forth in my report of last year. Credit for the excellence of this course is due Captain H. A. White, 11th Cavalry, Assistant Instructor Department of Law, who has made the course what it is. With three text books not especially written for military men he has developed a course of instruction in law in general, criminal law, and the law of evidence which, for thoroughness and completeness in those phases pertaining to the military man, cannot be excelled.

Examinations

There were three written examinations each covering a period of four and one-half hours. All the students were proficient in those examinations, The highest percentage obtained in both the theoret-

ical and practical work was 97.15; the lowest 84.05.
Eight students made over 95 per cent.

Respectfully submitted,

H. O. WILLIAMS,

Captain, 5th Infantry,

Instructor.

[APPENDIX D.]

U. S. INFANTRY AND CAVALRY SCHOOL
DEPARTMENT OF CARE OF TROOPS

Fort Leavenworth, Kansas, January 3, 1907.

The Secretary,
Infantry and Cavalry School.

Sir:

I have the honor to inform you that the course in "Care of Troops" wherein the undersigned is instructor, came to a close 28th of November, 1906:

An examination was held that date and the student officers showed a good knowledge of the subject and of the contents of the text-book. As in the preceding year, it was considered advisable to devote six quarter-days to thorough and systematic prelections and reviews so as to fix the subject in its continuity and logical sequence in the memories of the members of the class. Lectures on various subjects that seemed to require more elucidation than is given in the text-book were delivered by Captains Clayton, O'Connor and Bloombergh, assistant surgeons, and by the undersigned. The above mentioned officers of the army medical corps were detailed by the following order as assistant instructors:

INFANTRY A-N-D CAVALRY SCHOOL, SIGNAL SCHOOL,
AND STAFF COLLEGE,

Fort Leavenworth, Kansas, October 11, 1907.

ORDERS }
No. 46. }

I. Under the provisions of paragraph 48, General Orders No. 145, War Department, dated Washington, August 16, 1906, with the concurrence of the commanding officer, Fort Leavenworth, Kansas, the officers hereinafter named, will, in addition

to their other duties, perform the duties of assistant instructors, Department of Care of Troops, Infantry and Cavalry School, viz :

Captain J. B. Clayton, Assistant Surgeon, U. S. Army.

Captain R. P. O'Connor, Assistant Surgeon U. S. Army.

Captain H. D. Bloombergh, Assistant Surgeon, U. S. Army.

BY COMMAND OF BRIGADIER-GENERAL HALL:

MILTON F. DAVIS,

Captain, 10th Cavalry,
Secretary.

Among the matters touched on in the lectures on communicable diseases were venereal diseases, which annually cause about 30 per cent of the "incapables" in our army. The course of instruction this year (1906-07), as the course of last year, was deficient in practicality. The time allotted to the subject "Care of Troops", while all that can be allotted with the present curriculum of this school, is not sufficient to enable the instructor to assign practical problems or exercises, or the members of the class to work them out.

In view of the facts, however, that a course in Hygiene is now a part of the curricula of all garrison schools and that this course is preparatory and very similar to the course heretofore given at this school, the following recommendations and suggestions are laid before you:

1. The course in "Care of Troops" in the infantry and cavalry school should supplement and extend the course in Hygiene in garrison schools, and should go thoroughly into sanitation, prevention of diseases likely to weaken armies, and protection against these diseases.

2. It should include lectures, exercises, and problems particularly involving matters pertaining to the "sanitary service" in battle.

3. If the course hereafter should be a course of lectures and practical exercises, syllabi of the

lectures should be provided for the members of the classes as is done in certain universities.

4. The work done by the class need not be much greater than at present, though it is believed it would be to the interest of the service to devote at least 20 quarter-days, instead of 16 as at present, to the Care of Troops; but the work to be done by the instructor would be much greater than at present, and would render it impracticable for him to do anything except to guide and control the course, give the necessary instructions therein, and collect, digest, and arrange the facts and newest information pertaining to Hygiene, so as to present the matter in a concise and intelligible manner to his class.

Very respectfully,

EDWARD CHAMPE CARTER,
Major, Surgeon, U. S. Army,
Instructor.

[APPENDIX E.]

U. S. INFANTRY AND CAVALRY SCHOOL

DEPARTMENT OF LANGUAGES

Fort Leavenworth, Kansas, February 19, 1907.

The Secretary,

U.S. Infantry and Cavalry School,

Sir:

I have the honor to submit the following report of the work of the department of Spanish for the year ending August 31, 1907:

The actual work of the department was performed between November 2, 1906 and February 12, 1907.

Allotment of Time

For the half year from September 1, to December 31, 1906, 167 half-days were available for school work of which 28 were allotted to the department. From January 3, to June 30, 1907, 262 half-days were available, of which 38 were allotted. Total for the year, 66 half-days.

Text Books

Traub's "Pronunciation and Verb."

Marion and Des Garenes "Introducción á la lengua Castellana"

Carter and Malloy "Cuentos Castellanos."

I. C. S. "Spanish Conversational Texts" Parts 1-5 inclusive,

Allotment of Assigned Weight

A weight of 150 was assigned to Spanish and was distributed as follows:

Oral Tests.....	60.0
Written Examination,	40.0
Oral Examinations,	50.0
	<hr/>
Total,	150.0

List of Exercises for Year (*Practical*)

	Value
Oral Test No. 1	4
Oral tests 2-8, value 8 units each,	56
	60

Making five phonograph records for instruction; no value assigned.

Scope and Method of Instruction in Theoretical
and Practical Work

(a) *Scope*—

The theoretical work was planned with a view to giving each student officer such a knowledge of the pronunciation, grammar, verbs, vocabulary, and idioms of Spanish as would give him a sound foundation for a practical speaking knowledge of the language.

A reference to the text books and list of lessons given hereafter will show fully the theoretical course followed.

(b) *Methods*—

The conference method was used. The class was divided into three sections of thirteen student officers each. These sections changed instructors weekly. Each conference was of two hours duration and all the time was devoted to instruction and practice in conversation. No regular lessons were assigned in the reader. It was all sight translation.

An important factor in the method of instruction for the first thirty-eight lessons was that the undersigned always met the class each day for an hour in conference after the regular day's work was done, going over with them the whole of the lesson for the following day. In this way the student officers wasted no time, and could devote themselves to the study of what they already understood.

From the fortieth lesson to the end of the course the phonograph and texts of the International

Correspondence School were used with marked success in imparting conversational fluency and facility.

Practical Work

(a) *Scope*—

The practical work was planned with two objects in view.

1. To give to each student officer conversational fluency and facility,
2. To make him study his daily lessons thoroughly without giving him a daily mark.

(b) *Method*—

Scattered throughout the course at more or less regular intervals were eight oral tests having a value of 60. These oral tests were conducted as follows: the first six by the undersigned alone, in his office; the remaining two by the undersigned and the senior assistant instructor in one room, and the other two assistants in another room.

Printed instructions were issued a week in advance of each test so the student officer always knew what would be required of him.

As copies of similar instructions and of the actual tests taken were embodied in last year's report they are not inserted here.

The list of lessons shows the practical work done with the phonograph.

One great object attained was in making the student officers converse with each other in Spanish. In order to do well at the oral tests they would get together, two or more at a time, and talk as though they were having an actual test. I do not know of any other method that would make English speaking students converse in Spanish.

The highest mark obtained in the oral tests was, 59.76 out of 60.0; the lowest, 47.45; and the average, 56.60.

Examinations

The written examination, value 40, was held after the thirty-ninth recitation, and the oral examinations, value 50, at the close of the course.

A copy of of the instructions for each is given below:

DEPARTMENT OF LANGUAGES
INFANTRY AND CAVALRY SCHOOL
Fort Leavenworth, Kas., January 4, 1906.

(Memorandum-Written Examination-Spanish.)

I. Bring this memorandum to the examination room and read it carefully before beginning work.

II. WRITTEN EXAMINATION.

1. The written examination will be held on Monday, January 14, between 8:00 A. M., and 1:00 P. M.

This written examination has a value of 40, out of a maximum of 150, in determining class standing. It will consist of two sheets. Sheet No. 1 will comprise: (a) The translation of 50 words selected from the "vocabulario" of lecciones "Primera to Duodécima" inclusive, of the "Introducción". Value of each word, two-tenths; total value, 10.0. With nouns the article will be required; with adjectives, the masculine singular form. (b) Writing out either the 4 singular or the 4 plural forms of 20 selected tense of various Spanish verbs. Value of each half-tense, one-half of a unit; total value, 10.0. The tenses (any form) will be selected from *fully conjugated* verbs in the verb-book, which have been taken by the student officer during the course, or from any *regular verb* in the Spanish language.

In the *imperative* only the second persons will be required. In writing out the other tenses of the verb, write out the verb forms corresponding to V. or VV., thus making four forms for each half-tense. The subject pronouns, except V., and VV., will not be expressed. Each half-tense will be written in a column in the space provided and each verb form must be written out in full. No abbreviation of any form nor ditto marks will be used.

2. After turning in their answers to Sheet No. 1, student officers may, if they so desire, leave the room before **taking** and beginning work on Sheet No. 2.

3. Sheet No. 2 will comprise 60 English sentences to be translated into Spanish. Value of each, one-third of a unit; total value 20. The translation of these sentences will involve construction, order, agreement, and a knowledge of pronouns of all kinds. The infinitive of verbs, the translation of nouns, and the masculine singular form of adjectives, together with such other words the knowledge of which is not to be tested, will be furnished the student officer on a printed slip as soon as he hands in sheet No. 1 and takes Sheet No. 2. Whatever is not

thus given the student officer he will know he is to be tested on in his answers to the sentences given for translation. With every *dative* object pronoun, the *pleonastic* construction will be required; with every *accusative* object pronoun only the *simple form* will be required.

The 60 selected sentences will be *similar* to but not necessarily the same as the sentences on the quiz sheet to lecciones "Primera to Duodécima" inclusive in the "Introducción".

4. All papers must be turned in by 1:00 P. M.

5. The questions will not be copied. The answers or translations corresponding to each question will be written in the blank space immediately following such question on the examination paper. Should such space prove insufficient, any desired corrections may be written upon blank sheets of legal cap paper and appended to the printed sheets. Whenever the answer to a question is thus supplemented, write in the margin to the left of the original question "see also page—;" and number the additional answer to correspond to the questions.

6. On each sheet (printed or additional) write your number in the upper right-hand corner, and number all pages consecutively in the lower right-hand corner. The name of the student officer will not appear on any examination paper.

7. All written matter will be in ink, and the writing must be legible enough to show clearly the spelling, accentuation, etc., intended. Write only on one side of paper.

8. Where a sentence is susceptible of more than one translation, give any one if they are equally accurate and correct; otherwise, give the translation that accords with the best usage.

9. Before turning in your *paper*, read it over carefully and make any necessary corrections or additions; after which, arrange the sheets in proper order and fasten all together at upper left hand corner only, with one paper fastener.

10. The examination questions are clear and precise, and no explanation of their meaning will be given.

III. The certificate will be handed in at the end of the examination but will not be attached to the examination paper. It will be signed with the official signature of the officer.

PETER E. TRAUB,
Captain, 1 3th Cavalry,
Instructor.

The highest mark obtained was 39.95; the lowest, 31.86; the average, 38.78.

DEPARTMENT OF LANGUAGES
INFANTRY AND CAVALRY SCHOOL

Fort Leavenworth, Kansas, February 3, 1907.

(Memorandum—Oral Examination—Spanish.)

I. In accordance with the schedule the oral examinations will take place as follows: Monday, February 11, 1:00 P. M.,

to 5:00 P. M., value 25; Tuesday, February 12, 8:00 A. M., to 12 M., value 25.

II. On Monday, February 11, the oral examination will comprise Part I and II. On Tuesday, February 12, it will comprise Parts III and IV. The subdivisions of each Part, the value attached thereto, the rooms where held, the time allowed, and the examining officers, are all shown in the following scheme :

Monday February 11, 1907, 1:00 P. M., - 5:00 P. M.	[Part I. (a) 3 tenses; value 1 unit each, total 3.0. (b) Pronunciation of 10 selected Spanish words; value .1 each, total 1.0. (c) Translation of 10 selected English words; value .1 each, total 1.0. (d) Five general questions put orally in Spanish; value 1 unit each, total 5.0. Total Part I., 10.0.	Captains Traub and Moss in section room C. Time allowed five minutes.
	Part II. (a) 2 tenses; value 1 unit each, total 2.0. (b) 13 questions put orally in Spanish; value 1 unit each, total 13.0. Total Part II., 15.0. Total Parts I. II., 25.0.		Captains Parker and Spaulding in section room D. Time allowed five minutes.
Tuesday February 12, 1907, 8:00 A. M. - 12 M.	Part III. (a) 2 tenses; value 1 unit each, total 2.0. (b) 13 questions put orally in Spanish, value 1 unit each, 13.0. Total Part III., 15.0.	Captains Traub and Moss in section room C. Time allowed five minutes.
	Part IV. (a) 3 tenses; value 1 unit each, total 3.0. (b) Pronunciation of 10 selected Spanish words; value .1 each, total 1.0. (c) Translation of 10 selected English words; value .1 each, total 1.0. (d) Five general questions put orally in Spanish; value 1 unit each, total 5.0. Total Part IV., 10.0. Total Parts III. IV., 25.0. Grand Total Parts I. II. III. IV., 50.0.		Captains Parker and Spaulding in section room D. Time allowed five minutes.

REMARKS ON PARAGRAPH II.

3. With the exception of Part I (b) and Part I (d), the oral examination the first day will be devoted to the portion of

the Spanish Course taken between *lessons 40 and 50 inclusive*.

With the exception of Part IV (b) and Part IV (d), the *oral examination the second day* will be devoted to the portion of the Spanish Course taken between *lessons 51 and 64 inclusive*.

Part I. (a) } Any form (affir., neg., int., or neg.-int.) of the
Part II. (a) } simple or compound tenses of the verbs
Part III. (a) } taken may be selected; pronoun subjects
Part IV. (a) } are not required except V. and VV.; eight
forms in all including V. and VV.

Part I. (b) Part IV. (b). Any word in the Spanish Language may be selected. Z error=.1; Y error=.06; X error=.04.

Part I. (c) Part IV. (c). The words for translation will be selected from the "vocabulary" of the proper phonograph lessons I. C. S. A mistake in pronunciation or tonic accent =.02; a mistake in gender .03.

Part I. (d). Part IV. (d). Any question in Spanish to be answered, may be selected from any portion of the *entire course in Spanish*.

Part II. (b) Part III. (b). The questions in Spanish will be similar to but not necessarily identical with the questions in the ("phrases and sentences, drill, review and conversation" taken in the proper phonograph lessons, I. C. S.

Spanish answers must contain a predicate and must be pertinent to the question; answers like "sí señor, no señor, creo que si, creo que no," will not be accepted. Student officers may be required to give the meaning of both question and answer in English.

4. In each room the instructor and his assistants will note the hour, minute and second of the beginning and ending of the student officer's examination. They will also write down all errors made. The mark itself will be determined later by the Department.

5. *No time for preparation will be allowed. For every minute over time, in either Part I. II. III. or IV, one unit will be deducted from the mark; and for any portion of a minute over time, a corresponding portion of a unit.*

6. Repetitions will be allowed.; the last way the student officer says the word or sentence will be the one on which he will be marked, *but* in addition to the loss of time, an equitable deduction in the mark will be made for each repetition of question or of answer.

7. The first half of the class (Allison to Hodges inclusive) will assemble in the Infantry and Cavalry assembly room, Monday afternoon, February 11, at 12:55, and at the same time the second half of the class (Hurst to Winter inclusive) will assemble in the lecture room. The order of examination in each half will be determined by lot.

As each officer in the first half is called upon he proceeds to section room C and takes Part I; he then proceeds to section room D and takes Part II while the next officer is taking Part I, and so on throughout the class. When the last officer of the first half proceeds to section room C, the second half of

the class, proceeds from the lecture room to the Infantry and Cavalry assemble room.

8. At 7:55 A. M., Tuesday, February 12, the second half of the class, (Hurst to Winter inclusive) will assemble in the Infantry and Cavalry assembly room, and at the same time the first half (Allison to Hodges inclusive) will assemble in the lecture room. The order in each half will again be determined by lot.

As each officer in the second half is called upon he proceeds to section room C and takes Part III; he then proceeds to section room D and takes Part IV, while the next officer is taking Part III; and so on throughout the class. When the last officer of the second half proceeds to section room C, the first half of the class proceeds from the lecture room to the Infantry and Cavalry assembly room.

9. Upon the completion of Part IV, of the oral examination each student officer will sign in ink the required certificate with his official signature. These certificates will be on the table in the Staff Class Assembly Room.

PETER E. TRAUB,
Captain, 13th Cavalry,
Instructor.

The highest mark obtained was 49.77; the lowest, 43.09; the average 47.61.

On the practical work, written and oral examinations combined, that is the work for the whole course, the highest mark obtained out of the maximum of 150, was 149.26; the lowest, 122.40; the average, 142.70.

Nineteen student officers obtained the honor *grade* of 97 per cent and over in Spanish; five others the *distinguished grade* of 95 to 97 per cent; and out of the thirty-eight officers thirty-five obtained over 90 per cent. All were proficient having made over 75 per cent on tests and examinations.

Remarks

This class of student officers has made an excellent record. The tests throughout the course were exacting and the marking very strict yet their showing was better than that of previous classes. This would indicate that the student officers this year averaged higher in ability.

There should soon be a sufficient number of graduates throughout the army as would make it possible for them to teach the rudiments of Spanish at each post to their brother officers at least to those that aspire to take the course here. This would enable the department to do more advanced work in the short course of 66 lessons.

Upon recommendation of the undersigned the officers of the post of Fort Leavenworth were invited by the commandant to take the course in Spanish and a number availed themselves of the privilege.

The two foreign officers from the Mexican Republic did not take Spanish with the class but by permission of the commandant were instructed in English by the undersigned as often as his other duties permitted.

The foreign officer from the French Republic was transferred at his own request to the Signal. School and so did not come under the instruction of the department.

The efficient and valuable assistance rendered by the three assistant instructors, Captain James F. MOSS, 24th Infantry, Captain Francis LeJ. Parker, 12th Cavalry, Captain O. L. Spaulding, jr., Artillery Corps, had a most important bearing on the success of the instruction in Spanish. Their able and conscientious efforts materially lightened the work of the head of department.

Recommendations

1. That at least seventy-eight lessons be assigned to Spanish.
2. That the course in Spanish be thrown open to the officers on duty at the post and at the military prison. This is to the best interests of the service and under the conference -method can be done with.

out detriment to the instruction of the regularly detailed student officers.

3. That foreign officers authorized to attend the school be not required to take the Spanish course but be permitted, if they so elect, to take a course in English. Texts have been acquired from the International Correspondence School, Scranton, Pa., for teaching English by the phonograph method to French and Spanish speaking students.

Very respectfully,

PETER E. TRAUB,

Captain, 13th Cavalry,

Instructor.

[APPENDIX F.]

Total number of student officers detailed for the Infantry and Cavalry School since 19 02.

	1902-3.	1903-4.	1904-5.	1905-6.	1906-7.	1907-8.	TOTAL
<i>Cavalry.</i>							
First.....	2	3	2	1	1	1	10
Second.....	1	3	...	...	2	1	7
Third.....	4	3	2	1	...	...	10
Fourth.....	4	3	1	...	...	1	9
Fifth.....	1	3	1	2	1	1	9
Sixth.....	1	3	2	1	2	...	9
Seventh.....	2	3	1	...	...	1	7
Eighth.....	5	3	1	...	...	2	11
Ninth.....	1	3	1	1	1	...	7
Tenth.....	1	3	1	1	1	...	7
Eleventh.....	1	...	2	2	1	1	7
Twelfth.....	6	...	...	2	2	1	11
Thirteenth.....	...	...	...	2	2	...	4
Fourteenth.....	1	...	...	2	2	1	6
Fifteenth.....	1	1	2	2	1	1	8
							122
<i>Infantry.</i>							
First.....	4	2	2	1	...	1	10
Second.....	2	3	2	1	...	...	8
Third.....	...	3	...	...	2	1	6
Fourth.....	2	1	...	2	2	1	8
Fifth.....	3	2	2	1	2	1	11
Sixth.....	3	3	1	...	...	1	8
Seventh.....	4	3	...	...	2	1	10
Eighth.....	2	3	1	1	...	1	8
Ninth.....	2	3	1	...	1	1	8
Tenth.....	1	3	2	1	...	1	8
Eleventh.....	4	...	2	2	2	1	11
Twelfth.....	4	3	...	...	2	1	10
Thirteenth.....	1	3	1	1	...	2	8
Fourteenth.....	1	1	...	2	2	1	7
Fifteenth.....	3	3	1	1	...	2	10
Sixteenth.....	4	3	1	...	...	...	8
Seventeenth.....	1	...	...	2	2	2	7
Eighteenth.....	3	...	...	3	2	...	8
Nineteenth.....	4	3	1	...	...	2	10
Twentieth.....	4	3	...	...	2	1	10
Twenty-first.....	3	3	1	...	...	1	8
Twenty-second.....	2	3	...	...	2	1	8
Twenty-third.....	...	...	...	2	2	2	6
Twenty-fourth.....	1	3	1	1	...	...	6
Twenty-fifth.....	...	3	1	1	1	...	6

Total number of student officers detailed for the Infantry and Cavalry School since 1902.

	1902-3.	1903-4.	1904-5.	1905-6.	1906-7.	1907-8.	TOTAL
Twenty-sixth	1	3	2	1	1	...	8
Twenty-seventh	1	...	2	2	1	1	7
Twenty-eighth	2	..	2	2	2	2	10
Twenty-ninth	2	...	2	2	2	...	8
Thirtieth	1	...	2	2	1	...	6
							247
<i>Artillery</i> .....	...	...	...	...	3	...	3
<i>Engineers</i> .....	...	...	...	1	...	...	1
<i>Signal Corps</i> .....	...	...	...	...	...	2	2
							6
<i>Militia.</i>							
Massachusetts .....	...	...	...	1	...	...	1
Tennessee .....	...	...	...	1	...	...	1
Texas .....	...	...	...	1	...	...	1
Washington .....	...	...	..	1	...	...	1
Kansas .....	...	...	...	...	...	1	1
							5
<i>Foreign Armies.</i>							
French cavalry .....	...	...	...	...	1	...	1
Mexican infantry .....	...	...	...	...	2	...	2
							3
Total	96	91	46	53	55	42	
Aggregate .....	...	...	...	...	...	...	383

LIST OF LESSONS IN SPANISH

Theoretical.

Signal School--Infantry and Cavalry School, 1907.

Number of Lesson	PRONUNCIATION AND VERB (<i>Transb.</i>)	CUENTOS CASTELLANOS (<i>Carte and Malloy.</i>)	SPANISH CONVERSATIONAL TEXTS (<i>I. C. S.</i>)	CRAL TESTS Value, 8 Units Each. TOTAL 60.
1	To bot. p. 5.			
2	“ § 44, p. 7.			
3	“ § 58, p. 9.			
4	“ bot. p. 11.			
5	General Review of pronunciation	Repaso de sonidos, p. 5; Ejercicio de Pronunciación pp 7, 12, 18, 24, 30, 38, 45, 51, 60, 67, 75, 84, 91,* 100.* (*Nombres Geográficos.)	Part I, Lesson I.	
6	Oral Test	Oral Test.	Oral Test	(4Units) 1.
7	§§ 63-66 incl., and *interp. sheet—“Simple Tenses”.	Lección Primera.—From beginning to ejercicio de verbos		
8	§ 82 (1st conj. only) thro indic. mood; § 84 to subj. mood.	“ To end. *Interp. sheet—“Pron. Subj.” to line 26, p. 7.		
9	Subj. and Imp. moods of § 82 (1st conj.) and of § 84.	“ Seg. da.—To ejercicio de verbos. *Interp. sheet—“Dem. Adj. & Pro.”		
10	§§ 87, 88; omit compound tenses.	“ To end. *Interp. sheet—“Demons. Adj. & Pro.”		
11	§§ 89, 90; omit compound tenses.	“ Ter. ra.—To ejercicio de verbos. *Interp. sheet—“Poss. Adj.”		
12	§§ 91, 92; omit compound tenses.	“ To end. *Interp. sheet—“Poss. Pr.”		
13	General Review	General Review.—Lecciones Primera, Segunda, Tercera		
14	Oral Test	Oral Test.		
15	§ 82 (2d conj.); § 93, omitting compound tenses	Lección Cuarta. To ejercicio de verbos. *Interp. sheet—“Comparatives” to Ex. 3, p. 5.		
16	§ 82 (3d conj.); § 94, omitting compound tenses	“ “ To end. Interp. sheet—“Personal Accusative.”		
17	Rev. of Hablar; also §§ 72-80 incl. and § 83.	“ Quinta.—To ejercicio de verbos. *Interp. sheet—“Superlatives”—mid.		
18	Rev. of Comer; also §§ 72-80 incl. and § 83.	“ “ To end. *Interp. sheet—“Obj. Pers. Pro.” to § 23, p. 10.		
19	Rev. of Vivir; also §§ 72-80 incl. and § 83	“ “ To end. *Interp. sheet—“Obj. Pers. Pro.” to § 23, p. 14.		
20	§ 81	“ “ To end.		
21	General Review	General Review.—Lecciones Cuarta, Quinta, Sexta.		
22	Oral Test	Oral Test.		
23	§§ 85, 86, and *interp. sheet—“Compound Tenses”.	Lección Séptima.—To ejercicio de verbos. *Interp. sheet—“Obj. Pers. Pro.” to end.		
24	§§ 87-94 incl., compound tenses only.	“ “ To end.		
25	Lecture on Orthographic changes pp. 40-71 incl.	“ Octava.—To ejercicio de verbos. *Interp. sheet—“Relative Pro.”		
26	§ 114. *Interp. sheet—“Ser and Estar”	“ “ To end.		
27	§ 115	“ “ To ejercicio de verbos. *Interp. sheet—“Agreement Subj. with Verb.”		
28	§§ 116-123	“ “ To end.		
29	General Review, omitting orthographic changes	General Review.—Lecciones Séptima, Octava, Novena		
30	Oral Test	Oral Test.		
31	§ 128	Lección Décima.—To bot. p. 71. Omit from l. 6 p. 70 to end—“Lectura,” and from “Cuanto hora,” p. 71 to bot. p. 71.		
32	§§ 129-132 incl.	“ “ To end. *Interp. sheet—“Agreement Noun and Adj.”		
33	§ 133	“ “ To ejercicio de verbos; Omit from mid. p. 78 to end—“Lectura” and from mid. p. 80 to end—“Conversación”		
34	§ 138	“ “ To end. *Interp. sheet—“Cardinal and Ordinal Numbers.”		
35	§ 139. *Interp. sheet—“Ser and Estar”.	“ “ To ejercicio de verbos; Omit from top p. 87 to end—“Lectura,” and last eight lines—“Conversación”		
36	*Interp. sheet—“Reflex. Subs. for Passive”.	“ “ To end. *Interp. sheet—“Aug. and Dim.”		
37	General Review	General Review.—Lecciones Décima, Undécima, Duodécima.		
38	Oral Test	Oral Test.		
39	Written Examination	Written Examination		
40	§§ 142-143-144	Cuentos Castellanos. Read Introduction. ½ page to bot. p. 8	Part 1. Lesson II.—To drill p. 15.	
41	146-147	“ “ ½ page to bot. p. 16	To rev. and convers. p. 25	
42	150-155 incl.	“ “ ½ “ “ p. 24	To mid. p. 27. Record I.	
43	156-163-165	“ “ ½ “ “ p. 32	Part 2. Lesson III.—To bot. p. 10	
44	167-168	“ “ ½ “ “ p. 41	To end p. 17	
45	General Review	“ “ “ “ “ “	General Review. Lessons II, III. Record III.	
46	Oral Test	“ “ “ “ “ “	Oral Test.	
47	157-172-175	“ “ “ “ “ “	Part 2. Lesson IV.—To bot. p. 28	
48	158-176-177	“ “ “ “ “ “	To top. p. 35.	
49	159-178-179	“ “ “ “ “ “	Part 3. Lesson V.—To bot. p. 13. Record IV.	
50	160-180-181	“ “ “ “ “ “	To bot. p. 23.	
51	161-182-184	“ “ “ “ “ “	Lesson VI.—To bot. p. 35. Record V.	
52	185-186	“ “ “ “ “ “	To bot. p. 45.	
53	General Review	“ “ “ “ “ “	General Review. Lessons IV, V, VI	
54	Oral Test	“ “ “ “ “ “	Oral Test.	
55	187-188	“ “ “ “ “ “	Part 4. Lesson VII.—To drill p. 12.	
56	189-190	“ “ “ “ “ “	To rev. and convers. p. 27	
57	191-192	“ “ “ “ “ “	To end p. 29. Record VII	
58	193-195	“ “ “ “ “ “	Lesson VIII.—To drill p. 38.	
59	196-197	“ “ “ “ “ “	To rev. and convers. p. 48	
60	199-200	“ “ “ “ “ “	To bot. p. 52.	
61	General Review	“ “ “ “ “ “	General Review. Lessons VII, VIII.	
62	Oral Test	“ “ “ “ “ “	Oral Test.	
63	§§ 201-202	“ “ “ “ “ “	Part 5. Lesson IX.—To bot. p. 9	
64	P. 194	“ “ “ “ “ “	To rev. and convers. p. 18	
65	Examination Oral	“ “ “ “ “ “	Examination Oral.	
66	Examination Oral	“ “ “ “ “ “	Examination Oral.	
				VALUE 25 VALUE 25
				Total 150

*Interpolated sheets are for reference only.

NOTE.—“General Review” and “Oral Test” always apply to lessons from preceding oral test only.

Staff College

REPORT OF COMMANDANT

STAFF COLLEGE

Fort Leavenworth, Kansas, 31st of August, 1907.

*The Chief of Staff,
United States Army,
Washington, D. C.*

Sir:

I have the honor to submit herewith my annual report on this college for the year commencing 1st of September, 1906, and ending 31st of August, 1907:

Commandant

Brigadier General Charles B. Hall, United States Army.

I assumed command of the Service Schools 20th of August, 1906, as Colonel, 18th Infantry, relieving Major General J. Franklin Bell (then Brigadier General, United States Army), having been assigned to duty as Commandant per paragraph 2, Special Orders No. 196, War Department, series of 1906, and was appointed Brigadier General, United States Army, 11th of April, 1907.

Personal Staff

1st Lieutenant Roger S. Fitch, 1st Cavalry.
2d Lieutenant William Lay Patterson, 18th Infantry.

Lieutenant Fitch was directed to report to me for duty as Aide-de-Camp per paragraph 16, Special Orders No. 106, War Department, 6th of May, 1907,

and was announced as such per Infantry and Cavalry School Orders No. 14, 21st of May, 1907.

Lieutenant Patterson, was directed to report to me for duty as Aide-de-Camp per paragraph 8, Special Orders No. 93, War Department, current series, and was announced as such per Infantry and Cavalry School Orders No. 10, 24th of April, 1907.

Assistant Commandants

Major Lansing H. Beach, Corps of Engineers.

Major D. H. Boughton, 11th Cavalry.

Major Beach, Instructor, 'Department of Engineering, being the senior instructor at the Service Schools, was announced as assistant commandant per Infantry and Cavalry School Orders No. 50, 12th of November, 1906. On 13th of August, 1907, Major Beach was relieved from duty at the Schools and College by War Department orders.

Major Boughton, Assistant Commandant, from 15th of August, 1907.

Secretary and Disbursing Officers

Captain Milton F. Davis, 10th Cavalry.

Captain E. E. Booth, 7th Cavalry.

Captain Davis, from 1st of September, 1906, to 15th of August, 1907, when he was relieved by Captain Booth, appointed Secretary and Disbursing Officer.

Captain Davis was absent in Washington on duty in the office of the Chief of Staff from 6th of April, 1907, to 2d of May, 1907, and with the Chief of Staff on an inspection trip from 8th of July, 1907, to 14th of August, 1907.

Captain Booth performed the duty of Secretary, etc., during the absence of Captain Davis. (No orders issued).

Captain Booth, from 15th of August, 1907.

Librarian

Lieutenant-Colonel Ezra B. Fuller, U. S. Army, retired.

Lieutenant-Colonel Fuller was detailed per paragraph 23, Special Orders No. 168, War Department, 18th of July, 1906, and reported 15th of August, 1906.

Department of Military Art

Major Daniel H. Boughton, 11th Cavalry, Instructor from 3d of January, 1906, to 15th of August, 1907, when appointed Assistant Commandant.

Major John F. Morrison, General Staff, Instructor from 15th of August, 1907.

Captain Matthew F. Steele, 6th Cavalry, Assistant Instructor.

Captain Farrand Sayre, 8th Cavalry, Assistant Instructor.

Captain Charles Crawford, 20th Infantry, Assistant Instructor.

Captain John P. Ryan, 6th Cavalry, Assistant Instructor.

Captain Oliver L. Spaulding, jr., 5th Field Artillery, Assistant Instructor.

Captain Campbell King, 1st Infantry, Assistant Instructor.

Captain Ewing E. Booth, 7th Cavalry, Assistant Instructor from 1st of September, 1906, to 15th of August, 1907, when appointed Secretary of the School.

Lieutenant Roger S. Fitch, 1st Cavalry, A. D. C., Assistant Instructor, from 21st of August, 1907.

Veterinarian Sydney L. Hunter, 2d Field Artillery, Assistant Instructor.

Major Morrison was detailed for duty at this school and reported 6th of September, 1906, immediately after his return from service as military attache with the Japanese army during the Russo-Japanese War, and his observations and deductions there have been of great help to him as an instructor in military art and also of much value and interest to the students.

Captains Sayre and King, graduates of the Staff College, Class 1905-06, were retained as assistant instructors under provisions of paragraph 84, General Orders No. 145, War Department, series 1906.

Lieutenant Fitch was, in addition to his other duties as Aide to the Commandant, detailed as assistant instructor in this department August 21, 1907.

Under the provisions of paragraph 84, General Orders No. 145, War Department, series 1906, Captains Matthew E. Hanna, 3d Cavalry, Arthur L. Con-

ger, 29th Infantry, and Duncan K. Major, jr., 27th Infantry, graduates of the Staff College, Class 1906-07, have been retained as assistant instructors in this department to replace Captains Crawford and Ryan (J. P.), who have been relieved August 31, 1907, upon expiration of detail, and ordered to their regiments.

Major Charles H. Barth, 12th Infantry, was on duty in this department from May 8, 1907, to July 1, 1907, engaged in completing his work on Applied Tactics.

Department of Engineering

Major Lansing H. Beach, Corps of Engineers, Instructor, from August 19, 1905, to August 15, 1907, when relieved per War Department orders.

Captain E. T. Cole, 6th Infantry, Assistant Instructor to August 15, 1907, when appointed Instructor.

Captain E. R. Stuart, Corps of Engineers, Assistant Instructor.

Captain H. B. Ferguson, Corps of Engineers, Assistant Instructor.

Captain Stuart was relieved from duty at this School 16th of July, 1907, by expiration of detail and ordered to proceed to station designated by War Department.

Captain Ferguson was relieved from duty at this School 15th of August, 1907, by expiration of detail and ordered to proceed to station designated by War Department.

Captain H. E. Eames, 10th Infantry, and 1st Lieutenant Clarence O. Sherrill, Corps of Engineers, graduates of the Staff Class 1906-07, have been retained as assistant instructors in this department under the provisions of paragraph 84, General Orders No. 145, War Department, series of 1906, to replace Captains Stuart and Ferguson, relieved.

Captain J. A. Woodruff, Corps of Engineers, detailed to duty at this institution per paragraph 9, Special Orders 113, War Department, dated 14th of

May, 1907, has been assigned to duty as assistant instructor in this department per paragraph 2, Orders No. 35, Infantry and Cavalry School, '15th of August, 1907.

The work performed in this department has been most satisfactory. The art of rapid 'field sketching has been brought to a high state of perfection by Captains Cole and Stuart, and its military value is fully recognized.

In this connection I desire to call attention to the following extract from the report of Colonel Ward, before referred to:

"An explanation the same evening and at the same meeting, by Captain E. R. Stuart, Corps of Engineers, of an improved method devised by him for rapidly surveying and mapping, for military purposes, a section of country.

"The explanation by Captain Stuart of the rapid mapping was especially interesting because the method was entirely new. The results accomplished are astonishing. A contour map on a scale suitable for battle purposes was shown, of a section including about thirty square miles. The party had started out in the morning, divided up the section to be covered, made the surveys, joined the sketches, and when they returned to camp before dark they had a blue print contour map of the whole section, made on the ground before starting to return. And it was surprising how well this map, so quickly made, joined with a map of the surrounding country made from regular surveys?

Photographic reproduction of maps and lantern slides for use in lectures in the various departments has occupied much of the time of Captain Cole who has made some 1600 slides this year. He has also taught photography, to a necessary extent, in the Signal School.

Department of Languages

Captain Peter E. Traub, 13th Cavalry, Instructor from 12th of December, 1904, to 25th of July, 1907, when he was relieved, having been detailed by the War Department as associate professor of Modern Languages at West Point Military Academy.

Captain Arthur Thayer, 3d Cavalry, Instructor from 15th of August, 1907, detailed for duty per paragraph 1, Orders No. 35, Infantry and Cavalry School, 15th of August, 1907.

Captain J. A. Moss, 24th Infantry, Assistant Instructor,

ordered to duty at Service Schools and College per paragraph 4, Special Orders No. 196, War Department, 20th of August, 1906.

Captain F. Le J. Parker, 12th Cavalry, Assistant Instructor.

Captain O. L. Syaulding, jr., 5th Field Artillery, Assistant Instructor.

Captain Parker has been relieved from duty as assistant instructor in this Department per Orders No. 48, Schools and College, 30th of August 1907, to enable him to attend the Infantry and Cavalry School as a student during the coming year.

Much excellent work has been done in this department, and great interest manifested by the students as shown by the wonderful progress made. The use of the phonograph as a means of education has been most successful. We have been able to furnish one phonograph to every two officers, and also all the cylinders necessary in Spanish, French and German.

I invite attention to the following quotation from the inspection report of Colonel Ward, Special Inspector, before referred to:

“I was especially impressed with the excellence of the method followed in the language department. Captain Traub, who is at the head of this department, deserves great credit for it. The phonograph is used as an auxiliary and the system developed looks to the acquirement of the best speaking knowledge of the language possible in the time allotted to that study.”

Department of Law

Captain H. O. Williams, 5th Infantry, Instructor, from 3d of January, 1906, to 31st of August, 1907.

Captain Herbert A. White, 11th Cavalry, Assistant Instructor.

1st Lieutenant E. A. Xreger, 28th Infantry, Assistant Instructor.

Captain Tenney Ross, 7th Infantry, Instructor since 15th of August, 1907, detailed for duty at Schools and College per paragraph 21, Special Orders No. 156, War Department, 15th of July, 1907.

Captain C. F. Bates, 25th Infantry, relieved from duty at Schools and College at his own request, per paragraph 1, Special Orders No. 196, War Department, dated 20th of August, 1906.

Captain Williams has been relieved from duty under provisions of paragraph 84, General Orders

No. 145, War Department, 31st of August, 1906, on account of expiration of detail.

Lieutenant Kreger has been on duty in Cuba since 3d of March, 1907, as assistant to Colonel E. H. Crowder, General Staff, Department of State and Justice, per telegraphic orders dated, War Department, 28th of February, 1907. He will return to duty here about the first of October next.

The course in this department has been 'most successful and instructive. New and interesting points of law as they have come up in the higher civil or military courts were taken up and carefully studied.

Student Officers

Of the twenty-four officers constituting the staff class all were members of the infantry and cavalry class of 1905-06 with the exception of Lieutenant Winterburn, who was a member of the infantry and cavalry class of 1904.

- Captain Theodore A. Baldwin, jr., 8th Infantry.
- Captain George F. Baltzell, 5th Infantry.
- 1st Lieutenant John B. Barnes, 12th Infantry.
- Captain Seaborn G. Chiles, 11th Infantry.
- Captain Arthur L. Conger, 29th Infantry.
- 1st Lieutenant Creed F. Cox, 11th Cavalry.
- Captain Henry E. Eames, 10th Infantry.
- 1st Lieutenant Samuel R. Gleaves, 1st Cavalry.
- Captain Matthew E. Hanna, 3d Cavalry.
- Captain Howard R. Hickok, 15th Cavalry.
- captain Ora E. Hunt, 18th Infantry.
- 1st Lieutenant Walter Krueger, 23d Infantry.
- 1st Lieutenant Shelby C. Leasure, 14th Infantry.
- 1st Lieutenant Duncan K. Major, jr., 14th Infantry.
- 1st Lieutenant William T. Merry, 23d Infantry.
- 1st Lieutenant Kerr T. Riggs, 14th Cavalry.
- 1st Lieutenant E. Holland Kubottom, 9th Cavalry.
- Captain James A. Ryan, 15th Cavalry.
- Captain Wyatt O. Selkirk, 1st Infantry, Texas National Guard.
- 1st Lieutenant Clarence O. Sherrill, Corps of Engineers.
- 1st Lieutenant Walter H. Smith, 8th Cavalry.
- 1st Lieutenant George W. Winterburn, 9th Cavalry.
- 1st Lieutenant William H. Winters, 13th Cavalry.
- 1st Lieutenant Frederick S. Young, 23d Infantry.

Of the above named officers Captains Baltzell, Chiles, Hickok, Ryan, and Lieutenant Cox were relieved from duty at the college on the 30th of September, 1906, and ordered to duty with their regiments in Cuba.

With the exception of Captain Ryan, who is still on duty in Cuba, all the others were ordered by the War Department to report for duty with the staff class for the year 1907-08, and so reported during the present month.

From 17 June, 1907, to 21 June, 1907, the members of this college were in camp near Beverly, Missouri, under command of Major Boughton, instructor, engaged in practical field exercises. This encampment was somewhat of an innovation on old customs but the results were so satisfactory, not only from a physical standpoint as giving a much needed outing to the students, but also in imparting military instruction, that I strongly recommend its adoption each year.

Attention is invited to the following extract from the inspection report of Colonel Ward, before referred to:

“The Infantry and Cavalry School and the Staff College are so closely connected in their work that a separate report upon each would involve much repetition and they are therefore included in one report.

“When I arrived at the post the school year was practically ended. The class-room work was over and the final examinations were in progress. The student officers were in camp, on the reservation a few miles from the post, engaged in practical exercises. The camp was broken and they returned to the post on Friday, 21st instant.

“The following exercises were witnessed by me, though they were not held for me:

“A discussion in the evening in camp of the various solutions proposed, of a problem involving the contact of two opposing forces of which the locations were given while they were yet considerably separated and before either had definitely located the other.

“A field exercise, without troops, contact of two opposing brigades, the forces being represented by the officers only of the various subdivisions, all three arms being represented.

“An advance guard exercise of a command composed of the three arms, the troops supplied from the Fort Leavenworth garrison, all the fractions of the command under student officers assigned to them for the exercise, the opposing force being imaginary.

“A description in detail of these exercises would be out of place in this report. They were well conducted and creditable both to the instructors and the student officers who took part in them. It was evident that all were interested and working hard and harmoniously for the purpose for which the exercises were held and for which these schools are maintained.

“Inquiry regarding the various departments of the school disclosed nothing for adverse criticism. The departments are all well managed, the instructors competent and efficient, and the work is well done by the student officers as well as by the instructors.”

. From 2d to 15th of July, last, the members of the Staff Class with instructor were absent in the field, engaged in a Staff ride over the battlefields of the Chattanooga campaign of the Civil War. This ride was very instructive and successful. I cannot too strongly recommend that these staff rides as now conducted, to the various battlefields of the Civil War, be continued each year. They are very valuable lessons and involve much study and research on the part of student officers. The cost for transportation, etc., is money well expended. The rides should be participated in by as many of the student officers as possible, in addition to the Staff Class.

Very respectfully,

CHAS. B. HALL,

Brigadier General, U. S. Army,
Commandant.

[APPENDIX A.]
 U. S. STAFF COLLEGE
 DEPARTMENT OF MILITARY ART

Fort Leavenworth, Kansas, August 31, 1907.

The Secretary,
U. S. Staff College.

Sir:

I have the honor to submit the following report of the work of this department for the year ending August 31, 1907:

Of the 429 half-days comprising the school year (staff ride in July not included) this department was allotted 193 half-days, ¹ which were divided among the subjects comprising the course of instruction as follows :

	Half-days
Field Service Regulations.	12
(In lieu of "Organization," for this year only.) ..	..
<i>Tactics</i>	
Leading of Troops	17
Gizycki—von Moltke and Military History.	20
Map Maneuvers (War Game).	20
Preparing, reviewing and umpiring problems of the I. & C. Class.	76
Staff Rides and Terrain Exercises	14
<i>Conduct of War</i>	
Vonder Goltz.....	7
Original research, preparation and discussion of papers..	24
Strategical Map maneuvers.....	3

193

Text Books

Field Service Regulations.

Tactics

Leading of Troops-von Verdy (Gerlach).

Gizycki-von Moltke.

War Game Simplified.

A Tactical Ride-von Verdy.

¹ Less 10 lecture hours for the Department of Engineering.

Conduct of War

Von der Goltz and books of reference.

Map maneuvers (war game) having been made a part of the course of instruction in the Infantry and Cavalry School, the text "War Game Simplified" has been transferred to that school and will be replaced in the Staff College by Immanuel's "The Regimental Game", translated by Lieutenant Walter Krueger of our army.

Work in the Staff College being largely in the nature of original research, text books are selected chiefly as guides to students, the whole domain of military literature being placed at their disposal.

Scope and Method of Instruction

There has been little change in the scope of instruction from that contemplated in my report of August 31, 1906. Standing between the Infantry and Cavalry School, and forming a part of the general scheme for the higher education of army officers, it must be built, in a measure, upon the course of instruction in the Infantry and Cavalry School, and stop short of the work of the War College. For instance, in tactics the work of the Infantry and Cavalry (or School of the Line, as it is to be called) begins with the smaller units and includes the operations of detached brigades of all arms. The work of the Staff College comprehends in a general way the operations of divisions and corps. It would therefore seem that the work of the War College should deal primarily with forces larger than these, that is, with the operations of complete armies. Of course, the line of demarkation cannot be definitely drawn, but the above outline is sufficient to prevent the work of one institution being needlessly duplicated in the others.

Attention has been called in my report on the

work of the I. & C. School, to the fact that the subject of Security and Information will be included in the general subject of Tactics where it properly belongs. The same change has been made in the Staff College. With this change and one or two minor alterations in the wording, the course of instruction in the Staff College for the coming year will be as follows:

1. *Organization and Supply.*-Instruction by lectures and conferences ; research and written exercises on organization and supply of the Army of the United States and of foreign armies.
2. *Tactics.*-(a) 1. Instruction by lectures and conferences on the development and tendencies of modern tactics.
2. Tactical studies involving the larger units.
(b) 1. Map problems involving the larger units.
2. Map maneuvers (war game) and practice in umpiring the same.
(c) 1. Practical instruction in the application of military problems to the ground; staff and tactical rides and practice in conducting the same.
2. Practical demonstrations of the uses of all means afforded by the U. S. Signal Corps for gaining information and furnishing lines of information in the theater of operations, including balloons, wireless and ordinary telegraph, tele-phones, etc.
(d) Practice in the preparation, criticism, and umpiring of practical exercises of the School of the Line.
(e) Practical instruction in the duties of umpires at field maneuvers.
3. *Conduct of War.*-(a) Military policies; duties of the general staff; mobilization; logistics; strategy; military history and geography.
(b) Instruction by lectures, discussions, original research, and map maneuvers.
4. *Strategical and tactical coöperation of the Army and Navy.*-Lectures on modern navies and naval warfare, with special reference to cooperation with the army. These lectures to be given, when practicable, by an officer of the United States Navy.
5. *Lectures and discussions on subjects of current military interest.*
6. *Practical campaign studies, including the "care of troops" in campaign and battle.*---If practicable, a visit to the field of an actual campaign or battle and a study of military questions in connection therewith.

An examination of the above course discloses the fact that it is divided mainly, into the subjects of tactics and the conduct of *war*. True, the latter term, in a broad sense, includes all the subjects listed above, but *tactics* occupies so prominent a place in the course of instruction that it is found advantageous to treat that subject in a class by itself.

As to the *method of instruction in tactics*, the remarks in my report on that subject for the Infantry and Cavalry School are fully as applicable to the College and may be considered as repeated here. The applicative system is used and whenever possible the instruction consists of *studies, map problems* (including the war game), *terrain exercises* and *maneuvers*.

The map maneuver course for this year was as follows:

I. Lecture.-History and Development of the War Game (Sayre).

2. Recitation.-War Game Simplified (von Verdy), to bot. p. 35 and pars. 26, 27, 28 and 40, Provisional Instructions for Maneuvers.

3. Recitation.-War Game Simplified (von Verdy) to mid. p. 46 and pars. 15 to 36 inc. Provisional Instructions for Maneuvers.

4. Recitation.-War Game Simplified (von Verdy), to mid. p. 72 and pars. 1 to 14 and 29 to 39 inc. Provisional Instructions for Maneuvers.

5. Recitation.-War Game Simplified (von Verdy), to end of text and pars. 41 to 77 inc. Provisional Instructions for Maneuvers.

Exercises

6. Conduct of Patrols.
7. Conduct of Patrols,
8. Contact: Advance and Rear Guards and Outposts.
9. Contact: Advance and Rear Guards and Outposts.
10. Contact: Advance and Rear Guards and Outposts.
- II. Contact: Advance and Rear Guards and Outposts.
12. Attack and Defense (minor tactics).
13. Attack and Defense (minor tactics).
14. Attack and Defense (the arms combined).
15. Attack and Defense (the arms combined).
16. Attack and Defense (the arms combined).
17. Situations in Foreign Wars.
18. Situations in Foreign Wars.
19. Situations in the Civil War.
20. Situations in the Civil War.

For these exercises the class was divided into three sections, and a member of each section detailed to umpire each exercise. The remaining members of the section were assigned to commands in the opposing forces, a roster being kept for equalizing details and assignments.

The “staff rides” in the college curriculum are similar to the terrain exercises of the Infantry and Cavalry School, but more extended and applicable to larger commands. They are exercises on the ground without troops and may extend from simple problems in patrolling to the operations of large commands, and may be made illustrative of all duties of line and staff officers. This year, for instance, ride No. 1, called a *tactical* ride, was an exercise in minor tactics involving contact of imaginary troops, the director commanding both opposing forces and assigning minor tasks to student officers. Ride No. 2 was similar, but the forces employed were larger and student officers were given command and freedom of action. Ride No. 3, called a *staff* ride, consisted in making reconnaissances, with reports thereon, such as would be made by staff officers in actual war, hypothetical situations being assumed.

Staff rides differ from *field maneuvers* in that the former are exercises without, the latter with troops.

For a description of the joint terrain exercises participated in by both Schools and College, see 2d recommendation of this report.

Mention was made in my Infantry and Cavalry School report of the use of the members of the staff class as assistant instructors, and of the value of that feature of instruction to both classes. Without it, many of the advantages of the applicative system would be curtailed, as it would be impossible for the regular instructors to do the work.

As shown in the above course of instruction,

members of the staff class are employed in the preparation, criticism and umpiring of the practical exercises of the Infantry and Cavalry School. This means that they are not only constantly studying *military situations*, but in reviewing and criticising the work of others, tactical principles are being constantly and indelibly stamped upon their minds, and by umpiring they are learning how to “size up” situations in the field.

Staff Ride in Georgia.

The ride this year was conducted *over* practically the same ground as that of the preceding year and occupied about two weeks. The reasons for selecting this particular campaign are given in the report of Major Swift, assistant commandant for the year ending August 31, 1906. The names of the officers who accompanied me on the ride will be found in the program of the daily exercises given below.

The party left Fort Leavenworth on the evening of July 2d, that part of the program scheduled for the 3d being carried out on the train, the party traveling in one car. We encamped on the night of July 4th at Lytle, two miles from Fort Oglethorpe, camping facilities and mounts for the officers being furnished by the commanding officer of the post, Colonel John B. Kerr, 12th Cavalry. Lieutenant Gordon N. Kimball of the same regiment, acted as quartermaster of the expedition and attended to all administrative matters thruout the trip. Much of the success of the ride is due to the foresight of Colonel Kerr and to the thoughtfulness and efficiency of Lieutenant Kimball, and to them the thanks of the whole party and college are due.

PROGRAM OF DAILY EXERCISES, CHATTANOOGA-ATLANTA STAFF RIDE, JULY, 1907.

July 3, a. m. Fifteen-minute description of events in the Civil War in the West, prior to Shiloh—Major Morrison.

July 3, p. m. Fifteen-minute description of events in the West, from Shiloh to include the battle of Stone River—Captain Sayre.

July 3, p. m. Fifteen-minute description of events in the West, from the battle of Stone River to midnight of September 19, 1863—Captain White.

July 4. Visit Chattanooga, Lookout Mountain and Missionary Ridge.

Conference: The Federal Army at Missionary Ridge—Captain Eames. The Confederate Army at Missionary Ridge—Lieutenant Barnes.

July 5, (a). Visit Fort Oglethorpe and the battle field of Chickamauga.

Conference: The Federal Army at Chickamauga—general discussion. The Confederate Army at Chickamauga—Lieutenant Young.

(b). March to Dalton.

Conference: Sherman's Army and the Advance on Dalton—Captain Hanna.

July 6. Examination of the defences of Rocky Face Ridge and Dalton.

Conferences: Johnston's Army at Dalton—Captain Conger.

July 7. March to Resaca.

Conference: The Federal Advance on Resaca—Lieutenant Leasure.

July 8. Examination of the defences of Resaca; march to Calhoun.

Conference: The Confederates at Resaca—Captain Booth.

July 9. March to Kingston.

Conference: The Federal Advance to the Etowah—Captain Merry.

July 10. March to Allatoona. Examination of position at Cassville.

Conference: The Confederates at Cassville—Captain Major.

July 11. March to Dallas.

Conference: The Federal Advance to New Hope Church—Lieutenant Rubottom. The Confederates at New Hope Church—Lieutenant Krueger.

July 12. March to Kenesaw.

Conference: Federal Advance from Dallas to Kenesaw—Lieutenant Winter. Confederate movements, -Dallas to Kenesaw—Captain Steele.

July 13. Examination of lines around Marietta.

Conference: The Federal Army at Kenesaw Mountain—Lieutenant Gleaves. The Confederates at Kenesaw Mountain—Lieutenant Sherrill.

July 24. March to Atlanta.

Conference: Both armies from Marietta to Peach Tree Creek-Lieutenant Winterburn;

July 15. Visit the battle field of Atlanta.

Conference: The Battle of Atlanta-Lieutenant Smith.

General discussion from day to day of engineering problems-captain Stuart.

This program was published some time in advance of the ride in order to give the officers concerned ample opportunity thoroly to acquaint themselves, not only with the whole campaign and general character of the work, but especially with that particular part assigned them for conference or discussion.

Of course a staff ride of this magnitude can be made to include almost any variety of work that might be expected of a staff officer in war, the only limitations being the endurance of men and horses. To prevent injury to horses daily rides were limited, as a rule, not to exceed twenty-five miles. The ride was exceedingly instructive and interesting. The country is but little changed since those momentous events transpired, forty odd years ago, and the officers could readily imagine themselves in the places of the actual commanders, and could "size up" the situations from their own view points.

The course in the *conduct* of *war* consisted of recitations in v. der Goltz, and original research conducted as indicated below:

Assignment of Committees and Subjects:

COMMITTEES ON PREPARATION	SUBJECTS	COMMITTEES ON DISCUSSION
Capt. Steele —	1. The Conduct of War-the subject in general and strategy in particular.	
Capt. Baldwin Lt. Leasure	2. Military Policies.	Lt. Winters Lt. Winterburn
Lt. Krueger	3. Duties of the General Staff in the preparation for war.	Capt. Eame; Lt. Barnes

Assignment of Committees and Subjects:

COMMITTEES ON PREPARATION	SUBJECTS	COMMITTEES ON DISCUSSION
Lt. Smith —	4. Recruitment; mobilization; strategic deployment; concentration,	Capt. Selkirk Lt. Rubottom —
Capt. Conger Lt. Winters —	5. Logistics.	Capt. Major Lt. Young —
Capt. Eames Lt. Riggs —	6. Character of campaign—the offensive—the defensive.	Lt. Merry Lt. Leasure —
Capt. Hanna Lt. Young —	7. Military Geography; its influence upon military operations.	Capt. Hunt Lt. Winters —
Lt. Barnes —	8. The theatre of war; base of operations; lines of operation; communications.	Capt. Conger Lt. Sherrill —
Lt. Merry Lt. Winterburn —	9. Offensive operations.	Capt. Major Lt. Gleaves —
Capt. Hunt Lt. Rubottom —	10. Defensive operations.	Capt. Baldwin Lt. Young —
Lt. Gleaves —	11. The strategic use of cavalry.	Capt. Hanna Lt. Krueger —
Capt. Selkirk —	12. The cooperation of land and sea forces.	Capt. Eames Lt. Smith —
Capt. Major Lt. Sherrill	13. The influence of modern inventions upon strategic operations.	Lt. Merry Lt. Riggs.

Original papers were prepared in triplicate and submitted to Captain Steele on or before January 4, 1907, each paper containing not fewer than 4,000 nor more than 6,000 words.

During the coming school year this course will be supplemented by several problems in *strategical map maneuvers*.

Field Maneuvers

The field maneuvers held in conjunction with troops of the regular garrison, altho limited both as

to terrain and number of troops engaged, have been highly instructive and on no account should be curtailed or omitted from the course of instruction.

In this connection I desire to call attention to the fact that during my two years experience with this class of work, our calls for troops have been promptly complied with, and every assistance possible rendered by the post authorities. Especially has the adjutant, Captain W. H. Gordon, 18th Infantry, not only exerted himself to fill every request, but by his timely suggestions has contributed much to the success of this class of school work.

For that part of the course entitled "Lectures and discussions on subjects of current military interest", the department was fortunate in securing the services of Colonel M. M. Macomb, 6th Field Artillery, who delivered to the Schools and College a series of interesting and instructive lectures on the Campaign of Mukden. Colonel Macomb having been an observer attached to the Russian Army, spoke with the authority of an eye witness. His lectures were illustrated by stereoptican views and covered the following features:

1. Military Mapping and the Supply of Maps to Field Armies.
2. Mobile Artillery-Field.
3. Mobile Artillery-Siege.
4. Russian Cavalry.
5. Personal Experience during the retreat from Mukden.

The course of instruction for the year 1907-08 will be as follows :

Organization

Foreign Armies, 5 Half Days

Tactics

Leading of Troops,	17	"	"
Problems-Gizycki, von Moltke, & Mil. History,	18	"	"
Preparing problems,	7	"	"
Reviewing and umpiring problems of the I. & C. Class,	35	"	"
Tactical Rides,	12	"	"
Map maneuvers (war game),	21	"	"

The Conduct of War

Von der Goltz-recitations,	7	half	-days
Preparation and discussion of original papers, ¹	25	"	"
Duties of the Staff,	10	"	"
Strategical map maneuvers (war game),	7	"	"
Military History-discussion and problems,	12	"	"
Two lectures on historical research			
Total,	176		

Recommendations

1. For the reasons given below I recommend that the school year be *changed* so as to begin in January instead of the preceding September, student officers reporting here in December and being relieved the following November, with a vacation, or duty in other fields, of about six weeks during the hot months of summer.

(a) It will permit a more systematic development of the course of instruction by giving the departments time during the winter months to prepare students for field work. Now, in the department of military art, practical work is crowded into the fall, before the students have been properly prepared therefor, as it is necessary that a certain amount of out door work be done at that season of the year.

(b) In the spring and summer months to July the regular garrison is using the target ranges; thus reducing the ground available for field work to very small limits. Then, too, at that time of the year the regular garrison is so occupied with target practice and other duties that it is difficult to secure an adequate number of troops to cooperate with student officers.

(c) The fall is the natural and best season (in this latitude) for field exercises whether they be terrain exercises, staff rides or field maneuvers. The months of May and June are very likely to be hot and at that time the surrounding country is covered

1. During seven half-days assigned this subject details of student officers will be made to umpire the map maneuvers of the I. & C. Class.

with growing crops, rendering it almost impossible to leave the main roads. In the latter part of September and during the month of October it would be comparatively easy to secure ground in the vicinity of the post where terrain exercises and maneuvers of almost any magnitude desired can be held.

(d) If arrangements cannot be made for holding extended field maneuvers in this vicinity (see my recommendation in regard to the Platte river country, I. & C. report) maneuvers could be held early in November at Forts Sill or Riley and student officers sent to those places, returning in time for graduation. But this, in my opinion, would be more costly than to secure the use of the lands in question; much of which is not tilled and which would therefore suffer little damage.

2. Terrain Exercises and Staff Rides. In my last annual report I stated that it was proposed to camp for a week with both classes in the Platte river country, east of the Missouri river, for the purpose of conducting more extensive terrain exercises and staff rides by avoiding the loss of time then incurred in going to and returning from the localities where such exercises had previously been held. The scheme was carried out as planned, both classes, the signal class and the necessary details from the garrison, encamping about four miles east the Missouri river near the Beverly-Platte City road, where the following exercises were conducted:

Terrain Exercises-I. & C. Class

1. An advance guard.
2. Halt and selection of camp site.
3. Selection of outpost position (Order No. 1).
4. Outpost position in detail (Order No. 2).
5. Preliminaries to an attack.
6. The battle.

Staff Rides-Staff Class

Two Tactical and One Staff Ride

In addition committees of the staff class assisted in preparing approved solutions of the foregoing terrain exercises.

The terrain exercises formed a series of problems supposed to have arisen in an actual campaign where an army was invading enemy territory, and furnished excellent object lessons to the student officers, the best perhaps short of actual campaigning in the field.

In the sixth exercise, the battle, where all classes cooperated, opportunity was taken to test the new rules for umpiring field exercises. This scheme of umpiring, elaborated in the department of military art, is based upon the principle that the chief umpire is in actual communication with his assistants, keeps them informed of what the troops on the opposing side are doing, and renders decision in doubtful cases; the assistant umpires inform the commanders of the kind and volume of fire to which their troops are subjected, and require the latter to make such dispositions as they would make if actually under such fire in war. The umpires furnish the information that would be furnished by the projectiles themselves. Communication is maintained between the chief umpire and his assistants by wire or messengers (see Proposed Regulations for Field Maneuvers, par. 41). In the 'battle' in question the opposing force extended over a front of five miles, student officers representing commanders of troops and occupying the positions they would actually have been in if the engagement had been real instead of simulated. One side made the attack, the other occupying a defensive position. Each commander was connected by wire with the more important fraction of his command and also with the chief umpire who occupied a central position. On the attacking side, for instance,

the commander was connected with his main and secondary attacks, his artillery and reserve. The engagement was made to develop along lines approaching those of actual warfare.

This method of umpiring is made possible by the ability of the signal troops to maintain the necessary lines of information. In these exercises the signal class cooperated, thru the courtesy of Major Squier, and deserves no little credit for the skill and efficiency displayed.

So successful and instructive were these joint exercises that I earnestly recommend that they be continued and that all departments of the schools and college, under the immediate supervision of the assistant commandant, be required to participate therein, especially the departments of military art, engineering, and care of troops. The signal school is indispensable. Officers of other departments could be employed as umpires, or they could simply act as observers with great profit to themselves.

3 *The War Game- Construction of Military Maps'* Those who have given the subject any thought readily recognize the great value of map maneuvers in the study of the art of war. This value is emphasized by the fact that such exercises can be made to involve forces of any size from a small patrol to an army corps. In fact the only limitations are the size of the map and the skill of the director. During the year an earnest endeavor has been made to give the war game a greater prominence in the course of instruction. Following out my idea of specializing the work of instructors, Captain Sayre was placed in charge and the results obtained thru his labors have been very satisfactory. It has been found that *no costly apparatus is necessary*, troops being represented by colored pins and bits of card-board cut to the scale of the map. The

opposing forces are distinguished by pins with red and blue heads respectively, the character of the troops being indicated by the color of the piece of card-board, blue for infantry, red for artillery, yellow for cavalry, etc.

For a successful war game exercise the map must be drawn to suitable scale. Tactical exercises require maps of about 'twelve inches to the mile, which scale has been adopted for maps constructed for these schools. For strategical map maneuvers maps one inch to the mile are suitable. For our immediate use the "minor tactics map" of Fort Leavenworth and vicinity was enlarged to twelve inches to the mile, giving us really the first war game map of American territory ever prepared. But this map is limited to a small area and is, of course, not suitable for any but small problems. For larger problems we are compelled to resort to Germany where great fields have been mapped for the study of the war game. The exercises are had, to be sure, but on maps representing territory which will never be seen by American troops. In fact so short are we of suitable maps of our own country and so much have our officers studied foreign maps, that they actually know more about European territory than about their own. This is labor not wholly thrown away but in a measure wasted, for had we suitable maps of our own country, the geographical knowledge acquired by their use might find application in the future. We should, therefore, have *war game maps of* various sections of this continent, but they can be obtained only thru the laborious process of making them. **Any** maps will not answer, but only those constructed from a military point of view.

At present there is being prepared for the use of these schools a map of this vicinity to cover four hundred square miles. The work is being done by the

U. S. Geological Survey under the immediate supervision of Mr. Glenn S. Smith, Topographer. For the war game this map, when finished, can be enlarged to twelve inches to the mile, but the resulting map will not be wholly satisfactory as it will be deficient in many details essential in a war game map on a large scale. When this map is enlarged the ground should be again gone over and details added which cannot be made to appear on the small scale map. This means much time and labor, and even if done we would still need maps of other sections of the country to furnish the necessary variety of terrain. I can see but one solution of the problem and that is to detail some one-practically a life time work-whose sole business will be to make maps for these schools. Apparently army officers are not available or the work would have been begun before. The problem can be solved, however, by securing the services of Mr. Glenn S. Smith, already referred to, for this work. He possesses superior skill in this line and is an enthusiastic and rapid workman, Since his arrival at this post he has invented a sketching board, or case, superior to any we now have in that line, a service meriting no little recognition.

I therefore recommend that this gentleman, Mr. Glenn S. Smith, be appointed in the army as topographer with rank and pay of. captain mounted, for the purpose of making maps for our military schools. Such maps when completed could be multiplied to any extent and be thus made available for the army at large. Only by some such measure as this can the war game be made popular in our military service.

In my report on the Infantry and Cavalry School I mentioned the fact that four instructors, Captains Crawford, Ryan, White and Booth had been relieved from duty with this department. My thanks are again extended to these gentlemen for the skill, in-

dustry and zeal which they have uniformly shown in their work.

On the 15th of this month I was relieved from duty in the department of military art and appointed to the office of assistant commandant. In thus severing my connection with this department, I desire to express my appreciation of the fact that I have been permitted somewhat to shape its destinies, and to bespeak for it a continued course of usefulness and growth under my successor, Major Morrison.

Very respectfully,

D. H. BOUGHTON,

Major, 11th Cavalry.

[APPENDIX B.]
 U. S. STAFF COLLEGE
 DEPARTMENT OF ENGINEERING
Fort Leavenworth, Kansas, August 1, 1907.

To the Secretary,
U. S. Staff College.

Sir:

I have the honor to submit the following report of the work of the department of engineering, for the year ending this date.

The total time used by the department was as follows:

	Half-days
September.....	2
October.....	13
November.....	33
February.....	12
March.....	3
April.....	13
May.....	19
June.....	13
	—
	—

TOTAL... .. 108

‘The course of instruction embraced:

1. Stresses and strains in simple engineering structures.
2. Surveying.
3. Provisional and permanent fortifications.
4. Sketching.
5. Laying out and construction of streets and roads.
6. Construction and marking of curves.
7. Supervision of Infantry and Cavalry class work.

The instruction in stresses and strains was by lecture and problems. It was elementary and confined to such classes of computations as were believed to be of practical value to the average line officer.

The experience of several years leads to the conclusion that the time heretofore devoted to this subject can be more profitably employed in other ways. But a few days could be allowed for this instruction and computation and it has been found impossible to impart sufficient knowledge in that limited time to make the course of practical value to officers without previous engineer training. It therefore appears advisable either to increase the course in this subject or abandon it entirely, and the latter alternative will be the one tried during the coming year. The time will be added to the courses in sketching and fortification.

To the course in surveying, twenty half-days were assigned. The work comprised triangulation, measurement of base line, and topographical filling in.

The class was divided into parties of four and an area of about one square mile was assigned to each party. The different members alternated in charge and in the various duties. The grouping of the class in this manner is not regarded as producing the greatest degree of instruction, but the supply of instruments is not sufficient to permit smaller parties. Until a larger number of transits and levels is available, no material change in the method of instruction can be made.

The areas surveyed this year lay at an average distance of five miles from the post, and a considerable part of the time was thus lost in going to and from the work. But the advantage of working on unmapped ground is believed to more than counterbalance the loss of time involved, as long as it is practicable without taking too large a portion of the day.

The course in provisional and permanent fortifications comprised practical work following a series of ten lectures. The practical work consisted of examination of plans for defensive lines, prepared by

previous classes, followed by a problem in preparing the defenses of a railroad assumed to be the line of communications of an army. The conditions of the problem were so assumed as to bring the actual ground covered by the problem within reach of the post.

The interest of the class in this problem, as well as the great practical value of this class of instruction, warrant the recommendation that this feature of the instruction be emphasized, and that an increased length of time be devoted to it. An extension of the time will allow the introduction of map studies in location, attack, and defense of fortified positions, and be, it is hoped, an advantage to the course. Some additional time can be obtained by abandoning the course in stresses and strains, as already mentioned.

The course in sketching included combined road and position sketching following, in general, the methods developed in preceding years.

The instruction in laying out streets and roads consisted of the solution of problems in location of streets in the post conforming to a general plan for the extension of the post. The class was divided into parties for this work, and each party was required to determine the proper location and grade of a specified portion of 'street and prepare an estimate of the cost of grading and macadamizing it and laying the necessary curbing and sidewalks. This class of instruction is considered valuable as a preparation for the work which may devolve upon any officer at a military post.

The instruction in curves was by recitation and practical problems in determining the various controlling elements for curves of various radii, and with tangents of differing angles of intersection, followed

by actually laying out on the ground curves conforming to various conditions. The course was sufficiently practical to give confidence in this class of work to members of the class who may in future have to lay out streets and roads and enable them to avoid many unsightly bends and crooks in streets and roads that would otherwise mar the appearance of the completed work.

Captain E. R. Stuart, Corps of Engineers, performed all the duties of assistant instructor in the usual thorough and commendable manner in which he does all his work.

Respectfully submitted,
LANSING H. BEACH,
Major, Corps of Engineers?
Instructor.

[APPENDIX C.]
 U . S . S T A F F C O L L E G E
 DEPARTMENT OF LAW
 Fort Leavenworth, Kansas, August 31, 1907.

The Secretary,
 U. S. Staff College.

Sir:

I have the honor to submit the following report of the work of this department for the school year ending August 31, 1907:

Allotment of Time

The sixty half-days allotted to the department were apportioned between the various subjects as follows:

	Half-days
Constitutional Law	28
The Military in Aid of the Civil Power.	3
Martial Law	5
Military Government and the Laws of War.13	
Original Research on Martial Law Subjects..	11
Total.....	60

Constitutional Law

The text-book used was Black's Constitutional Law. The daily assignments of work were made according to the subjoined schedule:

1. Page 1 to bottom page 26.
2. " " " 50 and Articles V,VI, VII, Const. and 11th Amendment.
3. " " " 71.
4. " " " 88.
5. " par. 74, page 106 and Article II, Const., and 12th Amendment.
6. " bottom " 122.
7. " " " 134 and Article III, Const.
8. " par. 93, " 153.
9. " bottom " 166.
10. " " " 185 and Article I, Const., except Secs. 9 and 10.
11. " "Naturalization", p. 207.

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| 12. | to Government of Ceded Districts, p. 225. |
| 13. | “ bottom page 243 and Secs. 9 and 10, Article I, Const. |
| 14. | “ “ “ 266 and Article IV, Const. |
| 15. | “ “ “ 354. Omit Chaps. XI, XII and XIII. |
| 16. | “ “ “ 374. |
| 17. | “ “ “ 396. |
| 18. | “ par. 178, “ 413. |
| 19. | “ bottom “ 442. Omit from beginning par. 185 to end of lesson. |
| 20. | “ par. 205, “ 464. } First ten and |
| 21. | “ “ 213, “ 485. } last three |
| 22. | “ General Warrants 503 Amendments |
| 23. | “ bottom page 521 } Const. |
| 24. | “ “ “ 539. |
| 25. | “ “ “ 564. |
| 26. | “ par. 256, “ 584. |
| 27. | “ bottom “ 603. |
| 28. | “ to end of text. Omit 282, 283, 284, 287, 288, 289. |

The text-book was supplemented by the study of leading cases illustrating important constitutional principles. The method employed was the daily assignment of a case to each of two student officers, who, upon the day following, reported the results of their work to the class. These reports were not reduced to writing. They consisted of a brief statement of facts, and an outline of the reasoning leading up to the decision, followed by the decision itself and the pointing out of the legal principle upon which the case turned. Cases were selected so as to illustrate some portion of the lesson for the day upon which they were reported. The cases studied in connection with Constitutional Law are cited below:

- Arrowsmith v. Harmoning, 118 U. S. 194.
- Bock v. Perkins, 139 U. S. 628.
- Boyd v. Nebraska, 143 U. S. 135.
- Boyd v. United States, 116 U. S. 616.
- Campbell v. Holt, 115 U. S. 620.
- Cherokee Nation v. S. K. R. R. Co., 135 U. S. 641.
- Chicago v. Taylor, 125 U. S. 161.
- Chisholm v. Georgia, 2 Dallas 419
- Civil Rights Cases, 109 U. S. 3.
- Cohens v. Virginia, 6 Wheat. 264.
- Collector v. Day, 11 Wall 113.

- Crandall v. Nevada, 6 Wall. 35.
Cummings v. Missouri, 4 Wall. 277.
De Lima v Bidwell, 182 U. S. 1.
Dorr v. United States, 195 U. S. 138.
Dynes v. Hoover, 20 How. 65.
Eaton v. R. R. Co., 51 N. H. 504.
Fort Leavenworth R. R. Co. v. Lowe, 114 U. S. 525.
Garland, Ex parte, 4 Wall. 333.
Georgia v. Stanton, 6 Wall. 50.
Gibbons v. Ogden, 9 Wheat. I.
Grimley, In re, 137 U. S. 147. .
Hans v. Louisiana, 132 U. S. I.
Hawaii v. Mankichi, 190 U. S. 197.
Kentucky v. Dennison, 24 How. 66.
Kohn et al v. United States, 91 u. s. 367.
Lange, Ex parte, 18 Wall, 163.
Leisy v. Hardin, 135 U. S. 100.
Look Tin Sing, In re, 2 Fed. Rep. 906.
Luther v. Borden, 7 How. I.
Marbury v. Madison, 1 Cranch 137.
McCulloch v. Maryland, 4 Wheat. 316.
Minor v. Happersett, 21 Wall, 162.
Mitchell v. Harmony, 13 How. 115.
Mormon Church v. United States, 136 U. S. 1.
Mullan v. United States, 140 U. S. 240.
Mugler v. Kansas, 123 U. S. 623.
Munn v. Illinois, 94 U. S. 113.
Neagle, in Re, 135 U. S. I.
Presser v. Illinois, 116 U. S. 252.
Prize Oases, 2 Black 635'.
Railroad Co. v. Husen, 95 U. S. 465.
Rose, In re, 140 U. S. 453.
Slaughter House Cases, 16 Wall. 36.
Strauder v. West Virginia, 100 U. S. 303.
Texas v. White, 7 Wall. 700.
United States v. Chicago, 7 How. 185.
United States v. Cruikshank, 92 U. S. 542.
United States v. Eaton, 144 U. S. 677.
United States v. Eliason, 16 Peters. 291.
Veazie Bank v. Fenno, 8 Wall 533.
Weston v. Charleston, 2 Peters. 449.
West River Bridge Co. v. Dix, 6 How. 507.

In addition to the foregoing, committees of three were designated from time to time during the course to prepare brief reports upon questions of interest

arising during the class room discussions, and upon which it seemed desirable to further supplement the text-book, because of the special interest found in the subject by military men. These reports were then read and discussed in the section room.

A partial list of the questions handled in this manner is given below:

1. Authority for the use of the United States Army and Navy in Cuba in the present (October, 1906) condition of Cuban affairs.

2. Is the militia subject to service- (a) in our insular possessions; and (b) in Cuba in the present crisis?

3. Under what conditions, in time of war and within the limits of the United States, may troops be quartered in any house without the consent of the owner?

4. Does the militia, as defined in Section 1, Act of January 21, 1903, include able-bodied males in the insular possessions of the United States.

5. Is there any constitutional objection to that part of Section 6, Act of April 22, 1898, which confers upon governors of states the power to appoint company and regimental officers of state organizations raised for the Volunteer Army of the United States?

6. Trial by court-martial considered in connection with the Sixth amendment to the Constitution of the United States.

7. Does the Civil Service Law, or the law requiring promotion by seniority in the Army and Navy, interfere with the constitutional prerogative of the Executive?

8. Tabular statement exhibiting the relation between the power of taxation, the police power, the power of eminent domain, and the war power, in connection with the expropriation of private property.

The Military in Aid of the Civil Power

General Lieber's article on "The Use of the Army in Aid of the Civil Power", republished in Appendix B of the Digest of Opinions of the Judge-Advocates General of the Army, was made the basis of a brief course. The daily assignments are noted below.

1. Lieber, The Use of the Army in Aid of the Civil Power, pp. 3-28, end of note 1; Army Regulations, paragraphs 483-488.

2. Lieber, pp. 28-42, end of first paragraph; Digest of Opinions of the Judge-Advocates General, paragraphs 483-493.

3. Lieber, pp. 42-59.

This basis was supplemented by references to

“Federal Aid in Domestic Disturbances, ” pp- 182-205, 228-239, and 256-260, to Section 4, Act of January 21, 1903, quoted in A. R. 455, as well as by individual reports upon the following cases:

Debs, In re, 158 U. S. 564.
Logan v. United States, 144 U. S. 263.
Martin v. Mott, 12 Wheat. 19.
Neagle, In re, 135 U. S. 1.

Martial Law

The nature of the work on this subject is indicated by the assignment of lessons:

1. Lieber, The Justification of Martial Law, pp. 3-25.
2. Ex parte Milligan, 4 Wallace 2.
3. Johnson v. Jones, 44 Illinois 142.
4. Luther v. Borden, 7 Howard 1; In re Boyle, 6 Idaho 609; Commonwealth v. Shortall, 206 Pennsylvania 165.
5. In re Moyer, 85 Pacific Reporter; Birkhimer, Military Government and Martial Law, chapter XXVI.

The cases cited in the lesson sheet were reprinted, omitting such portions as did not bear upon the subject under consideration. The work thus outlined was supplemented by outline reports upon the following cases :

Benedict, Ex Parte, 4 West. Law Month. 449.
Field, Ex Parte, Federal Cases No. 4761.
Griffin v. Wilcox, 21 Ind. 370.
Kemp, In re, 16 Wis. 360.
McCall v. McDowell, Federal Cases No. 8673.
Milligan v. Hovey, Federal Cases No. 9605.
Mitchell v. Clark, 110 U. S. 633.
Moyer v. Peabody et al.,——Fed. Rep.——

Military **Government** and the Laws of War

The text used was Part I. of General Birkhimer's Military Government and Martial Law. The apportionment of time and work is indicated below:

1. Birkhimer, Military Government and Martial Law, pp. 21-44; Instructions for the Government of Armies of the United States in Time of War, paragraphs 667-672.
2. Birkhimer, pp. 45-68; Instructions, etc., paragraphs 680-704, 758-762, 809-817.

3. Birkhimer, pp. 70-100; Instructions! etc., paragraphs 673-677.
4. Birkhimer, pp. 101-131; Instructions, etc., paragraphs 715-745.
5. Birkhimer, pp. 131-153, end of paragraph 141; Instructions, etc., 674, 712-714, 763-808.
6. Birkhimer, pp. 153-174; Instructions, etc., paragraphs 675, 676.
7. Birkhimer, pp. 175-196, end of paragraph 193; Instructions, etc., 708-711.
8. Birkhimer, pp. 196-220, end of paragraph 224.
9. Birkhimer, pp. 220-243.
- IO. Birkhimer, pp. 224-267; Instructions, etc., paragraphs 705-707.
- II. Birkhimer, pp. 268-310; Instructions, etc., paragraphs 746-757.
12. Birkhimer, pp. 311-341, end of paragraph 24.
13. Birkhimer, pp. 341-369; Instructions, etc., paragraphs 678-679.

Supplementary work in this subject consisted of individual reports upon the following cases:

- Brown v. United States, 8 Cranch 110.
- Coleman v. Tennessee, 97 U. S. 509.
- Dow v. Johnson, 100 U. S. 158.
- Ford v. Surget, 97 U. S. 594.
- Jecker v. Montgomery, 13 How. 498.
- Leitensdorfer et al. v. Webb, 20 How. 176.
- Miller v. United States, 11 Wall. 268.
- Mitchell v. Harmony, 13 How. 115.
- Mrs. Alexander% Cotton, 2 Wall. 404.
- Prize Cases, 2 Black 635.
- Texas v. White, 7 Wall. 700.
- The Grapeshot, 9 Wall. 129.
- United States v. Klein, 13 Wall. 128.
- United States v. Lowe, 8 Wall. 185.
- Williams v. Bruffy, 96 U. S. 176.

Original Research

Contrary to the practice in the past, and excepting a single paper, original research has during the present school year been confined to a single subject,—that of Martial Law. The assignment of subjects was made prior to the beginning of the section room work on the same subject, so that each officer might carry on his original investigation simultaneously

with the class work. Though the same subject was assigned to two officers, each one was required to do his work independently of the other. Each officer's completed paper was finally reviewed by the other officer having the same assignment. The idea held in view in the selection of topics for original research was to secure from the student body a connected series of papers that might furnish a basis for a revision or rewriting of the present text-book on Martial Law. The assignment of subjects is given below:

1

The American Theory of Martial Law.

Duncan K. Major, Captain, 27th Infantry.

Kerr T. Riggs, 1st Lieutenant, 14th Cavalry.

2

Conditions Justifying Martial Law-Limits within which it may be operative.

Matthew E. Hanna, Captain, 3d Cavalry.

Frederick S. Young, 1st Lieutenant, 23d Infantry.

3

Relations of Municipal Law and the Laws of War to the Administration of Martial Law.

Theodore A. Baldwin, Captain, 8th Infantry.

Samuel R. Gleaves, 1st Lieutenant, 1st Cavalry.

4

The Suspension of the Writ of Habeas Corpus. Arrest and Detention by Military Authority. Powers and Duties of Provost Marshals.

Shelby C. Leasure, 1st Lieutenant, 14th Infantry.

Walter H. Smith, 1st Lieutenant, 8th Cavalry.

5

Martial Law under Federal Authority.

Ora E. Hunt, Captain, 18th Infantry.

John B. Barnes, 1st Lieutenant, 12th Infantry.

6

Martial Law under State Authority.

Wyatt O. Selkirk, Capt., 1st Inf., Texas Nat'l Guard.

William H. Winters, 1st Lieutenant, 13th Cavalry.

7

The Administration of Justice under Martial Law.
George W. Winterburn, 1st Lieutenant, 9th Cavalry.
Walter Krueger, 1st Lieutenant, 23d Infantry.

8

Liabilities of Military Persons for Acts done in
Administering Martial Law. Bills of Indemnity.
William T. Merry, Captain, 9th Infantry.
Clarence O. Sherrill, 1st Lieutenant, Corps of Engineers.

9

Limits of Martial Law Powers. The Object of
Government under Martial Law.
Henry E. Eames, Captain, 10th Infantry.
E. Holland Rubottom, 1st Lieutenant, 9th Cavalry.

Appendix

Civil Employment of Military Force.
Arthur L. Conger, Captain, 29th Infantry.

These papers on the whole were excellent, showing much study and care in the preparation. Those prepared by

Captain Mathew E. Hanna, 3d Cavalry,
1st Lieutenant Clarence O. Sherrill, Corps of Engineers,
1st Lieutenant Walter Krueger, 23d Infantry,

deserve special mention.

Remarks

The interest shown by the members of the class in the successful prosecution of the course was all that could be asked. The original intention was to spend approximately one hour per session in the section room. Adjournment, however, seldom took place at the close of an hour. Usually the discussion of the subject under consideration was continued for an hour and a half and often as long as two hours. The section room work was in fact a discussion rather than a recitation.

The method adopted this year of teaching Martial Law almost entirely by a study of the leading cases

on the subject has proved fairly satisfactory but is still in the experimental stage, and it is deemed best to give the method another year's trial before adopting it in teaching the subject of Military Government.

The time allowed is too short to cover the required ground satisfactorily except in the case of constitutional law. The allotment of fifteen additional half-days is earnestly recommended, the seventy-five half days to be distributed as follows:

Constitutional Law	28	half days.
Civil Employment of Military Force	5	“ “
Martial Law	10	“ “
Military Government and the Laws of War	15	“ “
Original Research and Discussion of Results	12	“ “
Solution of Practical Problems	5	“ “

The practical problems will be made to cover legal questions arising during the year which are of especial importance to military men. These problems will prove most interesting and instructive to the student and will serve to develop his faculty of finding the law.

In closing this my last report I wish to express my appreciation and commendation of the work of 1st Lieutenant E. A. Kreger, 28th Infantry, Assistant Instructor in the department. A more competent instructor or one who would give greater effort to his work I feel confident could not be found.

Respectfully submitted,

H. O. WILLIAMS,

Captain; 5th Infantry,

Instructor,

[APPENDIX D.]
U. S. STAFF COLLEGE
DEPARTMENT OF LANGUAGES

Fort Leavenworth, Kansas, May 18, 1907.

*The Secretary,
U. S. Staff College.*

SW:

'I have the honor to submit the following report of the work of this department for the year ending August 31, 1907:

No time was allotted to the department between September 1, and December 21, 1906. From January 2, to June 28, 1907, 252 half-days were available of which sixty-three were allotted. Total for the year, sixty-three half-days. The instruction began on February 19th and ended on May 17th.

In accordance with section III, page 12, and of section IV, page 17, General Orders No. 145, War Department, August 16, 1906, all the student officers of the Staff College except one, being graduates of the Infantry and Cavalry School with a grade in Spanish of over 90 per cent, were permitted to elect French or German. Ten elected French, and these together with the four members of the Signal School who likewise elected French, constituted the French section and were taught by Captain J. A. Moss, 24th Infantry. Eight elected German and constituted the the German section, being taught by Captain O. L. Spaulding, jr., Artillery Corps.

The remaining officer of the Staff College never having taken the course in Spanish of the Infantry and Cavalry School and having been given an opportun-

ity to show proficiency therein, decided to take Spanish. He, together with the two student officers of the Signal School similarly situated, constituted the Spanish section taught by Captain F. LÉJ. Parker, 12th Cavalry.

Text-Books

In Spanish, the same text-books and list of lessons were used as in the Infantry and Cavalry School. (For these see report on latter school).

In French and German the same text-books and lists of lessons were used as in the Signal School. (For these see report on latter school),

In the Staff College there is no assigned weight given the studies. Student officers are 'not marked on practical work nor are they examined.

Scope and Method of Instruction in Theoretical and Practical Work

In Spanish the scope and method of instruction were identical with those laid down for the Infantry and Cavalry School.

Concerning French, the remarks under this head in the Signal School apply to the Staff College. In German much advanced work was done by the student officers who showed commendable zeal throughout the course.

Application was made by the undersigned to the Chief of the 2d Division, General Staff, for the original German maps and documents covering the Kaiser Maneuvers of 1906; the application was granted and the members of the German section had the opportunity of becoming conversant with the military German and methods actually used by the German General Staff last year. This feature aroused a great deal of interest but the entire success of the whole instruction in German I freely accord to the painstaking efforts and thoroughly reliable work of my

accomplished assistant, Captain O. L. Spaulding, jr., Artillery Corps.

Remarks

Acknowledgment is hereby made of the services of 1st Lieutenant Walter Krueger, 23d Infantry, who, while a student officer in the German section, gladly gave his valuable assistance, in and out of the class room, to the Instructor and his fellow student officers, with benefit to all.

With three assistants like

Captain J. A. Moss, 24th Infantry, in French;
Captain F. LeJ. Parker, 12th Cavalry, in Spanish;
Captain O. L. Spaulding, jr., Art'y Corps, in German;

the success of the department was a foregone conclusion.

I cannot pay too high a compliment to their abilities.

Recommendations

1. That at least seventy-eight lessons be assigned to Spanish, French, and German.

2. That when instruction in languages is once begun it be carried on at the rate of one lesson each school day until finished.

3. That the course in languages be thrown open to the officers on duty at the Post and Military Prison. This is to the best interests of the service and under the conference method can be done without detriment to the instruction of the regularly detailed student officers.

Very respectfully,

PETER E. TRAUB,

Captain, 13th Cavalry,

Instructor.

U. S. Signal' School

REPORT OF COMMANDANT

U. S. SIGNAL SCHOOL

Fort Leavenworth, Kansas, 31st of August, 1907.

*The Chief of Staff,
United States Army,
Washington, D. C.*

Sir:

I have the honor to submit herewith my annual report on this school for the year commencing 1st of September, 1906, and ending 31st of August, 1907:

Commandant

Brigadier General Charles B. Hall, United States Army.

I assumed command of the Service Schools 20th of August, 1906, as Colonel, 18th Infantry, relieving Major General J. Franklin Bell (then Brigadier General), United States Army, having been assigned to duty as Commandant per paragraph 2, Special Orders No. 196, War Department, series of 1906, and was appointed Brigadier General, United States Army, 11th of April, 1906

Personal 'Staff

1st Lieutenant Roger S. Fitch, 1st Cavalry.

2d Lieutenant William Lay Patterson, 18th Infantry.

Lieutenant Fitch was directed to report to me for duty as Aide-de-Camp per paragraph 16, Special Orders No. 106, War Department, 6th of May, 1907,

and was announced as such per Infantry and Cavalry School Orders No. 14, 21st of May, 1907.

Lieutenant Patterson, was directed to report to me for duty as Aide-de-Camp per paragraph 8, Special Orders No. 93, War Department, current series, and was announced as such per Infantry and Cavalry School Orders No. 10, 24th of April, 1907.

Assistant Commandants

Major George O. Squier, Signal Corps.

Major Charles McK. Saltzman, Signal Corps.

Major George O. Squier, Signal Corps, assistant commandant from 5th of August, 1905, to 28th of June, 1907, when he was relieved by order of the War Department, and assigned to duty in office of chief signal officer of the army.

Major Charles McK. Saltzman, Signal Corps, from 15th of August, 1907.

Secretary and Disbursing Officers

Captain Milton F. Davis, 10th Cavalry.

Captain E. E. Booth, 7th Cavalry.

Captain Davis, from 1st of September, 1906, to 15th of August, 1907, when he was relieved by Captain Booth, appointed Secretary and Disbursing Officer.

Captain Davis was absent in Washington on duty in the office of the Chief of Staff from 6th of April, 1907, to 2d of May, 1907, and with the Chief of Staff on an inspection trip from 8th of July, 1907, to 14th of August, 1907.

Captain Booth performed the duty of Secretary, etc., during the absence of Captain Davis. (No orders issued).

Captain Booth, from 15th of August, 1907.

Librarian

Lieutenant-Colonel Ezra B. Fuller, U. S. Army, retired.

Lieutenant-Colonel Fuller was detailed per para-

graph 23, Special Orders No. 168, War Department, 18th of July, 1906, and reported 15th of August, 1906.

Student Officers

Captain Irving J. Carr, 28th Infantry.
2d Lieutenant Benjamin D. Foulois, 17th Infantry.
1st Lieutenant William N. Hughes, jr., 13th Infantry.
1st Lieutenant E. Alexis Jeunet, Signal Corps.
1st Lieutenant Alden C. Knowles, 13th Infantry.
1st Lieutenant David A. Lindsay, 1st Infantry.
Captain William Mitchell, Signal Corps.
1st Lieutenant Edwin J. Nowlen, 1st Infantry.
1st Lieutenant William R. Standiford, 2d Infantry.

Of the above named, Captain Carr and Lieutenants Foulois, Knowles, Lindsay, Nowlen, and Standiford, were graduates of the Infantry and Cavalry class of 1905-'06.

Lieutenant Hughes was a graduate of the Infantry and Cavalry School class of 1902-'03. Lieutenant Jeunet was an honor graduate of the Infantry and Cavalry School class of 1903-'04. Both of these officers, together with Captain Mitchell, were by authority of the War Department admitted as members of the Signal School class of 1906-'07.

Captains Mitchell and Carr, and Lieutenant Foulois were relieved from duty with the Signal School class 30th of September, 1906, and ordered to duty in Cuba; and under orders from the War Department these three officers have been relieved from duty in Cuba and reported in August, 1907, for duty at the Service Schools as members of the Signal School Class of 1906-'08.

**DEPARTMENTS OF SIGNALING AND
SIGNAL ENGINEERING**

Instructor

Major Charles McK. Saltzman, Signal Corps.

Major Saltzman, Signal Corps, was an Instructor from 1st of September, 1906, to 15th of August, 1907.

As this School is now only two years old its wonderful success in teaching a science that is considered as also in its infancy, and the firm foundation upon which the school is already established reflects great credit on both instructors and students. It has a finely equipped laboratory, and it is hoped in the near future a balloon house and a gas generating plant will be added and that practical military aeronautics will form a part of the course.

In compliance with paragraph 35, Special Orders No. 137, current series, War Department, Major Edgar Russel, Signal Corps, Assistant to the Chief Signal Officer of the Army, reported to me for temporary duty, and particularly to observe and report on the work of the Signal School.

As his report made to me contains so much of general interest I quote from it very fully:

* * * *

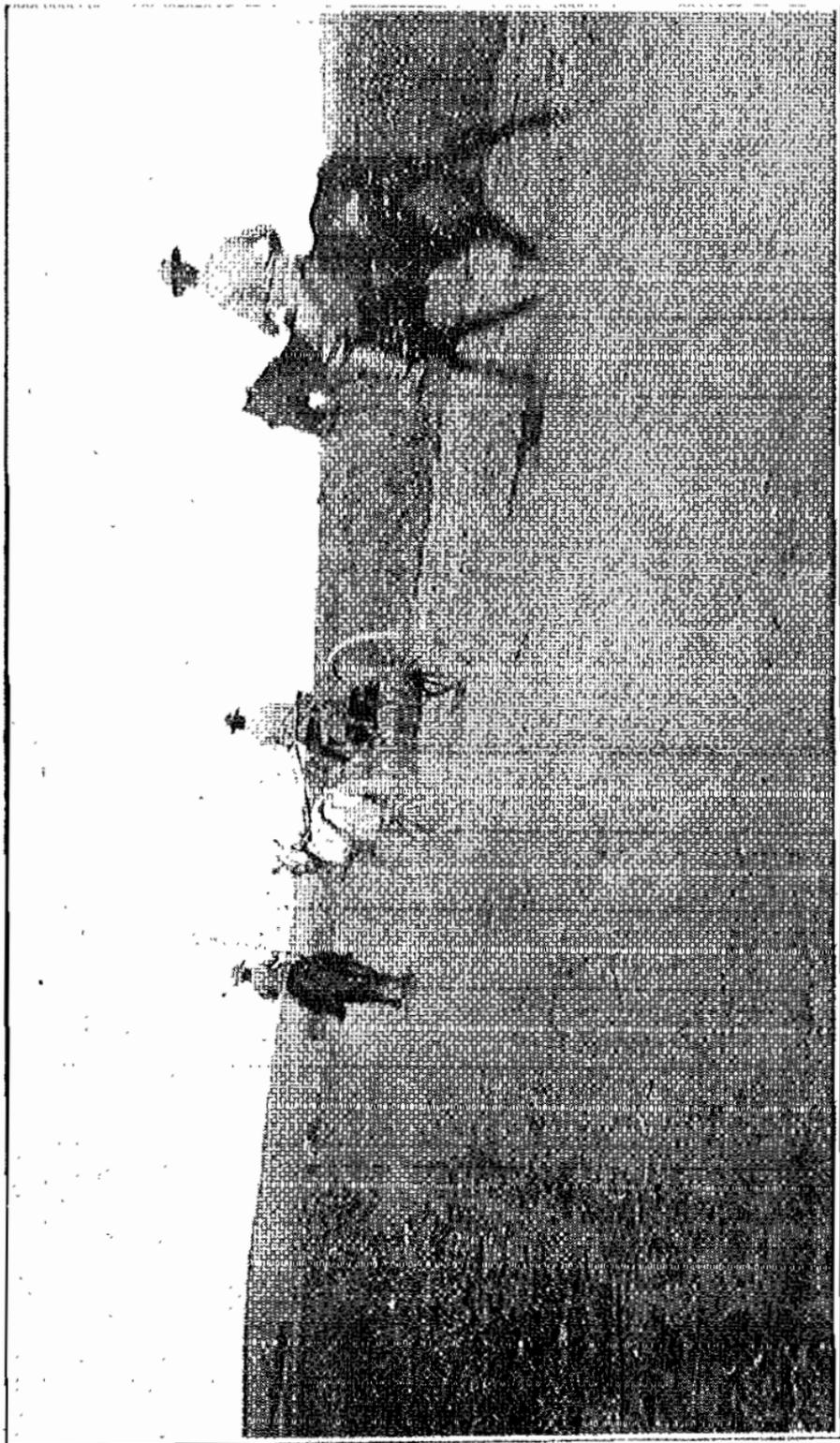
"My assignment to duty at Fort Leavenworth was for the purpose of giving me an opportunity to participate in the field exercises in which the Signal Corps was engaged with the officers of the various schools at the camp of instruction. The encampment near Beverly, Missouri, gave most excellent opportunities for satisfactorily carrying out such work and I was given every facility in gaining the knowledge of the work of the Signal Corps at Fort Leavenworth.

"The encampment of the student officers, the instructors, detachment of cavalry, and Company A, Signal Corps, was in the midst of a country whose diversity gave a terrain admirably adapted to the working out of such problems, and the opportunity was heartily appreciated by all concerned.

"Upon my arrival at the camp I was at once impressed with the energy and enthusiasm with which every one entered into the problems. The student officers and instructors were working together in a manner indicating a full appreciation of the opportunities presented. It would appear that the great amount of work required of the student officers at Fort Leavenworth in the limited time, puts them on their mettle and arouses professional enthusiasm to its highest pitch.

"Although my sphere was largely limited to the observation of Signal Corps work, I received a valuable lesson on the excellent results of having the instruction of the line and Signal Corps officers carried on together, and the surprisingly satisfactory results from their co-operation in field problems.

"Upon my arrival in the camp the student officers of the Infantry and Cavalry School and Staff College, had just completed the solution of a practical castrametation problem.,



Automatic wire cart from the U. S. Signal School laying field wire at a trot.

That evening, I noted the interest with which instructors and student officers entered into the discussion.

“The next day I had the pleasure of participating in a staff ride, which covered a considerable portion of the country northeast of Beverly.

“The Signal Corps this day took a minor part, but it was no less useful in assisting the instructors in conducting such work, and keeping every phase of the problem in hand.

“On the next day the student officers of the Signal Corps, had a field problem. Following three simulated Brigades on diverging roads running south from the camp, three lines were carried out to distances of approximately three, five and seven miles respectively, the wire being put out at a rate at which was about that of the infantry on the march. Communication was constantly maintained with the brigades, and at several halts light buzzer lines were thrown out at places where deployments were supposed to be made. Telegrams were continually sent in to headquarters at camp and by means of the map and colored pins, the positions of the commands were known at all times. During the time voluminous reports were made. The wires were reeled up at the rate of over three miles per hour. The weather condition and the roads were very favorable for the work. On the same day the other student officers were engaged in making a map of all the adjacent country by a method which had been largely devised by Captain Stuart, Corps of Engineers. The result of this map work was to produce in a time, amazing to one unacquainted with its possibilities, a contoured map which accurately showed this large section of country. This map was used the next day in the large problem in which all of the student officers and Company A Signal Corps, were engaged.

“On June 21st, the problem involved the operations of two opposed Brigades, one advancing south and the other north along various roads in the country west of Beverly.

“The work laid out for the Signal Corps was to keep the commander of each Brigade in constant connection with his forces advancing along from two to four roads, and at the same time in connection with the chief umpire who was with the northern brigade, and the assistant umpire with the southern brigade. It began raining soon after the field exercises began and in the midst of a heavy rain storm, the problem was developed as satisfactorily as if the weather were perfect. The buzzer lines of the Signal Corps operated excellently in the midst of the mud and heavy rain. During the three hours of active operations, there was not a break in the line or any delay of consequence in a single message. The two umpires were in constant communication and at the chief umpire's tent the large map and colored pins showed continually the positions of the opposing forces.

“It was evident to all present that without, such assistance the information available to the umpires would be meager, and their decisions would necessarily in many cases be erroneous. The lines of information laid by the Signal Corps enabled everything to be kept well in hand and made possible

the working out of problems in a few hours much better than it would be otherwise possible in days.

"The material of the signal corps gave a good account of itself in all this work. The reel carts and wagon were of new designs, and while still capable of small improvements, in the opinion of the signal officers are most satisfactory advances. The buzzer continued to keep up its reputation as the simplest and most satisfactory of all forms of field telegraph instruments ever tested.

"The new portable wireless telegraph sets were given some successful tests ; one set being at the Signal School laboratory at Fort Leavenworth, the other being set up at the camp, the distance being about four miles. The complete aerial wire equipment did not arrive in time to be used. It is thought with this, that distance up to twenty miles may be easily obtained. The role of the wireless telegraph cannot as yet be determined.

"The pack equipment for the wireless sets had not yet been sent to Leavenworth, by the Quartermaster's Department, but upon its receipt the utility of these portable sets will no doubt become immediately apparent.

* * * *

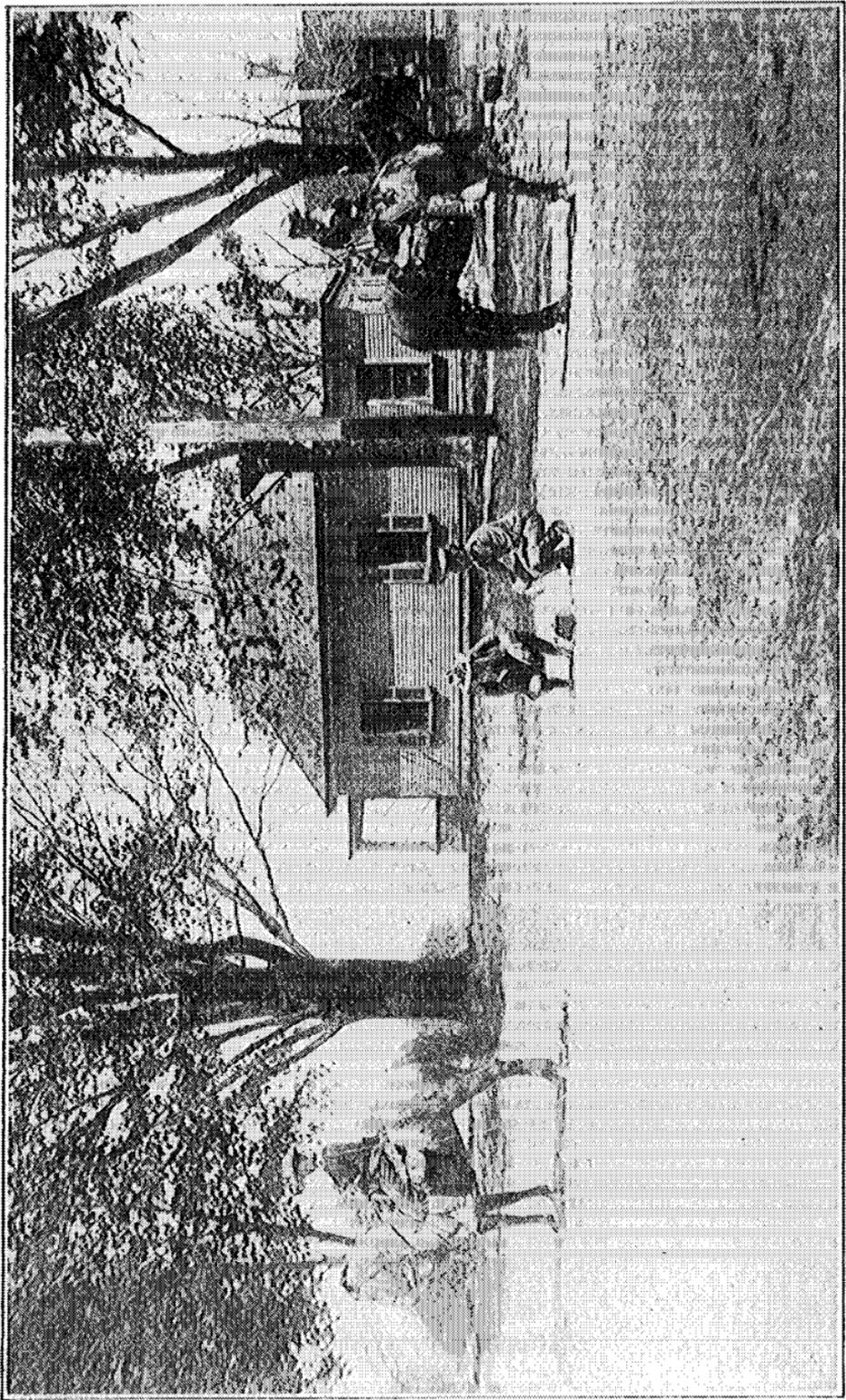
"The undersigned was given every opportunity to study the character of the laboratory and recitation room work of the Signal School. The student officers in the laboratory are thrown largely upon their own resources, only receiving assistance when it seems absolutely necessary. This method seems to have produced most excellent results.

"It is certain that the student officers of the Signal School constitute an invaluable asset to the Signal Corps and the Army. I have read some of the papers on Signal Corps subjects which these students have written, and consider them valuable contribution to Signal Corps literature. Their work in the field has simply been surprising in its thoroughness and excellence.

"I feel that my brief period of duty at Fort Leavenworth has been of the greatest benefit to me, in enabling me to note the increasing usefulness of the Signal Corps to the line with the greatly improved appliances which have been recently supplied, and to appreciate anew under the present auspicious conditions, the close relation which the Signal Corps will bear to the line of the Army in future operations."

* * * *

In addition to the regular course of instruction, special lines of electrical work were studied and investigated during the year by individual students, among which might be mentioned many improvements in the apparatus and vehicles used with electrical field lines and the remarkable results obtained by one student officer in maintaining constant tele-



Experimental work at the U. S. Signal School in maintaining telephonic communication between mounted men

phone und buzzer communication between mounted men while in motion, the horses forming a portion of the circuit.

During the year the Signal School prepared a set of drill regulations for Signal troops, previous to this time no authorized drill book having been provided for Signal troops,

Photographic reproduction. of maps and lantern slides for use in lectures in the various departments has occupied much of the time of Captain Cole who has made some 1600 slides this year. He has also taught photography, to a necessary extent.

Department of Topography

Major Lansing H. Beach, Corps of Engineers, Instructor, from August 19, 1905, to August 15, 1907, when relieved per War Department orders.

Captain E. T. Cole, 6th Infantry, appointed Instructor, August 10, 1907.

Captain E. R. Stuart, Corps of Engineers, Assistant Instructor.

Captain H. B. Ferguson, Corps of Engineers, Assistant Instructor.

Captain Stuart was relieved from duty at this School 16th of July, 1907, by expiration of detail and ordered to proceed to station designated by War Department.

Captain J. A. Woodruff, Corps of Engineers, detailed to duty at this institution per paragraph 9, Special Orders 113, War Department, dated 14th of May, 1907, has been assigned to duty as assistant instructor in this department per paragraph 2, orders No. 35, Infantry and Cavalry School, -95th of August, 1907.

The work performed in this department has been most satisfactory. The art of rapid field sketching has been brought to a high state of perfection by Captains Cole and Stuart, and its military value is fully recognized.

In this connection I desire to call attention to the

following extract from the report of Colonel Ward, before referred to:

“An explanation the same evening and at the same meeting, by Captain E. R. Stuart, Corps of Engineers, of an improved method devised by him for rapidly surveying and mapping, for military purposes, a section of country.

“The explanation by Captain Stuart of the rapid mapping was especially interesting because the method was entirely new. The results accomplished are astonishing. A contour map on a scale suitable for battle purposes. was shown, of a section including about thirty square miles. The party had started out in the morning, divided up the section to be covered, made the surveys, joined the sketches, and when they returned to camp before dark they had a blue print contour map of the whole section, made on the ground before starting to return. And it was surprising how well this map, so quickly made, joined with a map of the surrounding country made from regular surveys?

Department of Languages

Captain Peter E. Traub, 13th Cavalry, Instructor from 12th of December, 1904, to 25th of July, 1907, when he was relieved, having been detailed by the War Department as associate professor of Modern Languages at West Point Military Academy.

Captain Arthur Thayer, 3d Cavalry, Instructor from 15th of August, 1907, detailed for duty per paragraph 1, Orders No. 35, Infantry and Cavalry School, 15th of August, 1907.

Captain J. A. Moss, 24th Infantry, Assistant Instructor, ordered to duty at Service Schools and College per paragraph 4, Special Orders No. 196, War Department, 20th of August, 1906.

Captain F. Le J. Parker, 12th Cavalry, Assistant Instructor.

Captain O. L. Spaulding, jr., 5th Field Artillery, Assistant Instructor.

Captain Parker has been relieved from duty as assistant instructor in this Department per Orders No. 48, Schools and College, 30th of August 1907, to enable him to attend the Infantry and Cavalry School as a student during the coming year.

Much excellent work has been done in this department, and great interest manifested by the students as shown by the wonderful progress made. The use of the phonograph as a means of education has been most successful. We have been able to furnish one phonograph to every two officers, and also all the cylinders necessary in Spanish, French and German.

I invite attention to the following quotation from the inspection report of Colonel Ward, Special Inspector, before referred to:

“I was especially impressed with the excellence of the method followed in the language department. Captain Traub, who is at the head of this department, deserves great credit for it. The phonograph is used as an auxiliary and the system developed looks to the acquirement of the best speaking knowledge of the language possible in the time allotted to that study.”

Very respectfully,
CHAS. B. HALL,
Brigadier General, U. S. Army,
Commandant.

[APPENDIX A.]
U. S. SIGNAL SCHOOL
OFFICE OF THE ASSISTANT COMMANDANT

Fort Leavenworth, Kansas, July 2, 1907.

The Secretary,

U. S. Signal School.

Sir:

I have the honor to submit the following report of the work of this school to July 1, 1907, of the current school year:

Major Chas. McK. Saltzman, Signal Corps, was assigned to duty as instructor, Signal School, per Order No. 34, Infantry and Cavalry School and Army Staff College, series 1906, pursuant to paragraph 3, Special Orders No. 196, War Department, series 1906.

Captain E. T. Cole, 6th Infantry, was assigned to duty as assistant instructor in Photography, United States Signal School, per Orders No. 6, Infantry and Cavalry School and Army Staff College, series 1907.

First Lieutenant George E. Kumpe, Signal Corps, was detailed as assistant instructor, Signal School, per Orders No. 47, Infantry and Cavalry School and Army Staff College, series 1906.

Student Officers

The following student officers reported on August 20, 1906, pursuant to War Department orders:

Captain William Mitchell, Signal Corps.

Captain Irving J. Carr, 28th Infantry.

First Lieutenant Alden C. Knowles, 13th Infantry.

First Lieutenant Wm. N. Hughes, Jr., 13th Infantry.

First Lieutenant Wm. R. Standiford, 2nd Infantry.

First Lieutenant E. J. Nowlen, 1st Infantry.

First Lieutenant E. A. Jeunet, Signal Corps.

First Lieutenant David A. Lindsay, 1st Infantry.

Captain William Mitchell, Signal Corps, Captain Irving J. Carr, 28th Infantry, and Second Lieutenant B. D. Foulois, 17th Infantry, were, relieved from duty at the Signal School on September 30, 1906, per telegraphic instructions from office of the Military Secretary, dated War Department, Washington, September 30; 1906, assigning them to duty in Cuba with the Army of Pacification, and reducing" the class to six officers.

Lieutenant, Jean Brugère, Chasseurs d'Afrique, French Army, was assigned to duty as student in the United States Signal School, on October 24, 1906, per Orders No: 47; Infantry, and Cavalry School, Signal School, and Army Staff College? series 1906, and attended this course until his departure for France on February 16, 1907.

Scope and Present Conditions

At the close of the second year since the foundation of the U. S. Signal School present conditions are considered satisfactory. In the work of establishing the courses of study and practical instruction at this school, the object has been from the outset to keep steadily 'in mind the "creative ideal in military education''. Under the present regulations much the largest per cent of the student officers of the Signal School are, and will continue to be in the future, obtained by the method of competitive selection from the graduates of the Infantry and Cavalry School. This insures that the Signal School will continue to be made up of officers who have already received technical instruction and have acquired habits of study and industry, which are now well established results of that efficient institution. It is not believed that there is on the whole a more efficient technical school, everything considered, in any army in the world, than the present Infantry and Cavalry School at Fort Leavenworth, Kansas. The Signal School is

therefore at the outset most fortunate in securing the larger part of its material through the competitive system at present in vogue at that school.

In striving for the 'creative ideal' in military education it is recognized that, since the fundamental principle of the military career is discipline, this principle to a considerable extent is antagonistic to the fullest development of originality in the individual. The question is then to retain this most necessary part of any military system, namely; a thoroughly disciplined and subordinate attitude of mind, and at the same time cultivate and foster that spirit of creative improvement which is never completely satisfied with present conditions or methods, but is trained to automatically view all subjects from the standpoint of further improvement and progress in the best interests of the service at large.

The signal service especially needs creative and constructive students of the practical sort who, while being able to retain a thoroughly disciplined attitude at all times towards the opinions of superiors, will nevertheless push forward into new lines of development, which alone can ensure keeping progress with the armies of other nations. The two objects kept in view in forming the curriculum of the U. S. Signal School have been the following: 1st, to prepare each student officer for the active and technical duties required in the case of declaration of war immediately. 2d, to investigate and coordinate the whole subject of lines of information by thoroughly practical methods, with a view of realizing better and more efficient tactical and strategical methods of operating armies in campaign. The Signal School from its inception has been most fortunate in obtaining the thorough and hearty support and cooperation of the military art departments of the U. S. Staff College and the Infantry and Cavalry School. The three schools have

worked together in perfect harmony in the section room and in the field, and this principle of thorough cooperation between all departments of the different schools at Leavenworth is at present a distinctive feature of these institutions.

Abolition of Competitive Grading

During the first year of the Signal School ending August 31, 1906, the existing school order at that time required competitive grading of the student officers of the Signal School under the same general plan and system as is now employed in the United States Infantry and Cavalry School. General Orders No. 145, War Department, series 1906, placed the Signal School on the same basis as the Staff College in regard to the grading of the student officers thereof. The experience of the last year, it is believed, has shown the wisdom of abolishing competitive grading for student officers of the Signal School, since most of these student officers have been and will be already graduates of the Infantry Cavalry School, where, by the strictest sort of competition, they earned the privilege of the year's instruction in the Signal School, and no incentive is required for such officers to keep them up to a high standard of effort.

Classification of Graduates for the First Year of the Signal School

Under the competitive system employed in the first year of the Signal School, the following is the official classification of the student officers of the class of 1906:

Honor and Distinguished Graduate

Saltzman, Charles McK., Major, Signal Corps.

Distinguished Graduates

Wieczorek, George A., 1st Lieutenant, 17th Infantry.

Place, Olney, 2d Lieutenant, 6th Cavalry.

Lewis, George C., 1st Lieutenant, 1st Infantry,

Beck, Paul W., 1st Lieutenant, 5th Infantry.

Willard, Charles L., 1st Lieutenant, 29th Infantry.

Graduates

Warfield; Eldred D. , 1st Lieutenant, 30th Infantry.

Theses

In compliance with paragraph 36, General Orders No. 145, War Department, series 1906, subjects were assigned by the Academic Board for special and original investigation, as follows:

Experiments with a view to Maintaining Electrical Communication with a Moving Wagon and with a Moving Mounted Operator, by 1st Lieutenant A. C. Knowles, 13th Infantry.

The Signal Corps in Maneuvers, by 1st Lieutenant TV. N. Hughes, jr., 13th Infantry.

The Buzzer in Field Communications, by 1st Lieutenant William R. Standiford, 2d Infantry.

Signal Corps Troops with Divisional Cavalry, by 1st Lieutenant E. J. Nowle'n, 1st Infantry.

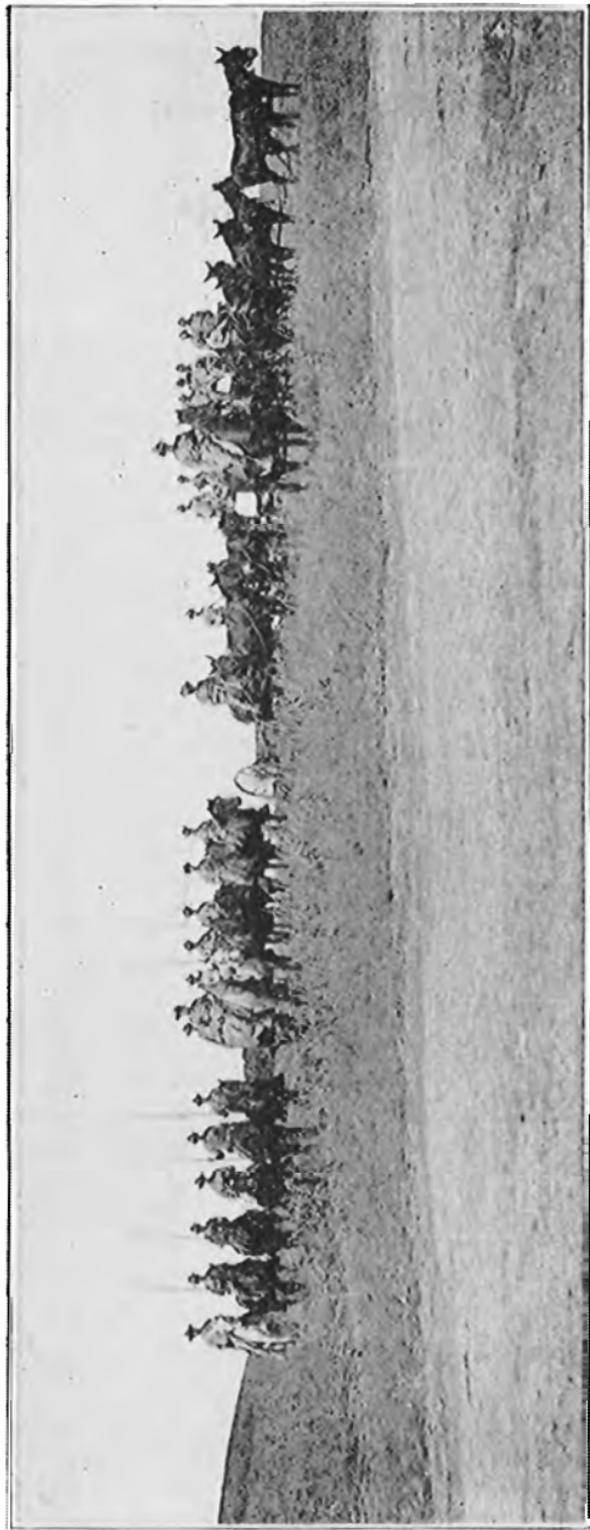
Signal Corps Troops at Brigade Posts, by 1st Lieutenant E. A. Jeunet, Signal Corps.

Wireless Telegraphy, a Non Technical Description of what It Is and Its Place in Tactics, by 1st Lieutenant D. A. Lindsay, 1st Infantry.

The object of this work was to give each student officer a limited opportunity to undertake the investigation of some special subject of vital interest to the service and give him experience in carrying out such work on his own account.

These investigations were pursued during a period of about four months and the final copies submitted in the required form prior to June 15, 1907. Very little of the scheduled time was allowed for this work, and it represented in each case a large amount of individual effort outside, of the scheduled time. Company A, Signal Corps, on duty with the school, was placed at the disposition of such of the student officers as were engaged in solving special field problems as part of their theses work.

It is believed no more useful feature of the year's work was obtained than in pursuing this particular type of instruction. Coming at the latter part of the course it furnished each student with an opportunity and facilities for attacking an original problem on



Platoon of Company A, Signal Corps, equipped for field service. This company is on duty at the U. S. Signal School

his own account, and wide latitude was permitted and encouraged in the treating of these subjects to the end that the service might benefit by the individual opinions and conclusions of specially trained officers on questions of immediate importance to the army.

Three copies of each of these theses were required; one copy forwarded to the Chief Signal Officer of the Army, one copy for the files of the Signal School and one copy for use in the publication of such of the papers as merit justified.

Journal Meetings

The marked success of this feature of instruction in the Signal School, during the first year of its existence, was even more fully realized during the present school year. These meetings were scheduled on an average twice monthly and were conducted by the Assistant Commandant, instructors and student officers meeting as a whole.

The object of these conferences was to bring to the attention of each member of the school any work of importance and of interest in the subjects of signaling and signal engineering which might appear in the military and scientific journals on file in the library of the school. This coöperative plan; placing both student officers and staff of the school on a common basis, permitted each to gain the benefit of the reading of all the other members and at the same time gave each student officer a valuable experience in abstracting and presenting important military papers in a concise and efficient manner, besides cultivating the habit of professional reading and familiarity with technical military journals of the world.

The freedom of discussion permitted and encouraged at these conferences, acted as a strong stimulus to each individual officer to form his own

opinion on military subjects, and a respect for the opinions of others.

Preparation of Drill Regulations for Signal Troops.

The urgent necessity for some uniform and authoritative method of forming and handling signal troops in service with the *line of the army in the field, has been felt for a number of years, but has been imperative within the last two years—since the establishment of the U. S. Signal School, and also since the organizing of special signal corps at Fort Omaha, Nebraska; Benicia Barracks, California; and Fort Wood, New York Harbor.

At present there is no uniform method prescribed, nor any uniform practice throughout the corps, in these respects. Under orders from the Secretary of War the faculty and student officers of the Signal School during the present school year have undertaken the preparation of provisional and tentative drill regulations for signal corps troops and this work has been carried forward with the result that the manuscript has been practically completed and has been recently forwarded to the War Department for the action of the proper authorities.

The method employed in this constructive work was to divide the class into two committees suitably organized with a chairman for each, and different parts of the work assigned to each of the committees. The work of the individual committees was then considered by a committee of the whole under the supervision of the Staff of the Signal School. The large amount of labor involved in this undertaking has been greatly facilitated by the fact that each of the student officers taking part was a trained graduate of the Infantry and Cavalry School, and many of them of considerable experience in commanding troops. It should be stated that this undertaking

has not interfered seriously with the regular curriculum of the School, but has been carried forward at odd times by the zeal and interest of the students themselves in the realization that they were participating in work of general interest to the service at large.

In forwarding the manuscript of these regulations it has been recommended that after they have been approved or changed by the proper authority they be issued as provisional drill regulations until such time as experience and practice may justify re-issue to the Signal Corps in a more permanent form.

Field Instruction at Camp Hall, Missouri

The staff and student officers of the Signal School coöperated with the Department of Military Art, of the Infantry and Cavalry School, and Staff College, in carrying out a series of terrain exercises and maneuvers at Camp Hall near Beverly, Missouri, June 17-22.

Company A, Signal Corps, with its full field equipment, including the field searchlight, was ordered into camp, to be available for furnishing field lines of information for the problems scheduled.

The practical training obtained in the exercises during this period, when the student officers of the three service schools at Fort Leavenworth were thrown together in the field, proved a most valuable experience to all concerned, and undoubtedly inaugurates a plan of a similar instruction camp for the three schools each succeeding year. A careful schedule of progressive problems was worked out in the field, and a discussion of each day's problems was held in the camp at the close of the exercises for the day.

**Controllery Troops 8 Present Necessity for the
Operation of Mobile Forces**

It is believed that the exercises, carried out by the three service schools during the past two years have demonstrated the imperative necessity for a distinct combatant arm to meet the new conditions required for the accurate control of a modern army of a first class power. The great range at which modern weapons, kill, makes the supreme commander thereof helpless in controlling the units of his force without the most perfect lines of information connecting him with the different units of his army and following him and them at all times during active military operations in campaign. In fact it is becoming clear to the leaders of military thought that these conditions have in reality, created a demand for a new combatant arm of the military service. Heretofore the three arms of the service have been in general, the infantry, the cavalry and the artillery, including under these three general heads the special types suited to the needs of special service. These three arms, fully developed, are designated to act cooperatively with one another to produce the maximum result in combat. It need not be stated that with the great terrain at present involved in a modern battle, and the large number of troops engaged, the whole coöperative plan of the three existing arms must surely fail without the introduction of a highly trained fourth combatant arm, which places in the hands of the supreme commander the only means for securing the accurate control and coöperation of the other three arms. Military lines of information not only serve as the means of obtaining the information upon which the movements are based, but, which is of equal importance, furnish the only means of swiftly and accurately utilizing this information in control-

ling and operating the different units of an army as one gigantic whole.

In closing this brief report the Assistant Commandant takes pleasure in here recording the services rendered to the Signal School by Major C. McK. Saltzman, Signal Corps. From the first inception of the school Major Saltzman has taken a leading part both as a student officer in the school and as an instructor. His ability, energy and professional zeal have made their permanent mark in the Signal School as it exists at present, and his continued services in connection with the school ensure a perpetuation of the general policies thereof.

Very respectfully,

GEORGE O. SQUIER,

Major, Signal Corps, U. S. A.,

Assistant Commandant.

[APPENDIX B.]

U. S. SIGNAL SCHOOL,
DEPARTMENT OF SIGNALING AND SIGNAL ENGINEERING.
Fort Leavenworth, Kansas, August 31, 1907.

The Secretary,
U. S. Signal School.

SIR: ²

I have the honor to submit the following report of the work of these two departments during the school year ending this date:

Signaling

Theoretical and practical instruction was given in military signaling with the following appliances:

- (a) The field telegraph.
- (b) The field telephone.
- (c) The buzzer.
- (d) Wireless telegraphy.
- (e) Visual appliances.

Allotment of Time

The subsequent instruction in signal engineering and in the use of apparatus studied in that department involved much use of various kinds of electrical signaling. The many field exercises during the spring and summer months also involved much use of electrical signaling with wireless apparatus, the telephone, and the buzzer. Inasmuch as this time is credited to the Department of Signal Engineering, it is impossible to state the exact time consumed in actual electrical signal practice.

Between September 3d and 28th, thirteen half-days were devoted to theoretical instruction in visual signaling by means of recitations, lectures, and writ-

ten exercises. Between September 3d and November 1st, twenty-five half-days were devoted to practical exercises in signaling with visual and electrical appliances. Altho no time was available in which to attempt to make the student officers become telegraph operators, the extensive use of the telegraph and the buzzer in the laboratory and in the field exercises developed sufficient interest in each student officer that he was able to intelligently send and receive messages over the field lines before the course was completed. Student officers in charge of field lines and stations frequently, in emergency, relieved enlisted men and operated their stations themselves.

Signal Engineering

(Method and Scope of Instruction.)

In this department, thoro instruction was given by means of recitations, conferences, lectures, and written recitations in the fundamental laws or principles underlying electrical engineering to the extent necessary for a thoro understanding of the electrical apparatus used by the signal corps.

The course includes theoretical and practical instruction in the following subjects:

- (a) Practical Electricity.
- (b) Signal Corps Manuals.
- (c) Alternating Currents.
- (d) Oil Engines.
- (e) Wireless Telegraphy.
- (f) Fire Control Apparatus.
- (g) Practical Laboratory Work.
- (h) Installation, Maintenance, and Operation of Field Lines of Information.
- (i) Photography.
- (j) Military Sketching.

The Department is provided with a well equipped laboratory where during the fall and winter months, the student officers receive practical instruction in the construction, repair, and use of signal apparatus. The practical nature of the work of this department

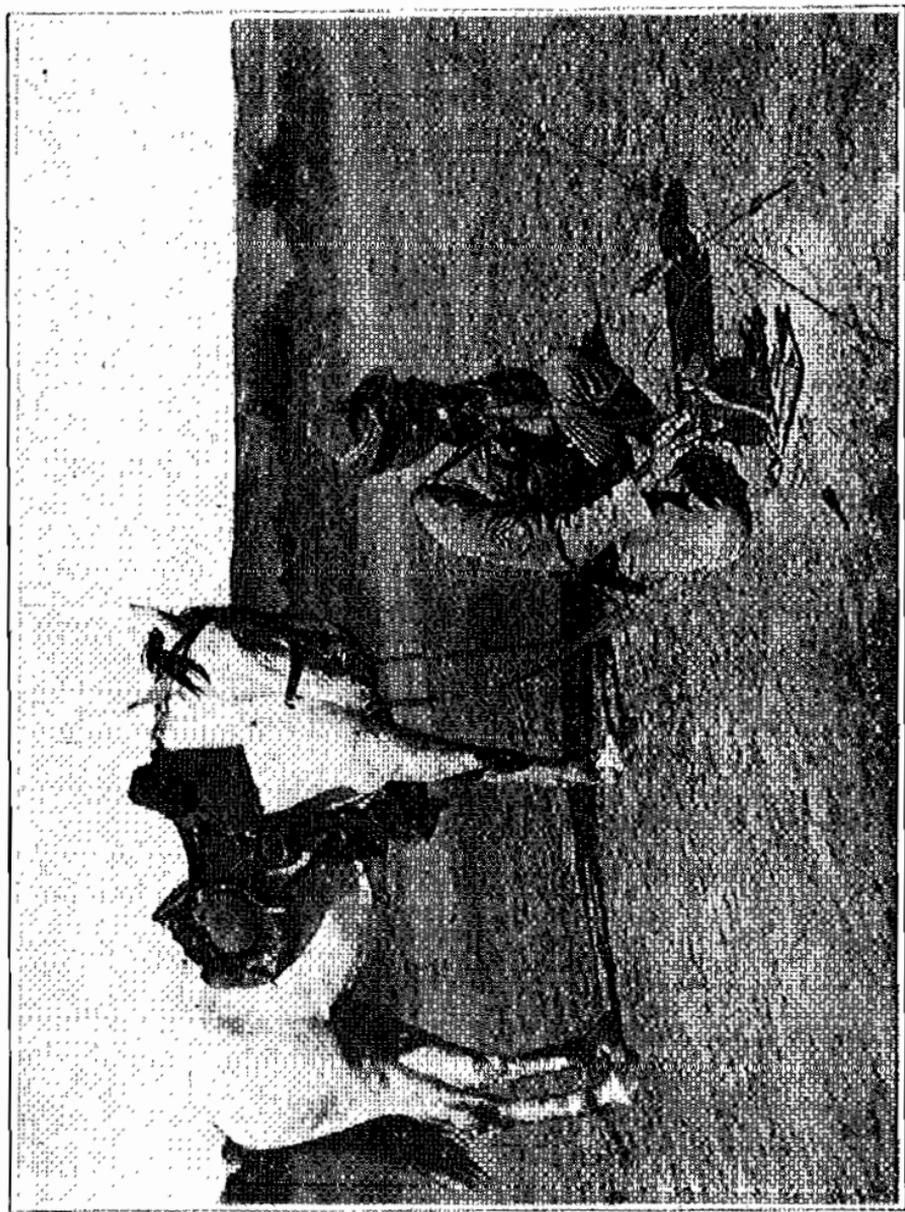
can well be shown by a brief description of an afternoon's work in the laboratory.

On entering the laboratory, the student officer is given a printed sheet outlining his work for the afternoon, which work usually illustrates some principle or law studied theoretically in the forenoon. The student officer, after a study of the 'instructions and explanations on his problem sheet, consultation with his instructor, a reference to the technical library of the school, is issued the' necessary apparatus and appliances, and performs the required experiments at his work bench. 'During the laboratory course, the student officers are 'required to dismantle, "take to pieces' ', and reassemble telephones, buzzers, dynamos, switchboards, oil engines, transformers, telegraph instruments, and many other pieces of apparatus with a view of insuring a thoro practical knowledge of the implements, used by the 'Signal Corps. Investigations and comment is encouraged in' this work and valuable original suggestions as to improvements have <been received from student officers.

During the spring and summermonths, much of the work of the department is in the field, in the installation, maintenance, and operations of field lines for the use of troops in campaign. In this work, the student officers perform all classes of labor varying in nature from the adjustment of a field buzzer in a rain storm to the command of a trained signal company.

Topography and Sketching

The course in these subjects was under the charge of the Instructor of Engineering of the Army Staff College and reference is invited to the report of that Department in the report of the Army Staff College.



Cavalry Buzzer in use on a field included by the Signal Company on duty at the U. S. Signal School

Photography

A short course in military photography was ably conducted by Captain E. T. Cole, 6th Infantry, Assistant Instructor in the Department of Engineering. The course was entirely practical, the work in the field and -in the dark room being performed by the student officers. The Department is under obligation to Captain Cole for his able work.

Allotment of Time

Theoretical Instruction,	92 half-days.
Practical Exercises,	141

The work of the past year has justified the wisdom of dropping the competitive marking system which was followed in these two departments last year.

All departments of the Infantry and Cavalry School and Army Staff College have heartily cooperated with this department in its work.

Text Books

- Signal Corps-Manuals, Nos. 2, 3, 4, 5, 6, 8.
- Lessons in Practical Electricity, Swoope,
- Lectures on Alternating Currents,
- Handbook for the use of Electricians,
- Artillery Notes No. 12, (Oil Engines),
- Wireless Telegraphy, Kennely,
- Handbook for Naval Electricians.

Recommendation

1. Developments and improvements in military art are constantly increasing the demand for electrical lines of information on the battlefield and this department has constantly labored to develop a system and organization suitable for this class of work. The developments of the last two years' work in this department in the tactical use of signal troops in providing lines of information in the field have plainly demonstrated that this class of work cannot be successfully carried on without organized units of signal troops. To attempt to perform this class of work in

the field with an unorganized detachment, means failure. The work is technical and demands organized units for the same reason that field artillery is organized into batteries and does not exist as a general corps of guns and men with no battery organization. The practical work of this Department has been seriously handicapped during the last year due to the lack of a regularly organized force for duty in field exercises and problems.

To meet the demands of this department, it is recommended two model companies of the Signal Corps be stationed at Fort Leavenworth under the control of the Commandant of the Signal School, each company to consist of ninety-eight enlisted men. Altho existing law does not prescribe any organization for signal companies, each company should consist of the following enlisted personnel:

- 1 First Sergeant,
- 1 Q. M. Sergeant,
- 9 First class Sergeants,
- 12 Sergeants,
- 13 Corporals,
- 2 Musicians,
- 44 First class Privates,
- 14 Privates,
- 2 Cooks.

98 Total Enlisted.

Respectfully submitted,
C. McK. SALTZMAN,
Major, Signal Corps., U. S. A.
Instructor,

[APPENDIX C.] .
U. S. SIGNAL SCHOOL
DEPARTMENT OF LANGUAGES
Fort Leavenworth, Kansas, May 18, 1907.

*The Secretary,
U. S. Signal School.*

Sir:

I have the honor to submit the following report of the work of this department for the -year ending August 31, 1907:

No time was allotted to the department between September 1, and December 21, 1906. From January 2, to June 28, 1907, two hundred fifty-two half-days were available of which sixty-three. were allotted. Total for the year sixty-three half-days. The instruction began on February 19, and ended on May 17.

In accordance with section III, page 12, and of secton IV, page 17, General Orders 145, War Department, August 16, 1906, four student officers of the Signal School being graduates of the Infantry and Cavalry School with a grade in Spanish of over ninety per cent, were permitted to elect French or German; all four elected French and together with the members of the Staff College who likewise elected French, constituted the French section and were taught by Captain J. A. Moss, 24th Infantry.

The two remaining officers of the Signal School never having taken the course in Spanish of the Infantry and Cavalry School and having been given an opportunity to show proficiency in Spanish decided to take the course therein. They, together with one officer of the Staff College similarly situated, consti-

tuted the Spanish section and were taught by Captain F. LeJ. Parker, 12th Cavalry.

No officer of the Signal School took German.

Text Books

In Spanish, the same text-books and list of lessons were used as in the Infantry and Cavalry School. (For these see report on latter school.)

French:

De Peiffer's Pronunciation.

Castarède's Verbs.

I. C. S. Conversation Texts, Parts 1-8.

C. Fontaine's Douze Contes Nouveaux.

German:

I. C. S. Conversation Texts, Parts 1-8.

Interpolated Sheet of Department.

Stern's Geschichten vom Rhein.

In 'the' Signal School there is no assigned weight given to the studies; The student officers are not 'marked on practical work; there were no examinations; all showed proficiency in the different courses pursued.

Theoretical

The course comprised sixty-three recitation periods 'divided., among text-books as follows:

(Condensed from lists of lessons.

French

De. Peiffer's French Pronunciation :

Pages 7- 27 and 44-50, comprised in lessons 1-4.

Castarède's French Verb:

Pages 1-132, comprised in lessons 5-63.

French Conversation Texts (I. C. S.):

Parts 1-8, comprised in lessons 5-63.

Douze Contes Nouveaux (C. Fontaine.) :

Comprised in lessons 19-63, for sight reading and conversation.

German

German Conversation Texts (I. C. S.):

Parts 1-8, comprised in lessons 1-63,

Pamphlet on Declensions and Conjugations (Department) :

Comprised in lessons 2-63.

Geschichten vom Rhein (Stern):

Comprised in lessons 18-63, for sight reading and conversation.

Scope and Method of Instruction in Theoretical **and**
Practical Work

In Spanish the scope and method of instruction were identical with those laid down for the Infantry and Cavalry. School.

In French the conference method was pursued and various devices were made use of to give a fair speaking knowledge over as wide a range as possible.

A reference to the list of lessons and the text books themselves will not give a complete idea of the work accomplished, as frequently more than half the instruction period of two hours would be devoted to outside work.

Remarks

Systematized as the course now is, excellent results are obtained in sixty-three lessons.

These results are only possible where the student officers are imbued with a desire for real knowledge and with proper pride as representatives of regiments or corps. They are likewise only possible with assistants whose heart is in their work and whose time is devoted entirely thereto. The conscientious and enthusiastic efforts of Captain J. A. Moss, 24th Infantry, in French and of Captain F. LeJ. Parker, 12th Cavalry, to whom was entrusted the entire instruction in Spanish, are worthy of commendation.

Recommendations

1. That *at least* seventy-eight lessons be assigned to Spanish, French, and German.
2. That when instruction in languages is once begun it be carried on at a rate of one lesson each school day until finished.

3. That the course in languages be thrown open to the officers on duty at the Post and at the Military Prison. This is to the best interests of the service, and under the conference method can be done without detriment to the instruction of the regularly detailed student officers.

PETER E. TRAUB,

Captain, 13th Cavalry,

Instructor.