A Study in Troop Leading and Management of the Sanitary Service in War

Montrose A. Wilson

Surg Macpherson Gift

A Study in Troop Leading

AND

Management of the Sanitary Service in War.

BY

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PREFACE.

This book has been developed from one of the problems prepared for study by the student officers of The Army School of the Line during its present session.

It is intended to illustrate at once, under assumed conditions of battle, the leading of troops and the management of a sanitary service co-ordinate therewith, and thereby give some idea of the inter-dependent and detailed operations of the tactical and sanitary mechanism of a large military unit in modern war.

Planned originally as a study in battle orders, it has been found best to somewhat amplify its scope and introduce various fictitious personages, so far as the sanitary service is concerned, through whom many typical and important points perhaps not wholly related to the subject in question could be more clearly and realistically brought out.

The authors believe that there is a very real educational need for a work of this nature, especially under the conditions under which the military forces of our country are raised, organized and administered.

Its careful perusal by line officers may give the latter in time of peace a far clearer conception of certain functions and purposes of the Medical Department of which they can see little except in time of actual war, and emphasize the value of the latter as a military asset whose tactical as

well as humanitarian importance they cannot afford to disregard. Medical officers, especially those new to the army or such as patriotically tender their services with troops during hostilities, may thereby gain a better understanding, not only of the conduct of war, but also of the duties which may be expected of them in active campaign, outside of purely professional service with sick and wounded. If both these classes are thereby caused to reflect upon the relation to each other of the respective parts they play, and better to appreciate the fact that mutual understanding of purpose and co-operation in method by all the organized factors which make up a military force is essential to its success, this little work will not have been in vain.

The terms "sanitation" and "sanitary" have been used throughout in their broadest sense, as relating not only to the preservation of health but its restoration.

The 2-inch map of Fort Leavenworth and vicinity is used for reference.

To those who may not be entirely familiar with the use of military maps, the employment of pins to check off the various tactical and sanitary positions referred to in the text is recommended.

J. F. M.
E. L. M.

The Army Service Schools,
Fort Leavenworth, Kansas.
July 1, 1910.

TABLE OF CONTENTS.

PART IV.

PART V.

ROSTER OF SANITARY PERSONNEL MENTIONED BY NAME.

FIRST FIELD ARMY.

1. **Chief Surgeon, First Field Army:**

   Colonel Branes, M. C.

FIRST DIVISION, FIRST FIELD ARMY.

2. **Chief Surgeon's Office, 1st Division:**

   Lieutenant Colonel Sharp, M. C., Chief Surgeon.
   Major Goodman, M. C., 1st Assistant to Chief Surgeon.
   Captain Bright, M. C., 2nd Assistant to Chief Surgeon.

3. **Sanitary Inspector's Office, 1st Division:**

   Lieutenant Colonel Wellman, M. C., Sanitary Inspector.

4. **Reserve Medical Supplies, 1st Division:**

   Captain Pluss, M. C., Medical Supply Officer.

5. **Ambulance Company Organization, 1st Division:**

   (A) General Command of Ambulance Companies Nos. 1, 2, 3 and 4.

   Major Ryder, M. C., Director of Ambulance Companies.

(B) Sanitary Personnel, Ambulance Company No. 1.

Captain Wagoner, M. C., Commanding Company, and in Operating Section of Dressing Station.

Captain Porter, M. C., in command of Litter Bearer Section of Dressing Station.

Lieutenant Cutter, M. C., on duty in Operating Section of Dressing Station.

Lieutenant Dresser, M. C., in charge of Station for Slightly Wounded.

Lieutenant Newcome, M. C., on duty in Receiving Section of Dressing Station.

Sergeant, 1st class, Caduceus, H. C., in general supervision of Dressing Station.

Sergeant Redcross, H. C., in charge of Forwarding Section of Dressing Station.

Private, 1st class, James, H. C., on duty at Dressing Station, Operating Section.

Private, 1st class, Richards, H. C., on duty at Dressing Station, Operating Section.

Private Thomas, H. C., on duty at Dressing Station, Receiving Section.

Private Walters, H. C., on duty at Dressing Station, Receiving Section.

Private Jacobs, H. C., on duty at Dressing Station, company cook.

Private Isaacs, H. C., a messenger.

Sergeant Edwards, H. C., on duty at Station for Slightly Wounded.

Private, 1st Class, Johns, H. C., on duty at Station for Slightly Wounded.

Private Josephs, H. C., on duty at Station for Slightly Wounded.

Private Peters, H. C., on duty at Station for Slightly Wounded.

Private Williams, H. C., on duty at Station for Slightly Wounded.

6. **Field Hospital Organization, 1st Division:**

(A) **General Command of Field Hospitals Nos. 1, 2, 3 and 4.**

Major Oversight, M. C., Director of Field Hospitals.

(B) **On Duty in Field Hospital No. 1.**

Captain Wise, M. C., Ward Surgeon.

7. **Civilian Wagon Train Removing Wounded:**

Captain Wheeler, M. C., in charge.

8. **Medical Officers, 1st Infantry:**

Major White, M. C., Regimental Surgeon.

Captain Black, M. C., on duty, 1st Battalion.

Lieutenant Brown, M. C., on duty, 2d Battalion.

Lieutenant Green, M. C., on duty, 3d Battalion; also assigned to temporary duty at Dressing Station, Ambulance Company No. 3, and with Field Hospital No. 1.

9. **Bandsmen, 1st Infantry, on sanitary duty:**

Sergeant Fife, Band, 1st Infantry.

Sergeant Drum, Band, 1st Infantry.

10. **Bandsmen, 10th Cavalry, on sanitary duty:**

Sergeant Horn, Band, 10th Cavalry.
Sergeant Cornet, Band, 10th Cavalry.
Private Tuba, Band, 10th Cavalry.

LINE OF COMMUNICATIONS.

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11. **Chief Surgeon's Office, Line of Communications:**

Lieutenant Colonel Forward, M. C., Chief Surgeon.

12. **Railroad Trains Removing Wounded:**

Major Carr, M. C., in charge.

13. **Advance Sanitary Supply Depot:**

Captain Minus, M. C., Medical Supply Officer.

14. **On Duty in Evacuation Hospital No. 2:**

Major Olds, Executive Officer.
Lieutenant Young, M. C., Ward Surgeon.
Sergeant Topp, H. C.
Sergeant Minor, H. C.
Sergeant Lesser, H. C.
Sergeant Under, H. C.
Sergeant Lowe, H. C.
Private Won, H. C.
Private Tew, H. C.
Private Three, H. C.
On duty preparing buildings for hospital use.

ORGANIZATION OF THE SANITARY PERSONNEL AND TRANSPORTATION FOR A DIVISION UNDER FIELD SERVICE REGULATIONS, 1910.

SERVICE OF THE FRONT.

PERSONNEL.

	Lieutenant Colonels.	*Majors.*	*Captains and Lieutenants.*	*Total Commissioned.*	*Sergeants, 1st Class.*	*Sergeants and Corporals.*	*Privates 1st Class and Privates.*	*Total Enlisted.*	*Grand Total.*
Division Headquarters	1	1	1	3	1	...	6	7	10
Inspection	1	...	...	1	...	1	1	2	3
Infantry, 9 regiments	...	9	27	36	9	27	180	216	252
Cavalry, 1 regiment	...	1	3	4	1	3	20	24	28
Artillery, 2 regiments	...	2	4	6	2	4	36	42	48
Engineers, 1 battalion	...	...	3	3	...	3	6	9	12
Signal Troops, 1 battalion	...	...	2	2	...	2	4	6	8
Ammunition Train	...	...	2	2	1	1	6	8	10
Supply Train	...	...	1	1	...	1	3	4	5
Ambulance Cos. (4)	...	1	20	21	8	29	281	318	339
Field Hospitals (4)	...	5	16	21	12	25	193	230	251
Reserve Supplies (*)	...	...	1	1	1	1	9	11	12
Total	2	19	80	101	35	97	745	877	978

MOUNTS AND TRANSPORTATION.

	Mounts.			Transportation.						
	Officers.	*Enlisted Men.*	*Total.*	*Ambulances.*	*Wagons.*	*Draft Animals.*	*Pack Animals.*	*Total Draft and Pack Animals.*	*Total Animals.*	
Division Headq'trs.	5	5	10	...	...	...	...	...	10	1 led horse for each officer above the grade of Captain.
Inspection	2	2	4	...	...	...	...	...	4	
Infantry, 9 regs.	45	72	117	...	9	36	9	45	162	
Cavalry, 1 reg.	5	22	27	...	1	4	1	5	32	
Artillery, 2 regs.	8	38	46	...	2	8	2	10	56	
Engineers, 1 bat.	3	6	9	...	...	...	...	...	9	
Signal Troops, 1 bat.	2	4	6	...	...	...	...	...	6	
Ammunition Train.	2	4	6	...	...	...	...	...	6	
Supply Train	1	2	3	...	...	...	...	...	3	
Ambulance Cos.(4)	22	54	76	48	12	240	16	256	332	
Field Hosp. (4)	26	34	60	...	32	128	...	128	188	
Reserve Supplies (*)	1	3	4	...	6	24	...	24	28	
Total	122	246	368	48	62	440	28	468	836	

* With Supply Train.

PART I.

THE GENERAL MILITARY SITUATION ASSUMED TO EXIST ON SEPTEMBER FIFTEENTH.

THE GENERAL SITUATION.

The Missouri river is the boundary between hostile states. War was declared August 15. September 1st the Eastern army seized Leavenworth, at that time undefended, with a force largely composed of new troops, and constructed and occupied strong field works on the line Hancock Hill—Sentinel Hill—Hund Hill—28—50—138—Pilot Knob. These troops were considered as good while in strong defensive works but too green to be used for an attack in the open.

The Eastern First Field Army is being mobilized and concentrated at Plattsburg, about 35 miles northeast of Leavenworth.

The general plan of the Eastern headquarters is to have their First Field Army invade Kansas through Leavenworth.

A Western army is known to be forming at Holton, about 45 miles northwest of Leavenworth.

On receipt of information at the Eastern headquarters that the Western army was nearly ready to advance, the Eastern 1st Division, composed of regulars, and which had completed mobilization, was sent ahead to Leavenworth.

About 1 p. m. September 15th, Major General A, commanding the Eastern 1st Division, at the head of the reserve of his advance guard, after a march of 12 miles, reached the Terminal bridge. The cavalry had passed through the town three hours earlier.

General A here received a report from Army Headquarters that one division of the Western army was moving east and should cross the Big Stranger creek near

Easton today. The remainder of the hostile field army was to have started early this morning.

Shortly after 2 p. m. he received a report from his cavalry commander, sent from 112 at 1:30 p. m., as follows:

"About noon encountered about six troops hostile cavalry near here, defeated them and drove them across the Big Stranger. A few minutes later about a squadron was seen approaching from the north, which we attacked and drove through Easton. Captured several prisoners. Hostile infantry just beginning to cross Big Stranger at 88 and 114.

Information obtained from prisoners and reports just received from patrols indicate that the Western 3d Division is advancing in two columns."

General A reported this information to the Commander First Field Army and received the following reply:

"Major Gen'l. A,
Leavenworth.

This army is starting today to march to Leavenworth.

It is practically certain that only one division left Holton before today.

Attack that division and prevent their getting a foothold east of the Big Stranger.

B.
Lieut. Gen'l."

At 4 p. m. the following message was received from his cavalry commander:

"Enemy has halted and is going into camp between Mt. Olivet and Big Stranger. His outpost line extends from P through 94 to south of 118. Several attempts of his cavalry to move east have been frustrated. Shall remain in observation until dark."

The garrison of Fort Leavenworth is subject to General A's orders. Leavenworth has a supply depot, the C., R. I. & P. R. R. being the line of supply.

———o———

Organization of the 1st Division, Eastern Army, Major General A Commanding; Colonel X, Chief of Staff.

1st Brigade	2d Brigade	3d Brigade
Brig. Gen'l. C.	Brig. Gen'l. D.	Brig. Gen'l. E.
1st Infantry	4th Infantry	7th Infantry
2d Infantry	5th Infantry	8th Infantry
3d Infantry	6th Infantry	9th Infantry

Two machine guns with each regiment of infantry and cavalry.

Artillery Brigade	Cavalry
Brig. Gen'l. F.	Colonel G.
1st Field Artillery	10th Cavalry
2d Field Artillery	

4th Battalion Engineers.
Companies A and B, Signal Corps.
Ambulance Companies, Nos. 1, 2, 3 and 4.
Field Hospitals, Nos. 1, 2, 3 and 4.
Medical Reserve Supplies.
Supply Trains and Ammunition Columns.

PART II.

THE SPECIAL TACTICAL SITUATION FOR FIRST DIVISION EXISTING UP TO DAYLIGHT, SEPTEMBER SIXTEENTH

and

THE PRELIMINARY MEASURES OF THE MEDICAL DEPARTMENT DEPENDENT THEREON.

Major General A Issues Orders to Encamp.

At 2:30 p. m. the following order was issued:

1st Division,
Leavenworth, Kansas,
15 Sept. '10, 2:30 p. m.

Field Orders
No. 5.

1. This division will go into bivouac for the night as ordered below. The garrison troops will provide the necessary outpost.

2. Assignment of camp grounds:

1st Brigade—West of U. S. Penitentiary and north of Metropolitan Avenue.

2d Brigade—West of town between Metropolitan Avenue and Ottawa Street.

3d Brigade—West of town between Ottawa and Shawnee Streets.

Artillery Brigade—On the reservation west of Grant Avenue; 1st Regiment south of Corral creek; 2d Regiment north of said creek.

Engineer Battalion—Between Metropolitan Avenue and the road 72—Metropolitan Avenue.

Company A, Signal Corps—Opposite engineer battalion south of Metropolitan Avenue.

Company B, Signal Corps, to remain with the supply trains.

The Ambulance Companies—North of Metropolitan Avenue and east of Grant Avenue.

The Supply Trains, Ammunition Columns, Field Hospitals, Medical Reserve Supplies, and Company B, Signal

Corps, will bivouac near eastern end of Terminal bridge.

3. The field trains will join their organizations.

4. Issues will be made at Union Depot at 5 p. m.

5. Division headquarters will be near north end of Broadway, where orders will be issued at 8 p. m. today.

A.
Major General.

Copy by Capt. Z to all brigade commanders. Copy by Capt. Y to the C. O., Eng. Bn., Signal Corps Bn., Ambulance Cos. and trains. Verbally to staff.

A copy to Colonel G, 10th Cavalry; also instructions to withdraw his regiment by dark, detaching one platoon for patrol service to report to the commander of the garrison troops near 50.

The commander of the garrison was given all information received to date and his arrangements for security examined and found satisfactory. He was also directed to place at least one battalion of infantry with machine gun platoon at 104 and have them intrench.

The Chief Surgeons of the 1st Division and of the Line of Communications Confer Regarding the Local Sanitary Situation.

As soon as the foregoing order to encamp was issued, the Chief Surgeon of the 1st Division, Lieutenant Colonel Sharp, sent his orderly to Lt. Col. Forward, Chief Surgeon of the Line of Communications, with request that the latter meet him as soon as possible at Division Headquarters for conference with respect to the existing sanitary situation.

Before leaving Plattsburg, Colonel Branes, Chief Surgeon of the First Field Army, had informed him that the Chief Surgeon of the Line of Communications would be sent up to the Advanced Base a day or so in advance of the arrival of the 1st Division, to arrange for the care of the disabled which might be moved on Leavenworth and their evacuation therefrom; and added that while the service of the Line of Communications was ordinarily developed in the rear of an advancing main body of troops, in this case Leavenworth had been seized, garrisoned and strongly fortified as a point of invasion and the previously existing means of communication remained uninterrupted.

Lt. Col. Forward, Chief Surgeon of the Line of Communications, arrived at the office of Lt. Col. Sharp a little after 3 o'clock and at once proceeded to give a statement of the existing sanitary situation in Leavenworth and its vicinity. Among other things he said:

"I reached here yesterday about sunset by special train, bringing up the personnel and material of two Evacuation Hospitals and of the Advance Sanitary Supply Depot. With these came their quota of wagons, but I was able to bring no Transport Column as the last ambulances had just been assigned in equipping Ambulance Companies completing organization at Plattsburg. I doubt if any of my ambulances will be up in some days, but fortunately there is plenty of civilian wagon transportation available in Leavenworth.

"On arriving, I conferred with the senior medical officer with our garrison here, and found that he had been retaining his sick in the post hospital at Fort Leavenworth. He was shown the necessity of getting that hospital cleared for possible emergency, and this morning he sent in two sleeping car loads of disabled which were promptly forwarded to the Base Hospital at Plattsburg.

"Leavenworth itself is a well built town of about 25,000 inhabitants, with all modern conveniences. It contains numerous buildings quite suitable for conversion to hospital purposes and I have therefore decided to pitch no tentage in connection with my hospitals, especially since a number of the best of these buildings are conveniently close to the railroad depots and sidings, and wounded can be readily conveyed by litter from these buildings to hospital trains.

"I found that the three largest hotels in town—the National, Imperial and Saratoga—adjoin each other on Cherokee Street, about a block from the Burlington Depot. At the east end of Shawnee, Delaware and Cherokee Streets, near the Union Depot, are the Planters Hotel and a number of good vacant warehouses. In all, these buildings should be able to shelter about 2,000 wounded. I took them over at once for hospital purposes, notifying the Provost Marshal and Mayor of the city. The locality of the buildings so taken is marked on the map which I am handing you. I also examined into the suitability of other buildings, such as schools, empty stores, lodge rooms, etc., of which there is a large number. I should say that the maximum accommodations in the city for wounded would be about 6,000.

"One hospital of the line of communications being certainly needed in Leavenworth, and the above mentioned hotels being at once available for my purpose, I directed the commanding officer of Evacuation Hospital No. 1 to take over the three hotels adjoining each other on Cherokee Street. He moved out the guests as far as possible and assigned to the top floor such few civilians as he thought might remain. These three hotels will probably accommodate, without great crowding, about 1,000 patients, if we install more beds in the chambers and throughout the public rooms, as parlors, lobbies and dining rooms. The equipment of the Evacuation Hospital of course provides official-

ly for but 324, but the hotel furniture and bedding will greatly increase our bed capacity, the hotel kitchens are well equipped to handle the matter of subsistence, and of course the drugs, dressings, etc., which we have will be quite sufficient to meet any anticipated emergency. The commanding officer of Evacuation Hospital No. 1 is just now making requisition on the Advance Sanitary Supply Depot for the additional articles which seem to be required in his expanded hospital.

"If any of these articles are not on hand and cannot be got up in time from the base at Plattsburg, I shall direct my supply officer—Captain Minus—to endeavor to purchase them in open market, and if this cannot be done to call upon the Provost Marshal to seize the necessary articles wherever found. After establishing his own depot in a warehouse alongside the railroad, the Medical Supply Officer has made it his business to find out what supplies suitable for sanitary use are available in town.

"The maximum capacity of the existing hospitals in Leavenworth, for the care of seriously wounded in addition to their present patients, has been ascertained and is as follows:

HOSPITAL:	LOCATION	ADDITIONAL CAPACITY:
Cushing	West 7th Street	50
Evergreen	Maple & Limit	25
Mitchell	610 Fifth Street	35
Leavenworth	Broadway & Rees	40
St. John's	7th & Kiowa	60
Total		210

I have taken over these hospitals as wards of Evacuation Hospital No. 1, and assigned medical officers to take charge and direct their personnel. The location of these hospitals has also been marked on the map which you have

just received. The post hospital at Fort Leavenworth need not be considered in any sanitary plans as it would probably no more than suffice the needs of the original garrison of the trenches.

"The city directory shows the names of 22 physicians and 18 trained nurses, whose temporary services I would endeavor to secure in case the sanitary situation becomes at any time greater than my own available medical staff could handle. If any further assistance should be required in emergency, I would ask the mayor to send out a call for volunteer nurses, preferably through the pastors of churches and heads of civic societies. If this had to be done as a last resort, I would emphasize the fact that the temporary assistance asked for is purely humanitarian and outside of political lines and that we would have equal solicitude for both our own and the enemy's wounded. Some arrangement of this sort might be better as a temporary expedient than to let the Red Cross become established so far to the front.

"As to Evacuation Hospital No. 2, it is at present held in reserve intact. The place where it should be established of course depends upon the place where the fighting shall occur. I am therefore awaiting instructions from higher authority conversant with the anticipated military situation to guide my action and thereby avoid the possibility of otherwise establishing this not very mobile institution at some less desirable point.

"As to our train service for removing wounded to the base, no regular hospital train is yet organized, but I am informed that one will be ready for service in a day or two. In the meantime, there are many freight and some passenger cars coming up, which could be utilized if necessary. There are plenty of suitable places for loading wounded; one of my first tasks was to secure a map of the

railroad yards and the location of all sidings in and near the city."

They had thus continued discussing the situation for some time, Lieut. Col. Sharp occasionally making inquiry relative to some point upon which he desired special information, when an orderly appeared, saluted, and said: "Sir, Colonel X, Chief of Staff, requests the presence of the Chief Surgeon of the Division at headquarters."

Requesting Lt. Col. Forward to remain, as the above order might mean the receipt of information upon which further sanitary plans could be made, Lt. Col. Sharp proceeded to the office of the Chief of Staff.

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The Mission and Plans of Major General A.

After issuing the order to encamp, General A rode to the front, studied the ground and considered his plans for the following day.

His mission is promptly to drive back across the Big Stranger Creek the hostile division reported as arriving there. It is not practicable to attempt this today. It is over eight miles from the bridge to the Big Stranger, and his command has already marched twelve miles today. General A cannot prevent their crossing, for they will be across before he can get there.

Tomorrow the enemy will probably be in position practically where he would find him tonight if he advanced, or the enemy will move to attack Leavenworth.

The latter move would suit General A. To have the enemy attack our strong position and then make a counter

attack against him would be an easier way to solve General A's problem than to attack now.

It is of course probable that the enemy will be able to put up a stronger defense tomorrow than he could tonight, but General A believes he will gain more by waiting. To make an attack tonight, his division would have to deliver it after a 20-mile march on a hot day, and begin so late that even if successful he could not reap the full benefit of his victory. He must attack early tomorrow unless the enemy takes the lead and attacks first.

General A, from his study of the ground and the general situation, believes the enemy is likely to take up a position on Mt. Olivet. In this case, he will attack with part of his force against the front and with the other part in the general direction 130—124, cavalry farther to the left.

The enemy may advance to the general line 110—130. In this case, General A will attack the same as before.

The enemy may advance along the general line 108—104. In this case, General A will support that part of the garrison's line with a part of his troops and with the remainder hit the hostile right by way of the Lecompton road.

If the enemy advance by the Lecompton road, he will be met in front as before, while the remainder of the division advances by the 50—108 road to attack his left.

If the enemy advance farther north than the 104—108 road, one column would move out by the Zimmerman road, and the other by a more southern road to strike his right flank.

General A tonight can only order his troops formed tomorrow morning at the best place or places to promptly meet any probable contingency in the morning. The points 60 and 68 seem to be the best.

Brigade commanders generally should specify the regiment to lead. It should also appear in the order. This

is brought about by getting the necessary information in advance from brigade commanders.

General A's plan for tomorrow is to have his command formed and ready to move promptly on receipt of information from the front, to defend his position if the enemy attacks, and to himself attack if the enemy does not; to get his cavalry out early, find out where the enemy is and as far as possible what he is doing.

He therefore issued the following order:

1st Division,
Leavenworth, Kansas,
15 Sept. '10, 7 p. m.

Field Orders
No. 6.

Troops
In Order of March:
Right Column,
Brig. Genl. C.
1st Inf.
2d F. A.
1st Brig. (less 1st Inf.)
1st Bn. Engineers.
Amb. Co. No. 1.

Left Column,
Brig. Genl. D.
4th Inf.
1st F. A.
2d Brig. (less 4th Inf.)
Co. A, Sig. Corps.
3d Brigade.
Amb. Co. No. 2.

1. A hostile division is reported to have crossed the BIG STRANGER this afternoon and gone into camp between that stream and MT. OLIVET. Earlier in the day our cavalry severely defeated that of the enemy.

The remainder of our First Field Army is on the march for this place, having started today.

2. This division will be formed ready to march in two columns at 6 a. m. tomorrow.

The right column will form with head at 60, the left column with head at 68.

In forming the two columns, six caissons from each battery will be formed into a regimental light ammunition column and follow without distance at the rear of the column.

3. The 10th Cavalry will start from camp at 4 a. m. and gain contact with the enemy, reporting without delay the location of the enemy to the division commander at 66.

4. Ambulance Companies Nos. 3 and 4, and the Field Hos-

pitals will be ready to march from their present camps at 7 a. m.

5. The Ammunition Columns will be ready to march at 7 a. m.

The Supply Trains and Company B, Signal Corps, will remain where they are.

The Field Trains of Troops in the right column and the four ambulance companies will assemble after 7:30 a. m. near corner of GRANT and METROPOLITAN Avenues. The field trains of the other troops will be parked at the same time east of present cavalry camp.

6. After 6 a. m. messages should be sent to 66.

A.,
Major General.

Copies to officers sent to division headquarters to receive them.

It is assumed that patroling will be kept up during the night, as the measures taken by the garrison commander were satisfactory to General A.

The Chief Surgeon, 1st Division, Makes Some Preliminary Arrangements.

On arriving at the office of the Chief of Staff, about 4 p. m., Lt. Col. Sharp found the division staff assembled. The Chief of Staff, Colonel X, then fully explained the existing military situation and the general purposes of the Division Commander as already outlined. He said that about sunset he would issue Field Orders No. 6, already quoted, stated that in his opinion the fighting tomorrow would probably be severe, and added, "by direction of the commanding general, you will prepare accordingly. Any recommendations you have to make relative to your departments

or requests for orders should be submitted without unnecessary delay."

Returning to his own office, Lt. Col. Sharp found the Chief Surgeon, Line of Communications, still awaiting him, and confidentially gave the latter much of the information which he himself had just received. They agreed that with the severe fighting anticipated, the casualties to be cared for in the Division might be about 10 per cent, or about 1,800; to this number, in case of our success, would probably have to be added about 1,000 casualties among the enemy.

With the location of the probable battlefield so close to the city, they both considered that Evacuation Hospital No. 2 should be established in Leavenworth without delay in the buildings near the Union Depot, already selected for that purpose. Wounded should be brought in direct from the field by all available transportation, and the ability to make such rapid evacuation to the hospitals of the Line of Communications would render it probable that the establishment of no more than two or three Field Hospitals on the field itself would become necessary.

Since an abundance of civilian transportation was known to be available in Leavenworth, a large train of such vehicles would have to be organized to supplement the transportation of the Ambulance Companies, in order to permit of evacuating the field as rapidly as would be desirable. This train could best be handled by the Director of Ambulance Companies.

As to the question of railroad evacuation to the rear, that was left unsettled for the time being. The hospital facilities in Leavenworth, as existing and planned, were probably adequate to meet all immediately anticipated needs. If they should not prove to be so sufficient, the resulting problem was one which the Chief Surgeon, Line of Com-

munications, and not the Chief Surgeon, 1st Division, would have to settle.

Lieut. Col. Sharp then dictated and sent the following letter:

Office Chief Surgeon, 1st Division,
Leavenworth, Kansas,
15 Sept. '10, 4:20 p. m.

To the Adjutant General, 1st Division,
Sir:

I have the honor to make the following recommendations:

1. As the fighting tomorrow is expected to be severe, I desire to plan on the basis of 2,800 casualties; 1,800 of our own, the rest among the enemy.

2. Wounded should be evacuated from the field direct to Leavenworth so far as possible and treated in the Evacuation Hospitals to be established in buildings near the railroad stations. For this reason it is probable that not all the Field Hospitals need be set up on the field.

3. As our transportation will be insufficient for proper removal of wounded, the Provost Marshal should cause not less than 250 wagons belonging to civilians, with animals and drivers, to be collected near the northeast corner of the field north of 224, not later than 10 a. m. tomorrow. They should await instructions there. Wagons of the farm or delivery type, with abundance of hay in the bottom, are preferable. I request that the Provost Marshal place suitable officers and men in charge to act under my direction.

4. If this plan is approved, I request to be promptly informed, and that the necessary instructions be issued to the Provost Marshal without delay.

Very respectfully,
SHARP,
Lieut. Col.,
Chief Surg., 1st Div.

The provisions of the above letter were approved by Major General A. and at 4:30 p. m. Lieut. Col. Sharp was so notified.

He, in turn, notified Lt. Col. Forward, who at once departed to order the establishment of Evacuation Hospital No. 2, and carry out the other additional measures which the new information made necessary. He said as he was leaving that he would make his own headquarters in Evacuation Hospital No. 1, with office in the National Hotel.

The Chief Surgeon, 1st Division, then turned to his assistant, Captain Bright, and directed him to have the Director of Field Hospitals and Director of Ambulance Companies report without delay for instructions.

In the meantime he dictated the following telegram:

Office Chief Surgeon, 1st Division,
Leavenworth, Kansas,
Sept. 10, '10, 6:45 p. m.

Chief Surgeon,
First Field Army,
Plattsburg, Mo.

I anticipate 2,000 wounded to care for tomorrow. After conference with Chief Surgeon, Line of Communications, I propose to evacuate direct from field into Evacuation Hospitals in Leavenworth City as far as possible.

SHARP,
Chief Surgeon.

Major Ryder, M. C., Director of Ambulance Companies of the Division, arrived promptly in obedience to summons from his camp, only a short distance away on the other

side of Metropolitan avenue. The Chief Surgeon then said: "Major, a severe engagement is expected tomorrow. This information is confidential. I can give you, at present, no further information that that we may anticipate about 2,800 gross casualties, and that in view of local conditions it is planned to evacuate all wounded as directly as possible to the Evacuation Hospitals which will be established in Leavenworth. This map shows the location of all the hospitals in the city. Perhaps no more than a couple of Field Hospitals need be brought up to the field, since there is plenty of wagon transportation for moving wounded in Leavenworth. I have requested orders, which have been approved, for the Provost Marshal to have 250 wagons, well cushioned with hay, with teams and drivers, on the area north of 224 at 10 o'clock tomorrow morning. Detailed officers and men will have them in charge under the direction of this office. You will be responsible for this civilian wagon train. Those whom you place in immediate control must report to the wagons to take charge at 10 a. m., and remain in position until ordered to proceed to the front.

"So far as your regular ambulance companies are concerned, until the situation is developed it is very probable that two at least will be held in reserve tomorrow off the road, and under the shelter of the hill, in the vicinity of 50, or near 138. From these points they can be swung west to any part of the probable battlefield. The routes for evacuation of wounded back to Leavenworth, and of which you will be promptly informed, must of course depend upon the character and outcome of the battle."

With these instructions, Major Ryder returned to the camp of his Ambulance Companies. He made a thorough inspection of these units and verified their fitness for use on the morrow. He then selected an officer from Ambulance Company No. 4, Captain Wheeler, M. C., to take charge of the civilian wagon train. To him he said: "Cap-

tain Wheeler, report in general charge of these wagons at 10 a. m. Let none of the latter go for any purpose. Being assigned to the Medical Department by General A, they can be diverted by no other officer. Remember that in single column on the road 250 such teams are about one and one-half miles long. Therefore split them into convenient sections of about 40 or 50 wagons each, assigning each such section to an officer or reliable enlisted man. Get the wagons into lines as they report, keeping them in position until ordered to the front. Animals may be unhitched and tied to the wagons if desired. Personally see that all vehicles of the farm wagon type have their beds well cushioned with hay or straw."

Shortly after the departure of the Director of the Ambulance Companies, the Director of Field Hospitals of the Division, Major Oversight, rode up to the office of the Chief Surgeon and reported for instructions.

The Chief Surgeon then gave him the following verbal directions: "Major Oversight, the fighting tomorrow will be severe. This information is confidential. If we are successful, we may expect to have some 2,800 casualties, of which about 1,800 will be in our own forces. This implies provision for about 2,000 wounded. In view of the nearness of Leavenworth, the facilities which it affords in the two Evacuation Hospitals now there, and the abundance of civil transportation which can be secured to assist the Ambulance Companies in removing wounded from the battlefield, it may perhaps be necessary to put up no more than a couple of your Field Hospitals on the battlefield. However, at least the personnel of all of them will undoubtedly be utilized. I can give you no further information at the present time, as of course the developments tomorrow will have to determine the needs for Field Hospitals as well as

their locations for greatest usefulness. Clear your hospitals completely and hold them in readiness to follow after the Division any time after it advances to the attack, but until you receive orders to do so your attitude will be merely one of prepared expectancy."

Major Oversight then returned to the camp of his Field Hospitals, where he made a thorough inspection of their condition, transportation and personnel. Finding some 50 patients in these hospitals who would be unfittted to march tomorrow, he ordered them to be transferred immediately to Evacuation Hospital No. 1; all others whose condition was such that they might be able to get into the fight he ordered returned to their regiments before sunset. Disabled who came on sick report in the morning were to be transferred directly into Leavenworth by the transportation bringing them. He gave the necessary orders to be in readiness to march at 7 a. m., but had no great belief that use would be found for his hospitals much before the afternoon, at which time the outcome of the action would probably be apparent.

A little after the departure of the Director of Field Hospitals, Captain Pluss, Medical Supply Officer of the Division, also reported to see if there were any instructions. Him the Chief Surgeon dismissed with the statement that there were none, other than to hold himself in readiness on the morrow. He added that it was quite unlikely that additional sanitary stores would be needed at the front before the Field Hospitals began to replenish after evacuating and just before packing up; and if transportation for wounded proved to be short after action his six wagons would very likely have to be emptied, their supplies stored under guard and they themselves used to help in removing disabled to the Evacuation Hospitals in Leavenworth.

After departure of the Medical Supply Officer, as there still remained more than an hour of daylight, Lt. Col. Sharp left his assistant, Major Goodman, in charge of the office, and accompanied by his orderly, galloped away to supplement his map knowledge of the terrain, over which the action of the next day would probably be fought, by a personal inspection of its character. He did not consider it now necessary to inspect the divisional sanitary units, as he had taken such action the previous day and his subordinates were now verifying their continued fitness. As to the regimental sanitary detachments, the Sanitary Inspector had been charged by him with their inspection. Following the Zimmerman road to the high ground northwest of Leavenworth, he rode slowly southward along the line of trenches located on this ridge to Pilot Knob, halting frequently and carefully examining with his field glasses the country and its approaches to the westward. The enemy was nowhere visible, but a sputtering fire near 110 indicated probable contact between cavalry patrols. However, before sunset the firing ceased. The country was very rolling and there were many farm houses, groups of trees and pieces of cover not apparent on the map. The roads were good country roads, but a little dusty. The weather indications seemed to be for a continuance of the warm, clear weather which had been the rule for several days.

Dropping down from the hill at the reservoir, Lt. Col. Sharp rode rapidly back into Leavenworth, noting the existence of several railway sidings in the vicinity of 224. Riding down Cherokee street he noticed that the large hotels, already mentioned as taken over by Evacuation Hospital No. 1, were brilliantly lighted and that many Hospital Corps men were busily engaged about them. He happened to meet a medical officer of Evacuation Hospital No. 2, who reported that the work of preparing its buildings for wounded was going along satisfactorily. Lt. Col. Sharp

then turned north to his camp, which he reached a little after 8 o'clock. Major Goodman reporting that nothing new had happened during his absence, he went in for supper and had just finished when a Signal Corps orderly brought in the following telegram:

Office Chief Surgeon, First Field Army,
Plattsburg, Mo.,
Sept. 15, '10, 7:30 p. m.

Chief Surgeon, 1st Division,
Leavenworth, Kansas.

General engagement expected with arrival of these forces now en route. I am wiring Chief Surgeon, Line of Communications, to make plans for wounded with a view of ten thousand ultimately being handled in and through Leavenworth.

BRANES,
Chf. Surg., First Field Army.

Lt. Col. Sharp at once called up Evacuation Hospital No. 1 by telephone and briefly discussed the broader sanitary problem, which now presented itself, with Lt. Col. Forward. Between them they agreed that the new situation made special effort to accomplish evacuation of wounded promptly a matter of the utmost importance. Not only did it appear that the facilities of Leavenworth were insufficient for the proper care of more than about six thousand wounded, but that the retention of wounded there would cause the very serious congestion of the city as an advanced base and would mean the need of a large amount of cars for the bringing up of medical supplies which could otherwise be used for ammunition, rations and other military stores. It was therefore necessary to begin evacuating by rail such wounded as were able to travel back to the Base Hospital as soon as they reached Leavenworth from the battlefield. As the distance to this hospital was only a

few hours by train and the weather was mild, any ordinary baggage or even flat cars would be satisfactory to send them back on. They thought that probably at least a thousand wounded could be evacuated by midnight of the 16th, depending on the nature of the action, using improvised hospital trains which the Chief Surgeon, Line of Communications, said he would ask to have made up of unloaded cars in Leavenworth during the afternoon and evening tomorrow. After definite plans in this respect had been approved by the General commanding the Lines of Communications he would notify the Chief Surgeon, 1st Division.

Matters thus having been arranged for the night, the latter announced that he proposed to rest. He desired to be awakened at 4 a. m., and directed Capt. Bright to remain up and in charge of the office and handle any routine matters which might require action in the meantime.

Military Methods Convert Buildings in Leavenworth to Hospital Use.

Taking up the action of Lt. Col. Forward during the evening, he followed out the general line of action agreed upon between himself and the Chief Surgeon, 1st Division. He ordered the commander of Evacuation Hospital No. 2 to establish his hospital in the Planters Hotel and the nearby warehouses, the latter having been selected with special reference to convenience of location and internal arrangement, water supply, toilet facilities, ventilation, lighting and kitchen facilities. The latter commander directed his executive officer, Major Olds, to carry out this work on the basis of an expanded hospital, temporarily caring, if need be, for

a thousand wounded, and to prepare requisitions on Capt. Minus, in command of the Advance Sanitary Supply Depot, for any additional articles which might be required.

Major Olds then called up his junior medical officers, assigned them to buildings which they were to have in charge and specified the number of Hospital Corps men each could have. He then gave them these general instructions:

"You will proceed immediately to clean out and prepare for hospital use the buildings assigned you. Use the implements and stores of our Evacuation Hospital for this purpose. Determine carefully the maximum hospital capacity of your buildings. Then make a list of the kind and number of absolutely essential articles required at once for their equipment. These estimates and lists must be in my hands by daylight tomorrow. For the present I shall be in the building at the east end of Delaware Street." With these words he dismissed them.

The junior medical officer, Lieut. Young, who had been put in direct charge of the building at the east end of Shawnee Street, thereupon marched his quota of Hospital Corps men to the building in question.

He then gave the following order: "Sergeant Topp, start your men cleaning up this building and its surroundings for hospital use. Personally verify the good condition of the water supply, lighting arrangements and toilet facilities."

He himself then started into the building with a view of inquiring into its character and capacity.

Sergeant Topp thereupon ordered: "Sergeant Minor, take a dozen men with brooms; open all windows and thoroughly sweep out the building, beginning with the top floor. Have all trash piled for later removal on the vacant lot next door."

"Sergeant Lesser, take twenty men, give them mops, brushes, buckets and soap, and have them scrub up the floors and woodwork, following after Sergeant Minor's detachment. Have the floors well dried off by mopping. Then start your men cleaning windows, using old newspapers for this work. If there are none in the building, send out for some."

"Sergeant Under, take half a dozen men, with rakes and lanterns, and clean up the yard, piling the trash in the vacant yard next door for later removal."

"Sergeant Lowe, take half a dozen men and put the cellar in good condition."

Designating a private to accompany him, Sergeant Topp dismissed the detachment and entered the building to perform the special duties with which he was charged.

Sergeant Minor selected his men, outfitted them and followed them upstairs, where he ordered: "Private Won, take these four men and start in on this big front room. Private Tew, take three men and sweep up the middle room. Private Three, take these last two men and begin on the smaller room in the rear. All of you open your windows, sweep toward the hall, and hurry as much as you can so as not to delay the men with the mops."

The other non-commissioned officers gave appropriate orders to their detachments.

In the meantime Lieut. Young had started to go all over the building with a view of determining its general character and internal arrangement. He drew a rough plan of each floor, numbering each room and designating on the sketch the purpose for which it seemed specially suited—as wards, storeroom, office, operating room, etc. He then paced off the dimensions of each of the proposed wards and determined their floor space. As it was warm weather, the windows could be open and the patients would probably be under treatment no great period before evacuation,

he decided that 80 feet of floor space would be sufficient allowance per man. Entering the capacity of each room on his floor plan, he found on completing his task that the entire building would hold 250 patients.

Then estimating the articles needed for each room, he listed them separately. Adding these items in a consolidated list gave the total of items required. A duplicate of this consolidated list had just been prepared when Major Olds came in to see how the work was progressing. Lieut. Young gave him this list and the memorandum of total capacity. He showed him his sketch and individual memoranda, which he said would enable anyone, in his own absence, to receive, check off and put in proper places, without delay or confusion, the articles desired. Major Olds inspected the building and work, approved his plans and estimates, and in view of the absence of any suitable room for a kitchen said that he would establish a tent kitchen with field range outfit in the yard.

Similar measures, methods and results by which the preparation of the above was systematically accomplished attended the conversion of the other designated buildings and the hotel to hospital purposes. Long before daylight all were in condition to receive the hospital equipment as it should be brought up, and the several individual estimates, consolidated into a requisition on the Advance Sanitary Supply Depot, showed not only the total amount of additional articles required by the expanded hospital, but exactly the divisions and rooms in which each item was to be utilized.

Preliminary Arrangements for Evacuating Wounded Beyond the Advance Base.

Following his receipt of the telegram from the Chief Surgeon, First Field Army, which implied the necessity for beginning and continuing evacuation of wounded as rapidly as possible after the fight tomorrow, and after his telephone conference with Lt. Col. Sharp, the Chief Surgeon, Line of Communications, at once dictated and sent the following letter:

Office Chief Surgeon,
Line of Communications,
15 Sept. '10, 8:45 p. m.

Adjutant General, L. C.,
Leavenworth, Kansas.

Sir:

I have the honor to request that the Chief Quartermaster, Line of Communications, be directed to have not less than 40 empty freight cars made up into three hospital trains to evacuate wounded to the base. If possible, three bales of hay or straw should be put in each car for bedding. Trains should be made up with engines attached and available as follows:

One of 15 cars at the siding at 224 at 3 p. m.;

One of 15 cars at the siding at 224 at 6 p. m.;

One of 10 cars at the Burlington Depot at 9 p. m.

Medical officers and Hospital Corps men will be on hand to take them in charge. I request to be furnished with a copy of the order asked for above.

Very respectfully,

FORWARD,
Lt. Col., M. C.;
Chief Surgeon, L. C.

Shortly afterward he was informed that the above request was approved and that the order asked for would be issued. He at once called up the office of the Chief Surgeon, 1st Division, outlined his plan for entraining, and requested that evacuation of wounded from the front be conducted with the times and places above mentioned in mind.

He then sent the following telegram:

Leavenworth, Kans.
15 Sept. '10, 9:00 p. m.

Chief Surgeon, First Field Army,
Plattsburg, Mo.

Impossible properly care for more than six thousand wounded in Leavenworth. I plan evacuate at least one thousand wounded on Plattsburg between noon and midnight tomorrow by improvised hospital trains leaving here about 3, 6 and 9 p. m. Request six medical officers, seventy-five enlisted men Hospital Corps properly equipped such service be ordered to report here by noon and take over these trains under my direction.

FORWARD,
Chf. Surg., L. C.

To this the following reply was received:

Office Chief Surgeon, First Field Army.
Plattsburg, Mo.
15 Sept. '10, 9:45 p. m.

Chief Surgeon, Line of Communications,
Leavenworth, Kansas.

Sanitary personnel asked for by you properly equipped reach Leavenworth by 1 p. m. tomorrow to take over three trains wounded under your direction. They arrive on train bringing 1st and 2d Bns, 47th Inf.

BRANES,
Chf. Surg., First Field Army.

Having thus assured himself that means for preventing any undue congestion of Leavenworth with wounded had been secured through his ability to relieve pressure as might be required by evacuation of the disabled to Plattsburg, Lt. Col. Forward renewed his attention to the preparatory arrangements looking to the care and relief of the many hundreds of wounded whom he must expect to have deposited on his hands within the next twenty-four hours and whom the limitations of time and physical condition would require to be held for a greater or less period in the city of Leavenworth.

PART III.

THE LEADING OF THE FIRST DIVISION FROM DAYLIGHT, SEPTEMBER SIXTEENTH, TO THE CAPTURE OF MOUNT OLIVET AT 1 P. M.

and

THE TACTICAL MANAGEMENT OF ITS SANITARY PERSONNEL AND EQUIPMENT DURING THE SAME PERIOD.

Sanitary Administration in Leavenworth as Our Troops Advanced.

Before discussing the tactical and sanitary measures taken in connection with the advance of the 1st Division beyond Leavenworth, it may be well to outline the preparatory measures taken by the Line of Communications sanitary service in that city during the morning.

Evacuation Hospital No. 1 was already in operation, and the night before had taken over the disabled of the 1st Division and thereby cleared the Field Hospitals of the latter. About 6 a. m. it began to receive other disabled from the Division, these stopping at the Field Hospitals only to be taken up on the records and diverted to the sanitary service of the Line of Communications.

The personnel of Evacuation Hospital No. 2 reported at daylight at the buildings which it had prepared for occupancy, to which also the wagons of the hospital began to haul its equipment and supplies. These latter were appropriately distributed through the various buildings according to the uses to which each was to be put. The wagons were then sent to the Advance Sanitary Supply Depot to procure the additional supplies which expansion of the hospital made necessary.

The hospital personnel had been carefully organized and instructed previously, and although this was the first time it had been brought into service each individual officer and man already knew his position. The work of preparation moved quickly and smoothly, for there was no delay as to subordinates having to be told what was required, their duties, and to whom to apply for orders. Organization and

system dominated the situation. Before noon, Evacuation Hospital No. 2 was in a satisfactory condition to receive patients and its commander so reported to the Chief Surgeon, Line of Communications. The wagons were parked and a corral established on the Esplanade a few hundred yards north. The personnel was given an early dinner—later they would have little time to eat.

Just before 1 p. m., a party of slightly wounded soldiers on foot, under charge of an old sergeant with his arm in a sling, arrived at Evacuation Hospital No. 1. They had scarcely entered the receiving ward when the ambulance train of Ambulance Company No. 1 drew up at the curb, with 24 recumbent cases and 60 patients sitting up. The Hospital Corps sergeant in charge turned over a list of his patients to the receiving surgeon, was told to unload his slighter cases and take his severely wounded to the Cushing Hospital on West 7th Street, it having been directed by Lt. Col. Forward that these civil institutions receive, up to their maximum capacity, the severe cases not suited for early evacuation to the rear. The ambulances had scarcely started away for the Cushing Hospital and return to the front before appropriate work on the wounded whom they had brought was well under way.

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Preliminary Sanitary Arrangements in the 1st Infantry.

Prior to the issue of the following orders for the advance, as the 1st Infantry started to break camp about 5 a. m. in compliance with Field Orders No. 6, already quoted, the regimental surgeon, Major White, summoned the three assistant medical officers and said: "Captain Black, you

accompany the 1st Battalion into action; Lieutenant Brown, the 2nd; Lieutenant Green, the 3d. Each of you take one Hospital Corps sergeant, one orderly, four privates and two litters. The remainder of the detachment, together with the band, under the senior Hospital Corps sergeant, marches at the rear of the regiment under my direction. I will be with the Colonel until the regiment has gone into action, and will then establish the regimental First Aid Station. My detachment will keep in touch with you and help assist and evacuate your wounded. If you need more help, send word to me. Personally see that your men carry extra dressings, register cards and are properly equipped before falling in with your battalions."

Major White reflected that while the service which could be rendered by these surgeons and their assistants on the firing line could not be very satisfactory under the conditions of modern warfare, yet they would undoubtedly save some lives and prevent much later suffering through such early bandaging and prevention of wound infection as they might be able to accomplish. But their actual value in this position was not so much humanitarian as it was psychological. In the knowledge of their presence, troops stood better under fire and fought more courageously, believing that if they should be injured in the fortunes of war facilities were available for their prompt and efficient relief. The surgeons therefore, although non-combatants, and perhaps themselves without realization of the fact, were thus materially aiding their country to win victories.

It occurred to him also, that the efficiency of the sanitary service in promptly removing at all times the disabled away from the observation and knowledge of their uninjured comrades was similarly of profound psychological value in preventing that sensation of gloom and foreboding which, once established among troops, would very materially contribute to panic and disaster. He appreciated that disor-

ganization and inefficiency of the sanitary service would thus infallibly react unfavorably upon the morale and temper of fighting troops.

Major White then went over to the regimental commander and said: "Sir, I request that the band be directed to report to me at once for duty; also that company commanders be directed to turn over their company litters to me immediately, for conveyance to the front and use by the band. I will be responsible for them."

The colonel at once gave the necessary orders in compliance with the above request.

In a few minutes the band leader of the 1st Infantry came up to the regimental surgeon, and reported himself and the members of his organization as present under orders for temporary duty with the regimental sanitary detachment; also that his detachment had the band litter. Major White then directed: "Take your men to the regimental infirmary wagon, which is packing up to join the regimental field train, and tell the sergeant in charge to pin a brassard on the left arm of each member of your detachment. Have every man fill his haversack and pockets from the boxes of surgical dressings with all the first aid packets, packages of compressed gauze and cotton, and roller bandages that they will hold. Have two of your men get a gunny sack, and half-fill it with more dressings as an additional reserve. Get an ax, a couple of buckets, a lantern, and half a dozen sheets and towels, rolled up in half a dozen blankets, from the supplies of the regimental infirmary. Send four men across the road and tear about fifty laths and half that number of pickets off the fences around that house and chicken yard. Also rip a few shingles off the shed roof. Have them tied up to be carried along—they will be needed for splints. Your men are to carry to the front the company litters which you see lying here. Some of the extra supplies can conveniently be carried forward on them. Personally see that every one of

your men's canteens is full of water. Then report your detachment back to the senior Hospital Corps sergeant and accompany the command under his direction."

Lieutenant Green, recently commissioned, who overheard these directions, was very much surprised to learn thereby that the regimental infirmary was to be left behind. He had thought that during and after battle was just the time when a regiment engaged would most need its own hospital tentage, supplies and operating equipment. Now it appeared, on the contrary, that all this was to be left in the rear and that his regiment was going forward into battle with practically nothing for the care and treatment of the wounded except a few splints and dressings. In his civil practice in a country district, he had attended a number of emergency surgical cases, and almost invariably found the dressings, instruments and sterilizing arrangements which he had taken the precaution to take with him to be absolutely essential. He had therefore rather pictured to himself that when a fight began, his regiment would duly march up, take position and proceed to annihilate the enemy; while the regimental surgeons would follow along with their wagon, pitch a tent hospital shortly back of the firing line, provided with all modern conveniences and appliances, and then begin the performance of delicate, rare and professionally interesting surgical operations, with possibly the added zest of being somewhat in danger of doing all this under fire.

Later, he confided his surprise and preconceptions to another of the regimental medical officers, Capt. Black, and suggested that at least the big surgical operating case, folding tables and apparatus for obtaining surgical cleanliness ought to be carried along.

Capt. Black responded, however, that he would find conditions and opportunities for surgical work quite different from what he supposed, and that no such duties as

he had outlined would or should fall to surgeons with regiments in time of action. He told Lieut. Green that no more surgical instruments were necessary than those carried in the little pouch slung over his shoulder, and that very probably he would find no use even for these, though there was a possibility that an artery or so might have to be ligated. The chief things required were dressings in great abundance. As to the equipment and supplies of the regimental infirmary, they would certainly not be needed until the battle was over, when, if we were successful and the number of wounded was very great, they might be called on by the Chief Surgeon—with similar outfits from other regiments—and sent with their tentage, instruments, dressings and stores to temporarily reinforce the equipment of Field Hospitals overwhelmed with wounded who could not readily be evacuated. Usually, however, they would return to the regiments after a fight was over, where they could be of value in the treatment of mild cases of illness and injury whose temporary nature was such that they should not be separated from their organization.

As he finished telling Lieut. Green this, "Assembly" was sounded and both medical officers hastened to join the battalions to which they had been assigned.

More or less similar preliminary sanitary arrangements were made in the other regiments of the Division.

The Order for the Attack.

By 6 a. m. Major General A had received information from his cavalry that the enemy was taking up a position on Mt. Olivet and intrenching it. His right appeared to be just south of the 122—124 road, his left nearly a mile to the

north. His cavalry had been encountered and driven back, and were now on the hill about a mile south of 118.

General A had previously assembled the brigade commanders, colonels of artillery regiments, commanders of the engineer battalion, signal company and staff at 66, where at 6 a. m, he issued the following order:

1st Division,
66,
16 Sept., '10, 6 a. m.

Field Orders
No. 7.

1. The enemy is taking up a defensive position on MT. OLIVET. The right of his line being a little south of the 122—124 road, his left nearly a mile farther north. His cavalry is about one mile south of his right flank.

2. We will attack at once, enveloping the enemy's right.

3. (a) The right column, Brigadier General C commanding, will advance from 60 via the 46—48—108 road and attack the front of the enemy's position; the left of the attacking line near the 126—128 road, artillery northeast of 110.

General C will send the engineer battalion to the northwest to cover our right flank.

(b) The 2d Brigade will advance from 68 via 106—128—132 and attack the enemy's right.

(c) The 1st Field Artillery will move via 68—138—152—154 and take position about 1000 yards southeast of 130. Fire will be opened on the enemy as soon as the batteries are ready.

(d) The 3d Brigade will constitute the general reserve under my own orders. It will follow the 2d Brigade for the present.

(e) The 10th Cavalry will be assembled near 154,

patroling to the west and south. One platoon will be sent to join the engineer battalion and patrol on our right.

(f) Company A, Signal Corps, will follow division headquarters, and when notified connect headquarters with the commanders of the 1st and 2d Brigades and 2d Field Artillery, maintaining connection with Leavenworth.

4. Ambulance Company No. 1 will establish a dressing station and station for slightly wounded east of the 110—126—130 ridge at a suitable point near the 128—126 road. Ambulance Company No. 2 will follow the reserve as far as 48 and there await further orders. The Field Hospitals and Reserve Medical Supply are placed under the immediate direction of the Chief Surgeon of the Division.

5. Messages should be sent at first to edge of timber about a mile southwest of 48. After attack has started to head of ravine 600 yards west of 132.

A.
Maj. Gen'l.

Verbally to assembled officers. Copy by Captain Y to Colonel G.

To Captain K:

Place one section artillery ammunition parked off the road at 104, and one section artillery and one small arms at bend in road about 1000 yards southwest of 48 parked south of road. Movement to commence at 7 a. m.

X.
Chief of Staff.

To Captain D:

Move Ambulance Companies Nos. 3 and 4 to 140. Movement to begin at 7 a. m. via 62—Lecompton road.

X.
Chief of Staff.

Orders of Brigadier General C, 1st Brigade.

Brigadier General C returned to his command at 60 a very few minutes after 6; his command was massed near 60 ready to move out in the order previously noted. He assembled his field officers and issued the following order:

"A hostile division has taken up a position on Mt. Olivet with the right of his line just south of the 122—124 road, left of line about a mile farther north.

"Our division moves at once to the attack, the left column via 106—128—132 against the enemy's right, this column via 48—108 road. The 1st Battalion, 1st Infantry, Major L commanding, will constitute the advance guard. It will start at once, preceding the main body by 600 yards and move via 108 to the east side of the hill east of Mt. Olivet. The remainder of this column as main body will follow in the order in which they now stand.

"The Engineer Battalion on reaching 104 will turn north and proceed to the vicinity of 94 and cover the right flank of our attack.

"I will be with the reserve of the advance guard."

General C's column moved out promptly. The advance guard was formed with two companies in the support and two in the reserve. As the reserve reached the ridge about 600 yards east of 108 it was opened on by artillery from Mt. Olivet.

The commander promptly gave the command, "Double Time, March," and crossed the ridge with no loss, as the artillery did not get the range accurately until they had passed 108.

General C remained at the clump of trees east of the ridge.

An aide was sent to the advance guard commander with

orders to cross the creek in his front and deploy his battalion extending from 110 to 126, then to advance to the ridge and cover the deployment of the brigade.

To the Colonel, 1st Infantry, as he came up: "There are about 400 yards of this road just in our front exposed to long range artillery fire. The fields to our right and left are open. Form line of platoons in column of squads by battalion and cross the ridge at an increased gait and assemble your regiment (less 1st Bn.) near 126."

The 1st Infantry crossed the exposed ridge with little loss, the few wounded being temporarily left without attention. General C halted the artillery until the 1st Infantry was across the bridge west of 108. The artillery then crossed with considerable interval between carriages and at a fast trot continued across the bridge west of 108 and took up a position behind the nose running northeast from 110.

General C ordered the 2d and 3d Infantry regiments to cross in the same way as the 1st.

Ambulance Company No. 1 was directed to remain near 104 until the attack opened and the enemy's attention thereby taken up, then to follow the other troops.

General C himself followed the 1st Infantry and studied the ground from the ridge occupied by the 1st Battalion, 1st Infantry.

Conduct of the Advance Guard, 1st Brigade.

Major L, on receipt of the order by the brigade commander, assembled his officers and issued the following order:

"A hostile division is taking up a position on Mt. Olivet; his line, about one mile long, extends from just south of the 122—124 road, north.

"This column is to move against the front of the position while the left column will attack its right.

"This battalion will form the advance guard of the right column and will advance via 48 and 108 to the east side of the ridge in front of Mt. Olivet.

"Captain A, with Companies A and B, will form the support and precede the reserve by 500 yards.

"Move out at once. I will be at the head of the reserve."

Captain A directed Lieutenant D, with the 1st Platoon of Company A, to move out as advance party, and followed at a distance of 300 yards with the remaining three platoons.

Major L followed at the head of Companies C and D at a distance of 400 yards.

As the rear of the support was beginning to descend the slope near 108 and the head of the reserve had reached the top of the ridge, long range artillery fire was opened on him from the front.

Major L promptly gave the command, "Double Time, March," and continued the double time until the rear of his column had passed 108; then resumed quick time, and proceeded across the bridge.

Before his troops were across the bridge he received the brigade commander's order to deploy and occupy the ridge from 110 to 126, and soon after his first troops crossed, rifle fire was opened on him by a small force at 110 and south of there.

Lieutenant D promptly, without further orders, deployed his platoon and advanced on 110, driving back the enemy. He then sent word to Major L that the ridge was held only by scouts.

Major L sent an orderly to Lieutenant D directing him to hold the position near 110 but not to advance beyond the ridge, also informing him that the remainder of the battalion would be at once deployed to his left.

Major L directed Captain A to take command of his company (A), to send one section of his rear platoon about half a mile northeast along the ridge to look out for his right flank and protect the artillery from sharpshooters and scouts, and to hold the other section near the road in rear of his first platoon.

As Company B came up, its captain was directed to deploy his company at 3 yards interval, his right 200 yards from Lieutenant D's left, and advance to the ridge.

As Company C came up it was formed in like manner, right 300 yards from Company B's left.

D Company was directed to deploy one platoon with its left about 100 yards north of 126 and hold the other platoon in support.

During the deployment and advance to the ridge some fire was received from the ridge from what appeared to be a line of scouts, but no serious resistance was offered and the ridge was easily gained. The few men previously on the ridge withdrew to the ravine.

Some shrapnel fire was received while deploying but without effect.

Captain A, on receiving his order from Major L, ordered 2d Lieutenant F as follows:

"You know the general situation. The 2d Field Artillery is to go into position just north of here and our brigade to deploy behind this ridge.

"You will take the 3d section and move about half a mile northeast along the ridge and look out for our right

flank and protect the artillery from sharpshooters and scouts. The Engineer Battalion will later be in position north of you."

Lieutenant F conducted his section in rear of the nose to its designated position. Having arrived there, he explained the situation to his men and then sent out the sergeant with three men to the junction of two streams to see that there was no enemy lurking in that vicinity; he was then to follow the stream to the southwest until opposite the section and return.

The corporal of the Right Squad with 3 men was directed to move direct to the wooded stream in front; then to the southwest and examine to see that there was no enemy near.

Shortly after the sergeant reached the stream, firing was heard in his direction and two men from the patrol were seen moving along the eastern branch and soon reported to the lieutenant that the other two men were probably killed, and that there were about 25 or 30 of the enemy there, if not more.

Lieutenant F sent one of the men of the patrol back to the company commander to repeat his story to him and to report that he would at once advance against the hostile detachment.

Lieutenant F moved with his section to the shelter of the trees along the stream, thence north. He soon drew fire from the enemy and deployed into line and tried to advance but gained ground slowly at first, then not at all. In about 20 minutes after he started, he was reinforced by the 4th Section and drove the enemy to the northwest.

This little fight was short but severe and Lieutenant F had three men killed and 10 wounded. The enemy left 8 wounded behind.

Lieutenant F assembled his platoon behind and near the end of the nose and posted two cossack posts on the north side of the stream, one about 500 yards to the right of the junction of the two streams and another near the mouth of the ravine about the same distance to the left of this junction. A sentinel was placed in observation near the platoon.

The following message was promptly sent to Captain A:

Captain A.

With reinforcements sent, have defeated and driven off hostile detachment. The stream is now clear of the enemy. Our losses, 3 killed, 10 wounded, enemy's not much less. Will remain here. Need medical attention for wounded.

F.
Lieut.

When Captain A received the first message from Lieutenant F, the battalion commander was near the left of the line.

Captain A immediately ordered the 4th Section to move rapidly to join and report to Lieutenant F.

He then made the following report to Major L:

"Lieutenant F reports a force of about 30 of the enemy in the creek bottom near junction of the two streams and that he was attacking. As the artillery will very soon be going into position and the engineers are still so far back, I supported him at once with the 4th Section to make sure of the safety of the artillery."

Major L approved Captain A's action. As the 2d and 3d Battalions of the 1st Infantry were arriving, the support for Major L was certain.

How the Sanitary Situation Northeast of 110 Was Handled.

The second report from Lieutenant F, above quoted, was promptly forwarded to Major L, commanding the battalion, who at once called up Capt. Black, battalion surgeon, read him the message and ordered him as follows: "Go at once with necessary assistants and give the aid required. Rejoin as soon as possible. I will report your temporary absence to the Colonel."

Capt. Black then took his orderly and two Hospital Corps men, with a litter, and started away in compliance with the above order, notifying his battalion Hospital Corps sergeant with respect to his temporary absence.

Following down behind the ridge, he proceeded to the nose where he met Lieut. F, who pointed out the place where the wounded were. The latter said that a couple of his men who were handy at bandaging were out putting on first aid bandages as well as they could on their disabled comrades. Several slightly wounded men had worked their way down to a grassy space under shade of the trees on the east fork of the creek, where they were helping to dress each other's hurts with their first aid bandages. One or two helpless men could be seen lying in the open ground just below the ridge, but most were apparently hidden by the undergrowth near the fork of the creek.

Crossing to the slightly wounded men, Capt. Black hastily examined them, found that their condition was good and that their injuries were apparently not serious. Turning to one of his Hospital Corps men, he said: "Stay here and bandage these men properly. This will be our collecting station."

Then with his orderly and other Hospital Corps man

he went rapidly among the helpless wounded. One man, shot through the chest, was just breathing his last. Next lay a man with a shattered leg, which he told his Hospital Corps private to bandage, but not to take time to splint. Another was apparently just recovering consciousness after a glancing wound on the head; him he ordered the orderly to bandage and try to get into the shade. The next man had a badly smashed foot, which he had just finished dressing when four bandsmen, sent by the regimental surgeon, appeared and reported for instructions. They were told to hunt up the other wounded and report to him in case any appeared to need urgent attention on account of profuse bleeding; they were to remove wounded to the collecting station as fast as dressed. Capt. Black found the next man collapsed from hemorrhage, but the bleeding had about stopped; he told his orderly to give him a dose of aromatic spirits of ammonia and himself applied a tight bandage over his wound. In this way ultimately all the cases were located and rapidly dressed. As fast as they were got into shape all but the fracture cases were carried on the litters to the shady spot named as the collecting station, where they were made as comfortable as possible, and given water, stimulants and anodynes. Capt. Black again rapidly examined their dressings here, and filled out and attached diagnosis tags for each man. He then gave the following order to one of his Hospital Corps privates: "You remain here in charge with two bandsmen. Improvise splints, put them on all the fracture cases and bring them here. In case our lines push well forward, send out one of your bandsmen to search for Ambulance Company litter bearers to carry these wounded back to a dressing station. After he has guided them here, you and the bandsmen return to the battalion. I am starting to rejoin it now."

With that Capt. Black started back with his remaining men to the point from which he had started, but before

reaching there he met a slightly wounded man working his way back toward the road, who said that the battalion had been moved to the southward as a reserve, the regiment had advanced and was now in position along the ridge, where there was the sound of heavy firing. Advancing under cover as much as possible, Capt. Black encountered a First Aid station for his regiment just under the hill, about 300 yards south of the road, with a dozen or so wounded lying about. A Hospital Corps sergeant and several privates were working over them, and two or three litter squads of bandsmen could be seen carrying more wounded down the slope back from the firing line. The enemy's artillery was searching the reverse slope of the hill with shrapnel, and as he looked one burst just over a litter squad and killed the two bandsmen and the wounded man whom they were carrying.

Reporting to Major White, the regimental surgeon, who was rapidly attending to the wounded here, he received the following instructions: "Our regiment is holding a position here while the line is moving over the ridge. Your battalion is just ahead, forming the regimental reserve. Get there as soon as you can, to accompany it forward."

As he started forward to obey this order, he heard Major White say to several of slightly wounded soldiers: "You men start to work your way back towards Leavenworth by the 126—128 road to the south of here. A dressing station is to go in near where that road crosses the creek to our rear."

Further Orders of Brigadier General C, 1st Brigade.

After completing his personal reconnaissance, Brigadier General C assembled his regimental commanders, and at 8:45 issued the following verbal order:

"The enemy is in position on a ridge about one mile west of this ridge just in front of us. There is a wooded stream about half way between the two ridges.

"The 2d Field Artillery is going into position just north of the road on our right. We will be supported by the other column on our left.

"The machine guns of the three regiments will be assembled under Captain P behind the crest of this ridge, and as our line advances take advantage of the opportunities offered to support the attack with fire of position.

"The 1st Infantry will deploy on a front of about 500 yards, its left about 300 yards from the 126—128 road.

"The 2d Infantry will deploy on the right of the 1st with about equal front at the start.

"The 3d Infantry will constitute the reserve and will for the present take station in rear of the right flank.

"The 1st Battalion, 1st Infantry, will be relieved and reformed as soon as the deployment is completed and will then rejoin its regiment.

"The deployment will be made at once, but the line will not advance beyond this ridge until I give the signal.

"The regimental bands will report to the senior surgeons of their respective regiments, if they have not already reported.

"A dressing station is to be opened on the stream to our left rear.

"I will be in rear of the center of the line."

By 8:45 the brigade was deployed and ready to advance to the first ridge.

The advance guard had previously advanced to the ridge and driven off a few patrols and scouts found there.

Orders of Regimental Commanders, 1st Brigade.

Orders of the Colonel, 1st Infantry:

On receiving his order from the brigade commander west of 104, as to how to cross the ridge, he was at the head of his regiment with the major of the 2d Battalion. He turned to him and said: "You have heard the order of the Brigade Commander; form your battalion as directed and then move out at once."

He then rode to the major, 3d Battalion, and said: "There is a short piece of road on that ridge in front exposed to long range artillery fire. The fields to right and left are open. Form your battalion in line of platoons in column of squads and follow the 2d Battalion at about 200 yards. Cross the ridge at double time. The regiment will reassemble near 126."

After giving this order the colonel himself galloped across the ridge and gained the head of his regiment.

On crossing the bridge west of 108 the hostile artillery commenced searching the ground along the reverse slope.

He directed his adjutant to have the battalion commanders (2d and 3d) form their battalions in line and lie down from near 126 north, taking advantage of the best cover available.

The colonel then learned the dispositions of his 1st

Battalion and what they had found out about the enemy. He also reconnoitered the ground in his front.

The colonels of the 2d and 3d Regiments crossed the ridge in the same way, and in like manner formed in line and lay down so as to escape shrapnel fire as far as possible.

On receiving the order of the Brigade Commander to deploy, the colonel, 1st Infantry, returning to his regiment, assembled his battalion commanders and staff and issued the following verbal order:

"The enemy is still in position on the next ridge to this one; there is a wooded stream between the two.

"This brigade is to deploy at once and attack the front, while the left column attacks the right.

"The line will not cross this ridge, however, until I give the order.

"The 2d Battalion will deploy covering a front of about 250 yards, its left about 300 yards from that road on our left, and advance to the ridge.

"The 3d Battalion will deploy on the same front, its left connecting with the right of the 2d, and also advance to the ridge.

"The 1st Battalion will be relieved and reassembled as the line reaches them. It will then form the regimental reserve under my orders.

"Lieutenant K, with the machine gun platoon, will report to Captain P."

The colonel, 2d Infantry, at the same time assembled his battalion commanders and issued the following order:

"The enemy is in position on the next ridge to this one. This brigade will attack the hostile front, the left column

will attack the enemy's right. The 3d Infantry will be the brigade reserve.

"The 1st Battalion will deploy covering a front of about 250 yards, with left about 100 yards from the right of the 1st Infantry line.

"The 2d Battalion will deploy on the same front, its left connecting with right of 1st Battalion.

"The 3d Battalion will be the regimental reserve and for the present remain where it is.

"Lieutenant N, with the machine gun platoon, will report to Captain P.

"The adjutant will have the band report to the senior medical officer of the regiment.

"The line, as soon as deployed, will advance to the ridge in front, but not cross it until further orders.

"The 1st Battalion, 1st Infantry, now there, is to be withdrawn as we advance.

"I will be near the 3d Battalion for the present."

The band leader at once reported the band to the regimental surgeon under the above order, who said: "Send four of your bandsmen immediately to each battalion and have them get the company litters from the battalion ammunition wagons, which carry them. Then report all your men, with the litters, to the senior Hospital Corps sergeant to accompany his detachment."

The colonel, 3d Infantry, conducted his regiment, moving by the flank to its designated position, assembled his staff and battalion commanders and gave them all the information as to the deployment and attack, and added:

"This regiment is the brigade reserve, and for the present will remain here.

"Lieutenant M, with the machine gun platoon, will report to Captain P.

"The adjutant will have the band report to the senior medical officer of the regiment."

Orders of Battalion Commanders, 1st Brigade.

Major L, 1st Battalion, 1st Infantry, on receiving the orders for the brigade deployment, personally and by orderlies gave the following order to his company commanders:

"The brigade is to deploy to attack the enemy in our front. As soon as the line reaches the ridge here withdraw your company and assemble it. The battalion will be assembled as regimental reserve in rear of center of our regiment, which is on the left."

The Major 2d Battalion, 1st Infantry, on receipt of the regimental order to deploy, assembled his officers and issued the following order:

"The enemy is in position on the next ridge to this one, a little over a mile to our front.

"Our division is to attack at once. This brigade in front, the left column on our left.

"This battalion will be on the left of our brigade.

"Deployment will be made at one man per yard, left of line 300 yards from that road on our left.

"Companies E and F will deploy as skirmishers, E on the left. Companies G and H will form the support.

"Form for attack. March."

As soon as deployed the skirmish line marched forward to the ridge and halted.

The commanders of the other three battalions in firing line gave practically the same order.

By 9 a. m. the firing line reached the ridge and relieved the 1st Battalion, 1st Infantry, which assembled and formed in its place in rear of the regiment.

At the same time General C received a message informing him that the engineer battalion had reached the vicinity of 94. This message was promptly forwarded to the Division Commander.

Orders of Brigadier General D, 2d Brigade.

Brigadier General D, after the receipt of his orders from the Division Commander, returned to 68, assembled his field officers and issued the following verbal order:

"The enemy has taken up a position on Mt. Olivet and is now intrenching. The right of his line is just south of the 122—124 road, his left about a mile to the north.

"The right column will attack the front of this position.

"This brigade moves at once via 48—128 and will attack the enemy's right.

"The 1st Battalion, 4th Infantry, will constitute the advance guard and will advance to 128.

"The remainder of the brigade as main body will follow in the order previously prescribed at a distance of 600 yards.

"I will march with the reserve of the advance guard."

When the advance party reached 128, General D, who had previously had the colonel, 4th Infantry, report to him, directed the colonel as follows:

"The duties of the advance guard as such now cease. You will deploy your regiment on a front of about 500 yards with your right about 100 yards south of this road (128—126) and advance toward the high ground you see about a mile to the west. Do not pass 130 until I give the order.

"The 5th Infantry will deploy on your left; the 1st Field Artillery to the left rear of the 5th Infantry.

"The cavalry is still further to the left."

As the 5th Infantry approached its colonel was given the following order:

"The enemy's position remains unchanged.

"The 4th Infantry is deploying between these two roads.

"Conduct your regiment to near 132 and deploy on a front of about 500 yards, right on the 132—130 road, and advance toward Mt. Olivet. You will halt on coming abreast of the 4th Infantry and await orders to advance."

To the Colonel, 6th Infantry, by an aide:

"Move your regiment behind the cover of the ridge about 600 yards west of 132 and north of the road. Your regiment will constitute the brigade reserve."

The Colonel, 1st Field Artillery, pursuant to the order of the Division Commander, had given the necessary orders to have his regiment follow the route prescribed at a trot and walk, while he, with the necessary assistants, galloped on ahead to examine the position, determine on location of batteries, secure firing data, etc.

The 3d Brigade was ordered to move to cover near 132 south of the road. General E was cautioned as to the position of the 1st Field Artillery to prevent his getting directly in rear of it.

Orders of Regimental Commanders, 2d Brigade.

On receipt of the Brigade Commander's order to deploy, the colonel, 4th Infantry, issued the following orders: To the Major, 1st Battalion:

"Nothing new is known of the enemy.

"Our 1st Brigade is deploying on our right. Your duties as advance guard cease.

"This regiment will deploy at once with its right about 100 yards south of this road. Your battalion will be on the right.

"Deploy two of your companies so as to cover a front of about 250 yards and advance as far as 130 and await further orders; the 2d Battalion will deploy on your left; their left company will be the base company.

"Send your ammunition wagons when emptied back to this timber along the road."

To the Major, 2d Battalion:

Practically the same orders as to the 1st Battalion.

To the Major, 3d Battalion:

"This regiment will deploy with its right about 100 yards south of this road, 1st Battalion on the right, 2d Battalion on the left. Your battalion will be the regimental reserve; follow the first, taking cover in the second ravine beyond here."

To the Adjutant:

"Have the band report to the senior medical officer."

The Colonel, 5th Infantry, on receipt of orders from the Brigade Commander, sent the following message to the majors of the 1st and 2d Battalions:

"Report to me at head of column at once. Leave instructions to have your extra ammunition issued when regiment halts."

The same to the Major, 3d Battalion, omitting part about ammunition.

The majors having reported, the column was halted as the head reached the edge of the timber and the following order was issued:

"The enemy is on Mt. Olivet ridge about three miles from here. His line probably extends from just south of this road for about a mile to the north.

"Our 1st Brigade is now deploying on our right to attack the front of the position. This brigade will attack the hostile right, the 4th Infantry on the right, this regiment on the left, and the 6th in reserve.

"There is one regiment of Field Artillery on each flank.

"The 1st Battalion will deploy on a front of about 250 yards, right on that next road to the south.

"The 2d Battalion will deploy on the left of the 1st, with the same front.

"The 3d Battalion will form the regimental reserve and follow in rear of left battalion.

"The firing line on coming abreast of that of the 4th Regiment will halt and await orders to advance.

"The right company of the regiment will be the base company.

"The adjutant will have the band report to the senior medical officer for duty.

"The empty ammunition wagons will be parked off the road at this point until they can be refilled."

The colonel then put the regiment in march again, leaving the road at the bend and moving south to the next road. Hostile artillery fire was opened on him before reaching the next road.

On turning west, he caused the 1st Battalion to move along the road, the 2d 250 yards to its left, the 3d to follow about 400 yards in rear between the two.

The Colonel, 6th Infantry, conducted his regiment to the point designated, and as the column came under artillery fire each battalion formed an irregular line of columns, first companies, then sections. The colonel reassembled the regiment on gaining cover.

Orders of Battalion Commanders, 2d Brigade.

The Major, 1st Battalion, 4th Infantry, hurried his battalion to the shelter of the ravine in his front. The leading companies retained their present formation, the rear companies were signaled to open out.

Having arrived at the ravine, he at once ordered the extra ammunition issued and his captains to assemble. He then issued the following order:

"The enemy is in position on Mt. Olivet ridge about two miles in our front; their line extends from a little south of this road for about a mile to the north. The 1st Brigade is deploying to our right against the hostile front. This brigade is to attack the hostile right. Our regiment is on the right of the brigade, this battalion the right of the regiment.

"The first company will deploy with right about 100 yards south of the road; the second company on its left, third and fourth companies as support. Deployment will be made at about one man per yard; the left company base company.

"Deploy at once and advance across the next ravine and there wait orders to advance further. Scouts will be hurried forward to the ridge in front of the enemy's position."

He ordered the sergeant in charge of the emptied ammunition wagons to go back and join the others and refill as soon as the road was clear of troops.

The Major, 2d Battalion, conducted his battalion and issued orders practically the same as in the case of the 1st Battalion.

The Major, 3d Battalion, conducted his battalion forward, forming an irregular line of section columns and reassembling in the ravine.

The Major, 1st Battalion, 5th Infantry, at once assembled his officers and gave them all the information received as to the enemy and our own division—then added:

"This battalion will deploy at signal from me as follows: The leading company on the right, the next company to the left, right of line on that next road to our left. Right company the base company. Deployment will be made at about one man per yard.

"The remaining two companies will be the support."

As the battalion came under artillery fire, the major formed his battalion in two lines of section columns. The companies to be in support formed the second line about 500 yards in rear of the first. As soon as he passed 130, he caused the first line to deploy as skirmishers and halt, scouts being sent forward to the top of the ridge in front.

The Major, 2d Battalion, gave practically the same orders in the same manner to his officers. As the 1st Battalion began to form line of columns, he led his battalion obliquely to the left until opposite his place in line, and in the same manner formed lines of columns and advanced, halting a little in advance of the 1st Battalion in order to get cover.

The Major, 3d Battalion, conducted his battalion in the same manner to the ravine southwest of 130.

The colonels of the 4th and 5th Infantry, with their majors, cautiously advanced to the ridge near the line of scouts and got a view of the ground in front. On returning to the regiment the colonel of the 4th directed Lieutenant X, commanding the machine gun platoon, to place his guns near the ridge in front, and after the line passed that point to go into action against the enemy at a favorable opportunity. The Colonel, 5th Infantry, gave the same order to his machine gun platoon commander.

The Division Commander Issues Further Orders.

The deployment was completed about 9 a. m. During this deployment the Division Commander had directed the signal officer to lay lines from the first ravine west of 128 as follows:

One to the commander, 1st Brigade and 2d Field Artillery;

One to the commander, 1st Field Artillery.

Captain H, commanding the signal company, at once sent an orderly to learn from the Colonel, 1st Field Artillery, where he would take station and then directed one section of his company to lay a line to that point. Another section promptly carried a line across the stream and thence alone the eastern slope to the Colonel, 2d Field Artillery, cutting in a station for the 1st Brigade commander. Lines were completed just before 9 a. m.

By direction of the Division Commander the Artillery Brigade Commander now ordered all the guns to open fire, at first on the hostile artillery. They opened at 9 a. m.

The Division Commander then turned to Captain D, his aide, and directed him to proceed to Brigadier General D, commanding the reserve, and direct him to detail a suitable police under a competent officer to take station at the collecting points and dressing stations to prevent unauthorized persons from going to the rear, and arrest skulkers and send them back to their commands.

The commander of the Artillery Brigade had selected the places for sections of artillery ammunition column and had assigned them to his two regiments.

At 9:15 the following order was sent to the colonel commanding the cavalry:

"Move out at once and attack hostile cavalry, drive them from their present position and occupy it yourself. The artillery will support you at the proper time."

To the Artillery Brigade Commander:

"Have one or two batteries turn their fire on the hostile cavalry as ours proceeds to the attack of it."

At 9:15 General A directed the brigade commanders to move forward.

The movement began promptly all along the line.

Further Operations of the 1st Brigade.

The Major, 2d Battalion, 1st Infantry, had deployed as already described, Companies E and F in the firing line, G and H in support, and advanced his firing line just behind the crest. His support companies were in line lying down behind the firing line.

At the order to advance, he moved his entire firing line forward over the ridge, and without halting gained the creek bottom; supports remained behind the ridge. The major followed to the creek. Here the firing line, under the cover offered, was straightened out and started to advance. Up to this time their losses had been light.

The major ordered his line forward and signaled for the support companies to advance to the creek bottom.

The firing line advanced but a short distance when the hostile fire became very effective and the line lay down and opened fire. The enemy's fire was well placed and losses quite heavy.

Fire was opened with counted cartridges, five at a time. It was continued until the men had fired 25 each, when it

was found the enemy's fire was getting "wild" and the major ordered the left company to continue firing and the right company to advance. The right company advanced about 65 yards and opened fire, and the left company moved up abreast of it. The enemy's fire having again improved, both companies opened fire and fired 15 rounds per man, when the hostile fire again became ineffective, and the major ordered the advance resumed by platoon from the right. Three platoons kept up an effective fire while the fourth advanced. About 250 yards were gained in this way with considerable loss. The major, finding his line showing hesitation in the advance, ordered G Company deployed at two paces interval and advanced to the firing line, which it joined. The captain of E Company having been killed, the captain of G Company took command of his half of the battalion firing line. The division into four platoon sections of the firing line was maintained.

With this reinforcement, the line again advanced in the same manner by platoons from the right, each platoon leader watching carefully the effect of the hostile fire and ordering his platoon to advance when the fire seemed less effective. The battalion firing line had only gained about 150 yards when the major again deemed it necessary to strengthen his line, and H Company was thrown in in the same manner as G Company had previously gone in.

In advancing, the 2d Infantry had extended the line to the right and its left had drifted in that direction, causing a lengthening of the front occupied by the 1st Infantry.

The regimental commander now sent two companies of the reserve battalion forward to support the 2d Battalion.

The machine guns, as H Company was approaching the firing line, opened fire and under this combined influence the line gained nearly 100 yards by a general advance; but here the advance was checked and ground was gained slowly and

painfully. One company from the reserve was put in and the line was carried forward to about 300 yards from the enemy's position, then the second reserve company joined the line and the assault was delivered, starting with this battalion and immediately taken up by the whole line. Before the line reached within 100 yards of the enemy the latter fell back, giving up the position. Our firing line halted on the position and poured a heavy fire into the retreating enemy.

The 3d Battalion was handled practically in the same manner.

The regimental commander watched the fight from the first ridge, and as he saw the line absorbing the last of the battalion supports he sent two companies to each battalion, which were absorbed as above described. The Brigade Commander sent one battalion of the reserve regiment into the creek bottom deployed in one line, with instructions to advance and support the firing line in the assault. This it did.

The remaining two battalions, 3d Infantry, advanced in line of section columns to the creek bottom as soon as its other battalion started forward from there; and when the position was carried they advanced to the position, passed through our line and took up the pursuit.

As soon as the 3d Infantry passed the old firing line, every effort was made by all the officers to assemble their commands, which was accomplished in a few minutes. The battalion of the 3d Infantry which had advanced with the firing line followed as reserve to its regiment as soon as assembled.

Other Organizations and Conditions.

At the commencement of the attack, Captain P assembled his machine gun platoon commanders, explained to them the situation and assigned to each a position on the ridge. These positions were about 100 yards apart. To each was assigned a target. He then ordered them to prepare for action in rear of their assigned position, and at the signal from him all were to get into action at once and help our line forward.

Captain P then made sure there were no other troops immediately in rear of the machine guns.

About 10:50 a. m. Captain P signaled for his guns to go into action. This they did with great effect from the start. By 10:55 the hostile artillery was largely concentrated on them and about 11:05 they were all out of action.

Under cover of this diversion of the hostile artillery, and the effect of the machine gun fire, our line had made a decided gain.

The artillery from the start had supported the infantry advance and continued their fire until the last practicable moment.

On the left, as the line advanced it was extended to the left by the reserves. The battalions advanced much the same as on the right. The cavalry moved more to the west as the attack developed.

When the assault was delivered but one regiment of the reserve brigade was still unengaged.

Shortly before 1 p. m. part of the cavalry, dismounted, advanced from the woods north of 116 in line of skirmishers and opened fire on the enemy's right rear.

At one o'clock the general advance was made and the enemy driven from the position. His retreat was covered by his artillery and reserves.

Further Sanitary Service With the 1st Infantry, up to the Final Assault.

The Colonel, 1st Infantry, on receiving Lieutenant F's message forwarded by Major L, already quoted, read it to Major White, his regimental surgeon, and directed him to take the necessary action.

The latter at once ordered four bandsmen to proceed with two litters along the nose and report to Captain Black for duty. He then said: "Colonel, with your permission I will temporarily take over the medical duties of the 1st Battalion until the regiment advances or Captain Black rejoins." On receiving the Colonel's permission, he went forward to the 1st Battalion with his orderly and two privates, leaving the sergeant in charge of the remainder of the detachment.

Under cover of the 110—126 ridge, he cared for the scattered wounded, remaining until orders were received for the battalion to reassemble to form the regimental reserve in the advance, when with his men he rejoined regimental headquarters. The colonel told him that he had just been notified that an Ambulance Company had opened stations on the 126—128 road near the two crossings, and he was sending word of this to the battalion commanders with directions to inform their commands.

At this time, Major White opened up a temporary regimental Aid Station near the reserve, sending bandsmen and Hospital Corps men to help back the wounded from the 2d and 3d Battalions to the designated point. He had of course no expectation of remaining here any great length of time, but was merely following out his general rule of endeavoring at all times to get the wounded together and then to have them started toward some more fixed relief station

or aggregated in a place where the searching parties would more readily find them.

The 2d and 3d Battalions, which now came into action, suffered a heavy artillery fire as they passed over the 110—126 ridge, and in a few minutes sustained a number of losses. Quite a few men also fell on the western slope of this ridge. These last were necessarily left untended, as the sanitary personnel had to accompany their respective battalions through this fire-swept zone to the shelter of the creek and timber lying west of this ridge. Such of the wounded as could, worked themselves behind the nearest thing or into any depression that offered shelter, and dressed their own wounds or were helped by an injured comrade. The more severely wounded had to lie where they fell, consoling themselves with the thought that as soon as the advance had passed well beyond them, the enemy's aimed fire would be concentrated on the former and they themselves would be out of the zone of all but scattered shots. They hoped that when this time arrived, the surgeon might feel that he could safely send out Hospital Corps men to their relief. As for the slightly wounded men, as soon as they had bandaged themselves and aimed fire had been diverted, they worked their way back slowly over the ridge to the shelter of its eastern slope, moving southward in the direction in which they had been informed that the dressing station was located. They were often in plain view of the enemy as they moved up and over the ridge, but the former had no inclination to further injure men who were seen to be crippled and out of the fight—in fact, they needed to devote all their attention to keeping down the heavy fire directed at them by the uninjured troops which had now gained the shelter of the creek and its timber.

Among our latter troops, the men who were now wounded dressed their own hurts as well as they were able on the firing line, where they were perhaps assisted by a

comrade or Hospital Corps man. As far as possible they were helped into a place of relative shelter, but beyond that no effort could be made to move them. Many were hastily dressed and lay where they fell. Some in more exposed positions could not be reached and lay untended; not a few were struck again and killed as they lay helpless.

Just back of the firing line, Lieutenants Brown and Green, M. C., partly sheltered by the trees and banks, moved among their respective battalions, working swiftly in bandaging and preparing diagnosis tags. Each had an orderly and a Hospital Corps private helping him, while their sergeants and other privates worked as close to the firing line as the terrain permitted. The latter had positive instructions to do nothing but control bleeding, apply such hasty dressings as would prevent wound infection, and to pass the word along that such wounded as could work their own way back would probably find the doctor near their battalion reserves.

As the action became fiercer, numerous slightly wounded men began to appear at these designated points, sometimes escorted by two or three apparently solicitous comrades who were using this means of getting out of the hotter fire and had withdrawn unnoticed by their officers. They supported the wounded men, carried his gun and equipment and in various ways endeavored to demonstrate good faith and laudable purposes in leaving the firing line. Arriving where the surgeon was working, they stood around ostensibly to help in the relief work. Lieutenant Green—who had been in the military service only a few weeks—was at first grateful for their apparent assistance, but soon noticed that they slipped away behind his back or used any pretense to get further under cover and toward the rear. He therefore ordered all such individuals back to their commands, but after he observed several who had apparently started to return to the firing line merely circle around him he told his Hospital Corps men who were returning to the

front to escort these skulkers back to the nearest organization in that direction; as some of the latter refused to go, he requested the battalion commander to have his field police pay special attention to the vicinity in which he was working. A sergeant of infantry soon appeared and forced these men to go back where they belonged.

Through the prompt return by the surgeons of these unwilling recruits the fire effect of their battalions was kept from very material depletion at a critical time.

The increasing volume of wounded now became greater than Lieutenants Brown and Green could handle, and about the same time each sent word of the situation by a slightly wounded man to the regimental surgeon, Major White, who had in the meantime crossed the ridge with regimental headquarters, abandoning his wounded in the regimental aid station on the east slope. The latter then said: "Colonel, I desire to open a regimental First Aid station near that large oak tree about midway between the battalions and under shelter of the creek bank." The Colonel assenting, he took his detachment to the designated spot, where he ordered a band sergeant: "Sergeant Fife, take half the bandsmen, equipped with litters, and report them to the surgeon of the 2d Battalion. Work under his orders, moving wounded as well as you can under cover of the creek and trees to the better protection at this station. As soon as the command advances, report back here to me without delay." To Sergeant Drum he said: "Your orders are the same as those given Sergeant Fife, except that you report the rest of the bandsmen to the surgeon of the 3d Battalion."

Major White at once started to work with the wounded who were already at hand, some of whom had come directly back without passing under the notice of their battalion surgeons. A few skulkers and malingerers came in, but were sent back under escort of the litter and first aid men, who were told to see that they got back to the firing

line; if they refused to go he would notify the Colonel—that for the moment it was even more important that these men be returned to help out the issue of the battle than that the wounded should receive treatment. Military success, not humanitarianism, was for the time being paramount, and Major White saw the necessity of subordinating his wishes as a doctor to his obligations as a military officer. Men whose condition was good and injuries slight were quickly dressed and encouraged to get back into the fight.

As Major White and his Hospital Corps assistants worked, the sergeant wrote out and affixed the diagnosis tags under his direction, directed wounded where to lie down, sent bandsmen for the water craved by exsanguinated patients, gave morphine and stimulants under the surgeon's orders, and maintained general supervision over patients and sanitary men. He now called Major White to see a case of shattered knee with profuse hemorrhage from the popliteal artery. The surgeon, as he applied compression, said that it really was a case for prompt operation but that this was clearly no time or place for operating, so he would have to trust to a rubber tourniquet. Another man was shot in the belly with apparent intestinal perforation—he was given a stiff dose of morphine, told to lie absolutely quiet and under no circumstances to accept a drink of fluid. There were a number of shrapnel wounds, in the dressing of which the large loose dressings which had been brought along from the stores of the regimental infirmary proved of much advantage. There were many gunshot fractures; these were quickly bandaged but not splinted. "If we prevent loss of blood and infection of the wound," said Major White, "we can leave the less pressing treatment, like splinting, until later for the Ambulance Company men to carry out."

At this moment orders were given for a general advance. Major White immediately sent orderlies on the run to the medical officers of the 2d and 3d Battalions with

the following message: "Remain with your detachment under cover of the trees near the creek while your battalions make the final advance."

He did this since he considered that in these last supreme moments the sanitary troops could give absolutely no assistance in securing the victory, and that there was nothing whatever to be gained by exposing to unnecessary danger and loss a non-combatant personnel, the services of every member of which would probably shortly be urgently needed. The action would now undoubtedly be decided one way or another in a very few minutes. He reflected that if the regiment was successful and drove out the enemy, his sanitary troops could immediately advance in safety to the relief of the large number of wounded who would undoubtedly fall on the open east slope of Mount Olivet; while if the regiment were driven back it would be impossible for them in any case to give assistance to wounded lying in such a fire-swept open zone. In the rather improbable event of a retreat, the enemy would have to look after these wounded, and in such case the keeping of the sanitary troops in their present position would enable them to get away more safely to the rear themselves and also to carry or assist wounded away from the field along with them. However, in order that the regiment, if successful, might not arrive at the enemy's trenches without any surgical assistance, he allowed the surgeon and sanitary detachment of the 1st Battalion, which composed the regimental reserve, to go forward with its unit.

Sanitary Affairs in the 2d Brigade.

No special consideration of the management of sanitary affairs with the left column seems necessary. In a general way, those with regiments were much like those already outlined for the 1st Infantry, while behind the lines Ambulance Company No. 1 cared for the wounded from all the brigades and the independent commands.

The Operation of Ambulance Company No. 1 During Action.

Returning now to Ambulance Company No. 1, this organization, as directed, took up a position behind the hill near 104 and remained there until about 8:30 o'clock, when the enemy's attention having been diverted, the five medical officers with the litter bearer section went ahead, taking the pack mules carrying the most essential equipment of a Dressing Station. The ambulances and supply wagon, in charge of a senior sergeant, were ordered to remain behind until they could safely cross the open hill. While waiting a chance to advance, Captain Wagoner, in command, had studied his map and determined that the logical place for his Dressing Station, under the provisions of Field Order No. 7, would be near the east fork of the creek on the 128—126 road. He decided to locate there unless given other orders by higher authority; consequently on leaving he directed that the ambulances and supply wagons should rejoin him there as soon as the roads were reasonably safe.

He recognized that the present duty of his company must be of a temporary nature in its assigned position, since when the battle line advanced it would be left behind; and he assumed that General A was merely making provision for such relatively few casualties as would occur as the troops passed over the 110—130 ridge. Ordinarily, he knew that Dressing Stations were not established until the advance stopped, when they were put in at the nearest sheltered point to the line. Usually ambulances could not approach that near, which meant that the helpless wounded would have to remain at the Dressing Station, until the action was over. The present situation, in which conditions of terrain and distance permitted the Dressing Station and Ambulance Station to coincide while the battle was raging, was as unusual as it was desirable; though it was the common practice to make them so coincide after the battle was over, and indeed, in case of success, a regimental Aid Station, Ambulance Company Dressing Station, Ambulance Station and Field Hospital might all in turn locate on the same spot.

At the time when his detachment got down the slope into the bottom and turned south along the creek, hostile artillery was actively engaged in searching out our troops lying close on the eastern slope of the 110—126 ridge. Many shots were passed over the target and almost immediately one of his privates, leading a pack mule at the rear of the detachment, was killed by shrapnel. The mule also was killed. He at once cut the pack fastenings, threw the articles of equipment on his litters, and took his outfit at double time down into the bed of the creek, where the steep cut banks gave safety as they worked along to the southward.

On reaching the desired point about 9 a. m., the detachment was halted. A farm house, which the map had not shown, stood about a hundred yards west of the creek and

the same distance north of the 126—128 road. There was also a barn, and between it and the house a well and woodpile. Hasty inspection by Captain Wagoner showed that the premises had evidently been deserted by the occupants the previous night. It seemed to have been looted of a few small articles, but furniture, bedding, kitchen outfit and some uncooked food supplies were intact.

Captain Wagoner decided to open his Dressing Station at this point and summoned his detachment.

He then gave the following order to one of his assistants:

"Captain Porter, take 30 litter bearers and work up toward the line 110—126—130. Get into touch with the various regiments on the firing line as quickly as possible, and find out the location of their aid stations. If they establish new ones as the line moves forward, get in touch with them as far as possible. Notify their surgeons where this Dressing Station is located, say that the Station for Slightly Wounded will be 400 yards west of here on the road, and request them to send this information to brigade commanders and colonels and junior medical officers. Start and continue the evacuation of these regimental first aid stations by your litter bearers until all wounded are removed; then return here to assist me."

Complying with this order, Captain Porter crossed the stream with his litter bearers, turned north and moved up the hill toward the center of the 126—110 line, where he saw Brigadier General C. Delivering his message to an aide, he learned of the location of the regiments of the 1st Brigade, and was also informed that there were some 20 wounded near the fork of the creek about half a mile northeast of 110, and that a surgeon of the 1st Infantry had gone to attend to them. On this last information, he reflected that for the present it would be impracticable to attempt to

get out these wounded, and therefore proceeded to the First Aid stations and collecting points of each regiment, whence he started detachments of his bearers back with loaded litters; at the same time inquiring as to the probable number of wounded in the vicinity for better information as to the probable sufficiency of his Ambulance Company in meeting the local situation. As nearly as he could find out, there were about 30 wounded in this vicinity; returning, he followed down the 126—130 line and found about 40 more, which belonged to the 2d Brigade. He remained on the line directing his litter bearers and dressing wounded.

As Captain Porter started for the front with his litter squad, the Ambulance Company commander ordered his assistant, Lieutenant Dresser, as follows:

"Take a sergeant, your orderly, four men, a litter and red cross and national color guidons as markers, and establish a Station for Slightly Wounded at some convenient point near where the road crosses that stream, about 400 yards west of here. Notify me if you need more help. Take measures to keep the slightly wounded from crowding in and hampering work at this Dressing Station. Send them directly back to Leavenworth."

Lieutenant Dresser at once collected his men, had them take some field register cards, a water bucket and some extra dressings and started off. As he moved along the road, he considered that his mission was to organize a subsidiary relief station to which all minor cases would be diverted, thereby preventing the undue congestion of the Dressing Station proper through this class of wounded. As the latter were all able to walk, they would, of course, be the first to get back toward the rear and would tend to monopolize the resources of the station by the time the really serious cases began to arrive. He would, therefore,

endeavor to intercept this class of cases, knowing that this was much easier than to remove them after they were once arrived at the Dressing Station proper, and to this end he would select some point preferably out of sight of the latter and along the natural line of movement to the rear. Of course, after action this could not always be done, but under present conditions it was very feasible.

About a hundred yards west of the creek he was fortunate enough to find a hay shed a short distance north of the road and at the edge of the timber, at which he established his station. It was a little closer to the line and less protected than he desired, but seemed the best that he could do; later he found that it was in a gap between the lines which received little attention from the fire of the enemy. He then gave the following orders:

To one of the Hospital Corps men: "Private Johns, fasten a red cross guidon to the front of this shed; the national colors alongside of it. Then go to the stream crossing and remain there, directing to this point every wounded man who is not being carried on a litter; only those being carried by our bearers must be allowed to cross the creek. Your duty is to keep back slightly wounded men whose injuries can be properly treated here."

To another man he said: "Private Josephs, throw down and scatter hay so that wounded can lie down. You will be in charge of their forwarding. Wounded who have been properly dressed and tagged are to be started to the rear toward Leavenworth whenever eight or ten of them have accumulated, putting a non-commissioned officer or other apparently reliable man in charge of the detachment. They take their arms and transfer cards with them. They will, undoubtedly, meet some one on the road who will tell them where to go. Keep close watch of any men reported to you as malingerers or skulkers, and turn them over with arms and equipments to the detachment of field police

which will probably be sent here, or in their absence to the first litter bearers of the Dressing Station you see going to the front for wounded, or to any body of troops moving forward along the road. Soldiers other than those of the Hospital Corps who bring in or accompany wounded, and who do not manifest a desire to return at once to their organizations, are to be treated by you as skulkers."

To his sergeant he said: "Sergeant Edwards, you will be assisted by Private Peters. Receive all wounded and have them lie down together out of the way until they can receive attention. Examine the diagnosis tag, dressing and condition of every man as he arrives. If possible, make out his field register and transfer cards. Some will have been given no dressing—handle them yourself or send them to me. A soldier with no diagnosis tag and in apparently good condition is open to suspicion; open the dressing of such to make sure there is no malingering. Personally report malingerers and cases of trivial injuries which are suitably dressed to Private Johns for return to the front. If bandages are loose or need readjusting, so far as possible apply new dressings over the old ones without disturbing the latter. Dressings soaked through usually need to be replaced. Fill out the diagnosis tags for the slight cases which have none and which you handle yourself and bring them to me for signature. Call my attention promptly to any very severe cases; if they need special surgical attention we will litter them back to the Dressing Station."

To his orderly he said: "Private Williams, you will assist me. Open up your pouch; then take the bucket and get some water from the creek we just crossed."

As he finished saying this, the first of the wounded, who had begun to drift painfully toward the rear down the road, noticed the red cross flag and turned in at the gate.

After he had sent out his litter bearer section and established his Station for Slightly Wounded, Captain Wagoner gave orders as follows: To his assistant, "Lieutenant Cutter, unpack the surgical outfit and supplies. Prepare the front room in the house as an operating and dressing room."

To his junior assistant: "Lieutenant Newcome, organize a receiving section and take charge of the same."

To his senior sergeant: "Sergeant Caduceus, organize a forwarding and kitchen section. Take charge of the same. Prepare all the necessary medical records for the Dressing Station yourself."

To a private: "Private Isaacs, ride to division headquarters at the head of the ravine, about half a mile south of here. Notify the Chief Surgeon of the location of this Dressing Station and say that the Station for Slightly Wounded is located just west of 126, north of the 126—128 road. Then return here at once."

Captain Wagoner then completed his inspection of the house, barn and surroundings, and returned to help Lieutenant Cutter. The latter had already given the following order to his assistants:

"Private James, you and Private Richards clear all furniture, except a couple of side tables, out of the parlor. Put the big table from the kitchen in the center of the room as an operating table, get the dressings ready and have the medicines and instruments available. Bring the wash bowls and pitchers down from the bed rooms and make up plenty of 1-1000 bichloride solution in them. Bring in soap, towels, hand basins, sheets and a couple of blankets if you can find them."

In the meantime Lieutenant Newcome had ordered: "Private Thomas, we will establish the receiving section on this porch and under the trees in the front yard. You and Private Walters bring out chairs and sofas. Carry the bedding and mattresses down from upstairs and spread them

on the porch; only the more severely wounded and exhausted must be allowed to use them. The more severe cases which may need operation are to be put on the porch near the dressing room. If any case shows steady or profuse bleeding, notify me immediately. If any seem to need stimulants let me know. Look over the bandages of all as they arrive and see if they need readjustment. Apply new bandages over the old ones where this is necessary in less severe cases; I will handle the severer ones myself. Bring out some dressings. Get some cracker boxes or other material at once and have them handy for splints."

Complying with his own orders and turning to a noncommissioned officer, Sergeant Caduceus said: "Sergeant Redcross, take a man and prepare the barn for the forwarding section, using hay for bedding. Keep the slightly and the severely wounded separate—put by themselves the cases that the surgeons state are unfit to stand transportation. If any complain of severe pain, give them a small dose of morphine. As soon as the cook has food ready, see that the suitable cases among your patients get it. As soon as the ambulances rejoin, load them and report to me when they are able to start back; it is best to send several, if not all, together. So far as possible, an ambulance should carry either all recumbent cases or all sitting up. Before you load, personally verify the fit condition of each man, his dressing and his possession of proper diagnosis tag."

Sergeant Redcross reflected that, if possible, every patient sent back should be accompanied by a transfer card; if there was not time to make out these, then a list of their names should be sent back with them; if there should be no opportunity for even this, at least they should be counted and a memorandum of the number given to the officer or sergeant in charge. The latter would, of course, endeavor to secure the names en route of such as might appear to be

in a dying condition, so as to supply the necessary information on arrival at the destination.

To the Ambulance Company Cook, Sergeant Caduceus said: "Private Jacobs, take charge of the kitchen section. Build a fire and have plenty of boiling water for sterilizing instruments and for surgical purposes. Then prepare some food, preferably in liquid form. You can use the hospital stores when the wagon gets up, or anything you can find in the house. We will probably need 10 or 15 gallons of liquid food. You can cook it in the clothes boiler and water pails which I saw near the kitchen door. Notify Sergeant Redcross when it is ready."

To this Private Jacobs replied that he had already hastily investigated the cooking facilities and had found plenty of potatoes, some onions, rice, salt, etc., and that several dozen chickens were running around which had escaped the attention of the foragers the night before. With these materials he could shortly make plenty of good soup.

As a result of the foregoing orders, an efficient relief station was organized, equipped and ready for the handling of wounded in a very few minutes.

The surgeons had scarcely finished washing up in preparing themselves when the sergeant told them that litter men were bringing their burdens down the road. Captain Wagoner then said: "Dr. Cutter and Dr. Newcome, you are unused to this kind of work. Remember that we should undertake no surgical operations in this Dressing Station except such as are immediately necessary to save life, and which do not take too much time. Our function here is to do the greatest good to the greatest number, and to see that wounded get back as quickly as possible to more elaborate hospital facilities where more assistance, time and equipment allow of serious surgical operations being undertaken. Without special instructions from me, you both will limit yourselves to bandaging wounds, splinting fractures and

stopping hemorrhages. If we should attempt more we might, perhaps, be of possible benefit to a very few, whose grave condition, even if recovery ensued, would probably never permit their further service; while our prompt and rapid treatment of the less dubious cases instead will mean a vast saving in wound infections, suffering and death and the probable early return to the colors of a majority of these cases. After the more pressing work is out of the way, we will do what we can for those critically wounded. This may seem brutal to you, but it is one of the necessities of war."

Just then Sergeant Caduceus met the first litter squad, examined the diagnosis tag on the patient, asked him a few questions, and noted the required information on a field register card of sick and wounded; he then ordered the bearers to take their burden to the receiving section and return to the front.

Wounded now began to arrive in rapid succession and soon the front yard and porch was dotted with them. The surgeons and assistants worked busily, each with his allotted task. Shortly afterward Captain Porter sent in word from the front that his bearers were in touch with the regimental aid stations and that he had duly conveyed to them the information as to the location of the Dressing Station. Until our advance had crossed the ridge and drew fire there it would not be safe for his litter men to get in touch with the 1st Artillery, which was now engaged in a duel with the enemy's guns. He said that he thought that about 100 wounded would have to be handled through this station; reporting also that some 20 wounded from the 1st Infantry were half a mile northeast of 110.

Shortly after this time some other litter bearers came in, deposited their burdens, and stated that the line had gone forward over the ridge and that the regimental surgeons and sanitary personnel had accompanied it. They said

that they came from the aid station of the 1st Infantry and that Captain Porter had ordered them to report that he and two men remained there temporarily to attend to the wounded which had been left behind by the regimental surgeons.

As the bearers started away, a group of about a dozen slightly wounded soldiers, whose hurts had been bandaged and who were apparently moving towards Leavenworth, came slowly by the Dressing Station in charge of an old sergeant with his arm in a sling. These latter drew off to the side of the road to get out of the way of the ambulances and supply wagons of the company, which were now rejoining at the trot, and on seeing the hospital flag drew up at the gate. Sergeant Redcross at once had six ambulances driven to the barn and loaded with the severer cases, and six more with those with slighter injuries. As register cards had not been completed for all, he gave a list of their names on the prescribed form sheet to the driver in charge, which was to be turned over to whoever received the patients, and then went in and asked Captain Wagoner for instructions as to where these wounded should be taken. He was given the map which had been sent out that morning to all ambulance company commanders by the Chief Surgeon, showing the location of the different hospitals in Leavenworth, told to show it to the drivers and direct them to go back and return to this station as rapidly as possible.

Just at this moment a Hospital Corps orderly galloped up and delivered the following oral message to Captain Wagoner:

"Sir, Major Ryder, Director of Ambulance Companies, directs that you send all less severe cases to Evacuation Hospital No. 1 in the National Hotel. Your severe cases, up to 50, are to go from there to the Cushing Civil Hospital; after that, up to 25, to the Evergreen Civil Hospital.

Your line of evacuation is along the 128—132—Lecompton —136—224 road; line of return via Shawnee—106—128 road. He also directs that you send him verbal information by me as to the number of wounded which will probably require treatment here."

Having received the required information, the orderly mounted and rode rapidly away; Captain Wagoner told the sergeant to tell the drivers where and how they were to go. The sergeant asked if he should send any attendants in case of emergency and was told that he might spare a sergeant and two men to go on the ambulances of the train, which should keep together in going to and from Leavenworth.

Captain Wagoner also directed Sergeant Caduceus to have the next litter bearers returning to the front report at the Station for Slightly Wounded near the creek crossing and inform the officer in charge that the route for slightly wounded to Leavenworth was via the 128—132—Lecompton—136—224 road.

Thereafter work went on steadily at the Dressing Station, wounded being received, cared for and laid aside to await transportation to the rear.

About 11 o'clock Lieutenant Dresser sent word to ask whether he should break up his Station for Slightly Wounded. He said that nearly all the wounded able to walk seemed to have got back by this time, and that he had just been able to completely evacuate his station.

Captain Wagoner returned word to remain where he was until further orders; that many such would undoubtedly soon be working back from the fight now raging in the valley west of the 110—126—130 ridge and that his was the first station at which they could look for relief. He mentioned to Lieutenant Newcome that having once established a flow of wounded to a relief station it was very difficult to divert it as long as any remained to come.

A few minutes later Captain Porter returned for duty

in the Dressing Station. He said that about all the severely wounded east of the ridge had been littered back, and that it was very inadvisable to attempt litter work on the exposed west slope while the battle was on. However, he had sent a sergeant and some of his men to do what they could in bandaging the wounded on the slope.

About this time a number of slightly wounded cavalrymen appeared riding their horses. Most of them said that they could ride back to Leavenworth and were permitted to do so, but a few were so weak as to require ambulance transportation. A number of artillerymen were also brought in by their regimental Hospital Corps personnel from their position southeast of 130.

Shortly before 12 o'clock Major Ryder rode up to investigate conditions. He said that things were going well and it looked as if the enemy would soon be driven out. As soon as this took place he would start the civilian wagon train out of Leavenworth, and wished to know whether any of these wagons would be needed here. To this Captain Wagoner replied that they would not. He thought that most of the wounded were in and that another trip of his ambulances would handle them. A couple of hours' work should easily put into condition for the trip all the wounded able to travel. Major Ryder then started for the head of the east ravine on the 130—132 road, where he said he was going to confer with the Chief Surgeon.

Operations of the Cavalry.

The cavalry had been ordered to assemble at 154 after the reconnaissance in the morning. They kept contact with the enemy from the start, and pursuant to General A's order to assemble at 154 as the other troops closed in on

the enemy, Colonel G relieved his outlying detachments except the platoon with the engineers and a few patrols to south and west, and by 9:15 the regiment was assembled at 154.

At 9:35 an officer galloped up with the orders from General A to attack the hostile cavalry.

The aide explained to Colonel G the location of the other troops of the division, especially explaining the position of the left of the firing line now advancing in the general direction 130—124, so as to make it difficult for the enemy to promptly reinforce his cavalry. Colonel G could see the position of the field artillery (1st Regiment).

Colonel G then assembled his field and staff officers and troop commanders and issued the following order:

"No new information of the enemy. His cavalry is still holding that knoll about two miles to the west.

"Our division has deployed and is attacking; the left of our line south of this next road to our north, and in a few minutes will be where they will greatly interfere with any effort of the enemy to promptly reinforce his cavalry.

"We will move out at once in the following order: 1st Squadron, 2d Squadron, 3d Squadron, to attack the hostile cavalry and gain the knoll now held by him. We will move provisionally to 172.

"Troop A, Captain C, will form the advance guard and will move out at a gallop. On reaching 172, reconnoiter the country on the west side of the creek with patrols only.

"The main body will follow at a slower gait. I will ride at the head of the main body.

"Captain C, move out. Officers join their commands."

Captain C rejoined his troop, had them mount and gave the following order:

"The enemy is in position on that hill to the northwest (pointing); our division is deployed and has begun the at-

tack. The enemy's cavalry is on that knoll about two miles to our west. This regiment is going to move against them.

"This troop will form the advance guard, moving west to the first fork in the road, thence south, turning west again at the next turn, and proceed to the stream crossing.

"Lieutenant A, with the 1st Platoon, will form the advance party. On reaching the stream send patrols to the far side to reconnoiter the enemy's position and to the south and west.

"Lieutenant, move out at once at a gallop. I will follow with the rest of the troop."

Troops being in column of fours on the road, Lieutenant A directed Sergeant B as follows: "Sergeant B, take the leading four and move out as a point, following the road as directed by the captain. Move at a gallop. At 172 I will give you further instructions."

The sergeant moved out at once at a gallop and the lieutenant followed at a walk until the point had gained about 400 yards on him, then he moved at a gallop with the remainder of the platoon.

As he neared 172 he personally hurried ahead to the point. At 172 he found a patrol that had been watching the enemy from the timber along the creek, who informed him that the enemy was still on the knoll.

Lieutenant A then ordered Sergeant B, with his four men and the next four in column, to move south to the next road and there cross the stream and move west to the ridge, keeping a lookout to the south and west.

Corporal K, with three men dismounted, was sent north along the branch of the stream nearest the enemy to see if there were any hostile troops in the timber and see what he could of the enemy.

Private D and one other were sent north, mounted, along the other branch of the stream to reconnoiter it. The rest of his men he held west of 172 under cover of the trees, with the double sentinel near 172.

Captain C moved his troop forward at a walk as soon as Lieutenant A started, following him without distance until the lieutenant took up the gallop. Captain C continued at a walk until the advance party had gained 600 yards on him, then he commanded, "Gallop, March," and continued this until he reached 172. The main body moved at a walk at the same time as the other troops and continued at this gait to 172.

Colonel G, on arriving at 172, was assured by Lieutenant A that the hostile cavalry had apparently a strong force dismounted on the knoll to the northwest. In fact, part of their line could be seen from near 172.

Colonel G assembled his field and staff officers and issued the following order:

"The situation is unchanged. The hostile cavalry still holds that knoll in our front with the bulk of his force dismounted.

"We will attack at once from the south and east.

"The 1st Squadron will dismount and cross this stream north of the road and attack the hostile position from there.

"The 2d Squadron will dismount and cross this stream south of the road, forming line facing north behind the nose a little south of 172, and thence advance against the enemy.

"The 3d Squadron will move rapidly to the next road to the south, cross there and gain the left rear of the 2d Squadron as mounted reserve.

"As soon as the attack starts I will join the 3d Squadron."

An artillery officer reported to Colonel G that he was to signal when to open fire to the commander of the batteries told off to assist him. Colonel G informed him that he would like the artillery to open fire as soon as his troops started the advance.

The Major, 1st Squadron, returned to his command, formed it in line of troops in column of fours north of the 172—164 road, assembled his troop commanders and issued the following order:

"The hostile cavalry is on that knoll across the stream; the regiment is to attack at once. This squadron is to cross the stream here and move directly against the position, the 2d Squadron will attack on our left, moving north. Third Squadron will be in reserve.

"The attack will be made dismounted, horses to be left mobile on this side of the stream.

"Troop Commanders will move their men across the stream as they best can and line will be formed near edge of the timber; Troop A on the left with its left flank opposite the fork in the streams; Troop B in the center and Troop C on the right. Troop B will be the base troop.

"Troop D will be the support and will follow the right rear of the line.

"I will give the order to advance when line is formed."

The orders of the 2d Squadron were similar.

The two squadrons were soon ready and moved out and at once drew considerable fire. The artillery promptly replied and the attacking lines were able to advance some distance before opening fire, but were a little later com-

pelled to fire in return. The combination of artillery and small arms' fire was sufficient in a short time to give a fire superiority and the advance was continued. When Colonel G's lines were about 600 yards from the enemy the latter fell back from their position toward the timber to the northwest. Colonel G ordered his mounted squadron to charge and try for the led horses, but at this time hostile heavy artillery fire was opened on them and the advance checked. Colonel G assembled his command and held the position.

The following message was sent to the Chief of Staff: "Have carried the position and driven hostile cavalry to the northwest. My pursuit was checked by heavy artillery fire. Have lost 8 men killed, 30 wounded.

"G,
"Colonel."

The Sanitary Service of the Cavalry Battlefield.

The sanitary personnel attached to the cavalry regiment had ridden with it during the morning, the junior medical officers riding with the squadron commanders and the regimental surgeon with Colonel G. The Hospital Corps personnel followed, as directed, the commands to which they were attached.

Those medical officers and Hospital Corps men were necessarily good riders and able to stay with the cavalry to which they were attached, and then be called upon for hard work with wounded in addition. The regimental surgeon had, therefore, naturally given, in the mobilization camp, a great deal of attention to the instruction and practice of his subordinates in horsemanship. He was talking about the necessity for this in the Chief Surgeon's office only the day

before, when Major Goodman called his attention to the fact that this necessity was by no means peculiar to assignment with cavalry, and in the 1st Division no less than 246 enlisted men of the Hospital Corps, out of a total of 877 at the front, or 28 per cent, were officially provided with mounts, which they were expected to ride; moreover, that any man of the Hospital Corps might at any moment be called upon to perform mounted service. He said that the very great liability on the part of all to have to do mounted duty made it imperatively necessary for each sanitary soldier to learn how to ride in time of peace before he was forced to attempt it under the difficulties of war.

Although it might be thought that the sanitary supplies which the regimental Hospital Corps men with dismounted troops carried with them were quite meager, yet here in the cavalry regiment they were even less, since litters were articles whose nature prevented their transportation on horseback. Ambulances, too, could readily keep in touch with infantry, but with cavalry, scattered out and moving rapidly, any ordinary kind of wheeled transportation might soon lose touch or be left far in the rear. Under such conditions a small two-wheeled, one-man vehicle, of the galloping ambulance type, which could be drawn by a single horse, alone seemed to be practicable for the handling and direct evacuation of serious cases. It was thus fortunate that the liability to casualty among cavalrymen was far less than among infantry, for the chances of speedy and efficient sanitary relief were also correspondingly less with the former. The nature of the assistance which the sanitary service could render was, therefore, largely casual in character with cavalry, but under the probable conditions of any engagement of this cavalry regiment today its surgeons reflected that the general methods and measures of relief would not greatly differ from those for the infantry force also engaged.

After the regiment had ridden to 172 and Colonel G issued his orders, the regimental surgeon directed his subordinate medical officers as follows: "Accompany your squadrons with your detachments. I remain here with the remaining sanitary personnel and band and open a collecting station at this point. Direct your wounded here."

To the surgeon of the 3d Squadron he also added: "If your squadron charges, fall out with your detachment. You can render no service during the charge and can follow rapidly or take a suitable position a little later when the issue of the charge is decided."

To a band sergeant he said: "Sergeant Horn, take six bandsmen and follow the 1st Squadron. Keep in touch with it and assist back here wounded able to walk, after their wounds are dressed."

To another band sergeant he said: "Sergeant Cornet, your orders are the same as those of Sergeant Horn, except that you keep in touch with the 2d Squadron."

As the 1st and 2d Squadrons came under fire the duties and actions of their respective sanitary personnel were about the same as have been described in connection with the advance of the 1st Infantry. Here, however, the number of casualties was smaller owing to the great protection given by the supporting artillery fire; nevertheless, in a very few minutes the bandsmen began to appear at 172 assisting a number of wounded able to walk. These the regimental surgeon looked after, verified the suitable character of their dressings and saw that their wounds were properly described and the men themselves tagged. He then told them to lie down in the shade of a large tree near the creek. The bandsmen also reported a number of wounded unable to walk as lying on the slope of the hill, but the regimental surgeon said that it was impracticable to attempt to move them back at this time. Shortly afterward he heard that the 3d Squadron had charged.

The medical officer with the 3d Squadron fell out with his detachment when his command moved forward. He rode up to the edge of the hill, however, and saw his charging squadron suddenly become the target for hostile artillery, the advance stop, and men and horses fall here and there under a hail of shrapnel. Clearly it would have been worse than useless for him and his sanitary personnel to have remained with the squadron for the time being. As soon as the 3d Squadron stopped and took cover, the hostile artillery ceased firing. The medical officer then led his detachment toward the wounded as far as he could under cover, dismounted them, and leaving the horses, proceeded on foot to the assistance of the wounded of this squadron. Although now quite exposed to the enemy, he felt sure that his little party would not be fired upon. The wounds he had to treat were all from shrapnel—large, lacerated and often multiple. One or two men said they could walk, and these started back for 172 in a direction by which they would pass through the line occupied by the 2d Squadron, where he felt sure that Hospital Corps or bandsmen would be present to help them down the hill. Several others who had been shot in the lower limbs and were unable to walk said that they thought that if they could get on a horse they could ride back all right. The medical officer thereupon sent a messenger to the squadron commander asking him to have three or four cavalrymen lead their horses out on the field for this purpose, but at considerable intervals so as not to draw fire. By the time they arrived the wounded able to ride had their injuries dressed and were lifted into the saddle, whereupon the cavalryman led his horse away, with perhaps another man walking alongside to steady the patient. In one instance, after getting a rather severely wounded man mounted, a Hospital Corps man jumped up behind and held him in the saddle as the horse moved away.

One wounded man could neither walk nor ride, but a couple of stout bandsmen, who by this time had come up, said that they thought that going by easy stages they could carry him back in their arms and by a chair seat. A number, however, could not go back in any of these ways. One man had a badly shattered thigh, which the surgeon first dressed and then splinted with a couple of carbine boots taken from the dead cavalry horses near by. These boots were put in position as long internal and external splints, the outer one being stiffened by a saber scabbard thrust inside it. The whole was then bound snugly with the sling straps of the carbine boots and two or three bandages, and made a very firm and satisfactory support. While dressing this case, the surgeon sent a couple of Hospital Corps men to the timber just north to cut and trim a couple of saplings, each about 8 feet long and 2 or 2½ inches in diameter, using their chopping knives for this purpose. When these men came back with their poles, they found that a saddle blanket had been taken from a dead horse and pulled out under this fracture case. Under the direction of the surgeon they laid their poles on the edges of the blanket, rolling them up in it until they reached the wounded man's body. Then grasping the poles and blankets, they lifted up this improvised litter and started the patient off comfortably for the collecting station. As they turned away, the surgeon remarked that if he had the blanket and no poles, he would have carried the patient in the blanket with a bearer at each corner; if he had the poles and no blanket, he could have made a good litter by slipping the former through the sleeves of a couple of blouses and buttoning the latter; if there had been a house near by, he would have used window blinds for this purpose.

In this way the field was cleared here and with the other squadrons. In the 1st Squadron, however, the medical officer working there found a wounded man shot with a

rifle bullet through the intestines, whose only chance for life, he thought, was in remaining absolutely quiet. As the surgeon carefully put a protective dressing in position on this case, he called up a bandsman and said: "Private Tuba, go to the 1st Squadron and say to the officer in charge of the horse holders that I request that he give you the shelter tent roll of Private Smith, Troop A, who lies here wounded, and of Private Jones, Troop B, who has been killed. Bring them back carefully, slip a blanket under Private Smith here, lay another alongside so he can pull it over him, if desired, and pitch the shelter tent halves over all without disturbing him. He must have nothing to drink."

As the bandsmen started away, the medical officer noted on the wounded man's tag—by tearing off its blue border—that he should not be moved; then he took out his map and marked the location of Private Smith thereon, so that the latter might not later be overlooked by relief parties. He afterward showed this map to his regimental surgeon and the latter wrote a brief descriptive memorandum of the case and its location, which he sent to the officer commanding the Ambulance Company operating in this vicinity.

Ultimately about 40 wounded of our own and of the enemy were assembled at the cavalry collecting station, where one of the squadron surgeons was now assisting the regimental surgeon. The other medical officers, with most of their sanitary personnel, had been sent back to their squadrons for readiness in case of further use of the cavalry, which might fairly be anticipated.

About this time Major Ryder rode up to get personal knowledge of the sanitary situation. His action in respect to the wounded which he found here is later reported.

After his departure the regimental surgeon directed half a dozen or more of the slightly wounded who were able to ride to mount some loose horses which had been recaptured and two or three horses which he took from the band.

A couple of privates went along to return with the horses. He put this detachment under charge of a Hospital Corps man, telling him to ride around the rear of the artillery position and take these wounded to the Dressing Station on the 126—128 road, after which he was to take the written message given him to the Chief Surgeon on the hill, half a mile south of the Dressing Station, await an answer and then rejoin.

The regimental surgeon continued caring for the wounded at 172 until an orderly came from Colonel G with word that the enemy seemed to be beginning the evacuation of Mount Olivet and that he should rejoin the regiment on the hill. He then left a junior medical officer in charge with suitable assistance, telling him to remain and care for the wounded until the ambulances came and took them over, when he was to return immediately to the regiment with his detachment.

The Reserve Ambulance Companies Move Nearer the Field.

We return now to a consideration of the management of the other Ambulance Companies.

During the morning, Ambulance Companies Nos. 3 and 4 remained in reserve near 140, parked off the road, while wounded straggled by in groups on foot or were conveyed in the ambulances of Company No. 1. About 12:30, however, an orderly rode up and handed the senior officer the following order:

1st Div., Near 130.
16 Sept., '10, 12:15 p. m.

C. O., Amb. Cos. 3 and 4.

Division commander directs you move Amb. Co. No. 3 to 128 on the 128—132 road; and Amb. Co. No. 4 to halt at 132 on Lecompton road. Keep roads clear.

SHARP,
Lt. Col.—Chf. Surg.

The orderly carried a similar order to Ambulance Company No. 2, held off the road near 48, directing it to move up on the 48—128 road and halt with head at 128.

In compliance with the above order, Ambulance Companies Nos. 3 and 4 reached the designated points about 1 o'clock and drew off the road. Shortly afterward Ambulance Company No. 2 arrived. Heavy firing was going on to the westward. Through their field glasses it appeared to the Ambulance Company officers that the enemy was hurriedly withdrawing his troops from the trenches on Mount Olivet, and shortly our advance came into sight near the crest of the slope. Soon they could see our troops swarm into the trenches and open fire in the direction of the enemy retreating toward the slope to the westward. Then a soldier with a signal flag could be seen signaling.

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Action of the Director of Ambulance Companies, Up to 1 P. M.

With respect to the action of Major Ryder, Director of Ambulance Companies of the Division, who rode out from Leavenworth to 138 with Ambulance Companies Nos. 3 and 4, the character of the country and nature of the action left him little to do for the time being except to carefully exam-

ine into the terrain, note the nature of the roads, especially those which would probably be the line of evacuation for the wounded, and keep thoroughly informed of the number and distribution of wounded in connection with the measures which would subsequently be necessary for their collection, aid and removal. The morning he utilized in riding the country behind the lines and making plans for the best performance of the relief work which was to follow. Several times during our advance he rode in to Division Headquarters to confer with the Chief Surgeon, learn of any recent developments and state his own views regarding conditions and the best methods of relief. While he chiefly concerned himself with those sanitary arrangements which would depend upon our success, he did not rest until he had worked out general plans in advance which seemed to cover any reasonable contingency. He was then prepared to take prompt and suitable action for any probable situation which he might be called upon to handle.

In all these plans he kept the general situation of the entire Division in mind, and was not led away from his main purpose by minor conditions. He was well aware that regimental surgeons, who naturally knew nothing of conditions existing or foreshadowed elsewhere on the battlefield, were quite apt to overestimate the gravity of their own local sanitary conditions, and he did not propose to allow his sanitary resources to dwindle away or to scatter his relief units attempting to handle a lot of relatively unimportant situations. The moment he began to disperse them he realized that they passed largely from his ready control, and he proposed to keep them assembled until some serious condition developed which would require at least a complete sanitary unit to meet it, or until the final outcome of the battle in which he felt sure that the resources of all these units would be strained to the uttermost.

So when he rode to the scene of the little fight north-

east of 110, he told the Hospital Corps man left in charge that for some hours no transportation would be spared to remove the wounded, who he said he thought would suffer no serious injury by a few hours' delay where they were. The few slightly wounded, he said, could work their way south to the Dressing Station on the second road, or get a ride back on empty ammunition wagons, if they met any on the 110—108 road. He noticed that the Hospital Corps man had screened several of his more severely wounded against the sun by driving forked stakes in the ground on both sides of them, laying poles in these forks and piling leafy branches on the scaffold thus made. He learned that these wounded, originally in the shade, became exposed to the sun several hours later. They had begged not to be moved, so this sort of protection had been devised and appeared to be an excellent arrangement under the circumstances.

When he visited the cavalry battlefield about an hour later, the senior surgeon there was quite insistent that he should bring up an Ambulance Company and establish a Dressing Station to take over the 30 or 40 cavalry wounded. When he declined to do so, stating that his units were at any moment liable to numerically much more important work on the main battlefield, the cavalry surgeon seemed to be quite indignant and stated that his wounded were right now suffering from lack of suitable sanitary facilities. To this he replied that it was not to be expected that every wounded man who fell in battle could at once be provided with every facility; he regretted any lack or delay, but that he should hold to his general purpose of bringing the greatest good to the greatest number. The sanitary personnel with the cavalry must do the best it could for its own until the issue of the battle was decided. After he had ridden away, the cavalry surgeon sent a messenger to the Chief Surgeon to

try and get assistance over Major Ryder's head, but with the negative result later mentioned.

The latter then rode over to the artillery station southeast of 130, where he found the artillery surgeon also in quite a state of mind over his relatively few wounded and anxious to have them taken off his hands at once. He had several slightly wounded who were quite able to walk, but who had been made to lie down instead of working their way back. Major Ryder promptly started these for the Dressing Station over the ridge only a few hundred yards to the north, and told the artillery surgeon that he would send over two or three litter squads of the Ambulance Company later as the 110—126 ridge was cleared, but that in the meantime, as the hostile artillery had ceased firing and it might be some time before the final advance, the regimental surgeon could probably safely slip a litter squad and wounded men over the ridge now and then. He said that while it was generally contemplated that the Ambulance Companies should remove wounded from the Aid Stations to the Dressing Stations, there was no rule which did not have exceptions. The rule in question was intended to provide that Hospital Corps men attached to regiments should not become permanently separated therefrom when their services were liable to be needed, but under present conditions this contingency was scarcely to be feared. At present the artillery surgeon had more Hospital Corps men in his Aid Station than he was actually using, and regimental litter squads could be sent out now and then to cover this short distance to the Dressing Station without any great danger of seriously depleting the sanitary strength with the batteries under any probable conditions.

As Major Ryder rode away, the artillery surgeon started to act on his advice, which was so successful that the last wounded artilleryman was just being brought to the Dressing Station as several litter squads of Ambulance

Company men, having nearly finished the work along the 110—126 line, were starting for the artillery position in compliance with Major Ryder's directions, which he gave to Sergeant Caduceus on visiting the Dressing Station.

Major Ryder rode over to the Dressing Station, whence his movements up to the time of the capture of Mount Olivet by our troops are subsequently outlined.

What the Chief Surgeon, 1st Division, Did Up to the Capture of Mount Olivet.

Returning now to the Chief Surgeon, Lt. Col. Sharp, after the advance from Leavenworth started, he rode with his assistants with the staff of the Division Commander.

At 9 o'clock he was with headquarters in the ravine just west of 132, and from a distance saw Ambulance Company No. 1 go into operation and begin the handling and evacuation of the wounded. Shortly afterward, the location of its dressing stations was reported to him by a mounted ambulance company orderly. He notified the Chief of Staff of these locations and requested that the 132—Lecompton—136—224 road be designated as the route for evacuation of wounded and that the necessary information be given to the brigade commanders. He himself informed Major Ryder, who had ridden in to headquarters for a moment to learn progress, and directed him to notify his ambulance company commanders. He kept conversant with the progress of the movement and the number and location of casualties through the general messages, and the officers and orderlies constantly arriving at headquarters, as well as by the information which reached him from his medical subordinates.

His preparations had been made in advance as far as they could be, and three ambulance companies lay at hand in reserve available for prompt use at the proper time and most suitable points. News of the little fight northeast of 110, with its twenty wounded, came in over the wire from the 1st Brigade. He directed an assistant to make a written note of it to hand to Major Ryder. When news of the casualties on the east slope of the 110—126 ridge came in, he took no action as he had seen litter parties from the Dressing Station starting in that direction and felt sure that of their own initiative they would handle the situation. When informed through a note delivered by a Hospital Corps orderly of the casualties resulting from the cavalry fight, he sent back word for the cavalry regimental sanitary personnel to handle these the best they could, for no transportation or assistance would be moved to reach them for at least three or four hours.

Shortly after noon, as the attack seemed to be progressing well, Lt. Col. Sharp went to the Chief of Staff and asked authority to bring Ambulance Companies Nos. 3 and 4 from 140 to 128 and 132, respectively, and No. 2 from 48 to 128, and to start two Field Hospitals out of Leavenworth. This request being granted, he sent an orderly back with the order already quoted, and turned over the following message to the Signal Officer for transmission by the field telegraph to Leavenworth:

1st Div., Near 130,
16 Sept., '10, 12:15 p. m.

Director Field Hospitals,
Leavenworth.

Bring Field Hospitals 1 and 2 at once to 128 via 68—106 road.

SHARP,
Chf. Surg.

He had just given this message to the orderly when Major Ryder rode up. He informed the latter of the change of position which had been made with respect to Ambulance Companies Nos. 2, 3 and 4. Major Ryder then said that he had ridden the country pretty thoroughly, found it quite open and the roads good, and thought there should be no great difficulty in collecting wounded or hauling them back to Leavenworth rapidly. He reported that at this time the field east of the 110—130 line had been about cleared, except for the wounded northeast of 110 and those of the cavalry fight northwest of 172, and by far the greater part of such wounded were already on their way back to Leavenworth.

He said that he had now come in to confer with respect to the handling of the wounded west of the 110—130 line, as he understood that affairs were going on successfully for us. He produced his map, which the Chief Surgeon and he carefully studied, then they rode up to the ridge about 500 yards north of 126, and with their field glasses carefully scrutinized the country to the northwest. Firing on both sides was very heavy. Our lines were gradually being pushed forward and it was evident that the decisive moment of the battle was not far off.

The Chief Surgeon then said to Major Ryder: "If our troops are unsuccessful and are unable to hold their advance beyond the timber in the bottom, we can hope to do but little relief work before nightfall west of this ridge, except a small amount through the regimental surgeons and their personnel. During the night we could probably clear the west slope of this ridge, bring the wounded in the valley up to the east fork of the creek and litter them along the road across the ridge to near 126, near which we would have a couple of Ambulance Companies establish stations near together. Wagons could get to that point. The north end of that field could be cleared via the 110—108 road.

with a dressing station west of the creek crossing. It would be a long, hard pull there to litter wounded back over the hill, but this is probably the best that could be done unless the night is cloudy, when ambulances could probably work clear to the angle of the 110—94 road. For this work, I would have to ask the detail of a battalion from the reserve to help out our Hospital Corps men.

"I am not considering a retreat by our men, for it seems highly improbable. Nevertheless, if it should happen, the enemy would have to take over the responsibility for our wounded west of this ridge and we would have plenty of time to load all wounded east of it which could be moved and carry them back through our line of trenches on the Leavenworth ridge."

About this time our fire redoubled and seemed to be decidedly superior to that of the enemy; in portions of his trenches the fire of the latter seemed smothered. There was a general advance by our forces all along the line, and it was apparent that the ground they gained was being held, although a very large number of men were seen to be falling.

The Chief Surgeon then said: "It looks as if we were going to win, but we are going to lose a good many men. They will be thick on the slope of Mount Olivet near 124 and for a mile north—twelve or fifteen hundred may be hit right there. Our chief relief work will be on that southeast slope and with the wounded which the enemy will abandon in his trenches. He will also undoubtedly lose a good many men while retreating over that two miles of open ground and smooth, gentle slope which lies west of Mount Olivet. Probably the greater number of wounded will lie within a short distance of 124. One Ambulance Company should establish itself somewhere near there, perhaps reinforced by all available assistance from the present station of Ambulance Company No. 1. Another Company would go into action

on the slope about three-quarters of a mile north of the 126—124 road. I will probably put one or more Field Hospitals conveniently near these two Ambulance Company Stations. The Director of Field Hospitals has already been ordered to bring up two hospitals to 128. The remaining Ambulance Company would go in on top of the hill somewhere northeast of 112, to care for our wounded on the upper part of the hill, those in the enemy's trenches and those brought from the west slope of Mount Olivet. If there should be any apparent military need for holding an Ambulance Company in reserve with troops, you will have to break up Dressing Station No. 1, have its litter section rejoin and move the whole to 124 to await further orders. However, I do not anticipate that this will be required.

"Teams would move in along the 128—126—124 road; moving wounded back they would gain the 118—120—132—Lecompton road and so avoid mutual interference with the field trains which would probably be advancing from, as the ambulances return to, Leavenworth. The head of the civilian wagon train collected to help remove wounded ought to get to the battlefield within three hours after orders to start, its rear arriving about an hour later."

With that they turned and rejoined division headquarters, which they found had in the meantime been moved to the high point about 300 yards northwest of 130. As they arrived at the latter point they could see our troops advancing up to and into the trenches and the enemy withdrawing rapidly in a northwest direction. Major General A was dictating something to his Chief of Staff; when he saw the Chief Surgeon he beckoned him over. Just as the latter reached him he heard a signal officer say to the General: "Sir, the 1st Brigade has just flagged the following message —Enemy driven out everywhere. Retiring in good order westward. There are many wounded."

General A then stated to the Chief Surgeon: "The enemy has been driven from his position and is in retreat. Take direct charge of all sanitary personnel with the division except that with troops following the enemy."

At the request of the Chief Surgeon, the followng order was sent out a few minutes later by the Chief of Staff to each Brigade Commander:

"Each infantry brigade will have a detail of one company from each regiment engaged in the attack report to its regimental surgeon as soon as no longer engaged with the enemy, to police the ground over which it advanced. Dressing Stations will be established on the top and on the eastern slope of Mount Olivet.

"Ambulance collecting stations will be established at 126 and 400 yards west of 110.

"One surgeon and eight Hospital Corps men from each regiment of the 1st and 2d Brigades will report to the nearest Dressing Station for duty.

"Each Brigade Commander will detail one officer, the regimental chaplain and the necessary men to bury the dead in their part of the field. The Chief Surgeon will designate the places for burial.

"The Lecompton road is designated as the line of evacuation of the wounded and will not be used by other vehicles."

The Chief Surgeon then repeated the above to Major Ryder and gave him the following additional orders:

"Send Ambulance Companies 2, 3 and 4 on the field to the localities already determined on in the discussion of the situation, diverting sufficient ambulances to remove all the wounded on the cavalry battlefield north of 172. Draw all available personnel from the present station of Company No. 1 to reinforce the Company going in northeast of 124 or wherever it appears to you to be most needed; when the

remainder of this company can complete work at its present station, send its personnel and equipment to put in a Dressing Station where most required on the field. Precede your companies to the field and see that they locate properly. Take direct charge of collection of wounded and ascertain where any were left under cover. Supervise the work of the Dressing Stations and expedite their evacuation. I will provide for the civilian wagon train reaching the field and for collection of the wounded northward of 110, west of 110 and at 126. Until pursuit is stopped, I remain with Division Headquarters; then I shall inspect the battlefield."

As the commander of the Ambulance Companies turned to obey this order, Lt. Col. Sharp gave his assistant, Captain Bright, the following directions:

"Major Oversight, with two Field Hospitals, is now en route from Leavenworth. Ride to 48 and order him to proceed through 128 to the battlefield, locating one hospital the most suitable place near the west bank of the creek north of the 126—124 road, and the other where Major Ryder considers it is most required. Wait at 48 and give the same route to the main civilian wagon train which will start from Leavenworth at once, directing the wagons to be divided on arrival on the battlefield among the different dressing stations. Then detach about 25 wagons and move them yourself along the 48—108—110 road. Leave sufficient wagons to pick up wounded northeast of 110; send others to the edge of the hill west of 110 to load with wounded there. The remainder will turn south on the 110—126 road, halting at 126 to take on wounded to be brought there. As fast as loaded, they return via 110—126—124—120—Lecompton—136 road. Remain temporarily at 126, seeing that your wagons load and move back properly, then promptly rejoin these headquarters."

Captain Bright looked at his map and measured off the distance to 48 with his thumb joint, with which he had

taught himself to measure distances. He judged that in this case it was 3½ miles, which a galloping horse should cover in about 15 minutes. As the Field Hospitals had left Leavenworth about an hour before, and the rate of speed of their loaded wagon trains was probably not much better than 2½ miles an hour, with the steep ridge west of 68 to climb, he estimated that he would just about meet them at 48.

As Captain Bright and his orderly dashed away, the Chief Surgeon dictated the following message to be sent by field telegraph:

1st Div.
16 Sept., '10, 1:10 p. m.

Chief Surgeon, L. C.,
Evacuation Hospital No. 1.,
Leavenworth.

Enemy retreating. Many wounded. Evacuation begins at once. Major Goodman will meet you at Evacuation Hospital No. 1 at 2:30 p. m.

SHARP,
Chf. Surg.

He also wrote and sent the following:

1st Div.
16 Sept., '10, 1:15 p. m.

C. O. Civilian Wagon Train,
Near 224, Leavenworth.

Move your wagon train at once toward battlefield via Shawnee—68—106 road.

SHARP,
Chf. Surg.

To the Sanitary Inspector of the Division, Lieut. Col. Wellman, the Chief Surgeon said: "Select suitable places for burial of the dead, notify the Brigade Commanders, and

see that interment is properly accomplished after the battle is over. Supervise work of verification of death, identification of bodies and preparation of the necessary medical records."

To his first assistant, Major Goodman, he said: "Ride rapidly to Leavenworth and arrange with the Chief Surgeon, Line of Communications, for the entraining of wounded for direct evacuation to Plattsburg. Empty official transportation returns to the battlefield unless otherwise ordered. Return yourself as soon as affairs appear to be going satisfactorily."

Having thus started his divisional sanitary machinery into operation, the Chief Surgeon mounted his horse and galloped off after Major General A, who, his orderly told him, had gone with his staff in the direction of Mount Olivet.

PART IV.

THE LEADING OF THE FIRST DIVISION FROM ITS CAPTURE OF MOUNT OLIVET AT 1 P. M. TO THE CESSATION OF ITS PURSUIT AT 4 P. M.

and

THE PARTIAL SANITATION OF THE BATTLE-FIELD BY ITS VARIOUS RELIEF AGENCIES DURING THE SAME PERIOD.

Our Troops Follow Up Their Success.

As the firing line was nearing the point from which the final advance was made, the Colonel, 2d Field Artillery, advanced part of his guns to the top of the ridge near 110 for direct fire on the hostile position. As soon as the others were no longer able to use indirect fire at their positions they limbered up and moved via 94 to south and west of 92, followed later by the remainder of the regiment. A messenger had been previously sent with orders of the Division Commander, on request of the Artillery Commander, to the engineer battalion to advance along the road to west of 92.

The other regiment of artillery advanced in the same general manner.

After the enemy was driven from his position on Mount Olivet, it was seen that shelter trenches in its rear—part of them at least apparently built to shelter the reserves—were being occupied. The enemy held these trenches obstinately for some time. The hostile artillery withdrew toward Easton, part of it taking up position southeast of T and part of it on the high ground west of the Big Stranger, whence they soon opened a heavy fire on our advance.

The cavalry at the first break of the enemy were ordered to cross the Big Stranger near 184 and learn of his dispositions and inflict as much damage as possible.

The 3d Infantry, forming the reserve of the 1st Brigade, was pushed forward against the enemy on the right; on the left the 3d Brigade was advanced; these being helped later by parts of the other regiments and most effectively by the artillery. From the direction of the attack, the enemy were gradually pushed toward the northwest as they fell back.

After being driven from the trenches above mentioned, the hostile troops who had made the stand to cover the withdrawal of the others were steadily forced back over the open country toward Easton, where they crossed the stream about 4 p. m., under cover of the fire of the artillery and infantry on its west bank.

The 1st Brigade was now mostly north of the 94—90 road, the 2d Brigade just west of the crest of Mount Olivet, the 3d Brigade north and west of the 2d; all with troops in the firing line.

The Artillery had advanced along the 90—88 and 112—114 roads.

General A's only reserves at this time were part of the regiments that had borne the heaviest fighting in the morning.

Word was now sent back from the advanced troops that the enemy had trenches on the high ground, west of the Big Stranger, covering the crossings; that all his artillery had succeeded in crossing the stream and was now apparently in position.

A message from the Colonel, 10th Cavalry, was received about 4 p. m. stating:

"Enemy is halting just west of creek and going into position, well covered by his cavalry backed by detachments of infantry. Every effort of mine to penetrate his screen has failed. Two attempts have been seriously repulsed."

The day had been hot, and this was the first war experience of his command.

General A believed it inadvisable to attempt to force the creek in the face of the enemy; he had accomplished his mission as given in his orders and had forced the enemy west of the Big Stranger. The advance had already ceased without orders, but he now sent word to his Brigade Commanders to cease the attack and proceeded with his Chief of Staff to get out the Field Order for the bivouac.

Later Sanitary Service With the Cavalry.

It will be remembered that when the cavalry had reassembled after its first fight northwest of 172, and it appeared that the enemy was about to evacuate Mount Olivet, all the sanitary personnel had rejoined the regiment except the minimum number necessary to remain behind with the wounded and complete the dressing of the latter.

The regimental surgeon and his assistants participated in the cavalry attack north of 116 when the enemy retreated, establishing a relief station in the shelter of the timber back of the firing line. The very few wounded here were soon collected and cared for, word of their number and location being sent to the Chief Surgeon.

Just before the enemy finally recrossed the Big Stranger, the junior medical officer and the sanitary personnel which had been left in charge of the wounded at 172 reported back. He said that half a dozen ambulances had come up to take them over and, through crowding and making every wounded man sit up that could possibly do so, these were able to take them all away. His detachment had utilized the litters carried on each ambulance to collect a few scattered seriously wounded men and complete the loading.

When the litter men and ambulances were seen by the regimental surgeon to be removing wounded west of Mount Olivet, he sent a message to the officer in charge of this work, as a result of which the latter shortly after sent men and transportation which took these last few cavalry wounded to the Field Hospital subsequently established near 112.

Inasmuch as the cavalry was a very mobile arm and relatively difficult to keep in touch with if an individual was once separated from it, the regimental surgeon felt that he

could safely permit only one surgeon to leave his organization to assist in the relief work in the Field Hospitals during the afternoon and night. He kept his sanitary personnel well in hand in readiness for any sudden emergency or move, which he appreciated was much more liable to occur with cavalry, from the nature of its use, than with dismounted troops.

The Reserve Ambulance Companies Start for the Field.

We return now to the Ambulance Companies, of which Nos. 2 and 3 had been moved to the vicinity of 128 and No. 4 to head at 132, in compliance with the order already quoted.

About 1:30 Major Ryder, Director of Ambulance Companies, galloped up to Ambulance Company No. 4 and said to its commander:

"The enemy has been driven out. Load your dismounted men in your ambulances and go at a fast trot west to 120. At that point send six ambulances south about a mile to the scene of the cavalry fight to report to the surgeon there. The rest of the men and transportation continue to 118, then north to 112. Establish a dressing station at the best point in that vicinity."

Riding to Ambulance Company No. 3 he ordered: "Load your dismounted men in your ambulances. Go as fast as you can along the 128—124 road; when you cross the creek at the base of Mount Olivet turn due north for about three-quarters of a mile and establish a Dressing Station."

He then rode to Ambulance Company No. 2, drawn off the road just east of 128, and gave an order similar to that

given Company No. 4, except that No. 2 was to turn to the north at 124 and establish a station at a convenient point near the orchard at the end of the road.

He himself started off in advance toward Mount Olivet.

Immediately on receipt of his orders the commander of Ambulance Company No. 3 turned to the officer next in rank and said: "You heard the orders. Bring up the Company at a fast trot. Transfer the equipment from the pack mules to the ambulances to enable you to do this. I ride ahead to pick out the best place." With that he mounted his horse and, accompanied by his orderly, rode away.

The commanders of Companies Nos. 2 and 4 each sent an officer ahead for the same purpose.

Before starting off, the medical officer left in command of Ambulance Company No. 3 glanced at his map. He saw that the distance to the location of his Dressing Station, as directed, was a little over two miles. There were three small ravines and a good-sized ridge to cross, and he considered that after he reached the battlefield the wounded lying on the field would make his outfit move slowly. He could probably trot a little more than a mile at the accepted rate of 7½ miles per hour and walk the remaining distance at a little less than the usual rate of 3¾ miles per hour for a fast walk. From this he estimated that his Company should arrive at the designated point in about half an hour, bringing him in about 2 p. m.

Regimental Relief, the First Line of Sanitary Assistance, After the Assault.

Returning again to the 1st Infantry, as soon as its surgeon, Major White, saw that the enemy's trenches had been carried, he ordered: "Lieutenant Brown, take your Hospital Corps men and six bandsmen; go a hundred yards or so north of here, work up the hill and start bandaging, using the wounded soldier's own first aid packet if he has one. Tell all slightly wounded men to come to this big oak tree and lie down. Don't waste any time at present trying to move the helpless wounded; our first duty now is to stop bleeding and prevent wound infection."

To Lieutenant Green he gave the same order, sending him a similar distance southward.

He himself remained with his quota of assistants, moving out of the edge of the timber and working up the slope. He told the senior sergeant to divide the sanitary men into squads of two or three, a Hospital Corps man to do the bandaging and a bandsman or so to assist the latter, as the Hospital Corps men could bandage more deftly and were also better trained in measures for the avoidance of wound infection in those they handled. He had scarcely started his men at work, however, when a soldier ran up to him, panting, and said:

"Sir, the commander of the 1st Battalion says that the battalion doctor has been killed and the hospital sergeant severely wounded. He asks that assistance be sent without delay."

Major White, on hearing this, at once called his sergeant and said: "Go at once to Lieut. Green; say that Capt. Black has been killed and that I direct him to take three or four men and report to the regiment at the enemy's

trenches to take medical charge. You yourself remain behind in charge of the remainder of Lieut. Green's present detachment, continuing its work in the vicinity."

After the above disposition was made, the relief parties worked rapidly, attending first those suffering from severe hemorrhage. Major White noticed that his men were inclined to use their rubber bandages too freely on all cases of bleeding, and directed them to reserve the latter for the well marked cases of arterial spouting of which they would find no lack. They all hurriedly, but deftly, covered wounds with protective dressings, but they applied no splints to fractured bones. The treatment space on the diagnosis tags was largely left without entry at this time, awaiting further attention and completion of treatment before removal of the patients.

The wounded lay thickly on the slope. The relief squads moved among them, passing over the dead and disregarding the apparently dying to first succor those whom there seemed a fair chance of saving. Here the extra dressings which, through the foresight of Major White, the band had brought along, came into good play, for some of the wounded soldiers had lost their first aid packets, others had used them on wounded comrades, and not a few had multiple wounds for which the single packet with which the soldier had been supplied was insufficient.

About this time Captain G of the 1st Infantry marched up his company without arms and repeated to the surgeon the division order which the Colonel had received in regard to the clearing of the battlefield, based on the suggestion of the Chief Surgeon as already outlined. He said that the Colonel had told him to report the company to the regimental surgeon for instructions and asked what it should do. To this Major White responded: "Have your company deployed as skirmishers, covering the regimental line of advance, and work two-thirds up the slope, bringing back to

this oak tree every man who can walk, with or without some assistance. Tell them to remain at this point — that the regimental surgeons and the ambulance companies will soon attend to them. At least half the wounded ought to be able to walk this very short distance. Then take the regimental litters near the oak tree and carry the more severely wounded as fast as they are dressed to the big sycamore tree fifty yards beyond the oak. Do not move any man with a broken bone until it has been splinted by some temporary or permanent support. Don't let the two classes of cases get mixed. Do the same for the upper third of the slope, taking the wounded to such places on the hill as Dr. Green may direct. Then assemble your company and send it across the creek to work under the direction of Dr. Brown, who will start a collecting station near the crest of the ridge."

As Captain G started to comply with these instructions, Major White reflected that with the Hospital Corps detachment, the bandsmen and the somewhat depleted infantry company he had about 125 men engaged in the relief work. It was true that his regiment had undoubtedly suffered more than twice that number of casualties, but of these a fifth were dead and required no attention from him, and a considerable number of the remainder were able to walk as far as the collecting station and help themselves. Perhaps there were 125 helpless here requiring litter transportation, and there were twenty litters with the regiment. As the wounded here had fallen in a relatively small area, the local problem of litter transportation did not seem to be overwhelming; it was, however, very materially increased in gravity by the various wounded who had fallen under shrapnel fire and were scattered through the half mile west from the 110—126 ridge to the creek.

Looking southward at this time, Major White everywhere saw regimental sanitary squads and infantry companies, similar to those under his own direction, busily

working along the slope of Mount Olivet. Already the field was beginning to clear under the effect of their systematized energies; slightly wounded were betaking themselves to designated places to lie down and the more severely injured were being littered and otherwise carried to convenient central points.

He also saw several horsemen galloping up from the road to the south, and shortly after a medical officer, whom he recognized as belonging to one of the Ambulance Companies, rode up with his orderly. Hastily dismounting and telling the orderly to tie the horses in the trees and return to him, he told Major White that Ambulance Company No. 3 was coming up rapidly and was ordered to put a Dressing Station in this vicinity and that he had ridden ahead to select the best location. He went off to investigate the local conditions and see where the wounded lay thickest. Shortly after, Major White saw an Ambulance Company coming up the field from the south. It was moving at a walk, a detachment of its litter bearers working ahead of it and moving the dead and wounded out of the way of its approach. As the leading ambulance reached Major White, the Ambulance Company officer returned and he heard him say that wounded lay a little thicker about 300 yards farther up the slope and that the company would locate the Dressing Station there. At this moment another medical officer rode up, whom he knew as Major Ryder, Director of Ambulance Companies. The latter asked the first mentioned ambulance officer as to the point to which his company was turning, and when he heard the reply he said: "Establish the Dressing Station where your company now is. It is easier to bring the wounded on the slope down here than it would be to carry the wounded here up that hill to a station there. Besides, water, wood and shade are more convenient here."

Complying with the above directions, the commander of the Ambulance Company at once gave the necessary orders.

This was about 2 p. m., and after the regimental sanitary personnel of the 1st Infantry had continued to work as the only relief agency available with the regiment during the hour which had elapsed since the enemy's position had been carried.

On this, Major White at once sent for his assistant, Lieut. Brown. When the latter arrived he said: "The Ambulance Company which is just getting into operation will handle the situation here. Get some extra dressings from it, take half a dozen of our Hospital Corps men and the same number of bandsmen, with half a dozen litters. Then cross the creek. Beginning about 400 yards east of the creek scatter out your men and work with them dressing the wounded lying on the western slope of the 110—126 ridge. You will move toward a point on the west edge of this ridge on the 108—110 road, and have the wounded brought in there for collection. As soon as the company of infantry detailed to assist us returns here, I will send it to help you, with orders to carefully go over the ground over which the regiment advanced east of the 110—126 line, removing wounded to the point I have specified. Similar regimental parties will probably be working in the rear of the other regiments. The wounded lying nearer the creek can be handled by the personnel remaining here. When your wounded are evacuated to Leavenworth by the ambulance men, return with your men for duty with the regiment."

We need not follow Lieutenant Brown in his compliance with the above instructions.

Major White then went over to the commander of Ambulance Company No. 3, which was putting in its Dressing Station alongside the Aid Station which he himself had already established, and briefly outlined the measures which he had taken for the relief of the regimental wounded, concluding: "With the establishment of your Ambulance Company Dressing Station my responsibility for these wounded

largely ceases. My regimental hospital men and bandsmen will remain here working under your directions; when their services can be spared, send them back to the regiment. I will send one of my medical officers to assist you now—if needed, another with his men can report here some hours later."

With that, Major White rejoined his regiment at the trenches on Mount Olivet, relieving Lieutenant Green, to whom he said: "Report to Ambulance Company No. 3 for duty, which is putting in a Dressing Station near that large oak where we had our regimental Aid Station. Remain as long as your services are needed in any relief establishment in this vicinity, then rejoin; our regimental Hospital Corps men and bandsmen there will be relieved as soon as they can be spared. As senior surgeon, my place is here near the regiment and colonel. I will take over your detachment and continue your work with the wounded here."

Major White had been able to accomplish but little in this respect, however, when the Colonel, 1st Infantry, who had reformed his regiment in the hour which had elapsed since the trenches were carried, received orders to take up the pursuit of the enemy as part of the reserve.

Major White at once went to the Colonel and told him of the depletion of the regimental sanitary service with the regiment, through their being detached by him to assist in caring for the more than 300 casualties which roll calls indicated had been lost in the advance. He asked whether this detached sanitary personnel should now be recalled.

To this the Colonel said that it did not seem to him necessary; his regiment would probably suffer but little as part of the reserve in the rear guard action with the enemy now going on and the sufferings of the large number of his men already wounded could not rightly be disregarded. No great military emergency seemed to be imminent and he thought that Major White could probably handle the future

surgical situation himself; if not, the latter could subsequently send back for any necessary assistance. However, he left this matter to Major White himself.

The latter then said that he would order his sergeant and three men to rejoin at once from Dr. Green's detachment, would assign three good men to duty with the 1st and 2d Battalions respectively, and keep the remainder with him with the 3d Battalion, where he would notify all battalion commanders that a surgeon would be found accompanying the command. The Colonel assenting to this, Major White took the action described.

He then reluctantly abandoned the relief of his wounded on the crest of Mount Olivet and was just marching away with his regiment for duty when looking back he saw an Ambulance Company turning in at a trot from the road near 112, and realized that far better assistance than he himself was prepared to give was at hand for the wounded he had just left behind.

During the pursuit, as its Colonel had anticipated, the 1st Infantry itself suffered but few casualties. However, the enemy had lost a good many men during his withdrawal, and Major White was kept busy dressing hostile wounded on the ground over which his own regiment was now slowly advancing.

After the pursuit stopped and his regiment went into bivouac in compliance with Field Orders No. 8, subsequently to be quoted (see page 186), Major White remained with it, finding plenty to do among the wounded of the command and in its vicinity prior to their collection and removal by the Ambulance Company men.

About sunset, Lieutenant Brown rejoined the regiment in compliance with his previous orders. Major White then went to his Colonel and secured permission to volunteer his own services for a part of the night with the Field Hospital which he had heard had come up and gone into operation

near 112. Before leaving he placed Lieutenant Brown in charge, and told the latter to hold sick call, which came a little after daybreak, as he and Lieutenant Green might not be able to return before that time. If any emergency arose he said that he and Lieutenant Green should be notified without delay at the Field Hospital. Lieutenant Brown asked whether he thought that the Regimental Infirmary would come up with the Field Train, to which he replied that he did not—there was no place for any such unit in a bivouac in the face of the enemy.

Major White then went away, taking with him all the regimental Hospital Corps men whose services could be spared.

With this action, regimental sanitary work with the 1st Infantry practically ceased as such. It is true that regimental medical officers, Hospital Corps men and bandsmen still continued to help with the wounded for varying periods; but they did this in the divisional sanitary establishments, such as the Ambulance Dressing Stations and the Field Hospitals, which had now taken over the relief work on the field, and under general direction of the medical officers in charge of these organizations. For the time being, but one medical officer and only a few Hospital Corps men remained with the regiment, and these found work in large part in readjusting the bandages of the men who had been slightly wounded during the advance and after hasty dressing had returned to the regiment and resumed their place in the firing line for the rest of the engagement.

The bandsmen were the first to be relieved at the divisional relief stations and sent back to the regiment, as collection had been completed and work with the wounded had now become so technical as to render their assistance of no great value.

A little after midnight, Major White relinquished work at Field Hospital No. 3. He told the commander of the

latter that it looked as if the work there was now sufficiently well in hand to permit his services to be spared; it was quite necessary that at least a part of the regimental surgeons should get some rest to be physically prepared for any possible eventualities tomorrow, but if his regiment did not move he would then return to give any further assistance in his power.

On his departure, he left most of his Hospital Corps men, with the understanding that they would be returned to the regiment by sunrise.

Returning to the regiment, he was momentarily aroused just before daybreak by some one lying down to rest near by, whom he recognized as Lieutenant Green.

With this, we need no longer follow the sanitary service of the 1st Infantry; whose general methods and results, with suitable modifications for different conditions and terrain, were also employed in the other infantry regiments which had come into action throughout the Division.

Some Field Hospitals Come Up and Go Into Action.

Taking up Field Hospital No. 1, together with the other Field Hospitals it had been in readiness to proceed to the front at 7 a. m. Orders for the Director of Field Hospitals to bring up Nos. 1 and 2 were not received, however, until about 12:25 p. m., when the personnel and trains were at once started for the front in compliance therewith. At 1:40 the head of the train was just descending the hill west of 50, when Captain Bright rode up and delivered the Chief Surgeon's message, already quoted, to the Director of Field Hospitals. The latter verified the order on his map and said

that he thought he could get into the required position a little before 3 o'clock. With the ravines and ridge to cross he could possibly move no faster than two and three-fourths miles per hour. In response to inquiry by Captain Bright he said that he knew nothing of any civilian wagon train, beyond the fact that when he left Leavenworth a large number of such wagons seemed to be parked on the outskirts of the town.

About 2:55, Major Oversight, riding a little in advance of his Field Hospitals, reached the battlefield and turned north from the 126—124 road. He rode at once to the Dressing Station which he saw in operation on the slope, to investigate conditions and determine where his hospitals should be located in order to be of most use.

The Dressing Station of Ambulance Company No. 2, which was nearest the road, seemed to have a greater number of more severely wounded to handle, so he decided to have Field Hospital No. 1 go in there. Immediately adjacent to this Dressing Station he found a fine level place about 100 yards square and thus more than large enough to allow of pitching the hospital in the regulation manner. Established at this point it could at once take over the wounded already collected at the Dressing Station, without the necessity for tedious, laborious and agonizing transfers. The Ambulance Company commander, when he saw the Field Hospital draw up alongside his Dressing Station, said that it was fortunate that military conditions and terrain permitted this ideal arrangement, for it was so much easier and better to bring up Field Hospitals direct to the wounded near the front than it would have been to attempt to remove all these many serious cases to Field Hospitals located at the very frequent distance of a couple of miles or so in the rear.

As its train stopped, the hospital equipment and supplies were quickly taken out of the wagons and, tem

porarily disregarding the wounded lying all about them the hospital personnel bent all its energies to establishing the Field Hospital; as fast as any section was got in condition, it was taken over by its previously assigned personnel and put in operation. The operating tent went up first, and as soon as it was in position a detail was at hand with the appropriate equipment and supplies, which the surgical assistants rapidly unpacked and put in place in the tent while the surgeons were getting ready to operate. A detail pitched the hospital tents in three rows for wards, while another set of men followed and unpacked and arranged the ward equipment. So rapidly did they work that before the last tent of a ward was in position, most of those already up had in the meantime been outfitted and patients were already being placed in some of them. As soon as a ward was completely equipped, its assigned personnel fell out of the general detail and assumed charge of the wounded with which the Ambulance Company litter men promptly filled it. It was important to keep the classes of patients separate as far as possible, so the most severe cases were first picked out and brought to Ward C, which happened to be the first one completed. Within this ward the surgeon assigned his cases to various tents, depending on their seriousness and apparent chances of survival. After all the hospital tentage proper had been put up, the remainder of the detail was directed to pitch all the shelter tents of the Hospital Corps men on the left of the hospital, and then at once to report for duty in the appropriate sections to which they had previously been assigned and in the duties of which they had been instructed and drilled. When these men complied with this last order, they found that their Field Hospital was already filled with patients and running nearly as smoothly in all its parts as if it had been in operation a week instead of a little less than an hour.

Major Oversight had always believed that efficiency of

this sort could not be obtained with any mere aggregation of doctors and hospital orderlies, and that proper results depended upon military system applied by a strictly military organization, the personnel of which required quite as much discipline, instruction and control in the execution of their special humanitarian functions as did the officers and soldiers of the line in their employment in the business of destruction.

While at the mobilization camp, he had seen other divisional Field Hospital commanders who apparently were content to regard their men as needing no special military organization, discipline or administrative training. These other commanders, he was convinced, entirely failed to comprehend military conditions or realize the full functions of their own sanitary units. Apparently nothing would rouse them to a proper sense of their tremendous responsibilities but war itself, when they would awaken—humiliated—to find that the time had passed wherein the members of their commands could have been made efficient without learning their duties at the expense of a vast amount of absolutely unnecessary suffering on the part of the very individuals whose sufferings they themselves were expected to relieve and prevent. While their men were lounging about camp and now and then going through perfunctory drills in litter work and bandaging, Major Oversight, on the other hand, had his men busy from morning until night. The latter were given relatively little work of the above-mentioned technical nature, but were first assigned to definite positions, each with his appropriate administrative duties, and trained therein. The Field Hospitals were daily pitched, equipped in all their parts, taken down and repacked in the wagons. The men were made to thoroughly familiarize themselves with every item shown on the Supply Table for Field Hospitals and with its use. Chests and cases were repacked after their contents had been purposely tumbled out in con-

fusion on tent flies; miscellaneous heaps of equipment were sorted out and loaded in the appropriate wagons. Not only were the men taught to know what every article was named and looked like, but its proper place in the equipment and the quickest way in which to secure and return it. If only certain parts of the hospital were ordered pitched, the men proceeded without hesitation to their proper wagons and unloaded and set up the equipment required. After a man had mastered one duty he was set at another, so that in emergency all could render reasonably efficient service in any position connected with the hospital—as ward men, drivers, cooks, clerks, etc. The men, he was told, at first disliked this work, but very shortly began to take pride in the results. He timed the work, making squad compete with squad and hospital with hospital in performing the same tasks. One day, after Field Hospital No. 1 had been set up complete in readiness for patients in the record time of just one hour after the loaded wagons had halted, and had been taken down and completely replaced in the wagons in an hour and a quarter after the order to repack had been given, he overheard a line officer spectator say that in case of military success the value of such system and speed could scarcely be overestimated in bringing relief to the wounded on the battlefield, and in case of a reverse it would probably enable the hospital to pack up and get back with its patients, personnel and equipment quickly enough to escape capture.

As Field Hospital No. 1 was going into position, as above described, Major Ryder, Director of Ambulance Companies, rode up. In response to inquiry by Major Oversight, Director of Field Hospitals, he said that he had ridden the field quite thoroughly and that many wounded were lying just east of the 120-124 line, in which vicinity the main attack had been made. He advised that Field Hospital No. 2 be put in just east of 120, near the little water course,

to meet the needs of wounded in that vicinity whose nearest Dressing Station at this time was that of Ambulance Company No. 2, about three-quarters of a mile distant. He said that a Field Hospital would undoubtedly be needed on top of Mount Olivet, but at present that vicinity was exposed to fire, and, moreover, nearly all of the wounded there were those of the enemy. "Blood is thicker than water," he said, "and we should look after the needs of our own people first."

Major Oversight thereupon replied that he would put in Field Hospital No. 2 near 120, as recommended.

Major Ryder then said that Ambulance Company No. 3 was clearing the north end of the field very rapidly; that he would make special efforts to evacuate its Dressing Station of all wounded able to be transported to Leavenworth and would have the more severely wounded drained into Field Hospital No. 1. As soon as this could be accomplished, he would break up the Dressing Station of Company No. 3 and send it and its personnel to 120 to co-operate with Field Hospital No. 2, which was going in there. He thought that this could be done within a couple of hours.

With this understanding, and purpose of mutual co-operation based thereon, the Director of Ambulance Companies and the Director of Field Hospitals parted.

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An Ambulance Company Dressing Station, and What Lieut. Green, M. C., Learned Therein.

Ambulance Company No. 3, to which Lieutenant Green now reported for duty in compliance with orders already quoted, had already taken up the dressing and handling of wounded, and within ten or fifteen minutes after reaching its position every section of its Dressing Station was com-

pletely in operation. Each officer and man knew his part, the things to be done and the material on hand with which to do them. Major Ryder had seen well to the training of his organized relief units in the mobilization camp, and now under a few well-chosen orders given by the company commanders matters moved like clockwork. In a general way, its establishment and administrative organization was much like that already described in relation to the station established by Ambulance Company No. 1.

In the present instance, however, nothing was at hand to supplement the equipment and supplies which the company brought with it. In lieu of the farm house, which we have seen was so fortunately found available at the best site for the establishment of the Dressing Station of Company No. 1, the present company set up the hospital tent carried in its supply wagon. A tent squad had it up in five minutes, and before they had completed driving tent pegs and tightening guys, another squad had put the dressings and equipment inside, opened up boxes of supplies and prepared the tent for emergency operative surgery and the dressing of the more serious cases. As Lieutenant Green arrived, he saw a case of hemorrhage being lifted on the table and a couple of surgeons slipping on sterilized rubber gloves preparatory to ligating a large artery. They told him that no operations would be done at this station except such as were immediately necessary in order to save life.

The Ambulance Company commander directed Lieutenant Green, together with a junior medical officer of the 2d Infantry, who likewise reported for duty at the same time, to examine and dress wounded as they arrived in the receiving section.

As he worked, from what he saw and heard, he gathered that the Dressing Station of the company here coincided in position with its Ambulance Station and was organized about as follows:

I. A section in charge of the collection of wounded, their first aid on the field, and their removal on foot, by litters or otherwise from the field to the Dressing Station.

II. A section for slightly wounded, at which cases assemble , usually on foot, for examination, treatment and disposition.

III. A section for the more severely wounded—the Dressing Station proper—where work similar to, but more extensive than, the duties indicated in the preceding section was carried on for the benefit of a more helpless class of patients.

IV. A section devoted to the transportation of wounded by ambulances or other wheeled transportation, which usually conveyed them to Field Hospitals, which were ordinarily fairly near the front. In this instance, however, conditions were such that this section was at this time carrying wounded direct from the Dressing Station to hospital trains running to the rear, and to several Evacuation Hospitals in Leavenworth.

Going into further details, the organization and functions of the above main divisions seemed to be about as follows:

The collecting party of litter bearers and first aid men, here working directly under the medical officer detailed in general charge of this work, which sought out and brought in wounded from the field after seeing to the application of hasty dressings and splints.

This medical officer in charge later told Lieutenant Green that he had received general directions from Major Ryder as to the limits of the area which his searching parties should cover, so that his assigned zone of collection should neither overlap those assigned to other Dressing Stations nor leave gaps between them in which helpless wounded might lie unrecovered. That there might be no mistake in this matter, he had traced the limits of his own zone on

his map. His first duty had been to find out what organizations and personnel besides his own were engaged in collecting wounded within the designated area, and the territory which each was covering; he then systematized this work by marking out on his map the territory which each regimental collecting party should search, so that no part of his section of the battlefield would remain unpatroled. The line officer in charge of each regimental searching party assisting him was then informed as to the ground his men should work over, paying special care to the searching of corn fields and similar dense cover where helpless wounded might lie hidden. and the senior medical officer with each regiment was also duly informed of the program so that his junior medical officers and Hospital Corps personnel could co-operate and work with the regimental collecting parties and make sure that wounded handled by the latter were promptly dressed and in condition for litter transportation.

After completing this arrangement, the Ambulance Company officer felt sure that few, if any, helpless wounded would be overlooked and have to lie out and endure the horrors of a night without attention.

He told Lieutenant Green that he expedited the work of collection as much as possible, as he appreciated the greatly increased difficulties of finding and removing wounded after darkness had set in. However, as the present battle had ended so early in the day, the weather was so good, the area to be searched was so small and the ground so open to sight and litter work, and as an abundance of assistance was at hand with the regimental Hospital Corps detachments and searching parties from the line, he felt confident of thoroughly completing his task before sunset. He said to Lieutenant Green that present conditions on this field were quite different from the situation he might have had to face had, for example, an enemy broken about sunset

after an obstinate defense and our organizations followed off the battlefield in pursuit, leaving wounded scattered over a densely wooded, brushy, broken country, with darkness coming on, a storm developing and no personnel but his handful of Ambulance Company litter men to depend upon and only the scant light of a few lanterns and improvised torches to illuminate the work.

The mention by the medical officer of the use of maps interested Lieutenant Green and he now inquired further regarding this subject. He was informed that war was waged largely through the use of maps, organizations being moved about like chess men by commanders who, perhaps, never saw the country over which they were called to maneuver their subordinates. All officers, including medical officers, were usually supplied with maps of the zone of military activity and were supposed to be thoroughly conversant with their reading and with the use of the compass in the field. His informant said that many medical officers seemed to think that all they had to do in the field was to follow blindly after organizations led by line officers, but that occasions frequently arose where the former had to depend upon their own knowledge of map-reading and woodcraft. While medical officers were not expected to be highly expert in such matters, yet they were supposed to be able to move individually or with parties in charge of wounded from one point or command to another, by day or night, and with any kind of weather or country; to move their sanitary organizations along designated routes and locate or make connections according to commands from higher authority prescribing time and place. to pick out in advance of their movement suitable protected points for Dressing Stations or Field Hospitals, and select routes for approach and evacuation not exposed to fire from the enemy's positions, and to otherwise use this knowledge in the many other ways which would readily suggest themselves.

Lieutenant Green now realized that beside being a good doctor it seemed to be necessary that he should be a good woodsman; he also saw that it would be highly desirable for him to have some knowledge of general military organization and the elementary principles of tactics, so that he might be able to understand the generally accepted rules and thereby interpret the significance of the movements in the great game of war which he saw being played all around him. Greater in its results even than medicine and surgery, he had seen that military hygiene had rightly been regarded in the mobilization camp as the most important feature of a medical officer's work, and he had given this subject the study which its neglect in his general medical education as preparation for practice in civil life had made necessary. Now he made up his mind that here were other and non-medical subjects which formed an essential, though accessory, part of the great, peculiar and difficult specialty which he began to understand the duties of army medical officers to be. Before coming into the army he had relied on guide posts or the friendly information to be obtained from residents or the policeman on the street corner to keep him informed as to location and direction, but he now realized that in war any local sources of information would rarely be available. He proposed as soon as possible to remedy these now recognized defects in his medico-military education, so that in emergency he would not have to hunt up some line officer or sergeant to direct or guide him from one post of duty to another, run the risk of hardship in an unknown country, or have his ignorance the cause for the sanitary unit under him not beginning work at the proper place and time in accordance with the preconceived plans for relief prepared by higher authority.

The section for slightly wounded was established at the big oak tree, where Major White had previously caused the slightly wounded of the 1st Infantry to collect. Now, in addition, similar slighter cases were being directed there from the several other regiments in the vicinity, as their own Aid Stations went out of operation through their functions being taken over by the Ambulance Company Dressing Stations. In a short time there must have been nearly a hundred cases there, not only of wounded, but also some who had sickened or become exhausted under the heat and excitement of the day. Many cases had walked here who were quite unable to walk to the advanced base. The cases were all looked over, bandaged, given water, food, stimulants and anodynes and allowed any necessary rest. Register and transfer cards were made out. The surgeons examined these soldiers and their disabilities very carefully, and Lieutenant Green saw that as a result of such examination a number of men were being sent forward to the front under charge of the field police; he learned that these were in part men with trivial injuries, such as slight flesh wounds, but that occasionally there was a malingerer still resorting to every possible means of getting away to the rear and avoiding danger, even though the fighting here was over for the time being. The severity of this their first battle had sorely tried the fortitude of the troops, and later he came to be rather surprised that they had fought so well. When he saw the number of men who were here returned to their organizations as fit for further duty, he began to appreciate that misapplied humanitarianism would most seriously affect the fighting strength of armies, which latter the surgeons, as officers, were at all times bound to consider. He realized that the diagnosis tags which the surgeons were making out and putting on were not only records of medical treatment, diagnosis and identification, but passes which the battlefield police and Provost Guard patroling the line of

communications to Leavenworth and in that city itself would recognize in permitting the wearers to move to the rear or remain there.

Lieutenant Green heard the officer in charge of the section for slightly wounded instruct his subordinates that every wounded man who could possibly walk to the rear must be forced to do so; as even under the present highly-favorable conditions for evacuation our transportation would undoubtedly prove to be quite inadequate. Lieutenant Green at first thought that it was rather cruel that a man who had just shed his blood for his country should be forced, perhaps suffering and exhausted, to toil his way for many miles back to the rear, but he later learned that this was one of the many necessary hardships and sacrifices which would have to be expected of the soldier. After a severe battle it was possible that only those which must ride could be allowed to ride.

Whenever a dozen or so of these slightly wounded were got into suitable condition, they were promptly started off for Leavenworth in charge of a wounded officer, non-commissioned officer or a designated private. Moving in this way, they were under control, kept from straggling, and also could be of much assistance to one another en route. As far as possible, they carried their arms and equipment with them; those that could not, were told to place them in the heaps of rifles, ammunition and equipment near the Dressing Station, which the proper officer would later arrive and secure. He learned that while as many as 50 per cent of the wounded might at times be able to walk to the Dressing Station, not more than 12 per cent to 15 per cent might be expected to walk back as far as the Advance Base, depending, of course, on distance, time and weather. Under present conditions it seemed as if fully 15 per cent would be able to work its own way back to Leavenworth.

As these detachments were started for the rear, the

men in charge were given lists of names of the wounded put in their care and were also carefully instructed as to the designated route of evacuation. This last looked unnecessarily long to Lieutenant Green, but he was told that it was highly important that wounded should move by roads traveled back by ambulances and wagons, as if they should faint, become exhausted, start bleeding, displace dressings or meet with other accident there would soon be some one to overtake them on the road who could properly treat their cases, and, if necessary, provide transportation to their destination. Also in this way they would be sure to meet the persons assigned to direct, take charge, transfer or ship them, and equally sure not to encounter advancing troops, whom it was very important should not be dispirited by sights of suffering. If the distance back to Leavenworth had been very long, perhaps one or more rest stations, each with a few Hospital Corps' men and supplies, would have been established for their greater security and comfort on the route back.

There was a steady movement of these squads of slightly wounded away from the field, and Lieutenant Green thought that if similar conditions prevailed elsewhere on the field, several hundred would thus work their own way back and render the always serious problem of transportation proportionately less perplexing in this particular instance.

This section for slightly wounded seemed to be given a good deal of attention by the Ambulance Company commander, who made every effort to get it evacuated as soon as possible. He wanted to get these wounded off the field out of the way, and also to start them early so that they should be able to reach Leavenworth before dark.

As soon as this section for slightly wounded was evacuated, it was broken up and its personnel absorbed in the

Dressing Station proper, the few slightly wounded who straggled in later being treated there in the general receiving station.

The Dressing Station proper, in which Lieutenant Green had been assigned to duty, seemed to have about the following organization and functions of relief:

1. A receiving section under the trees, in which several surgeons were busy; which section was further divided for convenience into two divisions, one for the slightly and one for the severely wounded. The latter in turn had two subdivisions, one for urgent cases requiring prompt operation or extensive dressing, and the other for apparently hopeless and dying cases.

In this section the condition of the new arrival and his dressings was examined into, and the latter, if necessary, readjusted or replaced.

The nature of the wound was noted by a surgeon and a proper diagnosis and treatment tag made out and affixed to the patient's clothing.

A Hospital Corps' sergeant went around and made out a register and transfer card for each patient. No case left this section until the brief information required had been secured. If the man was unconscious or unable to talk and no one knew him, the sergeant put down on his card the name and number found on the soldier's identification tag.

2. An operating section in the tent, which sheltered patient and operators from rain, sun and dust, with two surgeons in attendance. This section handled all cases of emergency surgery imperatively demanding immediate operation to save life, together with the dressing of the very severe injuries, which were sent to it by the surgeon in charge of the receiving section. Such cases were given the few

blankets available and made as comfortable as possible in the vicinity of the operating tent.

3. A forwarding section, whose cases came from the receiving or the operating section. The duties of the sergeant in charge seemed to Lieutenant Green chiefly to be in verifying the continued good condition of the bandages, watching for bleeding, giving stimulants and anodynes, giving patients water and nourishment, seeing that no man was without a diagnosis tag or a completed register card for his case, and seeing that only suitable cases were evacuated by the transportation, and those as soon as possible.

4. A kitchen section, which seemed to be not the least important, as all the wounded had eaten no food for at least ten hours and were exhausted by marching and fighting in hot weather as well as from loss of blood. The company cook, even in this brief opportunity, was already sending out hot liquid foods prepared from the hospital stores in the food chest, under the influence of which the wounded seemed wonderfully revived and made more comfortable.

Lieutenant Green later found that the reason food was obtainable so soon was that as soon as the wagon stopped, one man took buckets and went for water; another took the axe and went for wood; another opened the field cooking outfit as soon as it was tumbled on the ground, unpacked the utensils and set up the fire grate. As soon as the man returned with the water, the coffee, canned soups, etc., were mixed in the boilers, and the latter were on the grate ready for heating by the time the wood was brought up. During the few minutes required for such heating, the cook mixed up a bucket of malted milk and sent it out for distribution cold.

The wheeled transportation consisted of twelve ambulances, whose function was to evacuate the designated wounded as rapidly as possible to places where they would be at once out of the way of the fighting troops and under

better conditions for their own recovery. Lieutenant Green saw the ambulance train of this company loaded and sent off a few minutes after arrival, half the ambulances with recumbent cases and the other half with patients sitting up. Most of these cases had already been dressed at the regimental Aid Stations of the brigade before the arrival of the Ambulance Company. Including a wounded man on the seat with each driver, Lieutenant Green noted that this one trip of the ambulance train of Company No. 3 removed 84 wounded. An old sergeant, mounted, and with a mounted Hospital Corps man, went along in charge of the train, while a dismounted sergeant and two privates rode on the steps of the ambulance to give any necessary assistance en route.

While this train was loading, a number of slightly wounded who wanted to ride rather than walk, slipped over from the section for slightly wounded and got into the ambulances unobserved in the confusion of loading. This fraud was soon discovered, however, by the train sergeant going around and examining the diagnosis tags on all the wounded; those whose transportation coupon had been torn off being made to alight and go back to their proper section to return to the rear on foot. As the train was about to start, the sergeant of the forwarding section came out and delivered a paper to the train sergeant, which he said was the nominal list of patients required by the Medical Department Manual.

Lieutenant Green here asked one of the Ambulance Company surgeons what had become of the ambulance which had followed the 1st Infantry on its march to Leavenworth, but which had not accompanied them this morning. In reply he learned that no regiment had any individual title to ambulances, but that one was daily assigned—practically loaned—from an Ambulance Company to accompany it on ordinary marches and take care of its sick and footsore; if a regiment was operating independently, its full quota of three

such ambulances and drivers was so assigned and then came under the direct control of the regimental commander and surgeon. But on the eve of battle, his informant said, all the ambulances provided for a division, 48 in all, were called in to the respective Ambulance Company units of which they were a part, and handled entirely like other divisional troops, such as the Engineers and Signal Corps. They were under the command of the Division Commander, though after an action was well under way, the latter usually delegated authority to his Chief Surgeon to direct them so that he might give his own full attention to the tactical situation. The Chief Surgeon directed and administered them through a medical officer in command of all of them—in this case Major Ryder—whose general administrative duties closely corresponded to those of a major commanding an artillery battalion.

His informant told Lieutenant Green that by thus assembling the ambulances and their drivers, and working them in co-operation and co-ordination with the litter men, surgical dressers and light sanitary supplies which formed the remainder of the Ambulance Company unit, the surgical relief of the wounded was made far more prompt, efficient and satisfactory. The Chief Surgeon could thereby throw an effective relief force wherever the situation demanded, without scattering his resources in transportation, men and material all over the battlefield, to fritter their energies and supplies away without proper head, direction or control.

He told Lieutenant Green that this very Ambulance Company contained ambulances which had yesterday been assigned to the 3d Brigade, but which, today forming the reserve, would probably suffer but little in the present fight and have no full use for its proportionate quota. The latter, removed and organized as it was, could now be utilized where needed in the 1st and 2d Brigades, instead of remaining inactive while in other parts of the Division wounded

were perhaps suffering and dying from delayed relief dependent on an insufficient local sanitary personnel.

He asked Lieutenant Green to consider the difficulties which his own regimental surgeon, Major White, would have had to contend with in handling ambulances had any remained under his direction after the 1st Infantry had deployed to go under fire. He would have had to leave them behind at 104 and entirely lose touch with them when his regiment passed over the 110-126 ridge. To get them up when and where needed, find out how and when to send them back, provide necessary assistance en route, and many other things, would have meant grave delay and serious diminution in his effective sanitary force—and similar difficulties would have existed in every other regiment of the division. In fact, he said, the Ambulance Company organization rendered immediately effective every item of their transportation, personnel and equipment, without which organization at least half these sanitary resources with the Division could not be utilized at the time when required.

Lieutenant Green here said that he had noticed these Ambulance Companies on the march to Leavenworth, and that their ambulances always seemed about empty, their equipment packed up and their personnel apparently doing nothing. His informant replied that an artillery officer had made rather sarcastic comment to him the day before along these same lines, and that he had replied that Ambulance Companies, like artillery batteries, were organized for war and not for peace; it was true that on the march the Ambulance Companies were not dressing any wounded, but for his part he could not see that the artillery was killing any one either; when the latter began to open up on the enemy it would very quickly be seen what both these co-ordinate and now equally idle organizations were for.

On the whole, Lieutenant Green got the impression that the Ambulance Company, as he now saw it, was a very mobile and lightly equipped relief unit, intended to be thrown in to reinforce an overwhelmed regimental sanitary personnel; to take the wounded off the hands of the latter and let them go forward with their regiment if necessary; to provide more elaborate surgical relief facilities than could possibly be carried by regimental Hospital Corps men accompanying fighting troops; to bridge with its supplies the time before the coming up of a Field Hospital to the wounded, or the carrying of wounded back to a Field Hospital; and to furnish all transportation for wounded in advance of the Line of Communications service. Each ambulance was practically a four-bed ward and the ambulance train of an Ambulance Company was thus practically a 48-bed hospital on wheels, affording shelter as well as providing evacuation. Lieutenant Green was quite impressed with the practical utility of this sanitary unit under the conditions of actual service under which he now saw it. Heretofore he had not fully grasped its purpose and method of operation.

He had worked in the Dressing Station about an hour when he heard some one say: "Here comes a hospital," and looking to the south he saw the men and wagon train of a Field Hospital moving up. These halted at the other Dressing Station established nearer the road. As the Field Hospital commander completed a hasty inspection which he had evidently been making there and then rode up to the station where Lieutenant Green was working and briefly conferred with its commander, Lieutenant Green heard him say that the other Dressing Station seemed to have considerably more severely wounded than this one—in order to reduce the amount of litter work by bearers and the suffering of the wounded due to their movement, he would, therefore, put in his Field Hospital directly alongside the other Dressing Station. In about half an hour, this officer said,

severely wounded cases and those requiring more elaborate surgical treatment should be littered to him from this station, but no hopeless or moribund cases should be sent. All slightly wounded should, of course, be directly evacuated from here to the rear.

In a few minutes Lieutenant Green noticed that the hospital tentage was rapidly going up and the eight Field Hospital wagons, which had been emptied of the equipment, going in the direction of the road. Later he saw that they had returned and were loading with less severely wounded from the adjacent Dressing Station, apparently to make the return trip to Leavenworth. He learned afterwards that the eight wagons, with hay in their beds, took away an average of four wounded men each.

Some half an hour later Major Ryder rode up. Accompanied by the Ambulance Company commander he went rapidly through the Dressing Station, noting the progress of the work and the number of slightly wounded and severely wounded, respectively, remaining in the Dressing Station. As they halted in the receiving section, Lieutenant Green heard him ask the number and character of cases which had already been evacuated on foot and by ambulances to Leavenworth, to which reply was made: "About 185, of which only about 25 were severely wounded." Major Ryder then said: "There apparently remain about 200 cases here, practically all unable to walk and of which some 50 are in such shape as to require special surgical attention, or whose condition is such that they should not be started to Leavenworth."

On the Ambulance Company commander assenting to this, Major Ryder then said: "Field Hospital No. 1, just south of here, is now ready to receive wounded. Have your 50 severely wounded littered there as rapidly as possible, transferring with them for duty the regimental medical officers and men who have been detailed to assist in this station. Devote entire attention to getting all the less se-

verely wounded able to stand wagon transportation to Leavenworth into suitable condition for the trip. Sufficient civilian wagons to entirely evacuate these latter wounded will report to you in an hour or so. Cases of trivial injuries should be sent forward to their regiments in detachments under your men as soon as possible, and reported in person to their respective regimental surgeons. Then move your company to 120, reporting on arrival with your men to Major Oversight for temporary assignment to duty to help in Field Hospital No. 2. Return your wounded to Leavenworth along the prescribed route, 124-120—Lecompton—136-224 road. Most of them will probably be taken off at the latter point. Leave sufficient personnel here to break up this station and repack the supply wagon with your equipment; they and the wagon then report back to you at Field Hospital No. 2. The ambulance section of your company will report at Field Hospital No. 1 for loading on its return from Leavenworth. I make the Ambulance Company at that last hospital my own headquarters."

With that Major Ryder remounted and rode away, while the Ambulance Company commander issued the necessary orders in compliance with his instructions.

Lieutenant Green was told to take the 10 litter squads which would be assembled at the forwarding section, and go in charge of them and their burdens to Field Hospital No. 1, reporting there for duty and sending the litter men back promptly for other loads.

While loading the litters in compliance with these orders, Lieutenant Green heard the sergeant who was to be left to break up the station say to the Ambulance Commander: "Sir, what is to be done with the dozen or more wounded lying close together here, whom the surgeons say are dying or so weak that they should not be moved even these few hundred yards to the Field Hospital?" To which the latter replied: "Move the operating tent and fly belonging to the

Dressing Station and pitch them over these wounded as they lie, disturbing them as little as possible. Make them as comfortable as you can with the blankets, bedsacks and other material in our unit case of bedding and clothing; if you need more, you can possibly get some supplies from the Field Hospital. The civilian wagons coming up will undoubtedly contain hay to make them more comfortable for the wounded to be carried in the wagon bottoms; get some of this hay and fill the bedsacks as soon as the wagons arrive. Leave two men in charge of this tent with stimulants and a little liquid nourishment; duly inform the Commanding Officer of Field Hospital No. 1 of the moribund cases left here and the measures taken for their care. Follow with the wagon and stores to Field Hospital No. 2, which is near the second cross roads, about a mile and a quarter almost due south of here . . . ."

But by this time Lieutenant Green had completed the loading of his litters and started away with them.

On arriving at Field Hospital No. 1, he complied with his orders, above quoted, and was assigned to one of the wards to assist the Ward Surgeon, Captain Wise.

Some time later, stepping out to the kitchen section to refresh himself with a cup of hot soup before beginning to dress a new case, Lieutenant Green saw a long string of civilian wagons moving south past the Field Hospital toward the road. There must have been 40 or more of them and they made a train over a quarter of a mile long. A medical officer and several mounted Hospital Corps men headed the column, brought up the rear and rode alongside, keeping the wagons closed up. Several dismounted Hospital Corps' men rode with the driver. Each wagon held several wounded who, lying on the hay, seemed to ride very comfortably. One of the Field Hospital personnel recognized an acquaintance among the wounded and said something to him as the wagon passed by; the latter called back that he under-

stood that the wagon train would be in Leavenworth by 8 o'clock and that the wounded would probably be put directly aboard a hospital train and returned to the Base Hospital at Plattsburg.

Shortly after the civilian wagon train there came the medical officers, litter bearer section and most of the Dressing Station party of Ambulance Company No. 3. It was said that they were on their way to reinforce Field Hospital No. 2, located nearly a mile to the south.

Lieutenant Green glanced northward along the slope, saw the former crowded site of the Dressing Station, where he had assisted, vacant except for a handful of men loading a wagon and apparently repitching a tent, and realized that the functions of Ambulance Company No. 3, in its first position on the present battlefield had now been fulfilled.

How Ambulance Company No. 1 Came Into Action a Second Time.

Returning now for a moment to the Dressing Station of Ambulance Company No. 1, located about midway between 126 and 128, just north of the road, its personnel was busily continuing the work already outlined when, shortly before 2 o'clock, Major Ryder again rode up and said:

"Captain Wagoner, take all available assistants and litters and proceed immediately to help Ambulance Company No. 2, which will shortly be along to establish a Dressing Station near the orchard at the end of the road running north from 124."

On inquiry he said that the enemy had been driven out and was retreating apparently across the Big Stranger. He

was going to Mount Olivet himself to help dispose of the wounded, of whom there were a large number.

Captain Wagoner then said: "Captain Porter, remain here in charge with Lieutenant Cutter and the personnel of this station and finish the necessary work here. Notify me by mounted orderly when you are ready to evacuate all able to be moved."

To Lieutenant Newcome he said: "You accompany me with all the litter bearers and their litters. See that they fill their pouches and pockets with dressings and replenish their canteens."

In a few moments Captain Wagoner started away with his detachment in compliance with his orders, breaking up his Station for Slightly Wounded en route and taking Lieutenant Dresser and his personnel along with him to help at 124.

About 3 o'clock Captain Porter sent a mounted orderly to find Captain Wagoner and say that in about an hour he would be able to evacuate all but about a dozen wounded, who should not be moved, and that the ambulance section of the company should be back about that time.

The orderly, on his return, said that Captain Wagoner and his detachment were no longer at the Dressing Station of Ambulance Company No. 2, but were working with that of Ambulance Company No. 4, on top of the hill.

Major Ryder had taken his message and given him the following written order:

Amb. Co. No. 2, Mt. Olivet,
16 Sept., '10, 3:15 p. m.

Capt. Porter,
Amb. Co. No. 1,
126-128 Road.

Break up your Dressing Station as soon as ambulances remove your wounded capable of transportation. Take your

men and equipment to a suitable point on or near the 112-114 road, as far to the front as practicable, and re-establish your station there. Direct your ambulances to return to 112 tonight from Leavenworth. RYDER,

Major, M. C.,
Director, Amb. Co's.

Shortly before 4 o'clock the ambulances returned, were loaded and received their instructions as to route and return. There were not enough wounded to fill them all, and the remainder were directed to load at the Dressing Station near 124, before the train turned south to return from that point.

At 4:15 p. m. Captain Porter broke up his station, threw its equipment in the Ambulance Company wagon and started away in compliance with orders. He left a couple of reliable men to take charge of nearly a dozen desperately wounded soldiers, having provided them with dressings, medicines and nourishment for use during the night.

The Director of Ambulance Companies Undertakes the Early Sanitation of the Battlefield.

Returning to Major Ryder, in command of the four Ambulance Companies of the Division, on the capture of the enemy's trenches, about 1 p. m., he received the orders of the Chief Surgeon, already quoted, and started away to put them into execution. These orders were general in nature and placed upon him the initiative as to the details which the Chief Surgeon himself had neither time nor opportunity to consider, and as he galloped along he reflected that it devolved upon him to devise in each and every case the ap-

propriate methods of procedure for the tactical direction of his relief units.

After issuing the orders to the Ambulance Companies, already quoted, he preceded these organizations to the field, rode over the localities indicated and determined the most advantageous sites which they presented for the establishment of Dressing Stations. These he pointed out to the medical officers who came in advance of their Ambulance Companies, so that the most favorable conditions which the locality presented for litter collection, dressing station facilities and ambulance evacuation might be secured. Inasmuch as action had ceased except the rear guard action going on west of Mount Olivet, he was no longer under the necessity of regarding protection from fire—which during battle was a prime requisite—as of any great importance. He had, of course, to locate his Dressing Stations more or less centrally within the zones where wounded lay thickest—or at least as convenient thereto as possible. Within these zones, however, he appreciated that there was often very material difference in respect to choice, depending on the fitness of the terrain for movement of wagons, nearness of roads, presence of water, fuel, buildings, forage and other conveniences. The presence of these latter, through the greater comfort of the wounded which they insured, might at times more than offset the disadvantages of a slightly longer or more difficult litter carriage, and he appreciated that it was, therefore, necessary for each case to be decided with reference to its own particular needs and merits.

His action with reference to the location of Ambulance Company No. 3, which went into operation more than half a mile north of the 126-125 road, has already been noted. The location of Ambulance Company No. 2, which was to go in some 1,000 yards farther south, he put in at the northeast corner of the orchard, at the end of the 120-124 road. This site was a little higher up on the hill than he desired, but the

slope was smooth and open and near this point the wounded were many. The enemy had burned the farm house and outbuildings, which lately had stood there, so as not to interfere with their fire, but there was an excellent well, plenty of fencing for fuel and shade available in the orchard. He, therefore, indicated to the medical officer from Ambulance Company No. 2 that he should establish his station at this point.

South from 124 toward 120 there seemed to be many wounded. The bearer and dressing parties operating from the Dressing Station of Ambulance Company No. 2 were directed to collect them at the latter station pending the coming up of the Field Hospitals, when one would probably be established in that locality.

Galloping away toward 112, he passed by trenches full of wounded, and as he gained the crest of Mount Olivet, he saw the enemy slowly retiring in the direction of 88 and some were apparently crossing the Big Stranger creek. Our artillery was firing into them, and several regiments of our infantry, a mile or more down the slope, seemed hotly engaged with the rear guard of the enemy, located in the ravine a mile north of the first bend in the 112-114 road. Some hostile artillery, located on the hill just northeast of 88, were also firing on our troops and delaying their advance. The enemy seemed to have suffered severely in his retreat, as his field glasses showed Major Ryder that the road and fields to the west were dotted with dead and wounded.

Before reaching 112, he saw the farm houses in its vicinity, as shown on his map, had been set on fire and were burning furiously. A little distance back of the more northern one, however, a barn was still standing. Riding over, he found it partly full of hay and a well close by with pump for use in watering stock. It already contained a number of the enemy's wounded, who had worked their way back and were left behind here when their forces

retreated. This place seemed to be a suitable point for the collection of the many wounded in and near the enemy's trenches on the military crest to the east, and was the most available for the present for their collection from the slope on the west of Mount Olivet. For the handling of the many wounded farther down this slope other measures seemed necessary. He therefore verbally directed the medical officer of Ambulance Company No. 4, who had already arrived when he rode up, as follows: "Establish a Dressing Station at this barn, collecting wounded on the east to and including the trenches, and on the west for about 1,000 yards. Put out a line of ambulance guidons as markers from the fork of the road at 112, to show the wounded moving from the west the way to your Dressing Station. Move your ambulances down the 112-114 road as far as they can go without coming too much under fire, to assist collecting parties working in that direction. They bring all wounded here."

Major Ryder then wrote the following order, which he marked "urgent," showed it to the medical officer of Ambulance Company No. 4 and told the latter to give to his orderly for delivery to the commander of the half of Ambulance Company No. 1, which had been directed to move to the battlefield:

112, Mount Olivet,
16 Sept., 1910, 2:30 p. m.

C. O., Det. Amb. Co. No. 1.,
At Dressing Station Amb. Co. No. 2, Mount Olivet.

Move your detachment down 112-114 road, collecting wounded beyond 1,000 yards from 112. Ambulances of Ambulance Company No. 4 work down road as far as possible without coming under fire, coöperating with you.

Establish a collecting station at a suitable point on or near the road, and notify ambulance commander of its location.

RYDER,
Major, M. C.,
Director Amb. Cos.

With that, Major Ryder rode rapidly down the 112-114 road to get an idea of the number of wounded on the west slope of Mount Olivet. Our turning movement had forced the enemy to retreat northwest, and most of his wounded lay along the general line 112-88. He was himself about half a mile north of the road to 114 when a stray shot killed his horse. Taking that of his orderly, he told the latter to get another from the Ambulance Company at 112, then to go to that located north of 124 and meet him there. He himself rode back through the fields, stopping a moment at the Dressing Station now being established at 112, Company No. 4 having arrived, and then continued to the station of Ambulance Company No. 2 where he remained a little while to see that the work went on to best advantage.

While thus riding the field to start his relief organizations into operation at suitable points, he had gained a good general knowledge of the number and distribution of the wounded requiring assistance and evacuation. He now made a hasty calculation based on the amount of transportation available, the wounded to be carried and the distance to be covered, which showed him that even with the great assistance which the civilian wagon train would render, the transportation available was not sufficient for desired results. His inspection of the field also convinced him that even two Field Hospitals would be scarcely enough. He therefore wrote the following, which he sent off by his orderly, who had just now rejoined:

Amb. Co. No. 2, near 126,
16 Sept., 1910, 2:45 p. m.

Memorandum for Chief Surgeon, First Division.

Personal inspection of the field convinces me that our transportation and Field Hospital facilities are inadequate.

When the Dressing Station of Amb. Co. No. 1 can be moved, I propose to put it in on the 112-114 road, as far to the front as possible.

I recommend that Field Hospital No. 3 be ordered up to go in near 112; and that the personnel of Field Hospital No. 4 come forward with its emptied wagons to assist on the field and load and return with wounded.

Information as to action taken hereon is requested.

RYDER,
Major, M. C.,
Director Amb. Cos.

In about half an hour the orderly came back and delivered the envelope in which the above message had been contained. It was endorsed as follows:

1st Div., Mt. Olivet,
16 Sept., '10, 3:10 p. m.

Orders by wire just sent F. H. No. 3 to come to 112 with personnel and empty wagons of F. H. No. 4.

SHARP,
Lt. Col., Chf. Surg.

On receipt of this information, Major Ryder modified his plans accordingly.

Major Goodman Arranges With the Line of Communications for the Evacuation of Wounded by Trains.

Complying with his orders to arrange for loading the hospital trains, Major Goodman, the senior assistant to the Chief Surgeon, rode with his orderly rapidly toward 224. His mission was to make sure of the relief of the sanitary service of the front by the Line of Communications as the former had, in turn, relieved the combatant forces to which they were attached of the incubus of the wounded. As he rode back to Leavenworth he reflected that as the wounded in the stations of the front diminished they must correspondingly increase in number in the stations further back; these latter stations also had to be suitably evacuated lest they become clogged, at which moment the movement from the front would have to cease and the Division Commander would no longer be able to make his plans without reference to the hampering effect of wounded whose presence, for humanitarian and political reasons, he could not afford to disregard. As a military man Major Goodman was quite in accordance with von Schellendorf, of the German General Staff, who wrote: "The system of evacuating sick (disabled) forms the basis of the entire medical service in the field." More than all that, as a doctor he appreciated that the wounded themselves could not receive the character and amount of the attention and conveniences which they ought to have, until they had been distributed among the great Base and General Hospitals far in the rear and undisturbed by the conditions of war, where every facility had been provided for their recovery and comfort. He believed that the main stream of wounded should pass on through Leavenworth and that only those should be halted whose condition was unfavorable to further imme-

diate transfer or for whom the service of the Line of Communications was temporarily unable to provide transportation. As nearly as could be done, it was desirable to have evacuation of the wounded at any point correspond to their inflow; but it was necessary in doing this to hold the personnel of the sanitary units within their proper relief zones where they could keep in touch with the organizations to which they had been assigned. He realized that the further a Hospital Corps man got away from his organization the more difficult it was to get him back, and how easy it was to have sanitary units become depleted through letting members of their personnel get out of hand. The proper idea was to keep the various relief units in constant touch with each other, but to confine their energies to their own proper zones as they cared for and passed the disabled steadily and swiftly back from one relief group to another.

Just as he turned at 136, he saw a train of ambulances moving at a trot over the ridge near 50 going toward the front. He overtook several dozen wounded men on foot on his way back, whom he told his orderly to notify as they were passed to proceed to the railroad at 224 and wait there. Arriving at the latter point about 2 o'clock, he saw several sidings but as yet no hospital train was present. The ground was level and adapted for loading. There were a couple of large warehouses near the track which seemed suitable for the temporary reception of wounded in case the return of the ambulance trains to the field would be otherwise delayed. Continuing on, he reached Evacuation Hospital No. 1 about 2:15, where he met Lt. Col. Forward, Chief Surgeon, Line of Communications. The latter informed him that six medical officers and seventy-five Hospital Corps men had already come up from the Base with the train bringing two battalions of the 47th Infantry and were now held in the railroad yard. The Chief Quarter-

master had just telephoned him that the desired number of freight cars were not available and that the three hospital trains required would have to be made up with half of passenger cars and half of freight cars.

Major Goodman said that he thought that this arrangement was even better than the one originally planned. He would advise that the personnel and supplies sent up for the Line of Communications service come up to 224 on the first train; all the other assistance that would be necessary would be two mounted Hospital Corps men. He was there, he said, to make sure that the divisional sanitary service made efficient contact with the sanitary service of the Line of Communications. He said that he would also like a memorandum showing the hospitals to which severely wounded and slightly wounded, respectively, should be sent. Lt. Col. Forward detailed the orderlies and gave him the statement desired, deducting from the capacity of the proper establishments the 125 wounded who had already, in various ways, arrived in Leavenworth and been accommodated there. He called in Major Carr, M. C., whom he said had been designated by him to take charge of the work of entraining and evacuating the wounded.

Riding to the railroad yards with the last named officer, Major Goodman found that the first hospital train was nearly made up. The medical officer in charge of the sanitary detachment brought up from the Base was ordered by Major Carr to put all his men and supplies on board these cars as soon as possible. They themselves galloped to 224, where the train shortly appeared and pulled up on the siding and the men and all the supplies except what the service of the present train would require were unloaded. Major Carr stated that he considered that for the 40-mile trip to Plattsburg the less severely wounded should be assigned to the passenger coaches in the proportion of one to each full seat, or 32 per coach. As to the freight cars,

he would bed them down with the straw placed therein by the Quartermaster and allow twenty-five recumbent wounded per car. He figured that his train of 15 cars would thus accommodate about 425 mixed wounded. He would put the most severe cases in one of the freight cars, assigning a surgeon and two Hospital Corps men to take charge of this; the less severely wounded would go in the six other freight cars with two Hospital Corps men in each; the remaining surgeon and nine Hospital Corps men would go in the eight day-coaches, completing the train. He would see that cars were prepared, plenty of water was put aboard in the tanks and buckets and supplies were duly distributed. A fire would be built near the track and buckets of the canned soups which he had brought up would be heated.

While the personnel of the hospital train was accomplishing this, several groups of slightly wounded on foot came in and were made comfortable in the passenger coaches. The mounted orderlies were sent out to 66 and 138 with orders to remain there, direct all wounded to 224, and see that the transportation carrying wounded did not lose the proper road, especially after dark. Everything was then ready to handle the large number of wounded who would shortly begin to arrive. As soon as Major Goodman saw that this was the case and that there should be no interruption in the flow of wounded from the field from lack of coöperation or congestion at this point, he told Major Carr, of the Line of Communications service that he considered that the situation at the entraining point as one for which the Chief Surgeon of the Division need have no concern. Mounting his horse he returned to the front, reporting to Lieut. Col. Sharp that contact and coöperation between the sanitary services of the front and of the rear were complete and satisfactory. He then asked and received permission to assist in Field Hospital No. 2 during the night.

Measures Are Taken for the Burial of the Dead.

When Lieutenant-Colonel Wellman, Sanitary Inspector of the Division, received his orders to supervise the disposal of the dead, he rode with his sergeant and orderly rapidly over the field to determine the character of the situation he was directed to meet.

He estimated that our dead numbered nearly 400, mostly lying on the east slope of Mount Olivet and the larger part of these near 124; the enemy's dead he thought might amount to 300, many lying in the trenches on Mount Olivet, and a considerable number lying near 112 and west of that point. The enemy was still fighting a rear guard action as he retired toward Big Stranger creek with our forces pursuing, and from his knowledge of military tactics the Sanitary Inspector felt sure that the enemy would lose many near Big Stranger creek in trying to effect a crossing. These last he himself would have to disregard for the present.

His problem seemed to resolve itself into the following requirements: to bury our own dead and those of the enemy separately, and to choose locations therefor which were at once economical of time and labor and suitable from the sanitary standpoint.

He therefore rode up to Headquarters, 1st Brigade, which he found half a mile northeast of 112, and learned from the Brigade Adjutant that no orders for burial had as yet been issued.

The Sanitary Inspector thereupon said: "Two companies from this Brigade will be needed to dispose of the dead. One company should take intrenching tools and deepen the enemy's trenches on the crest just east of 112 for a distance of about 150 yards, as a common grave for hostile dead; these trenches are now about three feet wide

at the bottom and four or five feet deep and should be deepened to six or seven feet without widening. The dead there will lie longitudinally in pairs and in two tiers. Identification tags are removed from their bodies before burial.

"The other company should act as a collecting party, covering all territory lying north of the 112-114 road, and its prolongation east of the 110-126 road, including also the position of the 2d Artillery. If your brigade had any men killed east of the latter road, they also should be searched for. If the searchers find any wounded apparently overlooked, they should notify the litter parties collecting wounded, or in the absence of the former bring them to the nearest Dressing Station. This company should bring in our own dead as well as those of the enemy, but the former should be taken to 122, where the 2d Brigade will bury them. Have your men carry the dead in on blankets and also use your ammunition wagons for this purpose. The bodies should be laid in rows convenient to the graves, but should not be buried until so directed by me. The dead of your brigade taken to 122 should be kept separate from the others to facilitate their identification.

"Your regimental chaplains should report at once to 122 to assist in identification and hold religious services.

"One officer or non-commissioned officer from each company should also report there later to assist in the work of identification needed in preparing the lists of our dead, wounded and missing.

"I request that one regimental medical officer from your Brigade be also sent there to assist me."

The 1st Brigade Adjutant stated that orders embodying the above would at once be issued, but said that he was curious to know why a doctor should be needed with these dead men, especially when so many wounded required treatment.

To this the Sanitary Inspector replied:

"We must, under the International Red Cross Convention, carefully examine every body to verify the fact of death and make sure to avoid burial of those merely unconscious. The Manual for the Medical Department also requires that register cards shall be made out for dead with the same data as for wounded. This information is required in answering the natural questions of relatives and friends of the dead, in determining rights of pensions of relatives, and is also of much professional importance to medical officers in estimating the fatality which may be expected from different kinds of wounds in different regions. No one but a doctor can perform the above duties. To assign a single surgeon from your brigade for this temporary work would cause little hardship to the wounded."

The Sanitary Inspector then rode to Headquarters, 2d Brigade, which he found south of midway between 112-114. He made request of the Brigade Adjutant there similar to that already quoted with reference to the 1st Brigade, except that he otherwise said:

"We will bury our own dead in the northeast quadrant of the cross-roads at 122. Have one company dig a trench about seven feet wide, six or seven feet deep, and about 125 yards long; dead will be placed transversely therein and in two tiers. Identification tags will not be removed from bodies, but will be buried with them, after the name, number and organization stamped on each have been noted on the register cards of the Medical Department and for the lists of killed, wounded and missing. If the bodies are exhumed later for reburial in our own country the aluminum tags will then permit of their identification.

"The company you send out to collect wounded should work south of the 112-114 road and its prolongation eastward, to include our Dressing Station midway between 126

and 128, and southeasterly to include the position of the 1st Artillery and the battlefields of the 10th Cavalry."

He said that if military conditions permitted he would make the same medical records for the enemy's dead as for our own, for national hostility did not extend to a dead brave opponent and his parents, wife or children; and any information so gathered, together with any military identification marks, tokens and valuables removed from an enemy's body, would, under the terms of the International Red Cross Convention, have to be sent to the military authorities of his country as soon as possible.

Lieutenant Colonel Wellman then proceeded with the duties already outlined, maintaining general supervision over the work and assisting his two medical officer assistants. The chaplains for the time being took charge of all valuables and likewise of the identification tags of the enemy, they having come on the field with a supply of stout manila envelopes in their haversacks for this purpose.

The Attitude of the Chief Surgeon, 1st Division, During the Afternoon.

During our pursuit of the enemy after the latter withdrew from the trenches on Mount Olivet, the Chief Surgeon remained at Division Headquarters, which he found had been re-established near 112. Once or twice during the afternoon he made short trips to convenient points nearby, where he could get a good general view of the more important parts of the battlefield and estimate the sanitary situation thereon. He saw that the relief work seemed to be well handled by the sanitary personnel of the various regiments, observed the Ambulance Companies come up and go

into operation under Major Ryder's efficient direction, and finally the arrival of Field Hospitals Nos. 1 and 2 on the field. But most of the time he sat near Major General A, keeping in touch with the tactical situation and its developments, upon which he appreciated that his own final sanitary measures would largely have to depend. He endeavored less to obtain a personal view of the different phases of the battle than to gain a complete knowledge of the entire operation. There was always the possibility that the unexpected might happen to cause modification of the plans which he had already made and was now preparing to make. No news came in that he did not consider it in its possible sanitary aspect. He made notes of all information sent in to headquarters which could in any way affect the working of his own department. He also made a few special assignments of sanitary personnel from time to time, calling in, for example, a couple of surgeons from the Engineer Battalion, which had not been engaged, two from the ammunition train, one from the reserve regiment of the 3d Brigade, and one from Company A, Signal Corps, to assist in the work on the battlefield.

He did this after consultation with the Chief of Staff and making sure that such detachment of medical officers would not interfere with the probable interests of the military units with which they were serving. Later he learned that the commanding officer of the Engineers at first declined to recognize any such order of the Chief Surgeon, stating that the surgeons were a part of his organized command and that he proposed to keep them with it on the possibility that their services might later be required. The senior medical officer with the battalion informed him, however, that Field Service Regulations gave the power of command to the Chief Surgeon over the personnel of his own department in an emergency, and that probably medical assistance was so urgently needed by many wounded

elsewhere in the Division that the latter was concentrating there all such as could possibly be temporarily spared anywhere else. On this the engineer major withdrew his objection.

A little before 3 p. m., when it was evident that the enemy would shortly have recrossed the Big Stranger with his entire force, the Chief Surgeon rode from Division Headquarters to the Dressing Station in the vicinity of 112, from which part of Ambulance Company No. 1 and all of No. 4 were working, which had been in operation a little more than half an hour, and thence along the enemy's trenches to the east, whence he could get a general idea of the relief work necessary and now going on. Field Hospital No. 1 had just come on the field and was being established, and No. 2 could be seen moving off the road to the south, apparently preparing to locate. It appeared to him that the sanitary organizations operating on the eastern slope of Mount Olivet could attend to the necessities there, but the number and character of the wounded on the top and to the westward of Mount Olivet made it quite evident that the mobile relief units in operation there would be quite insufficient in both personnel and equipment to meet properly the needs of the situation. Distances on the west slope were very considerable, and he saw that while the wounded there were numerous they would come in relatively slowly. Moreover, the transportation of the Ambulance Company working here was being used to bring wounded in to the Dressing Station instead of evacuating them from it; and as the more slightly wounded of the enemy had been able to work their way back toward Big Stranger during the fight, the wounded which our men found abandoned on the field after the enemy had been driven out of his position represented a very severe class of cases. He could have ordered up Ambulance Company No. 3, which later closed its station and went to Field Hospital No. 2 for temporary duty to

assist with the wounded taken there, but the special need on Mount Olivet was for a sanitary unit of a different and more substantial character.

The Chief Surgeon therefore rode hastily back to Division Headquarters, where he found an orderly from Major Ryder with the written memorandum on the same subject already quoted. He immediately informed the Chief of Staff that he desired to bring up another Field Hospital to go in near 112. The latter assented and said that it looked as if the Field Trains also could shortly be ordered up. The Chief Surgeon then wired the following order:

1st. Div., Mt. Olivet,
16 Sept., '10, 3:10 p. m.

C. O. Field Hospitals No. 3 and 4,
Leavenworth.

Move Hospital No. 3 immediately to 112, via 220-106-128 road. Personnel and empty wagons of Field Hospital No. 4 will accompany it. Expedite.

SHARP,
Chf. Surg.

He at once sent a messenger to Field Hospital No. 2 to notify the Director of Field Hospitals of this action.

He considered that by using every effort these Field Hospitals could, in the present clear condition of the road, arrive in position in less than three hours; if the Field Trains got into the roads ahead it would take more than an hour longer. If he had known in advance the outcome of the fight he might have ordered them out from Leavenworth an hour or so earlier, but he felt that the resulting slight delay in getting up their facilities and assistance would do no great harm.

While thus physically—though not mentally—more or less idle, he happened to overhear one line officer remark to

another that it seemed queer to see a surgeon sitting impassive with wounded needing attention all about him. He promptly told the speaker that he must entirely misunderstand the functions of a Chief Surgeon, as these must be purely administrative during battle if the proper duties of his position were to be performed; that a single pair of skilled hands could accomplish little for the relief of the suffering but that a trained brain coördinating and directing the labor of a thousand pairs of hands could do much for humanity. He said that during and immediately after a battle the administrative responsibilities which devolved on a Chief Surgeon were unquestionably greater than those resting on any other staff officer except the Chief of Staff; that the sanitary personnel was numerically larger than any other component of the Division except the troops of the line, and that every member of that service had to be given proper employment at the proper time, in the proper place and in the proper way. He invited attention to the fact that, at the present moment, he himself was directing the energies of nearly 1,000 medical officers and Hospital Corps men, not considering numerous bandsmen and civilians distributed over a battle front a mile long and a line of evacuation about eight miles long; nearly three solid miles of vehicles were evacuating wounded alone, field hospitals capable of sheltering about 650 wounded had to be administered at the front and some 3,000 casualties were pressing for care and disposition. This total personnel and material, he said, was numerically almost equal to that of a brigade and, from the nature of the case and helplessness of many disabled individuals, was far more difficult to handle than a brigade of fighting troops. "You can imagine," he said, "the chaos on the field and in the rear which would result if this vast aggregation of sanitary men, material, and wounded were without constant direction by an administrative head. It would be even less desirable or proper for me to disre-

gard my administrative responsibilities and go over yonder to the hospital and begin to operate than it would be for the Chief Commissary of this division to go back now to Leavenworth and examine into the quality or means of preserving foodstuffs, or the Chief Quartermaster to choose this time to begin buying shoes or mules. All of us are here entirely in the status of staff officers, to administer our own departments and advise the General on all matters pertaining thereto."

The line officer addressed said that he regretted that his thoughtless—and he could now see, erroneous—remark had been overheard, but that so many line officers had become habituated to the purely professional routine of medical officers in posts that they had entirely overlooked the fact that the latter had new duties and vast responsibilities to undertake and carry out when scenes and conditions shifted from those of peace to those of war. He excused himself in part, however, by saying that line officers were not alone at fault in this, as a number of medical officers themselves had seemed equally unable to appreciate the profound change in the conditions and situations resulting from war and the unaccustomed duties which would then devolve upon them.

The Chief Surgeon remained with headquarters until the battle was over and our forces had been ordered to bivouac on the field. At this time, as already mentioned, he was doing little but following the military movements to their conclusion, with a view to the better and more prompt handling of any sanitary situation which might unexpectedly develop. From time to time he was called by the General or the Chief of Staff and asked his opinion or advice upon one point or another. As to the effectiveness of the relief work going on he felt that he need have little concern. Later, he would inspect the relief units and personally

make sure that everything was being conducted to best advantage in them.

It was now a far less trying time for him than during the previous several weeks, when he had been more than busy in breaking in his medical officers and sanitary soldiers, accustoming them to the new duties which war would devolve upon them; and seeing that all acquired a clear understanding of all parts of the official machinery of the sanitary service, the purposes for which its relief organizations were employed, the fundamental necessity for their co-ordination, and the general principles and methods by which the desired results would be obtained. His unvarying efforts to this end had been gratifyingly successful, and when the troops of his Division moved forward into battle that morning he felt that he stood at the head of an efficient sanitary organization entirely able to perform its own important part in the military establishment, its resources conserved yet readily available at brief notice, and its personnel so disposed and trained as to be able to set efficiently to work as soon as they received a few brief orders as to when and where to begin. More than such laconic general orders he could not—and did not attempt to—give, for he appreciated that every situation presented its own special minor problems and that these changed in kaleidoscopic fashion during the progress of the battle. As his general directions were passed down through the steadily broadening official strata of his subordinates, each of those responsible under him amplified or modified the orders received from higher authority into more specific and detailed instructions, in the performance of the general duty originally required but suitable to the local conditions actually encountered. Thus the original order of the Chief Surgeon for the Ambulance Companies to go into operation in a general locality had, in its ultimate application and ramifications, resulted in a private of the Hospital Corps directing a couple of bandsmen

to dress the wound of a designated patient, pick him up in a designated way and carry him in a designated manner to a designated point. Appreciating that it was impossible for him or any other single man to know all details, the Chief Surgeon therefore rose above them, leaving their proper individual solution and management to the subordinates whom he merely held to strict accountability for results.

Though himself directly responsible to Major General A, he appreciated that his efficiency in his duty as Chief Surgeon would depend upon the efficiency of his subordinates in their several positions and parts. At the outbreak of hostilities he had realized that his functions were chiefly to organize, instruct, co-ordinate and direct. Now that the battle had come, he rested secure in the knowledge that his efforts had created an administrative machine which, once set in motion, was capable of operating itself. If he had now felt any special anxiety as to how the relief work was going on here and there, he would have regarded it as a self-recognition of his own relative inefficiency in previously carrying out the duties of his office. Some of the other Chief Surgeons of Divisions in the First Field Army had been rather inclined to belittle his efforts to prepare every unit of his personnel for war in camps of peace; he wondered how some of these men who condemned the study of theory as a preparation for actual conditions would feel when their own Divisions came under fire and they themselves were beset—as he knew they would be—with messages from their uninformed subordinates as to how this, that or the other local situation should specifically be met. For his part, he was now very glad that he had believed that just as it was proper that his medical officers had been required to study the theory of medicine and surgery before being licensed to enter on their practice, so when they entered the army they should be required to learn the theory of sanitary organization, tactics and administration before

the time came when they were suddenly required to take suitable action based on this knowledge on the battlefield in sanitary emergencies. Now, like Major General A, himself, Lt. Col. Sharp was one of the least physically active figures on the battlefield; merely supervising and directing in the knowledge that trained subordinates would efficiently accomplish in detail the divers tasks which he, in a general way, set before them.

The Chief Surgeon remained with the staff until the enemy had retired across the Big Stranger, our pursuit seemed to be checked and Major General A took the necessary measures for the security and encampment of his command during the night. With the cessation of active hostilities, Lieut. Col. Sharp became free to investigate into the efficiency in detail of the general measures of sanitary relief which he had already put into operation throughout the 1st Division.

PART V.

THE SERVICE OF SECURITY, INFORMATION AND SHELTER IN THE FIRST DIVISION AFTER CESSATION OF PURSUIT

and

THE COMPLETION OF THE SANITATION OF THE BATTLEFIELD, THE SERVICE OF EVACUATION AND HOSPITALS AND THE FINAL SANITARY ARRANGEMENTS DEPENDING THEREON.

Major General A Makes His Dispositions for the Night.

At 4:30 p. m. Major General A issued the following order:

1st Division, Mt. Olivet, Kans.,
16 Sept., '10, 4:30 p. m.

Field Orders
No. 8.

1. The enemy has been completely defeated and driven across the Big Stranger, but has halted there.

This division will suspend the attack and go into bivouac for the night.

2. The 1st Brigade will bivouac west of 90 between the road and the stream to the north.

This brigade will furnish the necessary protection to the north and west as far as the Big Stranger at 88.

3. The 2d Brigade will bivouac near and east of the orchard 1000 yards south of 90.

It will cover the front between the 90-88 and the 112-114 roads, both inclusive, observing to the Big Stranger.

4. The 3d Brigade will bivouac near 116, and will furnish the necessary protection from 114 to 168 inclusive.

5. The Artillery Brigade will bivouac between the 110-126 road and the stream to its west.

6. The 10th Cavalry will bivouac near 172, furnishing one-half troop to report to each infantry brigade for outpost duty.

7. The Engineer Battalion will bivouac near stream crossing between 108-110.

8. The wagons of the field trains of organizations to

bring up necessary rations and forage will at once start forward to join their organizations.

After the necessary issues are made, the wagons will return to-night to their present park. Each infantry battalion must have its full quota of ammunition on men and in wagons before dark. For this purpose a small arms section of the ammunition column will be placed at 128.

The empty wagons of the column will return to-night to the park of the division trains.

The Artillery Brigade will be supplied with ammunition under direction of the Brigade Commander.

Artillery ammunition for resupply to the ammunition column will be obtained at the depot in Leavenworth.

No wagons of the field trains or ammunition columns will use the Lecompton road, which is reserved for the wounded.

9. The Ambulance Companies and Field Hospitals, under the direction of the Chief Surgeon, will continue their work. Every effort will be made to evacuate the wounded as promptly as possible.

10. Company A, Signal Corps, will connect my camp with that of all the Brigade Commanders.

11. I will camp at 110.

A.
Major General.

Copy to each Brigade Commander, Col. 10th Cav., Maj. Engineer Bn., Capt. Co. A, Signal Corps, and Chief Surgeon. Extract to officers in charge of field trains and ammunition columns.

Lieutenant Green Helps in Field Hospital No. 1.

Field Hospital No. 1, in which, about 3:30 p. m., Lieutenant Green found himself assigned to temporary duty, presented an appearance of equipment, comfort for patients and possible greater permanence of position which was in marked contrast with conditions and facilities for the relief of the wounded as he had already seen them on the firing line, the regimental Aid Station and the Ambulance Company Dressing Station.

It seemed to him that here was a relief institution somewhat less mobile than an Ambulance Company, yet sufficiently so as to be able to follow closely after fighting troops and relieve pressure in possibly several Dressing Stations, as each of these in turn had done the same for a number of regimental Aid Stations. From a distance he had seen it established in all its completeness within about an hour, and he had had heard that it took little longer to break up and repack it in the wagons. Always available close behind the fighting troops, he was told by Captain Wise, the Field Hospital medical officer in charge of his ward, that it was thrown in by the Division Commander, or under his authority by the Chief Surgeon, at or near where the wounded lay thickest—if the issue of battle permitted its location on the battlefield. If the lines were merely held, or advanced only slowly, such Field Hospitals were sent into operation one by one, as the increasing number of wounded made this necessary, at convenient and safe points sheltered from fire. If the country was open, his informant said that this point or points might have to be three or even four miles in the rear to escape artillery fire, especially if it were near a road over which reinforcing troops were advancing; if the country was broken, it could be very much nearer. In fact, with suitable

terrain it might, for example, come so close to the front as to be located under shelter of a ridge which was so strongly held that the occupying troops would probably not be dislodged. Thus the considerations governing its location, like that of other relief stations, were necessity and practicability; and common sense, rather than any preconceived diagrammatic scheme, decided in each case the question of position and relation of all these one to another. He learned that Field Hospital No. 2 had already gone in to the southward and that the other two field Hospitals of the Division still remained behind at Leavenworth, though with the excellent facilities for handling wounded as existed in that city as a convenient Advance Base, they would all very likely be brought upon the field; also that if our final attack had not been successful and enabled us to relieve the wounded on the field itself, this hospital and one or more others would very probably have been put in somewhere near the creek lying east of 126 and 110 to care for the cases brought out after darkness had stopped the firing and permitted collection. These establishments, in that case, would have had their wounded evacuated steadily throughout the night, the character of their service under such conditions almost assuming that of Ambulance Dressing Stations, so that if the enemy should make a successful counter attack after daybreak they could pack up and retreat as soon as the Division Commander found that his lines were becoming untenable.

Lieutenant Green inquired what would become of such a hospital if it were choked with wounded and thus more or less immobilized at the time of the enemy's advance. Captain Wise replied that every case which could be sent to the rear would be started as soon as orders to retreat were received, the less severely injured first; the other wounded would be crowded into a few tents and a medical officer and Hospital Corps detail, with a few supplies, would be left to remain in charge of them. The rest of the Field Hospital

personnel would throw the remaining tentage and supplies into their wagons and precede the troops to the rear as the latter drew off fighting a rear guard action.

"But if you leave patients, doctors, nurses and supplies to be captured by the enemy, what will become of them?" said Lieutenant Green.

"Under the International Red Cross Convention," replied the ward surgeon, "our medical officers, Hospital Corps and movable field medical establishments are neutralized. The enemy would not harm them, and would be obliged to return them to us. He might, however, hold them as long as he sees fit if he keeps them for the care of the wounded with whom they were captured. While he keeps them, he is bound to provide pay and rations. The wounded of course are respected."

"But why do you send any equipment, personnel or wounded away at all, if they are to be so provided for and respected?" Lieutenant Green asked.

To this Captain Wise replied: "We wish to save all available hospital personnel and material because our side may need them badly within a few hours, long before a new complete Field Hospital unit could be sent up from the rear. So far as the wounded are concerned, they are regarded as combatants and are neutralized only while helpless. When they recover, the enemy does not send them back—he holds them as prisoners of war. Therefore, in evacuating our wounded, we are careful to send back the less severely injured first because they probably will get well and soon return to the ranks to fight on our side again—with limited time and transportation we would thus select to be captured by the enemy those whose severe crippling injuries would probably prevent their ever becoming fit for service again. Besides, from a humanitarian standpoint, those severely wounded are mostly quite unfit to stand the rough handling inseparable from a sudden evacuation and retreat."

This explanation presented a new point of view to Lieutenant Green, who thus first grasped the fundamental fact that the function of the army doctors, like that of all other officers, was to help to win victories—then to bring such relief from suffering as could be accomplished without undue interference with the purposes for which the war was being waged. He himself had come into the army a short time previously with the expectation of merely continuing therein an ordinary practice of medicine and surgery like that with which he was familiar in civil life; now he found that as an army officer he was expected to look beyond the professional handling of individual cases and to play a part outside of this and in which his own responsibilities—as a factor in the great military organization whose administrative mechanism was rapidly being revealed to him—were very great. The noted surgeons whom he had known in civil life had spent their time at the operating table, and it had been a cause of much surprise to him that the senior medical officer with this division was so rarely to be seen in the hospitals. Now it suddenly dawned upon him that the Chief Surgeon of a Division thought not of individual patients but of administrative methods—the latter vitally involving the welfare of some twenty thousand men and furnishing the means by which doctors, wounded and hospitals were brought together without delay, confusion or interference with the purposes of war. He had never before realized how much more the Chief Surgeon was doing for humanity and the relief of suffering in this way than if he neglected this executive work to practice his profession on such individual wounded as were fortunate enough to come under his care, while plenty of men and abundant material collected and prepared for just such emergency stood useless awaiting efficient direction and while avoidable neglect and exposure converted the battlefield into a scene of indescribable suffering and horror. Surrounded with wounded as he was at the

moment, Lieutenant Green asked himself what would be their fate if the Medical Department of the 1st Division had not been organized into an administrative machine intended to free the commander from the crippling incubus of his wounded on the one hand, and on the other to provide humanitarian relief in a way which should bring the greatest good to the greatest number. When he had seen Major Ryder riding over the field it had struck him as peculiar that this surgeon was not engaged in alleviating some of the suffering all about him—now he began to see that he, like Major Oversight, Director of Field Hospitals, was one of the principal administrative agents through which the master mind of the Chief Surgeon, informed as to every phase of the situation on the battlefield and in the rear, was working out a carefully considered general plan and steadily and surely bringing relief and order out of suffering and chaos. Later, when the movement of evacuation was going on smoothly and satisfactorily, he saw Major Ryder assume charge of an operating table in the Field Hospital and handle his cases in a way which showed him to be not only a good executive officer but a skillful surgical operator.

In the equipment and supplies of Field Hospital No. 1, Lieutenant Green at first thought that he missed many things customary in civil hospitals, but on further investigation he was rather surprised to find that practically everything which could possibly be required even for the most severe cases and difficult operations was at hand. While sufficient and suitable, the supplies, equipment, instruments, etc., came in compact cases adapted for rough transportation and transportabilty seemed to govern—not a cubic inch of space was wasted and not an extra ounce of weight retained where it could be avoided. Dressings were compressed, foods were concentrated and drugs almost wholly

of active principles in dose tablet form. Even the kitchen and mess outfits were marvels of convenience and compactness. He expressed surprise to the ward surgeon at the ingenuity displayed in reducing weight and bulk—the latter replied that this was absolutely necessary, the question of transportation was of paramount importance in war and in that effort to carry other articles, which might be desirable but could nevertheless be dispensed with, would result in the great liability of all the absolutely essential supplies not being brought up at the time they were required. He added that back in the rear everything contributing to comfort could and should be supplied, but no good military commander would submit to having the mobility of his fighting force unnecessarily impaired by excessive medical transportation, and that therefore all medical relief establishments at the front necessarily partook of the nature of compromise between the tactical and the humanitarian. The results of this compromise were far from unsatisfactory, as could be seen in the equipment of this hospital. At this remark, Lieutenant Green reflected that, as an example, he had been rather shocked to find critically wounded lying on the ground in his ward tents, but later noticed that they had under them bedsacks which made them quite comfortable. Mentioning this to the ward surgeon, the latter said that the first order of the Hospital Commander after his wagons had unloaded was to send them to the nearest barn and have them bring back hay with which to fill these bedsacks. This wagon train had then taken on slightly wounded and started back with them to Leavenworth.

The tentage with which the Field Hospital was provided was of great comfort to the wounded and would enable their retention, if necessary, for several days or longer. When about midnight a severe thunder storm began to rage, Lieutenant Green better appreciated how much the ability to have such shelter brought up to them meant for the welfare of the wounded.

In their character, the general run of cases which Lieutenant Green found in the Field Hospital was quite different from what he had found at the Dressing Station. Between the prompt return of trivial cases to their organizations and the direct evacuation of Leavenworth of the less seriously injured, scarcely any but severe cases seemed to have secured admission to the hospital. Captain Wise told him that the surgeons were on the watch, however, for a class of soldiers who endeavored to exaggerate the gravity of their cases in the hope of getting back to the rear away from danger. As the troops were new, there was a number of these men whose first battle had thrown them into a pitiable mental condition. Later probably the great majority of these would make perfectly courageous and reliable soldiers. The ward surgeon said that all the medical officers endeavored to return every possible man to his company, as a trained soldier thus saved was worth far more to his country than a recruit sent forward to fill his place. The further a soldier got toward the rear, the more difficult it became to get him back with the colors, so efforts were made to detain the disabled at every possible point. By bearing this fact in mind, medical officers could do much to help their country win victories and keep the forces at the front from wasting away. In fact, he said, the strength of an army rested very largely in the hands of its medical officers.

Lieutenant Green learned that under usual conditions it was often necessary for Field Hospitals to establish separate stations to divert and handle the slightly wounded, but that here the Dressing Station of Ambulance Company No. 2, which was operating in immediate juxtaposition, served excellently to relieve the hospital of this class of work. Captain Wise told him that it was absolutely imperative that Field Hospitals be kept free from this class of cases, as they would seriously hamper work therein. It

was only natural that the wounded soldier should magnify the importance of his own hurts, and press for treatment at a time when the hospital resources should be devoted to more immediately urgent cases.

There were all sorts and kinds of severe cases, many of them in critical condition. The latter were as far as possible kept in a designated ward, in a couple of tents of which were further segregated those who apparently had but a little while to live. The dead, of whom there were a good many, were carried out and placed under a tent fly to await the action of the burial party.

Lieutenant Green found a very large number of fracture cases in the wards, whose temporary improvised supports were here carefully replaced by more suitable splints and dressings, the majority of which it was expected would practically be permanent. While the slighter cases which received no treatment except a simple occlusive dressing to prevent infection would probably do perfectly well, much greater care had to be given to the dressing of the more severe and complicated cases, and for this more lengthy and elaborate work the hospital afforded opportunity, facilities and assistance. There was also considerable emergency surgery done here, but again entirely that of a nature immediately necessary to save life. As Captain Wise told Lieutenant Green, no operation was done here which could be postponed without serious danger until the patients could reach a hospital of a more permanent nature; nor would any operation be undertaken if it promised to be unduly protracted and thereby delay the attention which other wounded had a right to expect with reasonable promptness. Not only was it impossible in a tent hospital to be sure of maintaining surgical cleanliness, but it was also highly undesirable to create a class of patients whose condition, as a result of submission to a depressing operation which might

as well have been delayed, made their early evacuation impossible.

The ward surgeon said that his associates in this hospital were all greatly impressed with the fundamental necessity of keeping it a thoroughly mobile organization and of not letting it become anchored through the accumulation of sick and wounded unable to stand moving. They practically had come to regard their hospital merely as a very temporary way station along the route of evacuation to the rear, and as something to get packed up and available for use elsewhere as soon as possible. This, he said, had been a difficult matter for them to learn, for the accepted civilian idea of a hospital was that of a place where persons entered to remain undisturbed until they got well. Moreover it was opposed to that scientific medical attitude which tends to retain interesting cases for purposes of study, and to the feeling of justifiable professional pride which makes the surgeon desire to retain charge of a case after operation until recovery is complete. However, they had finally brought themselves to the proper way of thinking, and now bent every effort to keeping a steady flow of wounded moving to the rear.

"What would be done," said Lieutenant Green, "if in spite of your best efforts the hospital was filled with wounded which could not be removed, and the Division at that time advanced?"

"Under such conditions," replied the ward surgeon, "The Chief Surgeon would endeavor, on being informed by the General of the proposed movement, to have a new Field Hospital outfit brought up by a sufficient personnel from the Line of Communications or the Base as soon as possible. The latter personnel would take over our old hospital and its patients, while we would take the intact equipment which they brought and with our men rejoin the Division."

Lieutenant Green asked how many patients this hospital held, and was told that the official capacity was 108, but that it was understood that the shelter was sufficient for 162 without excessive crowding and that blankets for that number were carried in the bedding cases. There were about 200 cases on hand at present, he learned, and the extra shelter had been secured by pitching some of the tent flies separately—the surgeons and Hospital Corps men, too, had turned over most of their own authorized tentage to the wounded, as they themselves would be at work all night on the wounded and the congestion of the hospital would be steadily relieved from now on by the constant evacuation going on toward the rear. So far as medical and surgical supplies were concerned, there was abundance in the Field Hospitals of the Division to meet the needs of any action; with respect to nourishment, there was sufficient, in the simple, nutritious and easily prepared hospital stores carried along in each Field Hospital to tide some two hundred men over a day or so even without great recourse to the regular ration. By keeping the kitchen and mess outfit constantly in use, there would be no difficulty in cooking for and serving several hundred patients.

Captain Wise said that the official accommodation in all the four Field Hospitals with the Division was but 432, and that even with crowding the equipment only permitted of the comfortable accommodation of about 650 patients. Clearly, the entire hospital provision at the front was insufficient to meet the existing situation. Some 2000 wounded had probably resulted from the present fight, and but two Field Hospitals were at the front, though he had heard that the others had been ordered up. Lieutenant Green would understand, he said, that it would be impossible for a mobile force to carry with it hospital equipment for any very great number of wounded, and such military necessity therefore largely changed the present problem from one of supplying hospital

facilities to patients at the front to one of supplying patients to hospitals at the rear. And there were many other reasons which were apparent to both the line officers and surgeons whereby the sick and disabled should not remain in the immediate vicinity of the fighting troops. He said that the usual accepted provision of hospital beds for an army was 10 per cent of its strength, of which 6 per cent should be administered in the hospitals of the Line of Communications and the remaining 4 per cent included in the General Hospitals far in the rear. The accommodations of Field Hospitals could not be included in the above estimate, as they were intended for temporary and emergency occupancy only.

About 6 o'clock a sergeant entered and said that a mounted orderly sent ahead by an officer in charge of the ambulance train of Ambulance Company No. 2, brought word that his train had started back from 224 about an hour ago, and would probably arrive at Field Hospital No. 1 in about an hour and a half, being delayed by the Field Train of the Division now moving out along the road; the Ambulance Company commander requested that wounded for transfer be made ready and got together so that there might be no delay in loading these ambulances and starting them back. He said that the orderly also reported that after his company ambulances pulled out of 224 they saw those of Ambulance Company No. 3 descending the hill east of 66 and he thought they would probably be back here about an hour after his own ambulance train arrived.

The Commanding Officer of the Field Hospital therefore directed, the sergeant said, that all ward surgeons should as soon as possible send to tents 1 to 6, inclusive, all cases able to travel, after personally verifying the suitable condition of each case, the proper nature and adjust-

ment of the dressing, the presence and proper character of the diagnosis tag, and the fact that the patient's register cards had been fully made out. A list of the names of the patients sent from each ward, with their transfer cards, was to accompany them and they were to be given food and drink before starting; very serious cases might each take a blanket for their comfort on the trip, which the ambulances would bring back on their return. As there was no military necessity for immediate evacuation, no case should be sent which could in any way be harmed thereby.

Lieutenant Green said that he could understand the above order except with reference to the importance which seemed to be placed on the hospital records of each man; it looked to him like undesirable "red tape" to keep men at work making records who he thought ought to be spending their time looking after the wounded. To this Captain Wise responded that though these records were comprehensive they were concise and did not take long to prepare. They were an essential in preparing the lists of killed, wounded and missing which friends and relatives at home would shortly be anxiously scrutinizing; they gave information as to who should be sent back to the rear and the character of the necessary transportation; they served as the basis of not only the medical record of the case but also the subsequent treatment, and without them and the diagnosis tags the surgeons at the various stations in the rear through which the men passed would have to take down the dressings already applied to determine the nature of the injury in deciding whether it had already been properly treated; finally, they served to adjudicate later claims for pension with justice to both the Government and the soldier. There were many points, he said, which made such records of basic importance to the wounded man, his friends and those who had him in professional charge.

Lieutenant Green and the ward surgeon then busied themselves in compliance with the above quoted directions, and had just finished with their wounded when the ambulance train appeared and began to load. This latter work he noticed was done by the ambulance company litter men under the direction of an ambulance company officer. On inquiry, he found that the Dressing Station of Ambulance Company No. 2 had now been broken up and its entire personnel had reported for duty in the Field Hospital. The twelve ambulances took 48 recumbent patients and a less severely wounded man on the seat with each driver—or 60 cases in all.

The ambulance company officer in charge of loading said that as these cases were severe he had been directed to go with them. He had just put his signature on a duplicate list of the patients, as a memorandum receipt for the Hospital Commander transferring them and the possible tracing of any cases found missing later, and was mounting his horse to start the train, when Major Ryder appeared from the operating tent and directed him as follows:

"After discharging your wounded, remain with your train over night in Leavenworth. Your mules will then have done more than 40 miles today and the train of Ambulance Company No. 3 will shortly return and be able to take all the remaining cases in this hospital able to travel. Feed your mules in the quartermaster corral and have your men sleep in the ambulances. Start back here at daybreak."

Shortly after this, the train of Ambulance Company No. 3 came in. There were here remaining but 32 severely wounded able to travel, which with 8 patients able to sit up were sent off about 7:45 in eight ambulances. These latter were given the same orders as those just quoted; the remaining four Major Ryder ordered to report to 112 and load from the large number of wounded awaiting transportation there.

Before the ambulances started away, Lieutenant Green overheard the Hospital Corps sergeant who had returned from Leavenworth in charge of them, say to a friend that on starting back from town he found the road filled with the Field Train of the Division which was now rejoining the command. However, he got a place in the line by going to an officer in charge of a section and asking him to hold up his part of the column until the wagons in front had moved far enough to give space for the ambulances to slip in; he told the officer that the ambulances were urgently needed at the front where there were very many wounded and asked that they be helped to get on as rapidly as possible.

The sergeant also said that on the way back they had met a civilian wagon train carrying wounded which must have been more than half a mile long, and which was trying to work its way into town along the 126-128-106 road and beside the Field Train moving in the other direction. He said that both columns had to halt while things were straightened out, and the officer in charge of the Field Train came up and gave the medical officer, Lieutenant Newcome, whose first assignment since his commissioning in the service had been in Ambulance Company No. 1, and who was in charge of the train of wounded, the worst calling down he had ever heard. When the latter was asked, among other less polite questions, if he had not received specific orders to take his wounded back via the 132—Lecompton road, Lieutenant Newcome admitted that he had, but that the present route seemed to him much shorter and thus more desirable for the wounded; he had not expected to meet any wagon train, but if he did he knew that in civil life ambulances had by law the right of way. To this the Field Train commander replied that after Lieutenant Newcome had been in the service longer he would learn that every military order had a reason back of it and was to be obeyed promptly,

completely and unquestioned. He said that each military movement had to be worked out in advance in its relation to every other so that there would be no conflict or confusion, and that in doing this every possible factor had to be considered. He informed Lieutenant Newcome that the entire trains of this Division were about six miles long, and that the routes of movement from Leavenworth were not only narrow in places but each was now choked with wagons moving to the front, and it would be about impossible for another train to pass them; there was nothing left to do but for him to pull his wounded off the present road out of the way, work up the hill to the south and try and gain the Lecompton road. The sergeant said that in trying to do this, Lieutenant Newcome and his undisciplined civilian drivers had wagons of wounded scattered over the whole face of nature.

After the departure of this second ambulance train, Lieutenant Green asked permission to stop work for a few minutes for a brief rest, and took this opportunity to move around through the hospital and observe its organization and working.

He found that the hospital tentage was pitched according to the regulation plan, with the Hospital Corps personnel tentage on the left flank facing towards the wards. The Hospital Corps he found used shelter tents, and these had been occupied by wounded who were now being transferred to the recently vacated places in the more comfortable hospital tents. He was told that in the camp of mobilization the Hospital Corps men had been allowed to use regulation hospital tents, but that these had been taken away as soon as the command took the field in the necessary endeavor to cut down weight and bulk for transportation. The medical officers' tents he found also sheltering wounded.

It was already getting dark, and noticing a light just beyond these tents he went over and found himself at the

place where the dead men had been carried awaiting burial. A couple of chaplains and several line officers and sergeants were examining the bodies by the light of lanterns in the effort to identify them. Several of the dead possessed no identification tags, as they had apparently disobeyed positive orders and neglected to put them on or had subsequently lost them. Some of these unidentified dead were now recognized by acquaintances, but one of the corpses had part of his face shot away and Lieutenant Green heard a chaplain say that no one now would ever know who he was. Far up the slopes the lanterns of searching parties showed them moving about.

Turning back toward the kitchen fire Lieutenant Green was struck with the activity throughout the camp. A green lantern had replaced the red cross flag which had marked the hospital during daylight. The tents were lighted with lanterns and he could see the shadows of the attendants moving forward and back. The operating tent was brilliant with the acetylene operating light. There was no confusion or hesitation—everyone seemed to know what he should do and was doing it in a way to co-ordinate his own work with what was being done by others. There was rapidity without haste, and he heard no noise except an occasional quiet order or the low moaning of some sufferer. Clearly here was an efficient relief organization directed by a single mind thoroughly conversant with its principles, details and methods of administration. Lieutenant Green recalled that in the First Field Army there were at least 16 such mobile hospital units, each of which would require management in the same way; he reflected that it was most fortunate for the wounded and his own reputation that he had not been selected to command such a relief unit when his division was ordered to start for the front. He was rather aghast at the blissful ignorance of medico-military methods in which he had started out of Leavenworth that very morn-

ing, anxious to do anything that lay in his power for his country and humanity, uncertain as to what his duties would be, and serenely leaving to some kind miraculous agency the essential—but to him unprofessional and therefore uninteresting—problem of bringing his patients, himself and his hospital facilities together. At last he appreciated that war called into existence elaborate medico-military machinery on a vast scale which was practically never seen and indeed almost unthought of by both line and medical officers in time of peace. And the management of the men and material of the Medical Department in the field was something whose very nature precluded civilian doctors from knowing anything about. Without special study of sanitary administration and the training which could only come through experience, it seemed to Lieutenant Green that these civilian medical men would be of little service at the outbreak of war in advance of the hospitals of the Base and Line of Communications; where in the quiet wards of the latter they could carry on their humanitarian work with the disabled in a way similar to that which had formed their daily routine in civil life, and where they could have time to adjust themselves to new surroundings and learn accepted methods of meeting the military conditions with which they must necessarily be unfamiliar. The management of modern war was clearly a great business enterprise, in which the Medical Department by no means played the least important part and in which neither patriotism, bravery, nor professional skill could offset ignorance of military conditions and methods in securing proper results. He saw now that the management of the Medical Department in war was a specialty of profound military as well as humanitarian importance, and understood why the War Department had almost wholly selected regular medical officers to go to the front and meet the first shock and stress of campaign. Later these regulars could go back and be scattered throughout

the various armies, and the then more trained volunteer surgeons could get their fair share of service at the front without the probability of having their recognized professional abilities largely nullified by administrative inefficiency and disaster. He saw that his country possessed an abundance of excellent professional assistance, and that the urgent need when war began was for medical men who, besides being themselves good physicians and surgeons, were able to co-ordinate and direct the energies of others. Thus realizing that an efficient combination of hospital personnel and medical supplies was an essential preliminary to the relief of suffering and the practice of his profession with troops in war, he determined to master without delay the accepted and clearly effective methods by which this combination was accomplished.

As to the sanitary assistance in this hospital, Lieutenant Green found its regular personnel of 5 medical officers and 47 enlisted men, after deducting 10 men absent as drivers and attendants conveying slightly wounded in the wagons, reinforced by that of Ambulance Company No. 2, which, less its drivers and necessary ambulance attendance, had reported for duty in the adjacent Field Hospital in compliance with orders as soon as its own Dressing Station was evacuated and broken up. Deducting 1 medical officer and 16 enlisted men on duty with its ambulance train moving the disabled, and 2 medical officers and 30 enlisted men out on the field as searching parties collecting the still remaining wounded, there were 2 medical officers and 24 men who temporarily came over from Ambulance Company No. 2 to the Field Hospital for duty. There were also assigned here, under orders from the Chief Surgeon, 1 medical officer and 8 enlisted men from each of the three regiments of the 1st Brigade. There had been also a number of bandsmen

chiefly used as laborers and untrained helpers, but the last of these were just being returned to their regiments. Quite a number of the regimental medical officers also had voluntarily come by permission of their colonels to give a few hours assistance in the hospital. In all, Lieutenant Green figured that there were 10 medical officers and 95 enlisted men of the Hospital Corps personnel on duty under permanent or temporary assignment, with 5 other regimental medical officers giving voluntary assistance. With this large force available, the relief work was being rapidly pushed, even though the character of the more extensive surgical work which the severe cases here made necessary was such as to require considerable time and labor.

The extra sanitary personnel had been appropriately distributed among the different sections of the hospital under its regular organization, the medical personnel under temporary assignment working their brief period as assistants under those officially in permanent charge of these divisions without the raising of any petty question of rank or authority.

So far as Lieutenant Green could determine, the present organization of Field Hospital No. 1 under its almost maximum expansion, and the distribution of regular and temporary personnel on duty therein, was at this time about as follows:

General Supervision—direction of entire work of hospital—1 officer and 1 non-commissioned officer.

Receiving Section (also handling slightly wounded)—bandaging, splinting, feeding, making diagnosis tags, etc.—1 officer, 1 non-commissioned officer and 8 privates.

Operating Section—operating surgeons, assistants, anaesthetists, surgical helpers—6 officers, 3 non-commissioned officers, 6 privates.

Ward Section (three wards)—bandaging, splinting, giving medicine, washing, redressing, feeding, verifying records, etc.—6 officers, 6 non-commissioned officers, 30 privates.

Overflow Ward (outside tentage)—duties as above—1 officer, 1 non-commissioned officer, 5 privates.

Kitchen Section—preparing, issuing and serving food—1 non-commissioned officer and 8 privates. A medical officer also supervised this work besides performing professional duties.

Dispensary Section—preparing, issuing and delivering medicines—1 non-commissioned officer and 1 private.

Record Section—1 non-commissioned officer and 2 privates. Here also a medical officer was nominally in charge, though at the present moment engaged in the operating tent.

Litter Men—transferring wounded, loading ambulances, carrying out dead, etc.—1 non-commissioned officer and 8 privates.

Messengers—2 privates.

Laborers—carrying water, procuring wood, digging latrines, trenching tents, etc.—1 non-commissioned officer and 8 privates.

Transportation Section—8 wagons. These, ordinarily used only for the transportation of equipment and stores, were in the present emergency assisting in removing wounded to the rear. Had there been any liability of the enemy advancing, however, this transportation would have been held in hand for possible emergencies.

Guard Section—A small guard was protecting hospital property, which guard was composed of Hospital Corps men detailed from Ambulance Company No. 2, temporarily serving with the hospital.

From what Lieutenant Green gathered, the above organization was about that which normally existed in a Field Hospital, with the exception of the receiving section and overflow ward, which were hastily created after a severe action to meet the needs of an existing emergency.

But while the organization itself was more or less fixed in general character, it was of such a nature as to render the hospital establishment highly elastic in respect to the number of the disabled which could be handled. The appropriate assignment of additional assistance drawn from outside sources at once enabled each section to proportionately enlarge the scope of its peculiar class of work to meet emergency; while the lessening of such emergency through the steady evacuation of the wounded whose sufferings had been ameliorated therein, permitted corresponding reduction from time to time in the size of the personnel required in each section. This elasticity of the Field Hospital in respect to capacity was a most valuable feature not found in civil hospital establishments, and depended upon its organization as a divisional sanitary unit outside of narrow regimental lines, and with a personnel which could promptly be suitably supplemented by the Chief Surgeon from the sanitary service in any part of the field force. It was of course conceivable that unusual casualty might cause this organization to be overwhelmed for the moment, but it would shortly emerge intact and working efficiently in all its parts, if the fundamental necessity for the steady, rapid and systematic evacuation of such wounded as were put into condition for travel was constantly borne in mind by the hospital commander.

Lieutenant Green wondered what would be done if a vast number of casualties occurring in a small area made it necessary to locate several or all of the Field Hospitals of his Division together. On inquiring of Captain Wise, he learned that each would maintain its own separate organization along the above lines, but that the energies of all these units would be co-ordinated and directed by Major Oversight, Director of Field Hospitals, under whose command they all were. Just as soon as the situation began to clear up sufficiently, one of these hospitals would be designated to receive all cases unfit to stand transportation, the others would transfer all such cases to it as rapidly as practicable, and then one by one pack up their equipment, replenish their supplies and rejoin the fighting force. The Field Hospital becoming thus immobilized by the consolidation of severely wounded would assume the status and name of an Evacuation Hospital, as soon as taken over by the sanitary service of the Line of Communications; which, beside promptly relieving the Field Hospital personnel and bringing up a new unit of equipment for the latter to take to the front, would also bring up the folding camp furniture and other additional articles with which the relatively slight mobility of Evacuation Hospitals and their disconnection from the fighting troops rendered it quite practicable that they should be supplied for the better comfort of patients. Or under conditions deemed suitable by the Commanding General and Chief Surgeon, the Red Cross Society or other organized civil humanitarian associations might be permitted to send up its own equipment and personnel complete to take over those severely wounded by transfer to their own institution and by thus relieving the Field Hospital enable it to pack up its outfit and proceed to the front.

Shortly after he had gained the above clearer conception of the organization, purposes and methods of Field Hospitals, Lieutenant Green overheard the Commanding

Officer of his hospital tell Major Ryder that when the work was well in hand and the more urgent cases had been attended to, he should make a redistribution of the personnel, send most of the regimental personnel back to their regiments and direct half or more of the men of the Ambulance Company to rest, as they were already almost exhausted as the result of an arduous day's work. He said that his own personnel had come in later and was comparatively fresh, and that he was just now sending a message to the Director of Field Hospitals asking that he request the Chief Surgeon to direct half a dozen of the surgeons and about thirty Hospital Corps men of the 3d Brigade, which had done relatively less during the day and would also have had several hours' sleep, to report at 2 a. m. and assist in continuing the work of the hospital. By this means he expected to have about all his wounded properly attended to by daylight, when he would promptly start the evacuation of all able to stand transportation.

He said that he thought there would be a remainder in this hospital of some 50 or 60 severely wounded to whose condition any attempt at removal would be seriously detrimental and perhaps result fatally. In the absence of other instructions from higher authority, these he should consolidate in wards B and C, striking the tentage of ward A and any other tents found not to be required and packing them, with their bedding units and equipment, in the wagons. He said that there might be no immediate necessity for this, but that in war very frequently the unexpected happened and at the front he desired to get his Field Hospital as soon as possible into the best shape to move without delay, in whole or in part, to meet any emergency. To be better prepared for the latter, he said that in the morning he should call for a memorandum from each division of his hospital, showing the amount of supplies needed to replace those which had been used and were necessary to bring the equipment of

his Field Hospital up to the regulation allowance. These memoranda he would have at once consolidated into a requisition which he would direct a medical officer to take to the Chief Surgeon for approval, and immediately after securing the latter his subordinate would personally proceed with a wagon to the Reserve Medical Supplies, get the approved articles from Captain Pluss and bring them back himself. In this way he was certain of avoiding any undesirable delay in replenishing his supplies.

Major Ryder said that he felt the same way, and had contemplated giving similar orders to the commanders of his Ambulance Companies, whose supplies the day's work had in a large part used up. He said that he had always thought that after the regiments had been outfitted to undertake the first line of relief, the Ambulance Companies should be fully equipped with dressings first in case of any possible shortage of supplies, since their work usually began several hours before that of the Field Hospitals and covered a period when the prevention of wound infection was most important. He thought it better that the Dressing Station should have a surplus which could, if required, readily be sent back with the wounded, than a deficiency which would require considerable time to remedy and very materially increase the danger and suffering of the wounded.

About 8:30 the wagon train of Field Hospital No. 1 returned from 224, where it had taken wounded. The sergeant in charge said that these wounded had been put directly on board of a hospital train improvised from freight cars and that they would be sent directly back to the Base Hospital.

He was ordered to establish a corral and park his wagons just north of the Field Hospital in accordance with the regulation plan.

Lieutenant Green worked steadily in Field Hospital No. 1 until, a little before daybreak, the Commanding Officer

of the hospital notified him that the work was now fairly well in hand and that his services and those of some of the Hospital Corps men of his regiment could now be spared.

Lieutenant Green then inquired of some of the Ambulance Company litter men working in the hospital as to where the 1st Infantry was located and was told that it was about two miles northwest of the hospital. He started out with his men in the darkness, but soon lost his sense of direction and stopped to light a match and look at his compass. On examining his pockets, he found that his compass had been lost. Fortunately the storm clouds had passed over and the stars were again shining; he recalled that some one had told him that the first bright star in line with the two stars forming the further side of the bowl of the "Big Dipper" was the North Star, and facing the latter he started obliquely to his left, passing through the camp of the 2d Brigade, and shortly found himself in the bivouac of his regiment.

Only the guards were awake after the hardships of the day. Lieutenant Green reflected that his own men had already been on their feet continuously for twenty-four consecutive hours, yet he knew, if conditions had not been so favorable for the relief and evacuation of the wounded in the present instance, that he and his detachment would have had to continue at relief work in the hospitals until exhausted nature could stand no more. He recalled that some of the line officers had seemed rather amused at the attention which the regimental surgeon, Major White, had paid to the physical condition of his Hospital Corps men, and their training and development in strength and endurance by setting-up exercises, drills and practice marches; now he appreciated that stunted, anaemic, undeveloped weaklings, such as frequently were seen working as orderlies in civil hospitals, had no place in the sanitary service with fighting troops, but that this demanded quite as high physical ability

and excellence as did the duties required of soldiers of the line.

Lieutenant Green told his men to rest. He himself was so completely exhausted that he merely threw himself on the wet ground without blanket or cover and fell into a slumber so sound that even reveille, a short time later, did not awaken him.

Major Ryder Organizes the Evacuation of Wounded From the Battlefield.

During the afternoon, Major Ryder first devoted himself to starting out searching parties, then to seeing that the ambulance trains of the different Ambulance Companies were properly loaded and promptly dispatched. After they were out of the way, he supervised the collection of the wounded, so that while every part of the field was thoroughly explored, valuable time in the relief of suffering was not wasted through several searching parties working over the same ground. To this end, he had indicated to each Dressing Station the areas on the map which their respective litter squads should patrol, directing the latter to get into touch, and co-operate with, the regimental searching parties detailed to assist in policing the battlefield. He had also supervised the work at the Dressing Stations, seeing that these were properly organized, equipped and administered, and that the wounded were treated and evacuated promptly and properly. If a Dressing Station seemed to have more than it could handle, he reinforced its personnel; when the congestion had been relieved at such a station, he turned its personnel thus freed in to the Field Hospitals to assist in relieving the stress in these establishments which evacuation

of the Dressing Stations necessarily produced. He handled the men of his Ambulance Companies as a mobile personnel, to be used preferably in their organized sanitary units, but also quite available as smaller groups and squads which could be detached as the need required. In order to have the situation well in hand, he rode frequently from station to station, keeping the Chief Surgeon informed of progress of the relief work, and the starting of wounded for the rear, and conferring with the Director of Field Hospitals for their better co-operation.

While he was halting at a latter institution, Lieutenant Green asked him why the Ambulance Companies were organized as separate military units and not as integral parts of the Field Hospitals. To this he replied that the arrangement last mentioned had been tried and found unsatisfactory, as the tendency was to destroy the mobility which was the special advantage of Ambulance Companies, to break up organizations created and required for specific and essential purposes, and unduly to retain their personnel about the hospitals in ward and other work. Knowing little of the conditions as they existed on the battlefield, perhaps several miles to the front, the hospital commander's first thought was for the best interests of his hospital establishment and those therein, and the welfare of such as were not already there was prone to suffer. Besides, with all the companies as separate units directed by a single chief, they could be put in when and where required and thus utilized with far more efficiency. Major Ryder said that the men of his Ambulance Companies were of course habitually detailed by him when possible to give such help as the Field Hospitals required, but he took care to see that in giving such assistance the primary functions of his organizations, in respect to first aid and transportation, were not allowed to suffer. He said that when he assigned a detachment to a hospital for duty,

his men worked under the direct orders of the hospital commander until relieved.

Later, while still at this hospital, Captain Wheeler, the medical officer in charge of the main part of the civilian wagon train, rode up and, recognizing him, said that he had ridden ahead of his wagons, of which he had about 220, some 30 having been detached by Capt. Bright, and asked for instructions as to where they should go, as they would shortly arrive on the field. To this Major Ryder replied: "Send 40 wagons here, 40 to the Dressing Station about 1,000 yards northeast of us, 40 to Field Hospital No. 2 near 120, 50 to the Dressing Station near 112, and hold the remainder off the road north of 124 until further orders. Load those reporting at Field Hospitals and Dressing Stations as soon as possible with less severely wounded. As soon as loaded, they return to Leavenworth via 120-132—Lecompton—136-224 road."

As soon as the head of the civilian wagon train reached the battlefield, Major Ryder rode to meet it and to see that his orders were duly carried out. While the greater part of the vehicles composing it were of the farm wagon or delivery wagon type, apparently sufficient of these were not available and the desired number was in part made up of a motley assortment of hacks, surreys, and two-seated carriages. With respect to this latter kind of transportation, the officer in charge of the wagon train said that he would load them with cases not requiring to be carried recumbent, and that he thought they would be quite satisfactory for this purpose.

After seeing the civilian wagons starting to load at the Dressing Stations on the east of Mount Olivet, Major Ryder rode to the station near 112, whose commander told him that the 50 civilian wagons sent would not prove enough. He said that of the 12 ambulances belonging to his Company, 6 had been diverted to the cavalry battlefield, and the other

6 had so far been working back and forth on the 112-114 road. Unlike the other Dressing Stations, he had previously been unable to start any movement of the disabled to the rear, and the accumulation of wounded would almost swamp his station before the civilian wagon train now just arrived could remove a part.

He said that the area over which the wounded were scattered on the west slope of Mount Olivet was very great and the long distances made it take a very considerable time to litter wounded to the collecting station on the 112-114 road and ambulance them back to the Dressing Station.

On hearing this, Major Ryder turned to his orderly and said: "Ride to 124 and tell the commander of the civilian wagons held in reserve there that I direct him to move his train to 112 without delay, then you meet me at Division Headquarters."

And as the orderly started away he said to the Dressing Station commander: "There are about 50 of these wagons. Load what you need at your Dressing Station in addition to the present 50, and start them all back to Leavenworth along the prescribed route. Here comes Lieutenant Newcome with a litter squad—sent him back in charge of the whole train. Send the other wagons to work off the road into the fields nearer the collecting parties when practicable."

Major Ryder then rode away northwest from 112 toward the Big Stranger, meeting a slightly wounded officer walking to the rear who told him that the rear guard of the enemy had shortly before retired across the stream. The pursuit had been stopped and our men were taking position to command the crossing.

Shortly afterward Major Ryder saw a dressing party at work, and going over he found Captain Wagoner of Ambulance Company No. 1 with some of his men. Captain Wagoner said that a good many wounded had been cleared out back of our lines, mostly those of the enemy. His Dress-

ing Station section had come up and was about to go into operation at the head of the little creek just south of the 112-114 road and midway between these two points, but he had moved it about a mile further north and directed the ambulances to work to it. He said that the enemy's wounded lay thick northwest of this point toward 88 and near the bridge as a result of our artillery fire; he had intended to get aid to some of them, but found that the ground was at present too exposed. He had seen several of our regimental Hospital Corps men run out in advance of their lines to help these wounded during a prolonged lull, but the enemy seemed to mistake their purpose and opened fire and our line promptly replied; caught in this fire-swept zone, he thought that all these uselessly brave Hospital Corps men had been killed. As to the wounded, he did not know what could be done to help them.

To this Major Ryder replied that as the valley was held by neither side and the wounded were all those of the enemy, the best thing to be done was to get the Division Commander to offer an armistice to allow the enemy to remove his dead and wounded between the lines and thus prevent needless suffering. He would at once ride and ask the Chief Surgeon to request this action.

He learned that Division Headquarters was still established near 112, and proceeding there he found the Chief Surgeon just starting out to inspect the field and informed him as to the above conditions. The latter at once made suitable request of Major General A, who assented thereto and took the necessary action. He then gave Major Ryder a memorandum showing the location of all wounded who had been reported to him or of whom the Chief of Staff had been informed.

Major Ryder briefly talked the general situation over with the Chief Surgeon and the Director of Field Hospitals, whom they later met, and these two officers rode with

him to the several Dressing Stations and Field Hospitals and observed conditions and progress.

The Chief Surgeon then said that he desired to present an estimate to Major General A of the sanitary conditions on the battlefield and the rapidity with which it could be cleared, and he directed Major Ryder, whose duties made him best in touch with this phase of the general situation, to at once prepare a memorandum which he could use as the basis for his own statement. He said that in this connection Major Ryder need not consider the ammunition wagons, which were not readily available and were moreover unsuited to the transportation of any but slightly wounded, nor the wagons of the Field Train, which would not be ready to return to Leavenworth until late. Under the pressure of military emergency he would use both these agencies for evacuating wounded, but under the present exceptionally favorable conditions the transportation of the Medical Department, supplemented by the large number of civilian wagons, could probably evacuate the wounded about as rapidly as their injuries could be properly dressed.

On this, Major Ryder sat down, pulled out his note book and pencil, and in a few minutes handed the Chief Surgeon a copy of the following memorandum, largely prepared from brief notes which he had jotted down from time to time during the day:

Mount Olivet, Kan.,
16th Sept., '10, 5:30 p. m.

Memorandum for Chief Surgeon, 1st Division, as to the sanitary status of the present battlefield at the above hour, with estimate as to results to be anticipated from further relief work:

Gross Casualties:

1.	Estimated casualties, our side, during day	1,800
2.	Estimated casualties, enemy's side, remaining east of Big Stranger	1,000
	Total casualties to be considered	2,800

Deductions to Be Made:

3.	By dead, our side	375	
4.	By dead, enemy's side	300	
5.	By enemy's wounded near Big Stranger, to be withdrawn by them under armistice	200	
	Total deductions	875	875
	Wounded remaining for sanitary consideration		1,925

Evacuation of wounded from field, already accomplished:

6.	By slightly wounded evacuated on foot or by ammunition wagons, prior to assault at 1 p. m. and subsequently	300	
7.	By 1 trip of ambulance train, Amb. Co. No. 1, mixed wounded, at 10 a. m.	84	
8.	By 1 trip of ambulance train, Amb. Co. No. 1, mostly severely wounded, at 4 p. m.	60	
9.	By 1 trip of ambulance train, Amb. Co. No. 2, mostly severely wounded, at 2:15 p.m.	60	
10.	By 1 trip of ambulance train, Amb. Co. No. 3, mixed wounded, at 2:30 p. m.	84	
11.	By 1 trip, 6 ambulances, Amb. Co. No. 4, cavalry wounded, at 2:45 p. m.	40	
12.	By 1 trip, 8 wagons, Field Hospital No. 1, mixed wounded, at 3:30 p. m.	32	
13.	By 1 trip, 8 wagons, Field Hospital No. 2, mixed wounded, at 3:30 p. m.	32	
14.	By 220 civilian wagons averaging 3 wounded each, beginning to evacuate at 4:30 p. m.	660	
	Evacuated up to 5:30 p. m.		1,352
	Remaining to be evacuated after 5:30 p. m.		573

Transportation Resources for Evacuation During Night.

15. By 30 civilian wagons, now gathering wounded west of Mount Olivet, 3 wounded each, returning about 6 p. m. 90

16. By 1 trip ambulance train, Amb. Co. No. 2, due to return from Leavenworth about 7 p. m. 60

17. By 1 trip ambulance train, Amb. Co. No. 3, due to return from Leavenworth about 7:30 p. m. . . . 60

18. By 1 trip ambulance train, Amb. Co. No. 4, 6 ambulances, due to return from Leavenworth about 7:45, and 6 to be released from collecting west of Mt. Olivet about that time. 60

19. By 1 trip, 16 wagons, Field Hospitals Nos. 3 and 4, due to be available about 7:30 p. m. 64

Estimate of further evacuation by 8 p. m. 334

The balance awaiting disposition at 8 p. m. is 239, of which probably 15 are east of the 110-126 line, and the remainder fairly equally divided between Field Hospitals Nos. 1, 2 and 3, the majority at the latter.

Unless General A considers that the military situation demands it, I recommend that further evacuation tonight be suspended. The ambulance mules will be tired out with more than eighteen hours in harness and an average of about 40 miles' haul; wounded can be made comfortable where they are, and it looks as if the night would be rainy and dark, making transfer of wounded slow, difficult and dangerous.

Daybreak is a little after 4 a. m. and the ambulances of Ambulance Company No. 1, which have been ordered to return tonight to 112, will be at once available. The other three ambulance trains will be ordered to rest in Leavenworth for the night, starting back at daylight and arriving about two hours later as animals will be fresh and roads clear. The wagon trains of the Field Hospitals should re-

turn to their organizations tonight, but would not be further used to transport wounded.

Evacuation could then go on tomorrow as follows, without relying on civilian or other transportation:

19. By 1 trip, ambulance train of Amb. Co. No. 1, about 5 a. m. 60
20. By 1 trip, ambulance train of Amb. Co. No. 2, about 7 a. m. 60

120

Balance of wounded remaining on field tomorrow after 8 a. m., 119.

I believe, however, that there are about 100 wounded on the field whose condition will be such that they should not be removed for some days unless the tactical situation demands it.

But tomorrow we will also have to consider the sick which will develop in the Division in addition to the above wounded. I estimate them at about 200, the increase over the normal being due to battle conditions. Only a small part of these, however, will require recumbent transportation for the short trip back, and they can be evacuated about as follows:

21. By 1 trip, ambulance train of Amb. Co. No. 3, about 8 a. m., all sitting 108
22. By 1 trip, ambulance train of Amb. Co. No. 2, about 8 a. m., 12 lying down 96

204

This arrangement evacuates the field of all practicable sick and wounded by 8 o'clock, frees the ambulances of Ambulance Company No. 1 about 7 a. m. for return to the fighting troops, and those of Ambulance Companies Nos. 2, 3 and 4 about 11 a. m.

The litter and Dressing Station personnel of all the Ambulance Companies, with pack mules and wagons, would be available by 8 a. m., though they will temporarily assist in the Field Hospitals during the night.

Very respectfully,

RYDER.

Major, M. C.

Director Amb. Cos., 1st Div.

The Chief Surgeon carefully examined the above memorandum and said that he approved it. The last Field Hospital broken up would be No. 1. He said that he would summarize the memorandum for the General, and if the latter assented, Major Ryder could use its provisions for his guidance in directing his Ambulance Companies. If the General objected in any way, he would send suitable information to Major Ryder at Field Hospital No. 1.

Major Ryder took this as his dismissal and rode away to continue his supervision of the work in the field. A few minutes later, looking south from 112, he saw the wagons of Field Hospital No. 3 just turning north at 122, and shortly afterward it went into position near the Dressing Station of Ambulance Company No. 4. He found that the personnel and wagons of Field Hospital No. 4 had been diverted to the assistance and relief of Field Hospital No. 2 by the Director of Field Hospitals.

During the rest of the afternoon and evening he kept track of the times of probable return of the Ambulance Company transportation from Leavenworth. He supervised the loading therein of wounded, and directed the trains of all except Ambulance Company No. 1 to rest after reaching Leavenworth for the rest of the night, starting to rejoin at daybreak. With each of these trains he sent an officer of its respective Ambulance Company in charge, as their professional services could now better be spared on the field

and the proper management and return of the trains was important. After all the transportation had been sent off, he volunteered his services in Field Hospital No. 1 and worked until after 11 o'clock in the operating section.

Late in the evening the following order reached him:

Mount Olivet, Kan.,
16th Sept., '10, 10:15 p. m.

Director Amb. Cos., 1st Div.,
at F. H. No. 1.

Field Hospitals Nos. 2 and 3 will begin to break up at daylight tomorrow, transferring severe cases to No. 1. Latter will be taken over by Line of Communications about noon. You will complete evacuation of all available wounded from field as rapidly as possible. Then assemble your organizations with their transportation to await orders near 126 as their services can be spared.

SHARP,
Lt. Col., Chf. Surg.

Relinquishing his work he consulted his memorandum to the Chief Surgeon and the order just received from the latter. He rode to Field Hospitals No. 2 and 3 to get an idea of the progress of work there and conferred with the Director of Field Hospitals. Returning to Field Hospital No. 1 he secured similarly desired information, and then wrote the following order in carbon quintuplicate:

F. H. No. 1, Mount Olivet,
16 Sept. '10, 12 Night.

To All Ambulance Company Commanders, 1st. Div.

1. The Dressing Station section of Ambulance Company No. 1 will break up its station at daylight Sept. 17, notifying its ambulance section at 112 of the number of wounded to be handled, and evacuating direct to Leavenworth. All surplus ambulances will load at Field Hospital

No. 3 with wounded. The entire company will move to 126 and await orders there. Its transportation will rejoin the company after its return from Leavenworth.

2. Ambulance Company No. 2 will remain in its present position until noon, when Field Hospital No. 1 will be taken over by the Line of Communications. It will then move to 126; its transportation returning there and remaining after loading at Field Hospital No. 2 and making one trip to Leavenworth.

3. Ambulance Company No. 3 will move to 126 as soon as Field Hospital No. 2 is broken up. It will await orders near Company No. 1, its transportation rejoining there after loading at Field Hospital No. 2 and making one trip to Leavenworth with sick and wounded.

4. Ambulance Company No. 4, as soon as Field Hospital No. 3 is broken up, will proceed to 126. Its transportation rejoins there after loading at Field Hospital No. 1 and making one trip to Leavenworth.

5. All sanitary equipment will be carefully inspected, quantities checked, and articles properly repacked as soon as possible.

6. Requisitions to replenish the supplies used by each company in the fight of today will be in my hands by 7 a. m. tomorrow.

7. For the present I remain with Company No. 2, near Field Hospital No. 1.

RYDER,
Major, M. C.
Director, Amb. Cos., 1st Div.

He then called up two mounted men from Ambulance Company No. 2, gave one a copy of the order to deliver to the commanding officer of Ambulance Company No. 3, which organization he said was on temporary duty with Field Hospital No. 2, near 120; to the other he gave copies for Com-

pany No. 4 at 112, and for Company No. 1, north of the 112-114 road. He himself personally gave the order for Company No. 2 to its commander, who was working in Field Hospital No. 1 near by. He told the latter that he would take the requisitions for supplies to the Chief Surgeon himself for approval tomorrow. Perhaps the latter would order out the wagons with the Reserve Medical Supplies; but he might not, and in the latter case the requisitions would go in to Leavenworth by the ambulance trains, who would bring out on their return the supplies required for the several companies.

Having thus in advance directed the work of his relief organizations for the following day, he rolled up in his saddle blanket in the hay of one of the wagons of the Field Hospital, as its tentage was full of wounded, and went to sleep, secure in the thought that whatever happened on the morrow his units would be available for the proper performance of their duties with the fighting force.

The Disposal of the Dead on the Battlefield is Accomplished.

Returning now to Lieutenant Colonel Wellman, Sanitary Inspector of the Division, who had been placed in charge of the disposal of the dead, he expedited this work as much as possible, realizing that post mortem changes at this season occurred rapidly. As part of a burial trench received its quota of bodies, the Chaplains held brief services and the earth was thrown back and heaped over by the burial party, posts being set to mark the ends of the burial trench. About 6 p. m. he was informed by an aide from Division Head-

quarters that the enemy would, under an armistice, remove their own dead and wounded lying between the lines near the Big Stranger.

The work of collection and burial went on rapidly and was practically completed an hour or so after sunset; though a few bodies, together with those who died in the Field Hospitals during the night, would have to be brought in and buried the following morning.

There were not many dead animals requiring disposal; of these some were buried in the trenches or in pits dug for their disposal, and the carcases of some were burned where cord wood, fencing, timber or other fuel was available.

Shortly before midnight the Sanitary Inspector was able to proceed to Division Headquarters, which he learned had been moved back to 110. He took with him the register cards containing the data concerning the dead to turn over to the Chief Surgeon later, also the identification tags of the enemy's dead which had been turned over to him. In the meantime, he had prepared a nominal list of the dead, which, with a map on which he had marked the location of the common graves, he turned over to the Chief of Staff with the remark that, so far as the disposal of the dead was concerned, the sanitation of the battlefield was already practically accomplished.

He found that the Headquarters wagons had long since come up, and drenched by the thunder storm which had just begun to rage, he was not sorry to see that his tent and comfortable bedding roll awaited his use.

Major Carr, of the Line of Communications Sanitary Service, Starts the Wounded by Train for the Base.

We return now to Major Carr, detailed in charge of the transfer of wounded to the railroad trains from the ambulance trains and wagons, who about 3:30 was at the sidings at 224 awaiting the arrival of wounded. These he directed should be transferred from the wagons to the railroad trains by the sanitary detachment which had come up on the latter. A considerable number of slightly wounded on foot had already arrived, and subsequently squads of them continued to come in with considerable regularity, many having been given a lift part way to the rear by ammunition wagons. Arrivals were timed about as follows:

1. Up to 4:00 p. m., detachments on foot, slightly wounded. 50
2. At 4:15 p. m., Amb. Co. No. 2, Dressing Station No. 2, mostly severely wounded. 60
3. At 4:45 p. m., Amb. Co. No. 3, Dressing Station No. 3, mixed wounded. 84
4. At 5:15 p. m., detachments on foot, slightly wounded. 60
5. At 5:30 p. m., detachments on foot, slightly wounded. 50
6. At 5:45 p. m., 6 ambulances, Co. No. 4, cavalry wounded. 40
7. At 6:15 p. m., 30 civilian vehicles from the 108-110-126 line 90
8. At 6:30 p. m., 8 wagons, Field Hospital No. 1, mixed wounded. 32
9. At 6:45 p. m., 8 wagons, Field Hospital No. 2, mixed wounded. 32
10. At 7:00 p. m., Amb. Co. No. 1, Dressing Station No. 1, mostly severely wounded. 60

558

The train was loaded with the above wounded as fast as they arrived; emptied transportation of the regular organizations being returned promptly to the front via the Shawnee-106 road. Civilian wagons were allowed to return to Leavenworth. Every effort was made to keep vehicles moving and the roads of the vicinity from becoming congested.

The medical officer in charge of the Line of Communications detachment sent up from the Base now came up to Major Carr and reported that his first train was filled—he asked authority to start it back at once, which was granted. He had checked off the names of the wounded as they were loaded and now gave a receipt by name, for the soldiers taken, to Major Carr. As this train pulled out, Major Carr ordered Train No. 2, which had arrived at another siding at 6 o'clock and had been prepared by the personnel detailed in charge in the meantime, to begin loading. The medical officer in charge said that there were already here about 130 wounded in excess of the other train's capacity, but that of those there were 15 or 20 who the surgeon in charge of the other train had declined to load, as, through shock, exhaustion or hemorrhage, they were not at present in suitable condition for the trip. Major Carr said to put these cases in the warehouse, with a surgeon in charge of them. He would send a messenger to Lt. Col. Forward, requesting the latter to send up the wagons of one of the Evacuation Hospitals in Leavenworth, since there was no Ambulance Transport Column as yet up, with suitable provision and attendance to remove them to the various civil hospitals or to take charge of them where they lay. Major Carr said that the reason he preferred not to send the ambulances which had brought these cases on into Leavenworth to themselves discharge their loads, was that it would break up the organized ambulance trains into a lot of scattered transportation units—which if left to move solely according

to the notions of their individual drivers, would at once get beyond direct control and largely lose in their efficiency. He said that while he was very sorry to have to briefly delay these severe cases here and require their handling and transfer perhaps to their disadvantage, yet he had first to consider the greater and more urgent necessities on the battlefield and that the consideration of the individual had to be set aside where it seemed to conflict with the welfare of the majority.

Then there arrived:

11. At 7:10 p. m., detachments on foot, slightly wounded. 50
12. At 7:20 p. m., detachments on foot, slightly wounded. 60

The sections of the civilian wagon train with wounded now followed each other in rapid succession:

13. At 7:30 p. m., 40 civilian vehicles from Field Hospital No. 1, slightly wounded. 120
14. At 8:00 p. m., 40 civilian wagons from Dressing Station No. 3, slightly wounded. 120
15. At 8:15 p. m., 40 civilian wagons from Field Hospital No. 2, slightly wounded. 120

The above accumulation of wounded was more than enough to fill Train No. 2, which was completely loaded and pulled away a little after 8 o'clock.

At this time there had started to come in:

16. At 8:35 p. m., 70 civilian wagons from near 112, mixed wounded 210

These last wagons were under charge of Lieutenant Newcome, who said that his wagon train had been broken up en route. His wagons straggled in for more than an hour,

being redirected, with the other loaded wagons, to proceed to the Burlington Depot and wait orders there.

Major Carr, in the meantime, broke up his loading station and had the supplies of the remainder of the Line of Communications hospital train personnel thrown into some of the empty civilian wagons and follow them to the Burlington Depot, where a train of 10 cars was to be made up at 9 p. m. He left an orderly at 224 to notify wounded on foot or the drivers of transportation with wounded to continue on to that depot.

Major Carr asked Lieutenant Newcome how many more wounded were to come back from the field tonight, but the latter said that he did not know, though probably there were several hundred.

Major Carr thereupon stopped at Evacuation Hospital No. 1, got into touch over the telephone with the Chief Surgeon of the Line of Communications, who was out inspecting, reported this statement of Lieutenant Newcome's and asked if he should not endeavor to get the train to be made up at 9 p. m. enlarged by several cars. Lt. Col. Forward assenting to this, Major Carr rode to the depot, where the Quartermaster said that he could give him, as additionals, only four flat cars from which wagons had just been unloaded. Major Carr said that in this warm weather and for a 40-mile run such cars would have to do, if plenty of hay was thrown on their beds.

As thus finally made up, the train accommodated 385 patients, the less severe cases being selected to travel on the open flat cars.

There was already a surplus of about 130 patients left when Train No. 2 had started from 224, and the straggling wagons of Lieutenant Newcome's train ultimately brought up 201 more.

Major Carr had very properly required that all nominal lists of the wounded arriving at his station should be

verified before transfer, and now it was reported to him that Lieutenant Newcome was short three wagons and nine wounded unaccounted for. He at once made note of the fact, and the names of the wounded concerned, for separate report to the Chief Surgeons of the 1st Division and Line of Communications, who would undoubtedly take suitable measures to trace them.

He was later informed that there had been no great difficulty in doing this—the Director of Field Hospitals at the front, the commanders of the Evacuation Hospitals in Leavenworth, the Provost Marshal, and the surgeons of the organizations to which the men belonged had all been duly notified as to the names and facts, and directed that they make immediate report of any information which might be obtained about the missing men. Any severely wounded cases would probably ultimately be brought to some hospital, and a slightly wounded man would either go there, return to his organization, or be apprehended by the Provost Guard as a possible deserter. The register cards of Evacuation Hospital No. 1 in Leavenworth later showed the names of three of the missing, who were brought directly there by the driver of their wagon when his train was broken up. The wagon in which three more were carried had been broken down by collision with a wagon of the Field Train, and the latter had brought them back to the field, where the records of Field Hospital No. 1 showed them admitted. The third wagon had broken down in a field while trying to reach the Lecompton road and the civilian driver had unhitched his horses and abandoned his vehicle and its three wounded occupants; of the latter, one ultimately was able to get back to the road and was taken back to his regiment by a passing wagon of the Field Train. This man told his regimental surgeon of the other two wounded remaining in the wagon. The surgeon was about to notify the Chief Surgeon and ask him to take

the necessary measures, when several infantry soldiers said that they would be glad to take litters, seek out these wounded and get them into Leavenworth. They found one of these wounded dead and the other unconscious. Both were brought to the Lecompton road, where the body was laid under a tree and the wounded man taken up by a passing ambulance and taken into Leavenworth, the driver reporting to the receiving surgeon the location of the dead man.

After Lieutenant Newcome's outfit, there came in the following:

17. At 9:15 p. m., 30 civilian vehicles from Field Hospital No. 2 90
18. At 10:15 p. m., Amb. Co. No. 2, from Field Hospital No. 1 60
19. At 10:40 p. m., Amb. Co. No. 3, from Field Hospital No. 1 32
20. At 10:50 p. m., 8 wagons of Field Hospital No. 4, from Field Hospital No. 2 32
21. At 11:00 p. m., Amb. Co. No. 4 and 4 ambulances of Amb. Co. No. 3, from Field Hospital No. 3. 80
22. At 11:10 p. m., wagons of Field Hospital No. 3 from No. 3 32

When the 30 civilian wagons from Field Hospital No. 2 arrived, however, the railroad train was almost full, and the former were sent with a third of their wounded to Evacuation Hospital No. 1; whence they were distributed as had been done with previous arrivals, severe cases going to the civilian hospitals. The transportation with wounded subsequently arriving at the depot, was directed in the same manner.

Major Carr now started off Train No. 3, about 10 p. m., which with the remainder of the sanitary service train de-

tachment in charge, rolled away in the direction of the Base and disappeared in the darkness.

He himself then proceeded to Evacuation Hospital No. 1, to report to the Chief Surgeon of the Line of Communications.

The Chief Surgeon, Line of Communications, Relieves Pressure From the Front.

During the day, the Chief Surgeon, Line of Communications, supervised the general work of preparing hospital facilities within the city of Leavenworth. By reason of other duties, he had been unable to do a great deal in the way of planning for the care of the large number of wounded which the Chief Surgeon of the First Field Army had directed should be considered. However, during the morning he had ridden around with the city Fire Marshal, and had noted down a large number of buildings which might do for the purpose, though his list had to include a large number of private houses, whose occupants, if their homes were taken for hospital purposes, would have to be dispossessed and made to live with their neighbors.

At Evacuation Hospital No. 1, its commanding officer reported to him that a good many sick had come to his hospital that morning, probably 150 in all, and quite in excess of the daily increment which was fairly to be expected under the conditions. Probably more than half of these cases seemed to have little the matter with them and those he had promptly endeavored to return to the front, but probably without success so far as making them of any service in today's fight. It appeared to him, he said, as if

many of the surgeons of the 1st Division had been too unsuspicious and easy-going.

During the day Lt. Col. Forward kept in touch with the progress of affairs at the front as well as possible, so that he might consider and outline plans for meeting any probable contingencies. Late in the evening he had a conference over the telephone, detailed subsequently, with the Chief Surgeon, 1st Division, relative to the assumption by the Line of Communications sanitary service of functions and responsibilities beyond the Advance Base, so that the sanitary organization of the 1st Division might be promptly and completely freed for further service. He learned at that time the number of casualties already evacuated and still remaining on the field, and was informed as to the probable further disposition of the latter. Returning to his office about 11 p. m., he found that the following report had been rendered by Major Carr, who had been placed in charge of the entraining of wounded to be sent direct from the field to the base:

Leavenworth, Kansas,
16 Sept., '10, 10:15 p. m.

Memorandum for Chief Surgeon, Line of Communications, relative to the number of wounded evacuated this date to base hospitals:

By Train No. 1, leaving at 7:15 p. m.	...425	wounded
By Train No. 2, leaving at 8:15 p. m	425	wounded
By Train No. 3, leaving at 10:05 p. m.	...385	wounded
Total evacuated.	1,235	wounded

By my direction, the surgeon in charge of each train wired the Chief Surgeon, First Field Army, the time when his train left Leavenworth.

A surplus of about 30 patients remained, which were redirected to Evacuation Hospital No. 1.

CARR,
Major, M. C.

On reading this memorandum, Lt. Col. Forward directed an assistant to prepare a statement showing the existing and probably immediate future status of the hospitals in Leavenworth.

Just about this time, a large number of ambulances and wagons, redirected from the Burlington Depot, arrived with many wounded. The number of the latter admitted to the hospital was taken, and shortly after his assistant submitted the following:

Leavenworth, Kan.,
16 Sept., '10, 11:15 p. m.

"Memorandum for Chief Surgeon, Line of Communications, of movement in hospitals in Leavenworth up to 11:15 p. m., Sept. 16.

Admissions:

Admitted previously	50
Sick from command today	152
Wounded from front today	451
Total	653

Discharges:

Sick immediately returned to duty	60
Balance remaining in hospitals tonight	593

Assignments:

To 4 civilian hospitals, very severe cases only	140
To Evacuation Hospital No. 1, less severe cases	300
To Evacuation Hospital No. 2, fever and other cases	153
Total	593

Total beds available in Leavenworth	2,000
Balance of empty beds available	1,407

One civilian hospital, 60-bed capacity, has been reserved for severely wounded arriving tomorrow. All fever cases have been placed in isolated wards of Evacuation Hospital No. 2, as being probably infectious diseases requiring special precautionary measures to prevent their spread. Of the wounded now here, probably 350 could safely be moved tomorrow, but the greater part of the vacant beds thus made may be offset by the larger number of sick which can be expected tomorrow as a result of the excitement and hardships of today."

Lt. Col. Forward then called up the Chief Surgeon, 1st Division, by telephone and read him the above statement. He also reported the number of the wounded who had already been evacuated to the Base, and stated that all the sick and wounded resulting from today's fight could easily be cared for in the Evacuation Hospitals, even without the expansion of the latter, which had been accomplished in anticipation of later needs, until they could be evacuated to the Base Hospital at Plattsburg. He said that a considerable number of wounded would not be in shape to send back tomorrow and a majority of the sick would be of a character which ought not, through their triviality, to be sent as far away as the Base. He concluded by saying that he should endeavor to get rid of all cases not belonging to these two classes by tomorrow night, if possible.

He then wrote and sent the following telegram:

Evacuation Hospital No. 1,
Leavenworth, Kansas,
16 Sept., '10, 11:25 p. m.

Chief Surgeon, First Field Army,
Plattsburg, Mo.

Request that suitable personnel and railroad transportation be sent up to take over 500 sick and wounded for evacuation to base, beginning by 9 a. m., Sept. 17th. Per-

sonnel here takes over one field hospital with about 100 wounded on battlefield tomorrow and hospitals in Leavenworth will retain about 400 more indefinitely.

FORWARD,
Chf. Surg., L. C.

Just before midnight a Signal Corps messenger came in and delivered the following telegraphic reply:

Plattsburg, Mo.,
16 Sept., '10, 11:40 p. m.

Chief Surgeon, Line of Communications,
Leavenworth.

Regular hospital train capacity 200 will arrive Leavenworth about 10 a. m. tomorrow seventeenth and make additional trips as necessary.

BRANES,
Chief Surg.,
First Field Army.

On receipt of this telegram, Lt. Col. Forward had nothing more to provide for except the taking over of Field Hospital No. 1, as had been requested by the Chief Surgeon, 1st Division.

To this end he wrote the following:

Office Chief Surgeon, L. C.
Leavenworth, Kansas,
16 Sept., '10, 11:55 p. m.

Orders:

The Commanding Officer, Evacuation Hospital No. 2, will detail 4 medical officers and 30 enlisted men of the Hospital Corps to take over Field Hospital No. 1, on the east slope of Mount Olivet, with about 100 severely wounded, by noon, September 17.

Requisition will be made on the Advance Sanitary Supply Depot for proportionate additional articles of equipment and supply as authorized for Evacuation Hospitals.

The necessary transportation will be furnished from Evacuation Hospital No. 2.

FORWARD,
Lieut. Colonel, M. C.
Chief Surgeon, Line of Communications.

With the sending of this order, the work of the Chief Surgeon, Line of Communications, was concluded for the day.

The Chief Surgeon, 1st Division, Concludes the Relief Work for Today and Plans for Its Continuance Tomorrow.

As soon as Field Orders No. 8, already quoted, had been issued about 4:30 p. m., the Chief Surgeon studied them carefully with reference to the execution of relief measures and administration of the sanitary department, made his own plans dependent thereon, explained the nature of the latter briefly to the Chief of Staff, and secured his approval of them as part of the general scheme for the management of the Division as a whole.

The Chief Surgeon then said that as the battle was now over he felt justified in leaving Headquarters in order to thoroughly investigate conditions and measures on the battlefield, especially the service of evacuation. During his absence his assistant, Captain Bright, would represent him and attend to any minor matters pertaining to his office.

The Chief of Staff said that General A would like a brief statement as soon as possible showing the existing

sanitary situation and the progress in clearing which might be expected, as his own tactical plans might be very materially modified thereby.

The Chief Surgeon was just preparing to mount and investigate conditions on the field when the Director of Ambulance Companies rode up. Together they went over the field, visiting the relief stations and noting the way in which the latter were being administered and the wounded were cared for and evacuated. At all these they dismounted and made a careful personal inspection; but at the one near 126 the Chief Surgeon remarked to the Director of Field Hospitals, whom they found supervising work there, that the air of quiet order and busy celerity on the part of all, which pervaded the establishment as they rode up, was sufficient to have convinced him at a glance of the probable efficiency of its management.

After inspecting and discussing conditions on the field with Major Ryder, they returned to Headquarters, where the latter wrote the memorandum, already quoted, with respect to the clearance of the battlefield.

A summary of this latter the Chief Surgeon gave to Major General A, together with a concise estimate of the sanitary situation as he saw it.

He told the Chief of Staff that though Field Orders No. 8, already quoted, had contained no instructions as to the location of camps for the individual sanitary units, he regarded the vicinity of 126 as a very convenient point for the assemblage of the Ambulance Companies as their services could be spared. One Field Hospital would undoubtedly have to remain on the field with severely wounded and be taken over by the sanitary service of the rear; all the Field Hospitals as relieved and resupplied should be sent farther to the rear and assembled with the Field Train near 64. To this disposition the Chief of Staff assented.

As it was important that the sanitary authorities at the base should be informed of the situation, so that due provision for the wounded might be made in advance, he sent off the following telegram:

Chief Surgeon's Office, 1st Div.
Mount Olivet, Kansas,
16 Sept., '10, 6 p. m.

Chief Surgeon, First Field Army,
Plattsburg, Mo.

Our casualties today about nineteen hundred, dead about four hundred, balance wounded. Enemy's wounded in our hands about five hundred. I plan to evacuate about 1,500 wounded tonight to Line of Communications Sanitary Service in Leavenworth. SHARP,
Lt. Col., Chf. Surg.

During the evening he continued his work of inspection and supervision.

About 10 p. m. he got into touch with the Chief Surgeon, Line of Communications, over the telephone, informed the latter of the situation as it existed at the front and the plans which had been made for the immediate future, and secured in turn similar information as to the progress of evacuation of wounded to the Base and of sanitary affairs in Leavenworth. He stated that it was imperative that the sanitary organizations of the Division, now in the face of the enemy, be relieved, reassembled and replenished as soon as possible, to meet any emergency. To that end, he would pack them up and withdraw them as their services could be spared, concentrating all cases unfit to stand transportation back to Leavenworth in Field Hospital No. 1. He therefore requested that the latter be taken over as soon as possible by the sanitary service of the Line of Communications and thereby converted into an Evacuation Hospital.

To this Lt. Col. Forward replied that conditions were such that he could readily spare sufficient personnel from that already at the Advance Base at Leavenworth, and that they, with the extra supplies required, would be prepared to assume charge of this Field Hospital by noon tomorrow at the latest. As a result of this arrangement, Lt. Col. Sharp sent the brief directions to Major Ryder upon which the latter based his orders, already quoted, governing the movement of his ambulance companies for the following day.

He then had his assistant draw up the following orders:

Office, Chief Surgeon, 1st Div.
16 Sept., '10, 10:15 p. m.

Orders:

1. Field Hospitals Nos. 2 and 3 will break up early tomorrow and proceed to 64. Wounded unfit to be evacuated to Leavenworth will be turned over to Field Hospital No. 1. The necessary attendants and supplies will be left with such patients as should not be moved.

2. Field Hospital No. 1 will evacuate all its sick and wounded able to stand the trip as early as possible.

Its wagon train will be at the Advance Sanitary Supply Depot by 9:30 a. m., bringing in disabled en route. It will procure at that depot a complete equipment for one Field Hospital, less the transportation, and then proceed to 64. The personnel on being relieved by the sanitary service, Line of Communications, will join its train at 64, taking from the present hospital only personal equipment and sufficient supplies to replenish the latter.

3. Field Hospital No. 4 will by 7 a. m. recover its equipment and supplies and proceed to 64.

4. The Director of Field Hospitals will take measures for the identification, transfer and notification of losses

of patients before turning over any hospital to the sanitary service, Line of Communications.

5. The Director of Ambulance Companies will evacuate all suitable wounded from the field as early as possible tomorrow, beginning with Field Hospitals Nos. 2 and 3.

6. *Resupply.*—Ambulance Companies and Field Hospitals will promptly replenish their supplies from the Reserve Medical Supplies of the Division.

The Medical Supply Officer will start his train from Leavenworth at daylight and proceed to 126, where issues to regiments and divisional units will begin at 7 a. m.

After such issue he will rejoin the division Supply Train.

SHARP,
Lt. Col., M. C.
Chf. Surg., 1st Div.

Copies to Director of Field Hospitals, Director of Ambulance Companies, and Medical Supply Officer.

He also dictated the following order:

Office, Chief Surgeon, 1st Div.
16 Sept., '10, 10:25 p. m.

Orders:

1. All medical officers will properly prepare the information required in the preparation of the official general list of killed, wounded and missing.

A separate list showing the names and rank of medical officers or enlisted men of the Hospital Corps who have been killed, wounded or are missing will be furnished.

2. Senior surgeons with regiments and independent organizations will request their commanders to have those organizations paraded at reveille tomorrow and ascertain the individual officers and men who require to be resupplied with first aid packets.

Medical officers commanding regimental or other sani-

tary detachments will cause the personal equipment of their men to be at once inspected and promptly replenished.

4. First aid packets and other sanitary supplies requiring to be replaced will be at once required for and procured from the Reserve Medical Supplies, which will be at 126 at 7 a. m. tomorrow. The Medical Supply Officer is hereby authorized to issue these articles without special approval in each instance.

By order of Lt. Col. Sharp:

GOODMAN,
Major, M. C.
Asst. to Chief Surgeon, 1st Div.

Copies to Medical Supply Officer and all senior medical officers of regiments and other organizations.

Major Goodman was directed to see that the above order was made out and distributed by mounted orderlies without delay.

About 11:30 p. m., Lt. Col. Sharp was summoned to the telephone to confer with the Chief Surgeon, Line of Communications. He took notes while the latter informed him as to the state of affairs in respect to the evacuation and hospital service. At the conclusion of their conversation, he took the figures just received, together with those already given him by Major Ryder, and by their assistance he drew up the following summary:

1.	Total wounded today requiring attention	1,925
2.	Total sick today requiring attention	142
	Total disabled	2,067
3.	Deduct for wounded entrained for the base	1,235
	Remaining to be considered tonight	832
4.	Estimate of sick tomorrow	200
	Total disabled to be considered tomorrow	1,032

5. Probable wounded to be left on battlefield several days. 100
6. Estimated number sick and wounded on field capable of evacuation to Leavenworth tomorrow. . . 325
7. Balance in, or to arrive in, Leavenworth tomorrow, about. 918
8. Probable number in condition suitable for evacuation to base tomorrow. 500
9. Probable number remaining tomorrow night in Leavenworth hospitals. 418

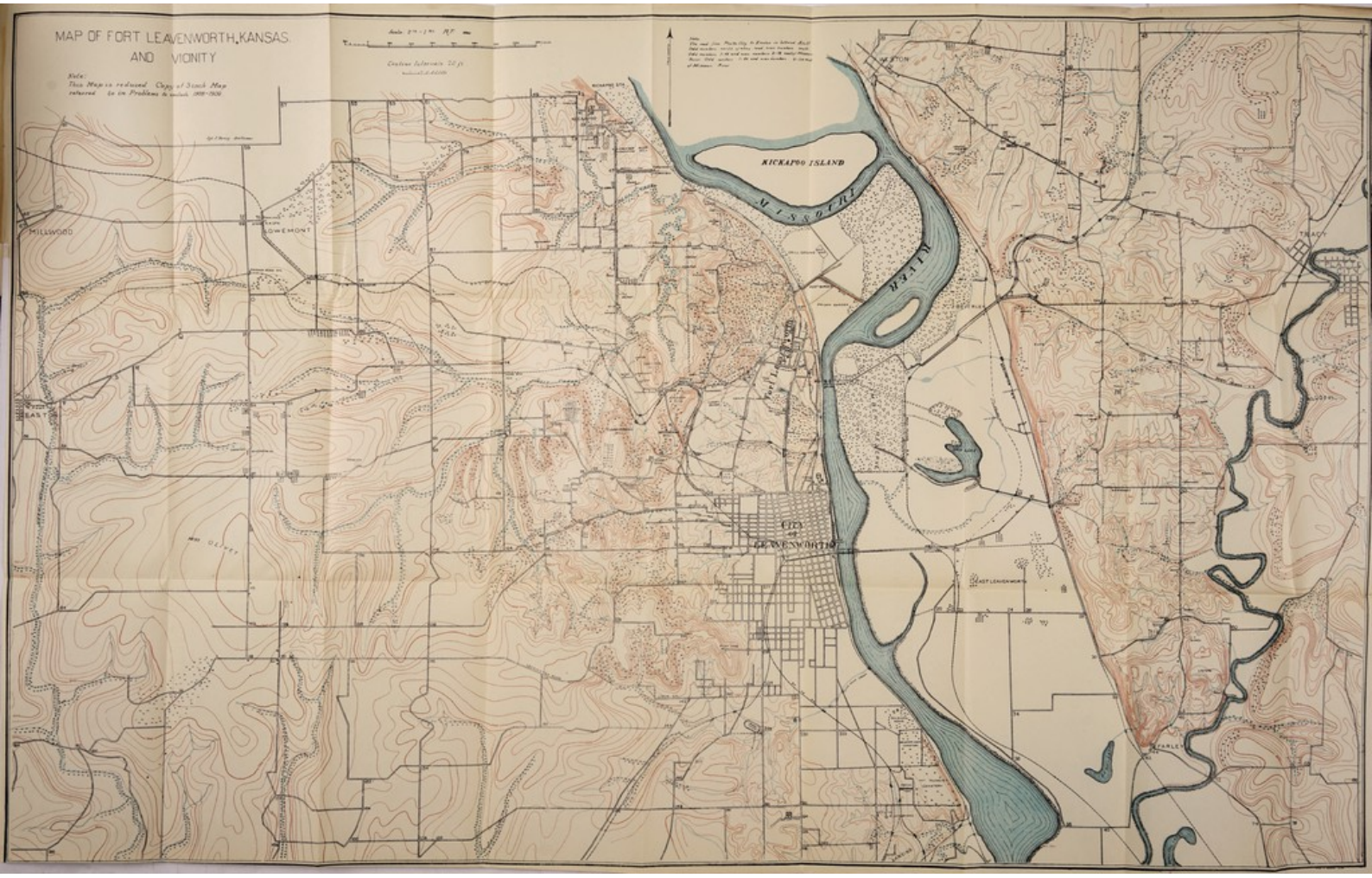
The above, the Chief Surgeon said to his assistants, probably gave quite a fair idea of the sanitary transactions and situation.

As it was nearly midnight, he then said that he thought that he would get a few hours of sleep. He considered that everything had now been arranged so that the relief work in the Division would continue efficiently until it passed beyond the limits of his responsibility and direction through being taken over by the sanitary service of the Line of Communications. Whatever the military developments might be during the coming day, the sanitary establishment of his Division would be prepared to play its proper part in relation to them.

He reflected that his regimental sanitary service throughout the Division remained practically intact, and, with the organizations to which they were attached, would have their sanitary supplies replenished early in the morning in readiness to take up the first line of assistance. Shortly after daylight, the Litter and Dressing Station sections of three Ambulance Companies would be available to take up the second line of assistance at Dressing Stations, and the fourth could be called up if required. One of their Ambulance Trains would be available by 10 a. m. and the other three by noon or a little later, to form the third line of

assistance, or the connecting link with the rear. Three Field Hospitals would be available for the fourth line of relief about 9 a. m. and the remaining one by noon. The fifth line of relief, the Evacuation Hospitals in Leavenworth and the Field Hospital near 124, to be converted into an Evacuation Hospital by the sanitary service of the Line of Communications, would have about 1,200 vacant beds in the morning and about 1,700 by nightfall, besides which, pressure, as a result of further fighting before the arrival of the First Field Army, could be relieved through evacuation of wounded by hospital trains.

Considering these things, the Chief Surgeon, as he fell asleep, reflected that, except for the fatigue of his personnel, the sanitary service of the 1st Division should be in about as good condition to handle the results of a fight the coming day as they had been when they marched out of Leavenworth, just eighteen hours before, in the advance against the enemy on Mount Olivet.


MAP OF FORT LEAVENWORTH, KANSAS
AND VICINITY
KICKAPOO ISLAND
MISSOURI
RIVER
MILLWOOD
DEWEMONT
EAST
CITY OF
LEAVENWORTH
EAST LEAVENWORTH
TRACY